

WOODLAND FLOOD RISK MANAGEMENT PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

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Acronyms and Abbreviations

Term	Description
2003 flood wall	Lower Cache Creek flood wall studied by USACE in 2003
AB 52	Assembly Bill 52
CAP	Climate Action Plan
CCSB	Cache Creek Settling Basin
CEQA	California Environmental Quality Act
cfs	cubic feet per second
City	City of Woodland
CO ₂ e	carbon dioxide equivalent
CVFPB	Central Valley Flood Protection Board
Division	Division of Oil, Gas, and Geothermal Resources
DWR	California Department of Water Resources
EIR	environmental impact report
EIS	environmental impact statement
ESA	Endangered Species Act
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FIRO	forecast-informed reservoir operations
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
GIS	geographic information system
HCP	Habitat Conservation Plan
HCP/NCCP	Habitat Conservation Plan/Natural Communities Conservation Plan
I-5	Interstate 5
LESA	Land Evaluation and Site Assessment
LSDN	Lower Sacramento River-Delta North
LSDN Team	Lower Sacramento River-Delta North Regional Flood management team
MOU	memorandum of understanding
NCCP	<i>Natural Communities Conservation Plan</i>
NEPA	National Environmental Policy Act
NGOs	non-governmental organizations
NOA	Notice of Availability
O&M	operation and maintenance
OMRR&R	operation and maintenance, repair, rehabilitation, and replacement

Phase I ESA	Phase I Environmental Site Assessment
Proposed Project	Woodland Flood Risk Management Project
RCIS/LCP	Regional Conservation Investment Strategy/Local Conservation Plan
SR	State Route
TDM	Transportation Demand Management
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
YDWN	Yoche Dehe Wintun Nation

Chapter 1

Introduction

The Woodland Flood Risk Management Project (Proposed Project) Draft Environmental Impact Report (EIR) was circulated for public review beginning on March 23, 2020. The public comment period was originally scheduled to end on June 20, 2020, but was extended twice to ensure members of the public had enough time to properly review the Draft EIR in the face of hardships and shutdowns associated with the COVID-19 pandemic. The public review period officially closed on August 14, 2020 after a review period of 145 days. To initiate the public comment period, the City of Woodland (City) circulated a Notice of Availability (NOA) to property owners within the project area, property owners within the City's Special Flood Hazard Area, federal and state agencies, including Responsible and Trustee Agencies as defined under the California Environmental Quality Act (CEQA), and parties previously requesting information on the Proposed Project. A Notice of Completion was provided to the California Governor's Office of Planning and Research on March 19, 2020.

At the time the Draft EIR was released for public review, shutdowns due to the COVID-19 pandemic were just beginning. The City noted in the NOA that a public meeting would be held to receive comments regarding the content of the Draft EIR when safe to do so, and that the entire mailing list would be notified of that meeting by letter. Legal notice was also published in the Woodland Daily Democrat on March 24, 2020, describing the document's availability and noting that a public meeting would be scheduled when safe.

The City ultimately held a virtual public workshop over Zoom on July 28, 2020 that interested parties could access via computer or via phone. The Draft EIR was available for review on the City's website and in hard copy format, by appointment, at the City's offices and at the Yolo County Farm Bureau's offices.

In response to this outreach effort, 23 comment letters (7 of which were from the same individual commenter) were submitted on the Draft EIR, including those from the following 17 commenters.

- Three state agencies.
- One local agency.
- Two non-governmental organizations (NGOs).
- Eleven individuals.

The majority of comments received related to the following topic areas, for which master responses are provided in Chapter 2.

- How the Proposed Project fits within the context of Measure S (Master Response 1: *Measure S*).
- Flood risk north of the proposed levee (Master Response 2: *Flood Risk*).
- Concerns about the Proposed Project's impact on land values (Master Response 2: *Flood Risk*).
- Maintenance of the existing flood management system (Master Response 3: *Maintenance of Existing Flood Management System*).
- Selection of alternatives for analysis in the Draft EIR (Master Response 4: *Alternatives*).

The comment letters are subdivided by type of entity. Each letter has been assigned a unique code, and each comment within the letter has also been assigned a unique code, noted in the right margin. For example, the code “S2-1” indicates the first distinct comment (indicated by the “1”) in the letter from the California Department of Conservation, Geologic Energy Management Division, which was the second letter (indicated by the “2”) recorded from a state agency (indicated by the “S”). The comment letters are organized into four chapters.

- Chapter 3, *State Agency Comments and Responses*
- Chapter 4, *Local Agency Comments and Responses*
- Chapter 5, *Non-Governmental Entity Comments and Responses*
- Chapter 6, *Individual Comments and Responses*

The chapters are organized by presentation of each comment letter immediately followed by the responses to that letter. Table 1-1 summarizes the commenting party, comment letter signatory, and organization type.

Table 1-1. List of Comment Letters

Letter #	Commenter	Date Received
Chapter 3, <i>State Agency Comments and Responses</i>		
S1	Sarah Fonseca, Cultural Resources Analyst, Native American Heritage Commission	04-15-2020
S2	Charlene Wardlow, Northern District Deputy, California Department of Conservation, Geologic Energy Management Division	06-17-2020
S3	Ian Boyd, Environmental Scientist, Timberland Conversion Program, North Central Region, California Department of Fish and Wildlife	06-19-2020
Chapter 4, <i>Local Agency Comments and Responses</i>		
L1	J. D. Trebec, Senior Planner, County of Yolo Department of Community Services	06-10-2020
Chapter 5, <i>Non-Governmental Entity Comments and Responses</i>		
N1	Joe F. Martinez, President, Yolo County Farm Bureau	08-11-2020
N2	Christian C. Scheuring, Senior Counsel, California Farm Bureau Federation	08-14-2020
Chapter 6, <i>Individual Comments and Responses</i>		
I1	The Rominger Family	08-03-2020
I2	Rolf Frankenbach	08-06-2020
I3	Esther Vasquez	08-07-2020
I4	Martin Garcia	08-09-2020
I5	Bernabe Lizarraga	08-09-2020
I6	Sally Oliver 1	08-11-2020
I7	Sally Oliver 2	08-11-2020
I8	Sally Oliver 3	08-11-2020
I9	Sally Oliver 4	08-11-2020
I10	Sally Oliver 5	08-12-2020
I11	Sally Oliver 6	08-12-2020
I12	Sally Oliver 7	08-13-2020
I13	Betsy Spaulding	08-13-2020

Letter #	Commenter	Date Received
I14	Catherine C. Engberg and Carmen J. Borg, Shute, Mihaly & Weinberger LLP	08-13-2020
I15	Robert and Nancy Lea	08-14-2020
I16	Michael Valentine	08-14-2020
I17	Carl Franke	08-14-2020

Each comment in the following chapters has been considered and responded to individually. If a comment resulted in a change to the text in the Draft EIR, it is noted within the comment's response. Changes to the text in the Draft EIR are shown in Chapter 7, *Corrections and Revisions to the Draft EIR*, by ~~striketrough~~ of text that has been deleted and underlining of new text that has been inserted. The text revisions do not result in substantive changes to either the analyses or conclusions presented in the EIR.

Chapter 2

Master Responses

This chapter provides master responses to comments made on the Draft EIR. Master responses were crafted for comments that were typically made multiple times by different agencies, organizations, entities, or members of the public or were prepared because multiple but related subtopics could be addressed by one topical master response. If a master response is referenced in a comment response to a particular individual comment in Chapters 3 through 6, the response to that particular comment is found within the identified master response. Please note: the reference numbers for the master responses are used for convenience. There is no significance to the assignment of a particular number.

Master Response 1: Measure S

Many comments asked how the Proposed Project fits within the context of Measure S, which was incorporated into the City's Code, and states: "It shall be the policy of the City to encourage a regional flood control project. Therefore, the City shall not fund or take any action that supports the Lower Cache Creek flood barrier (flood wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure." (Woodland City Code, § 8.12.010(A).) Although this is a subject that has limited applicability in the CEQA context (which is focused on a project's physical impacts on the environment), it is addressed herein.

First, as noted in Measure S, it is the City's policy to encourage a regional flood control project. The Proposed Project is consistent with that policy because it is part of a suite of measures intended to manage and reduce flood risk regionally.

The Proposed Project is one of many regional initiatives that has been proposed by the Lower Sacramento River-Delta North Regional Flood management team (LSDN Team) to develop a regional approach to flood management for consideration by the Central Valley Flood Protection Board (CVFPB) in the Central Valley Flood Protection Plan. The LSDN Team is comprised of representatives from Yolo County, the Yolo County Flood and Water Conservation District's Yolo Flood Safe program, the California Department of Water Resources, and the U.S. Army Corps of Engineers (USACE) Sacramento District who are working with multiple local, state, and federal agencies on several flood risk reduction actions in Yolo County and specifically along Lower Cache Creek. When the 2003 Lower Cache Creek Flood Damage Reduction Project was originally proposed, the LSDN Team did not exist, and the proposal was not considered in a larger regional setting. In contrast, the Proposed Project is part of a program of actions that will be a regional solution to managing and reducing flood risk.

Although no single action is itself a regional solution on its own, and although each action has independent utility, the numerous actions contemplated by the LSDN Team—including the Proposed Project—work together and are holistically a regional solution. The regional flood management program includes the various components.

- The Lower Cache Creek Feasibility Study. The study recommends a project to reduce flood risk to the City of Woodland from Cache Creek, reducing one source of risk from flooding.

- Non-structural actions proposed as part of the Proposed Project that could include purchase flood easement, floodproof or elevated structures, and/or subsidizing flood insurance for property owners.
- The Conaway Setback Levee Project that would protect the eastern portion of the city and agricultural areas east and southeast of the city.
- The Fremont Weir Widening and RD 1600 Setback Levee Project. This is part of a series of projects to increase the capacity of the Yolo Bypass, lowering flood stages on the Sacramento and Feather Rivers and within the Yolo Bypass.
- The Lower Elkhorn Setback Levee Project. This is part of a series of projects to increase the capacity of the Yolo Bypass, lowering flood stages on the Sacramento and Feather Rivers and within the Yolo Bypass.
- Studies to evaluate opportunities for upstream transitory storage and forecast-informed reservoir operations (FIRO) for Indian Valley Reservoir flood control storage releases.
- Nonnative vegetation removal and rehabilitation of upstream gravel pits for groundwater recharge opportunities and transitory storage during high water events.
- Repairing the levee at Huff's Corner to correct the freeboard deficiency, realigning the channel to address erosion, and removing sedimentation and vegetation to allow for more efficient flow downstream.
- A study by the California Department of Water Resources (DWR) to investigate raising and stabilizing the levees between Interstate 5 (I-5) and State Route (SR) 113 and to modify the training levee leading into the Cache Creek Settling Basin (CCSB).
- Recommended improvements to the levee adjacent to the town of Yolo and the adjacent I-5 and embankment to bring the town of Yolo out of the Federal Emergency Management Agency's (FEMA's) 100-year floodplain.
- A re-evaluation by the CVFPB and USACE of improvements to the CCSB and authorized weir raising.
- Two Systemwide Improvement Frameworks for the leveed systems along Cache Creek to identify and prioritize investments to the long-term operation and maintenance, repair, rehabilitation, and replacement of the system.

Second, the Proposed Project is consistent with Measure S's prohibition on supporting the Lower Cache Creek flood wall studied by USACE in 2003 (2003 flood wall) or a substantially similar structure because the Proposed Project is substantially different from the 2003 flood wall.

The Proposed Project substantially differs from the 2003 flood wall in *performance*. Examples are provided below.

- The Proposed Project would divert the floodwaters around the city of Woodland to transport flood water through the floodplain more efficiently, which would reduce both the flood depth and duration as compared to the 2003 flood wall.
- At the location of several of the structures in the residual floodplain, the Proposed Project would reduce flooding below existing conditions. And, in the majority of locations in the vicinity of SR 113 and west of I-5, the Proposed Project would reduce both the flood depth and duration as compared to the 2003 flood wall.

- Rather than directing all flood flows across I-5, the Proposed Project would direct flood flows under I-5 through the Union Pacific Railroad (UPRR) underpass. Frequency of flooding UPRR tracks at the underpass would not be increased.

The Proposed Project substantially differs from the 2003 flood wall in *features*. Examples of different features of the Proposed Project are described below.

- The Proposed Project includes culverts at SR 113 to reduce the flood stages in the vicinity of a number of structures in the floodplain.
- In addition to a 150-foot wide channel adjacent to the levee, the Proposed Project also includes construction of a 200-foot wide flood conveyance under SR 113 and the adjacent railroad tracks north of the secondary levee to prevent the naturally high ground in the vicinity of SR 113 from acting as a berm impeding the overland flow of flood waters. This action reduces flood stages below the existing condition flood stage.
- The drainage canal associated with the Proposed Project has a bottom width of 150 feet as compared to 12 feet for the 2003 flood wall. The wider channel significantly increases the flow of this channel and drains the floodplain more quickly.
- Construction of a channel along the levee east of SR 113 to route floodwaters to culverts that drain into the CCSB and the City's pump station.
- The channel north of the secondary levee, with a base width of about 150 feet, would provide additional storage and drainage of floodwaters from the area west of SR 113 to the CCSB.
- The levee geometry of the Proposed Project is different than the 2003 flood wall, including the levee top width and levee slopes.
- A vegetation free zone and expanded operation and maintenance (O&M) corridors are included in the Proposed Project.
- The new weir in the west levee of the CCSB would be relocated to the south and constructed to a crest elevation of 43 feet msl (NAVD 88) (two feet lower than the 2003 flood wall). This lower elevation would direct flows into the CCSB, block backflow from the CCSB to the agricultural area west of the CCSB, facilitate drainage of ponded Cache Creek flood waters, and result in a lower peak flood elevation.
- The Proposed Project utilizes the City's existing pump station to drain residual floodplain that does not flow back into the CCSB.
- A detention basin at the confluence of the new levee and CCSB are included in the Proposed Project to improve drainage of the floodplain.

The Proposed Project substantially differs from the 2003 Flood Wall in *alignment*. Examples are provided below.

- Rather than directing all flood flows across I-5, the Proposed Project directs flood flows under I-5 through the California Northern Railroad underpass.
- The eastern end of the east-west levee joins with the CCSB west levee further south than the 2003 flood wall, creating a triangular detention basin. The detention basin assists the drainage of the impounded flood waters when the flood stage is less than the weir crest.

The Proposed Project substantially differs from the 2003 flood wall in *effect*. Examples are provided below.

- The 2003 flood wall would have benefited residents of the city but would have adversely affected the property owners north of the flood wall by increasing both depth and duration of flooding without consideration of any actions to also benefit the property owners north of the city.
- The Proposed Project would result in lower flood depths and duration of flooding than the 2003 flood wall.
- The Proposed Project would incorporate non-structural options for properties north of the city that would include the purchase of flood easements, floodproofing or elevation of structures, and/or subsidizing flood insurance for affected property owners, such that no residences would be subject to an increase in flood risk and many would benefit from the Proposed Project.
- The Proposed Project includes underseepage protection measures, including a seepage berm along the planned levee and a cutoff wall in sections of the CCSB levee.
- The City will request that USACE include the acquisition of temporary flowage easements over the agricultural areas that would be subject to significant additional depth and duration of flooding.
- The City will request that the final feasibility report, prepared by USACE, include assurances that the existing authorized Federal Cache Creek Flood Control Project continue to be maintained to provide benefits to the properties north of the city.
- The City will commit to continue to advocate for continued state funding to maintain the existing Cache Creek levee.

For all of these reasons, the Proposed Project is consistent with Measure S.

Master Response 2: Flood Risk

Many comments expressed concern that the Proposed Project would increase flood risk north of the new levee, and some of these comments speculated that increased flood risk could affect roadway access, contaminants, land values, and/or agricultural production. Each of these concerns is addressed below.

In terms of flood risk, as defined by FEMA Flood Zones, the Proposed Project would *not increase* flood risk for lands north of the proposed levee (at the same time, the Proposed Project would significantly *reduce* flood risk for lands south of the proposed levee). Draft EIR Figure 3.1-1 shows the existing flood risks in the project area, as identified by the federal government. As shown in Figure 3.1-1, the project area is currently classified as Zone AE, i.e., it is subject to inundation by a 100-year flood event. The Proposed Project would not result in any new areas added to the 100-year floodplain, nor would it result in a worse FEMA risk designation for any areas. As described in Draft EIR Section 3.1, *Hydrology*, Impact HYDRO-5, "the frequency of flooding in the area north of the city would not change relative to existing conditions, because the study area is already prone to flood risk, and the Proposed Project would not alter the geometry of Cache Creek or its levee system (i.e., alter the pre-existing flooding regime)."

Although some limited areas could experience increased water depth if a flood occurred (see Draft EIR Figure 3.1-5), Section 3.1.2.1 of the Draft EIR, *Methods for Analysis, Hydraulic Modeling, Proposed Conditions, Flood Duration*, demonstrates that the Proposed Project would decrease overall flood duration when compared to existing conditions. That is, even in the few areas where flood water depth could increase, the flood water would drain faster than under existing conditions, resulting in a shorter flood duration. This is shown for the area near SR 113 in Draft EIR Figure 3.1-8. Some comments requested an additional hydrograph comparing flood duration under existing conditions to flood duration under with-project conditions east of County Road 102. This hydrograph, *Flood Duration East of County Road 102, 100-Year Flood Event*, has been provided as Appendix 1 of this Final EIR, and it similarly shows that the Proposed Project would decrease flood duration in that area. This figure does not represent any substantial new information, nor does it require any changes to the EIR analysis.

As identified in Draft EIR Figures 3.1-5 and 3.1-6, flooding would no longer occur south of the proposed levee (i.e., the city limits) under with-Project conditions in both 100-year and 200-year flood events, thus meeting the overall Proposed Project objectives of providing 200-year flood protection and obtaining FEMA certification for the City. In addition, as identified in Draft EIR Chapter 2, *Project Description*, "the City proposes to work with the Yolo County Office of Emergency Services to confirm the adequacy of the existing flood warning system to reduce the risk of loss of life to the rural residents in the floodplain north of the Proposed Project. Any upgraded flood notification efforts would further improve the effectiveness of other existing and proposed non-structural measures." For the few areas where flood water depth could increase, albeit with a shorter flooding duration, the Proposed Project includes non-structural measures as described in Draft EIR Chapter 2.

Land Value and Agricultural Productivity

Many comments raised concerns about the Proposed Project's impact on land values. Under CEQA, "economic or social effects of a project shall not be treated as significant effects on the environment." (State CEQA Guidelines Section 15131(a); see also State CEQA Guidelines Section 15382.) That is, CEQA is not an economic protection statute, and an EIR is not intended to be a liability disclosure document. (*Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885, 903, citing *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 157 Cal.App.4th 1184, 1205 [CEQA is "not a fair competition statutory scheme" and "[t]herefore, the economic and social effects of proposed projects are outside CEQA's purview."].) Thus, discussion as to whether the Proposed Project would impact land values is beyond the scope of CEQA and not warranted.

Nevertheless, the City has considered the Proposed Project's effects on land value and agricultural productivity and provides the following discussion.

The Proposed Project has been designed to benefit the community. That is, although every property is unique and will be affected differently, the Proposed Project would be a net benefit to the community. Nevertheless, because some properties may experience increased water depths if a flood were to occur (albeit, with a shorter duration of flooding as compared to existing conditions), the Proposed Project includes non-structural measures to benefit those properties.

To be clear, the majority of the lands north of the city will experience *no change* in the depth, duration, or frequency of flooding. As discussed above, existing conditions already include flood risk,

and the Proposed Project will not increase that risk. That said, some parcels that could experience a change in depth of flooding as a result of the Proposed Project. Yet, even for those parcels, because the occurrence would be so infrequent (the same frequency as under existing conditions)¹ and of a shorter duration (shorter than existing conditions), the overall agricultural productivity of the lands would not be affected (aside from land within the Proposed Project's footprint, which would be acquired for the Proposed Project and is discussed in Draft EIR Section 3.6., *Agricultural and Forestry Resources*). For a full analysis of the Proposed Project's impacts on agricultural resources, please refer to Section 3.6, *Agricultural and Forestry Resources*, of the Draft EIR.

The Proposed Project's non-structural actions would be available to and benefit both the lands that could experience changes in flood depth as well as those that would have no change. These non-structural actions could include purchase of flood easements, floodproofing, elevation of structures, or subsidized flood insurance.

Even so, to be certain, at the City's request, an analysis was prepared by professional appraisers (Bender Rosenthal) to analyze potential impacts on land values (see Appendix 2 of this Final EIR). The analysis concluded the Proposed Project would have no negative effect on land values. This conclusion is supported by the fact that Proposed Project would not cause a change in the FEMA flood zone designation for the lands north of the city. Further, as noted in the Bender Rosenthal analysis, there is no indication that the Proposed Project would impact the cost or availability of financing. In short, there would be no devaluation of properties as a result of the Proposed Project.

Contaminants and Agricultural Land

Some comments conveyed concerns that in the areas north of the proposed levee where increased flood depths could occur, the Proposed Project would cause increased deposition of contaminants on agricultural lands to the extent that the lands would be compromised for agricultural production. While floodwaters could potentially contain land-based contaminants (e.g., pesticides and fertilizer from agricultural land in the floodplain, or stored hazardous chemicals, flushed out by floodwaters), as described in Impact WQ-4 (Draft EIR Section 3.2, *Water Quality*), the risk would be the same as under existing conditions.

With regards to mercury/methylmercury—floodwater from Lower Cache Creek is expected to contain mercury, the majority of which would be in the sediment (as discussed in Impact WQ-3 in Draft EIR Section 3.2, *Water Quality*). The bedload would continue to be transported in the Cache Creek channel and into the CCSB. The portion of the sediments that are suspended in the water column would perform similarly to existing conditions, with some of the sediment settling in the floodplain and the majority of the suspended sediment load going over the weir into the CCSB or draining out through the culverts and drainage system. Annual irrigation using surface water from sources that include Cache Creek and the Sacramento River potentially contributes more mercury to the soil in the project area than a 100-year flood event would. As indicated in Draft EIR Section 3.2, *Water Quality*, Lower Cache Creek (Clear Lake Dam to CCSB) and the Sacramento River from Red Bluff to the Delta are listed (Clean Water Act Section 303(d)) as impaired for mercury, among other contaminants. Further, the project area is located in the floodplain where past Cache Creek flooding events have likely deposited mercury. Therefore, it is reasonable to assume there is already mercury/methylmercury in these productive agricultural soils. It is important to bear in mind that the probability of a 100- and 200-year flood event is 1% and 0.5%, respectively, in any given year.

¹ The probability of a 100- and 200-year flood event is 1% and 0.5%, respectively, in any given year.

Therefore, any deposition of contaminants to the agricultural land in the project area in a 100-year flood event would not affect agricultural use of farmland and not be exacerbated as compared to existing conditions.

Roadway Access

Some comments expressed concern that the Proposed Project would cause road closures due to flooding. However, Project implementation would not cause road closures to occur that would not already occur under existing conditions. As described above, the Proposed Project would not alter flood frequency in the project area. Under existing no-project conditions, County Road 98, County Road 102, SR 113, and parts of I-5 (along with many other roadways and residential areas) would experience flooding during a 100-year flood event, as shown in Draft EIR Figure 3.1-2. With implementation of the Proposed Project, flooding would also occur on some of these same parts of I-5 and the other roads described if a 100-year flood event were to occur (as shown in Draft EIR Figure 3.2-1). Effects related to roadway access issues for the roads north of the proposed levee during a 100-year catastrophic flood event would be similar under no-project and with-project conditions. Therefore, the temporary closures of these roadways would not be a result of Project implementation, but rather would be a result of a catastrophic 100-year flood event, whether under no-project or with-project conditions. As shown in Draft EIR Figure 3.1-8 and in Appendix 1 of this Final EIR, *Flood Duration East of County Road 102, 100-Year Flood Event*, implementation of the Proposed Project reduces flood duration in the project area and would, therefore, be unlikely to increase the duration of any temporary road closures associated with flood events as compared to existing conditions.

Master Response 3: Maintenance of Existing Flood Management System

DWR has operation and maintenance, repair, rehabilitation, and replacement (OMRR&R) responsibility for the Cache Creek levee system and main channel. These OMRR&R activities are funded through an annual appropriation from the state general fund. High water on February 27, 2019 resulted in overtopping of the levee below the advertised capacity. DWR has been investigating the causes of overtopping and is considering a series of actions to restore the capacity of the system as required in the O&M manual for the Cache Creek levees (U.S. Army Corps of Engineers 1961). The City is concerned with the flood risk associated with the existing Cache Creek levee system and has been working collaboratively with DWR, Yolo County, and the Yolo County Flood Control and Water Conservation District to understand the reasons for the reduced capacity and actions that can be taken by the state to restore that capacity. The EIR assumes that the existing Cache Creek levee system would be maintained in accordance with the O&M Manual for the Cache Creek levees. Even so, the Proposed Project does not require perfect maintenance of the existing levee system. So long as the any failed levees are repaired after a large flood event, the proposed project will function as intended.

If the Proposed Project is constructed, the OMRR&R obligation of the newly constructed levee will be the responsibility of the City. DWR will continue to have the same obligation it has now for the Cache Creek levees and channel. The City is committed to developing a finance plan for how the City will pay for the non-federal share of the Proposed Project, which includes the OMRR&R costs for the

new levee. The Proposed Project cannot move forward to construction without the City committing to pay for and carry out the requirements of the O&M Manual for the new levee, which will be provided by USACE upon completion of construction of the Proposed Project. The City is concerned about the safety of all residents and is committed to ensuring the Proposed Project and existing Cache Creek levee system are properly maintained.

The Proposed Project decreases the risk of loss of life from flooding compared to existing conditions. The Proposed Project does not increase the risk of loss of life north of the city, and the non-structural actions will reduce risk. It should be noted that most of the floodplain would experience shallow flooding, or sheet flow, during a flood event. While this does pose a risk to the loss of life, it is a low risk compared to the deeper flooding that is common in other parts of the region.

Some comments noted with concern that USACE's Draft Feasibility Report (included as Appendix 3 of this Final EIR) states that the tentatively selected plan could "transform the current condition of a relatively slow and steady rise of flood risk to a potentially more severe and immediate flood risk associated with a failure of the new levee." However, this discussion in the Feasibility Report goes on to state, "It is the study team's determination that the tentatively selected plan will lower the overall life-safety risk for the Lower Cache Creek Study Area as compared to the without project condition. Even though the consequences of with-project failure may be higher as compared to the without project condition, the probability of a with-project failure is very low." The Draft EIR assumes that the new levee will be maintained according to O&M standards and that levee failure would not occur; assuming failure of the new levee would be speculative under CEQA.

Master Response 4: Alternatives

Many comments raised issues with the alternatives development process for the EIR and its consistency with CEQA and State CEQA Guidelines. The topics discussed in this master response include the following.

- Selection of alternatives.
- CEQA scoping requirements.
- The legal adequacy of the range of alternatives analyzed in the EIR and the screening of potential alternatives that did not meet the project objectives.
- Project feasibility under CEQA.

The alternatives and scope of the analysis of the alternatives included in the Draft EIR represent a reasonable range of alternatives in compliance with the requirements of CEQA. As the lead agency, the City carefully considered all potential alternatives that were proposed during the scoping process and EIR preparation. Although many of the proposed alternatives included meritorious flood risk reduction principles, the proposals rejected by the City did not qualify as appropriate alternatives for various reasons. For example, proposals were rejected because they were inconsistent with the Project's objectives or were considered infeasible. Draft EIR Chapter 4, *Alternatives Analysis*, and Draft EIR Appendix A, *Technical Memorandum, City of Woodland, Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study*, thoroughly explain the process used to develop the alternatives and explain why certain potential alternatives were considered but ultimately rejected.

Overview: Selection of Alternatives

To satisfy the requirements of CEQA, an EIR must include a reasonable range of feasible alternatives that would meet all or most of the project's objectives (see State CEQA Guidelines Section 15126.6, subd. (a)).² Accordingly, the project objectives are the starting points for the lead agency in developing the reasonable range of alternatives to be evaluated in detail in an EIR (State CEQA Guidelines Sections 15124, subd. (b), 15126.6, subd. (a)).

As discussed further below, and described in detail in Chapter 2, Section 2.2, *Project Objectives*, in the Draft EIR, the City's primary objective is to develop and implement a plan that meets California's Urban Level of Protection and FEMA 100-year requirements to reduce the risk of flooding to avoid loss of life, property damage, and economic effects that result from flooding in both the project area and the city, while also providing measures to address concerns north of the city in the project area. Please also refer to Master Response 1: *Measure S*, for a discussion of the Proposed Project being part of a program of actions that will reduce flood risk and are proposed as a regional solution to managing flood risk.

With the Proposed Project's objectives in mind, the City undertook a thorough process to select an appropriate range of alternatives to be analyzed in the Draft EIR that fully complied with all applicable legal requirements. This process included public outreach and scoping meetings; extensive input from agencies, stakeholders, and the public; and an extensive multi-level screening process to thoroughly consider and refine the alternatives to be carried forward for full analysis in the EIR. As explained in Draft EIR Chapter 4, *Alternatives Analysis*, and Draft EIR Appendix A, *Technical Memorandum, City of Woodland, Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study*, approximately 26 alternatives were considered (some of which were modified or subsumed into later alternatives) and the alternative development process for the EIR was based upon a number of legal considerations, including: (1) the legal requirements for adequate discussions of alternatives in an EIR, as set forth in CEQA, and the regulations and case law interpreting those statutory schemes; and (2) the concept of "potential feasibility" under CEQA.

Also described in Draft EIR Chapter 4 and Draft EIR Appendix A, the City considered alternatives that could provide a means of avoiding altogether or reducing the level of impact that would otherwise result from implementation of a project. For example, Alternative 6B (Strengthen in Place), mentioned by several commenters, was considered, and found to not avoid or reduce the level of impacts when compared to the alternatives that were fully analyzed in the Draft EIR (Appendix A:16–17). This was also the case for several other alternatives considered.

The process described above resulted in the selection of the following alternatives to be carried forward for detailed analysis in the Draft EIR.

- The No Project Alternative.
- Alternative 2A, as the preferred project, because it is identified as the likely National Economic Development plan by USACE.

² See, e.g., *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service* (9th Cir. 2012) 689 F.3d 1060, 1069; *Westlands Water Dist. v. U.S. Dep't of Interior* (9th Cir.2004) 376 F.3d 853, 868; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566; *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 196; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143.

- Alternative 2C, because it was identified as having community support in both the FloodSAFE Yolo Pilot Program in and the City of Woodland Alternatives Analyses.

CEQA Requirements Regarding the Scope of Alternatives

CEQA does not require that the scope of alternatives included in an EIR be exhaustive, and lead agencies need not consider every conceivable alternative to a project or action.

CEQA Requirements for “a Reasonable Range of Alternatives”

Under CEQA, the lead agency must consider a reasonable range of alternatives that would feasibly attain all or most of the project objectives but would avoid or substantially lessen any of the significant impacts of the proposed project (State CEQA Guidelines Section 15126.6, subd. (a)). The requirements regarding the selection of alternatives under CEQA are laid out in State CEQA Guidelines Section 15126.6.

Subdivision (a) of that section provides:

Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Subdivision (b) provides:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

Subdivision (c) further provides:

Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

And lastly, subdivision (f) emphasizes the “rule of reason” applicable to the selection of alternatives:

Rule of reason. The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead

agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

Under these principles, alternatives to be included in an EIR must: (1) be potentially feasible, (2) attain most of the basic objectives of the project, and (3) avoid or substantially lessen any of the significant effects of the project. Under CEQA, a lead agency may structure its alternatives analysis around a reasonable definition of a fundamental underlying purpose, and need not study alternatives that cannot achieve that basic purpose. State CEQA Guidelines Section 15126.6 (a) also explains that an EIR is not required to consider alternatives that are infeasible.

CEQA and Feasibility

CEQA defines “feasible” as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (California Public Resources Code Section 21061.1; State CEQA Guidelines Section 15364).

As described in Draft EIR, Appendix A, *Technical Memorandum, City of Woodland, Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study*, the City lacks the financial capability to construct a project without significant state and federal funding. While the City is not obligated to partner with the federal government in the construction of a flood risk reduction project, a project of the scale necessary to meet multiple objectives, including providing 200-year flood protection and obtaining FEMA certification, would not be possible without that partnership because the City does not have a collection of revenue sources that could cover the full cost of such a project on its own.

As a result, USACE criteria and methodology and the results of the USACE Lower Cache Creek Feasibility Study were heavily relied on as the basis for evaluating the feasibility of alternatives. USACE’s Draft Feasibility Report is included as Appendix 3 of this Final EIR. If an alternative is not considered feasible by USACE, then USACE will not serve as a partner in its implementation and their funding is not made available for the project. In turn, the City must consider if the alternative is feasible to implement on its own. The City, working with USACE, CVFPB, and DWR since the late 1990s, has not identified any alternatives that meet most of the objectives and are considered feasible without a state and federal partnership. Therefore, the availability of federal and state construction funds for a given project is a significant consideration when evaluating feasibility. The City did not screen out alternatives solely on cost, rather they screened out alternatives that are infeasible because they were not found by USACE to be eligible for federal investment.

Because CEQA establishes no legal imperative as to the scope of alternatives to be analyzed in an EIR, there is no set number of alternatives that must be analyzed to fulfill the requirements of CEQA.³ Rather, as stated in the State CEQA Guidelines and supported by abundant CEQA case law,⁴ the range of alternatives required in an EIR is governed by the “rule of reason” that requires the EIR

³ See, e.g., *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566; *Save San Francisco Bay Association v. San Francisco Bay Conservation and Development Commission* (1992) 10 Cal.App.4th 908, 919; *Mann v. Community Redevelopment Agency* (1991) 233 Cal.App.3d 1143, 1151.

⁴ See, e.g., *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566; *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143; *California Native Plant Soc. v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 980.

to set forth only those alternatives necessary to permit a reasoned choice (State CEQA Guidelines Section 15126.6, subds. (c), (f)).

Finally, many comments noted the need to consider alternatives that benefit the areas north of the city. The City evaluated a full array of alternatives that included alternatives that would reduce the risk of flooding to residents north of the city as presented in Draft EIR, Chapter 4, *Alternatives Analysis*, and Draft EIR, Appendix A, *Technical Memorandum, City of Woodland, Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study*. This resulted and resulted in the inclusion of non-structural options for properties north of the city that would include the purchase of flood easements, floodproofing, elevation of structures, and/or subsidizing flood insurance for property owners, such that all property owners and residents north of the proposed levee will benefit from the Proposed Project should they chose to take advantage of the measures available to them as identified in the non-structural plan. All of the other alternatives to benefit areas north of the City were determined to not be feasible.

It is important to note that the process to identify alternatives was lengthy and thorough, as described in Draft EIR, Chapter 4 and Draft EIR, Appendix A. The City made use of and built on information developed over many years and through multiple processes. As a result, the alternatives included in the Final EIR represent a reasonable range of alternatives that meet the requirements of CEQA.

Chapter 3

State Agency Comments and Responses

This chapter contains the comments received on the Draft EIR from state agencies. Each comment letter has been assigned a unique code, and each comment within the letter has also been assigned a unique code, noted in the right margin. For example, the code “S2-1” indicates the first distinct comment (indicated by the “1”) in the letter from the California Department of Conservation, Geologic Energy Management Division, which was the second letter (indicated by the “2”) recorded from a state agency (indicated by the “S”). The chapter presents each comment letter immediately followed by the responses to that letter. Table 3-1 summarizes the commenting party and comment letter signatory.

Table 3-1. List of Comment Letters from Federal and State Agencies

Letter #	Commenter
S1	Sarah Fonseca, Cultural Resources Analyst, Native American Heritage Commission
S2	Charlene Wardlow, Northern District Deputy, California Department of Conservation, Geologic Energy Management Division
S3	Ian Boyd, Environmental Scientist, Timberland Conversion Program, North Central Region, California Department of Fish and Wildlife

Letter S1—Sarah Fonseca, Cultural Resources Analyst, Native American Heritage Commission



STATE OF CALIFORNIA

Gavin Newsom, Governor

Letter S1

NATIVE AMERICAN HERITAGE COMMISSION

April 15, 2020

CHAIRPERSON
Laura Miranda
Luiseño

Tim Busch
City of Woodland

Via Email to: Tim.Busch@cityofwoodland.org

VICE CHAIRPERSON
Reginald Pagaling
Chumash

Re: SCH#2015062075, Woodland Flood Risk Management Project, Yolo County, California

SECRETARY
Merri Lopez-Keifer
Luiseño

Dear Mr. Busch:

PARLIAMENTARIAN
Russell Attebery
Karuk

The Native American Heritage Commission (NAHC) has reviewed the Draft Environmental Impact Report (DEIR)/Mitigated Negative Declaration (MND) or Negative Declaration Resources Section, Archaeological Report, Appendices for Cultural Resources Compliance, as well as other informational materials. We have the following concerns:

S1-1

COMMISSIONER
Marshall McKay
Wintun

- There does not appear evidence that a cultural assessment was completed or completed within the last three (3) years.
- There does not appear to be evidence of a Sacred Lands File request was submitted for the project per.

S1-2

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

The California Environmental Quality Act (CEQA)¹, specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.² If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.³ In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

S1-3

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

CEQA was amended in 2014 by Assembly Bill 52 (AB 52).⁴ **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"⁵, that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."⁶ Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.⁷ Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements.** Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.)

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

¹ Pub. Resources Code § 21000 et seq.

² Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)

³ Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)

(NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966⁸ may also apply.

S1-3
cont.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Contact Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

If you have any questions or need additional information, please contact me at my email address: Sarah.Fonseca@nahc.ca.gov.

Sincerely,



Sarah Fonseca
Cultural Resources Analyst

Attachment

cc: State Clearinghouse

Pertinent Statutory Information:**Under AB 52:**

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice. A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project,⁴ and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).⁵

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects.⁶

1. The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency.⁷

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.⁸

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.⁹

Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.¹⁰

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.¹¹

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).¹²

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

⁴ Pub. Resources Code § 21080.3.1, subds. (d) and (e)

⁵ Pub. Resources Code § 21080.3.1 (b)

⁶ Pub. Resources Code § 21080.3.2 (a)

⁷ Pub. Resources Code § 21080.3.2 (a)

⁸ Pub. Resources Code § 21082.3 (c)(1)

⁹ Pub. Resources Code § 21082.3 (b)

¹⁰ Pub. Resources Code § 21080.3.2 (b)

¹¹ Pub. Resources Code § 21082.3 (a)

¹² Pub. Resources Code § 21082.3 (e)

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.¹³

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**¹⁴
- There is no Statutory Time Limit on Tribal Consultation under the law.
- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,¹⁵ the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.¹⁶
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
 - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.¹⁷

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
 - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
 - The request form can be found at <http://nahc.ca.gov/resources/forms/>.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - If part or the entire APE has been previously surveyed for cultural resources.
 - If any known cultural resources have been already been recorded on or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.

¹³ Pub. Resources Code § 21082.3 (d)

¹⁴ (Gov. Code § 65352.3 (a)(2)).

¹⁵ pursuant to Gov. Code section 65040.2,

¹⁶ (Gov. Code § 65352.3 (b)).

¹⁷ (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
 - Planning and construction to avoid the resources and protect the cultural and natural context.
 - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - Protecting the cultural character and integrity of the resource.
 - Protecting the traditional use of the resource.
 - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.¹⁸
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.¹⁹

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.²⁰ In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

¹⁸ (Civ. Code § 815.3 (c)).

¹⁹ (Pub. Resources Code § 5097.991).

²⁰ per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

Responses to Letter S1

S1-1

Thank you for your comment letter. A records search was conducted for the Proposed Project in 2019, and a cultural resources inventory technical report was completed in 2020. Access to the project area for an archaeological survey was denied by private landowners, and this is addressed in the EIR's mitigation measures. Mitigation Measure CUL-2 and Mitigation Measure CUL-3 provide for treatment of previously unidentified resources and human remains that could be encountered during project construction activities. This would involve cessation of work, evaluation of the resource, and in the case that human remains are identified, identification of a most likely descendant and consultation with that individual about treatment of the remains. These mitigation measures will be implemented in conjunction with tribes already consulting on the Proposed Project under AB 52. A built environment survey was conducted for areas of the project accessible by public roads.

S1-2

In accordance with procedures prescribed in Assembly Bill 52 (AB 52), on July 31, 2019, the City sent notice and maps of the Proposed Project to six tribes and the Native American Heritage Commission. The City has been consulting directly with the Yoche Dehe Wintun Nation (YDWN), per the tribe's request, to identify potential tribal cultural resources within the project area. While a Sacred Lands File request may help identify tribal cultural resources, it is not a requirement under the law and would be superfluous to the actions the City has taken. Any sacred lands within the project area would have been addressed through the City's direct consultation with the YDWN.

S1-3

Draft EIR Chapter 3.11, *Tribal Cultural Resources*, describes the City's AB 52 outreach and consultation efforts. Of six tribes notified, only YDWN requested AB 52 consultation. The City met with YDWN representatives in October 2019 and agreed that YDWN would develop a memorandum of understanding (MOU) between the tribe and the City that would specify ongoing tribal involvement during and after the conclusion of environmental approvals under the CEQA process. YDWN submitted its standard cultural resources treatment protocol and standard monitoring agreement to the City in November 2019. As of the publication of the Draft EIR on March 23, 2020, no tribal cultural resources were identified. The City subsequently received a draft MOU from YDWN. The Draft and Final EIRs specify that if tribal cultural resources are identified during pre-project surveys or project implementation, the City will implement YDWN's recommended treatment and monitoring protocols and, after consultation and agreement with YDWN, additional measures specified in Public Resources Code Section 21084.3(b), if necessary. With the City's agreement to incorporate mitigation as requested by the Tribe, the AB 52 consultation has been concluded.

Letter S2—Charlene Wardlow, Northern District Deputy, California Department of Conservation, Geologic Energy Management Division

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California
Department of Conservation
Geologic Energy Management Division

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06/17/2020

Letter S2

City: Woodland - Planning Department
Tim Busch
Tim.Busch@cityofwoodland.org

State Clearinghouse #: 2015062075

Assessor Parcel Number(s): 025340047, 027330024, 027210026, 027350037, 027350041

Property Owner(s): Tim Busch

Project Location Address: 300 First Street, Woodland, California, 95695

Project Title: Construction Site Review for Woodland Flood Risk Management Project

Public Resources Code (PRC) § 3208.1 establishes well reabandonment responsibility when a previously plugged and abandoned well will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near oil, gas, and geothermal wells.

S2-1

The Division of Oil, Gas, and Geothermal Resources (Division) has received and reviewed the above referenced project dated 6/17/2020. To assist local permitting agencies, property owners, and developers in making wise land use decisions regarding potential development near oil, gas, or geothermal wells, the Division provides the following well evaluation.

S2-2

The project is located in Yolo County, within the boundaries of the following fields:

Any Field, Woodland Gas (ABD), Crossroads Gas (ABD)

Our records indicate there are 6 known oil or gas wells located within the project boundary as identified in the application.

- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and Projected to Be Built Over or Have Future Access Impeded by this project: 1
- Number of wells Not Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0
- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and Projected to Be Built Over or Have Future Access Impeded by this project: 5
- Number of wells Abandoned to Current Division Requirements as Prescribed by Law and Not Projected to Be Built Over or Have Future Access Impeded by this project: 0

The Division categorically advises against building over, or in any way impeding access to, oil, gas, or

S2-3

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geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure.

S2-3
cont.

There are no guarantees a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. It always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. The Division acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantees that such abandonments will not leak.

S2-4

The Division advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations should be provided to the Division in Latitude and Longitude, NAD 83 decimal format. The Division expects any wells found leaking to be reported to it immediately.

Failure to plug and reabandon the well may result in enforcement action, including an order to perform reabandonment well work, pursuant to PRC § 3208.1, and 3224.

S2-5

PRC § 3208.1 give the Division the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment, or if the well is not accessible or visible. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for reabandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to reabandon the well and be responsible for the reabandonment.
2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be reabandoned, or to follow the

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advice of the supervisor or district deputy not to undertake the construction, then the person or entity causing the construction over or near the well shall obtain all rights necessary to reabandon the well and be responsible for the reabandonment. S2-5 cont.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the reabandonment.

No well work may be performed on any oil, gas, or geothermal well without written approval from the Division. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. The Division also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR §1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below grade. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from the Division is required before work can start. S2-6

The Division makes the following additional recommendations to the local permitting agency, property owner, and developer: S2-7

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, the Division recommends that information regarding the above identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.
2. The Division recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development. S2-8

As indicated in PRC § 3106, the Division has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to the Division's authority to order work on wells pursuant to PRC §§ 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC §§ 3236, 3236.5, and 3359 for violations within the Division's jurisdictional authority. The Division does not regulate grading, S2-9

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excavations, or other land use issues.

S2-9
cont.

If during development activities, any wells are encountered that were not part of this review, the property owner is expected to immediately notify the Division's construction site well review engineer in the Northern district office, and file for Division review an amended site plan with well casing diagrams. The District office will send a follow-up well evaluation letter to the property owner and local permitting agency.

S2-10

Should you have any questions, please contact me at (916) 324-7120 or via email at Charlene.Wardlow@conservation.ca.gov

S2-11

Sincerely,

DocuSigned by:
Charlene L. Wardlow
Charlene Wardlow 6/22/2020
Northern District Deputy

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Wells Not Abandoned to Current Division Requirements as Prescribed by Law & Projected to be Built Over or Have Future Access Impeded

The wells listed below are not abandoned to current Division requirements as prescribed by law, and based upon information provided, are projected to be built over or have future access impeded. **The Division expects these wells to be reabandoned in compliance with current California law, prior to development activities.**

API	Well Designation	Operator	Well Evaluations
04113000 04	Shell-Oliver 1	Atlantic Oil Company	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.

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Wells Abandoned to Current Division Requirements as Prescribed by Law & Projected to be Built Over or Have Future Access Impeded

The wells listed below are abandoned to current Division requirements as prescribed by law, and based upon information provided, are projected to be built over or have future access impeded.

API	Well Designation	Operator	Well Evaluations
04113002 80	Knaggs 1	Chevron U.S.A. Inc.	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.
04113208 10	Cache Basin 10	Nahama & Weagant Energy Company	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.
04113205 70	Mission-Woodland Farms 1	The Dow Chemical Company	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.
04113209 13	I.O.C. 1-25	Chaz Oil Corp.	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.

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Wells Abandoned to Current Division Requirements as Prescribed by Law & Projected to be Built Over or Have Future Access Impeded

The wells listed below are abandoned to current Division requirements as prescribed by law, and based upon information provided, are projected to be built over or have future access impeded.

API	Well Designation	Operator	Well Evaluations
04113203 16	Marks Meat 1-26	Shell Western E&P Inc.	The proposed construction project of the levy will raise the ground surface from 6-14 feet above surface elevation.

Responses to Letter S2

S2-1

The commenter notes the Division of Oil, Gas, and Geothermal Resources (Division's) well re-abandonment authority and responsibility under Public Resources Code Section 3208.1. No response is necessary.

S2-2

The Division notes that there are six known oil or gas wells within the project boundary and advises against building over or otherwise impeding access. Although consultation with agencies is standard procedure before parcel acquisition, additional text has been added to Mitigation Measure HAZ-2 (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR) to make clear the project proponent will consult with the Division to verify the location of any wells within the project footprint. It is not expected that the Proposed Project would impede access to any wells. Early consultation with the Division would ensure continued well access and/or appropriate re-abandonment.

S2-3

Please see response for S2-2 regarding wells within the project boundary.

S2-4

The commenter notes that wells, even those in compliance with re-abandonment requirements, could leak in the future and advises periodic testing of wells to check for liquid and gas leakage. As described in the response to comment S2-2, additional text has been added to Mitigation Measure HAZ-2 (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR) to make clear the project proponent will consult with the Division to verify the location of any wells within the project footprint and will conduct soil and groundwater testing to identify any potential leaks.

S2-5

The commenter notes that the property owner is responsible for well re-abandonment compliance. As such, the project proponent will consult with the Division (see new text under Mitigation Measure HAZ-2 in Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR) prior to parcel acquisition or construction to determine the location and status of wells in the project footprint. The project proponent would bear the responsibility for well re-abandonment, including associated costs.

S2-6

The project proponent will comply with all relevant regulations, including consultation with the Division prior to parcel acquisition and related re-abandonment work, if necessary. See new text under Mitigation Measure HAZ-2 in Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR requiring consultation with the Division.

S2-7

This comment recommends informing the County Recorder of well information acquired. The project proponent will comply with all relevant requirements for well reporting.

S2-8

As described in Mitigation Measure HAZ-2, prior to construction, a Phase I Environmental Site Assessment will be conducted and any parcels identified as likely to contain contamination would be subject to a Phase II Environmental Site Assessment which requires testing of potentially contaminated soils. If contamination of soil and/or groundwater are uncovered as part of the Phase I or Phase II Environmental Site Assessment, remediation will be required and any contaminated soil and/or groundwater identified will be properly disposed of in accordance with all applicable laws and regulations, including California Department of Toxic Substances Control regulations.

S2-9

This comment reiterates the Division's authority and responsibility. No further response is necessary.

S2-10

As noted in responses S2-2 and S2-5, the project proponent would consult with the Division regarding wells within the project footprint and would notify the Division if any news wells are identified.

S2-11

Thank you for your comment letter. Responses to your comments have been provided above under S2-1 through S2-10.

Letter S3—Ian Boyd, Environmental Scientist, Timberland Conversion Program, North Central Region, California Department of Fish and Wildlife

Letter S3

From: Boyd, Ian@Wildlife <Ian.Boyd@Wildlife.ca.gov>
Sent: Friday, June 19, 2020 5:03 PM
To: Tim Busch
Cc: Wildlife R2 CEQA
Subject: CDFW Comments on the WFRMP Draft EIR

Hello Mr. Busch,

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Availability of the Draft Environmental Impact Report (DEIR) from the City of Woodland for the Woodland Flood Risk Management Project (Project) [State Clearinghouse No. 2015062075] in Yolo County. CDFW appreciates the opportunity to provide comments regarding those aspects of the project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

S3-1

Section 3.4.1.1 Regulatory Setting; California Fish and Game Code; *Section 3511, 3515, 4700, and 5050*: This section refers to fully protected species sections of the Fish and Game Code. The DEIR briefly refers to Fish and Game Code section 3515 as listing fully protected fish, but Fish and Game Code 5515 lists fully protected fish. CDFW recommends changing the code section 3515 to 5515 when referring to fully protected fish.

S3-2

Section 3.4.2.3 Impacts and Mitigation Measures: The DEIR lists potential impacts to a number of species and their habitats and provides mitigation in the form of credit purchases at CDFW and USFWS approved mitigation banks or other methods, such as mitigating for habitat impacts onsite. Although these methods may be acceptable, CDFW is curious why the City of Woodland (a member agency of the Yolo HCP/NCCP (Plan)) is not proposing to mitigate for covered species through the Yolo HCP/NCCP process and following the avoidance and minimization measure outline in that Plan. The project is a covered activity under the Plan (Section 3.5.1.2 Urban Public Services, Infrastructure, and Utilities) and would provide take coverage for many of the species identified in the DEIR (i.e. Tricolored blackbird, western burrowing owl, Swainson’s hawk, white-tailed hawk, western yellow-billed cuckoo, least Bell’s vireo, western pond turtle, giant garter snake, valley elderberry longhorn beetle, and palmate bracted bird’s beak). CDFW would recommend obtaining coverage under the Plan and following the avoidance and minimization measures outlined in the Plan for the covered species.

S3-3

CDFW appreciates the opportunity to comment on the DEIR for the Project, and requests that the City consider CDFW’s comments. If you have any questions pertaining to these comments, please contact me at (916) 932-3035 or ian.boyd@wildlife.ca.gov.

S3-4

Thank you,

Ian Boyd
 Environmental Scientist
 Timberland Conservation Program
 North Central Region (Region 2)
 1701 Nimbus Rd., Suite A
 Rancho Cordova, CA 95670
 P: 916-932-3035
ian.boyd@wildlife.ca.gov



Responses to Letter S3

S3-1

Thank you for your comment letter. The City appreciates the California Department of Fish and Wildlife's input. Responses to your comments are provided below under S3-2 and S3-3.

S3-2

The reference to Fish and Game Code Section 3315 has been corrected to Section 5515 where fully protected fish are discussed.

S3-3

The City has coordinated with the Yolo Habitat Conservancy and intends to continue to do so as the Proposed Project moves forward. While the City intends to implement the Proposed Project in a manner generally consistent with the Yolo Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP), including its avoidance and minimization measures, the primary reason the Draft EIR does not commit to obtaining coverage under the HCP/NCCP is that USACE, as the federal lead agency, is expected to initiate consultation under Section 7 of the Endangered Species Act (ESA), which is typical of federal agency actions. Given that the HCP is applicable to Section 10 of the ESA, it is sometimes not practicable to integrate the processes. The City will look for opportunities to make use of the Yolo HCP/NCCP in coordination with USACE.

S3-4

The City has considered your comments and has responded above under S3-2 and S3-3.

Chapter 4

Local Agency Comments and Responses

This chapter contains comments received on the Draft EIR from local agencies. The comment letter has been assigned a unique code, and each comment within the letter has also been assigned a unique code, noted in the right margin. For example, the code “L1-2” indicates the second distinct comment (indicated by the “2”) in the letter from the County of Yolo Department of Community Services, which was the first (and only) letter (indicated by the “1”) recorded from a local agency (indicated by the “L”). The chapter presents the comment letter immediately followed by the responses to that letter. Table 4-1 summarizes the commenting party and comment letter signatory.

Table 4-1. List of Comment Letters from Regional and Local Agencies

Letter #	Commenter
L1	J. D. Trebec, Senior Planner, County of Yolo Department of Community Services

Letter L1—J. D. Trebec, Senior Planner, County of Yolo Department of Community Services



County of Yolo DEPARTMENT OF COMMUNITY SERVICES

Letter L1

Taro Echiburú, DIRECTOR

Planning, Building & Public Works

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Environmental Health

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Integrated Waste Management

44090 CR 28 H
Woodland, CA 95776
(530) 666-8852
FAX (530) 666-8853
www.yolocounty.org

June 10, 2020

Mr. Tim Busch, Principal Utilities Civil Engineer
City of Woodland
300 First Street
Woodland, CA 95695

Subject: Draft Environmental Impact Report for the Woodland Flood Risk Management Project

Dear Mr. Busch,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Woodland Flood Risk Management Project (project). The project seeks to provide 200-year flood protection from Cache Creek by implementing flood system improvements to reduce risks from flooding of Lower Cache Creek. The project description states that most of the project area lies under the jurisdiction of Yolo County between the city of Woodland and Cache Creek, consisting of a defined project area that is approximately 10,292 acres of agricultural land that includes row crops, orchards, and rural homes. The project would require modification to county-maintained roads, railroad crossings, and culverts to implement the proposed flood protection improvements. The County of Yolo Department of Community Services (DCS) appreciates the opportunity to comment on this document and further address comments previously made in response to the Notice of Preparation.

L1-1

In our September 23, 2019, response to the Notice of Preparation, the Yolo County Planning, Public Works, and Building divisions noted several issue areas that the DEIR specifically consider, which are further described below.

The Yolo County Planning Division noted concerns regarding agricultural land conservation and protections for existing and future development. Agricultural land conservation programs potentially impacted by the project include the Agricultural Conservation and Mitigation Program (ACMP) and lands contracted under the Williamson Act. The DEIR concludes that the project is exempt from the County's Agricultural Conservation and Mitigation Program, but nevertheless includes Mitigation Measure AG-1:

L1-2

Mitigation Measure AG-1: Conserve Farmland (Prime Farmland and Unique Farmland)

The lead agency will preserve Farmland (Prime Farmland and Unique Farmland) in an amount commensurate with the quantity and quality of converted Farmland. This would be satisfied by a replacement ratio of 3:1 for Prime Farmland, and 2:1 for non-Prime farmland, consistent with the Yolo County Agricultural Conservation and Mitigation Program as identified in Zoning

Mr. Tim Busch
June 10, 2020

Ordinance Section 8-2.404, for lands that are permanently converted to nonagricultural use by the Proposed Project.

L1-2
cont.

The County acknowledges and appreciates the inclusion of this measure.

The DEIR states that 17 acres of Williamson Act Contracted (WAC) land is within the project footprint and concludes that there is no conflict because the contract can simply be terminated through cancellation or nonrenewal. The County looks forward to reviewing proposed findings supporting such an action, and reserves the right to comment on those findings at the appropriate time. It should be noted, however, that the defined 17-acre project footprint runs through the middle of two WAC parcels and would impair future cultivation of more than the 17 acres addressed in the DEIR. The project reasonably could result in loss of WAC protection for both of the parcels totaling approximately 140 acres. Although Williamson Act contracts do not provide permanent protection for agricultural lands, they are an important component of the County's agricultural conservation strategy and cancellation and non-renewal of any protections are seen as potentially significant impacts. Additionally, the County sees agricultural lands around cities as particularly vulnerable. Regardless of whether the project is exempted from the ACMP, the County would like to see permanent protection of agricultural land in the project area to mitigate loss of any Williamson Act Contracted acreage.

L1-3

The Planning Division also has concerns regarding non-agricultural lands and structures in the project area north of the flood system improvements. The DEIR lists two businesses and 10 residences that would be impacted by an increase in flood levels by up to two feet. Affected structures are to be assisted by a City of Woodland and Department of Water Resources (DWR) program to floodproof structures, subsidize insurance, purchase easements, and improve flood warning systems. The County has requested information on this program and would like to see more specific details on its implementation in the DEIR. It is unclear if the project would cover future construction allowed on the commercially-zoned parcels at Barnard Court or future farm homes allowed on agricultural parcels.

L1-4

Yolo County Public Works Division noted that the project will require raising several county roads, installing culverts and railroad crossings, and acquiring property and right-of-way for the flood protection improvements. The DEIR properly references the Yolo County Improvements Standards in the section describing road raising (Section 2.3.3.10), but should also specify the Improvement Standards in the section on the culverts and other improvements (Section 2.3.1.5).

L1-5

The Yolo County Building Division wanted to emphasize the following requirements from the Flood Protection Ordinance:

L1-6

- *Submit Department of Water Resources (DWR) notification to the Federal Emergency Management Administration (FEMA),*
- *Within 6 months of information becoming available or project completion, whichever comes first, submit a Letter of Map Revision (LOMR), and*
- *All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.*

Section 2.4 Required Approvals should also note that necessary permits required from the County of Yolo may include grading permits and building permits for any structures whether permanent or temporary.

L1-7

Mr. Tim Busch
June 10, 2020

Additional concerns regarding the project and the analysis contained in the DEIR include:

- **Sec. 2.1 Project Setting and Location**
 What specific impacts will the project have on the unincorporated lands within the City's Urban Limit Line? (The area north of Woodland city limits and the project area, but within the Woodland Urban Limit Line, such as the AM/PM and Denny's restaurant on West St.) Will increased flood depths or flood easements impact the enjoyment or use of those lands? | L1-8
- **Sec. 2.3.3.2 Site Preparation**
 Approximately 350 acres are identified to be cleared with the material proposed to be hauled to the Yolo County Landfill. Please provide an estimate in cubic yards for the amount of material you anticipate being disposed of at the Yolo County Landfill. | L1-9
- **Sec. 2.3.3.3 Cutoff Wall Construction**
 As mentioned above, construction of a temporary slurry batch plant near the Cache Creek Settling Basin for the construction of the proposed cut-off wall, as well as any temporary work trailers will require a Building Permit from Yolo County. | L1-10
- **Sec. 2.3.3.4 Levee and Drainage Channel Construction**
 Why would rock slope material (40,000 tons, 1,700 double trailer truck loads) be brought in from Marysville? Yolo County has five (5) permitted surface mining operations that are located within three to fifteen miles west of the project location. Further, on page 3.3-24 the DEIR states, "The project area is located in a region with a permitted aggregate supply, including large aggregate of the size used for rock slope protection that is less than its expected need over the next 50 years...". Using locally sources materials could cut GHG emissions tied to project construction. | L1-11
- **Sec 2.3.6.1 Non-Structural Measures**
 The County appreciates the City's thoughtful approach to provide benefit via non-structural measures, such as flood proofing, subsidized flood insurance, and increased flood preparedness measures, to landowners north of the City who will be affected by the proposed project. Are the proposed non-structural measures mandatory or voluntary for affected landowners? Will eminent domain be used for flood easements? | L1-12
- **Table 3.1-3 Peak Discharge and River Stage, Cache Creek at Yolo (copied below)** | L1-13

Mr. Tim Busch
June 10, 2020

Table 3.1-3. Peak Discharge and River Stage during Historical High Flow Events, Cache Creek at Yolo

Water Year	Peak Discharge (cubic feet per second)	Stage (feet)	Date
2019	26,393	84.90	Feb 27, 2019
2006	26,908	83.28	Dec 31, 2005
1998	34,600	84.39	Feb 3, 1998
1995	36,400	85.37	Mar 9, 1995
1983	33,000	83.75	Jan 27, 1983
1965	37,800	-	Jan 6, 1965
1958	41,400	85.35	Feb 25, 1958
1940	38,700	85.30	Feb 28, 1940

Source: National Oceanic and Atmospheric Administration California and Nevada River Forecast Center 2019.

L1-13
cont.

Table 3.1-3 clearly demonstrates a trend of decreased conveyance capacity and increased flood stage over time. The County understands that the State Department of Water Resources is studying what factors may contribute to this decline in conveyance capacity (such as aggradation, roughness, and subsidence). Is the City likely to propose any project modifications in order to ensure that this project can contain the likely increased frequency of overtopping along Cache Creek?

- **Sec. 3.2.16. Impact WQ-3 Water Quality**

The DEIR acknowledges that the project will create a new source of mercury- and methylmercury-laden sediment to water within the Cache Creek Settling Basin (CCSB). Due to decades of deferred maintenance by the State there is a significant lack of capacity in the CCSB to convey flood waters from Cache Creek to the Yolo Bypass. This project will increase sedimentation in an already impaired flood conveyance facility.

L1-14

Please provide additional information that demonstrates that the additional sedimentation will not create any adverse impacts to the ability of Cache Creek to convey flood waters upstream of the CCSB. Please consider an additional mitigation measure that requires the State to resume routine maintenance excavation activities within the CCSB to ensure conveyance capacity is not further adversely impacted.

- **Section 3.12.2.3 Traffic Impacts and Mitigation Measures**

The project proposes an average of 400 truck trips per day, with construction being 295 total days yielding roughly 118,000 truck trips equivalent to 220,000 Equivalent Single Axle Loads. The project's traffic impacts due to heavy truck traffic will impact local road infrastructure and will need to repair the roads to as good or better condition.

L1-15

- **Section 5.2.2.8 Yolo HCP/NCCP**

This section appears to have been written in 2016. Please update to reflect that the HCP/NCCP has been adopted and permitted and the Plan in undergoing active implementation. Please describe how the project is consistent with the HCP/NCCP.

L1-16

In conclusion, the Yolo County Department of Community Services appreciates the opportunity to review and comment on this DEIR to assist in identifying and mitigating impacts to the County. We are available for consultation and look forward to coordinating with the City on future

L1-17

Mr. Tim Busch
June 10, 2020

implementation of flood protection. Any questions or coordination may be directed to JD Trebec,
Senior Planner (530) 666-8036 or jd.trebec@yolocounty.org .

L1-17
cont.

Sincerely,

JD Trebec
Senior Planner
Phone: 530-666-8036

Yolo County
Department of Community Services
Planning Division
292 West Beamer Street
Woodland, CA 95695

CC:
Yolo County Clerk of the Board

Responses to Letter L1

L1-1

Thank you for your comment letter. The City considered the comments provided by Yolo County in response to the Notice of Preparation while preparing the Draft EIR. Responses to your comments on the Draft EIR are provided below.

L1-2

This comment expresses appreciation for inclusion of Mitigation Measure AG-1: Conserve Farmland (Prime Farmland and Unique Farmland) in the EIR. No response is necessary.

L1-3

The Williamson Act generally requires that no public agency can locate a public improvement project within an agricultural preserve unless specific findings are made pursuant to California Government Code Section 51292. However, this does not apply to the location or construction of flood control projects, which the Legislature “determined to be compatible with or to enhance land within an agricultural preserve.” (Cal. Gov't. Code § 51293(e)(1)).

As discussed for Impact AG-2 in Draft EIR Section 3.6, *Agricultural and Forestry Resources*, 17 acres of agricultural land currently under Williamson Act contracts falls within the project footprint. These 17 acres represent a very small proportion (0.004 percent) of all Williamson Act lands in Yolo County. Per California Government Code Section 51295, when an action to condemn or acquire land under Williamson Act contract is made,

...the land actually taken shall be removed from the contract. Under no circumstances shall land be removed that is not actually taken for a public improvement project, except that when only a portion of the land or less than a fee interest in the land is taken or acquired, the contract may be canceled with respect to the remaining portion or interest upon petition of either party and pursuant to the provisions of Article 5 (commencing with Section 51280).

Therefore, absent indication that a party to the Williamson Act contract would petition for cancellation of the remaining parcel, it is assumed that only the Williamson Act-contracted land within the project footprint would be removed from the contracts, i.e., the contracts in whole would not require cancellation. The comment does not provide any basis for the assertion that the Proposed Project could result in loss of Williamson Act contracts beyond the 17 acres within the project footprint.

The removal of these 17 acres from Williamson Act contracts is not expected to result in a threat of cancellation to other Williamson Act contracts in the project area or the county. The Proposed Project is not an urban development project, nor is the nature of the project one that would indirectly induce urban development in the project area. The land adjacent to the subject Williamson Act-contracted lands, as well as the majority of land in the project area, is zoned for agricultural use by Yolo County. In addition, adjacent land, as well as most of the land in the project area, is outside of the City's urban limit line, which serves to allow for denser development within the city limits while preserving the agricultural, natural resource, and open space uses outside this boundary. Therefore, it is reasonable to assume that there is little to no likelihood that the Proposed Project (and removal of land from Williamson Act contracts) would cause a domino effect of Williamson Act contract cancellations and conversion of adjacent lands to nonagricultural use.

Furthermore, removal of the 17 acres of land from existing Williamson Act contracts would not affect the productivity of the soils or the land on either side of the proposed levee within the subject parcels.

These 17 acres of land under Williamson Act contracts are Prime Farmland (see Figure 3.6-1 in the Draft EIR). Conversion of Prime Farmland is discussed under Impact AG-1 in Draft EIR Section 3.6, *Agricultural and Forestry Resources*, and the analysis concluded that this conversion is a significant and unavoidable impact. As described under Mitigation Measure AG-1, mitigation for conversion of all Prime Farmland and Unique Farmland (Farmland) within the permanent project footprint would preserve Farmland in an amount commensurate with the quantity and quality of converted Farmland. This would be satisfied by a replacement ratio of 3:1 for Prime Farmland, and 2:1 for non-Prime farmland, consistent with the Yolo County Agricultural Conservation and Mitigation Program. Therefore, this mitigation would apply to this Williamson Act-contracted land.

L1-4

The nonstructural actions are proposed to be partially funded with state and federal grants. These grants have time periods associated with them. The nonstructural actions will not apply to structures built after construction of the Proposed Project. The City and or State will negotiate with the property owner to complete the acquisition for flood easements. Participation in the non-structural program is voluntary. Draft EIR Chapter 2, *Project Description*, Section 2.3.6.1, describes the potential non-structural measures and cites a technical memorandum by MBK Engineers that contains more information on the measures. All relevant information from MBK Engineers' technical memorandum describing the non-structural measures was cited and referenced properly in the Draft EIR. As with all reference materials cited in the Draft EIR, it was and is available upon request from the City. The memorandum has been included with this Final EIR as Appendix 4.

L1-5

Thank you for your comment. A reference to the County of Yolo Improvement Standards has been added to the discussion of culvert installation in Section 2.3.1.5 (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR).

L1-6

The City and DWR (a sponsor of the Proposed Project) will ensure that data is submitted to FEMA in a timely manner for a Letter of Map Revision.

L1-7

Thank you for your comment. Text has been added to Section 2.4, Required Approvals, to include grading and building permits from the County of Yolo (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR).

L1-8

The lands north of the proposed levee alignment that are within the City's urban limit line will remain in the floodplain. However, as described in Draft EIR Section 3.1, *Hydrology*, Impact HYDRO-5, "the frequency of flooding in the area north of the city would not change relative to existing conditions, because the study area is already prone to flood risk, and the Proposed Project would

not alter the geometry of Cache Creek (i.e., alter the pre-existing flooding regime)." The Proposed Project would not prevent continued use and enjoyment of lands that will experience increased flood depths. Please see Master Response 2: *Flood Risk*.

L1-9

An estimate of the amount of material that will need to be hauled to the Yolo County Landfill (approximately 250,000 cubic yards) is provided in Draft EIR Chapter 2, *Project Description*, Section 2.3.4, *Staging, Site Access, and Construction-Related Traffic*.

L1-10

Thank you for your comment. Text has been added to Chapter 2, *Project Description*, Section 2.4, *Required Approvals*, (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR) to include grading and building permits from the County of Yolo.

L1-11

Marysville is the furthest construction contractors would source levee fill material. It is likely that suitable soil is located closer to the project area and it is anticipated that the closer locations will be used. Because levee fill material could be sourced from as far as Marysville, the environmental document presents and analyzes this assumption to ensure potential impacts are not underreported. If levee fill material is sourced from locations closer than Marysville, the number of vehicle miles traveled and associated secondary impacts would be reduced, relative to what is presented in the Draft EIR.

L1-12

Please see the response to comment L1-3 for a discussion of implementation of the non-structural measures.

L1-13

Please see Master Response 3: *Maintenance of Existing Flood Management System*. If authorized, USACE will design the Proposed Project based on the information available at that time. The design of the Proposed Project is not sensitive to the frequency of overtopping. The EIR analysis reasonably assumes that the state will continue to maintain the Cache Creek levee system in accordance with the O&M Manual for the Cache Creek levees (U.S. Army Corps of Engineers 1961).

L1-14

The Trap Efficiency Study undertaken by UC Davis in 2016 informs both the hydrology and water quality analyses in the Draft EIR (Sections 3.1 and 3.2, respectively) (UC Davis 2016). According to this study, bed change differences (2A minus current condition) are positive in the northern settling basin and negative in the southern settling basin mainly due to differences in the flow patterns after degradation of the training levee in Alternative 2A. Within Cache Creek itself, the bed changes are more spatially variable but are generally characterized by a scouring signature (i.e., decrease in bed elevation). Bed change as modeled in the 2016 UC Davis study is based on localized changes in hydraulics (i.e., velocity and depth) as a result of the proposed project and is not a direct indicator of the volume of sediment stored in the CCSB over the life of the project. However, the results suggest

deepening of the bed in the southern portion of the CCSB where Cache Creek enters the system. This deepening would hypothetically allow for deposition of sediment without negatively affecting upstream channel capacity. DWR is required to operate and maintain the CCSB to meet a sediment trapping efficiency as documented in the USACE O&M Manual for the CCSB. (U.S. Army Corps of Engineers 2007:14, 15, 20).

L1-15

Thank you for this comment. Discussion has been added to the Draft EIR regarding potential roadway deterioration issues resulting from heavy trucks. In addition, text has been added to Mitigation Measure TR-1 to require roadways be restored to pre-project or better conditions after construction is complete. (See Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR.)

L1-16

The text describing the Yolo HCP/NCCP within Draft EIR Chapter 5, *Other CEQA Considerations*, Section 5.2.2.8, has been updated to reflect the current status of the Yolo HCP/NCCP and Regional Conservation Investment Strategy/Local Conservation Plan (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR). Consistency of the Proposed Project with the Yolo HCP/NCCP is discussed in Draft EIR Section 3.4, *Biological Resources*, Section 3.4.2.3, under Impact BIO-14.

L1-17

The City appreciates your input on the Proposed Project and looks forward to coordinating with the County.


Non-Governmental Entity Comments and Responses

This chapter contains the comments received on the Draft EIR from non-governmental entities. Each comment letter has been assigned a unique code, and each comment within the letter has also been assigned a unique code, noted in the right margin. For example, the code “N2-1” indicates the first distinct comment (indicated by the “1”) in the letter from the California Farm Bureau Federation, which was the second letter (indicated by the “2”) recorded from a non-governmental entity (indicated by the “N”). The chapter presents each comment letter immediately followed by the responses to that letter. Table 5-1 summarizes the commenting party and comment letter signatory.

Table 5-1. List of Comment Letters from Non-Governmental Entities

Letter #	Commenter
N1	Joe F. Martinez, President, Yolo County Farm Bureau
N2	Christian C. Scheuring, Senior Counsel, California Farm Bureau Federation

Letter N1—Joe F. Martinez, President, Yolo County Farm Bureau



YOLO COUNTY
FARM BUREAU

Yolo County Farm Bureau

P O Box 1556, Woodland CA 95776
530.662.6316 O 530.662.8611 F
www.yolofarmbureau.org

Letter N1

PRESIDENT
Joe F. Martinez

1ST VICE PRESIDENT
Garrett Driver

2ND VICE PRESIDENT
Mike Hall

SECRETARY & TREASURER
Denise Sagara

August 11, 2020

via electronic mail
Tim.Busch@cityofwoodland.org
Mr. Tim Busch,
Principal Utilities Civil Engineer
City of Woodland
300 First Street
Woodland, CA 95695

**RE: Comments on City of Woodland Flood Risk Management Plan
Draft Environmental Impact Report**

Dear Mr. Busch;

Yolo County Farm Bureau (YCFB) believes is it going down the same deadend road with this document as when it looked at environmental documents in 2000-2003 concerning the US Army Corps of Engineers (USACE) proposed Flood Wall, and the comments filed approximately 17 years later, February 10, 2020, on the USACE’s Draft Environmental Impact Statement for its current project. Flood Wall 1 would have cost the taxpayers approximately \$46,000,000 with a local share of approximately \$8,000,000; the costs have escalated dramatically. Flood Wall 2 (“Proposed Project” or “PP”) has an estimated cost of \$261,000,000 with the local sponsor share approximately \$44,000,000. Operation and Maintenance, which will be an annual local cost, was estimated at approximately \$3,000,000 annually in the 2003 documents (2003 Project Draft Feasibility Report at pp ES 13); annual costs will be much higher for Flood Wall 2: locals can anticipate annual costs of up to \$8,000,000 (see: Feasibility Study at page 3-64).

The basic project has not changed: Floodwall 2 is described as a 5+ mile levee running east/west along the north city limits line, backed up by a drainage channel. (Draft EIR, ES-1) Floodwall 1 was described as an approximate 6 mile east/west levee lying “north” of the City of Woodland. (Draft Feasibility Report, 2003, ES 5-6) The draft EIR for Flood Wall 2 lays out its objectives: Providing 100 level of levee certification for The City of Woodland; Provide 200 year protection to the COW; Develop a project that fits Federal parameters for funding; and, avoid increasing the risk to structures that are placed on the wet side of the new levee. (See, draft Feasibility Report p. ES-6; DEIS at p 3-64, Draft EIR ES-1) The accomplishment of Flood Wall 1 was identical: it would remove the City of Woodland and the county area south out of the 100 year flood plain. (Draft Feasibility Study, pp. ES-6-7)

That next to the last sentence in the preceding paragraph basically summarizes the total commitment that the COW has made to the citizens who live, work and/or farm north of the

N1-1

N1-2

Tim Busch, Principal Utilities Civil Engineer
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 Page 2

levee. Again, as in Flood Wall 1, a review of the draft EIR discloses that the COW completely ignores the very critical financial fact that all of the lands on the wet side, up to the south levee of Cache Creek, will be devalued for agricultural purposes. They will certainly be devalued for the simple purpose of providing a safe home and surroundings for the many individuals and families who live there. The extent of Flood Protection provided those individuals and families is a “reverse telephone warning system to put them on notice that they must evacuate the flood plain”. (Draft EIR, P 2-13). N1-3

The DEIR congratulates itself at pages. ES -2: “. . .by implementing the Proposed Project, the City would achieve the objectives of the Woodland Flood Risk Management Project (WFRMP) and reduce the risks to public health, safety, property and life that exist due to the potential for flooding in the project area”. The accuracy of these last sentences is limited: these benefits exist only for the portion of the COW that is on the “dry” side of the new levee. N1-4

The COW ignores the statement we highlighted in our earlier comments to the Draft Feasibility Study and DEIS: Please note the admission in the Federal Feasibility Study at page 3 (our comments: There is no risk to life safety in the COW under current conditions: In essence, **the Feasibility Report noted that construction of the project will increase risk to life from a flood event** because it will change essentially harmless sheet flooding into dangerous floods from a levee break: whether (or not) that happens depends on in substantial part the annual maintenance and repair performed by Woodland employees, and their ability to timely respond to a flood event. See, Feasibility Report at 3.5.1 Failure of maintenance on flood control systems already exists on the Cache Creek levees: please read the same cited paragraph in the Feasibility Report. Thus, the citizens are taking on greater risk if the project is built. One has only to look at the 2017 orders to evacuate nearly 190,000 citizens, living below the Oroville Dam, to realize how casually public agencies observe flood control infrastructure maintenance. N1-5

Second, one of the objectives of the study was to develop flood control options that provided flood control to a broader geographic area than did Flood Wall 1. However, again, Flood Wall 2’s benefits flow only to the Woodland residents who live on the dry side of the levee which would be constructed roughly along the same alignment as Flood Wall 1: the Woodland residents on the wet side receive no flood control benefits at all. Flood Wall 2 adds value to the same areas of Woodland and devalues the same areas of Woodland as did Flood Wall 1. N1-6

We also comment that nowhere in the list of Project Objectives is there any reference at all to the continuation of viable agriculture in the new bypass area. There is a willingness to attempt to “avoid or reduce risk associated with increases to the 100 year flood plain ‘at existing structures’ north of the city”, thereby freezing one area of “Woodland” into a moment in time while allowing other, favored areas on the dry side of the floodwall to grow and flourish. (P. 2-2) N1-7

We do note that there is an assurance that there be “no net loss of native trees” but we see no similar concern for loss of agricultural plantings of orchards or vineyards. (ES-2) In addition, we note that, although the “Project Overview” paragraph uses the language “redirect overland flood flows” it carefully avoids using the terms “bypass” or “floodway”. (ES-1) N1-8

However, that more descriptive and accurate language is used elsewhere in the document: clearly, the net effect of N1-9

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 Page 3

the project is to create a large bypass to basically “take” any possible flood flows escaping the right bank levees from Cache Creek.

N1-9
 cont

We noticed one modification in the alignment which may well put at risk additional Woodlanders who live west of town out in the County. Under current conditions, water leaving the right bank of Cache Creek upstream of I-5 flows southeast where it is directed, by the I-5 embankment, into the COW. It is very interesting to note the extent of protection to the “Project Area (i.e., COW)” that was anticipated by Flood Wall 1: the levee’s westernmost point was CR 19B and CR 96B: the report states; “At the west end, the levee would be outflanked by floods having a peak flow greater than 70,000 cfs: the volume of these flows is small and would not result in flood damage to Woodland”. (see, Lower Cache Creek Draft Feasibility Report; March 2003, p. ES-6) It says nothing about areas outside of the COW being damaged by these floodwaters. The western terminus of the levee in Flood Wall 2 starts somewhat south, near the convergence of CR 98 and CR 20 (see, DEIS at p. 2-3). At figure 2.1, the project footprint shows that the levee extends south-west at a 45% angle from the its intersection with CR 98. Thus, it is obvious that Cache Creek floodwaters that would have been directed east with Flood Wall 1 will, instead, be directed south. We assume that flows could be greater since the former alignment logically would move more floodwaters east that will now be sent south. What is the magnitude of these floodwaters? Where will they be directed – or where will they logically flow? Have landowners and residents in these areas been advised that there may be flood impacts on them from Flood Wall 2? We have not found any discussion of this in the 2019/2020 DEIS or DEIR.

N1-10

We see errors repeated throughout the document. In the Executive Summary of impacts created by the project, it recites that – basically –there is no significant physical division of an established community. Flood Wall 2 has a similar alignment as did Flood Wall 1; the new levee literally separates the community into “haves” and “have nots” and certainly shuts down access by Woodlanders who live north of the wall, and even north of Cache Creek in or near Knights Landing from reaching Woodland for necessary goods and services during or after a flood event. That is a significant impact. (ES-9). The DEIR conspicuously omits any mention of the need to shut CR 102 for up to 3 weeks during a flood event. Additionally, the conversion of substantial amounts of farmland to levees, detention ponds and channels is not insubstantial in the context of the Woodland area and Yolo County agriculture. (see, our discussion on page 2 of our Comments filed on the Draft Feasibility Report and Draft EIS, filed February 10, 2020)

N1-11

N1-12

We do not believe that the Draft EIR has satisfied the requirement that the EIR examine a reasonable range of alternatives that could obtain the project’s objectives but at substantially lesser significant environmental effects. Please look again at the original project objectives: they are to look at flood issues throughout the entire focused study area (the town of Yolo, City of Woodland and surrounding agricultural area) and develop a plan to reduce flood risks to this area. Contrary to Measure S, the Proposed Project is almost identical to Floodwall 1 from the standpoint of basic alignment and areas protected, or not, and also that the “wet” side of the project carries all of the burdens of the project. The “no project” alternative basically provides the decision makers with the opportunity to evaluate specific environmental and other costs of building the project – or not. Interestingly, the purpose of the Alternative Project selected for

N1-13

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review in an environmental document is to provide an ability to gain the project objectives at avoided or reduced significant environmental impacts. For that reason, it cannot be in any sense be a “copy” of the Proposed Project.

N1-13
 cont.

We believe that the chosen “Alternative” Alternative 2C, violates that requirement. (See discussion at DEIR p 4-33: Land Use and Planning) Its zone of flood protection deviates only slightly from the Proposed Project and puts much the same pejoratives on land north of the levee and the widened channel (although we note that the ponding on land on the wet side of the levee is substantially reduced.) Its hallmark is also a levee, constructed at somewhat reduced heights, following a similar alignment to Floodwall 1 and Floodwall 2 to roughly to its intersection with the Cache Creek Settling Basin (CCSB). At State Highway 113, a 550 ‘ wide drainage channel runs east along the north side of the new levee to catch drainage waters. At the point it reaches the CCSB levee it follows the CCSB levee alignment to its southwest corner, and then runs east immediately south of the CCSB southern levee to intersect with the Bypass and drain the floodwaters therein. (See, 4-15-4-22).

What is conspicuously missing from this DEIR is a true “Regional flood control project” which is required by Measure S. The record discloses that a project which would meet the COW flood policy regional ordinance requirement was Alternative 6B. It is mentioned but not discussed in the DEIR (see, 4-46-4-48): it is discussed in the appendix only and the decision was made NOT to carry it forward. In the Summary Evaluation of Focused Array of Alternatives {from “Report Summary, Lower Cache Creek Feasibility Study January 2019) it is described as: “6B: Increases the height of the right and left bank levees near Yolo, and improves the right bank levee to the CCSB, as well as improves CCSB levees. Would significantly reduce the risk of flooding to the south of Cache Creek. Includes seepage mitigation and rock bank protection.” The U.S. Army Corps of Engineers (USACE) moved this alternative into the final array of options: the record discloses that subsequently the USACE evaluated costs and benefits and chose the “Floodwall 2” Proposed Project in February, 2019. (See, discussion in Appendix to DEIR, at pages 13-15) The Appendix includes a further statement: The USACE concluded that hydraulic effects associated with Alternative 6B would include higher channel velocities and increased peak flows entering the settling basin. Requirements for slope protection would result in the significant loss of riparian habitat. The mitigation for the loss of overall habitat would be very extensive... Considering that the USACE has determined that there is no federal interest in this alternative, with the significant impacts that would occur to federally listed endangered species, this alternative was screened from further consideration on the basis of economic and environmental concerns.” (DEIR Appendix, p. 17)

N1-14

It is very interesting that this theoretical assessment at the near conclusion of the study threw out the only option in the final array that the Measure S voters might have considered regional in that it would benefit lands and people north and south of Cache Creek, removed the entire Woodland area from the flood plain, and benefitted the Town of Yolo. It would have eliminated (1) the physical, economic and psychological severance of the greater Woodland community into “Haves” and “Have Nots”; (2) eliminated interruption of north-south transportation corridors north of the proposed project between Woodland and minority communities (Yolo and Knights Landing) and (3) eliminated issues of water ponding on farmland in the “newly created” north Woodland bypass: since floodwaters were being effectively “turned loose” on that farmland,

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flood damage would result to septic systems, wells and irrigation systems, chemical storage, farm installations, farm equipment, livestock, residences and people! And, Yolo County has spent over ten years developing a Habitat Conservation Plan: it is available for necessary mitigation. This is the Project that Woodland City voters, and residents in surrounding Yolo County want.

N1-14
 cont.

At Page ES-6, the DEIR lists the concerns raised by citizens and agencies around the proposed project: Insofar as relevant to YCFB, we set them out as follows:

N1-15

Conversion of agricultural land to non-agricultural uses, leading to loss of productive agricultural acreage (for the new levee, drainage channel, and weir and flood bypass, and to obtain borrow material and create habitat.) (ES-19; 3.6)

Increased flood risk, land and property damage, and duration of flooding on agricultural lands north of the proposed levee and drainage channel. (3.1)

Potential for transport of mercury to the Sacramento-San Joaquin River Delta from the CCSB. (3.2)

Road closures during construction that could affect emergency services and public access (3.12)

Land use compatibility concerns including the concern that changed land uses caused by the Proposed Project (establishment of habitat areas, the levee, and drainage channel) would adversely affect the remaining adjacent agricultural lands due to potential access to these areas by the public (possible homeless encampments, off-road vehicles, increased litter, trespass). (3.5)

However, the DEIR incorrectly declines to address these issues that are of great concern to Yolo County farmers and ranchers. Its premise for this refusal is not well taken: it states... CEQA only requires discussion of reasonable foreseeable physical changes. If the Proposed Project is not anticipated to result in a physical change to the environment, it would not be considered to have a significant impact under CEQA (cite omitted). For the Proposed Project, any physical consequences resulting from changed land uses are too speculative to ascertain.”(DEIR, P ES-19)

This statement is clearly in error. The Proposed Project is installing a levee, with a 20’ crown topped by a road, accompanied on both sides by drainage and or conveyance channels. This “structure” will cut through farmland and at several points, especially between CR 98 and the Sacramento Northern Railroad (SNRR) railroad tracks, is close to urban uses. This is clearly a “physical change to the environment” since it is an edifice built as part of the Proposed Project. Thus, the attraction of the homeless to this structure is a “given” considering the number of homeless individuals who are centered on Woodland. See, our comment to the DEIS. YCFB has been advised by County personnel that homeless individuals have camped under the Interstate 5 SNRR overcrossing between State Highway 113 and CR 99 to the extent that damage to the overcrossing occurred and the individuals had to be removed. We have also

Tim Busch, Principal Utilities Civil Engineer
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been advised that typically these individuals like to camp near the City so they can access services. This new massive levee and accompanying canals, etc. is close to Woodland. Apparently, from what we can ascertain, these levees and roads will be accessible to the public: it is sophomoric to assume that these new levees will not be used as homeless encampments. This reality subjects Yolo County farmers and ranchers to increased theft and trespass, much less added concern for their personal safety. (See, e.g., <https://www.wintersexpress.com/local-news/homeless-camps-could-be-banned-on-county-property/https://www.dailydemocrat.com/2020/01/08/woodland-abiding-by-court-ruling-on-homeless-encampments/>)

N1-15
 cont.

Installation of Replacement Habitat as part of the Proposed Project could attract potentially sensitive wildlife species, placing a burden on adjacent agricultural properties to avoid "take" of protected species. Again, the DEIR incorrectly refuses to discuss this issue, asserting "In general, CEQA does not require mitigation for purely economic impacts unless they lead to reasonably foreseeable secondary environmental impacts." (ES-19)

N1-16

We argue that this is an environmental issue, created by the Proposed Project, that creates an economic issue, that then creates a related environmental issue: Habitat is installed on land to mitigate habitat loss caused by the construction of the Proposed Project adjacent to a working farm or ranch (ENVIRONMENTAL ISSUE): an endangered or threatened species is introduced to that land that subsequently is attracted to the neighboring agricultural operation which results in either lost productive farmland due to its presence, or the costs involving a "take" (ECONOMIC ISSUE); lost farmland or excessive costs to the neighboring farmer or rancher leads to loss or limitation of ability to farm, and land lost to agriculture (ENVIRONMENTAL ISSUE).

Tellingly, immediately after the above attempt to make amazingly short shrift of the issues about which YCFB has concerns, the DEIR then basically discards the rest of our concerns by reciting that "[t]his DEIR does not analyze impacts associated with continued flood risk north of the city. As DEIR describes it, concerns associated with continued flood risk north of the city included the following:

N1-17

1. Water quality concern due to mercury, pathogens, debris and silt carried by floodwaters that could damage orchards and other permanent crops or agricultural installations.
2. Importation of weed seed, spores other pollutants carried by floodwaters that would increase costs for maintenance and operations (cleanup, weed control) of agricultural lands north of the city and potentially affect viability of organic operations that cannot use pesticides.
3. Effects on landowner ability to construct a second house or add new agricultural-related processing, storage, store-fronts or other infrastructure on agricultural properties north of the city (due to increased costs, flood insurance burden).
4. Economic effects on agricultural property owners due to devaluation of properties north of the levee because of flood issues.

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5. Reduced potential for property owners to have an opportunity to sell easements for conservation or other development mitigation in areas north of the city. (See, DEIR, P.ES-20)

N1-17
 cont.

This is another example of the COW's deliberate failure to confront the environmental issues tied to the Proposed Project. It's refusal to do so is very self-serving. It insists that there is no difference between being in a natural floodplain and being placed into an institutionalized bypass that is created only by a decision of the COW City Council to construct Floodwall 2.

There are realities that the COW's final EIR must recognize and analyze in its discussion:

N1-18

(1) The levees, between the Town of Yolo and the CCSB, are the responsibility of the DWR to maintain. The levees, last "improved" in 1958 by the USACE were originally designed to carry a 10 year event (30,000 cfs) + 3 feet of freeboard. Indeed, "Short" Parker, the Fire Chief for the Yolo Volunteer Fire Department, at one point (during the 2000-2004 Flood Wall 1 discussions) noted that the Cache Creek levees at Yolo could carry 40,000 CFS. However, all of the federal, county and other agency documents with reference to these levees have recognized that their carrying capacity has deteriorated: it is now estimated to be 26,000 cfs "top of levee". Why? Poor maintenance. In theory, "riverine" levees must maintain a 3' freeboard, and for certification, engineering analysis must be submitted that assess the potential and magnitude of future losses of levee height as a result of settlement. (See, p.3.1-2) Claims have been made that the levees have loss of capacity from subsidence but that is not correct. These levees are located in an area of Cache Creek with massive amounts of ground water recharge and subsidence is NOT an issue. (per: discussions with YCFC&WCD General Manager) The reality is: (1) the levees have settled due to very poor maintenance, (2) the creek channel and area between the levees have been allowed to fill with silt and other foreign materials. These factors have combined to severely limit the carrying capacity of the levee system. The levees are prone to seeping and slumping, and as noted earlier, invasive mammals have additional possibilities to weaken the levee system. If the levees' total carrying capacity, including freeboard, has lost some 10,000 cfs, the maintenance has been obviously lacking – and little or nothing has been done to restore it to its former efficiency. The City has offered to continue maintenance as before which we note is a standard well below acceptable. There is little reason to believe that the levees will be restored and maintained to any semblance of former standards since, if the Flood Wall 2 is built, they will no longer be the primary insulator of COW from Cache Creek flows.

(2) We have to consider not only the maintenance future of the Cache Creek levees if Flood Wall 2 is built but also consider where "flood fights" will take place: the description of the construction of the levee, the centerpiece of Flood Wall 2, states that it has a "an all weather patrol road along the levee crown and an access road along the landside toe of the levee . . . for flood fighting . . . purposes "(see, p.2-7) As we have emphasized above, The USACE draft documents warn that the City of Woodland is significantly more exposed to substantial danger and the possibility of loss of life and limb from floods if the Proposed Project is built: its citizens are actually safer without installing Flood Wall 2. Thus, where will the flood fighters be sent: to the south levee of Cache Creek to protect some 60 homes and 6000+/-

N1-19

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rural acres --- or to COW's levee --. The answer is obvious. Thus, the Flood Wall will increase the risk of floods to the area between Cache Creek and COW's floodwall for 2 reasons: failure of Cache Creek and channel levees to be maintained to their design standards for carrying capacity and decision to stage flood fights on the COW Flood Wall instead of Cache Creek.

N1-19
 cont.

In the event the Cache Creek levees fail, in part because of failure to maintain and restore to design standards, and in part because the residents and land north of Woodland are ignored in a flood fight in favor of the more populous City on the "dry side" of the Flood Wall, the City needs to realize that it is subject to suit for damages. The issues we pose above in 1 & 2 will be created by these failures.

N1-20

We note with interest pages 1.1 and 1.2 of the DEIR—It emphasizes how the reduced capacity of the Cache Creek levee system creates "a real threat of potentially substantial flooding in Woodland". Obviously, the most "holistic approach" to the COW's potential flood risk is to restore the Cache Creek levees to their former capacity, and improve that carrying capacity, which is part of Alternative 6B (the only "regional option" within the context of Measure S discussed above) which was brought forward in the final "array" – only to be discarded before inclusion and amplification in the DEIR.

N1-21

1.1.2 Overview of Proposed Project: P. 1-3

The City states that it is proposing a "non-structural" plan as part of its Proposed Project –that would include various assistance to landowners north of the city that would consist of raising or flood proofing structures, purchase of flowage easements or funding for subsidized flood insurance. (We note that the City offered similar "benefits" to landowners in "Flood Wall 1: see, for example: DEIR 2003 Project at P. ES-3, 2-11). The DEIR also comments (at P ES-20): "[B]ecause these properties are already subject to flooding, and the City does not propose any changes to the Lower Cache Creek levees that would influence the frequency of flood risk from Lower Cache Creek, the Proposed Project would not be the cause of future flooding of these properties. The flood risk would be a continuation of baseline conditions." Obviously, the COW is attempting to distance itself from any future liability even though it is injecting more floodwater into the 6,000 acres north of Woodland, and, it knows that the Cache Creek channel and current levees have lost conveyance capacity due to poor maintenance.

N1-22

And, of concern to us, the City appears to be coercing cooperation from landowners who are facing devaluation of their properties as follows: "The City also would continue to coordinate with Yolo County and Dept. of Water Resources (DWR) to ensure the existing Cache Creek levees continue to be maintained as currently required and recommended in the Lower Cache Creek Feasibility Study if the Proposed Project is implemented". (DEIR, P. 1-3). Considering the agreed upon failure of maintenance, that is almost an "empty promise".

N1-23

We have already explained that the course of maintenance of the existing Cache Creek levees has been sadly deficient, leading to the substantial loss of conveyance capacity. (see, p, 6-7) Apparently, the COW will "coordinate" with the County and DWR maintenance of the Cache Creek levees as "currently required" which, logically looking at the recent history of the Cache

N1-24

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Creek levee conveyance capabilities, means that the best the City will commit to –is a continuing degradation of the quality of flood protection. In other words, it seems to us that the COW is anticipating and accepting a continued deterioration and loss of protection for the flood plain to the north since it sees no risk to Woodland citizens who reside within the City Limits. One wonders in light of the language used and the history of levee degradation, what the COW is willing to commit to with reference to Cache Creek levees in the absence of the installation of Floodwall 2.

N1-24
 cont.

Woodlanders may not realize it --- but successful flood prevention with its new flood wall depends on top quality maintenance and immediate response to flood threats, or Woodland will be inundated by flooding caused by improperly closed “closure structures” located at the railroad crossings (SNRR and the Southern Pacific) and State Highway 113 or failure of maintenance generally, or other potential levee failures. We understand from the concept of the Flood Wall 2 that the safety of north Woodland residents is a collateral issue, but the safety of City residents is dependent on the response of maintenance personnel. (See pp. 2-4)

N1-25

The DEIR repeatedly comments that, unlike Floodwall 1, the new proposal offers a “suite” of measures to protect the interests of residents placed on the wet side of the levee. These include floodproofing, assistance in the purchase of flood insurance, purchase of flowage easements and upgrading of Yolo County flood warning systems. (DEIR p2-11) When we look back at the environmental documents for Flood Wall 1, we see that the City offered to raise homes and farm support structures or floodproof them. Additionally, flowage easements and at least one residence would be acquired at “fair market value”. Basically, these are the same offerings that are somewhat embellished in Flood Wall 2. The offer of subsidizing “a portion” of property owner’s flood insurance is ephemeral at best (see, p 2-13): it was conceded by City representatives at a Citizens Flood Advisory meeting, after questions were asked, that flood insurance assistance would be cut off after 10 years: the statement was made that “no one” could expect the City to pay for flood insurance beyond that time. The City did not offer to remove its floodwall after 10 years; additionally, residents north of the Floodwall are not, and were not, offered flood insurance assistance for other structures that they have a right to build on their acreage. Additionally, at one point in the process property owners were advised that “ring levees” surrounding their structures could be installed: however, again at a Citizen’s Flood Advisory Committee meeting, the statement was made that ring levees were “off the table”. The City’s fall back on its “suite” of remedies is to “confirm the adequacy of the existing flood telephone warning system to” reduce the risk of loss of life to the rural residents in the floodplain north of the Proposed Project.

N1-26

At no point has, or does, the COW offer to compensate the owners and operators of agricultural operation for the loss in value that they would have or will sustain by construction of Flood Wall 1 or 2. They consistently refuse to acknowledge that the act of putting agricultural land in an institutionalized Flood Plain takes value off the table that rightfully belongs to those owners and gives it to property owners in the City. The City’s failure to acknowledge the fact that the land values are diminished for agricultural purposes highlights the fact that the City will sacrifice its north area farmers to keep the local costs down in to protect out of area developers who purchased low lying land, and thus knew or should have known, that it might flood. his fact has been consistently recognized by local Woodlanders who rejected the concept that Woodland

N1-27

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landowners should make the out of area developers whole. (see, for example, Minutes: Woodland Chamber of Commerce: January 28, 2001: Item 5.4 1e)

N1-27
 cont.

The COW summarizes its “taking” very nicely at p ES-5 of the DEIR for the 2003 Flood Wall: **“The Lower Cache Creek Flood Barrier (LCCFB) Plan would remove the City of Woodland and an area of Yolo County south of the barrier from the flood plain; Due to the large flood plain between the creek and the flood barrier, the flood barrier would serve as a reliable flood protection alternative by withstanding floods that have, at a minimum, a 1 in 100- chance of occurring in any given year.”**

We next note the list of “Required Approvals to comply with various regulatory schemes” (P. 2-14): The COW needs to obtain 8 separate approvals from Compliance with CEQA to Compliance with the National Historic Preservation Act: nowhere does it appear that the COW recognizes that it must also comply with Measure S.

N1-28

At pp. 3.1 et seq. the DEIR discusses Hydrology: at p. 3.1-2 the 3’ freeboard requirement imposed on Flood Wall 2 is brought up: we note that the Citizens’ Flood Advisory Committee, on which two of our members participated, first heard of this requirement at one of the last meetings: the issue is that the height and bulk of the new levee adds to the separation and “split” that this structure will create in the Woodland community, and emphasizes that the Proposed Project is not a regional solution.

N1-29

As noted above –apparently no one has required or insisted that the Cache Creek levees be brought back to a 3’ freeboard requirement. We notice the requirements for Levee Maintenance Plans set out at p. 3.1-3: they require a federal, state or local agency to assume responsibility to have and document a formal procedure to ensure that the “stability, height and overall integrity of the levee and its associated structure and systems are maintained.” This certainly has not taken place with reference to the Cache Creek levees, but the safety and security of the residents in the north Woodland flood plain depends upon it. As stated in the document, the primary agencies responsible for flood control in the study area include the Yolo County Flood Control & Water Conservation District, (YCFCWCD), the County of Yolo and the COW. The lower Cache Creek and CCSB levees are operated and maintained by DWR. (p. #. 1-8) note (at p. 3.3-12) that the DEIR asserts that the “risk of settlement and differential settlement in the project are is low”: we point out that Yolo County’s research has disclosed that the Cache Creek levees in the immediate area have settled: it is not an irrelevant problem.

N1-30

N1-31

We also comment on the concern and extent of effort that is devoted to protecting the urban area of Woodland (see, p3.3-20) and contrast that to the lack of concern for the maintenance of Cache Creek levees that are the only protection for the institutionalized floodplain created on the wet side of the new levee.

N1-32

Environmental Setting

It is of interest to note that the project plans include a 300’ buffer around the temporary construction footprint, staging areas and permanent levee for the Proposed Project, to ensure Tim Busch, Principal Utilities Civil Engineer

N1-33

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protection of the environment, but the City gave written notice of the project only to property owners within 100' of the project "footprint". (P 3.4-8; See emails from Tim Busch to YCFB.) | N1-33
 cont.

Environmental concerns with reference to species of flora and fauna, and the habitat necessary for their continued successful existence consume many detailed pages of the DEIR. (PP3.4-8 to 3.4-53) Great concern is shown to them: we express our concern that no remotely equivalent measure of concern is shown to the farmers and ranchers, and their families, who live or farm/ranch in the impacted area, much less the continued viability of their farming operations. | N1-34

3.5 Land Use and Planning

The DEIR comments on the County's interest in "protect[ing] the county's agricultural and open space resources", to "Preserve farm land and expand opportunities for related business and infrastructure to ensure a strong local agricultural economy" and "Preserve and defend agriculture as fundamental to the identity of Yolo County". General Plan & Agricultural Preservation Goals: (see p 3.5-1&2) Additionally, the Agricultural Preservation Polices prohibit conversion of agricultural land to uses that would have a significant adverse effect on neighboring agriculture. Clearly, construction of the Proposed Project will have a demonstrated adverse impact on the surrounding land – in fact, some 6,000 acres, since it will have been for all time put in a bypass/floodplain and thus devalued: its use for agricultural purposes, including financing, has been reduced. Committed long time agriculture lenders who know our area have advised everyone that this land has been marginalized for agricultural purposes. (See, letters from Agricultural Lending Institutions: copies furnished to COW) | N1-35

The City focuses on – only – the City of Woodland. Interestingly, the "Development Policies" cited in the DEIR refer specifically to certain projects in the floodplain as follows:
 POLICY 2.B.2: Development in the Floodplain. No specific plan for SP-1, SP-2 or SP-3 may be processed until the designs for projects to provide necessary 200 year flood protection have been approved and the funding for construction has been secured. Any contemplated sale of the City's 900 acre property within SP-2 will require a four-fifths (4/5th) vote of the City Council. | N1-36

YCFB would like to know if the developers connected to these low lying parcels of ground are the driving force behind the push for the Proposed Project – which is a defined structure that potentially can be certified as providing 200 year protection even though it is clearly in violation of the Measure S predicated Ordinance 8.12.010 Flood control Policy as follows: It shall be the policy of the City to encourage a regional flood control project. Therefore, the City shall not fund or take any action that supports the Lower Cache Creek flood barrier (flood wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure." | N1-37

The COW at this point in time has spent substantial sums of money studying 2 projects that are substantially similar to the 2003 Flood Wall: the Proposed Project and the alternative, 2C both of which are built around the concept of a levee to hold back flood flows. (We do note that 2C is the less intrusive alternative from the standpoint of holding water onto the land to the north) Minimal amounts of City money has been spent on what we term more holistic and piecemeal concepts that are not primarily predicated on "a levee" which essentially converts a flood plain into a permanent bypass; thus devaluing and marginalizing the property of others. We | N1-37

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comment that if the City were to construct in the COW a similar project creating similar negative consequences on neighboring properties, it would be a clear violation of its own Policy 8.B.7, which governs construction that impacts flooding by builders and developers within the City of Woodland (p.3.5-1)

N1-37
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3.5.2 Environmental Impacts

Thresholds of Significance include “Physical division of an established community” and “Conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.” (DEIR, p. 3.5-5) The project would be deemed to have a significant environmental effect if it would result in either of the above.

N1-38

The DEIR argues that since the east-west Proposed Project Flood Wall 2 levee would generally follow the City’s urban limit line, and would be typically but not entirely north of the current City Limits, that most of the population lives within the current Urban Limit line, that the levee would convert agricultural land to project purposes, and thus there is no physical division of an established community. (p. 3.5-5-6)

3.5.2.3 Physical division of an established community

We comment that this is a desperate argument that defies the facts, reason and logic. First, we note that is a massive physical structure that, by definition, is going to literally divide this community. There are 5 north-south roads that will either cross over or go through the levee that connect the north area of Woodland to its urbanized business and residential districts, schools and churches. If/when there is significant flooding from Cache Creek, the north side of this levee will be flooded and cars/traffic will not be able to get through. Woodlanders who live or work north of the levee will not be able to get back and forth. North area Woodlanders will not be able to get into Woodland for basic supplies or services, including medical, legal, banking, etc. The roads may remain unchanged but they are NOT usable; this ‘non-use’ is part of the project plan, so it defies logic to claim that the Proposed Project does NOT physically divide the community. Additionally, the levee cuts off a portion of the City where the city limits were drawn specifically (north on State Highway 113, to CR 18C) to include a major agricultural chemical supplier, Agriform, presumably to enable the City to capture extra tax dollars. Thus, contrary to the DEIR statement, there is a portion of the City of Woodland that has been physically severed from the rest of the City by this levee. The DEIS claims “access to the city and travel routes would remain unchanged, therefore preventing a project-related division of the community”. The actual roads may remain in place, but the Proposed Project will flood them and make them impassible. This is especially a concern in light of the minority community of Knights Landing: almost all of its low income residents use CR 102 to access Woodland and return: Knights Landing has no banking, no medical, and almost no shopping. The schools used by Knights Landing children are typically in Woodland; the one school in Knights Landing is a public charter school attended also by children who live in Woodland. The DEIR NEVER fully discusses the fact that these roads, especially CR 102, could be shut down, stopping access between Woodland and Knights Landing for weeks at a time. The DEIR attempts to skirt the issue by stating “during significant flooding the [Project] barriers would temporarily prohibit access and the roads would already be closed due to flooding” – However, they do not state that this

N1-39

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flooding is caused by that same project! The same concerns apply to the residents of Yolo, also a low income minority community. They also need access to Woodland: their access will be severed by project induced floods on CR 98 and I-5.

N1-39
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We also comment that the voters who live within the City Limits of Woodland spoke in 2004: Woodland, including the agricultural area north of the City, is considered to be one community. The voters chose to turn down a project that would sever their community in the same exact way this one will- if it is ever built. They, instead, opted to support a "Regional Project" that has not yet been brought to them for consideration.

N1-40

Impact LU-2: Conflict with land use plans, policies and regulations (p 3.5-6)

In a series of conclusive statements the DEIR claims that the county wide general plan would support the conversion of agricultural land to a flood control project: we enumerate them as follows: "The Proposed Project is consistent with the goals and policies of the Health and Safety Element of the 2030 Countywide General Plan... because the Proposed Project would protect the public and reduce damage to property from flood hazards by minimizing the negative effects of natural disasters, such as flooding." Instead, as we have noted above, the Proposed Project would worsen potential flooding on the wet side of the levee by create ponding, putting crops at risk, eliminating the possibility of permanent crops, putting chemical storage, septic systems, livestock etc. at risk, shutting down transportation corridors, etc. all of which will devalue this acreage for agricultural purposes. The DEIR ignores the fact that "some" of the public will be protected at the expense of others who will be put at increased risk as we have outlined. The DEIR then states the Proposed Project would "ensure and enhance the maintenance and integrity of the existing flood control system." As we have noted above, the existing Cache Creek levees have not been maintained up to any standard that kept them at the level of performance demonstrated at time of construction. The Flood Wall 2 levee, which just protects the City of Woodland, will provide the State with an economic reason to let Cache Creek levees continue to deteriorate: it appears there are no commitments to improve the level of maintenance either with or without the new levee, and its construction might justify abandonment of Cache Creek levee protection in favor of City of Woodland project protection. (See, our discussion above at pp. 6-7 of these comments.) Thereafter, the DEIR restates that any increase in flood depths in the area on the wet side of the levee is "less than significant" in light of the "non-structural" measures (such as 10 years of flood insurance...). This statement is followed by the unsupported assertion that there would "generally" be a reduction in flood depths for areas that currently would expect to experience flooding in a 100-200 year flood event. That is a difficult statement to accept at face value since under current conditions – the water would sheet flow, southeast - at less than dangerous depths. We again admonish the decision makers that this project, by identifying the north Woodland area farmland as appropriate for flooding, transfers value from "out of city areas" to "in city areas", and, apparently, the COW continues to take the position that it will not compensate the north Woodland farmers and ranchers for their obvious and tangible financial loss (other than specific areas for which the State will require flood easements).

N1-41

N1-42

N1-43

N1-44

The above discussion also points out the errors in the next paragraph. The DEIR asserts that the Proposed Project would not conflict with agricultural preservation goals, nor would it conflict

N1-45

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with goals the County has to encourage more agriculturally related businesses and necessary related agricultural infrastructure. The valuation of the land that this project places in this new institutionalized floodplain will be diminished in the eyes of agricultural lenders. Its reduced value will support less debt – both for operating loans and development loans. The farmer may find the land will not support the costs of improving his water infrastructure or replacing permanent crops. The COW has consistently declined to accept that reality. It must come to grips with its real local costs before it proceeds to authorize and seek funding for this project. If it chooses to move ahead with its Proposed Project even though its choice will damage and devalue the north part of its community, it must put those diminished values on the side of its Proposed Project ledger marked “Payables”. Real estate costs are borne by the local sponsor – in this case, the COW.

N1-45
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City of Woodland General Plan and Municipal Code (p 3-7-8)

At risk of redundancy we again repeat that the Proposed Project protects properties in the City of Woodland only: the goal for which the COW advocates will benefit out of area landowners who bought low lying land -known to flood – cheaply – and now expect local families who in some cases have farmed in Yolo County for generations to take a substantial loss in the value of their farmland.

N1-46

The DEIR next attempts to differentiate the 2003 floodwall project from the Proposed Project. It notes on page 3.5-8 that some of the “improvements” between this project and the 2003 Flood Wall are “changes in alignment”. We (Nancy Lea, past YCFB president who serves on the Flood Control Advisory Committee) have requested details of the alignment differential for several years and no information has been forthcoming. We have been advised that the focus of the professional staff is to protect the City of Woodland from flooding (see, email from Lynn Johnson to Nancy Lea dated January 16, 2020) thus, apparently, no time is available to provide that information. The DEIR concedes that the approximately 6,000 acres north of Woodland has been transformed into a “bypass” (P.3.5-8) but, basically, that was also the function of the 2003 project: to divert flows that would otherwise go into the COW and direct them east, where they would be drained into the CCSB and then into the Sacramento Bypass. The DEIR uses comments by engineer Ric Reinhart to attempt to differentiate the 2019 project from the 2003 project: suffice it to say that both projects have waterside drainage channels, culverts (See, 2003 Draft Feasibility Report at p 6-11), changes in elevation of CCSB west levee to improve drainage from the flooded area into the CCSB, the COW’s pump stations would be used by both the 2003 and the 2019 projects to remove water from the east end of the institutionalized floodplain. (See, 2003 documents at 6-11-13) There are two new items that are added to the “mix”: a detention basin at the southeast corner immediately adjacent, which will hold water until it is pumped out, and, “Documentation that the existing Cache Creek levee will remain part of the Federal Flood Control Project, and a commitment by the City to advocate for continued state funding to maintain the existing Cache Creek levee.” (p.3.5-8) Considering that these levees have settled and lost significant conveyance capacity this seems to be a rather meaningless promise: the farmers and ranchers in the “wet side 6,000 acres apparently have to look forward to even more continued flow impairment and levee degradation –there is no commitment at all to improve or restore. (See, eg. Pp 6-7 above). Mr. Reinhart also comments that “changes in the alignment” of the levee is a primary difference in the performance of the

N1-47

N1-48

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2019 project vs. the 2003 project. Mr. Reinhardt’s comments strongly suggest that some documents or graphics exist by which the alignments can be compared. We requested them numerous times only to be told that they do not exist and time would not be spent to generate them. The COW again has failed to be candid with this organization or the farmers and ranchers that we represent.

N1-48
 cont.

At pp. 3.5-8, the DEIR claims that the current Proposed Project creates significantly different effects on the 6,000 acres since lower water elevations and reduced duration of flooding are achieved. In the context of farmland this is a distinction without a difference: it has had its value diminished as we have commented elsewhere: (see, agricultural lender letters) The DEIR again suggests that the Proposed Project is different because it includes the raising or flood-proofing of structures, the 10 year subsidization of flood insurance for existing structures and flowage easements, no residences would be subject to flood risk (per: comments: Ric Reinhart – see DEIR at page 3.5-8) Mr. Reinhardt’s comments are simply not true. This same set of options (other than, perhaps, a ten year subsidization of flood insurance) appears as part of the project in 2003. (See, 2003 DEIR at pp 6-13-15.)

N1-49

N1-50

The DEIR claims that since the Proposed Project is consistent with land use plans of both the City and the County the effect of the Proposed Project would be less than significant. We believe that installation of this massive project is inconsistent with the County’s Land Use Goals and Policies. We again remind the Proposed Project proponents that this project devalues 6,000 acres of land by the City’s admitted act of placing it into a bypass. This act created negative financial implications for farmers and ranchers that we have repeatedly pointed out, that are confirmed by agricultural lenders in institutions upon which our members rely on for credit to sustain and improve their operations. The Proposed Project reduces the value of their equity, thus it will be more difficult for them to obtain loans at the same favorable rates and terms that were available to them before their lands were placed on the wet side of the Proposed Project levee.

N1-51

Agricultural and Forestry Resources (P 3.6 et seq)

N1-52

Yolo County Goal AG-1: Preservation of Agriculture. Preserve and defend agriculture as fundamental to the identity of Yolo County
 Policy AG-1.14: Preserve agricultural lands using a variety of programs . . .
 Policy AG-1.18. When undertaking improvement of public roadway and drainage facilities consult with adjoining farmland owners and incorporate designs that minimize impact on agriculture.

Yolo County Zoning Code, Title 8, Chapter 2

Section 8-2.301 (Purpose)

The purpose of the agricultural zones is to provide for land uses that support and enhance agriculture in the unincorporated area of Yolo County. These uses must be ‘compatible with agriculture . . .’
 (P 3.6-4)

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As we have commented above (P. 13-14) the act of placing 6,000 prime farmland acres into a bypass does not “preserve and protect agriculture and does not “support and enhance it”. Placing that land on the “wet side” of a levee devalues it for finance purposes, exposes farming and ranch activities on that land to increased risk, and by definition is “not compatible” with those agricultural activities. By the language of the Yolo County code sections cited above the Proposed Project is contrary to Yolo County policies.

N1-52
 cont.

Agricultural Conservation and Mitigation Program (P3.65)

N1-53

This section spells out the County of Yolo’s attempt to protect prime farmland from conversion to urban uses: It requires that for every acre of prime land converted to an urban use, the developer must “preserve” through a mitigation easement 3 acres of farmland for every acre converted, which must be within 2 miles of the sphere of influence” of a City. All of the land in the 6,000 acres north of Woodland is within 2 miles of the sphere of influence of Woodland. Thus, all of it is in a category whereby its owners may want to take advantage of this option and sell a mitigation easement – and still farm their land. Despite the fact that much of this land is in a floodplain it is still prime. Most of the agricultural land around the COW is prime farmland, and it too is in a floodplain. YCFB asserts that the ability to sell a mitigation easement is an asset that belongs to each landowner in the 6,000 acres: a fundamental question that the proponents of the Proposed Project must recognize is that the landowners must be compensated for this loss of value if the land is placed on the wet side of a levee, and thus becomes part of an “institutionalized” floodplain, which act is done to benefit other landowners. This value is a cost of the Proposed Project and the landowners, our members, expect full compensation for it.

City of Woodland relevant goals: (P. 3.6-6)

N1-54

Goal 7.C. Preserve Farmland. Promote preservation and economic viability of agricultural land surrounding the Urban Limit Line.
 We comment that the Proposed Project is in direct violation of this “goal” – in fact, it makes a mockery of it. The policy makers at the COW know that this project devalues and puts at risk 6,000 acres immediately north of town. This COW pursuit of Flood Wall 2, when there are other regional flood solutions that were not examined to any meaningful extent, makes a travesty of “Goal 7.C. and also belies the term that the COW likes to use to describe itself: “The City of Agriculture”.

Methods for Analysis (3.6.2.1)

N1-55

LESA Analysis (Land Evaluation and Site Analysis) (P. 3.6-8)
 The DEIR states that the US Department of Agriculture, the Natural Resources Conservation Service and the USACE prepared an analysis of the Proposed Project by applying this model. A total was reached of “64” out of a possible 100 for the value of farmland to be converted, and the site assessment was “79” out of a possible 160 with a total score of 143 out of 160, thereby rendering further analysis as to whether (or not) the land use should be converted from agriculture “unnecessary”. A complete analysis was not furnished. After careful examination of the DEIR we found, buried in the Appendix (Appendix D), an unexplained collection of numbers totaling the “summation” numbers we note above. We believe that the back up analysis,

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apparently provided by various federal agencies and NRCS, should have been included for our review. California Farm Bureau Federation (CFBF) represents farmers and ranchers before regulatory agencies constantly and this is such an instance. We believe that this analysis should be provided especially since the DEIR notes that this paragraph is included for the purpose of "public disclosure". What has been disclosed in this DEIR is unnecessarily abbreviated thereby limiting our ability for address this issue.

N1-55
 cont.

Impact AG-3 Other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use.

N1-56

As we keep repeating in these comments, loss or limitation of the ability to do agricultural financing because the 6,000 acres has been placed in a bypass, to advantage land in or adjacent to the COW, is a negative to the continuation of this land in agriculture –certainly permanent – high dollar value –crops. This is a premium that cannot be taken from this land without fair compensation. (P. 3.6-10)

City of Woodland: Impact Analysis: Greenhouse Gas Emissions (P3.8-13)

N1-57

We again note that the COW appears to intend to construct its Proposed Project with one of its apparent "Greenhouse" goals in mind: "Increased Mass Transit Use, Walking, and Bicycling". Use of this project for this purpose will lead to more costs and less predictability for neighboring farmers.

This levee would be constructed adjacent to farmland. Farmers cannot farm with nearby or adjacent recreating individuals. It limits their ability to use pesticides and do other agricultural activities that may be considered nuisances by an urban public. It may pose the necessity for the farmer to basically lose the use of part of his ground due to the possibility of required spray buffers. Production from their entire acreage could be damaged by the inability to treat one part of it. Farmers and ranchers are not governed by time clocks or calendars: their activities are controlled by the seasons and the weather. Basically, inviting outsiders into an agricultural area also subjects farmers and ranchers to increased risk of trespass and potential liability. Introduction of people not connected to agriculture can lead to the inability to economically farm, thus resulting in loss of agricultural land.

Public Involvement: (P. 3.8-14)

N1-58

We comment that in flood wall 1 (2000-2004) the COW did not inform the owners, ranchers, farmers and residents north of the levee. We note that in this "chart" it is noted that "Citizen-Led Outreach is not applicable to the Proposed Project. We comment, again, that the COW did NOT notify anyone out in the 6,000 acres unless they were on the Citizens Flood Wall Control Advisory Committee, had contacted the City and asked to be put on the email list or own land within 100 feet of the project "footprint". In contrast, the COW notified, by certified mail, all the landowners on the "dry" side of the project presumably because they would be expected to support it. Failure to notify all of the farmers, ranchers and residents who own land in the 6,000 acre area which will be placed on the wet side of the levee is an obvious attempt to limit public knowledge and resulting opposition to the Proposed Project.

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Flood Control: (P. 3.10-11)

N1-59

The DEIR comments that early mining practices (1860's-1870's) exacerbated the silt build up in California rivers which set a stage for serious flooding: we note that nothing has changed: Cache Creek levees were constructed in the late 1950's –and the creek thereafter was allowed to fill with sediment and invasive species of botanical growth. The focus should always have been on maintaining the conveyance capacity of the Cache Creek levees.

Impact Analysis: Transportation (P. 3.12-14)

N1-60

The DEIR notes that State Highway 113 will be shut down between Churchill Downs Avenue and CR 18C for as much as 3 months during construction of the Proposed Project. The DEIR suggests a detour from State Highway 113 over to Interstate 5 using Coil Lane/CR 99E and CR 18. Note: The DEIR does NOT mention CR 99D in its road description although it is a necessary part of its chosen route). The DEIR wants to ensure “connectivity for transit, people walking, and people bicycling”.

We know that this route is very substandard as to width and as to condition of paving/shoulders. It has blind 90 degree turns connecting 18C and 99E. A young walnut orchard, at the intersection of Coil Lane and 99E, will have grown up creating another blind 90 degree turn. This route is also the major haul route for agricultural trucking for all types of crops and produce raised in Yolo County. CALTRANS estimates that currently 950 vehicles use this road daily. In the summer the traffic is much higher since crops and farm equipment are being transported. There is no way that an additional load of 3600 vehicles could be safely added to this daily load.

This additional vehicle load would make an already dangerous road deadly. In the event that the Proposed Project is constructed an alternative detour route would have to be chosen and used.

Impacts: Emergency Access: (3.12-16)

N1-61

The DEIR notes that the Proposed Project would result in some road closures caused by flooding (and the utilization of the closure structure) installed at CR 102. We note that typically CR 102 does not close during existing pre-project flood events. The DEIR claims that there would be fewer access restrictions under post project conditions because roads south of the levee would be usable; however, we note that project induced flooding north of the levee, on I-5, CR 98, State Highway 113 and CR 102 would shut down north-south access from and to the 6,000 acre institutionalized floodplain. In pre-project conditions the Cache Creek floodwaters would move south in a harmless sheet flow.

Environmental Setting: (P.3.13-3)

N1-62

Fire Protection: the DEIR claims that the project area is served by the Woodland Fire Department. To our knowledge, most of the landowners and residents in the 6000 acres are served by the Yolo Volunteer Fire Department. Some are served by the Willow Oak Fire Protection District.

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Law Enforcement: The DEIR asserts that the project area is served by the COW Police Department: The County Area is served by the Yolo County Sheriff's Department. These fundamental errors reveal failures of basic research and understanding which occur throughout the document.

N1-63

Thresholds of Significance (3.13.2.2)

N1-64

At p. 3.13-7 the DEIR states that "There are no community facilities within the project area . . ." We note that is not a correct statement. Nelson's Grove is located on CR 99E just north of Coil Lane. It is a community park, with some improvements including bathrooms, covered areas and parking, which is owned and governed by a non profit board, and is used by members of the community for events.

Impact Analysis: (p. 3.14-9)

N1-65

Description of Project in context of State or Local renewable energy plans:

This is another example of the DEIR making the comment that the Proposed Project is a flood control project intended to protect existing land uses and people from flood risks in the project area,

We repeat: that is not a correct statement. It protects some land and people in the project area, and puts other land and people in the project area at increased flood risk.

Yolo County General Plan (P. 3.15-2)

N1-66

The DEIR sets out one of the County policies as follows:
 Policy CC-1.2: Preserve and enhance the rural landscape as an important scenic feature of the County.

We note: there are views of the beautiful rural landscape north of Woodland from the moment the City is in the "rear view mirror": this Proposed Project, if built, will be an unattractive intruder into the viewscape.

Cache Creek Area Plan and Cache Creek Parkway Plan (p. 3.15-2)

N1-67

The DEIR states that the Cache Creek Area Plan consists of the Off-Channel Mining Plan (OCMP) and the Cache Creek Resources Management Plan (CCRMP) which are supposed to "regulate and protect the area and manage the creek as an integrated system, primarily for mining resource management, creek stabilization and restoration, **maintaining flood capacity** and providing recreational opportunities" .

We comment that the plan, with reference to "maintaining flood capacity" did not work out too well--.

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Viewer Groups and Responses (P. 3.15-8-9)

N1-68

The DEIR comments on the "fact" that Viewer groups "could have views of floodwaters depending on their exact location and the flooding in 1958, 1983 and 1995. On the following page the DEIR states: "All travelers also could see flood waters in middle and foreground throughout the study area."

We comment that YCFB has been on West Kentucky Avenue in north Woodland for over 50 years: we would never single out flood waters as any type of view that we expect to see. We have members who live in the "project area": they deem this to be an overreach and thus inaccurate.

Aesthetics: (P. 3.15.12-13)

N1-69

The DEIR describes the Proposed Project levee as ranging from 6 feet tall at CR 98 and 14 feet tall at its intersection with the west levee of the CCSB. Channels would be constructed on both sides. Some areas on the "wet" side would have rock slope protection (riprap). With the Proposed Project in use, and floodwaters impounded, water depth could approach 13 feet at the east end of the 6,000 acres. Native trees and plants, or commercial crops, would be removed within the entire footprint of the project. There is no doubt but that the view will be altered and the structure would replace the sweeping agricultural view that now exists.

We comment that the levee will not enhance the landscape and the current view shed when approached from either north or south for the entire length (6 miles) of the structure. It will be an eyesore and its presence will lower property values on the wet side, but will also negatively impact them on the dry side.

Reference to use of Proposed Project levee for recreation (P. 3.16.5)

N1-70

We comment that the levee, if the Proposed Project is built, must not be accessible to the general public for recreation. See, our discussions above at p 5,17). Access must be fenced, gated and locked off.

We also note that the DEIR agrees with us: "under existing conditions, the type of catastrophic flooding that would cause flooding of . . . [parks in the COW proper] is uncommon. As described in Section 3.1, Hydrology, although Cache Creek has historically overflowed its current levee, Woodland itself has not experienced flooding other than during 1983, when a levee failure near County Road 102 (caused by a gas line) caused flooding in [what is now] the industrial area of Woodland.

N1-71

We state again: this proposed project, if built, brings with it high costs and future liability issues that will have to be paid by the COW and its taxpayers. The citizens of the COW overwhelmingly turned down a similar and much cheaper project in 2004. If the City proceeds with this project it will saddle its citizens with future tax liabilities, all to enable out-of-area developers, who knowingly purchased low lying lands, to make millions.

N1-72

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Impacts and Mitigation Measures Impact POP-2: Substantial displacement of people or housing (P.3.17-3)

N1-73

The DEIR concedes that the Proposed Project would increase flooding north of the floodwall. However it alleges that flooding events “are expected to be temporary and very infrequent...and again points to its much vaunted “suite” of options for residents on the wet side of the levee.

We direct you to our comments on page 8: they are equally applicable here. We do add that the DEIR includes the comment that the displacement and inconvenience to residents north of the levee would be “less than significant.” We believe that to the residents who live north of the wall and are put at greater risk of loss - the impact of the Proposed Project is very significant. The environmental documents disclose that their input was not sought (see comments, P. 15) which may explain why the DEIR discards the significance of the Proposed Project on them.

Hazards, Hazardous Material and Wildfires (P.3.18)

N1-74

The DEIR contains a general discussion of mosquito and vector control in the area of the project. We note that there does not appear to be a discussion that recognizes the danger posed by large ponds of water adjacent to an urban area. Local newspapers have carried information about a new variety of mosquito that has been rapidly spreading throughout California, the *Aedes adgypti*, which can carry Yellow Fever, Zika, dengue and chikungunya. Woodland hosts mosquitos that can carry West Nile Virus, which can be fatal. And, of course, mosquitos in our area carry Western Equine Encephalitis. A multi acre lake of standing water within a quarter mile of town would present a host of problems for mosquito management. Contrary to popular belief –and statements in the DEIR at P3.18-12- very heavy rains have occurred in our area late in the rain season, April and May, when temperatures have warmed to the mosquito survival stage, setting up the possibility of mosquito borne illness. Contrary to the damage caused by the floodwaters, mosquitos would not limit their depredations to those living on the wet side: Woodlanders on the dry side would also be in easy range. One only has to look at the mosquitos that have moved into uncared for swimming pools during the Covid -19 pandemic: The expensive Spanish resort area of Ibiza has been taken over by Asian mosquitos attracted by uncared for hotel and resort swimming pools, displacing local, less dangerous mosquitos.

Environmental Setting (P.3.18.1.2)

Hazardous Materials Sites in the Project Area:

N1-75

The DEIR states that two Environmental Site Assessments were performed in the general project area, one for the 2000-2003 proposed project. No specifics are provided about the environmentally risky sites that may have been found. Government data bases were reviewed: several sites were noted: Agriform (pesticide release into the soil), Western Wood Treating (soil contamination of chromium and arsenic) and the CCSB (Mercury). The DEIR also notes that

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agricultural soil will have evidence of pesticides and other agricultural chemicals. Also, some attention is given to contamination from railroads and lead based paint/asbestos in buildings that may be demolished as part of the project.

N1-75
 cont.

We note that Yolo County formerly allowed injection wells used to pump dangerous chemicals into the ground. One of these wells, we believe, may have been near the site where the Proposed Project crosses CR 98 onto land lying to the West. Has that site been located and hazards assessed? That site must be located, studies made and environmental consequences evaluated before any Proposed Project in that area is allowed to proceed.

Ability to Meet Project Objectives (P4-2)

We note that the COW carefully separates its goals from the study goals when this project was started: the study was intended to look at flood control options for the City of Woodland, the Town of Yolo and surrounding agricultural areas in the County. (See, Feasibility Report, p. ES-3). In the DEIR, this purpose has been converted to providing flood protection for the COW and sacrificing the north area of Woodland for that goal. (DEIR P 4-2)
 With reference to the north area, the City focuses on protecting existing residences (as it did in the 2003 flood wall project): it ignores the loss of value to that agricultural land and attempts to pretend that the valuation issue does not exist.

N1-76

Significant and unavoidable Impacts: With reference to interruptions in transportation, the DEIR does not address the long term shut downs of CR 102, and the major difficulties imposed on the minority community of Knights Landing by that closure. It also ignores the impact on the Town of Yolo (also a minority community) caused by the shutdown of Interstate 5 and County Road 98 north of the Proposed Project. (P. 4-2)

N1-77

It also does not include physically (and psychologically) severing a community we discussed above (our comments p. 12)

N1-78

Alternatives Analysis: (p. 4-5)

Our comments above at p. 3 point out that 2C, the alternative project, along with the proposed project, do not meet the objectives that were to provide flood protection for both banks of Cache Creek and the Town of Yolo. Thus, we believe that alternative 6B should have been selected as the alternative project.

N1-79

Alternative Description

The description of the "No Project" alternative spells out the acknowledged and expected failure of responsible governmental authorities to perform their jobs. It "assumes that current conditions and operation and maintenance practices would continue into the foreseeable future. [Thus] no additional work would be performed to address overtopping, seepage or levee stability concerns along Lower Cache Creek." This descriptive statement shows that the current O & M standards for Cache Creek levees are grossly inadequate and thus, obviously the risk of flooding has increased. On a side note, we question, in light of this demonstrated maintenance

N1-80

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<p>history, why would any rational person assume that if the Proposed Project is constructed, any additional effort will be expended on the Cache Creek levees to protect property and people in the floodplain north of Woodland's Proposed Project levee? The DEIR states that flood risk is increasing and residents of the COW could experience flood-related loss of life: as we point out earlier in our comments (at pp 1-2) this project actually increases the risk of loss of life from flooding in the COW. The "no project" alternative discussion also focuses on contamination from sewage and hazardous materials, and difficulties of COW citizens in a flood evacuation: we note again that the Proposed Project puts all of these risks of harm on residents north of the project levee. The expectation of annual damage is here described as \$22M annually: again, these numbers are completely made up since there has never been a history of flooding. We also note that this part of the documents uses \$22M: since the DEIR typically uses the \$12M as the "annual number", we assume the \$22M refers to "annual damages to real property" throughout the entire Cache Creek flood plain.</p>	<p>N1-80 cont.</p>
<p>Hydrology (P. 4-6) The DEIR again refers to subsidence as an issue that may cause existing levees to incise and settle: we discussed this earlier (at p. 7); subsidence is not an issue in this area.</p>	<p>N1-81</p> <p>N1-82</p>
<p>Water Quality (P. 4-6) The DEIR states that under the "no project" alternative the Cache Creek Settling Basin southern and southwest levees could fail causing water quality problems: if the Proposed Project is built those levees will be improved. We respond that responsible public agencies have a duty to maintain the Settling Basin levees separate and apart from construction of the COW Proposed Project.</p>	<p>N1-83</p> <p>N1-84</p>
<p>Land Use and Planning (P. 4-8-9) The DEIR states that "not implementing the proposed project would be inconsistent with the goals and policies of the County of Yolo's and City of Woodland's general plans aimed at reducing the local flood hazard." We believe that since this Proposed Project almost literally leaves portions of the County "out in the rain", building this Proposed Project is contrary to County policies and planning. As we have pointed out numerous times above, this project damages agriculture and since we have to assume based on all of the relevant history that the levees will be maintained at the same inadequate level, the area north of Woodland will be placed at increased risk.</p>	<p>N1-85</p>
<p>Air Quality (P. 4-9) The DEIR again hypothesizes, under the "no project" alternative, the dangerous flooding that will require energy consuming flood fights: the description is as follows: "Depending on the magnitude of the flood, flood fighting could last for weeks or even months." (see, similar statements in the DEIR at p 4-9-11) We believe that this statement demonstrates either hyperbole or gross ignorance of the Cache Creek watershed. Thus, it can be ignored.</p>	<p>N1-86</p>
<p>Energy (p 4-13) The DEIR makes one correct statement at p. 4-13 as follows: "Because the nature of flooding events are speculative and unpredictable, it is not possible to make a precise impact determination. Generally, however, these flood response efforts would result in a greater magnitude impact than under the Proposed Project, which would prevent the need for extended flood fighting activities and rebuilding the project area."</p>	<p>N1-87</p>

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Since the DEIR admits that we are dealing in the region of speculation, we should also ignore the annual damage estimates (\$12M, or \$22M) that are thrown about so freely. Also, we note that the USACE draft DEIS stated that flooding of Woodland in the ABSENCE of the project would result in sheet flooding, leaving minimal damage to property and people. (See, our comments above at pp 1-2)

N1-87
 cont.

Population and Housing (P 4-14) Again we read that without the Proposed Project "Woodland would remain at high risk for severe flooding". We have repeatedly addressed that statement, including in the paragraph immediately above.

N1-88

The DEIR applied its "screening criteria" to the "No Project" alternative (P. 4-15) as follows; Does not meet primary goal of meeting Urban area of protection and FEMA 100 year flood plain.

N1-89

We note that the "no project" alternative is on a completely different ethical plane: it does not use public money to choose Winners (owners of low lying land in east Woodland) and Losers (those north of the project levee who are placed at greater personal and economic risk and have their agricultural land devalued.) It does not separate what had been, since the 1870's, one community into two. It does not place Hispanic communities at greater risk by cutting off their access to almost all public and private agencies and commercial/medical /financial services, including schools. The Goal of the COW should be to achieve that same "ethical plane" by directing its efforts to recognize the will of its voters, and put the same zeal, city money and commitment into a Regional Flood Control solution.

With reference to "Impact Avoidance" the DEIR comments that "under the No Project Alternative, a major flood event that resulted in overtopping or failure of the Cache Creek levees would cause impacts that would be more widespread than under the Proposed Project and would result in greater impacts related to erosion and siltation, flood hazards, water quality, roadway hazards and emergency access. Obviously, the Proposed Project proponents do not realize how calculating and mendacious they appear to be: We note that all of these concerns will be visited on the 6,000 acres on the wet side of the levee, with absolutely no concern on the part of the COW, since the City took advantage of the north floodplain by essentially condemning it, claiming that they do not have to pay compensation, in order to protect themselves and their out of area developers.

N1-90

Alternative 2C (P. 4-15 et seq.)

Alternative 2C consists of another east west levee running along the urbanized north edge of Woodland along the same alignment as the Proposed Project. However, its westerly terminus is at CR 98. At State Highway 113, it has, on its waterside, a 550 foot wide, 5 foot deep drainage channel to convey flows coming into the 6,000 acres from Cache Creek all the way to the Yolo Bypass. Thus, as it approaches the southwest corner of the CCSB it wraps around the southwest and south sides, and drains the collected water into the bypass. Levees are lower since no water will be "held" in the 6,000 acres. There would be no changes to the CCSB. 5 closure structures would be built: the I-5/RR overpass crossing, State Highway 113, and 3 railroad crossings. (see, Table 4-1 at P 4-16). There are fewer areas of ponding since the

N1-91

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floodwaters are being conveyed out of the area, and thus, there is less impact to land north of the levee. However, certain areas have increased depths of ponding especially the area immediately north of I-5 that is basically used to change the direction of the flow from north to east at the I-5/SNRR overpass. (p. 4-20-22)

N1-91
 cont.

We could find no discussion about the differences Alternative 2C would create in Cache Creek right bank flood flows that are west of the west terminus of Flood Wall 2. The explanation for this was provided in the City DEIR ZOOM meeting on 7/28/20; No time or money was spent on 2C since 2015.

We have carefully reviewed the document and believe, although it is not stated, that although major north south roads would be shut down during the storm event, as soon as the floodwaters were drained north of the levee, they would be opened again. All agree that the land north of the levee would be drained much more quickly with Alternative 2C than with the Proposed Project. We would not see the long term shut down and isolation of minority communities. However, since the levee is a visual and structural edifice separating north Woodland from the COW, we would continue to have the significant impact of physical severance of an existing community. Obviously, certain areas of the 6,000 acres would still be off limits for permanent crops, etc. so would have obvious devaluation. And, to the extent that the land north of the 2C Floodwall is perceived by lenders and buyers as a hardened floodplain and bypass, the 6,000 acres would still be devalued for agricultural purposes.

N1-92

The DEIR concludes that the Proposed Project, Alternative 2A, is environmentally superior to Alternative 2C. (See, P. 4-43) We disagree. The authors of the DEIR do not value agriculture or farming, so discard the obvious greater impact of 2A on it. Successful continuation of agriculture on 6,000 acres of prime Yolo County land is an environmental issue also that we believe is more significant than the negatives the authors of the DEIR see in more construction and hauling (which apparently results in more dust, "criteria pollutants, and air quality impacts) (see, discussion at p. 4-43) We acknowledge that there may be issues of methylmercury production in the bypass: but the converse is also true: if the floodwaters carry the mercury, it will be deposited somewhere. Why should it be deposited on the 6,000 acres north of Flood Wall 2? We also believe that the other "environmental" issues singled out by the DEIR can be similarly outbalanced by the value of not marginalizing the existing agricultural use of the 6,000 acres: These are described at P. 4-43 as follows: the more "balanced" earthwork ratio, with the touted smaller footprint, fewer disturbed acres of sensitive land cover type and the conversion of less farmland, GHG emissions, VMT and etc.---. What is ignored is that hundreds of acres of prime farmland can be pressed into service as a sump --and that has environmental impacts that the authors prefer to ignore. The DEIR consistently ignores the reality that placing 6,000 acres on the wet side of a levee devalues it for agricultural purposes.

N1-93

N1-94

N1-95

We review the Alternatives that are discussed in the DEIR. We note that when we compare them with information on alternatives in the Appendix containing reference to possible flood control options, there appear to be "missing pieces". There is no discussion of "combinations of options to get to the desired level of protection. Tellingly, we also note that the proponents of these studies continually ignored the passage of Measure S that directs the COW to encourage a "Regional Solution" to protect more area than just the City of Woodland. We single out some

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of these of special interest, which provide more “holistic approaches to providing flood control to a much larger area of our region, rather than just the COW at the expense of everyone else. | N1-96
 cont.

(A1) Channel clearing would, standing alone, result in a significant improvement in conveyance capacity (from 1 in 10 year chance of flooding to a 1 in 40 year chance.). Apparently, it was discarded because there would be “significant environmental impacts” that would require “costly” mitigation. We note that Yolo County has a Habitat Plan” and we, as a community, should be willing to address environmental mitigation as part of the balance of evaluating and implementing a flood control project. | N1-97

(A2) Raising Existing Levees and Constructing New Levees: What about a combination of raising existing levees along with channel clearing? This is not discussed as an option. (See, Appendix A, Wood Rodgers Alternative Report at p 4). | N1-98

(D5) Upstream Detention/Retention; This alternative involved looking at upstream areas where some detention or retention basins could be constructed. These could control large amounts of water that would otherwise potentially flood all of the downstream communities. Potential sites included Wilson Valley, Bear Creek and Blue Ridge. This option was discarded” because it contained measures that “were [deemed] inefficient and/or ineffective “to achieve the study benefits. We again remind the COW that it is to encourage a “regional solution” and upstream detention/retention could be a significant part of a “combination of strategies” to get to that solution. We again comment that we have seen little evidence that the COW has made any effort to move to a true regional solution. (Ibid. p. 11) | N1-99

(D6) Levee Fix in Place: repairing, strengthening and fixing the levees in place. The right and left Levees east of I-5 would be raised, repaired or strengthened to the northernmost portion of the CCSB; CCSB levees to the Bypass would be repaired and strengthened and new levees would be added upstream from I-5 to prevent overtopping. Why not? This is another regional solution that has basically been ignored. (see, id. at p. 12) | N1-100

We are not endorsing options that take more farmland out of production: we do not support a new system of setback levees at this juncture. However, we comment that limited use of setback levees can be appropriate in certain areas of consistent overtopping, such as areas west of I-5. Limited set back levees can be part of a combination approach to obtain the level of protection that COW wants and not harm or devalue its neighbors in the process. | N1-101

We note that “Strengthen in Place” made it to the final array of options in Alternative 6B. It is described as: Increases the height of the right and left bank levees near Yolo, and improves the right bank levee to the CCSB, as well as improves CCSB levees. Would significantly reduce the risk of flooding to the south of Cache Creek. Includes seepage protection and rock bank protection. (see, id at p. 15) | N1-102
 This option is very summarily discussed at p. 4-47 of the DEIS.
 It was rejected because Alternative A was identified as the likely NED plan. The Army COE also concluded that there would be a significant loss of riparian habitat with extensive mitigation required. We remind the authors of the DEIR and the COW that this is the only project in the final array that meets the Measure S requirement that the flood control project be “Regional”.

Overview: 5.1 (P 5-1) Other CEQA Considerations

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We see little point in going through each and every page of this portion of the documents in light of our lengthy comments on areas of significant interest to the farmers and ranchers in Yolo County.

N1-103

We do note, however, that the City of Woodland appears to have been focusing on other than a regional solution for some period of time as follows: In 2011 the USACE, the COW and the CVFPB “restarted the Lower Cache Creek Feasibility Study (See. Wood Rodgers “Previous Alternatives Analysis, at p10, DEIR Appendix A) In June, 2015, the City of Woodland filed notice of Preparation of a Draft Environmental Report for the “Woodland Flood Risk Management Project.” The project is described as a “levee and a diversion channel along the northern boundary of the City to direct overland flows from the right bank of Cache Creek into a diversion channel to be conveyed to the Yolo Bypass”.

Then, in 2017, Section 8.3 of the general plan . . . Identifies that the City of Woodland and the Central Valley Flood Protection Board are participating with the US Army Corps of Engineers to **identify a flood solution to reduce the city’s risk of flooding** from Cache Creek” (at p. 5-18) (2017) Based on the record we have to assume that the City has always been focused on an east-west levee that holds water on the lands north of Woodland, in clear violation of Measure S.

As we noted above (p 22) we learned at the July 28th meeting that the City had focused on Flood Wall 2 as early as 2015, when study of other options was abandoned. We also had confirmed that the City has been “going it alone” for some long period of time. YCFB and county interaction occurs and on some of those occasions the topic of flood control was mentioned. The County consistently told us that the COW had little or no interest in working with the County, and that the COW appeared focused on its own project. We also found at, at the July 28th meeting, that the COW, in its planning or in its environmental documents, did not consider the impact of Yolo County’s pending “Huff’s Corner” levee reconstruction and in-channel work. The COW has absolutely no information in its environmental documents as to how the improvements will even impact the COW’s flood risk, much less the environmental impacts of the combined projects.

Apparently, the COW has decided that its economic interests justify compromising the values and safety of the north area. It has identified “Opportunity sites” and Planning areas which are dependent on 200 year flood protection for the COW to develop. (See, reference at p p 5. 19—20) We also are aware that the COW is itself a property owner in that targeted vicinity. We believe that the focus on what we perceive as a relatively “quick, dirty and local” flood solution, that penalizes and devalues 6,000 acres of agricultural ground north of the City, rather than the regional plan advocated for by the residents and voters in the COW, is driven by those who own the low lying industrial zoned land to the east that cannot be developed until a 200 year flood solution is approved and funding obtained.

N1-104

Significant Irreversible Environmental Change 5.5

The DEIR must address significant irreversible change that will result from a proposed project.

N1-105

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The CEQA guidelines describe three categories of significant irreversible changes, which include changes in land use that commit future generations to specific uses, irreversible changes from environmental actions and consumption of nonrenewable resources.

N1-105
 cont.

The DEIR states (at p. 5-21): "The Proposed Project would not change land uses and would not commit future generations to specific uses". This is obviously not correct. Clearly, putting 6,000 acres on the wet side of a floodwall commits those landowners, present and future, to having to manage land in a bypass. This is an irreversible change. (see, p. 5-21) Additionally, the DEIR appears to take the position that this project is intended to be consistent with the Central Valley Flood Protection Board guidelines to develop and implement projects that provide an urban level of flood protection. Suffice it to say that there are other projects, accurately described as regional projects, that would also provide the necessary protection to urban areas, and would protect neighbors both in the same floodplain and upstream. (p. 5-22)

N1-106

The DEIR further states: (p. 5-22) "The areas within the sphere of influence have already been identified and designated by Woodland's general plan as it plans for the orderly and reasonable future growth and development of the city. Thus, the existing designated land uses within the city and identified in the general plan would be protected from flooding as a result of the Proposed Project and would only commit future generations to already designated land uses.... The Proposed Project . . . is an infrastructure project to protect the City of Woodland from flooding.

N1-107

More accurately, after looking at the history of this project, it, as in its previous edition, marginalizes 6,000 acres of prime farmland and denies the need to pay compensation for that loss in value with a condescension and arrogance that we believe to be unconscionable. The attitude of the City of Woodland belies any commitment to Yolo County agriculture. The COW is basically stripping value from its north areas and handing that value over to others -- land developers-- to bail them out of projects that are "underwater". These projects were poorly thought out: we note that the developers seeking assistance were not "Woodlanders"; thus-- we know, and they should have known, that the land they bought to develop can flood. We believe that the proposed project is intended to bail out land developers who bought cheap, did not do their due diligence, but want public monies to make themselves whole.

We want to remind the decision makers that, in the early 2000's, our congressional representative, Wally Herger, opposed the basically identical 2000-2004 Flood Wall 1 project. He totally understood its economic consequences: It was a transfer of wealth: it devalued agricultural land to enable development of urban land. It is our hope and expectation that Congressman Garamendi will finally realize the damage that this project would do to Yolo County agriculture, including many of its farm families. His efforts are better spent on a Regional Flood Solution - the concept that Woodland voters overwhelmingly supported in 2004.

N1-108

In conclusion, YCFB will support a regional flood control plan. It will not support a plan that is a charade: a sacrifice of Yolo County agriculture in favor of development interests. If the COW wants to serve its citizens, it would put this plan behind it and work with everyone for a real

N1-109

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regional flood solution. As we discuss above, there are good options available that can be put together to achieve common goals for the entire Study Area.

N1-109
cont.

Very truly yours,

Joe F. Martinez
President

Cc: California Farm Bureau Federation
Congressman John Garamendi
Senator Bill Dodd
Assemblymember Cecilia Aguiar-Curry
USACE, Keleigh Duey
Yolo County Board of Supervisors
Yolo County CEO, Patrick Blacklock

Responses to Letter N1

N1-1

The comment provides estimated costs for construction and maintenance of the Proposed Project. The City will develop a funding plan that includes cost sharing with the state on capital improvements as well as funding to meet the O&M requirements. The comment is not on the adequacy of the CEQA analysis. No further response is warranted.

N1-2

Please see Master Response 1: *Measure S*.

N1-3

Please see Master Response 1: *Measure S* and Master Response 2: *Flood Risk*.

N1-4

Please see Master Response 2: *Flood Risk*. The comment is not on the adequacy of the CEQA analysis. No further response is warranted.

N1-5

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-6

Please see Master Response 1: *Measure S* and Master Response 2: *Flood Risk*.

N1-7

Please see Master Response 2: *Flood Risk*.

N1-8

The conversion of Farmland to non-agricultural use (Impact AG-1) is found to be significant and unavoidable (see Draft EIR, Section 3.6, *Agricultural and Forestry Resources*, Section 3.6.2.3, *Impacts and Mitigation Measures*; also see Figure 3.6-1 and Table 3.6-2 in the Draft EIR). Mitigation for the loss of Farmland is provided in Mitigation Measure AG-1.

N1-9

Please see Master Response 2: *Flood Risk*. The land north of the proposed levee is already located within a floodplain (see Draft EIR Figure 3.1-1, which shows that the land has been designated by FEMA as Zone AE, which means it is subject to inundation from a 100-year flood event). The Proposed Project directs existing flood flows into the CCSB instead of allowing the flood waters to flow through the city.

N1-10

The alignment west of I-5 was based on several considerations. First, the levee needs to cross I-5. It was determined that the existing California Northern underpass was the most efficient way to have the levee cross under I-5. The levee alignment then was selected that minimized impacts on both farmland and existing homes and businesses along the northern limit of the city. The levee was continued to high ground west of County Road 98 to avoid the potential for the levee to be outflanked. If the levee is stopped at County Road 98, it would be outflanked in large flood events, and the levee could not be certified as meeting FEMA 100-year or state 200-year standards. The floodwaters that are coming from Cache Creek intercept the levee including the portion of levee south of County Road 98 and routes the water to the drainage channel northeasterly back into the CCSB. The hydraulic effects of the levee are discussed in Section 3.1, *Hydrology*, of the Draft EIR. Figure 3.1-5 in the Draft EIR shows the localized changes in flood stage west of I-5. These property owners have been notified of the Proposed Project.

N1-11

Please see Master Response 1: *Measure S*, for a comparison of the Proposed Project to the 2003 project and Master Response 2: *Flood Risk*, which provides a discussion on flood risk and roadway access. Implementation of the Proposed Project would not cause road closures that would not already occur under existing conditions. Residents north of the new levee and in Knights Landing would not experience changes in access to Woodland with implementation of the Proposed Project.

N1-12

As discussed for Impact AG-1 in Draft EIR Section 3.6, *Agricultural and Forestry Resources*, approximately 192 acres of Prime Farmland and Unique Farmland combined would be permanently converted to nonagricultural use by implementing the Proposed Project. These 192 acres are approximately 0.05% of the total Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance) in Yolo County as of 2016 (see Table 3.6-1 in the Draft EIR). As indicated in the analysis, this would be a significant and unavoidable impact. If Yolo County determines that the Proposed Project is not exempt from the Agricultural Conservation and Mitigation Program, mitigation would be implemented consistent with this program.

N1-13

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

N1-14

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*. The decisionmakers will consider the commenter's opinion as to what the voters want.

N1-15

The comment is accurate in stating that the Proposed Project, if implemented, will result in physical changes, including installation of a levee and accompanying drainage channel and habitat areas. Each of the impacts of those physical changes and each of the public concerns referenced by the comment is presented and fully analyzed in the Draft EIR. Specifically, physical changes related to

conversion of agricultural land to non-agricultural uses are addressed in Section 3.6, *Agricultural and Forestry Resources*; physical changes related to increased flood risk are addressed in Section 3.1, *Hydrology*; the potential for transport of mercury to the CCSB is addressed in Section 3.2, *Water Quality*; road closures that could affect emergency services and public access are addressed in Section 3.12, *Transportation*; and physical changes related to land use compatibility concerns are addressed in Section 3.5, *Land Use and Planning*.

With regard to possible homeless encampments, increased litter, and trespass, compliance with existing laws would still be expected following construction of the Proposed Project; thus, potential effects from those activities, are speculative. Those are issues that are currently experienced within the city of Woodland and Yolo County in general terms, but they are not unique to or anticipated to increase for any given area or facility. Illegal activities, including trespass, litter, and theft are managed by the City of Woodland Police Department and the Yolo County's Sheriff's Office (see Draft EIR Chapter 3.13, *Public Services, Utilities, and Service Systems*, Section 3.13.1.2). Regarding public access, locked gates would be installed at levee and maintenance road access points to further deter trespass.

N1-16

The Proposed Project's inclusion of replacement habitat is replacing habitat that is already present in the project area. The Proposed Project is not proposing to introduce any habitat types that are not already present under existing conditions. To the extent existing habitats are used by sensitive wildlife species, that condition would not be expected to change with the replacement habitat once that habitat becomes established. As described in Section 3.4, *Biological Resources*, and shown in Table 3.4-1 of the Draft EIR, the approximate amount of acreages in the project footprint (potentially impacted by the Proposed Project and thereby rehabilitated onsite or nearby) is dwarfed by the existing acreages in the study area that would remain intact and available to sensitive wildlife species under existing and future conditions. It is speculative to assume that the replacement habitat would attract potentially sensitive wildlife species that are not already using the existing habitats, which might then result in economic impacts and, in turn, result in environmental impacts.

N1-17

Please see Master Response 2: *Flood Risk* and the response to Comment N1-9. Section ES.6 of the Draft EIR explains that because the properties north of the proposed levee

...are already subject to flooding, and the City does not propose any changes to the Lower Cache Creek levees that would influence the frequency of flood risk from Lower Cache Creek, the Proposed Project would not be the cause of future flooding of these properties. The flood risk would be a continuation of baseline conditions. This EIR analyzes impacts caused by the Proposed Project, which could include an increase in flood depths north of the city; however, this EIR does not analyze impacts associated with continued flood risk north of the city.

N1-18

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-19

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-20

This comment does not describe any inadequacies in the EIR and is not a comment on the adequacy of the CEQA analysis. Under CEQA, "economic or social effects of a project shall not be treated as significant effects on the environment." (State CEQA Guidelines Section 15131(a); see also State CEQA Guidelines Section 15382.) That is, CEQA is not an economic protection statute, and an EIR is not intended to be a liability disclosure document. (*Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885, 903, citing *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 157 Cal.App.4th 1184, 1205 [CEQA is "not a fair competition statutory scheme" and "[t]herefore, the economic and social effects of proposed projects are outside CEQA's purview."].) No changes to the EIR are warranted.

N1-21

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

N1-22

Please see Response to Comment N1-20. The Proposed Project does not result in an increase in the frequency or volume of water leaving Cache Creek and entering the floodplain north of the city. The non-structural measures as presented in the EIR are not the same as what was presented in the 2003 Draft EIR.

N1-23

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-24

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-25

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-26

Please see the response to Comment L1-4 for a discussion of implementation of the non-structural measures. See also Master Response 2: *Flood Risk*. The non-structural measures were developed specifically to support the Proposed Project and to benefit the properties north of the city.

N1-27

Please see Master Response 2: *Flood Risk*.

N1-28

Please see Master Response 1: *Measure S*. Compliance with Measure S (Woodland Municipal Code Policy 8.12.010) is analyzed under Impact LU-2 in the Draft EIR. The Proposed Project is required to comply with all existing laws. Even so, an EIR is not required to list every law with which it must comply.

N1-29

Please see Master Response 1: *Measure S*.

N1-30

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-31

The lowering of land along Cache Creek is caused by subsidence; this is acknowledged and discussed on page 3.3-13 of the Draft EIR under the heading *Subsidence*. The discussion of settlement and differential settlement on page 3.3-12 of the Draft EIR cited in this comment is located within the *Secondary Seismic Hazards* section of the Draft EIR and refers specifically to seismic settlement. Seismic settlement is not the cause of the lowering of land along Lower Cache Creek.

N1-32

Please see Master Response 3: *Maintenance of Existing Flood Management System*. This is not a comment on the adequacy of the CEQA analysis. No further response is warranted.

N1-33

The City sent a Notice of Availability of the Draft EIR via registered mail to all known properties north of the proposed levee to Cache Creek and east of County Road 98. Notice was also sent via registered mail to all property owners within the City's Special Flood Hazard Area. The City then sent follow-up postcards to all of these addresses providing notification of the Draft EIR public meeting, which was held on July 28, 2020 in a virtual format that interested parties could access via computer or phone. The City's website provided links to additional information and the Draft EIR for public review. Thus, it was not just property owners within 100 feet of the Proposed Project that received notice.

N1-34

Please see Master Response 2: *Flood Risk*.

N1-35

Please see Master Response 2: *Flood Risk*.

N1-36

Please see Master Response 1: *Measure S*.

N1-37

Please see Master Response 1: *Measure S*, Master Response 2: *Flood Risk*, and Master Response 4: *Alternatives*. You may also refer to the response to Comment I14-8, which discusses the City of Woodland's General Plan Policy 8.B.7.

N1-38

Please see Master Response 2: *Flood Risk*, regarding the fact that roads would be flooded and unusable during a 100-year flood event without project implementation (also shown in Figure 3.1-2 of the Draft EIR) and that the Proposed Project would not result in an increase in the occurrence of such flood events. Therefore, workers and residences located to the north of the proposed levee would experience similar risk of flood and similar flood conditions under the Proposed Project when compared to existing conditions. As such, the Proposed Project would not physically divide an established community.

N1-39

Please see Master Response 2: *Flood Risk*, which provides a discussion on flood risk and roadway access. Implementation of the Proposed Project would not cause road closures to occur that would not already occur under existing conditions. Residents in the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

N1-40

Please see Master Response 1: *Measure S*.

N1-41

Please see Master Response 2: *Flood Risk*.

N1-42

Please see Master Response 2: *Flood Risk*.

N1-43

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-44

Please see Master Response 2: *Flood Risk*.

N1-45

Please see Master Response 2: *Flood Risk*.

N1-46

The City cares about all properties and property owners. Please see Master Response 2: *Flood Risk*.

N1-47

Please see Master Response 1: *Measure S* and Master Response 3: *Maintenance of Existing Flood Management System*.

N1-48

Please see Master Response 1: *Measure S*.

N1-49

Please see Master Response 2: *Flood Risk*.

N1-50

Please see Master Response 1: *Measure S*. The non-structural measures were developed specifically to support the Proposed Project and to benefit the properties north of the city.

N1-51

Please see Master Response 2: *Flood Risk*.

N1-52

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural production for lands north of the city. Consistency with Yolo County General Plan goals and policies are appropriately analyzed under Impact LU-2 in the Draft EIR.

N1-53

Please see Master Response 2: *Flood Risk*.

N1-54

As described in Master Response 2: *Flood Risk*, the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project is, therefore, consistent with the City of Woodland's General Plan Goal 7.C, which calls for the City to promote preservation and economic viability of agricultural land surrounding the urban limit line.

N1-55

The conclusion under Impact AG-3 in the Draft EIR does not rely on the Land Evaluation and Site Assessment (LESA) Model score. Rather, the conclusion that the Proposed Project would have a less-than-significant impact regarding other changes in the existing environment that could cause conversion of agricultural uses is based on the project description itself. As explained under Impact AG-3, in contrast to a highway or housing project (which could promote urbanization in the area), the Proposed Project is not a use that would induce changes in the existing environment that could cause Farmland conversion beyond that discussed under Impact AG-1 in the Draft EIR. The text under Impact AG-3 has been revised to clarify this point (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR).

CEQA does not require use of the LESA Model in determining whether impacts on agricultural resources are significant environmental effects. Per California Public Resources Code Section 21095, the LESA Model was intended "to provide lead agencies with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process." Consistent therewith, the LESA

Model is discussed for informational purposes in the Draft EIR but is not the basis for the conclusion under Impact AG-3.

The comment does not provide any evidence that the conclusion under Impact AG-3 is incorrect or that a significant impact would occur.

N1-56

Please see Master Response 2: *Flood Risk*.

N1-57

The Proposed Project would not involve construction or expansion of recreational facilities, nor is the proposed levee intended to be a recreational feature. Locked gates would be installed to inhibit recreational use of the new levee. To the extent that there is limited use by the public, it would not impact any existing ongoing agricultural operations. The City has a Climate Action Plan (CAP) intended to reduce community and municipal greenhouse gas (GHG) emissions. Table 3.8-4 in the Draft EIR presents all of these CAP measures and states whether each measure is applicable to the Proposed Project. Table 3.8-4 clearly states that the goal referred to by the commenter ("Increased Mass Transit Use, Walking, and Bicycling") is not applicable to the Proposed Project.

N1-58

Please see the response to Comment N1-33 regarding CEQA noticing. The "chart" referenced in this comment is Table 3.8-4 in Draft EIR Section 3.8, *Greenhouse Gas Emissions*, showing the Proposed Project's consistency with measures in the City's CAP. These are measures intended to reduce GHG emissions and are not related to CEQA public outreach requirements or efforts for the Proposed Project.

N1-59

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-60

The Draft EIR states that the roadway closure of SR 113 during construction could result in a temporary increase in roadway hazards and describes the potential impact as significant. The CEQA analysis conservatively assumes that all vehicles that typically take SR 113 to I-5 would use the detour described. As there are other roadway options available, it is unlikely that all vehicles will use this roadway. In addition, this roadway closure would be temporary, likely occurring for a duration of 3 months or less in total. This impact is considered significant and mitigation is applied. As a part of Mitigation Measure TR-1, construction trucks would be limited during the main commute hours, reducing the volumes on roadway segments in the vicinity of the project during commute hours. In addition, a provision for additional signage to be added to nearby detours that have potentially hazardous roadway features (such as sharp 90 degree turns) has been added to this mitigation measure to reduce increased hazards during the temporary construction window (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR).

N1-61

The EIR analyzes a potential 100-year flood event, which has not occurred in the project area in the past 50 years. None of the historical high flow events on Lower Cache Creek has approached the magnitude of a 100-year event, which is defined as a flow in Cache Creek of 63,000 cubic feet per second (cfs) (see Draft EIR Table 3.1-3). Therefore, it is understood (and expected) that County Road 102 has not closed during the smaller flood events that have occurred in the past 50 years. Modeled flooding under existing pre-project conditions during a 100-year flood event is shown in Draft EIR Figure 3.1-2. As shown in this figure, County Road 102 would be expected to be flooded and closed under pre-project conditions during a 100-year flood event. Thus, such a closure is not a new impact caused by the Proposed Project. Please see Master Response 2: *Flood Risk*, for further discussion of roadway access.

N1-62

Although the majority of the project area is served by the Woodland Fire Department, the Draft EIR makes clear on page 3.13-3 that the Woodland Fire Department relies "heavily on mutual aid partners," including Yolo County Fire Department and Willow Oak Fire Department. This statement is accurate and no revision to the Draft EIR is necessary.

N1-63

One page 3.13-3, the Draft EIR states that the City of Woodland Police Department serves most of the project area, and the Yolo County Sheriff's Office serves the remaining unincorporated area. This statement is accurate and no revision to the Draft EIR is necessary.

N1-64

Nelson's Grove was not discussed in Section 3.13, *Public Services, Utilities, and Service Systems*, as it is outside the project footprint and it is discussed in Section 3.16, *Recreation*. Text has been added in Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR, to include mention of Nelson's Grove.

N1-65

Please see Master Response 2: *Flood Risk*.

N1-66

The *Local Regulatory Setting* subsection of Section 3.15, *Aesthetics*, of the Draft EIR specifically lists Policy CC-1.2 from the Land Use and Community Character Element of the *Yolo 2030 Countywide General Plan*. This policy was considered throughout the analysis. In particular, Impact AES-1 analyzed impacts on scenic vistas, and Impacts AES-2 and AES-3 analyzed impacts on visual character and quality of views in non-urbanized (rural/agricultural) areas due to construction and operation of the Proposed Project. The commenter specifically mentions that the Proposed Project would interfere with views north of Woodland that are visible while driving ("in the rearview mirror") in or near the study area. However, as noted in the Draft EIR, there are no roadways within or near the study area that area designated in federal, state, or local plans as a scenic highway or route worthy of protection for maintaining and enhancing scenic viewsheds.

N1-67

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-68

As shown in Draft EIR Figure 3.1-1 and as discussed in Master Response 2: *Flood Risk*, lands within the project area are within a FEMA-designated flood zone and are, therefore, susceptible to flooding. This analysis takes a conservative approach to determining possible impacts, and, therefore, states that these viewer groups "could" have such views. The text in the Draft EIR has been revised to clarify that such views would depend on the severity of the flood event. Although certain residents within the project area do not recall having had a view of floodwaters during the flood events of the past 50 years, none of the historical high flow events on Lower Cache Creek have approached the magnitude of a 100-year event, which is defined as a flow in Cache Creek of 63,000 cfs (see Draft EIR Table 3.1-3). If a 100-year flood event were to occur under existing conditions, views of floodwaters would be much more extensive than has been seen during historical events. The modeled extent of floodwaters resulting from a 100-year flood event under existing conditions is shown in Figure 3.1-2 of the Draft EIR.

N1-69

The Draft EIR's analysis under Impact AES-3 agrees with the commenter's statement that the levee will not enhance the landscape in the current viewshed as described on pages 3.15-12 and 3.15-13. Impact AES-3 determines that impacts on the existing visual character or quality of public views in non-urbanized (rural/agricultural) areas due to operations of the Proposed Project would be significant and unavoidable. However, the Proposed Project would not lower property values north of the levee. Please refer to Master Response 2: *Flood Risk*, for more information on property values in relation to the Proposed Project.

N1-70

The Proposed Project would not involve construction or expansion of recreational facilities, nor is the proposed levee intended to be a recreational feature. Locked gates would be installed to keep members of the public off the new levee and maintenance roads.

N1-71

This comment expresses agreement with a statement in the Draft EIR. No further response is necessary.

N1-72

Please see the response to Comment N1-20.

N1-73

Please see response to Comment N1-33 regarding stakeholder outreach. Please see Master Response 2: *Flood Risk*, for a discussion of flood risk associated with the Proposed Project. As shown in Draft EIR Figure 3.1-2, the area north of Woodland would be flooded during a 100-year flood event even without Proposed Project implementation. In other words, temporary displacement would already

potentially occur under a 100-year flood event, and the Proposed Project would not change this. Furthermore, as described in Draft EIR Chapter 2, *Project Description*, Section, 2.3.6.1, *Non-Structural Measures*, the City would offer residents north of the project footprint multiple options to benefit their properties. Given all of the above, residents who live north of the proposed levee would not be put at a greater risk of loss.

N1-74

When comparing existing conditions to conditions under the Proposed Project, issues related to flooding and vectors improve. Issues with mosquitos and standing water after major flood events currently exist. Under Proposed Project conditions, the same issues would be present, however, to a lesser degree. As discussed in Master Response 2: *Flood Risk*, the Proposed Project would improve drainage in the area so that, overall, there would be ponded water for a shorter period than what occurs presently, thereby reducing the potential for mosquito breeding. Climate change and the potential for flood events during warmer months would affect existing conditions and the Proposed Project equally. In addition, under either the Proposed Project or the No-Project Alternative, the SYMVCD would continue to treat standing water as described in the Draft EIR on page 3.18-12. There is no evidence that the Proposed Project would increase mosquito breeding opportunities, and, as a result, mosquito-borne illnesses.

N1-75

Specific information on the known hazardous materials sites is provided in Draft EIR Section 3.18, *Hazards, Hazardous Materials, and Wildfire* under Section 3.18.1.2, *Environmental Setting*. An update to the 2000 USACE Environmental Site Assessment was conducted in January 2020. The updated Environmental Site Assessment did not identify any new environmental concerns or sites and considers the initial database records searches valid. Reference to the 2020 updated Environmental Site Assessment and its results has been added to the Section, *Previous Investigations*, (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR). Regarding the issue of wells, please see the response to Comment S2-2. The project proponent will consult with the Division of Oil, Gas, and Geothermal Resources (Division) regarding the location and status of wells in the project footprint. If the parcel in question is acquired, the project proponent would bear the primary responsibility for proper reporting and subsequent testing, if necessary. Please see new text under Mitigation Measure HAZ-2 (Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR) requiring Division consultation and, if necessary, soil and groundwater testing to check for leaks.

N1-76

As described in Master Response 1: *Measure S*, when USACE first undertook the Feasibility Study in 2003, the Lower Sacramento River-Delta North (LSDN) regional flood management team did not exist and the project was not considered in a larger regional setting. Today, the Woodland Flood Risk Management Project is proposed as part of a program of actions that will reduce flood risk and are proposed as a regional solution to managing flood risk. The City of Woodland's main objectives are to comply with recent state legislation and flood protection criteria by providing the urban areas with a 200-year level of protection from Cache Creek and obtaining FEMA certification. Please refer to Master Response 2: *Flood Risk*, for a discussion of agricultural land values.

N1-77

Please see Master Response 2: *Flood Risk*, which provides a discussion on flood risk and roadway access. Implementation of the Proposed Project would not cause road closures that would not already occur under existing conditions. Residents in the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

N1-78

Please see Master Response 2: *Flood Risk*, and responses to Comments N1-38 and N1-73 regarding roads, accessibility, and flooding. Given flooding conditions under existing (no-project) conditions, when compared to Proposed Project conditions, communities would not be physically separated. CEQA does not require analysis of a project's psychological effects.

N1-79

Please see Master Response 4: *Alternatives*. As described in the response to Comment N1-76, USACE's Feasibility Study and the City of Woodland's Flood Risk Management Project have different objectives. The USACE Feasibility Study was looking at options for flooding in the region to include both the city of Woodland and the town of Yolo, and Alternative 6B was a viable alternative; however, there were significant environmental mitigation costs which nearly doubled the cost of the project so the benefit cost ratio was much lower than the selected plan. The City of Woodland's main objectives are to comply with recent state legislation and flood protection criteria by providing the urban areas with a 200-year level of protection from Cache Creek and obtaining FEMA certification. There is a separate study being conducted by DWR as part of the Small Communities program for Yolo County. It should also be noted that Alternative 6B would violate Executive Order 11988 by inducing growth north of the city.

N1-80

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

N1-81

Please see Master Response 2: *Flood Risk*.

N1-82

Although Cache Creek has not experienced the flows associated with a 100-year or 200-year flood event during the period of historical record, property damage estimates can be made based on assessments of real property value in the study area, hydraulic modeling, and historical flooding on other creeks/rivers. The inconsistency related to property damage estimates in Chapter 1, *Introduction*, Section 1.1.1 has been changed to reflect the correct estimate, which is \$22 million annually (see Chapter 7, *Corrections and Revisions to the Draft EIR*, of this Final EIR).

N1-83

As described in Draft EIR Section 3.3, *Geology, Soils, and Paleontological and Mineral Resources*, under Section 3.3.1.2, *Subsidence*, both the County of Yolo and the DWR indicate that this area of Yolo County has experienced measurable subsidence.

N1-84

Please see Master Response 3: *Maintenance of Existing Flood Management System*. The CCSB south and west levees met their design standard at the time of construction. The City is seeking to meet State Urban Levee Design Criteria which is a higher standard than what the CCSB levees were built to, resulting in the need to improve the CCSB levees as part of the Proposed Project.

N1-85

Please see Master Response 1: *Measure S*, which explains how the Proposed Project fits into the regional approach to flood management developed by the LSDN Team. The Proposed Project, therefore, contributes to City and County flood protection goals. Please also see Master Response 2: *Flood Risk*, regarding agricultural productivity and Master Response 3: *Maintenance of Existing Flood Management System*, regarding maintenance of levees.

N1-86

The likelihood of a catastrophic flood without construction of the levee is unknown. However, as discussed in Draft EIR Chapter 4, *Alternatives Analysis*, there is currently, and will continue to be, high risk of severe flooding in Woodland without implementation of the proposed project. The duration of flood fighting activities discussed on page 4-9 of the Draft EIR includes clean-up activities and is based on information from prior emergency events. The actual timing and duration of emergency activities would depend on magnitude of the flood, which is currently unknown and speculative to predict.

N1-87

Please see the response to Comment N1-82 regarding flood damage estimates, Master Response 2: *Flood Risk*, regarding risk, and Master Response 3: *Maintenance of the Existing Flood Management System*, which addresses the concern raised in Comment N1-5 regarding the Draft Feasibility Study's statements on levee failure.

N1-88

Please see Master Response 2: *Flood Risk* and Master Response 3: *Maintenance of Existing Flood Management System*.

N1-89

Please see Master Response 1: *Measure S* and Master Response 2, *Flood Risk*.

N1-90

Please see Master Response 2: *Flood Risk*.

N1-91

Alternative 2C consists of a levee that would direct floodwaters that would otherwise enter the urban area of the Woodland to the south of the CCSB and east into the Yolo Bypass. The railroad line to the south of the CCSB would also require extensive modifications to allow for the flood

conveyance channel. The alignment of the levee west of I-5 was based on hydraulic modeling available in approximately 2015. Because costs associated with Alternative 2C exceed the benefits, it was eliminated by USACE from further evaluation in the Feasibility Study. The water surface at the upstream end of levees evaluated for Alternatives 2A and 2C would be exactly the same. The reason for the differences in the termination point is because USACE did additional analysis of Alternative 2A that led to the termination point extending across County Road 98. Had USACE continued to evaluate Alternative 2C, the termination point would have been extended upstream and would be identical to Alternative 2A because the difference in backwater effects caused by how the water exits the floodplain in Alternative 2A compared to Alternative 2C does not extend upstream of I-5.

N1-92

As described in Chapter 4, *Alternatives Analysis*, of the Draft EIR under Section 4.3.2.2, *Alternative Analysis, Land Use and Planning*, the effects of Alternative 2C on land use would be the same as for the Proposed Project and, as under the Proposed Project, Alternative 2C would not result in a significant division of an existing community. The response to Comment N1-78 applies to this comment as well. Please see Master Response 2: *Flood Risk*, regarding agricultural land values, which applies to Alternative 2C and to Alternative 2A.

N1-93

Please see Master Response 2: *Flood Risk*.

N1-94

Figure 3.2-1 in the Draft EIR presents the results of a hydraulic modeling run that shows the relatively smaller area (north of County Road 18C and east of SR 113) that would be flooded in a 100-year flood event compared to the area south of the southern levee of the CCSB that would be flooded under existing conditions but not under the Proposed Project. It is evident from Figure 3.2-1 that the area south of CCSB is substantially larger than the area north of County Road 18C and east of SR 113. Because of the difference in potentially flooded land area, it is unlikely that there would be an overall increase in methylmercury production north and south of the proposed levee. It is important to note, while viewing the hydraulic modeling results, that the area north of the new levee is already within the 100-year floodplain as designated by FEMA, and the Proposed Project would not result in the addition of any lands to the designated floodplain. FEMA flood zones are shown in Draft EIR Figure 3.1-1.

N1-95

Please see Master Response 2: *Flood Risk*.

N1-96

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

N1-97

Please see Master Response 4: *Alternatives*. Each of the referenced alternatives were considered and rejected for various reasons discussed in the Wood Rodgers technical memorandum, *Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study* (Appendix A of the Draft EIR).

N1-98

Please see Master Response 4: *Alternatives*.

N1-99

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

N1-100

Please see Master Response 4: *Alternatives*.

N1-101

Please see Master Response 2: *Flood Risk* and Master Response 4: *Alternatives*.

N1-102

Please see Master Response 4: *Alternatives* and Master Response 1: *Measure S*.

N1-103

Please see Master Response 1: *Measure S* and Master Response 2: *Flood Risk*. Regarding the Huff's Corner project, as clarified during the July 28 public meeting, the Huff's Corner project is not mentioned by name in the Draft EIR, but it is considered in the Cumulative Impacts analysis as part of the suite of Yolo Bypass/Cache Slough Partnership Improvement Projects (Chapter 5, *Other CEQA Considerations*, Section 5.2.2.5).

N1-104

Please see Master Response 2: *Flood Risk*.

N1-105

Please see Master Response 2: *Flood Risk*.

N1-106

Please see Master Response 1: *Measure S*.

N1-107

Please see Master Response 2: *Flood Risk*.

N1-108

Please see Master Response 1: *Measure S* and Master Response 2: *Flood Risk*.

N1-109

Please see Master Response 1: *Measure S*.

Letter N2—Christian C. Scheuring, Senior Counsel, California Farm Bureau Federation



CALIFORNIA FARM BUREAU FEDERATION

LEGAL SERVICES DIVISION

2600 RIVER PLAZA DRIVE, SACRAMENTO, CA 95833 • PHONE (916) 561-5665

Letter N2

August 14, 2020

via electronic mail

Tim.Busch@cityofwoodland.org

Mr. Tim Busch,
Principal Utilities Civil Engineer
City of Woodland
300 First Street
Woodland, CA 95695

**Re: Comments on City of Woodland Flood Risk Management Plan
Draft Environmental Impact Report**

Dear Mr. Busch:

The California Farm Bureau Federation (“CFBF”) is a non-governmental, nonprofit, voluntary membership California corporation whose purpose is to protect and promote agricultural interests throughout the state of California and to find solutions to the problems of the farm, the farm home, and the rural community. CFBF is California’s largest farm organization, comprised of 53 county Farm Bureaus currently representing approximately 34,000 agricultural, associate, and collegiate members in 56 counties. CFBF strives to protect and improve the ability of farmers and ranchers engaged in production agriculture to provide a reliable supply of food and fiber through responsible stewardship of California’s resources.

The Yolo County Farm Bureau, one of 53 county-level affiliates of our state-wide Farm Bureau federation recently requested this office’s assistance with respect to the City’s Woodland’s proposed Woodland Flood Risk Management Plan (“WFRMP”) project. In response, we have reviewed some of the key particulars relating to this project—and offer the present public comments on the Draft Environmental Impact Report (“DEIR”) and on the project itself.

N2-1



Tim Busch, Principal Utilities Civil Engineer
 City of Woodland
 August 14
 Page 2

First, and perhaps most fundamentally, each of the two alternatives considered in DEIR are inconsistent with the express language of Measure S, passed by the voters in 2004.¹ Per the language of Measure S, the City of Woodland is: 1) expressly prohibited from advancing a project involving any “substantially similar structure” to the Lower Cache Creek Flood Barrier (Flood Wall) previously identified by the Army Corps of Engineers north of the City of Woodland, and 2) the City was, instead, directed to seek “a regional flood control project to protect both the City of Woodland and other areas in Yolo County.” The only two alternatives carried forward for detailed consideration in the DEIR are, in all material respects, alternatives for projects “substantially similar” to original floodwall concept expressly rejected by Measure S. Moreover, the proposed project focuses narrowly on protection for the City of Woodland, while not addressing or actually increasing risks outside of the City, and no “regional” alternative to the original floodwall project.

N2-2

A second set of concerns relating to the DEIR and proposed project relates to the failure to adequately address impacts on agricultural lands situated within the 6,000 acre area impacted by the proposed floodwall north of Woodland. The DEIR fails to acknowledge the project’s direct conflicts with existing County and City land use policies relating to agricultural viability and splitting of established communities. By devaluing and, thus, impacting the borrowing capacity of the affected lands, and by cutting the mentioned 6,000-acre agricultural area off from neighboring areas of the County of Yolo and City of Woodland, the project alternatives considered run afoul of existing County and City policies requiring promotion of agricultural viability. By cutting off emergency flood access, intensifying localized risks, and exposing lands to deeper and more frequent inundation, the proposed project again conflicts with existing land use policies requiring the promotion of agricultural viability.

N2-3

To raise a third concern, we concur with the Yolo County Farm Bureau that the project proponents’ current plan for compensation, relocation, flood-proofing or structure raising, a local warning system, and commitment to a continuation of historically inadequate maintenance are insufficient to fully compensate and offset project impacts, and make whole affected agricultural landowners in the affected area. Increased flood risk, possible agronomic impacts, impacts on homesteads and structures in the new floodway, diminished property values—and, thus, diminished capacity of these lands to borrow, finance, improve, or sell agricultural conservation easements—compromise property values and agricultural viability and leave the landowners to absorb the loss. The DEIR’s conclusion that the project does not convert a significant amount of

N2-4

¹ See Woodland Municipal Code § 8.1.010: “**Flood Control** Section 1: It shall be the policy of the City of Woodland to encourage a regional flood control project to protect both the City of Woodland and other areas in Yolo County. Therefore, the City of Woodland shall not fund or take any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.
 Section 2: This ordinance shall not be repealed or amended except by a vote of the people of the City of Woodland.

N2-2
 cont.

Tim Busch, Principal Utilities Civil Engineer
City of Woodland
August 14
Page 3

farmland does not capture or address the full extent of the loss in value and economic and productive capacity for these lands. The DEIR describes project features including a package of compensation and 'non-structural' measures. On the whole, however, these measures fail to remove significant burdens on affected landowners.

N2-4
cont.

Lastly, we concur with the Yolo County Farm Bureau and object to the lack of proper public process and notice to affected landowners throughout the entire 6,000-acre area. The project proponents have provided limited notice to only those landowners immediately adjacent to the project footprint. As explained, however, the proposed project would directly and significantly impact the entire 6,000-acre area.

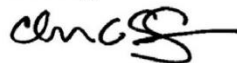
N2-5

In closing, we thank the City of Woodland for the opportunity to share these concerns. While these comments focus on the impacts of the current proposed project on the 6,000 acre area immediately north of the City of Woodland, we should be very clear that in calling attention to shortcomings of the current proposed project we are *not*, therefore, suggesting any significant redirected impacts to agricultural lands elsewhere in the County would be any more acceptable. Most importantly, in our view, there is the issue of lost capacity in the existing Cache Creek river channel and the well-known issue of reduced conveyance capacity in Cache Creek settling basin. An acceptable regional solution, as required by Measure S, should address these known issues and provide protection, not to developing areas alone at the expense of neighboring agricultural lands, but to *both* urban and agricultural areas through the County.

N2-6

N2-7

Sincerely,



Christian C. Scheuring
Senior Counsel

/CCS

Responses to Letter N2

N2-1

Thank you for your comment letter. Responses to your comments on the Draft EIR are provided below.

N2-2

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

N2-3

Please see Master Response 2: *Flood Risk*, which discusses agricultural productivity and land values north of the levee as well as flood risk and frequency of flood events. Please also see the response to Comments N1-52 and N1-54, which discuss the Proposed Project's consistency with relevant general plan policies, and the response to Comment N1-38, which discusses physical division of an established community.

N2-4

Please see Master Response 2: *Flood Risk*.

N2-5

Please see the response to Comment N1-33 regarding CEQA noticing.

N2-6

Thank you for your comment; your concern is noted.

N2-7

Please see Master Response 1: *Measure S* regarding regional flood management efforts, Master Response 2: *Flood Risk*, regarding flood risk, and Master Response 3: *Maintenance of Existing Flood Management System*, regarding Cache Creek conveyance capacity.

Chapter 6

Individual Comments and Responses

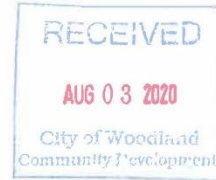
This chapter contains the comments received on the Draft EIR from individuals. Each comment letter has been assigned a unique code, and each comment within the letter has also been assigned a unique code noted in the right margin. For example, the code “I2-1” indicates the first distinct comment (indicated by the “1”) in the letter from Rolf Frankenbach, which was the second letter (indicated by the “2”) recorded from an individual (indicated by the “I”). The chapter presents each comment letter immediately followed by the responses to that letter. Table 6-1 summarizes the commenting party and/or comment letter signatory.

Table 6-1. List of Comment Letters from Individuals

Letter #	Commenter
I1	The Rominger Family
I2	Rolf Frankenbach
I3	Esther Vasquez
I4	Martin Garcia
I5	Bernabe Lizarraga
I6	Sally Oliver 1
I7	Sally Oliver 2
I8	Sally Oliver 3
I9	Sally Oliver 4
I10	Sally Oliver 5
I11	Sally Oliver 6
I12	Sally Oliver 7
I13	Betsy Spaulding
I14	Catherine C. Engberg and Carmen J. Borg, Shute, Mihaly & Weinberger LLP
I15	Robert and Nancy Lea
I16	Michael Valentine
I17	Carl Franke

Letter I1—The Rominger Family

Letter I1



AUGUST 03, 2020

CITY OF WOODLAND FLOOD RISK MANAGEMENT PROJECT DRAFT EIR

MR. TIM BUSCH, PRINCIPAL UTILITIES CIVIL ENGINEER

CITY OF WOODLAND

300 FIRST STREET

WOODLAND, CA. 95695

ATTENTION: CITY OF WOODLAND FLOOD RISK MANAGEMENT PROJECT DRAFT EIR/

MR. TIM BUSCH

RE: COMMENTS ON WFRMP DRAFT EIR

We, the Rominger Family, are responding to the current Woodland Flood Risk Management Project Draft EIR (WFRMP) proposal, to provide flood protection for the City of Woodland.

We own a parcel (14.89 acres, Parcel # 027-270-046-000), just north of Woodland, within the current Urban Limit lines. It has been owned by our family for over 80 years.

Originally, the parcel was 44 acres, but the construction of the I-5 Freeway reduced the parcel to 14.89 acres. It is adjacent to the freeway, and very near the West Street Interchange. Due to its size and shape, it has limited farming options.

Over, the last 40 years, we have had numerous offers/ interests in various commercial opportunities. However, due to the proximity to Woodland, and their City of Woodland (COW) sphere of influence, we have not been able to divest the property, at commercial or industrial price levels.

It has been frustrating, as we have been forced to be patient. We assumed being annexed into the Urban Limits, this would allow us to proceed, given our proximity to the COW.

I1-1

We also understand with the passage of "Measure S", (2004) any flood protection would benefit the entire region. For certain, the current WFRMP Draft EIR proposal now only benefits COW at our expense.

| 11-2

We are told our property values/options are not impacted, which is ludicrous for all types of property; farm, commercial, industrial, etc.

| 11-3

We would like the COW to take a realistic look at the significant financial impacts of this proposal.

In summary, we were all born and raised in the Woodland Community. We very much support all aspects of a vital vibrant city and rural regions. We support/participate in Yolo County Farm Bureau and numerous Woodland programs and organizations.

| 11-4

We strongly encourage the COW to do the right thing, by honoring your commitment to "Measure S", and focus on a truly regional project. If COW is not willing to focus on the entire region, please be honest and realistic about the true adverse impact imposed on your community members, to simply benefit the COW and future development to the South and East of town.

| 11-5

**Respectfully,
The Rominger Family
TRI SIB FARMS
14700 County Road 96B
Woodland, CA 95695**

Pete Rominger
Susan K. Ayres
Kristine A Rominger
Robert Young
David P. Rominger
Kathleen Rominger

Responses to Letter I1

I1-1

This comment explains the commenter's background. The comment is not on the adequacy of the CEQA analysis. No further response is warranted.

I1-2

Please see Master Response 1: *Measure S*.

I1-3

Please see Master Response 2: *Flood Risk*.

I1-4

Please see Master Response 1: *Measure S*.

I1-5

Please see Master Response 1: *Measure S* and Master Response 2: *Flood Risk*.

Letter I2—Rolf Frankenbach

Letter I2

Mr. Tim Busch
Principal Utilities Engineer
City of Woodland
300 First Street
Woodland, CA 95695

Aug 6, 2020

Subject: Comments on WFRMP Draft EIR

Dear Mr. Busch:

I am concerned about an impact on climate change described on page 2-11 of the draft EIR. It states that the excavation and placement of the borrowed material used to construct the flood control structure will nevertheless involve the disposal of 250,000 cubic yards of "unsuitable" material at the Yolo County landfill.

I2-1

The EIR estimates that this will involve 21,000 round-trip dump truck loads to haul the material 11 miles to the landfill. Assuming 6 miles per gallon average fuel economy for a class 8 commercial earth-hauling truck, this would consume about 77,000 gallons of diesel fuel, which at 22.4 pounds CO₂ emitted per gallon of diesel fuel burned would amount to 1,728,800 pounds, or about 782 metric tons of CO₂ emitted.

This level emissions is of avoidable and contrary with the current efforts of the City to reduce its greenhouse emissions in its final adopted 2035 Climate Action Plan. The 782 MT of CO₂ produced as a result of trucking the material to the landfill could be avoided or greatly reduced if the spoils from the project were instead used on site and incorporated into the project. The transport of this large amount of material could be avoided or substantially reduced if instead the (1) the amount of material excavated to build the drainage channel could be reduced, or (2) most or all of the excavated material would be used to build a wider or taller flood control levee, or (3) a combination of (1) and (2), any of which would accomplish a large reduction in global warming emissions.

I2-2

Sincerely,

Rolf Frankenbach
521 W. Keystone Ave
Woodland, CA 95695

Responses to Letter I2

I2-1

GHG emissions generated by construction of the Proposed Project, including emissions from the 21,000 offsite haul trips, were estimated and evaluated in Section 3.8, *Greenhouse Gas Emissions*. As stated in Section 3.8.2.1, *Methods for Analysis*, emissions from on-road vehicles were estimated using the California Air Resources Board's EMFAC2017 model. Emissions calculations are provided in Draft EIR Appendix E, *Air Quality and Greenhouse Gas Modeling Inputs and Supporting Data*, and indicate that offsite haul trips would result in approximately 849 metric tons of carbon dioxide equivalent (CO₂e) over the 2-year construction period. These emissions were included in the overall GHG impact assessment presented under Impact GHG-1 (see Table 3.8-3 of the Draft EIR). As discussed under Impact GHG-1, while construction of the Proposed Project would result in the short-term generation of GHGs, these emissions would not conflict with the City's or County's CAPs with implementation of Mitigation Measure GHG-1. Mitigation Measure GHG-1 will reduce GHG emissions by requiring the City to develop a Transportation Demand Management (TDM) Plan to reduce the number of construction worker trips. Mitigation Measure GHG-1 also requires construction contractors to minimize equipment idling, use alternative fuels, and recycle or reuse at least 75% of construction waste or demolition material. With implementation of these measures, construction of the Proposed Project would not conflict with the City's or County's abilities to achieve the GHG emissions reductions outlined in their CAPs. Because impacts would be less than significant after mitigation, no further mitigation is required.

I2-2

Construction of the proposed levee and berm will incorporate as much material as possible from the excavation of the drainage channel and CCSB training levee degrade. As described in Draft EIR Chapter 2, *Project Description*, Section 2.3.1.2, the width of the drainage channel may vary during subsequent design phases to create a balanced earthwork for the Proposed Project to reduce the amount of material needing to be hauled offsite. Additionally, as described in Section 2.3.3.2 of the Draft EIR, topsoil removed from the borrow areas, project footprint, and maintenance corridor will be placed on the embankment slopes to promote vegetative growth after levee construction is complete. However, some of the excavated material and the material from clearing and grubbing will be unsuitable for use and will need to be disposed of. The assumption that all 250,000 cubic yards of material will be disposed of at the Yolo County Central Landfill is a conservative estimate made in the Draft EIR for impact analysis purposes.

Letter I3—Esther Vasquez

Letter I3

From: Esther Vasques <evs1852@gmail.com>
Sent: Friday, August 7, 2020 9:55 PM
To: Tim Busch
Subject: COMMENTS ON WFRMP DRAFT EIR

Dear Mr Busch,

I just became aware of results from the last Draft EIR public meeting, prior to Covid-19 Shelter in Place rulings, which mentioned Cache Creek poses a significant flood risk to portions of the City of Woodland, and neighboring rural communities.

I3-1

It was mentioned that, this proposed WFRMP project may flood County Road 102 for extended periods of time, and may limit access from Yolo to Woodland on I-5. On CR 102 especially, access could be cut off for several weeks in a row.

The Communities of Knights Landing and Yolo along with many of the surrounding rural communities, may be effected by this proposal by their lack of access to Woodland for residents' employment, daily/weekly medical care, banking needs, attending schools, Yolo County Social Services, grocery shopping, along with County Services that may be unable to drive into Knights Landing or Yolo for various services needed. (Yolo Food Bank,etc.).

At one time I was a Red Cross volunteer and there were issues when the roads become flooded for extended times. The flooded roads caused a hardship for both trying to provide service or receive service.

I want to be sure you are aware of my concerns.

Sincerely,
Esther Vasquez
PO Box 174
Yolo, CA 95697

Responses to Letter I3

I3-1

Please note that the CEQA analysis evaluates potential effects during a 100-year catastrophic flood event, which is not a common occurrence. The Proposed Project would not result in an increase in the occurrence of such flood events. Please see Master Response 2: *Flood Risk* for a discussion of roadway access under the Proposed Project.

Responses to Letter I4

I4-1

Thank you for your interest in this project. It should be noted that the home address identified in this comment letter is located in Knights Landing, which is not within the project area. Knights Landing is located approximately 7 miles north of Woodland and is situated on the Sacramento River. The Proposed Project would have no effect on the risk of inundation at this property. The Yolo County Office of Emergency Services website (<https://www.yolocounty.org/general-government/general-government-departments/office-of-emergency-services>) provides resources and instructions as to how residents can protect themselves before, during, and after an emergency.

Letter I5—Bernabe Lizarraga

Letter I5

City of Woodland Flood Risk Management

Yo Bernabé Lizarraga estoy interesado en la pared que nos protejerá a mi y familia en caso de inundación.

Bernabé Lizarraga 8-09-20
5912 Dryer Circle Knights Landing.

530-723-2707

I, Bernabe Lizarraga, am interested in assistance that can protect me and my family in case of inundation.

| 15-1

Dated: 8/9/2020

Bernabe Lizarraga

5912 Dryer Circle

Knights Landing, CA

530-723-2707

Responses to Letter I5

I5-1

Thank you for your interest in this project. It should be noted that the home address identified in this comment letter is located in Knights Landing, which is not within the project area. Knights Landing is located approximately 7 miles north of Woodland and is situated on the Sacramento River. The Proposed Project would have no effect on the risk of inundation at this property. The Yolo County Office of Emergency Services website (<https://www.yolocounty.org/general-government/general-government-departments/office-of-emergency-services>) provides resources and instructions as to how residents can protect themselves before, during, and after an emergency.

Letter I6—Sally Oliver 1

Letter I6

From: Sally Oliver <osokia@gmail.com>
Sent: Tuesday, August 11, 2020 2:55 PM
To: Tim Busch
Subject: Injection Well Comments. Woodland Flood Risk Management Project Draft EIR Report

Injection Well Comments. Sally Oliver

The Lowe Class Two Injection Well was one of three such wells in Yolo County. The location of the Lowe Well was slightly north of Carter Lane on the east side of Road 98. On what was then Lowe property. I6-1

Class Two Injection Wells inject into the underground through old abandoned well shafts. The waste water injected is laden with aromatic hydrocarbons, a known carcinogen. The State of California Division of Oil and Gas oversees these wells.

Over the years of operation the Lowe Well used excessive pressure to inject the waste water causing the well to blow the waste water not only on the site but across County Road 98 spraying on passing cars. Citizens of Yolo County became concerned. They reported the incidents to State Division OF Oil and Gas. The agency did nothing.

Yolo County Citizens rely on ground water for their irrigation and drinking water. The fact the waste water was hazardous and high pressure being used to inject it through existing aquifers through an old pipe meant their water supply had a good chance of being polluted. The Citizens developed and passed a Yolo County Injection Well Ordinance in 1988.

The Lowe Well was closed down when the Yolo Solano Air Pollution District found their storage tank holding the waste water to be injected was emitting into the atmosphere hydrocarbons equal to a ten thousand gallon tank. The abandoned site is on the north side of Carter Lane. Just north of the proposed Floodwall and where County Road 98 will be raised to go over the Floodwall as it extends west. Additional construction on that site by the Floodwall Project will be a large drainage ditch and pipe also two roads. The Lowe Injection Well may well have polluted the soil with hydrocarbons plus the pipe where the oil and gas waste was injected may still be in the ground.

The history of the site, its location and the amount of soil that will be disturbed by the Woodland Flood Risk Management Plan require a thorough Environmental investigation by the City of Woodland and the Army Corp. of Engineers, particularly the soil and remaining pipe. The exact location can be found in County Records.

Sally Oliver
 16634 County Road 98
 Woodland Ca. 95695
 530 662 2364

Sent from my iPad

Responses to Letter I6

I6-1

The commenter recounts events associated with the Lowe Well and states that this well is within the project footprint. As described in the response to Comment S2-2, the project proponent will consult with the Division regarding the location and status of wells in the project footprint. If the parcel in question is acquired, the project proponent would bear the primary responsibility for proper reporting and subsequent testing, if necessary. Please see new text under Mitigation Measure HAZ-2 (Chapter 7, *Corrections and Revisions to the Draft EIR*, in this Final EIR) requiring Division consultation and if necessary, soil and groundwater testing to check for leaks.

Letter 17—Sally Oliver 2

Letter 17

From: Sally Oliver <osokia@gmail.com>
Sent: Tuesday, August 11, 2020 3:11 PM
To: Tim Busch
Subject: The Woodland Flood Risk Management Project

The Woodland Flood Risk Management Project Public Draft Environmental Impact Report

Comment's by Sally Oliver

The significant negative impacts created by the design of the Woodland Flood Risk Management Project cannot be mitigated. The design not only fails to adequately address the Mercury sediment pollution carried by Cache Creek but creates a bypass of 6000 acres of currently prime agricultural land where floodwaters will be held in a major flood event. The Project's design depends on The Cache Creek Settling Basin to eventually drain the floodwaters. The Settling Basin is currently full of Mercury sediment to the point where 20% of that sediment is released into the Sutter Basin and eventually the Sacramento River. When the floodwaters reach the Settling Basin they will significantly increase the Mercury pollution entering Sutter Basin and the Sacramento River. The Settling Basin will also impede the floodwaters trapped between Cache Creek and the Project's Floodwall allowing the Mercury sediment held by the floodwaters to settle out across the 6000 acres. Many of the crops grown on the 6000 acres require irrigation which will result in Mercury polluting those crops. The financial cost to both farmers and community cannot be measured or mitigated.

17-1
17-2

Executive Summary pg. ES_3
 Water Quality.
 Impact WQ-3.: Conflict with or obstruct implementation of a water quality control plan
 Or sustainable groundwater management plan.
 Level of Significance before mitigation Less than significant

Sally Oliver Comments. The "Flood Risk Management Plan" will have serious impacts on the State of California's project located in the Cache Creek Settling Basin and 6000 acres of class 1 agricultural land within the Flood Zone created by the plan. The State of California Project consist of a dam built to trap Mercury laden sediments carried by Cache Creek from entering the Sacramento River and Sutter Basin farm land. Before construction of the dam Cache Creek contributed 50% of the total Mercury into the Sacramento River. Over the years the Mercury sediments have filled the Settling Basin forcing 20% of the water containing Mercury over the dam to pollute Sutter Basin and the Sacramento River. The Woodland Flood Risk Management relies on the Settling Basin to drain the flood waters trapped by purposed flood wall. The flood water heavy with Mercury sediment will increase the flow over the dam further polluting the River and farm ground where rice is grown. The rice crop is irrigated causing the Mercury to methylate available to humans.

17-3

Sally Oliver Comments
 WQ-3 'LESS THAN SIGNIFICANT' cited by the above EIR is incorrect . The Management Project creates serious impacts for the community. The Project's design deliberately fails to include The Yolo County General Plan as part of the "PROJECT" .The City of Woodland and Yolo County rely on each other to financially survive. The Plan diminishes the Agricultural area included in the PROJECT while enhancing The City of Woodland's ability to develop. The Fundamental Goals of the Yolo County General Plan are to promote agriculture , enhance open space, create a sustainable community.

17-4

<p>ES-4 Water Quality Impact "In flood hazard zones, risk of release of pollutants as a result of project inundation. " Level of significance ". LESS THAN SIGNIFICANT</p>	<p>17-5</p>
<p>Sally Oliver comment; LESS THAN SIGNIFICANT IS INCORRECT. The impact of Mercury laden sediments carried by the flood waters , confined by the set back levee will be released over 6000 acres of prime farm land. The Mercury will settle out and be mentholated. A variety of crops grown on that land are irrigated. Methylation means humans eating those crops health could be seriously affected . The financial impact on the farmers and our food supply is beyond SIGNIFICANT and can only be mitigated by changing the Flood Plan. No set back levees.</p>	
<p>Raising the existing levees along Cache Creek and removal of growth in the Cache Creek stream bed will protect The City of Woodland and the 6000 acres of farmland during a major flood event..</p>	<p>17-6</p>
<p>The Mercury sediment carried by Cache Creek originates at its headwaters. It is inherent in the geology. The recent wildfires increase runoff particularly when a flood event occurs, the abandoned Mercury mines contribute, and off stream gravel pits in the lower stretch also contribute. The design of the Woodland Flood Risk Management Project is the last step adding the possibility for further Mercury pollution. The negative financial impact on the farmers cannot be MITIGATED.</p>	<p>17-7</p>
<p>ES 3 WQ-3 "LESS THAN SIGNIFICANT". CITED BY EIR IS INCORRECT. THE Woodland Flood Risk Management Plan creates serious impacts for the community. The City of Woodland and Yolo County rely on each other to financially survive. The PLAN diminishes the agricultural area included in the project while enhancing The City of Woodland's ability to develop. The design of the PLAN deliberately fails to include the Yolo County General Plan though 6000 acres of The PLAN are in the County.</p>	<p>17-8</p>
<p>Sally Oliver comments. The Flood Management EIR Does not mention the Lowe Injection Well.. The Water Quality summary and any other Water Quality statements in the EIR are inaccurate without including an evaluation of both any possible pollution from the Injection Well but the impact on the site by the excessive construction required by the plan to increase possible pollution from the well used to inject the oil and gas waste.</p>	<p>17-9</p>
<p>Sally Oliver 16634 County Road 98 Woodland Ca. 95695 530 662 2364</p>	
<p>Sent from my iPad</p>	

Responses to Letter I7

I7-1

The comment states that the Proposed Project's negative impacts "cannot be mitigated." As noted in the EIR, some impacts of the Proposed Project have been determined to be significant and unavoidable (i.e., they cannot be mitigated). The EIR fully discloses all impacts and mitigates impacts to the extent feasible. It is up to the decision-makers to determine whether there are overriding considerations that outweigh significant and unavoidable impacts.

The Proposed Project is a flood control project and is designed accordingly. It is not the purpose of the project to address existing mercury contamination in Cache Creek. As described for Impact WQ-3 (Draft EIR Section 3.2, *Water Quality*), results from UC Davis sediment transport simulations of the CCSB for the 10-, 50-, 100-, and 200-year flood events indicate that CCSB sediment trap efficiency increases with flow event magnitude, and the Proposed Project meets or exceeds the current trapping efficiency of the CCSB in all event magnitudes except the 200-year event. Although mercury can exist in the water column, mercury is generally bound to suspended particulate matter and sediment. Therefore, it is reasonable to assume that there would not be a substantial increase in mercury entering the Yolo Bypass from the CCSB during flood events under the Proposed Project because the sediment trap efficiency would be greater. The Proposed Project would not result in mercury-laden floodwaters flowing from the CCSB to the Sutter Basin; storm flows exit the CCSB into the Yolo Bypass.

I7-2

Please see Master Response 2: *Flood Risk*. Also note that, under CEQA, "economic or social effects of a project shall not be treated as significant effects on the environment" (State CEQA Guidelines Section 15131(a)); that is, CEQA is not an economic protection statute.

I7-3

As described for Impact WQ-3 (Draft EIR Section 3.2.), results from a UC Davis sediment transport simulations of the CCSB for the 10-, 50-, 100-, and 200-year flood events indicate that CCSB sediment trap efficiency increases with flow event magnitude, and the Proposed Project meets or exceeds the current trapping efficiency of the CCSB in all event magnitudes except the 200-year event. Although mercury can exist in the water column, mercury is generally bound to suspended particulate matter and sediment. Therefore, it is reasonable to assume that there would not be a substantial increase in mercury entering the Yolo Bypass from the CCSB during flood events under the Proposed Project because the sediment trap efficiency would be greater. Storm flows exit the CCSB into Yolo Bypass, not Sutter Basin.

I7-4

Impact WQ-3 analyzes whether the Proposed Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact does not evaluate general plans. The City of Woodland and Yolo County general plans were fully analyzed in Draft EIR Section 3-5, *Land Use*, Impact LU-2: Conflict with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect, which

was determined to be less than significant. For a discussion of land values, please see Master Response 2: *Flood Risk*.

17-5

Please see response to Comments I7-1, I7-2, and I7-3 regarding water quality and mercury. See also Master Response 2: *Flood Risk*.

17-6

Please see Master Response 4: *Alternatives*.

17-7

As the commenter states, mercury contamination occurs under existing conditions in Cache Creek. The Proposed Project would not cause an increase in total mercury contamination in Cache Creek. Please also see Response to Comment I7-1, I7-2, and I7-3 regarding water quality and mercury. See also Master Response 2: *Flood Risk*.

17-8

Please refer to response to Comment I7-4 regarding clarification of Impact WQ-3 and information regarding general plans contained in the Draft EIR.

17-9

Please see the response to Comment I6-1 regarding the Lowe Well.

Letter I8—Sally Oliver 3

Letter I8

From: Sally Oliver <osokia@gmail.com>
Sent: Tuesday, August 11, 2020 3:12 PM
To: Tim Busch
Subject: Chapter 1 Introduction 1.1.1. " However , the Wi

Chapter 1 Introduction 1.1.1. " However , the Wilson Valley Dam and Reservoir project was never constructed because of seismic and sediment concerns."

I8-1

Sally Oliver comments: it is assumed the "SEDIMENT CONCERN" refers to its mercury content caused by the abandoned Mercury Mines at Cache Creek Headwaters near Clear Lake and the Mercury inherent in the Geology of the area. These concerns stopped the construction of Wilson Valley Dam and now the City of Woodland's Flood Risk Management Project's Flood Wall creates an artificial dam bound by the levees along the south side of Cache Creek, the Flood wall, and the Cache Creek Settling Basin. The Cache Creek Settling Basin is erroneously depicted in the Woodland Risk Management Project as a drain for the flood waters held by the Flood Wall in a major flood event. The function of the CCSB is to keep waters containing Mercury Sediment from entering Sutter Basin so it functions as a dam not a drain. The argument the CCSB has storage capacity is not true proven by the fact 20% of water from Cache Creek presently flows over the dam built by the State to protect Sutter Basin and the Sacramento River from Mercury pollution.

If Wilson Valley Dam was not allowed to be built then a lower Dam created by Woodland's Flood Wall cannot be built.

Sent from my iPad

Responses to Letter I8

I8-1

As described in Section 3.1, *Hydrology* (Section 3.1.1, *Existing Conditions*), the purpose of the CCSB is to preserve the capacity of the Yolo Bypass for flood flow conveyance by trapping sediment. Storm flows exit the CCSB into Yolo Bypass, not Sutter Basin. Between 1991 and 1993, the CCSB was modified to add an additional 50-year sediment storage capacity (U.S. Army Corps of Engineers 2003). Wilson Valley Dam was not constructed, in part due to the sediment load in Cache Creek and concerns that it would reduce the storage capacity of the dam over time. The sediment trap efficiency study undertaken by UC Davis (UC Davis 2016) informs both the hydrology and water quality analyses in the Draft EIR. This study determined that CCSB sediment trap efficiency not only increased with flow event magnitude under the Proposed Project, but that sediment trap efficiency would be greater under the Proposed Project relative to existing conditions. This is further discussed in Section 3.1, *Hydrology*, of the Draft EIR under Section 3.1.2.1, *Methods for Analysis, Sediment Transport Modeling*, and under Impact HYDRO-3, which was found to be less than significant. DWR will continue to operate and maintain the CCSB to meet sediment trapping efficiency as documented in the USACE O&M Manual for the CCSB (U.S. Army Corps of Engineers 2007:14, 15, 20).

Letter I9—Sally Oliver 4

Letter I9

From: Sally Oliver <osokia@gmail.com>
Sent: Tuesday, August 11, 2020 3:19 PM
To: Tim Busch
Subject: The U.S.Corp. of Army Engineers Environmental Operating Principals

The U.S.Corp. of Army Engineers Environmental Operating Principals
 No.4

I9-1

1. Foster sustainability as a way of life throughout the organization.
 Sally Oliver Comments; Figure 3.4-1 The design of the diagonal levee shown on this page is in direct conflict with the above Army Corp. Operating Principal. It devides 40 acres of prime , certified organic, agricultural land destroying the ability to farm it and the sustainable income derived from that activity. The present design destroys "a way of life "and "sustainability". The land including the house is currently in the Williamson Act and cannot be devided under State of California Law

2. U.S. Corp. of Army Corp. Environmental Operating Principals No. 4

I9-2

Practically consider environmental consequences of all Corp. of Engineers activities and act accordingly.
 Sally Oliver Comments: The City of Woodland and the Army Corp.ignored the environmental consequences of crossing and raising County Road 98 and the diagonal levee. The environmental impact upon the structures just southwest of the proposed levee and crossing 98 was not addressed even though it will cause serious flooding in heavy rain events by collecting field runoff and blocking drainage by the levee . the City of Woodland and The Army did not "act accordingly considering Enviornmental Consiquences".

Comments Woodland Flood Risk Management Project Public Draft EIR Sally Oliver
 16634 County Road 98
 Woodland Ca. 95695
 530 662 2364

Sent from my iPad

Responses to Letter I9

I9-1

This document is an EIR prepared by the City pursuant to the requirements of CEQA. CEQA does not require analysis of a project's consistency with USACE environmental operating principles. USACE prepared its own environmental analysis of the Proposed Project pursuant to the requirements of the National Environmental Policy Act (NEPA), which is presented in the *Lower Cache Creek, Yolo County, CA, City of Woodland and Vicinity Draft Supplemental Environmental Impact Statement for Potential Flood Risk Reduction Project*, published in December 2019 (U.S. Army Corps of Engineers 2019). As discussed in the EIR, certain effects of the Proposed Project would be significant and unavoidable. The Proposed Project would also result in many benefits. The decision-makers will determine whether the Proposed Project's overall benefits outweigh the impacts. Please see Master Response 2: *Flood Risk*. Please also see the response to Comment L1-3 regarding the Williamson Act.

I9-2

This document is an EIR prepared by the City pursuant to the requirements of CEQA. CEQA does not require analysis of a project's consistency with USACE environmental operating principles. USACE prepared its own environmental analysis of this project pursuant to the requirements of the National Environmental Policy Act (NEPA), which is presented in the *Lower Cache Creek, Yolo County, CA, City of Woodland and Vicinity Draft Supplemental Environmental Impact Statement for Potential Flood Risk Reduction Project*, published in December 2019 (U.S. Army Corps of Engineers 2019). Environmental impacts of the Proposed Project are fully considered in the Draft EIR, including potential impacts related to the full levee alignment and the raised crossing at County Road 98. Draft EIR Figure 3.1-5 shows the differences in flood surface elevation between existing conditions and with-project conditions. No changes to flood depth would occur southwest of the new levee due to the Proposed Project. Please see the response to Comment N1-10 for an explanation of levee alignment west of County Road 98.

Letter I10—Sally Oliver 5

Letter I10

From: Sally Oliver <osokia@gmail.com>
Sent: Wednesday, August 12, 2020 3:06 PM
To: Tim Busch
Subject: Comments on WFRMP DRAFT EIR

Comments on WFRMP DRAFT EIR
 COMMENTS SALLY OLIVER

Pg. 3.6_10

2nd paragraph INCORRECT STATEMENT ; " there are approximately 17 acres of agricultural land within the footprint of the Purposed Project that are under the Williamson Act. Our 40 acres east of County Road 98 , designated by the plan for a diagonal levee { see figure 2-2 OVERVIEW OF PROPOSED PROJECT} is in the Williamson Act. the Project divides our 40 acres diagonally destroying farming on all 40 acres. None of numbers are correct in this paragraph. The last sentence is incorrect. The impacts will be significant and will conflict with the Williamson Act because the levee will destroy the possibility to farm that 40 acres. It is evident the author of this paragraph is ignorant of agricultural practices and has a prejudice.supporting the PROJECT
 IMPACT AG-2 SIGNIFICANT CANNOT BE MITIGATED

I10-1

IMPACT AG_3. Other changes in the existing environment that, due to their location or nature , could result in conversion of Farmland to non agricultural use)

I10-2

The above statement shows the prejudice of the WFRMP DRAFT EIR. It places the value of "TAKING" farmland for the purpose of urban development above the general welfare of Yolo County. The PROPOSED PROJECT IS A USE. 'IT WILL INDUCE FURTHER CONVERSION TO URBANIZE USES.. IT WILL CHANGE THE ENVIRONMENT. The statements made in this paragraph are misleading and in fact lies.
 IMPACTS WILL BE SIGNIFICANT AND CANNOT BE MITIGATED

Sent from my iPad

Responses to Letter I10

I10-1

Please see the response to Comment L1-3 regarding the Williamson Act. The comment states that “none of the numbers are incorrect” in the paragraph about the Williamson Act, but does not provide different numbers.

I10-2

The Proposed Project is not an "urban development" project but, rather, is a flood control project. The purpose of the Proposed Project is to reduce the risks to public health, safety, property, and infrastructure from flooding. As described in Draft EIR Section 3.5, *Land Use*, the proposed levee would generally run along the north of the city along the urban limit line. The urban limit line serves to allow for development within the city limits while preserving the agricultural, natural resource, and open space uses outside the boundary (generally north of the project footprint).

Also as noted in Section 3.5, Impact LU-2 of the Draft EIR, the Proposed Project meets the conditions laid out in Policy AG-1.5 that would allow for the consideration of agricultural lands to be used for another land use. The Proposed Project would benefit the community by minimizing the effects of flooding. Because the Proposed Project is intended to minimize effects of flooding on the city of Woodland, due to the location of the flooding that would occur, the Proposed Project needs to be located to the north of the city. County land to the north of Woodland is primarily zoned for agricultural uses, so there is not a feasible alternative location for the project that could be located on non-agricultural lands. The Draft EIR fully analyzed the potential for other changes in the existing environment to result in conversion of farmland (Impact AG-3) in Section 3.6, *Agricultural and Forestry Resources*, and determined the impact to be less than significant.

Letter I11—Sally Oliver 6

Letter I11

From: Sally Oliver <osokia@gmail.com>
Sent: Wednesday, August 12, 2020 4:34 PM
To: Tim Busch
Subject: Comments on the WFRMP Draft Environmental Impact Re

Comments on the WFRMP Draft Environmental Impact Report

Sally Oliver's comments

chapter 1

Background 1.1.1. The description in this paragraph manipulates the historical events by not mentioning that The flood projects controlled by State, Federal and local agencies that did not respond to adjusting their projects overtime to changing conditions in the lower stretch of the creek. The excessive growth in the Creeks channel, need to raise levees and The State Project in the Cache Creek Settling Basin to contain the sediments contaminated with mercury. The Settling Basin is now full of that sediment , in fact overflowing. Rather than fulfill their obligation they now ask the citizens of Woodland to commit to millions of their tax dollars to support The Woodland Flood Risk Management Project. Adding to the irresponsible actions of the above agencies Congressman Geramendi and the City of Woodland ignored the vote of Woodland residents who in 2014 voted down the Floodwall Plan .

I11-1

Woodland and Yolo County residents beware. There are many players that plan to benefit State, Federal, City of Woodland if the Flood Risk Management Plan passes and you will pay ,

Sally Oliver
 16634 County Road 98
 Woodland Ca. 95695
 530 662 2364

Sent from my iPad

Responses to Letter I11

I11-1

Please see Master Response 2: *Flood Risk* and Master Response 3: *Maintenance of Existing Flood Management System*. The project description accurately documents the flood risk associated with the region. DWR is currently investigating the causes of lost capacity in the Cache Creek levee system and proposes to pursue corrective action. Even with the restored flood capacity of the existing system, the city would still be at a high risk of flooding and not meet either FEMA 100-year or state 200-year standards.

Letter I12—Sally Oliver 7

Letter I12

From: Sally Oliver <osokia@gmail.com>
Sent: Thursday, August 13, 2020 12:41 PM
To: Tim Busch
Subject: Comments on WFRMP Draft EIR

Comments on WFRMP Draft EIR
 Sally Oliver

Chapter 1 Introduction

I12-1

Second paragraph "The Proposed Project involves flood system improvements to reduce the risks to public health, safety, property and infrastructure from flooding of Lower Cache Creek in Woodland .These improvements are being proposed by the U.S.Corp. of Army Engineers. (USACE) the Central Valley Flood Protection Board (CVFPB) and the California Department of Water Resources (DWR0".

COMMENTS Sally Oliver This statement intentionally misleads. The State Agencies listed historically did not maintain flood improvements under their jurisdiction along the lower stretch of Cache Creek and when it was evident the levees needed to be raised they did not respond. They used numerous reasons to not remove excessive vegetation in the stream bed that seriously impedes Cache Creeks flow. The lead agency ,The City of Woodland supported off stream gravel mining in deep pits along the lower stretch of Cache Creek creating weak areas where floodwaters can easily escape toward the City of Woodland. The State Water Resources project in the Cache Creek Settling Basin is full of Mercury laden sediment to the point 20% is escaping over their dam. The Settling Basin cannot handle flood waters in it's present condition . The historic record of neglect by the above agencies just cited shows they were not committed to reducing the risk to public health, safety, property and infrastructure from flooding. It is clear The City of Woodland's Flood Risk Management Plan is not in the publics interest but rather special interests are driving this project while the public taxpayers will pay the bill.

Sally Oliver
 16634 County Road 98
 Woodland Ca. 95695
 530 662 2364

Sent from my iPad

Responses to Letter I12

I12-1

Please see Master Response 2: *Flood Risk* and Master Response 3: *Maintenance of Existing Flood Management System*. The comment states that a paragraph in the Draft EIR is misleading but does not explain what, specifically, is misleading about the text.

Letter I13—Betsy Spaulding

Letter I13

From: Betsy Spaulding <spauldingbetsy@gmail.com>
Sent: Thursday, August 13, 2020 4:18 PM
To: Tim Busch
Subject: Comments on WFRMP Draft EIR

Dear Tim,

Below are my comments to the EIR draft.

Betsy Spaulding

EIR Comments:

3.6.2.3 Impact and Mitigation Measures: Impact AG-2: Conflict with existing zoning for agricultural use or with a Williamson Act Contract. | I13-1

1. In the **EIR 3.6.2.3** it states that the Project Footprint would not conflict with the Williamson Act Lands. Forty acres of our agricultural land impacted by the Proposed Project/Alternative 2A is currently covered by a Williamson Act contract and 17 acres of our land is within the footprint of the Proposed Project. It is not our intention to take any of our land out of the Williamson Act.
 1. Please explain how the 17 acres can be removed from the Williamson Act if it isn't requested by the land owner.
2. This 17 acres is reported in the draft EIR as **0.4%** of acres under Williamson Act lands within the Project Area. | I13-2
 1. If the 17 acres is 0.4%, please show in detail where the remaining 99.6% of agricultural land (3,983 acres ?) under the Williamson Act is located in the Project Area of 9,692 of agricultural acres.

In section 3.6.2.3 of the EIR, it states that the removal of the 17 acres “would not prohibit or change continued use or production on existing Williamson Act lands within the project area or Yolo County and therefore there is no conflict with a Williamson Act contract and the impact would be less than significant”. | I13-3

1. The levee would have a significant impact on continued use or production on the remaining land on our property under the Williamson Act and have impact on other properties north of the levee under contracts. On our property the levee isolates the irrigation well, creates uneven furrows and brings in soil and gravel for the construction that affects the farms organic certification. When Cache Creek does flood, the bypass north of the levee and the levee will divert and hold more water on farm land north of the levee. This will damage crops, bringing in and settle sediment and mercury from the creek onto this land. This will change continued use and production on the land and is a significant conflict with the Williamson Act.

Reasonable Alternatives to Proposed Project/Alternative 2A and Alternative 2C in EIR: | I13-4

1. There are reasonable alternatives to the Proposed Project/Alternative 2A that could attain the project objectives that were not presented as alternatives in the EIR. These alternatives were examined in the USACE Lower Cache Creek Feasibility Study (2000-2005) and address improvements and maintenance of the existing levee on Cache Creek and clearing of the creek bed. These are not the “No Project Alternative” listed in the EIR. The No Project Alternative assumes that current conditions and operation and maintenance practices would continue by Yolo County and the DWR to ensure that the existing levees continue to be maintained. In reality, these existing levees have **not** been well maintained, impacting the levee integrity, erosion and flood protection. The channel clearing, raising existing levees and constructing new levees should be re-examined as alternatives, as we know more about the impact of Project Alternatives 2A and 2C.

Responses to Letter I13

I13-1

Please see the response to Comment L1-3 regarding the Williamson Act.

I13-2

Draft EIR Figure 3.6-1 identifies Williamson Act-contracted lands in the project area, as well as in the project footprint. The approximate total Williamson Act-contracted land in the project area is 4,119 acres.

I13-3

Removal of the 17 acres of land from existing Williamson Act contracts would not affect the productivity of the soils or the land on either side of the proposed levee within the subject parcels. Regarding "farm land north of the levee," please refer to Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. There would therefore be no conflict with Williamson Act contracts on the lands north of the levee.

I13-4

Please see Master Response 3: *Maintenance of Existing Flood Management System* and Master Response 4: *Alternatives*.

Letter I14—Catherine C. Engberg and Carmen J. Borg Shute, Mihaly & Weinberger LLP

SHUTE MIHALY
& WEINBERGER LLP

Letter I14

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August 13, 2020

Via E-Mail

Mr. Tim Busch
Principal Utilities Civil Engineer
City of Woodland
Flood Risk Management Project
300 First Street
Woodland, CA 95695
E-Mail: Tim.Busch@cityofwoodland.org

Re: Woodland Flood Risk Management Project, Draft Environmental Impact Report; (SCH No. 2015062075)

Dear Mr. Busch:

This firm represents residents of the City of Woodland and farmers Yolo County in connection with the proposed Woodland Flood Risk Management Project (“Project”). The Project and the City’s draft environmental impact report (“DEIR”) suffer from numerous fatal flaws. The Project conflicts with “Measure S”, a voter-sponsored initiative adopted in 2004 that (1) prohibits the City from “funding or taking any action that supports the Lower Cache Creek Flood Barrier or a substantially similar structure” without a prior vote of the people and (2) sets policy in favor of a *regional* flood control project. In addition, the DEIR fails to comply with the requirements of the California Environmental Quality Act (“CEQA”), Public Resources Code § 21000 et seq., and the CEQA Guidelines, California Code of Regulations, title 14, § 15000 et seq.

This letter is submitted along with the report prepared by Schaaf & Wheeler, Consulting Civil Engineers, attached as Exhibit 1. We respectfully refer the City to the aforementioned attached report, both here and throughout these comments. In addition, we request that the City respond separately to both the comments in this letter and the comments in the Schaaf & Wheeler Report.

I14-1

Tim Busch
August 13, 2020
Page 2

I. Background

I14-2

The City of Woodland and surrounding areas have historically been subject to flooding by Lower Cache Creek. The creek levee, built in 1940s and 1950s, is no longer providing reliable flood protection, likely due to the age of the infrastructure and to inadequate maintenance. DEIR at 1-1 and 1-2.

The City considered building a flood wall, similar to the proposed Project, in 2003. The community voiced strong opposition to the flood wall due to the same concerns being voiced now: the flood wall would protect the City but intensify flooding on farmland areas to the north. A ballot measure initiated by local residents resulted in voter approval of Measure S, which led to adoption of Municipal Code section 8.12.010 Flood Control Policy. As discussed in more detail below, this ordinance specifies that the City shall support a regional flood control project, rather than a flood barrier or wall along the City. Measure S and the associated ordinance thus prohibit the City from pursuing a flood wall.

Now, in contravention of the City's ordinance, the City is once again contemplating a municipal flood wall. The City has made only minor adjustments since the 2003 proposal (e.g., engineering details). At its core, the current flood wall proposal is substantively similar and would result in the significant impacts similar to the one proposed in 2003. *See* Letter from SMW to the City dated August 12, 2020, Letter Report from Schaff & Wheeler (attached as an exhibit), attached to this letter as Exhibit 2. This Project will have serious long-term consequences, not only for area residents, but for the region. Those consequences include exacerbating flooding on lands to the north of the flood wall; loss of farm lands; loss of open space; significant public safety impacts associated with increased flood risks and evacuations; visual impacts; and an increased risk of water pollution to name a few.

The DEIR suffers from several major problems and is insufficient to support a decision on the Project. First, the DEIR describes the Project in a manner that is both incomplete and results in misleading the public and decision-makers. The Project would be inconsistent with City and County policies and would protect City properties at the expense of farmland and County residents. As discussed in more detail below, the DEIR substantially understates the severity and extent of a range of environmental impacts, including, but not limited to, effects on hydrology, water quality, agricultural land, and public safety. In addition, in numerous instances, the EIR also fails to adequately analyze the Project's growth-inducing impacts. These inadequacies require that the DEIR be revised and recirculated so that the public and decision-makers are provided with a proper analysis of the Project's significant environmental impacts and feasible mitigation

SHUTE, MIHALY
& WEINBERGER LLP

Tim Busch
 August 13, 2020
 Page 3

for those impacts. *See* CEQA Guidelines §15002(a)(1) (listing as one of the “basic purposes” of CEQA to “[i]nform governmental decision makers and the public about the potential, significant environmental effects of proposed activities”).

I14-2
 cont.

Given that the community clearly directed the City not to build a flood wall and to support a regional flood control project through approval of Measure S, the City’s pursuit of this Project appears to be motivated by economic incentives, not concerns for public safety. As discussed in more detail in section IV.D. of this letter below, the City’s persistent attempts to accommodate a proposed commercial/industrial development on low-lying land owned by Gerry Kamilos, located to the east of Woodland, provides evidence of incentive for the blinkered approach the City has taken regarding this proposed Project.

To ensure that the public and the City’s decision-makers have adequate information to consider the effects of the proposed Project—as well as to comply with the law—the City must require revisions in the Project to make it compliant with Measure S, the General Plan and Municipal Code and then prepare and recirculate a revised DEIR that properly describes the Project, analyzes its impacts, and considers meaningful alternatives and mitigation measures that would help ameliorate those impacts.

II. Approval of the Project as Proposed Violates Measure S Requirements.

I14-3

As described above and in more detail in the letter from SM&W to the City dated August 10, 2020, Measure S is a 2004 voter-sponsored initiative measure. *See* generally, Exhibit 2. Measure S was a uniquely simple and straightforward initiative. The full text of Measure S is plain and unambiguous; it provides:

Section 1: It shall be the policy of the City of Woodland to encourage a regional flood control project to protect both the City of Woodland and other areas of Yolo County. Therefore, the City of Woodland shall not fund or take any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or support a substantially similar structure.

Section 2: The ordinance shall not be repealed or amended except by a vote of the people of the City of Woodland.

(Exhibit 3, Initiative Petition.) Measure S was overwhelmingly approved by the voters, passing with a 62.8% to 37.1% vote with more than half of registered voters casting a ballot. Measure S establishes City policy that: (1) prohibits the City from

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funding or taking “any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or support a substantially similar structure” without a prior vote of the people (“2003 Flood Wall”) and (2) directs a *regional* flood control policy that protects both the City and other areas of the County. *See also* Woodland Municipal Code section 8.12.010 (codifying Measure S). Measure S was supported by a broad coalition of residents and stakeholders that crossed political, economic, and geographic boundaries.

I14-3
 cont.

Astonishingly, the City is considering a proposed flood wall, which is a substantially similar structure that would perform the same non-regional functions. These similarities are described in detail in the letter from SM&W to the City dated August 10, 2020 and its accompanying appendix, both of which are included as Exhibit 2 to this letter. Voters approved Measure S because they supported a regional solution. Yet, the DEIR eliminates Strengthening in Place (SIP) alternatives that would provide *regional* flood control consistent with Measure S. The DEIR purports to eliminate these SIP alternatives as not being feasible/cost-effective. These projects include Alternatives 1A, 1B, 1C, 1D, 6A, 6B, 6C, 7A and 7B, which present regional flood control solutions endorsed by the voters who approved Measure S, whether implemented alone or in combination. DEIR at 4-46 to 4-48. Several of these alternatives, including 6B and 6C, would also provide 200-year flood protection. Therefore, the City’s promotion and support of the proposed Project is inconsistent with and in direct violation of Measure S.

III. Approval of the Project as Proposed—Which Is Inconsistent with Measure S Requirements and Inconsistent with the City’s Municipal Code and the County’s General Plan—Would Violate State Planning and Zoning Law.

I14-4

The state Planning and Zoning Law (Gov’t Code § 65000 et seq.) requires that development approvals be consistent with the jurisdiction’s general plan. As reiterated by the courts, “[u]nder state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements.” *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806. Accordingly, “[t]he consistency doctrine [is] the linchpin of California’s land use and development laws; it is the principle which infuses the concept of planned growth with the force of law.” *Families Unafraid to Uphold Rural El Dorado County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1336.

It is an abuse of discretion to approve a project that “frustrate[s] the General Plan’s goals and policies.” *Napa Citizens for Honest Gov’t v. Napa County* (2001) 91 Cal.App.4th 342, 379. The project need not present an “outright conflict” with a general plan provision to be considered inconsistent; the determining question is instead whether

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the project “is compatible with and will not frustrate the General Plan’s goals and policies.” *Napa Citizens*, 91 Cal.App.4th at 379. Here, the proposed Project does more than just frustrate the General Plan’s goals. As discussed in more detail below, the Project is directly inconsistent with numerous provisions in the General Plan.

I14-4
 cont.

A. The Project is Inconsistent with City of Woodland General Plan.

The DEIR fails to adequately analyze the Project’s consistency with the City of Woodland’s General Plan. In a feeble attempt at analysis, the DEIR lists certain General Plan policies relevant to the proposed Project. DEIR at 3.5-2, 3.5-3, 3.5-7. Yet instead of engaging in legitimate analysis on the implications of this project to the stated goals and policies, the DEIR makes vague conclusory statements regarding the Project’s consistencies with these policies. DEIR at 3.5-7.

1. Agriculture

As an initial matter, the proposed Project directly violates the General Plan’s Goal 7.C, which calls for the preservation and economic viability of agricultural land surrounding the Urban Limit Line. The DEIR does not mention Goal 7.C in its consistency analysis, perhaps because the Project does the exact opposite. *See* DEIR at 3.5-7. The policy makers at the City of Woodland know that this proposed Project devalues and puts at risk 6,000 acres of productive agricultural land immediately north of town. Flood risks associated with the proposed Project will result in serious long-term consequences to adjacent farmland, such as the loss of open space and arable agricultural land. The DEIR neglects to meaningfully consider regional flood solutions that would advance Goal 7.C. Instead, the DEIR blesses a project that undermines the economic viability of agricultural land in its vicinity, surrounding the Urban Limit Line.

I14-5

2. Flood Risks and Safety

The DEIR asserts that the proposed Project supports the Safety Element of the City of Woodland’s General Plan because it would require the installation of structures to protect existing buildings and development sites from the effects of flooding. DEIR at 3.5-7 (citing Policy 8.B.5). The DEIR fails to mention, however, that the proposed Project will *exacerbate* flood risks and *endanger* property and community members. Indeed, the Project undermines the goals of the City’s Safety Element, which seeks to “protect the lives and property of the citizens of Woodland from hazards” as well as “manage floodplains for their open space and natural resource values.” Goal 8.B. Ironically, Woodland voters directed the City not to build a flood wall and to instead support a regional flood control project through approval of Measure S. This Project does

I14-6

I14-7

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the opposite, in violation of both Measure S and the General Plan’s policies addressing flood safety concerns. | I14-7 cont.

The DEIR also fails to mention Policy 8.B.7, which requires “that new flood management projects or developments within areas subject to flooding ensure that floodwaters will not be diverted into adjacent property to increase flood hazards on properties located elsewhere unless secured through a flood easement or fee title buyout.” The Project is inconsistent with this mandate, as the DEIR repeatedly notes that northern farmland will be at risk of increased flood depths in order to potentially protect the City from flooding. DEIR at 3.1-14; Figure 3.1-8. The flood wall would increase flood hazards on farm lands to the north and west of the City. The DEIR admits this when it states that the Project would “redirect overland flood flows.” DEIR at ES-1. Despite these hazards, the City has failed to ensure the purchase of flood easements or to offer fee title buyout. | I14-8

The DEIR must disclose the proposed Project’s clear inconsistency with the above General Plan policies. Namely, it must address that proposed Project will divert flood waters towards agricultural lands, in violation of Policy 8.B.7 prohibition of flood water diversion to adjacent property and Goal 8.B, which aims to protect natural resources from flood hazards. Goal 7.C. Preserve Farmland. Promote preservation and economic viability of agricultural land surrounding the Urban Limit Line. | I14-9

B. Inconsistent with City of Woodland Municipal Code.

As discussed in section II above, the Project violates Measure S, and is inconsistent with the City’s municipal code section 8.12.010, which codifies Measure S. See also, letter from SM&W to the City dated August 10, 2020 attached to this letter as Exhibit 2. The ordinance reads: | I14-10

8.12.010 Flood control policy.

A. It shall be the policy of the City to encourage a regional flood control project. Therefore, the City shall not fund or take any action that supports the Lower Cache Creek flood barrier (flood wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.

B. This chapter shall not be repealed or amended except by a vote of the people of the City. (Prior code § 10-1)

As explained in section II above, the proposed flood barrier is not only “substantially similar” to the 2003 Flood Wall project that the voters rejected in 2004, it

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is virtually identical. The Project is not a “regional flood control project”; it is the opposite. See also, Appendix B, the Schaff & Wheeler report attached as Exhibit 1, dated July 28, 2020. Therefore, the Project would conflict with Woodland Municipal Code provision 8.12.010. A revised EIR must evaluate the Project’s inconsistency with these and other applicable Code provisions.

I14-10
 cont.

I14-11

C. The Project is Inconsistent with the Yolo County General Plan.

I14-12

The DEIR likewise fails to adequately analyze the Project’s consistency with Yolo County’s General Plan. The DEIR acknowledges that the Project must be consistent with the County’s General Plan (DEIR at 3.5-1) and purports to analyze the Project’s consistency with various General Plan policies and goals. DEIR at 3.5-6, 3.5-7. However, in its analysis, the DEIR glosses over numerous, glaring inconsistencies with Yolo County’s General Plan. In addition to misinforming decision-makers and the public about the Project’s consistency with the General Plan, this analysis underestimates the actual impacts of the Project and ignores some of the Project’s most significant impacts.

Similar to its treatment of the City of Woodland’s General Plan, the DEIR lists certain Yolo County General Plan policies relevant to the Project, and merely makes vague conclusory statements regarding the Project’s consistencies with these policies. DEIR at 3.5-5-3.5-7. The DEIR’s general claim that the Project “is consistent with these elements goals and policies” (DEIR at 3.5-6) is meaningless given the DEIR’s lack of any real analysis.

1. Agriculture

Multiple Yolo County General Plan policies make clear that development should not disrupt agricultural lands in order to “preserve and defend agriculture as fundamental to the identity of Yolo County.” Goal AG-1, AG-22. These policies include an explicit prohibition of “land use activities that are not compatible within agricultural designated areas,” (Policy AG 1.4) and the “conversion of agricultural land for other uses” (Policy AG 1.5). Here, as discussed below, the project would result in indirect impacts that jeopardize continued agricultural uses on farmland north of the Project. The increase in flood depths are not compatible with agricultural production. In addition, the increased flooding caused by the Project would effectively change the land use from productive agricultural uses to floodplain. Under Policy AG 1.5, no lands shall be considered for redesignation from Agricultural or Open Space to another land use designation unless all of the following findings can be made:

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A. There is a public need or a net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use. | I14-13 cont.

B. There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.

C. The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding lands designated Agriculture.

The Project undermines all of these policies. Despite acknowledging that the “project footprint is primarily located in areas designated for agricultural use, and therefore may not specifically preserve agricultural land,” the DEIR claims the proposed Project satisfies the requirements of AG 1.5. DEIR at 3.5-7. This is false, as the Project directly violates requirements in sections A and C of policy AG 1.5. First, the surrounding community and area residents to the north will not derive any benefit from this Project, and will instead suffer serious long-term consequences. Those consequences include exacerbating flooding on lands to the north of the flood wall and significant public safety impacts associated with increased flood risks and evacuations. The DEIR claims the City itself might be protected from flooding and would benefit from the Project, yet the DEIR fails to elaborate on the number and location of the properties that would derive any benefit. DEIR at 3.1-14. Furthermore, any protection afforded to the City will come at the expense of communities in the north. | I14-14

Second, the proposed Project would have a significant adverse effect on existing agricultural activities and surrounding lands designated agricultural. Flooding as deep as six feet on lands to the north is to be expected, which will result in loss of farm lands. DEIR Figure 3.1-8. Despite the high value the County places on preserving agricultural lands—as reflected in its General Plan policies—the Proposed Project will transform productive farmland into a floodwater bypass, an insult to the goals and policies of Yolo County’s Agriculture and Economic Development Element. | I14-15

The DEIR also overlooks General Plan goals and policies that seek to “protect natural resources needed to ensure that agriculture remains an essential part of Yolo County’s future.” Goal AG-2. Policy AG 2.2 provides for the preservation of water resources for agriculture, both in quantity and quality. Since rainfall in Yolo County is inadequate to sustain most crops, agriculture depends on reliable irrigation water supply from a combination of both groundwater and surface water. Yolo County General Plan at AG-8. In most years, surface water is the primary source of irrigation water in Yolo County. *Id.* Cache Creek, including Clear Lake and Indian Valley Reservoirs are main sources of water supply to the County. *Id.* As discussed in Section III of this letter, the | I14-16

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DEIR fails to grapple with the Project’s impact on water quality. Similarly, the DEIR fails to evaluate the Project’s consistency with this general plan policy requiring protection of water quality. The Project is inconsistent with Policy AG 2.2 because the potential spread of pollutants via flood waters would jeopardize water quality and the agricultural lands that depend on clean water sources. | I14-16 cont.

AG 2.5 provides for the support of “high value and intensive farming practices on appropriate agricultural soils. Prime soils and other productive agricultural land outside of growth boundaries shall be preserved wherever feasible.” Here, the Project would do the opposite. The proposed Project contradicts policy AG 2.5, because as discussed throughout this letter, the Project would jeopardize use of lands to the north for farming. | I14-17

Approving development that infringes on agricultural lands would be a blatant violation of the Yolo County General Plan, including the specific directive to preserve “prime soils and other productive land outside of growth boundaries.” Policy AG 2.5. The DEIR’s failure to analyze and clearly disclose the Project’s impacts on agricultural lands and its inconsistency with General Plan policies is inexcusable. These omissions alone require a complete redesign of the project and recirculation of the DEIR. | I14-18

2. Community Character

Despite making a vague reference to Yolo County’s Land Use and Community Character Element, the DEIR does not actually cite any of the General Plan’s Community Character policies and goals. However, as made clear by the General Plan, agricultural lands and open space do not just have economic importance to Yolo County and its communities. These lands are also aesthetically important to the identity of the County. General Plan’s Community Character Element seeks to “ensure that the rural character of the County is protected and enhanced, including the unique and distinct character of the unincorporated communities.” Goal CC-1. Yolo County General Plan emphasizes that rural landscapes are “important scenic feature[s] of the County.” Policy CC-1.2. | I14-19

The Project would be placed at the epicenter of the County’s productive farmlands and rural open spaces, and would exacerbate flooding in rural and agricultural landscapes. Accordingly, consistency with the Yolo County General Plan requires an analysis of visual, aesthetic, and character impacts to the County’s rural and agricultural communities. The DEIR’s lacking analysis on impacts to community character is an oversight that warrants a revision and recirculation of the DEIR. | I14-20

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3. Flood Risks and Safety

I14-21

The County’s General Plan includes policies to protect communities and properties from flood risks and damage. These policies include:

Policy HS-2.1: Manage the development review process to protect people, structures, and personal property from unreasonable risk from flooding and flood hazards.

Policy HS-2.2: Ensure and enhance the maintenance and integrity of flood control levees.

Policy HS-2.4: Clearly communicate the risks, requirements, and options available to those who own land and live within the floodplain.

Policy HS-2.7: Manage the floodplain to improve the reliability and quality of water supplies

The DEIR claims that the proposed Project is consistent with these policies of the Health and Safety Element of the County’s General Plan because it would reduce damage to property from flooding, despite noting an “increased flood depth” within the agricultural lands surrounding the project footprint. As mentioned earlier, the DEIR fails to elaborate on the number and location of structures that would benefit from reduced flood damage. DEIR at 3.1-14. Without providing any other analysis or explanation, the DEIR somehow concludes that “any increased flood depths associated with the Project within the project area would be less than significant.” DEIR at 3.5-6.

The DEIR dismisses flood risks and the implications of flooding to the area surrounding the Project site. The extent of the DEIR’s General Plan consistency analysis regarding flooding amounts to a single paragraph with no evidence to substantiate claims that the proposed Project’s flood infrastructure would “enhance the maintenance and integrity of existing flood control system.” DEIR at 3.5-6. These bare conclusions are too vague to qualify as a disclosure of impacts related to flooding and do not qualify as an accurate analysis of consistency with the General Plan’s Health and Safety Element.

I14-22

I14-23

In sum, the DEIR fails to disclose the Project’s impacts related to flooding on nearby communities and agricultural lands and fails to provide any meaningful analysis of the Project’s inconsistency with Yolo County’s General Plan policies protecting County residents and property from flood risks.

I14-24

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IV. The DEIR's Analysis of and Mitigation for the Impacts of the Proposed Project Are Inadequate.

114-25

Even if the Project were permissible under Measure S as well as state and local planning law, it would still require thorough, comprehensive environmental review. The EIR for this proposal should be of the highest quality, giving both decision-makers and the public a full opportunity to understand and analyze environmental repercussions of the Project. An EIR is “the heart of CEQA.” *Laurel Heights Improvement Ass’n v. Regents of University of California* (1988) 47 Cal.3d 376 at 392 (“Laurel Heights I”). In particular, the City “should not be allowed to hide behind its own failure to gather relevant data.” *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311. “The EIR is also intended ‘to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.’ Because the EIR must be certified or rejected by public officials, it is a document of accountability.” *Laurel Heights I*, 47 Cal.3d at 392 (citations omitted). Unfortunately, the DEIR fails entirely to live up to this mandate.

An EIR must provide enough analysis and detail about environmental impacts to enable decision-makers to make intelligent judgments in light of the environmental consequences of their decisions. The City, in its role as lead agency, must make a good faith effort to disclose the impacts of the Project, both at the Project level and at the cumulative level. The Project’s function and broad effects mandate particularly careful analysis and public disclosure of its many significant impacts. Unfortunately, as described in detail in the following sections, the DEIR for the Woodland Flood Risk Management Project fails to meet even the most basic objectives of CEQA, and utterly deprives the public and decision-makers of any opportunity to understand the environmental repercussions of the Project.

The EIR is “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return. The EIR is also intended to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.” *Laurel Heights I* (1988) 47 Cal. 3d 376, 392 (citations omitted). Where, as here, the environmental review document fails to fully and accurately inform decision-makers, and the public, of the environmental consequences of proposed actions, it does not satisfy the basic goals of either statute. See Pub. Res. Code § 21061 (“The purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect that a proposed project is likely to have on the environment.”).

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The evaluation of a proposed project's environmental impacts is the core purpose of an EIR. See CEQA Guidelines § 15126.2(a) ("An EIR shall identify and focus on the significant environmental effects of the proposed project"). It is well-established that the City cannot defer its assessment of important environmental impacts until after the project is approved. *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-07.

I14-25
 cont.

As explained below, the EIR fails to analyze the Project's numerous environmental impacts, including those affecting agricultural lands, public health and safety, and hydrology and water quality. These inadequacies require that the EIR be revised and recirculated so that the public and decision-makers are provided with a proper analysis of the Project's significant environmental impacts and feasible mitigation for those impacts. See CEQA Guidelines §15002(a)(1) (listing as one of the "basic purposes" of CEQA to "[i]nform governmental decision makers and the public about the potential, significant environmental effects of proposed activities").

A. Hydrology and Water Quality Impacts

The Project's flood wall would impact County lands by exacerbating flooding on farm lands to the north and west of the City. The DEIR admits this when it states that the Project would "redirect overland flood flows". DEIR at ES-1. Redirection of overland sheet flow essentially creates a floodway over the farmlands north of the City and south of the creek. Moreover, the Project would increase public safety risks from flood events because, as acknowledged in the DEIR, the Project would reduce the flood plain area and alter existing shallow sheet flow of flood waters into inundation in the event of a creek levee break. DEIR at 3.1-12. The DEIR fails to adequately analyze and disclose impacts associated with the proposed Project.

As detailed below, the DEIR underestimates Project-related impacts related to hydrology as a result of a series of errors, including: (1) the failure to adequately analyze the extent and severity of flooding impacts to productive farmlands and (2) the failure to identify feasible mitigation measures. The DEIR's treatment of hydrology impacts does not meet CEQA's well established legal standard for impacts analysis. Given that analysis and mitigation of such impacts are at the heart of CEQA, the DEIR will not comply with the Act until these serious deficiencies are remedied.

Because the report prepared by Schaff & Wheeler provides detailed comments on the DEIR's hydrology analysis, we will not reiterate each of those comments here. See, Schaff & Wheeler Letter, attached as Exhibit 1. Instead, the discussion below highlights the most egregious deficiencies.

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The DEIR concludes that Project-related impacts of flooding of farmlands to the north of Woodland would be less than significant with implementation of mitigation measures. DEIR at 3.1-17 and 3.1-18. However, as discussed below, omissions in analysis and contradictory information presented by the DEIR itself belies this conclusion.

I14-25
cont.

1. The DEIR Fails to Provide Evidence to Support Its Conclusions That Project-related Inundation Impacts Would Be Less Than Significant.

Currently, flooding both in Woodland and in the farmlands to the north, is infrequent. DEIR at 3.1-8. The DEIR states that “[T]ypical flood hazards in the study area consist of shallow sheet flooding from surface water runoff from large rainstorms with depths generally less than two feet.” *Id.* The peak flows are short; flood waters that present for longer than 24 hours are rare. Most of the flood waters sheet flow along Interstate 5. Flooding in the northeastern part of Woodland tends to be deeper due to topography and lower elevation. *Id.*

The DEIR acknowledges that flooding on lands to the north induced by the Project would increase compared to the current condition and inundation levels would be as deep as six feet. However, the DEIR falls short of disclosing the full extent and severity of these impacts. Exhibit 1 at 7 and DEIR Figure 3.1-8. The DEIR acknowledges Project-related changes in hydrology and concedes that the 6,000 acres north of Woodland would act “like a bypass to transport water more efficiently through the floodplain...” DEIR at 3.5-8. In other words, the Project would convert thousands of acres of productive farmland into a floodwater bypass. However, the DEIR presents misleading data regarding the duration of the 100-year flooding area north of the proposed floodwall. Specifically, the DEIR presents hydrographs located within an area subject to less than one foot of increased inundation. Exhibit 2 at 7; DEIR at 3.2-17. The DEIR fails to include hydrographs of the areas that will be subject to much greater flood hazards. *Id.* This omission understates the flood impacts of the Project and undermines the analysis presented.

Moreover, the DEIR is dismissive of this increased depth in flooding. In considering whether the Project would “impede or redirect flood flows resulting in increased inundation levels” the DEIR concedes that “project implementation could result in increased inundation depths.” DEIR at 3.1-18. The increases in inundation could range from 2.0 feet to 6.0 feet. *Id.* However, the analysis concludes that, because the farmland is already subject to flooding, and because the proposed non-structural measures (e.g., flood-proofing buildings) would protect structures from flooding, impacts associated with

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inundation would be less than significant. DEIR at 3.1-18. As discussed above, farmlands to the north do not currently experience floods of the depth and duration expected after Project implementation. As discussed in section II.B of this letter, increased flood depths of two to six feet constitute a significant impact to agricultural operations, even if no structures are present. These impacts must be disclosed, analyzed, and mitigated.

| 114-26
 | cont.

In addition, the DEIR concludes that non-structural measures proposed to mitigate the increase in flood depths north of the barrier would not significantly alter the existing drainage pattern of the site or area...in a manner that would result in substantial erosion of siltation onsite or offsite. DEIR at 3.1-16. As explained in the Schaff & Wheeler Report, the City proposes non-structural measures in lieu of building flood control infrastructure and may adopt additional flood management measures such as land use regulations (e.g. flowage easements), flood forecasting and warning systems, flood-proofing, relocation, and disaster preparedness. Exhibit 1 at 5. The Schaff & Wheeler Report explains that while termed “non-structural measures,” flood-proofing techniques usually require some sort of structural improvements, such as building berms around individual structures or making buildings waterproof without elevating them for example. *Id.*

| 114-27

However, the DEIR fails to define footprints for non-structural measures and fails to analyze the hydraulic impacts of implementing the non-structural measures. *Id.* Under CEQA, EIRs must evaluate the effects of implementing proposed mitigation measures. CEQA Guidelines section 15126.4(a)(1)(D); *Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986. In this case, the DEIR both fails to provide enough detail about the proposed non-structural measures and fails to evaluate the resulting impacts from implementation of the proposed non-structural measures.

The DEIR also vaguely states that the Project would reduce flooding below the existing condition for several structures in the residual floodplain. DEIR at 3.1-14. However, the DEIR fails to elaborate on the number and location of the structures that would benefit from the effects of the Project. *Id.*

| 114-28

2. The DEIR’s Analysis of Project-related Impacts to Water Quality is Inadequate.

The DEIR’s analysis of flood hazard risks related to release of pollutants during inundation events is also inadequate. The DEIR acknowledges that the flood inundation “could upset and spread stored hazardous materials from inundated vehicles, homes, industrial facilities, agricultural operations, businesses, and equipment, and result in the flushing of existing pesticides and other soil contaminants into surface water and

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groundwater.” DEIR at 3.2-17. The DEIR also discloses that “overland flow of flood waters would also result in erosion, turbidity and sedimentation. In addition, sewage facilities could fail, resulting in floodwaters contaminated by human and animal waste and potentially pathogens.” *Id.* However, rather than evaluating the extent and severity of this anticipated impact, the DEIR inexplicably concludes that because the Project would increase flood protection for Woodland and decrease the potential for upset and spread of hazardous materials from homes and businesses within the City, related impacts would be less than significant. DEIR at 3.2-18.

I14-29
 cont.

The DEIR’s abbreviated discussion of the potential for spread of pollutants via flood waters fails to consider the effects of increased inundation north of the flood wall. As explained in the Schaff & Wheeler Report, Clear Lake and Cache Creek are known to be impaired by mercury and nutrients. Exhibit 1 at 7. Under these circumstances, where the existing environment is especially sensitive and already significantly degraded, an accurate analysis of current environmental conditions and Project impacts is essential. Here, the DEIR fails to adequately describe existing conditions at receiving waters, so that the reader of the DEIR lacks a basic understanding of the hydrologic system. Without this rudimentary information on the receiving water’s existing hydrological conditions, the DEIR is crippled in its ability to analyze the Project’s potential impacts related to the receiving water’s sensitivity to new pollutant loads resulting from the Project.

I14-30

Furthermore, the DEIR acknowledges that methylmercury production has been shown to be driven by flood events that “infrequently inundate areas adjacent to stream channels.” Exhibit 1 at 8 and DEIR at 3.2-17. The DEIR further acknowledges that

I14-31

“it is reasonable to assume that under the Proposed Project, in those inundated areas that could be flooded longer than under existing conditions in a flood event, the potential for mercury methylation would be higher relative to existing conditions, particularly in areas where modeled floodwater velocities are substantially reduced relative to existing conditions.”

Id. Despite these disclosures, the DEIR fails to quantify, or even estimate, the extent and severity of impacts related to increased transport of methylmercury from agricultural land to receiving waters. *Id.* The DEIR implies that areas removed by the Project from 100-year inundation balance or somehow negate areas with additional 100-year inundation due to the Project, in terms of methylmercury production. *Id.* However, the DEIR fails to provide support for this theory. A revised analysis should be undertaken to assess the increased risk of methylmercury contamination north of the Project location.

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In sum, the DEIR lacks sufficient evidentiary support for its conclusion that the Project’s impacts on hydrology and water quality would be less than significant. A revised DEIR that adequately describes the hydrologic setting and comprehensively evaluates and mitigates the proposed Project’s hydrology and water quality impacts must be prepared and recirculated.

|114-32

B. The DEIR Fails to Disclose the Extent of the Project’s Significant Agricultural Impacts or to Adopt All Feasible Mitigation Measures.

|114-33

The California Legislature has repeatedly emphasized that the preservation of agricultural land is a priority statewide policy goal. In adopting the California Land Conservation Act of 1965, Gov. Code section 51200 *et seq.*, (unofficially, the “Williamson Act”), the Legislature found that “the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state’s economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful and nutritious food for future residents of this state and nation.” Gov. Code § 51220; *see also* Civ. Code, § 815 (“the preservation of land in its natural, scenic, *agricultural*, historical, forested, or open-space condition is among the most important environmental assets of California”) (emphasis added); Pub. Res. Code § 10201 (“These lands contribute to the economic betterment of local areas and the entire state and are an important source of food, fiber, and other agricultural products. . . . The long-term conservation of agricultural land is necessary to safeguard an adequate supply of agricultural land . . .”).

The Legislature has also declared that CEQA is intended to effectuate this critical public policy goal. Stats. 1993, ch. 812, § 1, p. 4428 (“Agriculture is the state’s leading industry The conversion of agricultural lands to nonagricultural uses threatens the long-term health of the state’s agricultural industry. The California Environmental Quality Act plays an important role in the preservation of agricultural lands.”).

Yolo County has also emphasized the importance of agricultural land, adopting numerous General Plan policies and goals to protect and conserve the County’s vast agricultural lands. *See* Yolo County General Plan at VI-3, AG-2, and AG-22 to AG-38. For example, the County General Plan states that “[T]he vision of Yolo County is to remain an area of active and productive farmland and open space.” Yolo County General Plan at VI-3. The first Principle stated in the Plan’s ‘Principles and Objectives’ states: “[T]he success of Yolo County depends upon the success of agriculture.” *Id.* The County General Plan similarly lists as primary objectives protection of family owned and operated farms and flood protection for agricultural lands and small communities, processing facilities, and support businesses. *Id.* at objectives 1.1

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and 1.10. Moreover, as the DEIR acknowledges, the County requires mitigation for the conversion of farmland. DEIR at 3.6-5.

|114-33
 cont.

The County has a long history of agricultural operations and encompasses extensive harvested agricultural land and rangeland. Crops in Yolo County accounted for a gross value of more than \$7.65 million in 2019, contributing significantly to the economy of the region and the state as a whole. Yolo County Agricultural Crop Report 2018 at 1. Lands within the Project area and to the north of the City of Woodland are classified as Prime Farmlands. DEIR at 3.6-6 and <https://maps.conservation.ca.gov/DLRP/CIFF/> However, as the DEIR acknowledges, farming in Yolo County is under considerable pressure. DEIR at 3.6-6 and 7. According to the DEIR, in the ten-year period between 2006 and 2016, the County lost approximately 24,399 acres, or six percent of Important Farmland. *Id.* The County General Plan also makes clear that Yolo County agricultural lands face increasing development pressure from encroaching urban areas. Yolo County General Plan at VI-2.

Severe flooding can be a significant driver of agriculture land conversions and fragmentation. Here, the Project would impact prime farmland within Yolo County’s jurisdiction just north of the Project area. This land is high quality, productive farm land planted in high value crops. The area is proximate to processing plants with good access to transportation routes. The Project would result in significant impacts to farmland due to more severe flooding. The DEIR, however, gives short shrift to the Project’s potential to impact agricultural resources. It employs methodologies that downplay or ignore the Project’s impacts. In doing so it violates CEQA’s core informational purpose. *Mira Monte Homeowners Assn. v. County of Ventura* (1985) 165 Cal.App.3d 357, 365 (EIR protects “the right of the public to be informed in such a way that it can intelligently weigh the environmental consequences of a[] contemplated action”). Nor does the DEIR adopt all feasible mitigation measures to reduce the Project’s significant impacts on agricultural resources as CEQA requires. Pub. Res. Code § 21002; CEQA Guidelines § 15002.

1. The DEIR Underestimates the Project’s Impacts on Prime Farmland Because It Does Not Adequately Evaluate How the Project Will Lead to Additional Farmland Conversions.

|114-34

In addition to analyzing a Project’s direct conversion of Farmland, CEQA requires a lead agency to evaluate whether a project would “involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use” CEQA Guidelines Appendix G.II(e). Here, the DEIR discloses that there are 4,119 acres of county land in the Project area under

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Williamson Act and 17 acres within the project footprint. DEIR at 3.6-7. The Project area also includes 9,692 acres of county land zoned Agricultural Intensive, including 329 acres within project footprint. *Id.* However, the DEIR’s analysis of potential loss of farmland due to Project implementation fails to comply with CEQA, for at least two reasons. I14-34 cont.

First, the DEIR’s fails to explain the methodology used to classify farmland as “prime”. The DEIR includes a short paragraph concluding that the Project would not induce further conversion of existing agricultural uses, as evidenced by the Land Evaluation and Site Assessment (LESA) Model score assigned to farmlands in the Project area. DEIR at 3.6-10. The DEIR fails to provide any details about how the LESA scores were derived and provides only a one-page document listing the scores. DEIR Appendix D. This cursory discussion does not pass for analysis. The Project will adversely impact thousands of acres of Prime Farmland and can lead to indirect conversion of farmland due to a variety of factors, chief among them changes in flood flows and flood inundation depths. In addition, the Project could result in fragmentation into smaller field sizes, disruption of irrigation systems, and risk of exposure to hazardous chemicals resulting from inundation. However, the DEIR’s discussion fails to adequately inform the reader of these potential impacts, let alone provide details or an explanation regarding the extent of these problems. I14-35 I14-36

Second, the DEIR ignores impacts related to the conversion of agricultural lands due to the duration and amount of flooding. The DEIR *only* considers permanent conversion of farmland within the footprint of the project and in the project area based on where the footprint overlaps with farmland. The DEIR concludes that 192 acres of farmland would be permanently converted to nonagricultural uses with 185 acres being prime. DEIR at 3.6-7. However, as discussed further below, impacts from increased flooding can also have significant *indirect* adverse impacts on farming that can lead to a loss of farmland due to the inability to sustain farming practices. I14-37

According the a 2013 study of agricultural and economic impacts resulting from a proposal to flood Yolo Bypass to benefit fish habitat, “[C]rop yields are the fundamental driving factor for agricultural revenue losses due to flooding in the Yolo Bypass. See, “Agricultural and Economic Impacts of Yolo Bypass Fish Habitat Proposals,” Howitt, MacEwan et. al, 2013, attached as Exhibit 4 at 41 and available at: <http://www.yolocounty.org/home/showdocument?id=22478>. When fields flood, farmers are forced to delay planting. “As farmers delay planting, crop yields decline which in turn leads to lower revenues and land fallowing.” *Id.* at 23. “Flooding later in the season delays field preparation; this decreases crop yields and increases land fallowing.” *Id.* at 41.

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According to a case study of levee breaches on the Mississippi River, flooding of agricultural lands “can have large and persistent effects on soils, crop productivity, and water quality, with negative economic, social, and ecological consequences.” See, Kenneth R. Olson et al., *Impact of Levee Breaches, Flooding, and Land Scouring on Soil Productivity* 70 *Journal of Soil and Water Conservation* 5(A) (2015), attached as Exhibit 5. The authors of the study found that 31 percent of the agricultural lands were unintentionally converted to wetlands and ponds as a result of human-induced flooding.

I14-37
 cont.

In addition, according to a study of climate-changed induced flooding in the Mississippi and Ohio rivers, the level of crop damage from flooding depends on the type of crops commonly grown in the area and the timing of the flooding. See, Kenneth R. Olson & Lois W. Morton, *Agricultural Lands: Flooding and Levee Breaches*, *Encyclopedia of Soil Science*, 65, 79 (2017), attached as Exhibit 6. The study explains that if flooding occurs in the growing season of a crop and the plants are under floodwater for 24–36 hours, the submerged crop will drown, which can jeopardize the entire crop failure for that year. *Id.* If flooded early in the growing season, the crop can be replanted but usually results in lower yields. *Id.* In particular, increased flooding, both in amount and duration, can make it uneconomical to farm sections of farmland. The DEIR must evaluate how changes in the amount and duration of flooding can lead to uneconomical farms or unreachable field islands, and identify mitigation measures to reduce this impact.

The DEIR also overlooks impacts due to fragmentation of farmland. Many studies have documented the impacts of fragmentation or parcelization on farm productivity. As explained in one article:

I14-38

This parcelization of farmlands leads to a ‘checkerboard distribution of farmlands, i.e. many noncontiguous fields. Farming such scattered plots is problematic. For example, field surveillance to monitor crop growth and pest populations is difficult, as is the movement of farm equipment because of transportation problems. Under these conditions consolidation of landholdings to achieve efficient scales of operation is nearly impossible.

Brabec & Smith, *Agricultural land fragmentation: the spatial effects of three land protection strategies in the eastern United States*, 58 *Landscape and Urban Planning* 255, 256 (2002), attached as Exhibit 7. In addition to physical fragmentation within individual farms, the loss of farmland can also lead to regional fragmentation, leading to the erosion of the farmland base, which in turn, leads to a loss of sufficient farm support operations and facilities, which raises operating costs. Such fragmentation of the regional farming

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landscape can exacerbate the demise of surrounding farmland. A revised DEIR must address the Project’s potential to cause these regional conversion impacts.

| 114-38
 cont.

Neither can the DEIR cure its failure to analyze these impacts by rotely acknowledging the impacts’ significance. As the Court of Appeal explained, “this acknowledgement is inadequate. ‘An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enable them to make a decision which intelligent takes account of environmental consequences.’” *Galante Vineyards v. Monterey Peninsula Water Mgmt. Dist.* (1997) 60 Cal.App.4th 1109, 1123 (quoting CEQA Guidelines § 15151).

| 114-39

Here, although the DEIR concludes that impacts to farmland would be significant, the DEIR fails to explain how farmlands were classified, fails to account for all loss of agricultural land, and fails to evaluate myriad indirect impacts to farmland. DEIR at 3.6-9 and 3.6-10. A revised DEIR must evaluate impacts all farmlands impacted and the analysis must account for direct *and* indirect impacts.

2. The Project’s Approach to Mitigation of Impacts on Prime Farmland is Inadequate and Does Not Reduce the Project’s Significant Farmland Impacts to a Less Than Significant Level.

(a) Non-Structural Measures

Because the DEIR fails to adequately analyze significant impacts on all agricultural lands impacted by project-related increased flooding, it also fails to provide adequate mitigation to address all of the ways that farmland will be impacted.

| 114-40

As an initial matter, CEQA does not allow an environmental document to fold an assumed mitigation measure (i.e., the Project design features) into the project description. The Project’s significant impacts must be determined first, and then the EIR must identify enforceable mitigation that will “offset” the impacts. *See Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 656, 658 (rejecting EIR that relied on project designs to find no significant impact, instead of identifying significant impacts and considering potential mitigation measures). In *Lotus*, the court held that an EIR was legally inadequate where it assumed certain mitigation techniques would be incorporated into the project, and thus the EIR did not disclose the impacts of the project without those special techniques. *See id.* Further, the court in *Lotus* criticized the EIR’s failure to consider whether other possible mitigation measures would be more effective than the ones that were assumed to be incorporated into the Project. *Id.* at 657. Here, by listing

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what are effectively mitigation measures as part of the Project, the EIR replicates the error made by the agency in Lotus.

I14-40
 cont.

As discussed above, the DEIR acknowledges that the Project has the potential to result in increased inundation depths on lands north of the flood wall associated with the Project impeding or redirecting flood flows. DEIR at 2-13 and 3.1-18. To address flooding impacts on agricultural lands to the north of the flood wall, the DEIR proposes “non-structural measures” as part of the Project that would provide financial support to individual land owners. The “financial support would vary depending on changes in flood depth for any given affected parcel” but could include floodproofing individual structures, financially assisting property owners to purchase flood insurance, purchasing flowage easements, and upgrading flood warning systems and other flood preparedness measures that would be implemented in consultation with Yolo County.” DEIR at 2-11. The DEIR relies on these measures to reduce identified significant impacts related to inundation. DEIR at 3.1-18.

Aside from the fact that CEQA does not allow project features to substitute for analysis and mitigation, this approach is unacceptable under CEQA for multiple reasons. First, the measures are vague and unenforceable. The DEIR indicates a laundry list of features that may be applied but commits to none of them. For example, the DEIR states that the measures “could include” the various programs and the DEIR describes subsidized flood insurance costs as “an option.” DEIR at 2-13. Given that the measures are not mandatory, they are nothing more than aspirations that lack performance standards to address significant adverse impacts. Such incomplete, ineffective mitigation does not comply with CEQA. See CEQA Guidelines section 15126.4(a)(1). In addition, the DEIR states that greater detail on the “non-structural measures” is available in a technical memo prepared by MBK Engineers, however, the DEIR fails to provide this document for public review. DEIR at 2-11 and 2-12.

I14-41

I14-42

The City may refer to a document and then demand that the public locate, collate, and then use it to obtain vital information. Instead, CEQA obligates the agency to present the information in an accessible manner. As the California Supreme Court put it in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 443, “The question is [] not whether the project’s significant environmental effects can be clearly explained [in a brief], but whether they were explained in the EIR.” (emphasis in original).

Second, the DEIR contains no analysis of the effectiveness of *any* of these Project features in mitigating inundation risk, and it certainly provides no evidence that these

I14-43

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features would be sufficient to ensure that agricultural practices can continue to be sustainable. | I14-43 cont.

Finally, the DEIR specifies that the proposed “non-structural measures” would only be implemented for a “set period of time, not to exceed 10 years after beginning construction of the Proposed Project.” DEIR at 2-11. The DEIR estimates that construction would take two years, so that the proposed measures would only be implemented for a period of eight years. *Id.* The DEIR fails to explain the reasoning behind the imposed time limit for implementation of the measures when the impacts would last for much longer than a decade. For example, impacted farmers will have the burden of paying higher flood insurance premiums in perpetuity, but the financial assistance will only be available for eight years. In addition, the measures fail to adequately address inundation of productive fields, which as discussed above, can significantly impact farmers’ ability to sustain agricultural activities. | I14-44
 | I14-45

(b) Mitigation to Preserve Farmland To Replace Permanent Loss of Agricultural Land.

The DEIR concludes that implementation of the Project would result in significant impacts to agricultural lands. DEIR at 3.6-8 and 3.6-9. As mitigation, the DEIR proposes to preserve farmland at a ratio of 3:1 for Prime agricultural land and 2:1 for non-Prime agricultural land consistent with the Yolo County Agricultural Conservation and Mitigation Program. DEIR at 3.6-9. However, this mitigation is only applied for direct conversion of agricultural lands within the footprint of the flood wall. This approach does not comport with CEQA. As discussed above, the Project would result in significant indirect impacts outside the Project footprint on farmland to the north. Therefore, mitigation must be provided for *all* impacted farmland. | I14-46

Moreover, the DEIR’s statement that the Project should be exempt from County mitigation requirements for the conversion of farmland is incorrect. The DEIR states that because the Proposed Project is a flood infrastructure project that would not generate revenue, it is expected to be exempt from the County’s required mitigation. The Project should not be exempt from mitigation because: | I14-47

- 1) alternatives are available that would avoid these land conversions; and
- 2) the Project would generate revenue for the City by making low-lying lands on the eastern portion of the City developable and more lucrative.

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The requirement of mitigation measures is at the core of CEQA. (See Pub. Res. Code 21080)c(2); *Citizens of Goleta Valley v. Bd. of Supervisors*, 52 Cal. 3d 553, 564 (1990). Mitigation measures ensure that an environmental document not only informs the public, but charts a course to minimize a project’s environmental impacts. Under CEQA, “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. . . .” (Pub. Res. Code § 21002.)

114-48

Here, because the DEIR defers identification of impacts and defers preparation of enforceable mitigation plans, the EIR does not comply with CEQA. There cannot be meaningful scrutiny of an environmental document when the mitigation measures are not set forth at the time of project approval. See *Sundstrom v. County of Mendocino*, 202 Cal. App.3d 296, 311 (1988) at 306-08. As such, a revised EIR for the Project must correct this egregious flaw.

C. The DEIR Fails to Adequately Analyze Public Safety Impacts Associated with Implementation of the Proposed Flood Wall.

The DEIR fails to address potential public safety risks associated with flood events resulting from implementation of the proposed Project. The U.S. Army Corps of Engineers, “Draft Feasibility Report for Potential Flood Damage Reduction Project, Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity,” December 2019 (hereafter “2019 Feasibility Report”) acknowledges that construction of the project will increase public safety risks from flood events. The Feasibility Report acknowledges that what is currently harmless sheet flooding will become dangerous floods in the event of a levee break. See, Feasibility Report at 3.5.1.

114-49

As discussed above, the proposed Project would essentially create a large bypass to channel flood flows breaching the right bank levees from Cache Creek. DEIR at 3.5-8. The DEIR discloses that the Project will increase inundation depths (DEIR at 3.1-18) and will increase the velocity of flood waters (DEIR at 3.1-13), but it never considers the public safety risks associated with these impacts. According to FEMA’s Ready.gov website, flood waters of only six inches of moving water can be dangerous to walk in and may cause drowning. See, <https://www.ready.gov/floods>. Inundation of just one foot of moving water can sweep away vehicles, also resulting in drowning risks. *Id.* Here, inundation depths will be as much as six feet higher than existing inundation levels. DEIR at Figure 3.1-8. Yet the DEIR omits an analysis of related safety impacts.

114-50

As explained in the Feasibility Report, such risks depend on the quality and frequency of levee maintenance and repair, and the City’s ability to respond to a flood

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event in a timely manner. *Id.* Current maintenance on flood control systems on the Cache Creek levees has historically been, and continues to be, problematic. The questionable levee maintenance to date does not promote public confidence that there will be an acceptable level of maintenance for the flood wall in the future. If the flood wall is not vigilantly maintained, the Project has the potential to result in substantial public safety risks. The DEIR is silent on these risks. The City must recognize the potential for inadequate maintenance as a significant impact and identify appropriate mitigation measures to protect public safety.

I14-50
 cont.

D. The DEIR's Analysis of the Project's Growth-Inducing Impacts is Incomplete and Flawed.

CEQA requires that an EIR include a "detailed statement" setting forth the growth-inducing impacts of a proposed project. CEQA § 21100(b)(5); *City of Antioch v. City Council of Pittsburg* (1986) 187 Cal. App. 3d 1325, 1337. An environmental impact report must discuss how a proposed project, if implemented, could induce growth. CEQA Guidelines § 15126(d). A proposed project is considered either directly or indirectly growth-inducing if it: (1) fosters economic or population growth or additional housing; (2) removes obstacles to growth; (3) taxes community services or facilities to such an extent that new services or facilities would be necessary; or, (4) encourages or facilitates other activities that cause significant environmental effects. While the growth-inducing impacts of a project need not be labeled as adverse, the secondary impacts of growth (e.g., loss of habitat/ agricultural lands, air quality, transportation, etc.) may be significant and adverse. In such cases, the secondary impacts of growth inducement must be disclosed as significant secondary or indirect impacts of the project.

I14-51

The appropriate components for an adequate analysis include: (1) estimating the amount, location and time frame of growth that may occur as a result of the project (e.g., additional infrastructure, commercial, industrial, and mixed use developments); (2) applying impact assessment methodology to determine the significance of secondary or indirect impacts as a result of growth inducement; and (3) identifying mitigation measures or alternatives to address significant secondary or indirect impacts. The DEIR's growth inducing impacts analysis fails to contain these essential components.

The DEIR relies on faulty reasoning to imply that the Project would not induce growth in the surrounding area. As discussed above and as the DEIR acknowledges, implementation of the Project would provide a pathway to development in areas of the City that currently experience flooding. DEIR at 5-18. These areas include Specific Plan areas 1, 2, and 3 (*i.e.*, SP-1, SP-2, and SP-3). SP-2 is a 90-acre property owned by the City. *Id.* The other two properties are privately owned. *Id.* Currently, these are "areas

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restricted from urban development due to health and safety concerns related to flood risk. DEIR at 5-19. The DEIR specifies that General Plan policy 2.B.2 prohibits processing of specific plans for these areas “until the designs for projects to provide necessary 200-year flood protection have been approved and the funding for construction has been secured.” DEIR at 5-18. The DEIR further discloses that FEMA-designated areas within the 100-year and 200-year floodplain overlap with most of the General Plan designated FS (flood study area), SP-1, SP-2, and SP-3 locations identified as development opportunity sites. DEIR at 5-19. The proposed Project would provide 200-year flood protection for the development opportunity sites, and thus, the Project is clearly the first step in approving them for development.

I14-51
 cont.

Despite the DEIR’s aforementioned acknowledgments, the DEIR neglects to complete the growth inducing analysis required by CEQA. The DEIR implies that, because the City’s General Plan has designated the Specific Plan areas for future development, the Project does not induce growth.

This rationale is legally untenable and courts expressly reject such reasoning. *Environmental Planning and Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354. Whether an agency’s existing plan may predict growth is irrelevant to an analysis of growth-inducing impacts: CEQA is not concerned with a project’s impacts on a plan, but “with the impacts of the project on the environment, defined as the existing physical conditions in the affected area.” *Id.* (emphasis added). Thus, the EIR must analyze the impacts of the Project’s likely inducement of growth, regardless of whether the City had already envisioned it. The DEIR fails to meet this requirement.

The DEIR should provide an estimate of the amount and location of development that could be approved within the Specific Plan areas based upon the evidence of potentially developable parcels and other planning documents. That new development has yet to be approved does not excuse the requirement to analyze a project’s environmental or growth-inducing impacts. CEQA Guidelines § 15126.2(d); *City of Davis v. Coleman* (9th Circuit 1975) 521 F.2d 661, 675-76. As the *City of Davis* court directed “the purpose of an EIS/EIR is to evaluate the possibilities in light of current and contemplated plans and to produce an informed estimate of the environmental consequences.” *Id.* at 676. Accordingly, the DEIR must be revised to identify the extent and location of new development facilitated by removing the obstacle of flooding and to analyze the environmental impacts of the growth.

I14-52

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V. The DEIR Prematurely Dismisses Alternatives.

I14-53

The DEIR does not comply with the requirements of CEQA because it fails to undertake a legally sufficient study of alternatives to the Project. A proper analysis of alternatives is essential to comply with CEQA’s mandate that, where feasible, significant environmental damage be avoided. Pub. Resources Code § 21002 (projects should not be approved if there are feasible alternatives that would substantially lessen environmental impacts); CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(f).

Every EIR must describe a range of alternatives to the proposed project and its location that would feasibly attain the project’s basic objectives while avoiding or substantially lessening the project’s significant impacts. Pub. Res. Code § 21100(b)(4); CEQA Guidelines § 15126(d). The primary purpose of CEQA’s alternatives requirement is to explore options that will reduce or avoid adverse impacts on the environment. Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089. Therefore, the discussion of alternatives must focus on project alternatives that are capable of avoiding or substantially lessening the significant effects of the project, even if such alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines § 15126.6(b); see also *Watsonville Pilots*, 183 Cal.App.4th at 1089 (“[T]he key to the selection of the range of alternatives is to identify alternatives that meet most of the project’s objectives but have a reduced level of environmental impacts”). The DEIR’s discussion of alternatives in the present case fails to live up to these standards.

As a preliminary matter, the DEIR’s failure to disclose the extent and severity of the Project’s broad-ranging impacts necessarily distorts the document’s analysis of Project alternatives. As a result, the alternatives are evaluated against an inaccurate representation of the Project’s impacts. Proper identification and analysis of alternatives is impossible until Project impacts are fully disclosed. Moreover, as discussed above, the document’s analysis is incomplete and/or inaccurate so that it is simply not possible to conduct a comparative evaluation of the Project’s and the alternatives’ impacts.

I14-54

I14-55

Sound planning principles dictate that the City carefully consider alternatives in the present case because the proposed Project would result in significant impacts to thousands of acres and scores of homes on the agricultural land to the north. Furthermore, the Project would result in extensive impacts related to visual resources, biological resources, noise, and air quality. DEIR at ES-3 to ES-14. This DEIR’s analysis of alternatives is insufficient under CEQA because the document fails to consider a

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reasonable range of options that would reduce Project impacts. CEQA Guidelines § 15126.6(c); *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d at 566. | I14-56 cont.

The DEIR improperly circumscribes its analysis of potential Project alternatives and makes no serious attempt to describe an alternative that avoids or substantially minimizes the impacts of the Project. It identifies only one build alternative in addition to the legally required “no project” alternative. The alternative proposed is substantively similar to the proposed Project such that it is inconsistent with the letter and intent of CEQA requirements for alternatives analyses. | I14-57

Specifically, the DEIR’s singular alternative describes additions to the existing levee around Woodland. See DEIR at Table 4-1 at p. 4-16 and Figure 4-1. The added levee would range in height from four feet to eleven feet. *Id.* The alternative would also construct a drainage channel alongside the levee to direct flood waters to the east, box culverts, closure structures, and road and railway improvements to facilitate railroad and vehicular traffic. Effectively, Alternative 2C has a similar footprint (although slightly larger to accommodate levee construction) in the same alignment as the proposed Project. *Id.* Furthermore, it does little to reduce the significant impacts resulting from the proposed Project. Alternative 2C would similarly increase the severity and duration of flooding to the north of Woodland, which will result in significant/unmitigated impacts to productive farmlands. Moreover, and perhaps most importantly, like the proposed Project, Alternative 2C fails to consider a regional solution to flooding, and so it too is inconsistent with Measure S. | I14-58
 | I14-59

The alternative fails to accomplish what CEQA requires of an alternatives analysis, which is to identify feasible ways to redesign a project to avoid or lessen significant impacts and thus fall short of CEQA’s requirement that the EIR consider “meaningful” alternatives. CEQA Guidelines § 15126.6(a), (c), (f). The DEIR provides no explanation as to why it could not consider an alternative that combines multiple alternatives and provide regional flood protection. This would allow the alternative to reduce flood impacts while at the same time minimizing flood inundation risk, preserving farmland, and otherwise lessening the severity of the Project’s impacts. | I14-60

Measure S adopted a regional flood control policy for the City of Woodland and endorsed a regional alternative, a set-back levee system, that would protect both Woodland, the area north of Woodland, and the area north of Cache Creek. (Exhibit 8, North Woodland Flood Wall Impact Summary.) A regional flood control solution would likely include flood protection for low lying land east of Woodland, but that would not happen at the expense of the established farms, ranches, and residents immediately north of City limits. As proposed, the singular alternative considered does not reflect any | I14-61

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attempt to consider how the Project can be designed to respect and work within the site’s many constraints. A revised document must include an evaluation of this alternative. | I14-61 cont.

Finally, the DEIR dismisses a host of alternatives (including alternatives that are consistent with Measure S) largely based on cost. See, DEIR at 4-46 to 4-48 and Exhibit 1, Schaff and Wheeler Report at Table 1. However, cost alone is not a legitimate basis for rejecting an alternative from EIR consideration. CEQA Guidelines § 15126.6(f)(1); *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1460 (“[T]he willingness or unwillingness of a project proponent to accept an otherwise feasible alternative is not a relevant consideration.”). In sum, the DEIR fails to provide evidence that other alternatives are infeasible and offers only unsupported irrelevancies instead of any legitimate justification for rejecting the alternatives to a floodwall on the northern boundary of Woodland. The DEIR fails to provide estimated costs and/or cost/benefit analyses evaluating the alternatives rejected. Therefore, the DEIR fails to support its conclusion with substantial evidence. | I14-62

To ensure that the public and decision makers have adequate information to consider the effects of the proposed Project, the City must prepare and recirculate a revised EIR that considers additional meaningful alternatives to the Project. | I14-63

VI. A Revised DEIR Must Be Prepared And Recirculated. | I14-64

CEQA requires recirculation of a revised draft DEIR “[w]hen significant new information is added to an environmental impact report” after public review and comment on the earlier draft DEIR. Pub. Res. Code § 21092.1. The opportunity for meaningful public review of significant new information is essential “to test, assess, and evaluate the data and make an informed judgment as to the validity of the conclusions to be drawn therefrom.” *Sutter Sensible Planning, Inc. v. Sutter County Board of Supervisors* (1981) 122 Cal.App.3d 813, 822; *City of San Jose v. Great Oaks Water Co.* (1987) 192 Cal.App.3d 1005, 1017. An agency cannot simply release a draft report “that hedges on important environmental issues while deferring a more detailed analysis to the final [EIR] that is insulated from public review.” *Mountain Lion Coalition v. California Fish and Game Comm’n.* (1989) 214 Cal.App.3d 1043, 1053.

In order to cure the panoply of DEIR defects identified in this letter, the City must obtain substantial new information to adequately assess the proposed Project’s environmental impacts, and to identify effective mitigation and alternatives capable of alleviating the Project’s significant impacts. This new information will clearly necessitate recirculation. CEQA requires that the public have a meaningful opportunity to review and

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comment upon this significant new information in the form of a recirculated draft supplemental EIR.

| I14-64
 | cont.

VII. Conclusion

In sum, the EIR is legally inadequate and cannot serve as the basis for Project approval. Further, the Project is inconsistent with Measure S.

| I14-65
 | I14-66

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Catherine C. Engberg



Carmen J. Borg, AICP,
 Urban Planner

Attachments:

- Exhibit 1 – Schaaf & Wheeler report
- Exhibit 2 – Letter from SMW to the City dated August 12, 2020 re: Measure S
- Exhibit 3 – Initiative Petition
- Exhibit 4 – “Agricultural and Economic Impacts of Yolo Bypass Fish Habitat Proposals,” Howitt, MacEwan et. al, 2013
- Exhibit 5 – Kenneth R. Olson et al., Impact of Levee Breaches, Flooding, and Land Scouring on Soil Productivity
- Exhibit 6 – Kenneth R. Olson & Lois W. Morton, Agricultural Lands: Flooding and Levee Breaches
- Exhibit 7 – Brabec & Smith, Agricultural land fragmentation: the spatial effects of three land protection strategies in the eastern United States
- Exhibit 8 – North Woodland Flood Wall Impact Summary

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cc: Yolo County Farm Bureau
Keleigh L. Duey, U.S. Army Corps of Engineers
Ken Hiatt, City Manager
Kara Ueda, City Attorney

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EXHIBIT 1

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

870 Market Street, Suite 1278
San Francisco, California 94102
415-433-4848

July 15, 2020

Ms. Carmen J. Borg, AICP
Urban Planner
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, California 94102

**Subject: Comments to Public Draft EIR for Woodland Flood Risk Management Project
Related to Hydrology and Water Quality**

Dear Ms. Borg:

I have reviewed the “Woodland Flood Risk Management Project Public Draft Environmental Impact Report”, prepared by ICF in March 2020 (DEIR). More specifically my review focuses on the Project Description, hydrology, water quality, and alternatives analysis sections of the DEIR. To summarize my major review comments:

1. Restrictions on Project development imposed by Woodland Measure S that should affect the Project Description are not acknowledged in the DEIR. Measure S prohibits funding or action in support of the 2003 Lower Cache Creek Flood Barrier or similar project. The DEIR Project Description demonstrates substantial similarity with the Lower Cache Creek Flood Barrier. In contrast, Measure S calls for a regional flood control project.
2. The DEIR concludes the Project would have a less than significant impact on erosion or siltation and impeding or redirecting flood flows resulting in increased inundation levels. These conclusions are not supported by the facts presented in the DEIR.
3. The potential for increased pollution due to increased flood depths on agricultural land north of the Project boundary is not analyzed in sufficient detail.
4. “Non-structural measures” are discussed in the Project Description as necessary to ameliorate increased inundation and pollutant releases north of the Project boundary. The measures are not, however, adequately developed or analyzed for their potential impacts.
5. Alternatives that could align with Woodland Measure S and the objectives of a regional flood control projects are not analyzed in sufficient detail.

| I14-67

| I14-68

| I14-69

| I14-70

| I14-71

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Project Description and Measure S

Chapter 2 of the DEIR provides the Project Description for environmental analysis. Project objectives are provided as Section 2.2:¹

I14-72

1. "Comply with recent state legislation and flood protection by providing *the urban area* with a 200-level of flood protection from Cache Creek." [emphasis mine]
2. "Provide 100-year flood protection to Woodland in order to obtain FEMA certification and remove the city from the mapped floodplain."

The 2004 Measure S ballot measure asked whether an ordinance "establishing a *Regional Flood Control Project Policy for the City of Woodland* and prohibiting the City from funding or taking any action that supports the Lower Cache Creek Flood Barrier or a substantially similar structure be adopted?"² [emphasis mine] Woodland Measure S passed 62.8% to 37.1% with 53.2% of registered voters casting a ballot.³ Measure S is codified by Woodland Municipal Code §8.12.010:

- "A. It shall be the policy of the City to encourage a regional flood control project. Therefore, the City shall not fund or take any action that supports the Lower Cache Creek flood barrier (flood wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.
- B. This chapter shall not be repealed or amended except by a vote of the people of the City. (Prior code §10.1)"

The DEIR acknowledges the City of Woodland Municipal Code as "contain[ing] a policy intended to guide the City's approach to the flood control," and provides the text of Subsection A referenced above in its entirety. [DEIR, Page 3.1-5 and Page 3.5-3] Measure S is referenced by the Yolo County Farm Bureau in their September 25, 2019 letter providing scoping comments on the Project. The Farm Bureau explains that since Woodland City Council was considering a ballot measure to repeal Measure S, the City has knowingly violated the specific language of Measure S by pursuing the proposed Project analyzed in the DEIR.

Section ES.6, "Areas of Known Controversy," acknowledges that "some letters received during the scoping process expressed disappointment that the properties north of the city would remain in the floodplain after implementation of the Proposed Project." [DEIR, Page ES-19] The DEIR further states that "several alternatives were considered, including some that would provide increased flood protection for the properties north of the city, but these alternatives were screened out for various reasons, including cost/benefit considerations." [DEIR, Pages ES-19 and ES-20]

Woodland Municipal Code demands that regional flood protection measures be treated not as alternatives, but rather, part of the Project itself. This is not reflected in the DEIR. The third Project objective is described in the DEIR as:

I14-73

¹ ICF, "Woodland Flood Risk Management Project, Public Draft Environmental Impact Report," March 2020, Pages 2-1 and 2-2. [Hereafter cited in the body of the letter as e.g. DEIR, Page 2-1]
² Official Nonpartisan Ballot, County of Yolo, March 2, 2004
³ Yolo County Elections Office

I14-72 cont.

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3. "Develop a project that meets U.S. Army Corps of Engineers (USACE) planning criteria and federal requirements for investment [since] the City lacks the financial capability to construct a project without significant state and federal funding. The USACE Civil Works Program is the only viable mechanism through which to secure federal investment." [DEIR, Page 2-2]

I14-73
cont.

The implication of this third Project objective, coupled with cost-benefit analysis that screened out regional flood protection alternatives, is that regional flood protection is too expensive for the City of Woodland to pursue at this time.

That may be true, and it may well be true that the Corps' Civil Works Program is the only viable mechanism to secure federal investment in the project. However, there are other sources of State and local funding. A lack of funding does not allow the violation of the local municipal code, as there is no qualification of code language based on funding, even if the result is no currently viable project.

DEIR Project Objective 4 states:

4. "Avoid or reduce risk associated with increases to the 100-year flood depth at existing structures north of the city." [DEIR, Page 2-2]

I14-74

This Project objective is not equivalent to a regional flood control policy required by Woodland Municipal Code. Furthermore, the measure specifically prohibits the City from funding or taking any action to support the Lower Cache Creek Flood Barrier or a substantially similar structure. Figure 1 reproduces Figure 2-1 from the DEIR, showing the proposed Project footprint.

I14-75

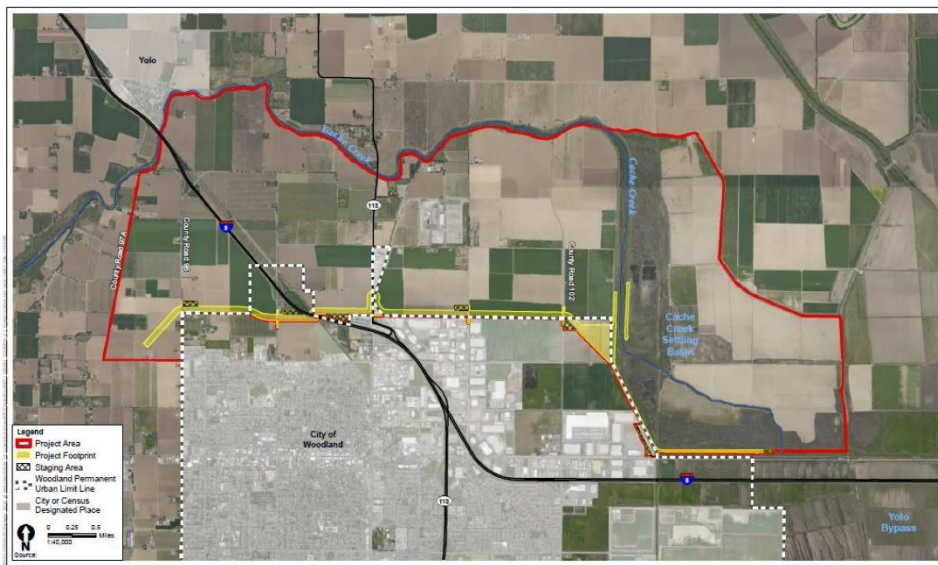


Figure 1: Woodland Flood Risk Management Project Elements (2020)

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Figure 2 shows the current project footprint superimposed over a figure from the Project Description provided in the 2003 DEIS/DEIR for the Lower Cache Creek Flood Barrier.⁴ In a June 12, 2020 letter to you, I concluded that the Project described in the DEIR is substantially similar to the Lower Cache Creek Flood Barrier proposed in 2003. Therefore, Woodland Municipal Code should prohibit the City from supporting the Woodland Flood Risk Management Project proposed in the DEIR, or from even preparing the DEIR itself.

I14-75
cont.

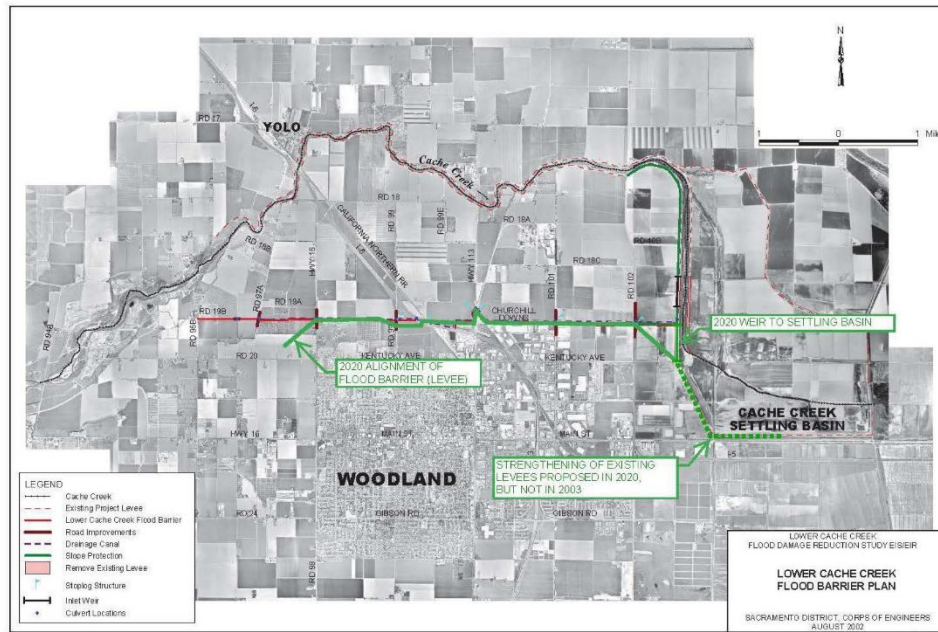


Figure 2: Comparison of Project Described by DEIR to Project Described in 2003 DEIS/DEIR

DEIR Impact Analyses for Hydrology and Water Quality

The DEIR identifies five potential hydrologic impacts, four potential water quality impacts, and reaches conclusions regarding the significance of each impact. However, in several instances, the DEIR presents incomplete information and inadequate analysis.

I14-76

For example, **Impact HYDRO-1** evaluates impacts related to alteration of drainage patterns that would result in erosion or siltation onsite or offsite. The DEIR concludes that this is a less than significant impact. [DEIR, Page 3.1-15]

The DEIR acknowledges that changes in flow velocity created by the Project’s barrier to the natural flow of floodwater spilling from Cache Creek could result in localized increases in erosion or siltation, primarily at the Project levee, near roadways and intersections, and along the Cache

⁴ U.S. Army Corps of Engineers, Sacramento District, “Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity, Draft Environmental Impact Statement/Environmental Impact Report for Potential Flood Damage Reduction Project,” March 2003.

I14-75
cont.

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Creek Settling Basin levees. Project mitigation in the form of rock slope protection and other armoring is mentioned. [DEIR, Page 3.1-15] Perhaps a small point, but this impact might be better categorized as less than significant *with mitigation*.

I14-76
cont.

The DEIR concludes that “non-structural measures” proposed with the project to mitigate the increase in flood depths north of the barrier “would not significantly alter the existing drainage pattern of the site or area...in a manner that would result in substantial erosion of siltation onsite or offsite.” [DEIR, Page 3.1-16]

I14-77

Non-structural measures are taken in lieu of building flood control infrastructure and may include flood management measures such as land use regulations (e.g. flowage easements), flood forecasting and warning systems, flood-proofing, relocation, and disaster preparedness. Non-structural floodplain management reduces flood risk and flood damages that might occur within a floodplain without necessarily reducing the extent or depth of flooding within a flood hazard area, which would more typically require structural measures such as the proposed Project.

While termed a “non-structural measure”, flood-proofing is a technique for removing individual structures, properties, or portions of properties from a flood hazard area, either permanently or temporarily. This usually requires some sort of structural improvement. Examples include elevating structures above the flood elevation, building berms or floodwalls around individual structures and properties, installing flood barriers, making buildings waterproof and resistant to the forces of floodwater without elevating them, and making buildings and service utilities water resistant and able to handle temporary flooding. The idea is that buildings and properties are protected from flooding without necessarily changing the flood hazard itself.

However, there are no defined footprints for non-structural measures including areas of property that might be protected by raising individual structures or metes and bounds areas of properties as desired by property owners, and no analysis of the hydraulic impacts of taking these measures. As such the impact on erosion and siltation, particularly at a local level are unknown. At some point there could be a change to the flood hazard itself. This must be analyzed.

Importantly, **Impact HYDRO-5** evaluates whether the project would impede or redirect flood flows resulting in inundation levels. [DEIR, Page 3.1-17] The DEIR concludes that related impacts would be less than significant. but this conclusion is not supported by the data provided in the DEIR. The very intention of the project is to impede flood flows to the south and east into urbanized Woodland, redirecting the bypass flows through a new 3,000 feet long weir into the Cache Creek Settlement Basin.

I14-78

A series of flow conveyance features including ditches and culverts are proposed to increase the bypass capacity. However as clearly demonstrated by DEIR Figure 3.1-5 (reproduced herein as Figure 3), the Project as designed fails to prevent the significant increase in 100-year flood inundation levels north of the barrier. The referenced figure shows increased flood depths as much as six feet north of the barrier and west of the settlement basin. While the 2020 CEQA Guidelines do not provide a specific numeric threshold for significance, the guidelines do suggest

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that uniformly applied development policies or standards can be used to establish significance, including floodplain ordinances.⁵

I14-78
cont.

Woodland Municipal Code §15.08.150.A.4 states that the duties of and responsibilities of the Floodplain Administrator, which is the City within Woodland city limits, include “reviewing all development permits to determine that the proposed development does not adversely affect the carrying capacity of the areas where base flood [100-year] elevations have been determined but a floodway has not been designated.” The referenced Code Section also stipulates that “adversely affects means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.”

The County of Yolo has jurisdiction north of the proposed flood barrier. It’s floodplain ordinance (June 2018) states that “until a regulatory floodway is adopted, no new construction... shall be permitted within...Zone AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than 1 foot at any point within the County of Yolo.” [Yolo County Title 8, Chapter 4, §8-4.506] Therefore, a six-foot increase in 100-year flood inundation levels would be considered a significant impact that requires mitigation or would need to be declared a significant and unavoidable impact.

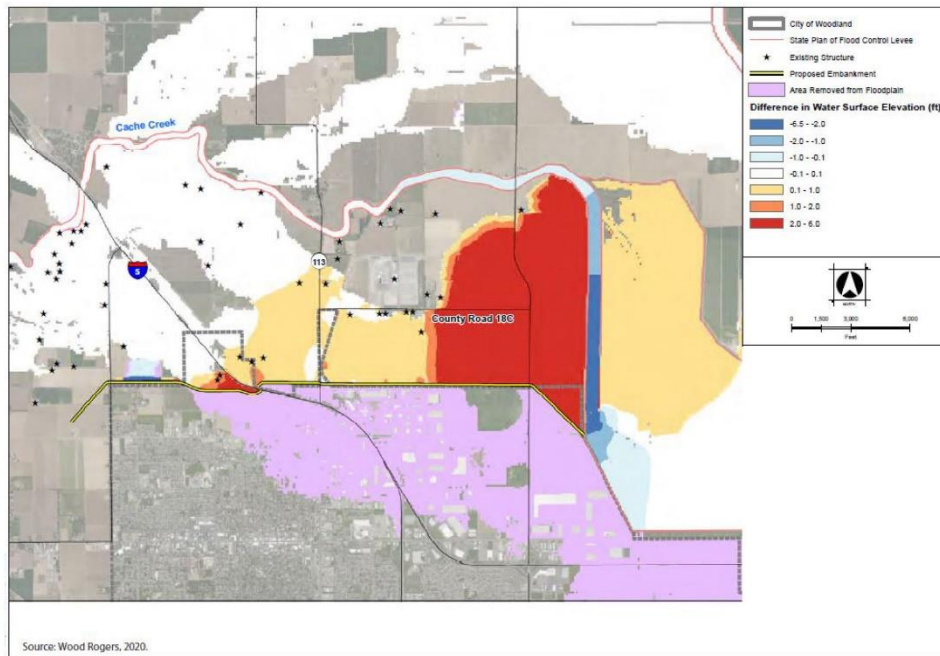


Figure 3: Induced 100-year Flooding with Woodland Flood Risk Management Project

⁵ Association of Environmental Professionals, CEQA Guidelines, 2020, Page 222.)

I14-78
cont.

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The DEIR states that the frequency of flooding in the area north of the barrier will not change, since hydraulic control remains with Cache Creek’s limited capacity, not the barrier location. The Project makes no changes to Cache Creek itself and will not cause the creek discharges to overflow its banks more or less frequently.

I14-79

However, the Project’s barrier redirects flood flows to the extent that there are significant increases in flood depths as shown by Figure 3. This induced flooding would be significant and must be mitigated. According to the DEIR increased flood depths are as much as two feet at existing structures and up to six feet on UC Davis-owned agricultural lands. [DEIR, Page 3.1-18] This degree of additional flooding is a significant impact to agricultural operations and property value, even if no structures are present.

The DEIR further states that “for each affected parcel, the City would work with individual landowners to develop a suite of non-structural measures tailored for each parcel to reduce flood damages and losses.” [DEIR, Page 3.1-18] The size and scope of these measures are not known at this time, not described in the DEIR, and their impacts are not analyzed. For example, to reduce flood damage and loss on agricultural properties located within the orange and red “zones” shown in Figure 3, substantial flood barriers might need to be erected that could be relatively large in area. The DEIR fails to analyze whether these barriers would result in flow blockages that affect other properties.

I14-80

I also note the DEIR asserts the duration of 100-year flooding in the area north of the barrier would be less after project implementation than under existing conditions. DEIR Figure 3.1-8 is provided as support (and reproduced as Figure 4). The 100-year stage hydrographs, particularly the hydrograph at State Highway 113, shows a much more rapid decrease in flood depths after the peak flood wave has passed, ostensibly due to the new weir into the Cache Creek Settling Basin. However, the locations of the comparative stage hydrographs are also within an area of less than one foot of increased inundation. It would be helpful to see similar stage hydrographs to the east in areas with greater flood hazard impact, since the DEIR also says that there would be areas north of County Road 18C and east of County Road 102 that would be flooded longer, and there are locations that currently do not flood that would experience flooding with the Project. [DEIR Page 3.2-17] The impact of longer duration flooding is not addressed in the DEIR.

I14-81

Also, **Impact WQ-3** assesses whether the Project conflicts with or obstructs the implementation of a water quality control plan or sustainable groundwater management plan.

I14-82

The Conservation Element of the Yolo County General Plan describes known groundwater supplies, use, and quality. Clear Lake and Cache Creek are listed for impairment by mercury and nutrients. The project would prevent the flow of potentially mercury- or nutrient-laden floodwaters from flowing into areas of Woodland south of the project barrier, and rather direct those flows into the Cache Creek Settlement Basin. The UC Davis sediment trap efficiency study indicates that sediment trap efficiency would be greater with the project than under existing conditions. Mercury is bound to suspended particles in the water column, so the efficacy of removing mercury from water that enters the Yolo Bypass is anticipated to improve with project implementation. [DEIR, Page 3.2-17]

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The DEIR acknowledges that methylmercury production has been shown to be driven by flood events that “infrequently inundate areas adjacent to stream channels,” and “it is reasonable to assume that under the Proposed Project, in those inundated areas that could be flooded longer than under existing conditions in a flood event, the potential for mercury methylation would be higher relative to existing conditions, particularly in areas where modeled floodwater velocities are substantially reduced relative to existing conditions.” [DEIR, Page 3.2-17] While the same section of the DEIR goes on to state “to what extent there may be an increase in methylmercury production in infrequent, large flood events (e.g. 100-year events) in areas north of the proposed levee that may be inundated longer is not known. Further, under the Proposed Project in a 100-year flood event, a relatively large area south [of the Project] would be removed from the floodplain, which would otherwise be inundated under existing conditions.” The DEIR implies that areas removed by the project from 100-year inundation at least balance and negate areas with additional 100-year inundation due to the project, in terms of methylmercury production.

I14-82
cont.

The DEIR, however, provides no support for this “balancing” theory, and fails to analyze impacts from increased methylmercury production north of the project. Since the return period capacity of Cache Creek is roughly 10 years to 20 years there is five to ten times the annual risk of inundation and possible changes in methylmercury production as described in the DEIR. The DEIR’s impact analysis fails to adequately analyze this impact. A revised analysis should be undertaken to assess the increase risk of methylmercury contamination north of the Project location.

The DEIR further evaluates the risk of releasing pollutants due to inundation in a flood hazard zone as **Impact WQ-4**, finding that risk to be less than significant.

I14-83

According to the DEIR, “implementation of the structural flood risk reduction features of the Proposed Project would increase the 100-year flood depth at existing structures north of the City of Woodland and the proposed levee east of SR 113. In the project area, flooding could upset and spread stored hazardous materials from inundated vehicles, homes, industrial facilities, agricultural operations, businesses, and equipment, and result in the flushing of existing pesticides and other soil contaminants into surface water and groundwater. Overland flow of flood waters would also result in erosion, turbidity, and sedimentation. In addition, sewage facilities could fail, resulting in floodwaters contaminated by human and animal waste and potentially pathogens.” [DEIR, Page 3.2-17] It stands to reason that additional flooding in depth and extent north of the Project as disclosed by the DEIR might increase the risk of the release of pollutants.

The DEIR suggests that this increase in risk north of the flood wall is balanced by the decrease in pollutant release south of the Project. [DEIR, Pages 3.2-17 and 3.2-18] The DEIR further reasons that non-structural measures implemented under the Proposed Project including floodproofing that would elevate or otherwise moved hazardous chemicals stored within the floodplain would reduce the risk of the release of stored hazardous chemicals into floodwaters. [DEIR, Pages 3.2-17 and 3.2-18]

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While in theory true, there is insufficient information on the non-structural measures proposed north of the flood barrier as part of the Project to make an informed assessment, particularly given that farms typically store larger amounts of chemicals than homes or businesses, and the storage of such chemicals is not always within structures that might be floodproofed.

I14-83
cont.

The conclusion of less than significant impact to the risk of pollutant releases in flood hazard zones is not supported by DEIR analysis.

Project Alternatives

The DEIR presents the Project as the Environmentally Superior Alternative (ESA) based on the DEIRs supporting feasibility study, which was completed in 2019. [DEIR, Page 4-42] As in the 2003 Lower Cache Creek Flood Barrier Plan, the existing Cache Creek levees would be maintained and continue to provide flood protection for creek discharges with a 20-year return period. Flood overflows from Cache Creek would be cut off by the barrier, turning the agricultural areas between the barrier and Cache Creek as a Yolo Bypass of sorts, but on a smaller scale. This is not the regional flood control envisioned by Measure S and required by Woodland Municipal Code.

I14-84

Eleven alternatives to the recommended Project (Alternative "2A") are considered in DEIR Chapter 4, some of which provide regional flood protection, but the alternatives are dismissed from further analysis, primarily due to cost as summarized by Table 1. The No Project Alternative, Alternative 7A (Setback Levee Plan), and Alternative 7B (Modified Wide Setback Levee Plan) are consistent with Measure S and Woodland Municipal Code.

Table 1: Project Alternatives Eliminated from Further Consideration in DEIR

Alternative	Description	Reason for Elimination
1A	Strengthen Lower Cache Creek's right bank levees forcing bypass of flow to the north.	Not cost-effective
1B	Similar to 1A but with flowage easements to Colusa Basin Drain	Not cost-effective
1C	Similar to 1B but with additional training levees for bypass flow	Not cost-effective
1D	Similar to 1A, but differences in levee improvements	Not cost-effective
2B	Similar to selected 2A but additional features to address localized induced flooding	Incorporated into 2C
2C	New levee along north side of Woodland and a larger drainage channel with pump relocation, to divert flood flows directly into the Yolo Bypass	Not ESA and City cannot afford without federal funding
2D	Similar to 2C but with strengthened Cache Creek levees	Direct benefits don't justify increased cost
6A	Strengthen portion of existing Cache Creek levees	Does not address overtopping
6B	Raise and strengthen Cache Creek south bank levees	Economics and impact
6C	Raise and strengthen Cache Creek north and south bank levees	Not cost-effective
7A	Setback levees on south bank of Cache Creek	Construction costs
7B	Similar to 7A but with flow diversions to the north and flowage easements	Construction costs

Ms. Carmen J. Borg, SM&W

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A regional Project would generally take one or more of the following forms:

I14-84
cont.

1. Reduce the discharge in Cache Creek so the creek can safely carry its 100-year and 200-year discharges without flooding agricultural and urban areas near Woodland:
 - a. using upstream storage to attenuate flows; or
 - b. bypassing flows further upstream.
2. Increasing the capacity of Cache Creek to match its 100-year and 200-year discharges through a combination of:
 - a. Reduced impediments to creek flow conveyance (sediment and vegetation).
 - b. Creek enlargements.
 - c. Raised creek levees or floodwalls.
3. Bypass creek overflows around the capacity-restricted reach of Cache Creek, but somewhere other than through productive agricultural lands as presently proposed. This might entail the purchase of property in fee title parallel to Cache Creek to its more immediate north or south, to safely and efficiently direct flood overflows to the Yolo Bypass.

Successful projects in urbanized areas of California often involve preserving creek corridors in their more native condition, while providing a resilient bypass corridor that can be maintained in perpetuity for the flood flows. A project consistent with Woodland Municipal Code would likely require the utilization of several elements from the list, perhaps implemented in stages to be economically viable without inducing adverse impacts on the regional community.

I trust this information proves useful. Please feel free to call me with specific questions.

Sincerely,
Schaaf & Wheeler



Charles D. Anderson, PE
President

1262271.2

EXHIBIT 2

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CATHERINE C. ENGBERG
Attorney
Engberg@smwlaw.com

August 12, 2020

Via Electronic Mail Only

Mayor Lansburgh and Members of the
City Council
City of Woodland
300 First Street
Woodland, CA 95695

Re: Measure S and the Lower Cache Creek Flood Barrier Project

Dear Mayor Lansburgh and Members of Council:

This firm represents residents and farmers located within the City of Woodland and Yolo County. I am writing to inform the City that proceeding with review, evaluation, processing and potential approval of Alternative 2A as part of the proposed Lower Cache Creek Feasibility Study (“Alternative 2A Lower Cache Creek Flood Barrier Project” or “2020 Flood Barrier”) violates Measure S, a 2004 voter-sponsored initiative measure. Approved overwhelmingly by 62.8 percent of the voters, Measure S prohibits the City from funding or taking “any action that supports the Lower Cache Creek Flood Barrier (also referred to as “Flood Barrier” and “Flood Wall” interchangeably) studied by the United States Army Corps of Engineers, nor shall the City fund or support a substantially similar structure” without a prior vote of the people (“2003 Flood Wall”). See also Woodland Municipal Code section 8.12.010 (codifying Measure S).

The City must cease and desist pursuing actions related to the proposed Project unless and until it complies with Measure S’s voter approval requirement. It is our understanding that the City has already spent tens of thousands of taxpayer dollars studying the 2020 Flood Barrier. The City’s actions put the cart before the horse, and are illegal. The 2020 Flood Barrier project is not only “substantially similar” to the 2003 Flood Wall project that the voters rejected in 2004, it is virtually identical. As confirmed by Schaaf & Wheeler, Consulting Civil Engineers, the Project proposes a structurally similar layout, and results in a functionally similar flood wall. In addition, the proposed Project (like the 2003 Flood Wall) would result in substantial flood-related impacts to

August 12, 2020
Page 2

agricultural areas to the north of the structure by inundating farmland with waters up to 6 feet deep, affecting thousands of acres of productive land. Nor does it support a regional flood control project (such as setback levees at Cache Creek), as required by Measure S.

This letter is submitted along with the Schaaf & Wheeler report attached as Exhibit A. We respectfully refer the City to the aforementioned attached report, both here and throughout these comments, for further detail and discussion explaining that the proposed Project is substantially similar to the 2003 Flood Wall rejected by the voters in 2004.

I. Woodland Voters Overwhelmingly Approve Measure S.

In 2003, initiative proponents Woodland Residents for Responsible Flood Control submitted more than 3,300 signatures to qualify Measure S for the ballot. The full text of the initiative measure provided:

Section 1: It shall be the policy of the City of Woodland to encourage a regional flood control project to protect both the City of Woodland and other areas of Yolo County. Therefore, the City of Woodland shall not fund or take any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or support a substantially similar structure.

Section 2: The ordinance shall not be repealed or amended except by a vote of the people of the City of Woodland.

(Exh. B, Initiative Petition.)

Volunteer signature gatherers explained the Flood Wall's general layout and its adverse impacts in materials presented to residents. Residents and potential voters learned that the Flood Wall is a dirt levee running east-west along the north edge of town. (Exh. C, Initiative Fact Sheet, p. 2, What is the Floodwall?) "It is designed to flood some homes, businesses and lands in order to allow development in other, low lying lands." (Id.)

Specifically, the Flood Wall would enable development of lands owned by Gerry Kamilos, LLC and other out of area developers who have purchased low-lying lands that lay east of Woodland. In a City Council staff report from former City Manager Richard Kirkwood, the Council was asked to approve a Letter of Intent for Mr. Kamilos'

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August 12, 2020

Page 4

in the official ballot arguments. *See Voters for Responsible Retirement v. Board of Supervisors* (1994) 8 Cal.4th 765, 772; *Delaney v. Superior Court* (1990) 50 Cal.3d 785, 802.

Measure S was a uniquely simple and straightforward initiative. As described above, the full text of Measure S is plain and unambiguous. The ballot question summarized the initiative's plain language as follows:

“Shall the ordinance establishing a Regional Flood Control Project Policy for the City of Woodland and prohibiting the City from funding or taking any action that supports the Lower Cache Creek Flood Barrier or a substantially similar structure be adopted?”

(Exh. J, Measure S Ballot Question.) The City Attorney's impartial analysis accompanying the ballot measure stated unambiguously that the initiative would not allow the City to take any actions to support, promote or construct the flood barrier or a substantially similar project. Measure S was overwhelmingly approved by the voters, passing with a 62.8% to 37.1% vote with more than half of registered voters casting a ballot.

Now, the City is proposing to construct the 2020 Flood Barrier, designed to serve the same purpose as the 2003 Flood Wall that the voters soundly rejected. The City has claimed that the 2020 project is different from the 2003 project. However, the noted differences focus on minor variations in project footprint, alignment and barrier height.

Woodland voters overwhelmingly approved Measure S due to its societal, environmental, and economic impacts, *not* because they objected to the engineering details of the 2003 Flood Wall. As described in the ballot and campaign materials, they voted against a “dirt levee running east-west along the north edge of town” that would “devalue farm land.” Likewise, they voted to provide effective flood protection for *all* of the region, which the 2020 Flood Barrier does not provide. Moreover, voters rejected the Flood Wall because it would facilitate development of low lying lands by Gerry Kamilos LLC and other out of area developers. (Exh. K, “Yes on S” campaign magnet depicting wolf in sheep's clothing.)

Now, Mr. Kamilos is again seeking to develop his property and appears to need a Flood Wall (aka the 2020 Flood Barrier) to move the project forward. (Exh. L, Complaint dated 2/26/20 filed in *Rompsen California Mortgage LC v. Gerry Kamilos, et*

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al.; Exh. M, Answer filed 5/06/20.) The voters have already rejected this proposal by approving Measure S and have not been asked to reconsider their decision.

III. The 2020 Flood Barrier project Is Substantially Similar to the 2003 Flood Barrier and Is Therefore In Direct Conflict with Measure S.

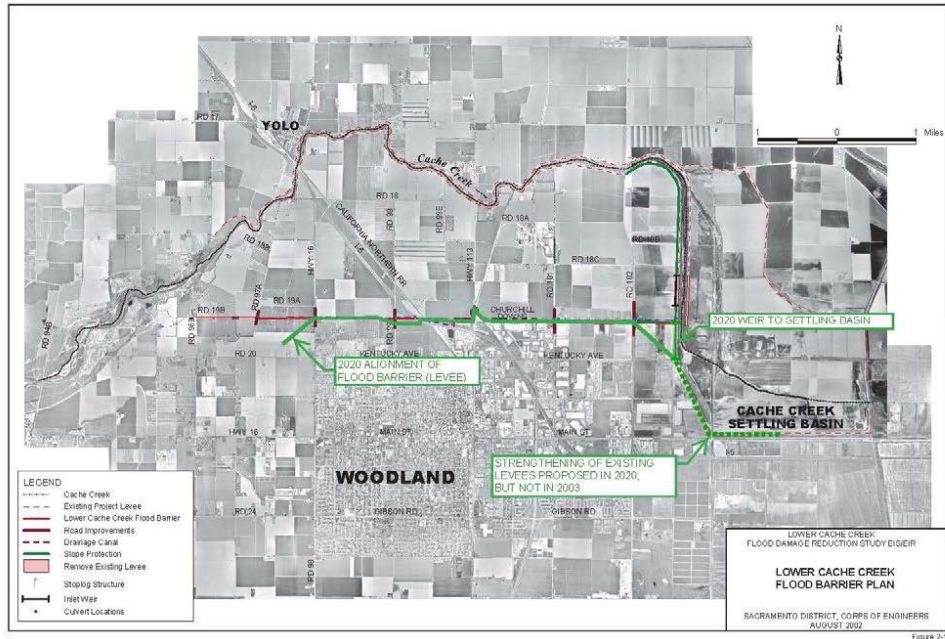
In a memorandum authored by the City's consulting attorneys Best Best and Krieger, City staff concludes that Modified Alternative 2A (2020 Flood Barrier) is substantially different from the 2003 Flood Wall that the voters rejected. (Exh. N, Sept. 9, 2016 BBK memo.) The 2016 memo concedes that "reasonable people may disagree with this view." We disagree, as the City's analysis is too narrow and inconsistent with the plain text and legislative history of Measure S. Moreover, the memo relies heavily on a few discrete engineering differences between the two project designs, none of which were relevant to Measure S voters. The memo fails to analyze whether the 2020 Flood Barrier advances the key policy of Measure S: "to encourage a regional flood control project to protect both the City of Woodland and other areas of Yolo County." Of course, it does not.

Even if the voters' approval of Measure S could be construed as a referendum on the engineering details, the attached Schaaf & Wheeler report explains that the proposed levee barrier and ancillary structures are only slightly different structurally and functionally from the 2003 Flood Wall. Key similarities are described below.

1. The barrier alignment is substantially the same with only minor differences at the east and west ends and strengthening of existing levees on the east side of the City. Schaaf & Wheeler report, Figure 10: Comparison of Flood Barriers Proposed with Current Project to 2003 LCCFB.

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2. The unprotected and negatively impacted land (north of the flood barrier) is substantially the same. Likewise, the protected area (south of the flood barrier) is substantially the same; any differences result from updated flood mapping---not the project design. Schaaf & Wheeler report, Figure 10 at page 13.

3. The 2020 Flood Barrier would perform the same hydraulic and flood protection functions as the 2003 Flood Wall, leaving substantially similar residual flooding problems to the north of the barrier. Schaff Wheeler report at 14.

4. Differences in construction details between the 2003 and the 2020 projects regarding levee height and width do not amount to substantial differences from an engineering or policy perspective. Schaff Wheeler report at 2 and 3. Importantly, the drainage channel has the same flow capacity as the channel proposed in 2003.

While BB&K correctly points out that the current Project plans to include non-structural mitigation measures to purchase flow easements, floodproof structures, and/or subsidize flood insurance for impacted property owners; those measures would also

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have been necessary had the 2003 Flood Wall moved forward, whether explicitly stated in that project's documentation or not.

In any event, voters approved Measure S because they supported a regional solution. Yet, the 2020 environmental analysis has eliminated Strengthening in Place (SIP) alternatives that would provide *regional* flood control consistent with Measure S. The DEIR purports to eliminate these SIP alternatives as not being feasible/cost-effective. These projects include Alternatives 1A, 6A, 6B, 6C, 7A and 7B, which alone or in combination, would strengthen the existing levees adjacent to Cache Creek, and which present regional flood control solutions endorsed by the voters who approved Measure S. DEIR at 4-46 to 4-48. Several of these alternatives, including 6B and 6C, would also provide 200-year flood protection. Therefore, the City's promotion and support of the proposed Project is inconsistent with and in direct violation of Measure S.

CONCLUSION

The work proposed as part of the 2020 Flood Barrier Project does not constitute a regional solution to the area's flooding problems and the levee and ancillary structures are substantially similar, triggering the requirement for voter approval. For these reasons, the City cannot legally proceed with consideration of the Alternative 2A Lower Cache Creek Flood Barrier Project. Please do not hesitate to be in touch if you would like to discuss these matters.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Catherine C. Engberg

cc: Yolo County Farm Bureau
Keleigh L. Duey, U.S. Army Corps of Engineers
Ken Hiatt, City Manager
Tim Busch, Principal Utilities Civil Engineer
Kara Ueda, City Attorney

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Exhibit List:

- Exhibit A - Schaaf & Wheeler report
- Exhibit B - Initiative Petition
- Exhibit C - Initiative Fact Sheet
- Exhibit D - June 25, 2002 Council Communication
- Exhibit E - Ballot Arguments
- Exhibit F - Yes of S door hangtag
- Exhibit G - Yes on S Mailer
- Exhibit H - Daily Democrat
- Exhibit I - North Woodland Flood Wall Impact Summary
- Exhibit J - Measure S Ballot Question
- Exhibit K - "Yes on S" campaign magnet
- Exhibit L - Complaint in *Rompsen California Mortgage LC v. Gerry Kamilos, et al.*
- Exhibit M - Answer in *Rompsen California Mortgage LC v. Gerry Kamilos, et al.*
- Exhibit N - September 9, 2016 BBK memo

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EXHIBIT A

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

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415-433-4848

August 5, 2020

Ms. Carmen J. Borg, AICP
Urban Planner
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, California 94102

Subject: Evaluation of Woodland Flood Risk Management Project vis a vis Measure S

Dear Ms. Borg:

I have evaluated available and provided documentation related to the Woodland Flood Risk Management Project. It is my professional opinion that in terms of flood protection mechanisms and impacts, the Project as currently proposed is “substantially similar to” the 2003 Lower Cache Creek Flood Barrier Project that prompted Measure S. Furthermore, the proposed project is inconsistent with the City’s policy to encourage a regional flood control project. To summarize my conclusions:

1. The barrier alignment is substantially the same.
2. The unprotected area (north of the flood barrier) is substantially the same. Likewise, the protected area (south of the flood barrier) is substantially the same; any differences largely result from updated flood mapping---not the project design.
3. The flooding within the unprotected area becomes worse when compared to the existing condition, just as it was projected to do in 2003.
4. The 2020 environmental analysis has eliminated regional flood control projects that would be consistent with Measure S. These projects include the Setback Levee Plan and the Modified Wide Setback Levee Plan adjacent to Cache Creek, both of which present regional flood control solutions endorsed by the voters who approved Measure S.
5. Differences in construction details between 2003 and 2019 projects regarding levee height and width do not amount to substantial differences from an engineering or policy perspective. Based on the documents that I have reviewed; the voters did not approve Measure S because they objected to the levee section of the 2003 flood wall. They approved Measure S because they supported a regional solution such as the alternatives that have been eliminated from further consideration in the 2020 environmental analysis.

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In this letter I restate the Measure S ballot language, offer my interpretation of that language as a framework for evaluating flood protection project formulation, provide an overview of regional flood hazards, and evaluate how the two versions of the Lower Cache Creek flood protection projects mitigate those flood hazards. Once evaluated the two project versions are compared in their means and methods of flood hazard mitigation and residual flooding not solved by each project. Lastly, I present the logic to my conclusion, based on that comparison.

Document Review

To complete my evaluation, I have reviewed the following documents as provided by you or obtain through independent research:

1. Best, Best & Krieger, "Lower Cache Creek Feasibility Project; Comparison of 2003 Flood Barrier Alternative and 2016 Modified Alternative 2A; Compliance with Measure S," September 9, 2016 Memorandum.
2. California State Assembly, Committee on Water, Park, and Wildlife, "Informational Hearing: Cache Creek Flood Management," Background Paper:
<https://awpw.assembly.ca.gov/sites/awpw.assembly.ca.gov/files/hearings/Briefing%20Paper.pdf>
3. City of Woodland, February 6, 2020 letter to Nancy Lea.
4. ICF, "Woodland Flood Risk Management Project Public Draft Environmental Impact Report," March 2020.
5. U.S. Army Corps of Engineers, "Draft Feasibility Report for Potential Flood Damage Reduction Project, Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity," March 2003.
6. U.S. Army Corps of Engineers, "Draft Supplemental Environmental Impact Statement for Potential Flood Risk Reduction Project, Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity," March 2003.
7. U.S. Army Corps of Engineers, "Draft Feasibility Report for Potential Flood Damage Reduction Project, Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity," December 2019.
8. U.S. Army Corps of Engineers, "Draft Supplemental Environmental Impact Statement for Potential Flood Risk Reduction Project, Lower Cache Creek, Yolo County, CA City of Woodland and Vicinity," December 2019.
9. Yolo County, "Official Nonpartisan Ballot, Tuesday March 4, 2004."

Measure S

This 2004 ballot measure asked whether an ordinance "establishing a Regional Flood Control Project Policy for the City of Woodland and prohibiting the City from funding or taking any action that supports the Lower Cache Creek Flood Barrier or a **substantially similar structure** be adopted?"¹ [emphasis mine] Woodland Measure S passed 62.8% to 37.1% with 53.2% of registered voters casting a ballot.² Measure S is codified by Woodland Municipal Code §8.12.010:

¹ Official Nonpartisan Ballot, County of Yolo, March 2, 2004

² Yolo County Elections Office

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- "A. It shall be the policy of the City to encourage a regional flood control project. Therefore, the City shall not fund or take any action that supports the Lower Cache Creek flood barrier (flood wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.
- B. This chapter shall not be repealed or amended except by a vote of the people of the City. (Prior code §10.1)"

An impartial analysis by the City Attorney suggests the successful initiative makes it the City's policy "to encourage a regional flood control project, but would specifically prohibit the City from funding or taking any action to support the Lower Cache Creek Flood Barrier studied by the United States Army Corps of Engineers ("Flood Barrier") or any substantially similar structure." Since promoting regional flood control is encouraged but supporting a project like the Flood Barrier is specifically prohibited, the focus of my evaluation is on the latter. My focus is limited to flood control in general, and as specifically planned during the past twenty years in Woodland, and whether the current flood control project as proposed meets Measure S as written.

A substantially similar project does not mean an identical project. Variations in project footprint, barrier height, the specific barrier alignment, ancillary barrier features, areas removed from regulatory flood hazard zones, and what might seem significant differences in project design or scope are not necessarily indicative of a substantial difference in project function or impact. For example, a flood barrier could be constructed using earthen levees, floodwalls of various materials and shapes (concrete, masonry, soldier piles, sheet piles, etc.) or a combination of several structures. Changing the size or type of barrier, does not change the fact that it is a barrier. For this evaluation, what makes two barriers similar are their permanence and function, which is to say the area protected from flood hazards and the concomitant impact on flooding in the areas not protected by the barrier.

Flood Hazards near Woodland

Cache Creek drains more than 1,100 square miles beginning at Clear Lake in the Coastal Range and carries runoff to the south and east through canyons into the Central Valley and the Yolo Bypass of the Sacramento River. As is typical of alluvial flooding in California, once Cache Creek leaves the confines of its steeper canyons and enters the flatter valley, the flow carrying capacity of the creek channel diminishes and overflows to adjacent floodplains will naturally occur.

Cache Creek passes north of urbanized Woodland. To prevent frequent natural creek overflows onto urban and agricultural land, levees were constructed beginning in 1918 as part of the Sacramento River Flood Control Project, and most of that system was finished by the late 1950s. Levee system design anticipated a future Wilson Valley Dam and Reservoir to control flood flow releases into Cache Creek. When the reservoir was not built, the flood conveyance system created by the levees proved to be insufficient to accommodate periodic floods, which have occurred twenty times since 1900. Figure 1 shows an aerial view of the 1983 flood, which inundated the land east of Woodland and agricultural areas between the city and Cache Creek when a levee on the south bank broke. Cache Creek flow that exceeds the capacity of the constructed levee system is the main flood hazard in and around Woodland.

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Figure 1: Flooding from Cache Creek in 1983³

Figure 1 shows an episodic flood event caused at least in part by a break in the protective flood barrier on the south bank of Cache Creek. The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) to reduce the impact of flooding on private and public structures by providing insurance to property owners, renters, and businesses and by encouraging the adoption and enforcement of floodplain management regulations. The regulations are enforced partly by using flood hazard maps FEMA prepares and publishes as Flood Insurance Rate Maps (FIRMs). Depending upon loan origination and mapped regulatory flood hazards for a property, that property owner may be required to purchase a flood insurance policy.

One of the main project benefits, both in 2003 and now, is the elimination of flood insurance requirements for properties protected by the barrier since the barrier would be built to FEMA standards for levee accreditation. The currently proposed Project would also meet the State of California's Urban Level of Flood Protection (ULOP) for a 200-year return period as described in the Central Valley Flood Protection Act of 2007 (SB 5), which was passed after the 2003 DEIR/DEIS. This change in the objective design level of flood protection is not a substantial project difference, as further discussed herein. Figure 2 provides the effective FEMA flood hazard zones for Woodland and vicinity, with the currently proposed project footprint superimposed.

³ USACE, "Draft Feasibility Report for Potential Flood Damage Reduction Project," December 2019.

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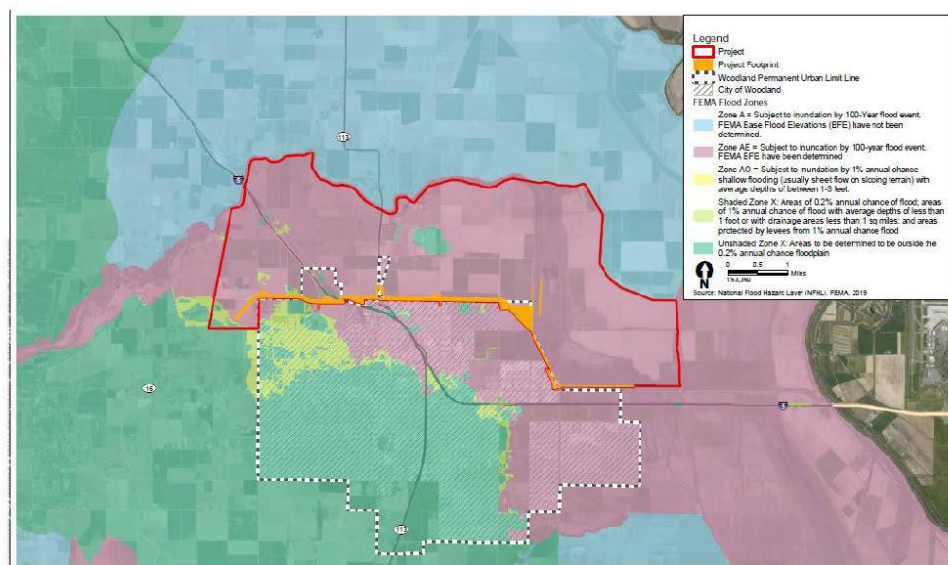


Figure 2: Regulatory Flood Hazards (source: ICF, 2020)

Existing 100-year flood hazards were presented in more detail by MBK Engineers in 2019 and are excerpted as Figure 3, which focuses on both sides of Interstate 5 between Cache Creek and the north side of Woodland, where the proposed project footprint is located. There are some differences in the extent and depth of 100-year flood hazards, due perhaps in some part to the natural evolution of Cache Creek and the hydrologic record since the FEMA maps were prepared, or perhaps to improvements in hydrologic and hydraulic modeling techniques, and better or more recent ground information.

Figure 4 shows a similar graphic of the 100-year flood hazards as understood in 2002. The general behavior of 100-year flooding is the same, although the approximate extent of predicted overbank flooding is a little different. Removing regulatory flood hazards shown on the FEMA maps is one driver behind the desire for a flood protection project to prevent the southeasterly flow of excess flood flows from Cache Creek.

While the precise extent of the mapped or existing flood hazards that would be removed by the flood barrier has evolved since 2003, that evolution is not the result of changes in project reformulation, however slight, but rather changes in the baseline flood hazard mapping using hydrologic and hydraulic analyses completed by Wood Rogers and MBK Engineers. These are reflected in the currently effective FEMA Flood Insurance Rate Map (FIRM) and existing condition models for the 2020 DEIR. It is important to note that although the FIRM flooding extents and existing 100-year flood hazards shown in the 2020 DEIR may not be identical, the variations are not important when evaluating Project compliance with Woodland Municipal Code §8.12.010.

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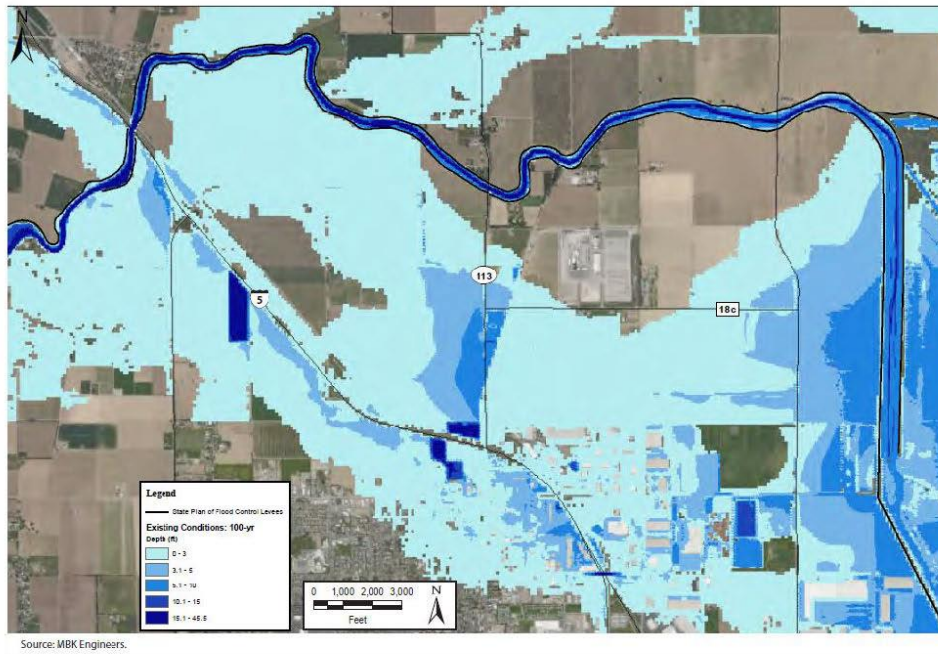


Figure 3: Modeled 100-Year Flood Extents (source: MBK, 2019)

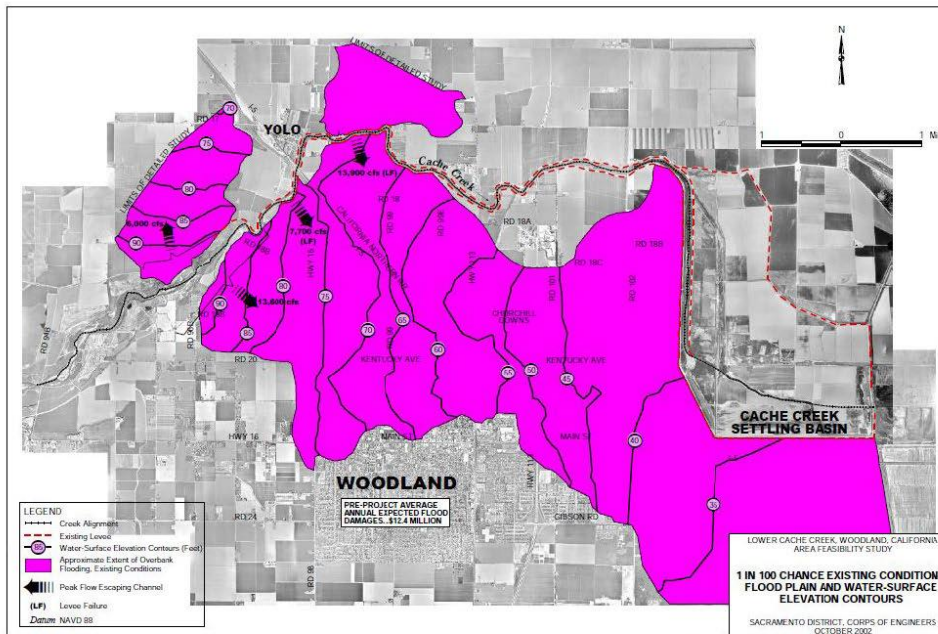


Figure 4: Modeled 100-Year Flood Extents (source: USACE, 2002)

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Lower Cache Creek Flood Barrier Plan (2003)

Measure S references the Lower Cache Creek Flood Barrier (LCCFB) Plan. The City of Woodland was the local sponsor for a U.S. Army Corps of Engineers planning project begun in 2000. The Draft EIS/EIR was published in March 2003. The plan selected as the least environmentally damaging plan for further study, as explained in the environmental document and supporting feasibility study, had the following major elements, which are shown in Figure 5, from the 2003 EIS/EIR:

1. A levee would extend six miles from the intersection of County Road (CR) 19B and CR 96B to the Cache Creek Settling Basin, along an alignment paralleling CR 19B and Churchill Downs Avenue.
2. Culverts, a drainage channel, and a 3,000-foot long weir at elevation 45 feet NAVD in the west levee of the settling basin would be constructed to allow for the release of floodwaters that overflow the cache creek levees (which would be maintained as-is) and become trapped behind the LCCFB.
3. About 5,280 feet of a training levee within the settling basin would be degraded to improve sediment distribution within the basin.
4. Closure and stoplog structures where roads and a railroad cross the flood barrier.
5. A flood warning system to initiate the evacuation of the residual floodplain and begin the closure of road and railroad crossings.

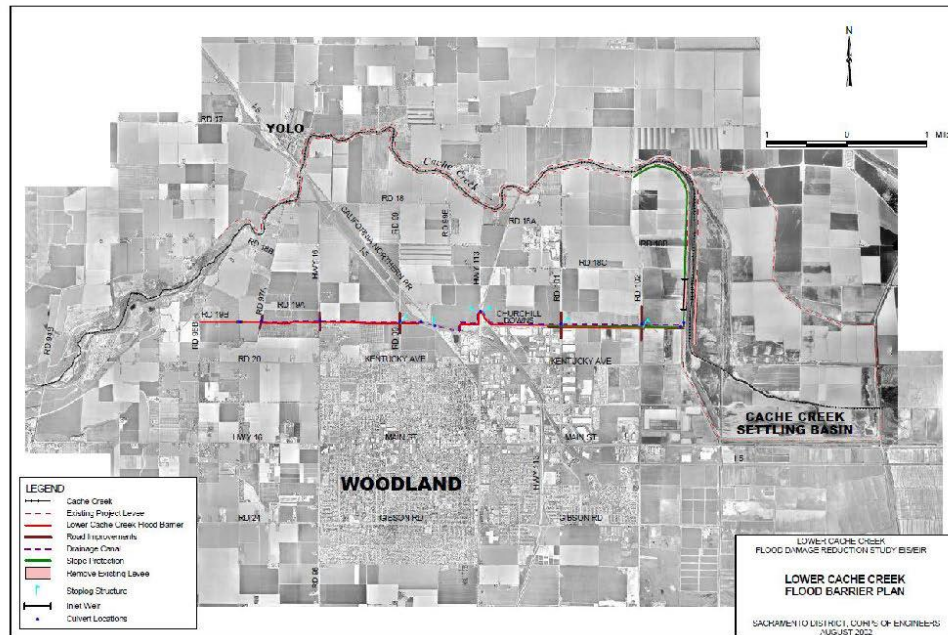


Figure 5: Lower Cache Creek Flood Barrier Project Elements (2003)

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The LCCFB would have provided 100-year flood protection meeting FEMA standards to the area south of the barrier, which would then effectively set the northern limit of urbanization in the traditional sense. The barrier would have been between 2.5 feet high at CR 96B to 18 feet high at its eastern terminus at the settling basin. Roads crossing the barrier would be regraded to meet the barrier at its top elevation as practical given site distance requirements and other design constraints. Otherwise, the barrier elevation would meet the top of road elevation and stoplog structures would provide manual closures for the gap in the levee during flood events. (Automatic passive barriers – e.g. FloodBreak™ – that perform this function are now readily available on the market.) Culverts and a drainage canal with 350 cfs capacity would have been built on the north side of the LCCFB to accommodate the local drainage that normally would flow across the barrier alignment.

The existing Cache Creek levees would have been maintained to provide flood protection for creek discharges of 30,000 cfs to 36,000 cfs which was expected to have an annual 5 percent chance of occurrence, or a 20-year return period. During a flood of that frequency or less, the overflows that would pass through the north end of Woodland as shown in Figures 2, 3, and 4 would instead be cut off by the barrier. The same rate and volume of flow would then be spread out over a smaller area. Without mitigation this results in increased flood depths and/or duration.

The drainage canal and overflow weir into the settling basin were intended to help mitigate an increase in flood depth or duration (i.e. induced flooding), but as disclosed in the 2003 EIS/EIR this was not going to be the case everywhere. According to the Draft EIS/EIR, “project-induced flooding on some lands north of the flood barrier would cause a potential decrease in land value.” As required by applicable laws, those landowners would need to be fairly compensated for decreases in land value or a take, and one home was proposed for relocation.⁴

Two project alternatives with flood barriers more immediately adjacent to Cache Creek (“Setback Levee Plan” and “Modified Wide Setback Levee Plan”) that would increase the extent of flood protection to include areas north of the LCCFB and Cache Creek itself were evaluated but neither alternative was the Least Environmentally Damaging Practicable Alternative (LEDPA), and both were eliminated from further consideration ostensibly due to the permitting challenges and substandard benefit to cost ratio, as they required about 19 miles of flood control levees.

Neither of these project alternatives would be the LEDPA if the project objective is to protect urbanized Woodland, but that assessment could change if the objective is regional flood protection that would include areas north of the urban limit line. Federally sponsored projects compete for funding based on their benefit to cost ratios, and the Modified Wide Setback Levee Plan had a B/C ratio of 1.1 compared to the LCCFB with a B/C ratio of 3.9. Figures 6 and 7 show the difference in areas of 100-year flood protection and residual flooding that would have resulted from the selected LCCFB Plan and the alternative Modified Wide Setback Levee Plan. Green areas absent concurrent magenta hatching indicate areas of project-induced flooding extent. Evaluation of these figures and what they represent may have led to the expressed desire for a regional solution that prompted the passage of Measure S.

⁴ USACE, “Draft Environmental Impact Statement/Environmental Impact Report for Potential Flood Damage Reduction Project,” March 2003, Table ES-1, Page ES-15.

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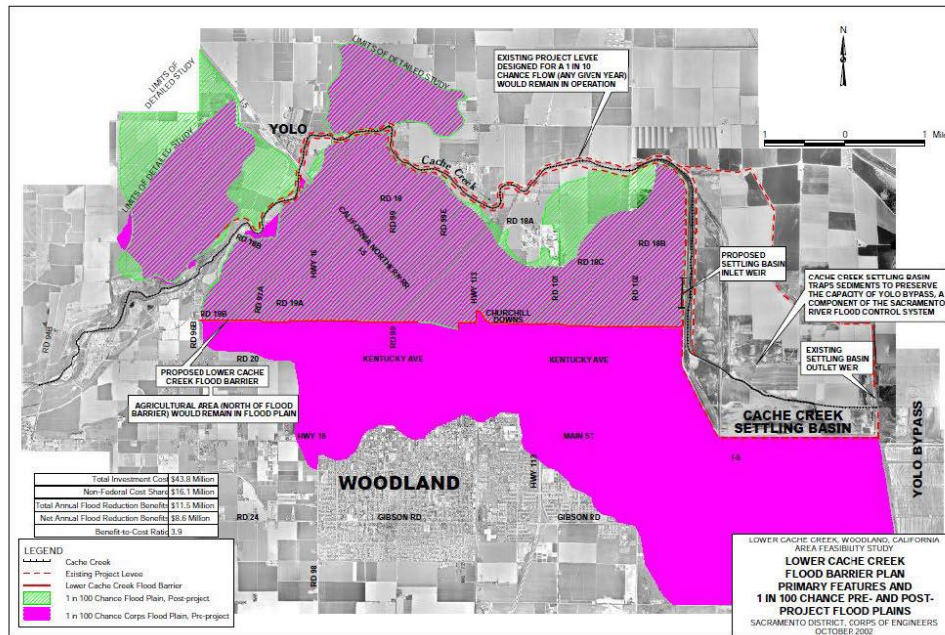


Figure 6: 100-year Residual Floodplain with Lower Cache Creek Flood Barrier (2003)

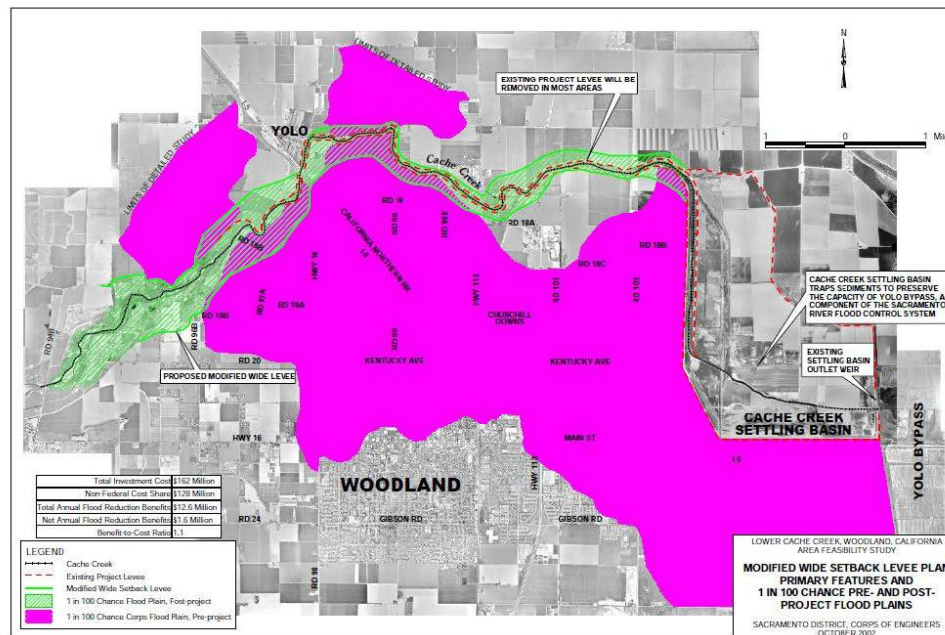


Figure 7: 100-year Residual Floodplain with Modified Wide Setback Levee Alternative (2003)

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Woodland Flood Risk Management Project (2020)

The recently proposed Woodland Flood Risk Management Project (Project) is presented as the LEDPA for further study, as explained in the March 2020 environmental document and its supporting feasibility study, completed in 2019. The Project has the following major elements, which are shown in Figure 8, from the 2020 EIS/EIR:

1. A levee would extend 5.5 miles from southwest of the intersection of CR 98 and Carter Lane to the Cache Creek Settling Basin, along an alignment paralleling Churchill Downs Avenue and CR 98.
2. Culverts, a drainage channel, and a 3,000-foot long weir at elevation 43 feet NAVD in the west levee of the settling basin would be constructed to allow for the release of floodwaters that overflow the cache creek levees (which would be maintained as-is) and become trapped behind the new levee.
3. About 3,000 feet of a training levee within the settling basin would be degraded to improve sediment distribution within the basin.
4. Elevated crossings or closure structures would be constructed where the proposed levee crosses existing roads or railroad tracks.
5. Site-specific non-structural measures to ameliorate the continued and in some locations increased flood risk to individual properties north of the barrier.

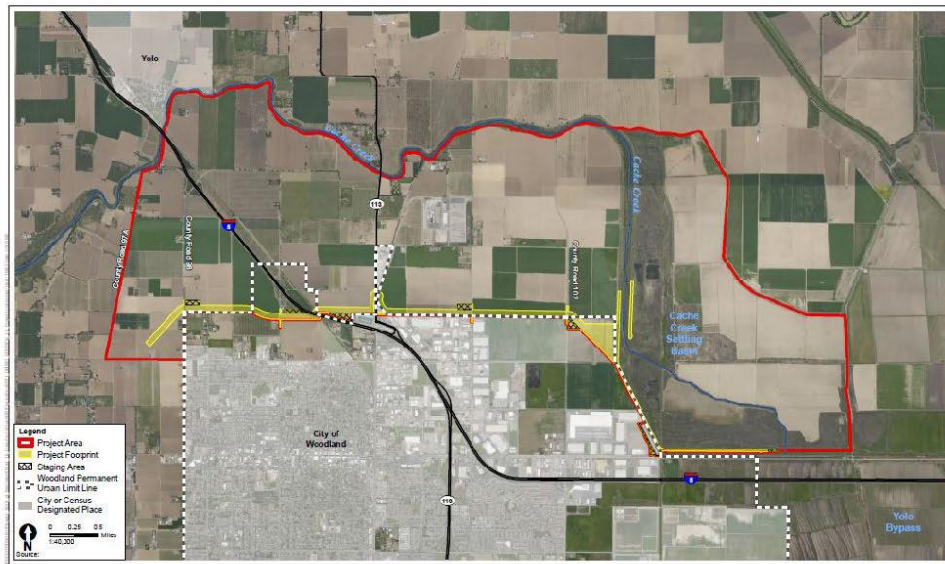


Figure 8: Woodland Flood Risk Management Project Elements (2020)

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The Project is located on the same alignment as the 2003 LCCFB and would also effectively establish the northern limit of traditional urbanization in the City of Woodland. The 2020 DEIR states that with freeboard, the proposed barrier would provide 200-year flood protection from Cache Creek to the City of Woodland. The limit of flood protection is not substantially changed from 2003.

The Project barrier varies in height from 6 feet near CR 98 to 14 feet high at its eastern terminus at the settling basin. A seepage berm would be constructed on the landside of the new levee for additional safety, but that is a design detail that does not change the basic function of the barrier. Similarly, newly proposed rehabilitation for a 7,400-foot-long reach of the southern settlement basin levee does not change the basic project function. Culverts and a trapezoidal drainage canal with 350 cfs capacity would have been built on the north side of the LCCFB to accommodate the local drainage that normally would flow across the barrier alignment. These floodwaters would pond in a 40-acre detention basin built at the drainage canal's downstream end and discharge across the 3,000-foot weir, which is relocated slightly relative to its position as planned in 2003. The weir elevation is two feet lower, and while the interior drainage system performance may be somewhat enhanced by the lower weir and detention basin, the overall capacity remains 350 cfs.

As in the 2003 LCCFB Plan, the existing Cache Creek levees would be maintained and continue to provide flood protection for creek discharges with a 20-year return period. Flood overflows from Cache Creek would still be cut off by the barrier, and the Project still induces as much as six feet of locally deeper flooding to the north of the barrier according to the Draft EIR as clearly shown in Figure 3.1-5 from the DEIR, which is reproduced herein as Figure 9. Eleven alternatives to the recommended Project (Alternative "2A") are considered in the DEIR, some of which such as Alternatives 6B and 6C could provide both regional and 200-year flood protection, but are dismissed from further analysis, primarily due to cost as summarized by Table 1.

Table 1: Project Alternatives Eliminated from Further Consideration in 2020 DEIR

Alternative	Description	Reason for Elimination
1A	Strengthen Lower Cache Creek's right bank levees forcing bypass of flow to the north.	Not cost-effective
1B	Similar to 1A but with flowage easements to Colusa Basin Drain	Not cost-effective
1C	Similar to 1B but with additional training levees for bypass flow	Not cost-effective
1D	Similar to 1A, but differences in levee improvements	Not cost-effective
2B	Similar to selected 2A but additional features to address localized induced flooding	Incorporated into 2C
2C	New levee along north side of Woodland and a larger drainage channel with pump relocation, to divert flood flows directly into the Yolo Bypass	Not LEDPA and City cannot afford without federal funding
2D	Similar to 2C but with strengthened Cache Creek levees	Direct benefits don't justify increased cost
6A	Strengthen portion of existing Cache Creek levees	Does not address overtopping
6B	Raise and strengthen Cache Creek south bank levees	Economics and impact
6C	Raise and strengthen Cache Creek north and south bank levees	Not cost-effective
7A	Setback levees on south bank of Cache Creek	Construction costs
7B	Similar to 7A but with flow diversions to the north and flowage easements	Construction costs

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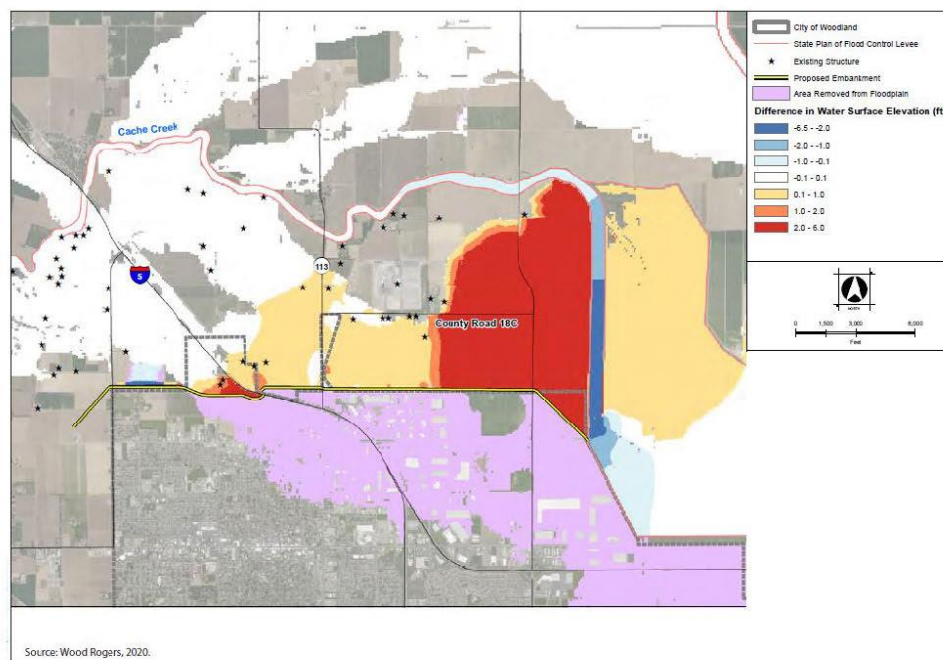


Figure 9: Induced 100-year Flooding with Woodland Flood Risk Management Project

Conformance of Woodland Flood Risk Management Project with Measure S

Measure S established a Regional Flood Control Policy for the City of Woodland. As shown in Figure 9, the Project is not a regional flood control project because, like the 2003 project, it is no larger than Woodland City Limits. Significant flood risks remain between Cache Creek and the barrier location, and many locations increase. Almost nowhere between the creek and barrier is flood risk or depth reduced. In that respect, the Project does not conform to Measure S, which directs the City to support a regional flood control policy.

Measure S also prohibits the City from funding or supporting the Lower Cache Creek Flood Barrier or a substantially similar structure. To evaluate this, the levee and other structures that make up the currently proposed Project may be compared directly to the levee and other structures proposed as part of the LCCFB, which is done in Figure 10. The two projects are strikingly similar in both plan and function. Not all will agree with this assessment. In 2016 Kara Ueda and City Attorney Seth Merewitz advised Woodland's City Manager, Community Development Director, and City Engineer that the 2016 Project Alternative ultimately carried forward into the 2020 Draft EIR is substantially different from the 2003 LCCFB prohibited by Measure S "in that both the physical features, as well as the effects of the improvements and mitigations to land owners, are substantially different," but that "reasonable people may disagree with this view."⁵

⁵ Best Best & Krieger Attorneys at Law, September 9, 2016 memorandum.

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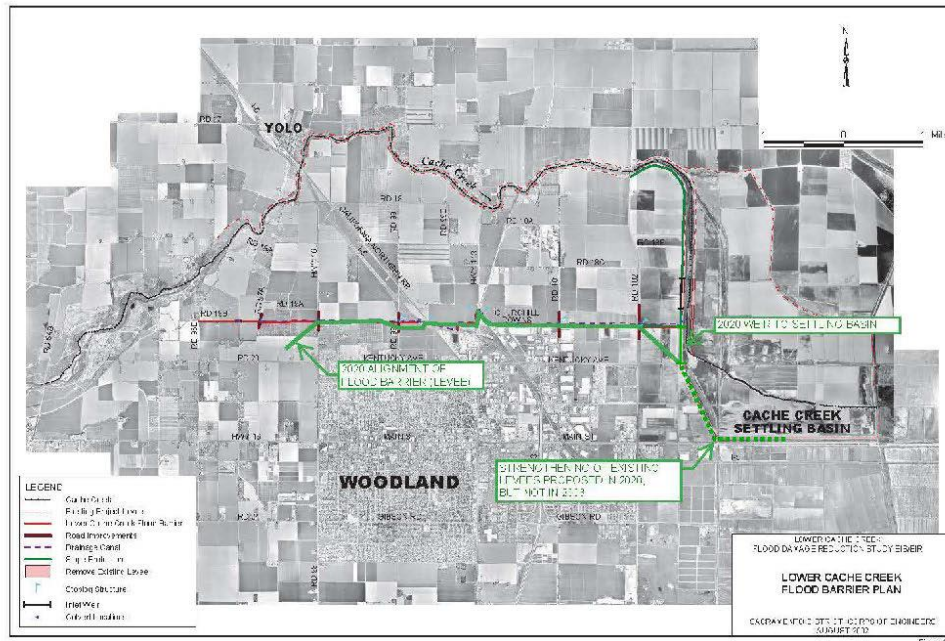


Figure 10: Comparison of Flood Barriers Proposed with Current Project to 2003 LCCFB

Their opinion is based primarily on slight changes in barrier alignment, additional culverts, construction of the channel on the flood side of the levee (although the 2020 DEIR lists the channel with the same flow capacity as the channel proposed in 2003), and a flood relief overflow weir that is the same length but two feet lower than as proposed in 2003, which all else equal should pass the same rate of flood flows with lower backwater elevations. That may be, but at some point, flood elevations further to the west are controlled by drainage channel capacity rather than the starting tailwater, and according to the current DEIR, this channel has the same capacity as proposed in 2003, and in any event does not preclude induced flooding to the north.

The BB&K letter includes an exhibit from MBK Engineers that is supposed to show flood depths north of the levee barrier based on the Project features conceptualized in 2016 are less than with the project features proposed in 2003. That may be (unfortunately my available copy is in black and white and comparative flood depths are impossible to discern), but the proper comparison is not between 2016 and 2003 post-project conditions. The fact that the currently proposed Project is “less bad” than the 2003 project is not convincing. Rather, the comparison should be between post-Project conditions and existing conditions. That comparison is made in Figure 9 of this letter, and clearly shows an increase in flood depths over an extended area. This is induced flooding and would lead to the inverse condemnation of numerous properties. While BB&K correctly points out that the current Project plans to include non-structural mitigation measures to purchase flow easements, floodproof structures, and/or subsidize flood insurance for impacted property owners; those measures would also have been necessary had the 2003 LCCFB moved forward, whether explicitly stated in that project’s documentation or not.

Ms. Carmen J. Borg, SM&W

August 5, 2020

Similarly, in a February 6, 2020 letter from Paul Navazio, Woodland’s City Manager, to Ms. Nancy Lea, Mr. Navazio tells Ms. Lea that because 2019’s Alternative 2A shows a larger levee with a seepage berm and wider drainage channel on its flood side toe, the comparison highlights “the significant differences in the two projects,...including how the alternatives perform.” This comparative figure is reproduced herein as Figure 11.

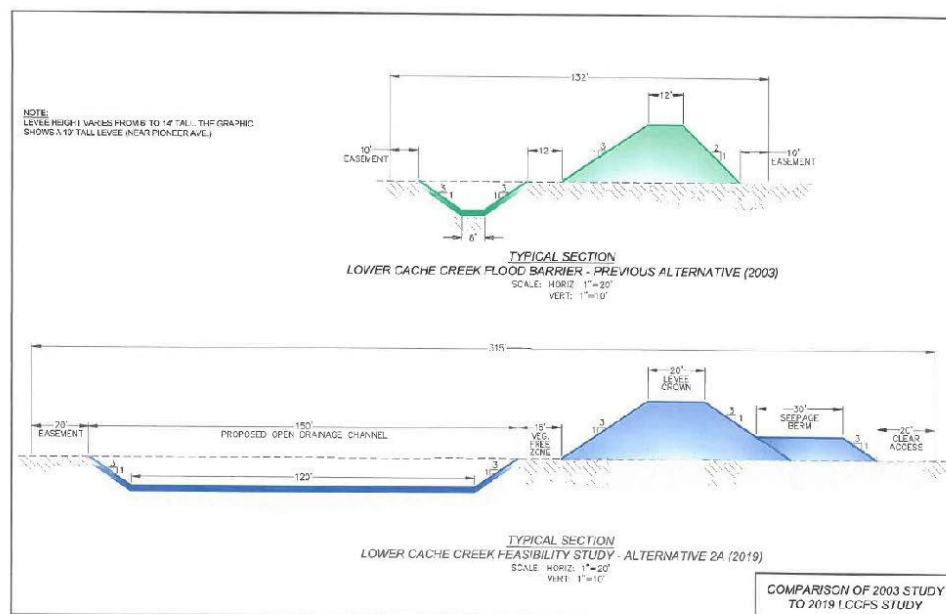


Figure 11: Comparison of 2019 Flood Barrier Levee Section to 2003 LCCFB Levee Section

This comparison is made at too small a scale and is too concerned with levee construction details. One levee is wider than the other and has a larger footprint. One levee has a seepage berm, but that is a feature for enhanced resiliency that might have been added to the 2003 project if it had moved forward into detailed design and construction. The open channel became much wider, and while apparently shallower (no depth dimension is given in the comparative figure), it would seem to have greater capacity. Nonetheless the DEIR based on this section indicated channel capacity remained 350 cfs as in 2003 (perhaps a mistake), and detailed modeling (Figure 9) shows substantial increases in flood depths to the north of the barrier, so even if the channel became larger than proposed in 2003, it did not become large enough to prevent induced flooding to the north.

To evaluate conformance with Measure S, which is admittedly broad, the project comparison must be made at an appropriately broad distance, which is done in Figure 10. The barrier alignment is substantially the same, the protected area is substantially the same, the unprotected area is substantially the same, and flooding within much of the unprotected area becomes worse when compared to the existing condition, just as it was projected to do in 2003.

Ms. Carmen J. Borg, SM&W

August 5, 2020

According to the August 2, 2020 *Daily Democrat*, Woodland city officials held a video conference to address concerns about the lack regional flood protection provided by the Project. The article quotes a representative of MBK Engineering saying the current flood plan is not the 2003 plan because the City of Woodland worked with FEMA to be more “specific” about the area that needs to be protected, and the land needed to provide that protection.

Regarding the latter point that presumably refers to the Project’s footprint, it remains in substantially the same location as proposed in 2003 (Figure 10) and as described in text associated with Figure 11, changes in levee footprint and design details do not make the Woodland Flood Risk Mitigation Project substantially different from the Lower Cache Creek Flood Barrier.

To the former point, and as discussed briefly before, while the specific area the Project would remove from the FEMA floodplain has changed, this change is due to flood hazard remapping efforts that were not associated with the Project. Figure 12 shows an approximate overlay of 200-year flood hazards that would have been removed by the Lower Cache Creek Flood Barrier proposed in 2003 with the same area of floodplain removal if the current Project were implemented. The extent of floodplain removal south of the barrier has shrunk, but the residual floodplain extending between Cache Creek and the barrier to the north are nearly identical. Clearly, as far as property owners in the floodplain north of the barrier are concerned, this is an identical project.

If anything, the most significant change due to flood hazard remapping – a change unrelated to Measure S compliance – is that all else equal, the Project’s benefit-cost ratio is probably lower in 2020 than it was in 2003.

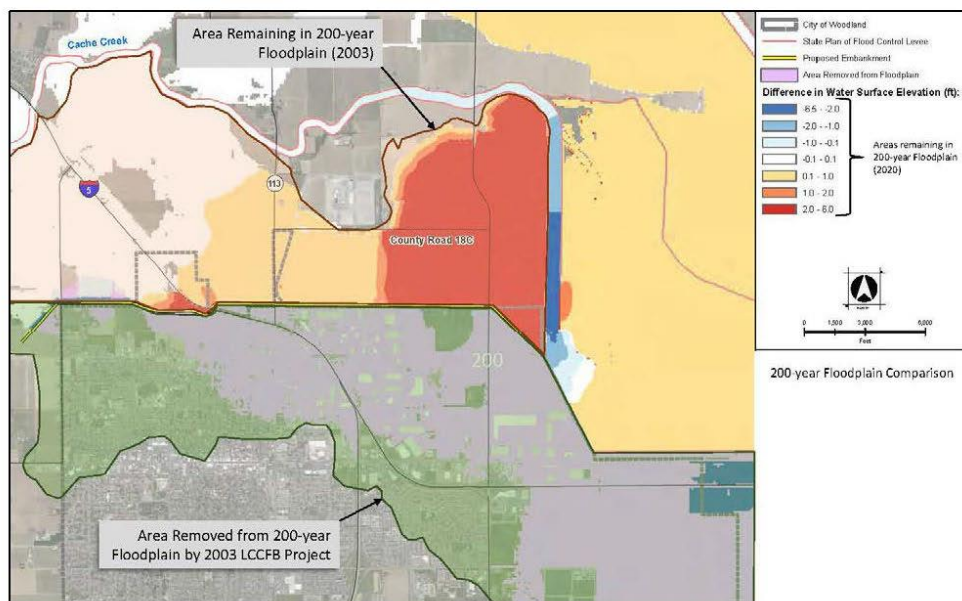


Figure 12: Comparison of Floodplain Changes from 2003 to 2020

Ms. Carmen J. Borg, SM&W

August 5, 2020

Conclusion

The levee sections are slightly different now than in 2003, but the levee barrier and ancillary structures proposed in 2019 perform the same hydraulic and flood protection functions as did the Lower Cache Creek Flood Barrier proposed in 2003, leaving substantially similar residual flooding problems to the north of the barrier. Measure S and Woodland Municipal Code prohibit flood barriers “substantially similar to” the Lower Cache Creek Flood Barrier proposed in 2003. Therefore, the City should not support the Woodland Flood Risk Management Project as currently proposed.

I trust this information proves useful. Please feel free to call me with specific questions.

Sincerely,

Schaaf & Wheeler



Charles D. Anderson, PE

President

12737321

Schaaf & Wheeler

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EXHIBIT B

The attorney for the City of Woodland has prepared the following title and summary of the chief purposes and points of the proposed measure:

AN INITIATIVE MEASURE ESTABLISHING A REGIONAL FLOOD CONTROL POLICY FOR THE CITY OF WOODLAND

The proposed initiative would establish a City of Woodland policy to encourage a regional flood control project. The policy would prohibit the City of Woodland from funding or supporting the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Corps of Engineers or any other substantially similar project. If passed, the proposed initiative could not be repealed or amended except by the City of Woodland voters.

Initiative Text

Section 1: It shall be the policy of the City of Woodland to encourage a regional flood control project to protect both the City of Woodland and other areas in Yolo County. Therefore, the City of Woodland shall not fund or take any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.

Section 2: This ordinance shall not be repealed or amended except by a vote of the people of the City of Woodland.

NOTICE TO THE PUBLIC: THIS PETITION MAY BE CIRCULATED BY A PAID SIGNATURE GATHERER OR A VOLUNTEER. YOU HAVE THE RIGHT TO ASK.

All Signers of this petition must be registered in the City of Woodland, California			This column for official use only
1	Print Name	Residence Address	
	Signature As Registered	City Zip	
2	Print Name	Residence Address	
	Signature As Registered	City Zip	
3	Print Name	Residence Address	
	Signature As Registered	City Zip	
4	Print Name	Residence Address	
	Signature As Registered	City Zip	
5	Print Name	Residence Address	
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9	Print Name	Residence Address	
	Signature As Registered	City Zip	
10	Print Name	Residence Address	
	Signature As Registered	City Zip	

EXHIBIT C

NORTH WOODLAND FLOOD WALL

IMPACT SUMMARY

The City of Woodland is currently considering flood protection alternatives. One alternative is a "flood wall" which would consist of a levee along the north edge of the City that would channel flood waters across approximately five to six thousand acres of land north of the wall; land which would become a *de facto* bypass. A second alternative that the City is considering, a set-back levee system, would protect both Woodland, the area north of Woodland, and area north of Cache Creek.

1. **The Proposed Flood Wall Will Negatively Impact Agriculture.**
 - a. Floodwater height, duration and length of inundation will increase in the affected area, limiting farmers' ability to plant, raise and harvest crops.
 - b. Farmer/Landowner ability to obtain financing will be impaired due to banker perception that the land has been devalued.
 - c. Permanent crops will be damaged.
 - d. Loss of farming viability for the affected acreage will lead to compromises in the agriculture infrastructure.
2. **Loss of Farm Values Will Lead to Loss of Tax Base for the County of Yolo and the Woodland Joint Unified School District.**
3. **Landowners Will Lose Other Sources of Substantial Income, e.g. Sale of Conservation Easements.**
4. **Public Safety and Health in Our Area Will Be Impaired By Threatened Evacuations and Road Closures.**
5. **Assurances Have Not Been Given That Emergency Authorities Will Continue To Provide Us the Same Level of Flood Protection.**
6. **Businesses and Farms In Our Area Store Large Amounts of Chemicals and Petroleum Products Which Are Potentially Hazardous If Released Into Floodwaters.**
7. **A Flood Wall Would Result In Large Loss of Land and Other Current Uses.**
8. **A Flood Wall Will Create a Schism Between Residents of this Community.**

The Flood Wall will be the far more expensive alternative when all consequences are considered. The set back levee is a viable alternative which does not create schisms, economic loss and environmental damage. **North Woodland Property Owners commit to do their part to fund a flood protection system which will provide protection for all.**

PLEASE SUPPORT WOODLAND FARMERS

**The COE and the CITY of WOODLAND
are determined to build a FLOODWALL along the northern edge of
Woodland.**

This floodwall will cause flooding over 1200 acres of Yolo County farmland, and places an additional 5,000 acres, 60+ homes, and businesses at increased flood risk. The City and the COE estimate that the floodwall will cost 46 Million Dollars: the COE's prior experience with the Sacramento River Levees indicates actual costs will be twice that!

WHO WILL WIN?

Developers will win because their land values (east end of Woodland) will increase.

WHO WILL LOSE?

Farmers, homeowners and business owners will lose because their land, home and property values will decrease.

- (1) Bankers have advised that the land will be worth less, limiting farmers' ability to get operating loans.
- (2) Sporadic flooding will limit ability to farm and increase operating costs.
- (3) Farmers will not be able to plant permanent crops.

The County will lose because its tax base will be devalued.

Residents north and south of Cache Creek will lose because they will be cut off from emergency services, and they will be at increased risk of flooding.

Residents of the City of Woodland will lose because they will have a false sense of security.

Residents of Esparto, Madison, Yolo, Knights Landing and Davis will lose because they will not be protected at all by this multi-million dollar tax grab!

Our community will lose because it will be divided into "haves and have-nots".

**WE NEED TO SHOW OUR CONGRESSIONAL DELEGATION that
WE DO NOT WANT A FLOODWALL!
PLEASE WRITE LETTERS AGAINST THE
FLOODWALL TO HERGER AND THOMPSON.**

CONTACT:

Congressman Wally Herger

Att: **Sol Cranfill, Field Representative**
55 Independence Circle, Suite 104
Chico, CA 95973
Tel.: (530) 893-8363/ Fax. 893-8619

Congressman Mike Thompson

Att: **Ely Fairclough, Field Representative**
712 Main Street
Woodland, CA 95695
Tel.: (530) 662-5272/Fax. 662-5163

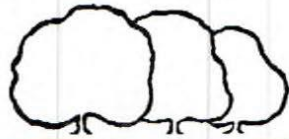
If you have questions or would like further information, please contact Nancy Lea (668-6626 or 916-552-1179); Donna Howald (661-1324); or Brenda Brennan (666-9033).

EXHIBIT D

06-24-2002 00:57 FAX 5308615513

CITY OF WOODLAND

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City of Woodland

COUNCIL COMMUNICATION

AGENDA ITEM

6.

SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

DATE: June 25, 2002

PREPARED BY: Richard Kirkwood, City Manager

RECOMMENDED ACTION:

That the City Council accept the terms stated in the letter of intent from Gerry N. Kamilos, LLC and authorize the City Manager to enter into negotiations with the applicant and the County of Yolo to allow expedited development of the

Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park and annexation of approximately 544 acres into the City of Woodland.

BACKGROUND INFORMATION:

On May 22, 2002 Vice Mayor Rexroad and Councilmember Dote met with County Supervisors Stallard and Pollock along with Representatives of Ace Hardware and Mr. Gerry Kamilos, City and County staff. Mr.

Kamilos is currently in escrow to purchase the entire 544 acres Spreckels property located south of Churchill Road along County Road 102. We believe that the County of Yolo is interested in advancing an opportunity for Ace Hardware Retail Support Center to have a presence in Yolo County. It is anticipated that Yolo County would support the planning effort necessary to attract Ace Hardware and the master planning effort of the 544 acres Spreckels property for annexation to the City of Woodland and receive supporting municipal services. We understand the County of Yolo has worked long and hard to entice Ace to Yolo County and the County was very disappointed to learn that the Esparto Site failed. Mr. Kamilos has received encouragement from the County to proceed with the Spreckels Site.

On June 4th Council members expressed concern regarding the current vacant and saturation of existing warehouse space. Council also suggested the need to evaluate a higher and better use for the land and expressed a strong desire to move away for the expansion of simply more warehouse operations. Council discussed the desire to create a Specific Plan – Master Plan process that would produce higher living wage jobs and a master -specific plan to gain more efficient and effective use of land. Councilmembers expressed concern that this may not be the opportune time for this project. Council stated the need for job creation and urged Ace to locate in an existing space.

Representatives from Ace explained that they have very specific designs for their facility and they intend to be long - term owners and they intend to design and build a facility to their specifications to insure they can accommodate their business expansion and long term objectives. They also said

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SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

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they examined the existing and vacant warehouse space and did not find facilities to that would meet their specific need.

On June 5th Mr. Kamilos requested to continue discussions with Council members Dote and Peart and the City Manager. Discussion ensued regarding public benefit and policies that can be achieved that result from allowing the Ace Hardware Retail Support Center to locate on the Spreckels property. Attached is the June 6, 2002 letter from Mr. Kamilos recognizing the city's concerns and requesting that the City allow the Ace Hardware project to proceed through the County with certain understanding. These understandings are summarized under Letter of Intent. Primary changes include \$1.5 million commitment for flood control solution and participation in an assessment district. Mr. Kamilos also desires to contribute \$50,000 for the benefit of the City to be used for economic development purposes for the Downtown Area.

Flood protection continues to be a high priority of the City Council and continues to seek a commitment of local funding for flood protection as a public safety measure. "An overarching goal that all should be able to agree with is the protection of the health and safety of the community. Our challenge is to determine what is needed and how to do it." At its April 16, 2002 meeting the City Council adopted a Flood Protection Action Plan. Obtaining funding for flood protection is a key public policy.

General Plan - Economic Development

The General Plan recognized that annexations in the 1980s and 1990s created a substantial industrial complex in the northeastern quadrant of the city. "If this industrial area continues to develop in an orderly and appealing manner, the city will be able to boast an exemplar industrial complex to prospective tenants, as well as providing a coherent and relative contained employment center for residents'. The plan further recognizes there are some poorly maintained buildings and unsightly pockets of older industrial uses. Chapter 9 of the General Plan outlines the goals, policies and implementation programs for Economic Development. The Plan supports the retention and expansion of business. Enhanced commercial and industrial attraction efforts through the increased success of existing businesses; development of positive working relationships between public and private sectors; and identification of potential target industries and business sectors are encouraged and considered a natural outcome of a successful retention and expansion program.

The Ace Hardware Retail Support Center will improve the property and will develop in an orderly and appealing manner. Ace will provide a relative contained employment center. According to the Department of Employment Security Woodland should produce a sufficient labor pool and would contribute to business, job retention and expansion. The County of Yolo has worked to locate the Ace facility in Yolo County.

Policy 9.A.7. provides that the City shall identify industries and/or businesses perceived to be at risk, and, where feasible, develop mitigation actions for their retention or conversion to more economically viable activities. Further, the plan recognizes that disposable income in the community presents development opportunities to recapture the sales that are lost to retail centers in surrounding communities. Policies 9.B.3 and 9.B.4 require the city to develop new businesses, especially those that provide primary-wage earner jobs, by designating adequate land and providing

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SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

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infrastructure in areas where resources and public facilities and services can accommodate employment generators. The City shall support the development of primary-wage-earner job opportunities to provide Woodland residents an alternative to commuting outside of Woodland.

Ace Hardware will provide primary wage-earner jobs. Approximately 75 management, professional, technical employees including drivers will be employed producing a payroll of \$4.1 million per year. Approximately 20 clerical administrative positions will average \$10 per hour with payroll at \$416,000 per year. The majority 240 positions warehouse operations and logistics will average \$12 per hour (including incentive pay) will generate nearly \$ 6 million per year not including overtime. The total annual payroll will be in excess of \$13 million per year not including a benefit package of about 30%.

ACE Hardware Retail Support Center

Founded in 1924, Ace Hardware Corporation is headquartered in Oak Brook, Ill., and is a cooperative wholly owned by its 5,100 independent hardware, home center, lumber and building materials retailers. Annual retail sales in 2000 exceeded \$13 billion. Ace currently operates 16 distribution centers in North America and has stores located in all 50 states and 68 countries. Ace Hardware Corp. has been named one of America's most admired companies in FORTUNE magazine's annual study that ranks US firms' corporate reputations. The retailer-owned cooperative ranked fifth in the Wholesalers: Diversified category based on a survey of 10,000 executives conducted in the fall of 2001. More information on Ace can be found on the World Wide Web at www.acehardware.com.

Letters of Support (Attached)

Barbara Hayes Executive Director SACTO said, "Ace has been a tremendous asset to our regional economy". She reports that her agency and the California Technology Trade and Commerce Agency has assisted in the retention and expansion of Ace within the Region. She notes that jobs will be retained, the facility will not only be a warehouse but will be a national administrative training center, where new employees from all over the U.S. will be arriving to spend time in the Woodland area, thus generating sales tax and transient occupancy tax. Ms. Hayes commented that Ace is committed to the success and happiness of their employees and the local employment base will be able to benefit from the hiring of a number of recently displaced workers with valuable distribution/logistics experience.

Mayor John Medinger of Lacrosse Wisconsin expressed his support for Ace Hardware. He reports that his community has a very positive and productive relationship with Ace. He said Ace builds a very attractive building, creates jobs, tax base and is a responsible corporate member of the community. His community enjoys an excellent working relationship with Ace.

Mr. Dick Granchalek, President Greater La Crosse Area Chamber of Commerce said the Chamber enjoys a "very positive association" with their Ace facility and is a "centerpiece of corporate responsibility with its well maintained buildings and grounds". He further stated that "the impact from the facility is only positive while providing stable, quality jobs to residents of the region" and suggested Ace is a great partner to community expansion.

SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

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The La Crosse facility is 591,000 square feet and house an estimated \$40 million (60,000 SKUs) in inventory. The La Crosse RSC currently serves more than 300 Ace retailers in Wisconsin, Minnesota, North and South Dakota, as well as portions of Illinois, Iowa and Michigan. The RSC receives and warehouses shipments of products from hundreds of manufacturers. The products are sorted to fill customized orders received from retailers and then shipped to those stores. Operating seven days a week, 362 days a year, the La Crosse RSC will employ nearly 200 people. It is located at 500 Fanta Reed Place just southeast of the La Crosse Municipal Airport.

Dave Freitas Deputy Director California Technology, Trade and Commerce Agency believes that the Ace Hardware project, with its retail support and management components, might be an important bridge from traditional warehousing to economic diversification. Mr. Freitas said his Agency is committed to assisting the city in achieving its goals. He said, "A Company chooses a community in which to locate operations based on that area's ability to support the company's growth. There are many reasons why Woodland can be high-tech and biosciences hub: proximity to UC Davis; a small existing cluster of biotechnology companies; reasonably priced real estate; intersection of Interstate 5 and Highway 113; and, a city government that strives to maintain a healthy business climate." Mr. Freitas further said that he "can't think of situation where the investment by Ace Hardware would erode Woodland's competitiveness in these areas".

Stephen & Ann Marks 45-year residents of Woodland expressed their support for the "upscale-high image" retail support facility and related jobs. They note the Ace Hardware facility will be located near "lower quality warehouses and across from an ugly co-generation facility, a location, which would not be considered by 'high-tech', companies". Flood problems will affect jobs in Woodland.

Lew Rees Executive Director Prescott Valley AZ Chamber of Commerce said Ace has been a first class community builder, catalyst for business and industrial employment and are an asset to their town. Ace is a business attraction, well respected business partner for their 'Ace in the Hole' for economic development.

Synopsis - Letter of Intent – Commitments

That the City allow the Ace Hardware project to proceed through the County with the understanding that the City design standards will be adhered to, as this project ultimately will be annexed into the City. That the balance of the Spreckels land be included in the City's current annexation efforts. Approximately 238 acres of the total 544 acres are currently zoned industrial and will remain zoned industrial upon conclusion of the annexation. That the City immediately initiate a Specific Plan process to fully plan the remaining lands, which process Kamilos, LLC would fund. Such a plan would emphasize a broad range of mixed-use business and industrial development with flexibility to address market changes. Such a planning effort will provide an overall economic effort to attract appropriate commerce to create a market balance in the community. If a potential user has an interest to proceed with a conforming project in the current industrial zoned portion of the property, such project could proceed subject to the City's concurrence.

SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

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- ◆ This property is located in the County (238 acres is zoned industrial), but is part of the City of Woodland's urban limit line. The City's General Plan designates the property as Industrial and Business Park.
- ◆ **Master Plan the entire property** and proceed to participate with the ongoing annexation and obtain the necessary development entitlements through the City via a Specific Plan process.
- ◆ Ace's requirement is 70 to 75 acres to ultimately build a 1.2 million square foot retail support center.
- ◆ The Ace Hardware Support Center is Ace's hub to support over 300 retail stores with senior management, mid-level management, administrative staff, training staff (600 to 1,000 employees to be trained annually), sales support staff, accounting staff and distribution management. Over 70 of the position yield salaries over \$50,000 per year, and the over all payroll for this facility is projected at over \$1 million per month. All of these functions are to be housed within the Woodland Retail Support Center proposed, in addition to distribution operations. This facility will ultimately employ over 300 people, of which 120± employees will be on site at any one time.
- ◆ In order to meet Ace's objectives, to be operational by the fall of 2003, grading on the site must start by the end of July 2002.
- ◆ This is an expedited schedule and developer is prepared to work closely with City and County staff to provide the resources to meet this schedule. The County, in preparation for this project, has lined up outside consultants to expedite the review and inspection process.
- ◆ Although the property Ace has selected is zoned appropriately for Ace's use, the City of Woodland and the County of Yolo have an MOU between them that generally requires cooperation by both jurisdictions when a County project is proposed adjacent to the City.
- ◆ Request that the City allow the Ace Hardware project to proceed through the County with the understanding that the City design standards will be adhered to, as this project ultimately will be annexed into the City.
- ◆ Request that the balance of the Spreckels land be included in the City's current annexation efforts, approximately 238 acres of the total 544 acres is current zoned industrial will remained zoned industrial upon the conclusion of the annexation.
- ◆ Request the City immediately initiate a Specific Plan process to fully plan out the remaining lands to be funded by Kamilos, LLC. Such a plan will emphasize a broad range mixed-use business and industrial development that provides flexibility to address market changes. If a potential user has an interest to proceed with a conforming project in the current industrial zoned portion of the property, such project could proceed provided that City concurrence is secured.

SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

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◆ **\$1.5 million towards funding the ultimate flood control solution and participate in assessment**

FEMA Floodplain Maps has raised serious concerns of the viability of the business and industrial complex north of Interstate 5. Developer plans to raise the floor elevation of the buildings above the 100 year flood elevation level, thereby meeting City design standards.

A long-term flooding solution needs to be in place to fully ensure public safety and create viable economic development north of Interstate 5. In order to assist the City in that goal and to allow the expedited Ace Hardware project to proceed and the entitlement via a Specific Planning Process of the Spreckels Business/Industrial Park we propose the following:

With the limitations created by the updated FEMA Flood Maps, Woodland's business/industrial area north of Interstate 5 is in serious jeopardy of losing tenants and its stature as a viable market until a flood solution is in place. The Ace Hardware project and our proposed project would allow businesses to continue entering the Woodland Business/Industrial market during the period in which a flood solution is found. This would provide a continuum for Woodland to attract or keep business/industrial employers while a long-term flood solution is developed.

To assist the City in its efforts to ensure public safety regarding flood control this project will pledge **\$1.5 million towards funding the ultimate flood control solution regardless of additional citywide or district-wide assessments that may be levied.**

1. Upon the close of escrow of the 70 to 75 acres Ace Hardware would purchase from Kamitos, LLC, that \$750,000 be placed in an escrow for the full benefit of the City to be utilized as a mitigation contribution toward the ultimate flood control solution.
2. The earlier of five business days after the conclusion the appeal period of the tentative maps for the Spreckels Business/Industrial Park or upon the sale of another portion of the Spreckels Business/Industrial Park property that another \$750,000 be placed in an escrow for the full benefit of the City to be utilized as a mitigation contribution toward the ultimate flood control solution.
3. Although the project will be developed with building floors above the FEMA flood plan, the entire project, including the Ace project, would **participate in its fair share of ultimate flood solutions, such as a special financing district, an assessment district, etc.**
4. As part of our proposed project, a detention basin is proposed on the East Side of our project that will also provide fill material to raise the building floors out of the flood plain. In the City of Woodland's General Plan, 80 acres of the 120-acre property adjacent to our project, owned by the City, has been designated as a detention basin. As a result of our project constructing the detention basin, the City's property will no longer need to be encumbered in part by a detention basin use and the City can reclaim the land for development, thereby adding tremendous added value to the City's property.

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CITY OF WOODLAND

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SUBJECT: Approve Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed

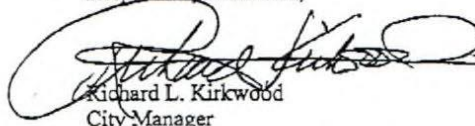
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5. Our project, through a Master Facility Plan process and implementation, will bring sewer, water and drainage facilities sized for our project and adjacent properties including property owned by the City.
6. The Ace Hardware project is not your typical warehouse project; it will have key management staff, administrative staff, training of 600 to 1,000 employees annually, retail sales support staff and distribution. Almost 40,000 square feet of the project is for office use.
7. This is one of the last areas in Woodland to accommodate large employers and industrial facilities, and is critical to be planned out appropriately to meet the desires of the City, region, ultimate users and developers. We are committed to proceeding with and funding a City initiated Specific Plan process to Master Plan to obtain necessary development entitlements to develop the balance of the property. We desire to be willing partners with the City and other properties within the industrial area to create a long-term master plan.
8. By the City allowing the Ace Hardware project to proceed gives the Spreckels Property developers the financial patience and project resources to proceed with an approximate 18-month Specific Plan process and to fulfill their obligations as outlined above.

Recommendation:

I recommend that the Council Approve the Letter of Intent to Allow the Ace Hardware Retail Support Center and the Master Planning of the Spreckels/Business Industrial Park to Proceed.

Respectfully submitted,



Richard L. Kirkwood
City Manager

cc: Letter of Intent from Gerry Kamilos dated 6/6/02
Letter from Barbara Hayes, Executive Director, SACTO dated 6/17/02
E-mail from John Medinger, Mayor of LaCrosse dated 6/19/02
E-mail from Dick Granchalek, President, Greater La Crosse Area Chamber of Commerce dated 6/18/02
Letter from Dave Freitas, Deputy Director, California Technology, Trade and Commerce Agency dated 6/17/02
Letter from Stephen and Anne Marks dated 6/14/02

CITY OF WOODLAND

1008

GERRY N. KAMILCS, LLC
11211 GOLD COUNTRY BOULEVARD, SUITE 108
GOLD RIVER, CA 95870
(916) 631-8440
FAX (916) 631-8445

June 6, 2002

CITY OF WOODLAND
300 First Street
Woodland, CA 95695

Attention: Mr. Richard Kirkwood
City Manager

Reference: Letter of Intent to Allow the Ace Hardware Retail Support Center and the
Master Planning of the Spreckels Business/Industrial Park to Proceed

Dear Mr. Kirkwood:

Thank you for the opportunity over the past few weeks to meet with you and your staff, as well as the dialogue we have had with the City Council regarding the potential for the Spreckels property south of Churchill Road along Road 102. As you know, we are in escrow to purchase the entire 544 acres, which is currently owned by the predecessor of Spreckels, Holly Sugar Company. This property is located in the County (238 acres are zoned Industrial), but is within the City of Woodland's Urban Limit Line. The City's General Plan designates the property as Industrial and Business Park. Our full intention as we proceed with our due diligence is to master-plan the entire property, participate in the ongoing annexation and obtain the necessary development entitlements from the City via a Specific Plan process.

While proceeding with our initial planning process, we received a call from an Ace Hardware representative indicating that investigation of their proposed Esparto site had revealed high nitrates in the ground water and that the potential obligations imposed by the State would be too risky. Ace indicated to us that they have looked at other alternatives in Yolo County including existing buildings, but none would have satisfied their needs. The only site that they would pursue to stay in Yolo County is the Spreckels site. Ace's requirement is 70 to 75 acres to ultimately build a 1.2 million square foot retail support center.

We understand the City's concern about another "warehouse" project being developed. The Ace Hardware Support Center is Ace's hub to support over 300 retail stores with senior management, mid-level management, administrative staff, training staff (600 to 1,000 employees to be trained annually), sales support staff, accounting staff and distribution management. Over 70 of these positions yield salaries over \$50,000 per year, and the overall payroll for this facility is projected at over \$1 million per month. All of these functions are to be housed within the Woodland Retail Support Center

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CITY OF WOODLAND

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City of Woodland
 June 6, 2002
 Page 2 of 5

proposed, in addition to distribution operations. This facility will ultimately employ over 300 people, of which 120± employees will be on-site at any one time.

Ace Hardware is in escrow to sell its current 450,000 square foot Rocklin facility. In order to meet Ace's objective to be operational by the fall of 2003, grading on the site must start by the end of July 2002. We understand that this is an expedited schedule and we are prepared to work closely with City and County staff to provide the resources to meet this schedule. The County, in preparation for this project, has lined up outside consultants to expedite the review and inspection process.

It is our understanding that the County of Yolo has worked long and hard to entice Ace to Yolo County and the County was very disappointed to learn that the Esparto site failed. However, we have received encouragement from the County to proceed with the Spreckels site. Although the property Ace has selected is zoned appropriately for Ace's use, the City of Woodland and the County of Yolo have corresponding urban development policies in their General Plans that require cooperation by both jurisdictions when a project is proposed in the County within the City's Urban Limit Line.

We request that the City allow the Ace Hardware project to proceed through the County with the understanding that the City design standards will be adhered to, as this project ultimately will be annexed into the City. Furthermore, we request that the balance of the Spreckels land we are acquiring be included in the City's current annexation efforts. Approximately 238 acres of the total 544 acres are currently zoned industrial and will remain zoned industrial upon conclusion of the annexation. Furthermore, we request that the City immediately initiate a Specific Plan process to fully plan the remaining lands, which process we would fund. Such a plan would emphasize a broad range of mixed-use business and industrial development with flexibility to address market changes. We believe such a planning effort will provide a overall economic effort to attract appropriate commerce to create a market balance in the community. If a potential user has an interest to proceed with a conforming project in the current industrial zoned portion of the property, such project could proceed subject to the City's concurrence.

Over the past few months, the changes to the FEMA Floodplain Maps have raised serious concerns regarding the viability of the business and industrial complex north of Interstate 5. Our plan is to raise the floor elevation of our buildings above the 100 year flood elevation level, thereby meeting City design standards. However, a long term flooding solution needs to be in place to fully ensure public safety and create viable economic development north of Interstate 5. In order to assist the City in that goal, and to allow the expedited Ace Hardware project and the Specific Plan for the Spreckels Business/Industrial Park to proceed, we propose the following:

0 1 2 3 4 5 6 7 8 9 10 11 12

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CITY OF WOODLAND

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City of Woodland
June 8, 2002
Page 3 of 5

1. Upon the close of escrow of the 70 to 75 acres Ace Hardware would purchase from us, \$750,000 would be placed in an escrow account for the full benefit of the City to be utilized as a mitigation contribution toward the ultimate flood control solution.
2. The earlier of five business days after the conclusion of the appeal period for approval of the tentative maps for the Spreckels Business/Industrial Park, or upon sale of another portion of the Spreckels Business/Industrial Park property, another \$750,000 would be placed in an escrow account for the full benefit of the City to be utilized as a mitigation contribution toward the ultimate flood control solution.

Furthermore, we believe that projects like Ace Hardware bring tremendous value to a community like Woodland in the form of employees who will be consumers in the local retail markets, especially in downtown Woodland. A viable downtown is important for the success in attracting quality companies and employers like Ace Hardware to Woodland. Upon the close of escrow of the 70 to 75 acres to Ace Hardware we will deposit into escrow a sum of \$50,000 for the benefit of the City to be used for economic development purposes for the Downtown Area.

We believe that allowing Ace and the Spreckels Business/Industrial Park to proceed via a Specific Plan process as described above will provide significant benefits to the City. A few of these benefits are listed below:

1. The 70 to 75 acre site selected by Ace is adjacent to older designed warehouses and across the street from the cement batch plant and cogeneration plant. The Ace Retail Support Center will provide an appropriate transition to our planned business/industrial park to the east along Road 102.
2. Ace Hardware is a Triple-A credit tenant that will provide tremendous added creditability to the Woodland market and will be a participant in the local community.
3. Although our project will be developed with building floors above the FEMA flood plain, the entire project, including the Ace project, would participate in financing its fair share of the ultimate flood solution, through a special financing district, an assessment district, etc.
4. With the limitations created by the updated FEMA Flood Maps, Woodland's business/industrial area north of Interstate 5 is in serious jeopardy of losing tenants and its stature as a viable market until a flood solution is in place. The Ace Hardware project and our proposed project would allow businesses to continue entering the Woodland Business/Industrial market during the period in which a flood solution is found. This would provide a continuum for Woodland to

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CITY OF WOODLAND

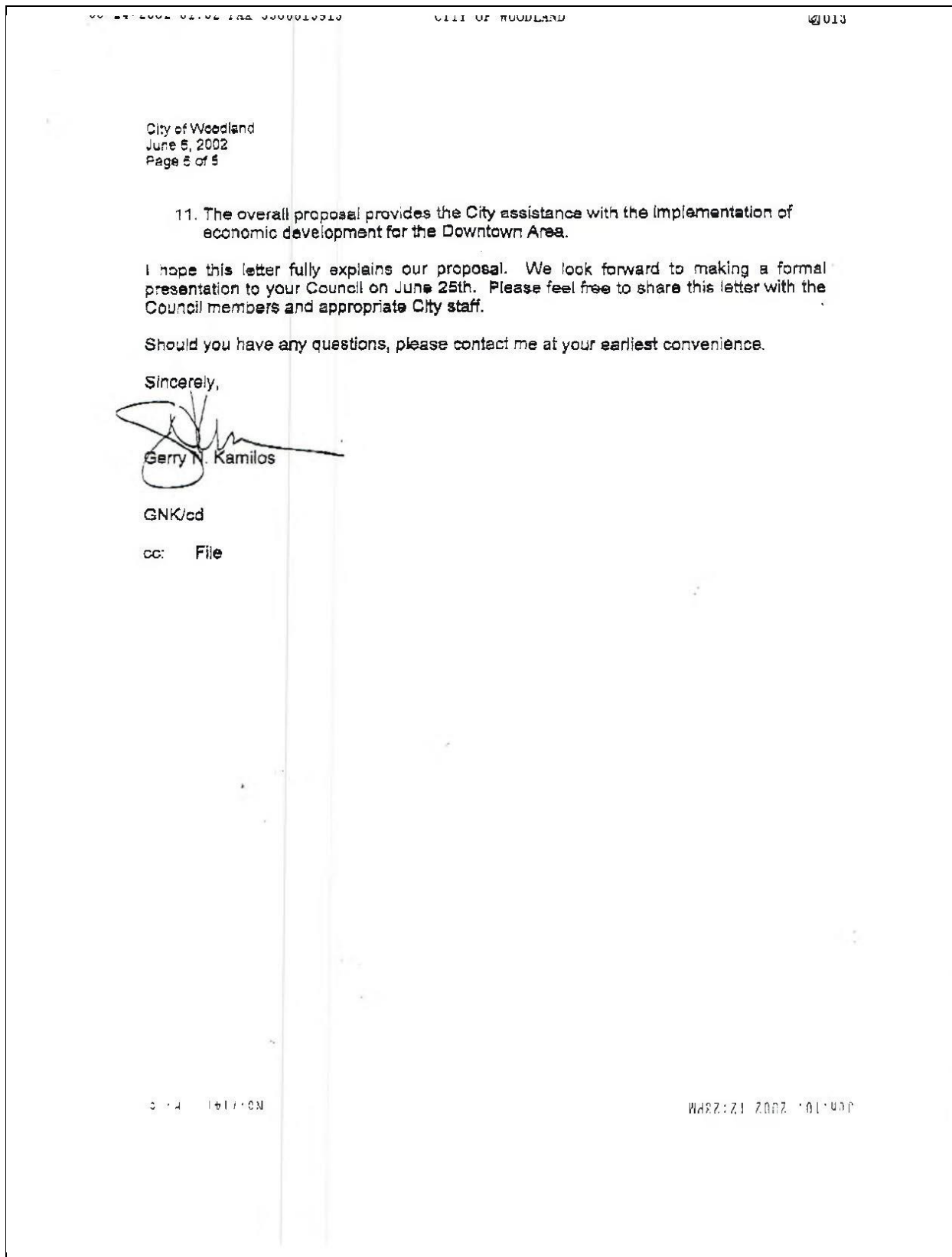
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City of Woodland
June 6, 2002
Page 4 of 5

- attract and keep business/industrial employers while a long-term flood solution is developed.
5. To assist the City in its efforts to ensure public safety regarding flood control, this project has pledged \$1.5 million towards funding the ultimate flood control solution, in addition to city-wide or district-wide assessments that may be levied on our property.
 6. As part of our proposed project, a detention basin is proposed on the east side of our project that will also provide fill material to raise the building floors out of the flood plain. In the City of Woodland's General Plan, 80 acres of the 120-acre property adjacent to our project, owned by the City, has been designated as a detention basin. As a result of our project constructing the detention basin, the City's property will no longer need to be encumbered by a detention basin, and the City can reclaim the land for development, thereby adding tremendous added value to the City's property.
 7. Our project, through implementation of a Master Facility Plan, will provide sewer, water and drainage facilities sized for our project and adjacent properties, including property owned by the City.
 8. The Ace Hardware project is not a typical warehouse project. It will have key management staff, administrative staff, training of 800 to 1,000 employees annually, retail sales support staff and distribution. Almost 40,000 square feet of the project are for office use.
 9. This is one of the last areas in Woodland that will accommodate large employers and industrial facilities. It is critical that it be planned appropriately to meet the desires of the City, region, ultimate users and developers. We are committed to proceeding with and funding a City-initiated Specific Plan to master-plan the balance of the property. We desire to be willing partners with the City and other properties within the industrial area.
 10. Allowing the Ace Hardware project to proceed gives the Spreckels Property developers the financial patience and project resources to proceed with an approximately 18-month Specific Plan process and fulfill our obligations as outlined above.

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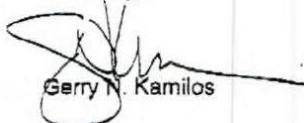
City of Woodland
June 5, 2002
Page 5 of 5

11. The overall proposal provides the City assistance with the implementation of economic development for the Downtown Area.

I hope this letter fully explains our proposal. We look forward to making a formal presentation to your Council on June 25th. Please feel free to share this letter with the Council members and appropriate City staff.

Should you have any questions, please contact me at your earliest convenience.

Sincerely,



Gerry N. Kamilos

GNK/cd

cc: File

6-114

JUN 10 2002 12:28PM

EXHIBIT E

ARGUMENT IN FAVOR OF MEASURE S

A "Yes" on Measure S guarantees your right to vote on the Floodwall, which if built will affect Woodland citizens for years to come.

The Woodland City Council has continued to spend money on the Floodwall even after 70% of Woodlanders voted against the Floodwall funding in March 2002. The City Council recently voted 5-0 to "table" the Floodwall issue. Make sure council members cannot change their minds and continue to spend tax dollars on the Floodwall without a vote of the citizens.

A "Yes" vote is supported by:

- Yolo County Farm Bureau
- Yolo County Sierra Club
- Woodland Democrat Club
- Woodland Republican Party &
- Yolo County Tax Payers Association.

"Yes" ensures the Woodland City Council cannot spend any more tax dollars on the Floodwall unless voted on by Woodland voters. Vote "Yes" on Measure S.

- s/ Eric D. Paulsen, Woodland Resident
- s/ Dudley R. Holman, Former City Mayor & Council Member
- s/ Tom M. Muller, Woodland Resident
- s/ Colette B. Stewart, Woodland Resident
- s/ Frank Sieferman Jr., Yolo County Supervisor 3rd District

REBUTTAL TO ARGUMENT IN FAVOR OF MEASURE S

Vote no on Measure S.

The five individuals that signed the ballot statement in support of Measure S are honorable people. Yet I respectfully disagree with them on this measure.

They are right when they say that the floodwall will "affect Woodland citizens for years to come". The flood insurance that is required of thousands of Woodland residents will do the same thing.

The Woodland City Council did table the issue. That is why this ballot measure is not necessary.

When we look for a solution to the federal government created flooding problem all the policy options need to be available.

If you have any questions please call me at home - 662-5232 or e-mail me at matt@rexroad.com

Vote No on Measure S.

s/ Matt Rexroad, Vice-Mayor

ARGUMENT AGAINST MEASURE S

Measure S could cost more than \$2,100 for each resident of Woodland. For the average household that is more than \$6,300. With all of the other taxes that we pay even the possibility of this is unacceptable.

Woodland has a commitment to providing flood protection for our schools, homes, and businesses. We're also committed to looking at options other than a flood barrier. In fact, our current city policy is to look only at other options. However, the possibility of a flood barrier shouldn't be eliminated completely from consideration without having another identified option in place.

Currently, the flood barrier is estimated to cost the people of Woodland directly about \$8 million. The other fully developed option is a set back levee at a possible cost of \$120 million. \$120 million is about \$2,352 for every single person in our city. The hard working families of Woodland can't afford this.

The City of Woodland has an obligation to provide public safety protection. We didn't create this flooding problem. A bunch of federal government bureaucrats did. We are now forced to clean up their mess.

Further, Measure S is a violation of the state laws I am obligated to uphold. It illegally infringes upon the authority granted to the City Council. It is also so vague that it doesn't serve the purpose claimed.

There are legitimate concerns regarding the flood barrier that need to be discussed. However, Measure S simply sweeps the entire option under the rug pretending the flooding issue doesn't exist.

Please join me in protecting the taxpayers of Woodland. Vote No on Measure S.

Matt Rexroad, Vice-Mayor and Taxpayer
City of Woodland

s/ Matt Rexroad,
Vice-Mayor

REBUTTAL TO ARGUMENT AGAINST MEASURE S

Measure "S" protects the voters' right to decide if there will be a floodwall. This decision will not be left to just a few members of the City Council.

There is no cost to the Residents in voting "Yes" on Measure "S". It is fraudulent to suggest otherwise.

Our Initiative was reviewed for its legality by the City Attorney before we were allowed to gather signatures. Vice-Mayor Rexroad's statement that "Measure S infringes on the City Council's authority" is exactly what California Law gives Woodland voters the right to do.

Vote "Yes" on Measure "S" to protect your right to vote.

- s/ Colette B. Stewart
- s/ Eric D. Paulsen
Woodland Resident
- s/ Dudley R. Holman
Former Mayor
- s/ Tom M. Muller
Woodland Resident
- s/ Jesse Ortiz
Woodland Resident



EXHIBIT F

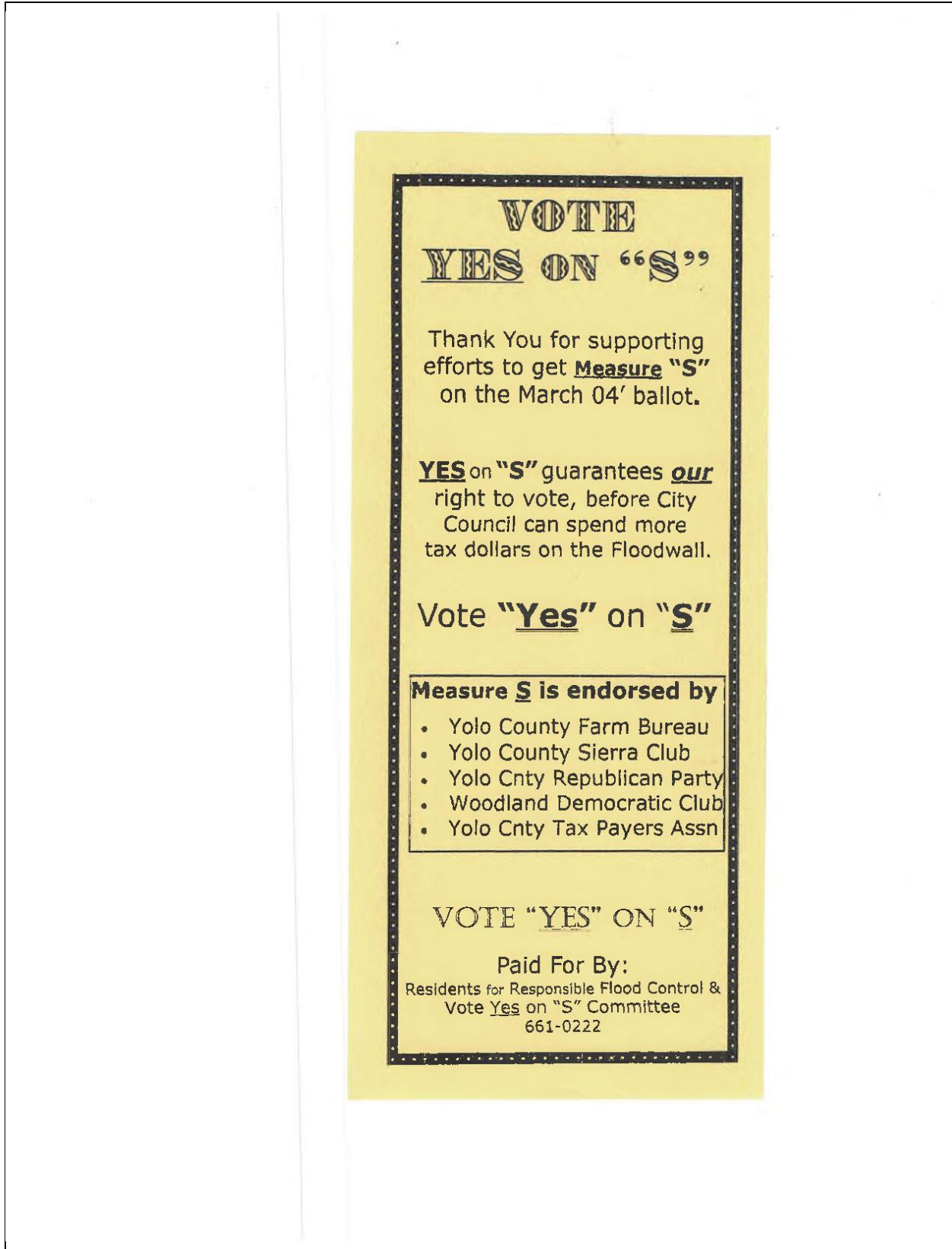


EXHIBIT G

Analysis of Woodland's Measure S

Join Us Feb. 13th for Measure S Forum
7:00 PM-Library's Leake Room 250 1st St.

<p style="text-align: center; margin: 0;"><u>Yes on S</u></p> <ol style="list-style-type: none"> 1. Yes- Limits Urban Sprawl in Woodland 2. Stops Development in Areas of "Deep" Flooding 3. Stops Flood Wall Without Voter Approval 4. Stops the City from Wasting Taxpayer Money 5. Costs Woodlanders Nothing 6. Promoted by Local Woodland Residents 7. Ensures Voters Decide <i>For or Against</i> Flood Wall 8. Supports Our March 02' Vote on Measure G Against the Floodwall. 	<p style="text-align: center; margin: 0;"><u>No on S</u></p> <ol style="list-style-type: none"> 1. Allows Urban Sprawl in Woodland 2. Allows Floodplain Development 3. Flood Wall Can Be Built Without Voter Approval 4. Allows City to Spend Tax Dollars on Flood Wall 5. City Can Take General Fund Money to Pay for Wall 6. Promoted by Sacramento Commercial Developers 7. Gives City Council Power to Make This Decision 8. Thought we voted it down in 02? City Hall still wants the Wall, only this time without Our Vote.
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For Additional Information
Read Your Ballot Information or Visit www.yesons.com

Vote Yes on S

<p style="margin: 0;"><u>Yes on S is Endorsed By</u></p> <ul style="list-style-type: none"> • Yolo County Farm Bureau • Yolo County Tax Payers Association • Yolo County Sierra Club • Yolo County Republican Party • Woodland Democratic Club <hr style="width: 20%; margin: 10px auto;"/> <p style="margin: 0;">Council Candidate Art Pimental Supervisor Candidates Duane Chamberlain, Jack Losoya, Susan Pelican & Dan Ryhal 3rd Dist. Supervisor Frank Sieferman Former Mayors Mel Losoya, Dudley Holman & Harry Walker</p>	<div style="border: 1px solid black; padding: 5px; font-size: small;"> PRSRT SFD U.S. Postage PAID Permit No 154 Sacramento CA </div>
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EXHIBIT H

Write On!

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Support wanted for Prop. 55

EDITOR — On behalf of the Woodland School Board of Trustees I am asking for your support for a "Yes" vote on Proposition 55. A yes vote would mean the allowance for statewide funding of \$12.3 billion for our public schools repair and construction projects. This proposition not only includes our K-12 schools but our higher educational facilities. Proposition 55 also contains provisions that this funding be only used for school repair and construction and cannot be used for salaries or administration.

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Locally, in the Woodland School District this would mean about \$1,090,755 for modernization projects at Lee Middle School. This state funding would assist the local Measure T funds that was supported by our community in November 1999. Specifically this would mean Lee Middle School will have a modern gym with a wood floor and new bleachers, electrical and data wiring upgrades to support technology throughout the school. Also, it would replace old inefficient heaters and airconditioners, add restroom facilities that meet the federal American with Disabilities Act standards and upgrading science labs and industrial trades classrooms.

I ask you to join the Woodland School Board of Trustees in voting "Yes" on Proposition 55 on Tuesday, March 2. Thank you.

WOODLAND SCHOOL BOARD OF TRUSTEES

Jesse Ortiz, president; Evelia Genera, vice president; Elaine Lytle, clerk; and trustees Warren Berg, Robert Salley, Tim Sharp and Carol Souza-Cole

Urge support for Prop. 55

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EDITOR — Given our current economy, I understand your misgivings about Prop. 55, which would provide funds to our local community to upgrade and build new classrooms. However, in these difficult economic times, we can and must continue to invest in education and our children's future. The State Treasurer says Prop. 55 is "a sound, prudent investment that will contribute to our future economic prosperity." Prop. 55 will not raise taxes and is also supported by the California Chamber of Commerce.

School construction is a direct investment in the local economy. Prop. 55 will create new jobs and add money to our local economic activities. Prop. 55 contains strict accountability standards that insure school bond funds will go directly to repair and build new classrooms — not on bureaucracy or waste.

Prop. 55 specifically target funds where they are needed most — in communities like ours where many schools are old and in need of repair.

DEBRA GONELLA, Woodland

Don't lump 'S' supporters group

EDITOR — During The Democrat's evaluation of Measure S I'm concerned that supporters of S were lumped

Editor's Note: The Democrat no longer prints endorsement letters on candidates seeking public office. However, in terms of propositions and measures before voters, The Democrat will print edited letters dealing specifically with the issue under consideration. This is the final publication of "election letters" prior to Tuesday's primary vote.

into one group. I support a yes on S and yet I am not a "well-heeled" landowner in areas that would be affected. Neither am I a south Woodland resident who is not willing to pay for flood protection for my north or east Woodland community. I am not a Woodland native who hasn't seen a flood so don't think we need protection. I do believe that the hundreds of "Yes on S" signs I've helped place and seen around Woodland are in the lawns of community leaders and others who are more than willing to pay for flood protection.

The people of Woodland do not want a flood wall. Measure S says "enough about the flood wall." If the people can voice their opposition to the flood wall and still have elected officials decide to go against the majority of their constituents wishes, then we want protection so that cannot happen. Perhaps it will end up in court, I hope not. I also do not believe it needs to be divisive. In my opinion, it's not about money, or not wanting to protect our city and surrounding areas from flooding. It's not about devaluing farm land. It's about the people of the community not wanting the flood wall option. We want effective flood protection for all of the region. There are other options and we resent that elected officials, for whatever reasons, continued to explore this option when they knew it was against the will of the people.

JONI PAULSEN, Woodland

Choosing a future for Woodland

EDITOR — I have read with interest the editorials on Measure S. The language on the initiative that we submitted to the voters was changed by either the city attorney or her staff. When the City Council allowed our initiative to be placed on the ballot, neither the city manager, city staff, the city attorney or any of the City Council members noticed the change in language. There is a change in meaning. There is a difference between the initiative's "encouraging the city to establish a regional flood control policy" and the city's "establish a Regional Flood Control Project Policy." (Capitals are theirs). It is the difference between urging someone to jump in the water and forcing them into the pool. The interpretation of the language change by The Democrat's editorial board is completely wrong.

I am in favor of Measure S because it places the decision on whether we erect a flood wall in the hands of the voters. The flood wall itself is divisive, drawing a sharp line between the city and county lands. Protecting the city with a flood wall would put about 6,000 acres of prime

Please see **LETTERS** on page A11

EXHIBIT I

NORTH WOODLAND FLOOD WALL IMPACT SUMMARY

All We Want For Christmas is to Save our Farms - And, Flood Protection for All !!


The City of Woodland is currently considering flood protection alternatives. One alternative is a "flood wall" which would consist of a levee along the north edge of the City that would channel flood waters across approximately five to six thousand acres of land north of the wall; land which would become a *de facto* bypass. **A second alternative that the City is considering, a set-back levee system, would protect both Woodland, the area north of Woodland, and area north of Cache Creek.** Other alternatives, such as upstream storage, higher levees coupled with creek clean out, etc., warrant further consideration.

1. **The Proposed Flood Wall Will Negatively Impact Agriculture.**
 - a. Floodwater height, duration and length of inundation will increase in the affected area, limiting farmers' ability to plant, raise and harvest crops.
 - b. Farmer/Landowner ability to obtain financing will be impaired due to banker perception that the land has been devalued.
 - c. Permanent crops will be damaged.
 - d. Loss of farming viability for the affected acreage will lead to compromises in the agriculture infrastructure.
2. **Loss of Farm Values Will Lead to Loss of Tax Base for the County of Yolo and the Woodland Joint Unified School District.**
3. **Landowners Will Lose Other Sources of Substantial Income, e.g. Sale of Conservation Easements.**
4. **Public Safety and Health in Our Area Will Be Impaired By Threatened Evacuations and Road Closures.**
5. **Assurances Have Not Been Given That Emergency Authorities Will Continue To Provide Us the Same Level of Flood Protection.**
6. **Businesses and Farms In Our Area Store Large Amounts of Chemicals and Petroleum Products Which Are Potentially Hazardous If Released Into Floodwaters.**
7. **A Flood Wall Would Result In Large Loss of Land and Other Current Uses.**
8. **A Flood Wall Will Create a Schism Between Residents of this Community.**

The Flood Wall will be the far more expensive alternative when all consequences are considered. The set back levee is a viable alternative which does not create schisms, economic loss and environmental damage. **North Woodland Property Owners - the Heartland of Yolo County - Commit to Do Their Part to Fund a Flood Protection System Which Will Provide Protection for All.**

EXHIBIT J

SIDE 1
CARD B
SIDE 2



TOP

B

OFFICIAL BALLOT
 NONPARTISAN
 BALLOT
 COUNTY OF YOLO
 TUESDAY, MARCH 2, 2004

This ballot stub shall be removed and retained by the voter.

NONPARTISAN

NONPARTISAN
CITY

CITY OF WOODLAND

Member, City Council	Vote for no more than Three
KEVIN SPESERT Congressional Aide	+
DAVID M. FLORY Mayor/Business Owner	+
ART PIMENTEL Public Administrator	+
MARTIE LOUISE DOTE Councilwoman/Businesswoman/Planner	+
JEFF W. MONROE Sheriff's Sergeant	+
	+
	+

NONPARTISAN

MEASURES SUBMITTED TO THE VOTERS

STATE

55 KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2004. This twelve billion three hundred million dollar (\$12,300,000,000) bond issue will provide funding for necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted to areas of the greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California, to provide adequate higher education facilities to accommodate the growing student enrollment. These bonds may be used only for eligible projects. Fiscal Impact: State costs of about \$24.7 billion to pay off both the principal (\$12.3 billion) and interest (\$12.4 billion) costs on the bonds. Payments of about \$823 million per year.

YES	+
NO	+

TURN CARD OVER
AND CONTINUE
VOTING

57-N207B
▶▶ OVER ▶▶
B

57-SB502

I HAVE VOTED-HAVE YOU?

NONPARTISAN

56 STATE BUDGET, RELATED TAXES, AND RESERVE. VOTING REQUIREMENTS, PENALTIES, INITIATIVE CONSTITUTIONAL AMENDMENT AND STATUTE. Permits enactment of budget and budget-related tax/appropriation bills with 55% vote. Legislature, Governor forfeit compensation each day budget is late. Fiscal Impact: Varying impacts from lowering the vote requirement for budget-related measures—including changes in spending and potentially significant increases in state tax revenues in some years. Impacts would depend on the composition and actions of future Legislatures.

YES	+
NO	+

NONPARTISAN

NONPARTISAN

57 THE ECONOMIC RECOVERY BOND ACT. One time bond of up to fifteen billion dollars (\$15,000,000,000) to retire deficit. Fiscal Impact: One-time increase, compared to previously authorized bond, of up to \$4 billion to reduce the state's budget shortfall and annual debt-service savings over the next few years. These effects would be offset by higher annual debt-service costs in subsequent years due to this bond's longer term and larger size.

YES	+
NO	+

NONPARTISAN

NONPARTISAN

58 THE CALIFORNIA BALANCED BUDGET ACT. Requires the enactment of a balanced budget, addresses fiscal emergencies, and establishes a budget reserve. Fiscal Impact: Net state fiscal effects unknown and will vary by year, depending in part on actions of future legislatures. Reserve provisions may smooth state spending, with reductions during economic expansions and increases during downturns. Provisions requiring balanced budgets and limiting deficit borrowing could result in more immediate actions to correct budgetary shortfalls.

YES	+
NO	+

NONPARTISAN

CITY

CITY OF WOODLAND

MEASURE S

S Shall the ordinance establishing a Regional Flood Control Project Policy for the City of Woodland and prohibiting the City from funding or taking any action that supports the Lower Cache Creek Flood Barrier or a substantially similar structure be adopted?

YES	+
NO	+

57-N210B
VOTE BOTH SIDES
B

57-N210B

Woodland Flood Risk Management Project
Final Environmental Impact Report

6-126

January 2021
ICF 00244.19

EXHIBIT K



EXHIBIT L

BRYAN CAVE LEIGHTON PAISNER LLP
THREE EMBARCADERO CENTER, 7TH FLOOR
SAN FRANCISCO, CA 94111

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 2 3161 Michelson Drive, Suite 1500
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 Facsimile: (949) 223-7100
 4 E-Mail: mark.mersel@bcplaw.com

5 **BRYAN CAVE LEIGHTON PAISNER LLP**
 Alexandra C. Whitworth, California Bar No. 303046
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 San Francisco, CA 94111
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 Facsimile: (415) 675-3434
 8 E-Mail: alex.whitworth@bcplaw.com

FILED
Superior Court Of California,
Sacramento
02/26/2020
 ccullen
 By *[Signature]*, Deputy
 Case Number:
34-2020-00276375

9 Attorneys for Plaintiff
 10 ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP

11 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
 12 **FOR THE COUNTY OF SACRAMENTO**

14 ROMSPEN CALIFORNIA MORTGAGE
 15 LIMITED PARTNERSHIP,

Case No.

16 Plaintiff,

**COMPLAINT FOR BREACH OF
GUARANTY**

17 v.

18 GERRY N. KAMILOS, an individual; KAREN
 19 L. KAMILOS, an individual; and DOES 1-50,
 inclusive,

20 Defendants.

BY FAX

USA\601681561.1\000048

COMPLAINT FOR BREACH OF GUARANTY

BRYAN CAVE LEIGHTON PAISNER LLP
THREE EMBARCADERO CENTER, 7TH FLOOR
SAN FRANCISCO, CA 94111

1 For its Complaint against GERRY KAMILOS and KAREN KAMILOS (collectively,
2 "Defendants" or "Guarantors") Plaintiff ROMSPEN CALIFORNIA MORTGAGE LIMITED
3 LIABILITY PARTNERSHIP ("Plaintiff") alleges as follows:

4 **PARTIES**

- 5 1. Plaintiff is and at all times mentioned herein was an Ontario, Canada limited
6 partnership.
- 7 2. Plaintiff alleges that Defendant GERRY KAMILOS is and at all times mentioned herein
8 was an individual who resides in Sacramento County, California.
- 9 3. Plaintiff alleges that Defendant KAREN KAMILOS is and at all times mentioned herein
10 was an individual who resides in Sacramento County, California.
- 11 4. The defendants sued as Does 1 through 50 are persons or entities whose identities are
12 not yet known to Plaintiff, and Plaintiff will seek leave of Court to substitute their true names
13 when they become known. The defendants sued as Does 1 through 50 are persons who are acting
14 in concert with Guarantors.
- 15 5. Plaintiff alleges on information and belief that, at all times mentioned in this Complaint,
16 each defendant was the agent, alter ego, or employee of each of the remaining defendants and, in
17 committing the acts alleged below, was at all times acting within the course and scope of that
18 agency or employment.

19 **JURISDICTION AND VENUE**

- 20 6. Jurisdiction and venue are proper in this Court because Guarantors are residents of
21 Sacramento County, California.

22 **GENERAL ALLEGATIONS**

23 **The Loan Documents**

- 24 7. On or about January 4, 2018, Plaintiff provided financing to Woodland/Spreckles
25 Industrial Business Park, LLC ("Borrower"), in the original principal amount of \$10,350,000 ("the
26 Loan").
- 27 8. The Loan is evidenced, in part, by the following documents, among others (collectively,
28 "The Loan Documents"):

BRYAN CAVE LEIGHTON PAISNER LLP
THREE EMBARCADERO CENTER, 7TH FLOOR
SAN FRANCISCO, CA 94111

1 (a) A Loan Agreement, dated January 4, 2018, made and executed between Borrower
2 and Plaintiff ("the Agreement"). A true and correct copy of the Agreement is attached hereto as
3 Exhibit A.

4 (b) A Promissory Note, dated January 4, 2018, executed by Borrower, payable to
5 Plaintiff, in the original principal amount of \$10,350,000 ("Promissory Note"). A true and correct
6 copy of the Promissory Note is attached hereto as Exhibit B.

7 (d) A Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture
8 Filing, dated January 4, 2018, made by Borrower for the benefit of Plaintiff, recorded on January
9 4, 2018, in Yolo County, California, as instrument number 2018-0000378, encumbering certain
10 real property located in Yolo County, California ("the Property"). A true and correct copy of the
11 Deed of Trust and Amended Deed of Trust is attached hereto as Exhibit C.

12 (e) A Guaranty, described in more detail below.

13 9. Pursuant to the Loan Documents, Borrower agreed, among other things, to: (1) make
14 monthly interest payments on the unpaid balance of the Loan; (2) repay the entire principal
15 balance upon maturity, with a specified maturity date of February 1, 2019; (3) pay all taxes and
16 other charges assessed against the Property; and (4) obtain and maintain insurance on the Property
17 and provide evidence thereof to Plaintiff.

18 10. Pursuant to the Loan Documents, the Loan shall become immediately due and payable
19 on the occurrence of any default.

20 11. The Loan Agreement also provides, in Section 7.4, that Borrower is required to pay
21 attorneys' fees that Plaintiff incurs in collecting on the Loan or otherwise enforcing the Loan
22 Documents.

23 **The Guaranty**

24 12. In consideration for the Loan, Defendants executed and delivered to Plaintiff a
25 Guaranty dated January 4, 2018, in favor of Plaintiff ("Guaranty"). A true and correct copy of the
26 Guaranty is attached as Exhibit D and incorporated by reference.

27 13. Under the Guaranty, Guarantors jointly and severally guaranteed to Plaintiff the full
28 and prompt payment and performance when due of Borrower's obligations under the Loan

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1 Documents.

2 14. The Guaranty further provides, in Paragraph 10, that “[i]f any attorney is engaged by
3 Lender to enforce or defend any provision of this Guaranty, or any of the other Loan Documents,
4 or as a consequence of any Default under the Loan Documents, with or without the filing of any
5 legal action or proceeding, Guarantor shall pay to Lender, immediately upon demand all attorneys’
6 fees and costs incurred by Lender in connection therewith, together with interest thereon from the
7 date of such demand until paid at the rate of interest applicable to the principal balance of the Note
8 as specified therein.”

9 15. In addition, Guarantors entered into a Security Agreement with Plaintiff to secure
10 payment and performance under the Guaranties. Under the Security Agreement, Guarantors
11 pledged and granted to Plaintiff a continuing first priority lien in and to certain collateral specified
12 therein. A true and correct copy of the Security Agreement is attached as Exhibit E and
13 incorporated by reference.

14 **The Defaults**

15 16. Borrower has been in default under the Loan Documents since at least November 1,
16 2018, due to its failure to make the interest payments due on the Loan, per paragraph 1.1 of the
17 Promissory Note.

18 17. Additionally, Borrower defaulted by not repaying the principal amount due upon
19 maturity of the Loan. Per paragraph 1.1 of the Promissory Note, the Loan matured on February 1,
20 2019. Although the Loan Documents contemplated that Borrower may be able to extend the
21 maturity date up to one year, Borrower did not meet the requirements to do so. In any event,
22 Borrower did not repay the principal balance by February 1, 2019, and still to this day has not
23 repaid the principal balance on the Loan.

24 18. Borrower also failed to pay taxes on the Property as required by section 5.4 of the
25 Agreement.

26 19. Furthermore, Borrower has failed to provide Plaintiff with evidence of insurance on
27 the Property as required by section 6.1.1 of the Agreement.

28 20. Each of the occurrences described in Paragraphs 16-19 constituted a default under the

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1 Loan Documents.

2 21. As a result of the above-referenced defaults, on February 12, 2020, Plaintiff sent
 3 Borrower and Guarantors a Notice of Acceleration, Demand for Payment in Full, and Notice of
 4 Intent to Exercise Rights and Remedies with respect to Promissory Note and Loan Documents.
 5 Plaintiff accelerated the Loan and demanded that Guarantors pay the outstanding principal
 6 balance, all accrued and unpaid interest, and all other amounts, fees, and charges due under the
 7 Loan Documents. A true and correct copy of that Notice is attached as Exhibit F and incorporated
 8 by reference herein.

9 22. Despite Plaintiff's demand, neither Borrower nor Guarantors have cured the defaults.
 10 As of February 26, 2020, more than \$12,886,146 is due to Plaintiff under the Loan Documents,
 11 with interest, attorneys' fees, and expenses accruing.

12 23. Plaintiff has performed all conditions and obligations on its part under the Loan
 13 Documents.

14 **FIRST CAUSE OF ACTION**

15 **(Breach of Guaranty against Guarantors and DOES 1-50)**

16 24. Plaintiff realleges and incorporates by reference paragraphs 1 through 1-23 of this
 17 Complaint as if set forth in full herein.

18 25. Borrower defaulted under the Loan Documents by failing to make monthly payments
 19 within the time and manner required under the Agreement, starting with its failure to make
 20 payment on November 1, 2018, and continuing thereafter.

21 26. Borrower further defaulted under the Loan Documents by failing to repay the principal
 22 balance due on the Loan at maturity.

23 27. Borrower further defaulted under the Loan Documents by failing to pay taxes due on
 24 the Property.

25 28. Borrower further defaulted under the Loan Documents by failing to provide Plaintiff
 26 with proof of insurance on the Property.

27 29. Each of Borrower's omissions described in Paragraphs 25-28 constitutes an immediate
 28 event of default as defined by the Loan Agreement. All outstanding indebtedness under the Loan

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1 is therefore immediately due and payable in full, and interest continues to accrue.

2 30. On February 12, 2020, Plaintiff caused a letter to be sent to Borrower and Guarantors
3 providing notice of the above-described defaults and demanding prompt payment in full of the
4 amounts owed under the Loan Documents.

5 31. Borrower has failed and refused, and continues to fail and refuse, to cure the above-
6 described defaults as required by the Loan Documents.

7 32. Guarantors have also failed and refused, and continue to fail and refuse, to cure the
8 above-described defaults as required by the Guaranty.

9 33. As of February 26, 2020, the amount due and owing under the Guaranty is more than
10 \$12,886,146. Interest, attorneys' fees, and expenses continues to accrue.

11 34. Guarantors have failed and refused, and continue to fail and refuse, to pay this amount
12 as required by the Guaranty.

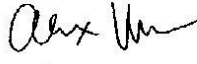
13 35. As a further result of the above-described defaults, Plaintiff has incurred costs and
14 attorneys' fees, and will continue to incur costs and attorneys' fees in enforcing its rights under the
15 Loan Documents and Guaranty, in an amount unknown at this time. Pursuant to the Loan
16 Documents, Plaintiff is entitled to seek the fees it incurs in attempting to collect on the Loan from
17 Guarantors.

18 PRAYER

19 WHEREFORE, Plaintiff prays for judgment against Guarantors and DOES 1 through 50
20 on all causes of action as follows:

- 21 1. For damages in an amount to be proven at trial;
- 22 2. For attorneys' fees and costs;
- 23 3. For such other and further relief as the Court may deem just and proper.

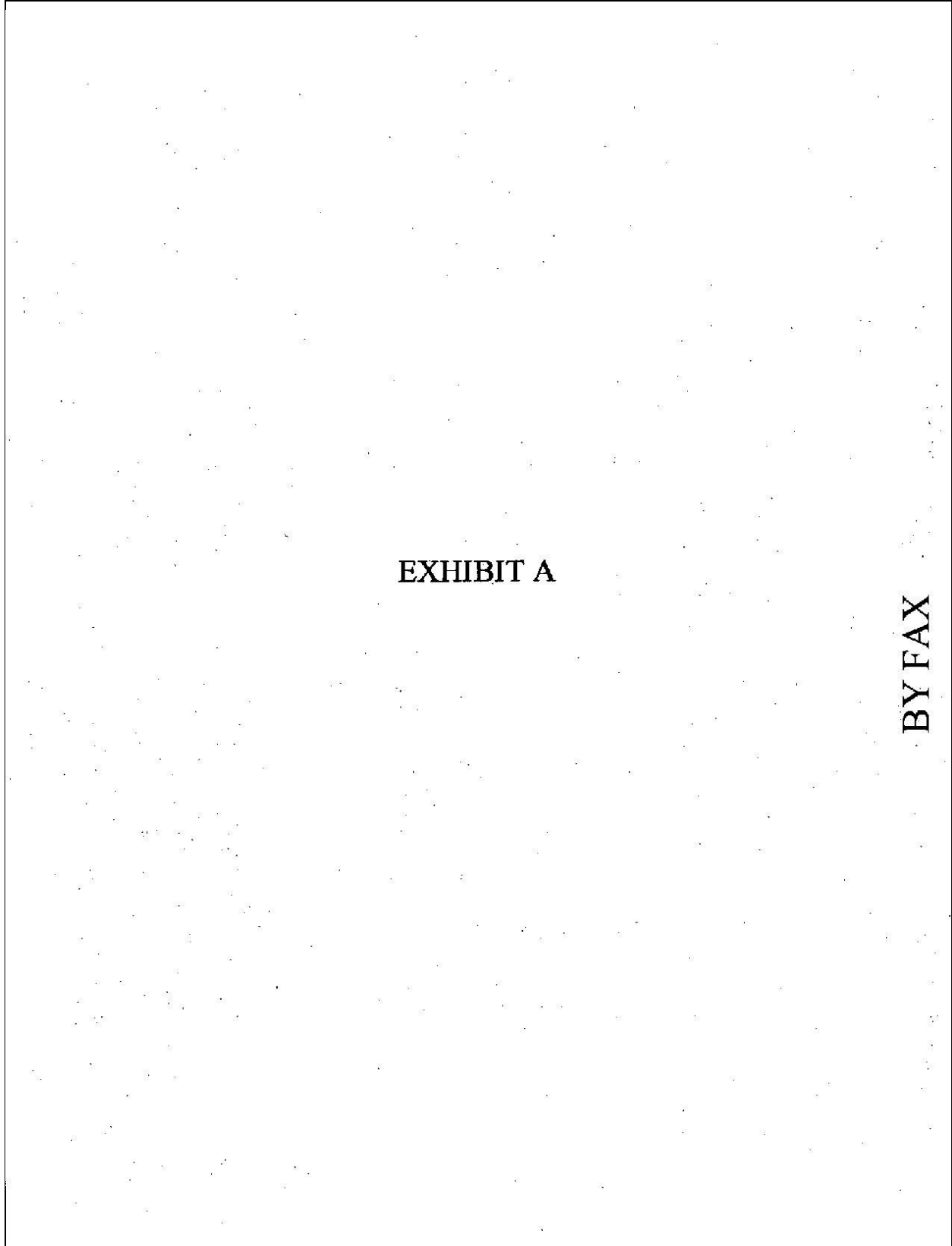
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1	Dated: February 26, 2020	BRYAN CAVE LEIGHTON PAISNER LLP
2		
3		By: _____
4		Alexandra C. Whitworth
5		Attorneys for Plaintiff
6		ROMSPEN CALIFORNIA MORTGAGE
7		LIMITED PARTNERSHIP
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COMPLAINT FOR BREACH OF GUARANTY

BRYAN CAVE LEIGHTON PAISNER LLP
 THREE EMBARCADERO CENTER, 7TH FLOOR
 SAN FRANCISCO, CA 94111



LOAN AGREEMENT

Between

WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC,
as Borrower

and

ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP,
as Lender.

Dated: January 4, 2018

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LOAN AGREEMENT

THIS LOAN AGREEMENT, dated as of January 4, 2018 (as such agreement may be amended, restated, replaced, supplemented or otherwise modified from time to time, this "Agreement"), is between ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership, having an address at 162 Cumberland Street, Suite 300, Toronto, Ontario M5R 3N5 ("Lender"), and WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company, having an address at 11249 Gold Country Boulevard, Suite 190, Gold River, California 95670 ("Borrower").

WITNESSETH:

WHEREAS, Borrower desires to obtain the Loan from Lender; and

WHEREAS, Lender is willing to make the Loan to Borrower, subject to and in accordance with the terms of this Agreement and the other Loan Documents.

NOW, THEREFORE, in consideration of the making of the Loan by Lender to Borrower and the covenants, agreements, representations and warranties set forth in this Agreement, the parties hereto hereby covenant, agree, represent and warrant as follows:

I DEFINITIONS; PRINCIPLES OF CONSTRUCTION

Section 1.1 Capitalized Terms. All capitalized terms used herein and not otherwise defined herein shall have the meanings set forth in Schedule I attached hereto.

Section 1.2 Principles of Construction. All references to sections, schedules and exhibits are to sections, schedules and exhibits in or to this Agreement unless otherwise specified. Unless otherwise specified, the words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. Whenever the context requires, each gender shall include all other genders. Unless the context of this Agreement clearly requires otherwise, references to the plural include the singular and to the singular include the plural, the part includes the whole, the term "including" is not limiting (and means, including without limitation), and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or." Any reference to any of the following documents includes any and all alterations, amendments, restatements, extensions, modifications, renewals, or supplements thereto or thereof, as applicable: this Agreement or any of the other Loan Documents. All exhibits and schedules attached hereto are incorporated herein by reference for all purposes.

II GENERAL TERMS

Section 2.1 Loan Commitment; Disbursement to Borrower.

Section 2.1.1 The Loan. Subject to the terms and conditions set forth herein, including satisfaction of the conditions precedent set forth in Schedule II hereof and the requirements of Section 2.2, Lender agrees to make the Loan to Borrower in a maximum aggregate principal amount ("Maximum Principal Amount") not to exceed at any time the lesser of (i) sixty-five percent (65%) of the value of the Property as determined by the most recent appraisal received by Lender (at Borrower's cost) performed by an appraiser satisfactory to Lender, and (ii) Ten Million Three Hundred Fifty Thousand and 00/100 Dollars (\$10,350,000.00). The Note evidences the Loan, and the Loan shall bear interest and otherwise be payable as provided in the Note and this Agreement; provided, however, that in any event, the principal balance, all accrued but unpaid interest and all other sums owing on the Loan shall be due and payable in full on the Maturity Date or earlier, if the Loan is accelerated pursuant to this Agreement or any of the other Loan

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Documents. The holder of the Note shall be entitled to the benefits of this Agreement and the other Loan Documents. Borrower may not reborrow any principal amount repaid in respect of the Loan.

Section 2.1.2 Use of Proceeds. Borrower shall use the proceeds of the Loan in accordance with the terms of the Loan Documents, including, without limitation, the Sources and Uses of Funds, and for no other purpose.

Section 2.2 Loan Advances. Subject to compliance by Borrower with the terms and conditions of this Agreement, including but not limited to, satisfaction of the conditions precedent set forth in Schedule II hereof, Lender shall advance to Borrower, as of the Closing Date, the full proceeds of the Loan in the amount of \$10,350,000.00. Notwithstanding the foregoing, a portion of the Loan advance shall be used to fund the Interest Reserve Fund (as hereinafter defined) and as such, not disbursed on the Closing Date but rather pursuant to the provisions of Section 6.3 below.

Notwithstanding anything to the contrary set forth in the Agreement or the Sources and Uses of Funds, Lender is not obligated to make any advance under this Agreement and each advance shall be in the sole discretion of Lender. Even if Borrower is divested, for whatever reason, of any portion of Borrower's interest in the Property, Lender may, at Lender's sole option, but without any obligation to do so, continue to make advances under this Agreement to Borrower, or subject to all terms and conditions of this Agreement, to that Person or Persons that succeed to Borrower's title and interest in the Property; *provided, however*, that all sums so disbursed shall be deemed advances under this Agreement and be secured by the Security Instruments and all other Liens or security interest securing the Debt.

The amount and date of each advance under this Agreement, the amount from time to time outstanding under the Note, the interest rate with respect to the Loan, and the amount and date of any repayment under this Agreement or under the Note shall be noted on Lender's books and records, which, absent manifest error, shall be conclusive evidence of each such advance; *provided, however*, that any failure by Lender to make that notation or any error in that notation, shall not relieve Borrower of its obligation to pay to Lender all amounts owed to Lender when due under the terms of the Loan Documents.

Section 2.3 Mandatory Principal Payments. If the outstanding principal amount of the Loan at any time exceeds the Maximum Principal Amount, Borrower shall immediately upon Lender's request pay to Lender in immediately available funds an amount sufficient to reduce the outstanding principal amount of the Loan so that it does not exceed the Maximum Principal Amount. Furthermore, Borrower shall promptly pay to Lender all Insurance Proceeds and Awards as more particularly provided in Article VI of this Agreement.

Section 2.4 Application of Payments. Absent a Default or Event of Default, all payments received by Lender shall be applied (i) first, to pay any outstanding costs, expenses, or fees owed to Lender pursuant to this Agreement or any other Loan Documents until such amounts have been paid in full, (ii) second, to pay accrued but unpaid interest due on the Loan as of the date of such payment, and (iii) third, to pay principal on the Loan, in the inverse order of maturity, until paid in full. All payments received by Lender, whether or not received during the continuation of a Default or Event of Default, shall be applied by Lender to payment of the Debt in any order or priority that Lender in its sole discretion may elect.

Section 2.5 Fees. On the date of execution of this Agreement, Borrower shall pay to Lender all fees incurred by Lender, including but not limited to the Origination Fee as a fee for Lender arranging the Loan and all other fees listed in the Loan Term Sheet.

Section 2.6 Taxes

(a) **Payments Free of Taxes.** Any and all payments by or on account of any obligation of Borrower under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by applicable law. If any applicable law (as determined in the good faith discretion of Borrower or Lender) requires the deduction or withholding of any Taxes from any such payment by Borrower, then

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Borrower shall be entitled to make such deduction or withholding and shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law and, if such Tax is an Indemnified Tax, the sum payable by Borrower shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section) Lender receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) **Payment of Other Taxes by Borrower.** Borrower shall timely pay to the relevant Governmental Authority in accordance with applicable law, or at the option of the Lender timely reimburse it for the payment of, any Other Taxes.

(c) **Indemnification by Borrower.** Borrower shall indemnify Lender, within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section) payable or paid by Lender or required to be withheld or deducted from a payment to Lender and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to Borrower by Lender shall be conclusive absent manifest error.

(d) **Evidence of Payments.** As soon as practicable after any payment of Taxes by Borrower to a Governmental Authority pursuant to this Section 2.6, Borrower shall deliver to Lender a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to Lender.

(e) **Status of Lender.**

(i) Lender, if reasonably requested by Borrower, shall deliver such documentation prescribed by applicable law or reasonably requested by Borrower as will enable Borrower to determine whether or not Lender is subject to backup withholding or information reporting requirements. Notwithstanding anything to the contrary in the preceding sentence, the completion, execution and submission of such documentation (other than such documentation set forth in clauses (ii)(A) and (ii)(C) below) shall not be required if in Lender's reasonable judgment such completion, execution or submission would subject Lender to any material unreimbursed cost or expense or would materially prejudice the legal position of Lender.

(ii) Without limiting the generality of the foregoing, in the event that Borrower is a U.S. Person,

(A) Lender shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date hereof (and from time to time thereafter upon the reasonable request of Borrower), whichever of the following is applicable:

1) if Lender is claiming the benefits of an income tax treaty to which the United States is a party (x) with respect to payments of interest under any Loan Document, executed originals of IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "interest" article of such tax treaty and (y) with respect to any other applicable payments under any Loan Document, IRS Form W-8BEN establishing an exemption from, or reduction of, U.S. federal withholding Tax pursuant to the "business profits" or "other income" article of such tax treaty;

2) executed originals of IRS Form W-8ECI;

3) if Lender is claiming the benefits of the exemption for portfolio interest under Section 881(c) of the Code, (x) a certificate substantially in the form of Exhibit A-1 to the effect that such Foreign Lender is not a "bank" within the meaning of Section 881(c)(3)(A) of the Code, a "10 percent

LOAN AGREEMENT - Page 3

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shareholder” of Borrower within the meaning of Section 881(c)(3)(B) of the Code, or a “controlled foreign corporation” described in Section 881(c)(3)(C) of the Code and (y) executed originals of IRS Form W-8BEN; or

4) to the extent Lender is not the beneficial owner, executed originals of IRS Form W-8IMY, accompanied by IRS Form W-8ECL, IRS Form W-8BEN, a U.S. Tax Compliance Certificate substantially in the form of Exhibit A-2 or Exhibit A-3, IRS Form W-9, and/or other certification documents from each beneficial owner, as applicable; provided that if the Lender is a partnership and one or more direct or indirect partners of such Lender are claiming the portfolio interest exemption, such Lender may provide a U.S. Tax Compliance Certificate substantially in the form of Exhibit A-4 on behalf of each such direct and indirect partner;

(B) Lender shall, to the extent it is legally entitled to do so, deliver to Borrower (in such number of copies as shall be requested by the recipient) on or prior to the date hereof (and from time to time thereafter upon the reasonable request of Borrower), executed originals of any other form prescribed by applicable law as a basis for claiming exemption from or a reduction in U.S. federal withholding Tax, duly completed, together with such supplementary documentation as may be prescribed by applicable law to permit Borrower to determine the withholding or deduction required to be made; and

(C) if a payment made to Lender under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if Lender were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), Lender shall deliver to Borrower at the time or times prescribed by law and at such time or times reasonably requested by Borrower such documentation prescribed by applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by Borrower as may be necessary for Borrower to comply with its obligations under FATCA and to determine that Lender has complied with Lender’s obligations under FATCA or to determine the amount to deduct and withhold from such payment. Solely for purposes of this clause (D), “FATCA” shall include any amendments made to FATCA after the date of this Agreement.

Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify Borrower of its legal inability to do so.

(f) Treatment of Certain Refunds. If any party determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 2.6 (including by the payment of additional amounts pursuant to this Section 2.6), it shall pay to the indemnifying party an amount equal to such refund (but only to the extent of indemnity payments made under this Section with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of such indemnified party and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Such indemnifying party, upon the request of such indemnified party, shall repay to such indemnified party the amount paid over pursuant to this paragraph (f) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that such indemnified party is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (f), in no event will the indemnified party be required to pay any amount to an indemnifying party pursuant to this paragraph (f) the payment of which would place the indemnified party in a less favorable net after-Tax position than the indemnified party would have been in if the indemnification payments or additional amounts giving rise to such refund had never been paid. This paragraph shall not be construed to require any indemnified party to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to the indemnifying party or any other Person.

(g) Survival. Each party’s obligations under this Section 2.6 shall survive any assignment of rights by Lender, the termination of this Agreement, and the repayment, satisfaction or discharge of all obligations under any Loan Document.

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III CONDITIONS PRECEDENT

Section 3.1 As a material inducement to Lender to make the Loan, Borrower hereby represents and warrants to Lender that Borrower has satisfied (except to the extent specifically set forth on Schedule IV), all of the conditions precedent set forth in Schedule II attached hereto, and Borrower acknowledges that Lender would not fund the Loan unless all of such conditions precedent were satisfied (or waived by Lender) by the Closing Date. The obligation of Lender to make the advance of the Loan on the Closing Date is subject to the condition precedent that Borrower has satisfied all of the conditions precedent set forth on Schedule II attached hereto prior to the Closing Date.

IV REPRESENTATIONS AND WARRANTIES

Section 4.1 Borrower Representations. Borrower represents and warrants to the Lender as of the date hereof and as of the Closing Date (if such date is different), except as otherwise disclosed on the Disclosure Schedule attached hereto as Schedule IV that:

(a) Organization. Borrower has been duly organized and is validly existing and in good standing in the jurisdiction in which it is organized. Borrower is duly qualified to do business and is in good standing in the state in which the Property is located and in each jurisdiction where Borrower is required to be so qualified in connection with its properties, businesses and operations. Borrower has all necessary rights, Licenses, permits, authorizations, approvals, governmental and otherwise, and full power and authority to own the Property and carry on its business as now conducted. Borrower has the full right, power and authority to operate, renovate, construct, lease and develop the Property, to encumber the Property as provided herein and to perform all of the other obligations to be performed by Borrower under the Loan Documents. The sole business of Borrower is the ownership, renovation, construction, development, management and operation of the Property.

(b) Enforceability. Each Borrower Party has taken all necessary action to authorize the execution, delivery and performance of the obligations of this Agreement and the other Loan Documents to which it is a party, and such obligations shall be the valid and binding obligations of the respective Borrower Parties. This Agreement and such other Loan Documents to which each Borrower Party is a party have been duly executed and delivered by or on behalf of each Borrower Party and each Borrower Party has obtained or received all required consents and approvals, corporate, governmental or otherwise, and this Agreement and such other Loan Documents to which each Borrower Party is a party constitute legal, valid and binding obligations of each such Borrower Party enforceable against each such Borrower Party in accordance with their respective terms, subject to applicable bankruptcy, insolvency, reorganization and similar laws affecting rights of creditors generally and subject, as to enforceability, to general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law). The Loan Documents are not subject to any right of rescission, set-off, counterclaim or defense by any Borrower Party, including the defense of usury or similar doctrines, nor would the operation of any of the terms of the Loan Documents, or the exercise of any right thereunder, render the Loan Documents unenforceable except to the extent such unenforceability may be the result of bankruptcy, insolvency, reorganization or similar laws affecting rights of creditors generally or general principles of equity (regardless of whether enforcement is sought in a proceeding in equity or at law), and Borrower has not asserted any right of rescission, set-off, counterclaim or defense with respect thereto.

(c) No Conflicts. The execution and delivery of this Agreement and the other Loan Documents and the performance of the obligations thereunder by the Borrower Parties will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any Lien, charge or encumbrance (other than pursuant to the Loan Documents) upon any of the property or assets of Borrower pursuant to the terms of any indenture, mortgage, deed of trust, loan agreement, partnership agreement, operating agreement, certificate of incorporation, bylaws or any other agreement or instrument to which Borrower is a party or by which any of Borrower's property or assets is subject, nor will such action result in any violation of the provisions of any statute or any order, rule or regulation of any court or Governmental Authority having jurisdiction over Borrower or any of Borrower's properties or assets, and any

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consent, approval, authorization, order, License, registration or qualification of or with any court or any such regulatory authority or other Governmental Authority or body required for the execution, delivery and performance by the Borrower Parties of this Agreement or any other Loan Documents has been obtained and is in full force and effect.

(d) Litigation. There are no actions, suits, proceedings or investigations at law or in equity now pending or, to Borrower's best knowledge, threatened against or affecting any Borrower Party or the Property, other than as previously disclosed to Lender by Borrower or as described on Schedule III.

(e) Agreements. Borrower is not a party to any agreement or instrument or subject to any restriction, which could have a Material Adverse Effect on Borrower or the Property. Borrower is not in default in any respect in the performance, observance or fulfillment of any of the material obligations, covenants or conditions contained in any agreement or instrument to which Borrower is a party or by which Borrower or the Property is bound. Borrower has no indebtedness under any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which Borrower is a party or by which Borrower or the Property is otherwise bound, other than (a) obligations incurred in the ordinary course of the operation, renovation, construction and development of the Property and (b) obligations under the Loan Documents.

(f) Title. As of the Closing Date, Borrower will have good, marketable and insurable fee simple title to the real property comprising the Property, free and clear of all Liens whatsoever except the Permitted Encumbrances. There are no options, rights of first refusal, rights of first offer or similar rights, which affect the Property or any portion thereof except as previously disclosed to Lender in writing.

(g) Boundaries. All of the Improvements which were included in determining the appraised value of the Property lie wholly within the boundaries and building restriction lines of the Property, and no improvements on adjoining properties encroach upon the Property, and no easements or other encumbrances affecting the Property encroach upon any of the Improvements, so as to affect the value or marketability of the Property, except those which are insured against by the Title Insurance Policy.

(h) Purchase Options. Neither the Property nor any part thereof or interest therein are subject to any purchase options, rights of first refusal or offer to purchase or other similar rights in favor of third parties.

(i) No Bankruptcy Filing. (A) (i) Borrower is solvent (within the meaning of all Bankruptcy Laws) and no bankruptcy, reorganization, insolvency or similar proceeding with respect to any Borrower Party under any Bankruptcy Law has been initiated, and (ii) the entering into the Loan Documents to which any Borrower Party is a party does not constitute a fraudulent conveyance by any Person; and (B) no petition in bankruptcy has been filed by or against Borrower in the last seven (7) years, and Borrower has not, in the last seven (7) years, ever made any assignment for the benefit of creditors or taken advantage of any applicable Bankruptcy Laws. No Borrower Party has entered into the Loan or any Loan Document with the actual intent to hinder, delay, or defraud any creditor, and each Borrower Party has received reasonably equivalent value in exchange for its obligations under the Loan Documents. Giving effect to the transactions contemplated by the Loan Documents, the fair saleable value of Borrower's assets exceeds and will, immediately following the execution and delivery of the Loan Documents, exceed Borrower's total liabilities, including subordinated, unliquidated, disputed or contingent liabilities, including the maximum amount of its contingent liabilities and its debts as such debts become absolute and matured. Borrower's assets do not and, immediately following the execution and delivery of the Loan Documents will not, constitute unreasonably small capital to carry out its business as conducted or as proposed to be conducted. Borrower does not intend to, and does not believe that it will, incur debts and liabilities (including contingent liabilities and other commitments) beyond its ability to pay such debts as they mature (taking into account the timing and amounts to be payable on or in respect of the obligations of Borrower).

(j) Full and Accurate Disclosure. No statement of fact made by any of the Borrower Parties in this Agreement or in any of the other Loan Documents, nor any written materials relating to

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the business, operations or condition (financial or otherwise) of any of the Borrower Parties or the Property that were supplied to Lender in connection with Lender's due diligence investigation contains (or, in the case of such written material, at the time supplied contained) any untrue statement of a material fact or omits (or omitted, as the case may be) to state any material fact necessary to make the statements contained therein or in any of the Loan Documents not misleading.

(k) Regulatory. None of the Borrower Parties is an "employee benefit plan" (as defined in Section 3(3) of ERISA), subject to Title I of ERISA, and none of the assets of the Borrower Parties constitutes or will constitute "plan assets" of one or more such plans within the meaning of 29 C.F.R. Section 2510.3-101. In addition, (i) none of the Borrower Parties is a "governmental plan" within the meaning of Section 3(32) of ERISA and (ii) transactions by or with any of the Borrower Parties are not subject to state statutes regulating investments of, and fiduciary obligations with respect to, governmental plans. No part of the proceeds of the Loan will be used for the purpose of purchasing or acquiring any "margin stock" within the meaning of Regulation U of the Board of Governors of the Federal Reserve System or for any other purpose which would be inconsistent with such Regulation U or any other Regulations of such Board of Governors, or for any purposes prohibited by Legal Requirements or by the terms and conditions of this Agreement or the other Loan Documents. Borrower is not a "foreign person" within the meaning of § 1445(f)(3) of the Code. Borrower is not (i) an "investment company" or a company "controlled" by an "investment company," within the meaning of the Investment Company Act of 1940, as amended; or (ii) subject to any other federal or state law or regulation which purports to restrict or regulate Borrower's ability to borrow money.

(l) FIRPTA. Borrower is not a "foreign person" within the meaning of Sections 1445 or 7701 of the Code.

(m) Compliance. Borrower and the Property and the uses thereof comply with all applicable Legal Requirements. Borrower has obtained, or will obtain, all necessary certificates, licenses and other approvals, governmental and otherwise, and all required zoning, building code, land use, environmental, development plan, preliminary site plan, subdivision, and other similar permits or approvals (collectively, the "Licenses") necessary for the operation, renovation, construction and development of the Property for its current uses and for the conduct of Borrower's business and all such Licenses remain in full force and effect. None of the foregoing are subject to revocation, suspension, forfeiture or modification. Neither Borrower nor the Property is in default or violation of any order, writ, injunction, decree or demand of any Governmental Authority. There has not been committed by Borrower or any other Person in occupancy of or involved with the operation, development or use of the Property any act or omission affording the federal government or any Governmental Authority the right of forfeiture as against the Property or any part thereof or any monies paid in performance of Borrower's obligations under any of the Loan Documents. The use and development of the Property contemplated thereby comply and shall at all times comply with applicable Legal Requirements, including all applicable zoning resolutions, zoning ordinances, development requirements, building codes and environmental laws. There are no outstanding notices of any uncorrected violations of any Legal Requirements with respect to the Property, and Borrower is not aware of the threat of any such notices.

(n) Financial Information.

(i) The balance sheet, income statement and statements of cash flow and other financial data that have been delivered to Lender in respect of the Property and each applicable Borrower Party, including those required under Article III (A) are true, complete and correct, (B) accurately represent the financial condition of the Property and/or the applicable Borrower Party as of the date of such reports or statements and contain no misrepresentation or material omission, and (C) have been prepared in accordance with Acceptable Accounting Principles consistently applied throughout the periods covered, except as disclosed therein, and (D) have not been amended, modified or revised in any manner. Borrower does not have any Indebtedness, liabilities, contingent liabilities, liabilities for taxes, unusual forward or long-term commitments or unrealized or anticipated losses from any unfavorable commitments that could have a Material Adverse Effect, except as referred to or reflected in said financial statements. Since the date of such financial statements, there

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has been no Material Adverse Change in the financial condition, operations or business of Borrower, each Borrower Party, or the Property from that set forth in said financial statements.

(ii) Each Borrower Party has filed all federal, state, county, municipal, and city income and other tax returns required to have been filed by them and has paid all taxes and related liabilities which have become due pursuant to such returns or pursuant to any assessments received by them. No Borrower Party knows of any basis for any additional assessment in respect of any such taxes and related liabilities for prior years.

(iii) Borrower has not borrowed any funds which have not heretofore been repaid in full except for the Loan, the Prior Loan (which will be fully paid (and the lien discharged) with the proceeds of the Loan pursuant to the Sources and Uses of Funds).

(o) Casualty, Condemnation and Assessments. The Property is free from any material damage by Casualty. No Condemnation or other proceeding has been commenced or, to Borrower's knowledge, is contemplated with respect to all or any portion of the Property or for the relocation of any roadways providing access to the Property or for any easements or public right-of-ways. There are no pending or proposed special or other assessments for public improvements affecting the Property, nor are there any contemplated improvements to the Property that may result in such special or other assessments, and to Borrower's knowledge, there are no other facts or circumstances which would cause the Taxes and Other Charges for the Property for the Fiscal Year in which the Closing Date occurs or the next following Fiscal Year to be significantly higher than the Taxes and Other Charges for the Property assessed and imposed for the Fiscal Year prior to the Fiscal Year in which the Closing Date occurs.

(p) Insurance. Borrower has obtained and has delivered to Lender a certificate of insurance reflecting the insurance coverages, amounts and other requirements set forth in this Agreement and there have been no acts or omissions that would impair the coverage of any such Policies or the benefits of the mortgagee endorsements, and Borrower shall deliver to Lender evidence of such Policies within five (5) Business Days following the date of this Agreement.

(q) Flood Zone. None of the Improvements on the Property are located in an area as identified by the Federal Emergency Management Agency as an area having special flood hazards or, if any portion of the Improvements or the Property is located within such area, Borrower has obtained and will maintain the insurance prescribed in Section 6.1.1(a)(iv).

(r) Filing and Recording Taxes, Taxes. All transfer taxes, recording taxes, deed stamps, intangible taxes or other amounts in the nature of transfer taxes or recording taxes, charges or fees or similar charges required to be paid by any Person under applicable Legal Requirements currently in effect in connection with the transfer of the Property to Borrower have been paid or will be paid on the Closing Date. All mortgage, mortgage recording, stamp, intangible or other similar taxes required to be paid by any Person under applicable Legal Requirements currently in effect in connection with the execution, delivery, recordation, filing, registration, perfection or enforcement of any of the Loan Documents, including the Security Instruments, have been paid.

(s) Single-Purpose.

(i) Borrower hereby represents and warrants to, and covenants with, Lender that as of the date hereof and until such time as the Debt shall be paid in full:

(A) Borrower has not owned, does not own and will not own any asset or property other than (1) the Property, and (2) incidental personal property necessary for the ownership, renovation, construction, development, management or operation of the Property.

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(B) Borrower has not engaged in and will not engage in any business other than the ownership, renovation, construction, development, management and operation of the Property and will continue to conduct and operate its business in accordance with the terms of the Loan Documents.

(C) Borrower has not incurred and will not incur any Indebtedness, secured or unsecured, direct or indirect, absolute or contingent (including guaranteeing any obligation), other than (1) the Debt and, prior to the date hereof, the Prior Loan, and (2) unsecured trade payables and operational debt not evidenced by a note and in an aggregate amount not exceeding one percent (1%) of the outstanding principal amount of the Loan at any time; provided that any Indebtedness incurred pursuant to subclause (2) shall be (x) due not more than sixty (60) days past the date incurred and paid on or prior to such date, and (y) incurred in the ordinary course of business. No Indebtedness other than the Debt may be secured (superior, subordinate or pari passu) by the Property. With respect to the Prior Loan, Borrower hereby represents and warrants that the Prior Loan has been repaid in full with the proceeds of the Loan and none of Borrower, Guarantor or any of their respective direct and indirect constituent owners has any remaining liabilities or obligations in connection with the Prior Loan (other than environmental and other limited and customary indemnity obligations which, in each case and by their express terms, survive the repayment of the Prior Loan).

(D) Borrower has not entered into, is not a party to and will not enter into or be a party to any contract or agreement with any Affiliate of Borrower, any constituent party of Borrower or any Affiliate of any constituent party, except in the ordinary course of business and on terms and conditions that are disclosed to Lender in advance and that are intrinsically fair, commercially reasonable and substantially similar to those that would be available on an arms-length basis with third parties other than any such party.

(E) Borrower has not made and will not make any loans or advances to any Person (including any Affiliate or constituent party), and has not acquired and shall not acquire obligations or securities of any Borrower Party or any Affiliate of Borrower or any Borrower Party.

(F) Borrower is and will remain solvent and Borrower has at all times during its existence paid and will continue to pay Borrower's debts, liabilities and expenses (including, as applicable, shared personnel and overhead expenses) only from Borrower's assets as the same shall become due.

(G) Borrower has not undertaken and will not undertake any Material Action without the prior unanimous written consent of all of its partners or members, as applicable;

(H) Borrower has done or caused to be done and will do all things necessary to observe all organizational formalities and preserve its existence as an entity duly organized, validly existing and in good standing (if applicable) under the applicable Legal Requirements of the jurisdiction of its organization or formation, and will not amend, modify, terminate or fail to comply with the provisions of its Organizational Documents.

(I) Borrower has at all times during its existence maintained and will continue to maintain all of Borrower's accounts, books, records, financial statements and bank accounts separate from those of its Affiliates and any other Person. Borrower's assets have not been and will not be listed as assets on the financial statement of any other Person, provided, however, that Borrower's assets may be included in a consolidated financial statement of its Affiliates if (i) appropriate notation shall be made on such consolidated financial statements to indicate the separateness of Borrower and such Affiliates and to indicate that Borrower's assets and credit are not available to satisfy the debts and other obligations of such Affiliates or any other Person, and (ii) such assets shall be listed on Borrower's own separate balance sheet. Borrower has and will file its own tax returns (to the extent Borrower is required to file any such tax returns) and will not file a consolidated federal income tax return with any other Person. Borrower has at all times during its existence maintained and will continue to maintain Borrower's books, records, resolutions and agreements as official records.

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(J) Borrower has been and will be, and has held and at all times will hold itself out to the public as, a legal entity separate and distinct from any other Person (including any Affiliate of Borrower or any constituent party of Borrower), has at all times conducted and will continue to conduct business in Borrower's own name, has at all times corrected and shall correct any known misunderstanding regarding Borrower's status as a separate entity, has not identified and shall not identify itself or any of its Affiliates as a division or part of any other Person and has maintained and shall continue to maintain and utilize separate stationery, invoices and checks bearing Borrower's own name.

(K) Borrower has maintained and will continue to maintain adequate capital for the normal obligations reasonably foreseeable in a business of its size and character and in light of Borrower's contemplated business operations.

(L) Neither Borrower nor any constituent party of Borrower has sought or will seek or effect the liquidation, dissolution, winding up, consolidation, or merger, in whole or in part, of Borrower.

(M) Borrower has not commingled and will not commingle the funds and other assets of Borrower with those of any Affiliate or constituent party or any other Person, and Borrower has not controlled and will not control the decisions with respect to the daily affairs of any other Person.

(N) Borrower has maintained and will continue to maintain Borrower's assets in such a manner that it would not be costly or difficult to segregate, ascertain or identify Borrower's assets from those of any Affiliate or constituent party of Borrower or any other Person.

(O) Borrower has not assumed or guaranteed or become obligated for the debts of any other Person and has not held itself out to be responsible for or have its credit available to satisfy the debts or obligations of any other Person, and Borrower will not assume or guarantee or become obligated for the debts of any other Person and does not and will not hold itself out to be responsible for or have its credit available to satisfy the debts or obligations of any other Person.

(P) Borrower has at all times during its existence held, and will continue to hold, all of Borrower's assets in Borrower's own name.

(Q) Except as specifically provided in the Loan Documents or Borrower's Organizational Documents, no other Person has ever guaranteed or become obligated for Borrower's debts at any time during Borrower's existence, and except as specifically provided in the Loan Documents or Borrower's Organizational Documents, Borrower will not permit any other Person to guarantee or become obligated for Borrower's debts at any time in the future.

(R) No other Person has ever held, and Borrower will not permit any other Person to hold, out Borrower's credit as being available to satisfy the obligations of any other Person.

(S) Borrower has not at any time during Borrower's existence bought or held, and will not in the future buy or hold, evidence of Indebtedness issued by any of Borrower's Affiliates or equity interest holders (direct or indirect).

(T) Borrower has at all times during Borrower's existence allocated fairly and reasonably (and paid or charged for, as applicable), and will continue to allocate fairly and reasonably (and pay or charge for, as applicable), any overhead expenses that are shared with an Affiliate of Borrower, including paying for office space provided by and services performed by any employee of an Affiliate of Borrower.

(U) Borrower will comply with or cause the compliance with all the representations, warranties and covenants in this Section 4.1(s).

(V) Borrower has not permitted and will not permit any Affiliate or constituent party independent access to its bank accounts.

(W) Borrower has paid and shall pay the salaries of its own employees (if any) from its own funds and has and maintain a sufficient number of employees (if any) in light of its contemplated business operations.

(X) Borrower has compensated and shall compensate each of its consultants and agents from its funds for services provided to it and pay from its own assets all obligations of any kind incurred.

(Y) Except as provided in the Loan Documents or in connection with the Prior Loan, Borrower has not at any time during its existence pledged, and will not in the future pledge, Borrower's assets for the benefit of any other Person.

(Z) No other Person has ever pledged, and Borrower will not permit any other Person to pledge, Borrower's assets for such other Person's benefit.

(AA) No other Person has ever identified, and Borrower will not permit any other Person to identify, Borrower as a division of any other Person.

(BB) Borrower either (i) has no, and will have no, obligation to indemnify its officers, directors, managers, members, shareholders or partners, as the case may be, or (ii) if it has any such obligation, such obligation is fully subordinated to the Debt and will not constitute a claim against Borrower if cash flow in excess of the amount required to pay the Debt is insufficient to pay such obligation.

(CC) Borrower will consider the interests of Borrower's creditors in connection with all corporate, limited liability company or limited partnership actions

(i) Hazardous Materials. Borrower hereby represents and warrants to Lender that the representations and warranties contained in the Environmental Indemnity are true and correct. Except for any specific limitation contained in the Environmental Indemnity, this representation and warranty shall survive any termination, satisfaction, or assignment of this Agreement and the exercise by Lender of any of its rights or remedies hereunder, including the acquisition of the Property by foreclosure or a conveyance in lieu of foreclosure.

(u) Contracts. Except as set forth on Schedule IV, there are no service, maintenance or other contracts affecting the use, operation or maintenance of the Property that are not terminable on one month's notice or less without cause and without a termination fee, penalty or premium. True and correct copies of all contracts affecting the use, operation or maintenance of the Property (regardless of the dollar amount of such contracts or the termination provision set forth therein) (together with all amendments, modifications or supplements thereto) have been delivered to Lender. All service, maintenance or other contracts affecting the Property entered into by Borrower or its Affiliates have been entered into at arm's-length in the ordinary course of Borrower's business. To the best of Borrower's knowledge, all service, maintenance or other contracts affecting the Property not entered into by Borrower or its Affiliates (including those entered into by the prior owners of the Property) have been entered into at arms-length in the ordinary course of business and provide for the payment of fees in amounts and upon terms not in excess of existing market rates.

(v) Principal Place of Business. Borrower's principal place of business as of the date hereof is: 11249 Gold Country Road, Suite 190, Gold River, California 95670.

(w) Borrower's Ownership Structure. Borrower has provided to Lender the structure chart attached hereto as Schedule V, which structure chart is a true and correct description of Borrower's ownership structure, setting forth all Persons who own, directly or indirectly, ownership interests in Borrower and no other Person (whether disclosed or undisclosed) directly or indirectly owns any ownership interest in Borrower.

(x) Service Rights. Except as set forth on Schedule IV, no Service Rights have been granted to any Person in connection with or relating to the Property. To the extent Service Rights have been granted to any Person as set forth on Schedule IV, Borrower (and no other Person) is entitled to receive any and all compensation with respect to the Service Rights.

(y) Affiliate Transaction. Except as set forth on Schedule IV, Borrower has not entered into any Affiliate Transactions. Any agreement with an Affiliate of Borrower shall provide that such agreement may be terminated on no more than thirty (30) days prior notice, with or without cause, and without penalty, and providing that if Lender acquires the Property or an ownership interest in Borrower, directly or indirectly, then Borrower and such Affiliate agrees that Lender (or such purchaser at foreclosure) may terminate the subject agreement at any time upon notice to the Affiliate with or without cause or the payment of any premium or penalty. If such agreement is not terminated in accordance with the immediately preceding sentence, Lender shall have the right, and Borrower hereby irrevocably authorizes Lender and irrevocably appoints Lender as Borrower's attorney-in-fact coupled with an interest, at Lender's sole option, to terminate the agreement on behalf of and in the name of Borrower, and Borrower hereby releases and waives any claims against Lender arising out of Lender's exercise of such authority.

(z) Loan Proceeds. No Affiliate of Borrower or any Person in which Borrower or any Affiliate of Borrower owns an interest (direct, indirect or beneficial interest in Borrower) or is receiving any portion of the proceeds of the Loan.

(aa) Conditions Precedent. Borrower has fulfilled and satisfied all of the conditions precedent set forth on Schedule II.

(bb) Easements, Utilities and Public Access. All easements, cross easements, licenses, air rights and rights-of-way or other similar property interests (collectively, "Easements"), if any, necessary for the current use of the Property for its intended purposes have been obtained, are described in the Title Insurance Policy and are in full force and effect without default thereunder. The Property has, or will have, rights of access to public ways and is served by water, sewer, sanitary sewer and storm drain facilities adequate to service the Property for its intended uses.

(cc) Separate Lots. The Property is comprised of one (1) or more parcels which constitute separate tax lots and do not constitute a portion of any other tax lot not a part of the Property.

(dd) Taxes and Assessments. All Taxes and governmental assessments owing in respect of the Property have been paid or an escrow of funds in an amount sufficient to cover such payments has been established hereunder. There are no pending or proposed special or other assessments for public improvements or otherwise affecting the Property, nor are there any contemplated improvements to the Property that may result in such special or other assessments.

Section 4.2 Survival of Representations. Borrower agrees that all of the representations and warranties of Borrower set forth in Section 4.1 and elsewhere in this Agreement and in the other Loan Documents, and as set forth in the Loan Term Sheet shall survive for so long as any Obligations remain owing to Lender under this Agreement or any of the other Loan Documents by Borrower; provided, however, that those particular representations and warranties set forth in this Agreement and/or in the other Loan Documents which by their terms expressly survive the repayment of the Debt shall survive the complete payment of the Debt. All representations, warranties, covenants and agreements made in this Agreement or in the other Loan Documents by Borrower shall be deemed to have been relied upon by Lender notwithstanding any investigation

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heretofore or hereafter made by Lender or on its behalf. Borrower acknowledges that the representations and warranties contained in the Loan Documents are a material inducement to Lender to make the Loan.

V BORROWER COVENANTS

From the date hereof and until payment and performance in full of all Obligations of Borrower under the Loan Documents, Borrower hereby covenants and agrees with Lender that:

Section 5.1 Existence; Compliance with Legal Requirements. Borrower shall do or cause to be done all things necessary to preserve, renew and keep in full force and effect Borrower's existence, rights, Licenses, permits and franchises and to promptly comply with all Legal Requirements applicable to Borrower and the Property. Borrower shall not dissolve, terminate, liquidate, merge with, consolidate into or acquire another Person, and Borrower shall continue to comply with the provisions of Section 4.1(s) throughout the Term. Borrower shall at all times maintain, preserve and protect all franchises and trade names and preserve all of Borrower's property used or useful in the conduct of Borrower's business. Borrower will not change Borrower's name, identity (including its trade name or names) or, if not an individual, Borrower's corporate, partnership or other structure without Lender's prior written consent, except as otherwise expressly provided herein. Borrower will qualify to do business and will remain in good standing under the laws of the state in which the Property is located and in each jurisdiction as and to the extent the same is required for the ownership, maintenance, management and operation of the Property.

Section 5.2 Hazardous Materials. Borrower shall comply strictly and in all respects with the covenants set forth in the Environmental Indemnity.

Section 5.3 Certain Prohibited Actions.

(a) Borrower shall not make any change in the scope or nature of its business objectives, purposes or operations, or undertake or participate in activities other than the continuance of its present business. Borrower shall not directly or indirectly do any of the following: (i) change its principal place of business or chief executive office without first giving Lender thirty (30) days' prior written notice thereof and executing, if necessary, and delivering to Lender such additional UCC Financing Statements or financing statement amendments as Lender may require in order to reflect such change in Borrower's principal place of business or chief executive office and to maintain the perfection of all Liens and security interests created by the Loan Documents; or (ii) take any action or permit any action or inaction which could result in Borrower not being in compliance with Section 4.1(s); or (iii) cancel or otherwise forgive or release any claim or debt owed to Borrower by any Person, except for adequate consideration and in the ordinary course of Borrower's business in its reasonable judgment. Borrower shall comply in all respects with Section 4.1(s) of this Agreement.

(b) Borrower shall not and shall not permit any Borrower Party to make any material change, amendment or modification to the Organizational Documents of any Borrower Party without Lender's prior written consent.

Section 5.4 Taxes and Other Charges. Borrower shall pay all Taxes and Other Charges now or hereafter levied or assessed or imposed against the Property or any part thereof prior to delinquency. Borrower will deliver to Lender or Lender's designee receipts for payment or other evidence satisfactory to Lender that the Taxes and Other Charges have been so paid or are not then delinquent within thirty (30) days after the date on which the Taxes and/or Other Charges would otherwise be delinquent if not paid. Borrower shall not suffer and shall promptly cause to be paid and discharged any Lien which may be or become a Lien against the Property, other than Permitted Encumbrances, and shall promptly pay for all utility services provided to the Property. After prior written notice to Lender, Borrower, at its own expense, may contest by appropriate legal proceeding, promptly initiated and conducted in good faith and with due diligence, the amount or validity or application in whole or in part of any Taxes or Other Charges or the existence of any Lien, provided that (i) no Default or Event of Default exists, (ii) such proceeding shall be permitted under and be conducted in accordance with the provisions of all Leases and other documents or instruments to which Borrower is subject and shall not

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constitute a default thereunder, and such proceeding shall be conducted in accordance with all Legal Requirements, (iii) Borrower shall notify Lender in writing of any such contest and shall diligently and in good faith contest such Taxes, Other Charges or Lien by appropriate legal proceedings which shall operate to prevent the enforcement or collection thereof and the sale of the Property or any part thereof, in satisfaction thereof; (iv) Borrower shall have furnished to Lender a cash deposit, or an indemnity bond satisfactory to Lender with a surety satisfactory to Lender, in an amount equal to 125% of the Taxes, Other Charges or Lien claim, plus a reasonable additional sum to pay all costs, interest and penalties that may be imposed or incurred in connection therewith, to assure payment of the matters under contest and to prevent any sale or forfeiture of the Property or any part thereof; and (v) Borrower shall promptly upon final determination thereof pay the amount of any such Taxes, Other Charges or Lien(s), together with all costs, interest and penalties which may be payable in connection therewith. In addition, if the Taxes, Other Charges or Lien(s) are not paid in full when Borrower commences such contest, then such proceeding shall suspend the collection of Taxes, Other Charges or Lien from the Property. Lender may pay over any such cash deposit or part thereof held by Lender or liquidate any other security and pay same over to the claimant entitled thereto at any time when, in the judgment of Lender, the entitlement of such claimant is established. Notwithstanding the foregoing, Borrower shall immediately upon request of Lender pay (and if Borrower shall fail so to do, Lender may, but shall not be required to, pay or cause to be discharged or bonded against) any such Taxes, Other Charges or Lien claim notwithstanding such contest, if in the good faith opinion of Lender, the Property or any part thereof or interest therein may be in danger of being sold, forfeited, foreclosed, terminated, canceled or lost. In addition, Borrower shall pay to Lender upon demand, any reasonable costs incurred by Lender in ensuring compliance by Borrower with this Section 5.4, including reasonable attorneys' fees, monitoring and evaluating expenses and any tax service fees.

Section 5.5 Performance of Agreements. Borrower shall observe, perform and satisfy all the terms, provisions, covenants and conditions of, and shall pay when due all principal, interest, costs, fees and expenses to the extent required under, the Loan Documents. Borrower shall observe and perform each and every term to be observed or performed by Borrower pursuant to the terms of any other agreement or recorded instrument affecting or pertaining to Borrower or the Property, or given by Borrower to Lender for the purpose of further securing the Obligations.

Section 5.6 Notices. Borrower shall immediately upon receipt give written notice to Lender of any litigation or governmental proceedings pending or threatened in writing against Borrower or the Property. Borrower shall promptly advise Lender of any Material Adverse Change and of the occurrence of any Default or Event of Default.

Section 5.7 Access to Property. Borrower shall permit agents, representatives and employees of Lender to inspect the Property or any part thereof at reasonable hours upon not less than forty-eight hours (48) hours advance notice or such shorter period of notice as circumstances may dictate. Without limiting the generality of the foregoing, Borrower agrees that Lender will have the same right, power and authority to enter into and inspect the Property as is granted a secured lender under Section 2929.5 of the California Civil Code and under Section 564(c) of the California Code of Civil Procedure.

Section 5.8 Compliance. Borrower shall not commit and shall use its best efforts not to allow any other Person in occupancy of or involved with the operation or use of the Property to commit any act or omission affording any Governmental Authority the right of forfeiture as against the Property or any part thereof or any monies paid in performance of Borrower's obligations under any of the Loan Documents.

Section 5.9 Cooperate in Legal Proceedings. Borrower shall reasonably cooperate with Lender with respect to any proceedings before any court, board or other Governmental Authority, which may in any way affect the rights of Lender hereunder, or any rights obtained by Lender under any of the other Loan Documents and, in connection therewith, permit Lender, at its election, to participate in any such proceedings.

Section 5.10 Insurance Benefits and Condemnation Awards. Borrower shall reasonably cooperate with Lender in obtaining for Lender the benefits of any Insurance Proceeds and Awards lawfully or equitably payable in connection with the Property, and Lender shall be reimbursed for any reasonable expenses incurred

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in connection therewith (including attorneys' fees and disbursements, expense of an appraisal on behalf of Lender in case of a fire or other Casualty affecting the Property or any part thereof) out of such Insurance Proceeds or Awards, as applicable.

Section 5.11 Further Assurances. Borrower will, at the cost of Borrower and without expense to Lender, do, execute, acknowledge and deliver all and every such further acts, deeds, conveyances, mortgages, assignments, notices of assignments, transfers, boundary surveys, footing or foundation surveys, plans and specifications, appraisals, title and other insurance reports and agreements and assurances as Lender shall, from time to time, require, for the better assuring, conveying, assigning, transferring, and confirming unto Lender, the property and rights hereby mortgaged, granted, bargained, sold, conveyed, confirmed, pledged, assigned, warranted and transferred or intended now or hereafter so to be, or which Borrower may be or may hereafter become bound to convey or assign to Lender, or for carrying out the intention or facilitating the performance of Borrower's covenants under this Agreement or for filing or recording the Security Instruments, or for complying with all Legal Requirements. Borrower, on demand, will execute and deliver one or more financing statements, chattel mortgages or other instruments, to evidence or perfect more effectively the security interest of Lender in the Property, and if Borrower fails to execute and deliver any of the foregoing within five (5) Business Days after such request by Lender, Borrower grants to Lender an irrevocable power of attorney coupled with an interest for the sole purpose of exercising and perfecting any and all rights and remedies available to Lender pursuant to this Section 5.11, and hereby authorizes Lender to execute in the name of Borrower or without the signature of Borrower to the extent Lender may lawfully do so, any such financing statements, chattel mortgages or other instruments, and Borrower hereby acknowledges and agrees that Borrower shall have no claim or cause of action against Lender arising out of Lender's exercise of Lender's rights under this Section 5.11 or the execution and/or recordation of any instruments by or on behalf of Borrower pursuant to the foregoing power of attorney, unless such claim or cause of action results from Lender's gross negligence or willful misconduct.

Section 5.12 Financial Reporting.

(a) Borrower will keep and maintain or will cause to be kept and maintained in accordance with Acceptable Accounting Principles, proper and accurate books, records and accounts reflecting all of the financial affairs, income and expenses of Borrower and the Property. Lender shall have the right from time to time at all times during normal business hours upon reasonable notice to examine such books, records and accounts at the office of Borrower or other Person maintaining such books, records and accounts and to make such copies or extracts thereof as Lender shall desire. Borrower shall pay any costs and expenses incurred by Lender to examine Borrower's accounting records as Lender shall determine to be necessary or appropriate in the protection of Lender's interest. Borrower shall furnish or make available to Lender and its agents convenient facilities for the examination and audit of any of Borrower's books and records.

(b) Borrower will furnish to Lender annually, within ninety (90) days following the end of each Fiscal Year, a complete copy of Financial Statements for Borrower for such Fiscal Year prepared in accordance with Acceptable Accounting Principles and audited by an Approved Accounting Firm. Borrower's annual Financial Statements shall be accompanied by an Officer's Certificate stating that such annual Financial Statements present fairly the financial condition of Borrower and the Property and that the Leases have not been amended, modified or canceled.

(c) Intentionally omitted.

(d) Intentionally omitted.

(e) Borrower shall furnish to Lender, within ten (10) Business Days after request (or as soon thereafter as may be reasonably possible) such further detailed information, including Borrower's tax returns, with respect to the operation of the Property and the financial affairs of Borrower or the Property as may be requested by Lender.

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Section 5.13 Title to the Property.

(a) Borrower will warrant and defend (i) the title to the Property and every part thereof, subject only to Liens permitted hereunder (including Permitted Encumbrances), and (ii) the validity and priority of the Lien of the Security Instruments on the Property and the perfection and priority of the Liens created by the Loan Documents, including any UCC Financing Statements, subject only to Liens permitted hereunder (including Permitted Encumbrances), in each case against the claims of all Persons whomsoever. Borrower shall reimburse Lender on demand for any losses, costs, damages or expenses (including attorneys' fees and court costs) incurred by Lender if an interest in the Property, other than as permitted hereunder, is claimed by another Person.

(b) If requested by Lender, Borrower shall provide Lender with a title "bring down" endorsement or other Title Insurance Policy endorsement requested by Lender.

Section 5.14 Estoppel Statements.

(a) At any time within ten (10) days after request by Lender, Borrower shall furnish Lender or any proposed assignee of Lender with a written statement, duly acknowledged and certified by Borrower, setting forth (A) the original principal amount of the Note, (B) the unpaid principal amount of the Note, (C) the then current rate of interest of the Note, (D) the terms of payment, (E) the date installments of interest and/or principal were last paid, (F) that, except as provided in such statement, there are no defaults or events which with the passage of time or the giving of notice or both, would constitute an event of default under the Loan Documents, (G) that the Loan Documents are valid, legal and binding obligations of the Borrower Parties and have not been modified or if modified, giving particulars of such modification, (H) whether any offsets or defenses exist with respect to the Loan or Lender and, if any are alleged to exist, a detailed description thereof, (I) whether or not, to the best knowledge of Borrower, any of the lessees under the Leases are in default under the Leases, and, if any of the lessees are in default, setting forth the specific nature of all such defaults, and (J) as to any other matters reasonably requested by Lender.

Section 5.15 Business Purposes; Use of Property. The Loan is solely for the business purpose of Borrower, and is not for personal, family, household, or agricultural purposes. Except as described in Borrower's business plan, Borrower shall not change the current use of the Property in any material respect, nor shall Borrower initiate or consent to any zoning re-classification of any portion of the Property or seek any variance as to the Property in any manner that could result in such use becoming a non-conforming use under any zoning ordinance or other applicable land use law, without Lender's prior consent.

Section 5.16 Contracts. Borrower shall deliver or cause to be delivered to Lender copies of all contracts or other agreements (and all amendments, modifications or supplements thereto), whether now existing or hereafter entered into, affecting Borrower or the use, maintenance, renovation, construction, development, management or operation of the Property, including any options to purchase or rights of first offer or first refusal to purchase the Property or any portion of the Property. Except in the ordinary course of Borrower's business, Borrower shall not enter into any service, maintenance, renovation, construction, development or other contracts affecting the Property without Lender's prior written consent, such consent not to be unreasonably withheld, conditioned or delayed; provided, however, Lender's prior consent shall not be required with respect to any contracts or agreements unless such contracts or agreements (a) are reasonably likely to have a Material Adverse Effect, (b) are not terminable on one month's notice or less without cause and without penalty or premium or (c) are for a period in excess of one year (unless cancellable with thirty (30) days notice), or for an aggregate amount in excess of \$50,000.00. All service, maintenance, renovation, construction, development or other contracts affecting the Property shall be arms-length transactions, in the ordinary course of Borrower's business and shall provide for the payment of fees in amounts and upon terms not in excess of existing market rates. Borrower shall not enter into any brokerage agreement with respect to leasing or sales without the prior written consent of Lender, which shall not be unreasonably withheld.

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Section 5.17 Maintenance of Property; Payment for Labor and Materials; Alterations.

(a) Borrower shall promptly repair, replace or rebuild any part of the Property which may be destroyed by any Casualty, or become damaged, worn or dilapidated and shall complete and pay for any structure at any time in the process of construction or repair on the Property. Borrower will promptly pay when due all bills and costs for labor, materials and specifically fabricated materials incurred in connection with the Property and never permit to exist beyond the due date thereof in respect of the Property or any part thereof any Lien or security interest, even though subordinate to the Liens and the security interests of the Security Instruments, and in any event never permit to be created or exist in respect of the Property or any part thereof any other or additional Lien or security interest other than the Lien created by the Loan Documents and the Permitted Encumbrances.

(b) Borrower shall cause the Property to be maintained in a good and safe condition and repair. The Improvements, if any, shall not be removed, demolished or altered in any material respect nor shall any additional improvements be constructed without the prior, written consent of Lender.

Section 5.18 Transfer or Encumbrance of the Property.

(a) Borrower acknowledges that Lender, in agreeing to make the Loan, has examined and relied on the creditworthiness and experience of the Borrower Parties in owning and operating and developing properties such as the Property, and that Lender will continue to rely on Borrower's ownership, operation and development of the Property as a means of maintaining the value of the Property as security for repayment of the Debt. Borrower acknowledges that Lender has a valid interest in maintaining the value of the Property so as to ensure that, should Borrower default in the repayment of the Debt, Lender can recover all or a portion of the Debt by a sale of the Property. Accordingly, subject to the terms of this Section 5.18, Borrower shall not, without the prior written consent of Lender, Transfer the Property, or any part thereof, directly or indirectly, or permit the Transfer of the Property, or any part thereof.

(b) A Transfer of the Property within the meaning of this Section 5.18 shall be deemed to include: (A) an installment sales agreement wherein Borrower agrees to sell the Property or any part thereof or any interest therein for a price to be paid in installments (provided, however, that the terms of this subsection (A) shall not prohibit seller financing); (B) an agreement by Borrower leasing all or a substantial part of the Property for other than actual occupancy by a space tenant thereunder, except as specifically permitted by the Loan Documents; (C) if Borrower or any partner or member of Borrower is a corporation, the Transfer of more than fifty percent (50%) of such corporation's stock (or more than fifty percent (50%) of the stock of any corporation directly or indirectly controlling such corporation by operation of law or otherwise) or the creation or issuance of new stock in one or a series of transactions by which more than fifty percent (50%) of such corporation's stock shall be vested in a party or parties who are not now existing stockholders as of the date hereof or results in any change in the ultimate majority ownership or control of such corporation; (D) if Borrower or any partner or member of Borrower is a limited or general partnership, joint venture or limited liability company, the change, removal, resignation or addition of any interest comprising more than a fifty percent (50%) interest of any partner, joint venturer or member or the Transfer of the partnership or membership interest of more than fifty percent (50%) of any partner or any member or the Transfer of more than fifty percent (50%) of any interest of any joint venturer, partner or member; (E) if Borrower is a limited or general partnership, joint venture, limited liability company, trust, nominee trust, tenancy in common or other unincorporated form of business association or form of ownership interest, the Transfer of more than fifty percent (50%) of any interest (including any economic or profits interest) of any Person having a direct legal or beneficial ownership interest in Borrower (provided however, that any Transfer of a legal or beneficial ownership interest in Borrower or any successor entity of Borrower by Gerry N. Kamilos and/or Karen L. Kamilos, as co-Trustees of The Gerry and Karen Kamilos Family Trust w/va dated August 31, 1998 shall be deemed a Transfer within the meaning of this Section 5.18); (F) except as otherwise provided in the Loan Documents, any instrument subjecting the Property to a condominium regime or transferring ownership to a cooperative corporation; (G) the dissolution or termination of Borrower or any general partner or managing member of Borrower or the merger or consolidation of Borrower or any general partner or member of Borrower

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with any other Person; (H) any swap, derivative or other transaction shifting the risks and rewards of ownership of the Property, unless otherwise expressly required by the Loan Documents; (I) any transaction pursuant to which any Person is granted an option to purchase all or any portion of the Property or any direct, indirect or beneficial interest in Borrower; and (J) any transaction, agreement or arrangement pursuant to which any Person is given any right to control, direct or veto any material actions or decisions by Borrower, directly or indirectly, whether through an ownership interest, contract right or otherwise.

(c) Lender shall not be required to demonstrate any actual impairment or prejudice of its security or any increased risk of default hereunder in order to declare the Debt immediately due and payable upon any Transfer (other than a Transfer specifically permitted by this Agreement) without Lender's prior written consent which shall not be unreasonably withheld, delayed or conditioned. This provision shall apply to every Transfer regardless of whether voluntary or not, or whether or not Lender has consented to any previous Transfer.

(d) Lender's consent to one Transfer of the Property shall not be deemed to be a waiver of Lender's right to require such consent to any future Transfer. Any Transfer of the Property made in contravention of this Section 5.18 shall be null and void and of no force and effect.

(e) Borrower agrees to bear and shall pay or reimburse Lender on demand for all costs and expenses (including title search costs, title insurance endorsement premiums and reasonable attorneys' fees and disbursements) incurred by Lender in connection with the review, approval and documentation of any proposed Transfer, whether or not such consent is granted, withheld, conditioned or denied and whether or not such transfer is expressly permitted herein.

(f) Borrower shall not create, incur, assume or permit to exist (i) any lien on the Property or any portion of the Property, except for Permitted Encumbrances or any other Lien expressly permitted by the terms of this Agreement or (ii) any lien on any direct or indirect interest in Borrower (other than pursuant to the Pledge Agreements).

Section 5.19 ERISA.

(a) Borrower shall not engage in any transaction which would cause any obligation, or action taken or to be taken, under the Loan Documents (or the exercise by Lender of any of its rights under the Loan Documents) to be a non-exempt (under a statutory or administrative class exemption) prohibited transaction under ERISA.

(b) Borrower further covenants and agrees to deliver to Lender such certifications or other evidence from time to time throughout the term of the Loan, as requested by Lender, that (i) Borrower is not an "employee benefit plan" as defined in Section 3(3) of ERISA, which is subject to Title I of ERISA, or a "governmental plan" within the meaning of Section 3(32) of ERISA or treats as holding assets of any such plan by reason of such plans ownership of an interest in Borrower; (ii) Borrower is not subject to state statutes regulating investments and fiduciary obligations with respect to governmental plans; and (iii) one or more of the following circumstances is true:

(i) Equity interests in Borrower are publicly offered securities, within the meaning of 29 C.F.R. § 2510.3-101(b)(2);

(ii) Less than twenty-five percent (25%) of each outstanding class of equity interests in Borrower are held by "benefit plan investors" within the meaning of 29 C.F.R. § 2510.3-101(f)(2); or

(iii) Borrower qualifies as an "operating company" or a "real estate operating company" within meaning of 29 C.F.R. § 2510.3-101(c) or (e) or an investment company registered under The Investment Company Act of 1940.

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Section 5.20 Affiliate Transaction. Except as previously disclosed to Lender in writing on or prior to the date hereof, Borrower shall not enter into any Affiliate Transaction without the prior written consent of Lender, which may be withheld in Lender's sole discretion and in any event only upon such terms and conditions that are intrinsically fair and substantially similar to those that would be available on an arms-length basis with third parties other than any such Affiliate.

Section 5.21 Service Rights. Borrower shall not allow any Service Rights to be granted by any Person other than Borrower, and any Service Rights granted by any Person other than Borrower shall be null and void ab initio.

Section 5.22 Purchase Options. Borrower shall deliver to Lender true and correct copies of any option agreement and any rights of first offer or rights of first refusal to purchase the Property or any portion thereof, or any other similar agreement, together with all amendments and modifications thereto, within five (5) days after the execution thereof. The requirement for delivery of the foregoing shall not be deemed to imply Lender's consent thereto.

Section 5.23 Confirmation of Representations, Warranties and Covenants. In addition to and not in limitation of the covenants and agreements of Borrower contained in this Agreement, if requested by Lender, Borrower shall deliver, one or more Officer's Certificates certifying as to the accuracy of all representations and warranties made by Borrower in the Loan Documents as of the Closing Date.

Section 5.24 Subdivision Maps. Prior to entering into, agreeing to or recording any map, plat, parcel map, lot line adjustment or other subdivision map of any kind covering any portion of the Property (collectively, "Subdivision Map"), or amending, modifying, terminating or taking any action with respect to any Subdivision Map, Borrower shall submit such Subdivision Map to Lender for Lender's review and approval, which approval shall not be unreasonably withheld, conditioned or delayed. As a condition precedent to approval by Lender, if required by Lender, (i) Borrower shall execute, acknowledge and deliver to Lender such amendments to the Loan Documents as Lender may reasonably require to reflect the change in the legal description of the Property resulting from the recordation of any Subdivision Map, and (ii) Borrower shall deliver to Lender, at Borrower's sole expense, a title endorsement to the Title Policy in form and substance satisfactory to Lender insuring the continued first priority lien of the Security Instruments. Subject to the execution and delivery by Borrower of any documents required under this Section 5.24, Lender shall, if required by applicable law, sign any Subdivision Map approved by Lender pursuant to this Section 5.24.

Section 5.25 Delivery of Business Plan of Borrower. Borrower shall provide Lender with Borrower's business plan to be prepared by Borrower in accordance with Borrower's operating agreement within the time period for such preparation provided therein.

Section 5.26 Intentionally Deleted.

Section 5.27 Anti-Terrorism

(a) Neither Borrower nor any other Person owning a direct or indirect interest in Borrower is in violation of any Legal Requirements, including requirements of The Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada) and Regulations, Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001 and relating to Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism, (the "Executive Order") and the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (Public Law 107-56, the "Patriot Act").

(b) None of Borrower, the direct members of Borrower, Guarantors, nor any of their respective constituents, investors or affiliates, any of their respective brokers or other agents, if any, acting or benefiting in any capacity in connection with the Loan is a "Prohibited Person" which is defined as follows:

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(i) a Person that is listed in the Annex to, or is otherwise subject to the provisions of, the Executive Order;

(ii) a Person owned or controlled by, or acting for or on behalf of, any Person that is listed in the Annex to, or is otherwise subject to the provisions of, the Executive Order;

(iii) a Person with whom Lender is prohibited from dealing or otherwise engaging in any transaction by any terrorism or money laundering Legal Requirements, including the Executive Order and the Patriot Act;

(iv) a Person who commits, threatens or conspires to commit or supports "terrorism" as defined in the Executive Order;

(v) a Person that is named as a "specially designated national and blocked person" on the most current list published by the U.S. Treasury Department Office of Foreign Assets control at its official website, <http://www.treas.gov/ofac/t11sdn.pdf> or at any replacement website or other replacement official publication of such list; and

(vi) a Person who is affiliated with a Person listed above.

(c) None of Borrower, the direct members of Borrower, Guarantors or any of their respective affiliates, investors or constituents or any of their respective brokers or other agents, if any, acting in any capacity in connection with the Loan are or will (i) conduct any business or engage in any transaction or dealing with any Prohibited Person, including the making or receiving of any contribution of funds, goods or services to or for the benefit of any Prohibited Person, (ii) deal in, or otherwise engage in any transaction relating to, any property or interests in property blocked pursuant to the Executive Order; or (iii) engage in or conspire to engage in any transaction that evades or avoids, or has the purposes of evading or avoiding, or attempts to violate, any of the prohibitions set forth in the Executive Order or the Patriot Act.

(d) Borrower covenants and agrees to deliver to Lender any certification or other evidence requested from time to time by Lender in its reasonable discretion, confirming compliance with this Section.

(e) None of the funds or other assets of Borrower, the sole member of Borrower or Guarantors constitute property of, or are beneficially owned, directly or indirectly, by any Embargoed Person (as defined below); (ii) no Embargoed Person has any interest of any nature whatsoever in Borrower or Guarantor, as applicable (whether directly or indirectly); and (iii) none of the funds of Borrower, the sole member of Borrower or Guarantors, as applicable, have been derived from any unlawful activity with the result that the investment in Borrower, the sole member of Borrower or Guarantors, as applicable (whether directly or indirectly), is prohibited by law or the Loan is in violation of law. "Embargoed Person" means any person, entity or government subject to trade restrictions under U.S. law, including but not limited to, the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701 et seq., The Trading with the Enemy Act, 50 U.S.C. App. 1 et seq., and any Executive Orders or regulations promulgated thereunder with the result that the investment in Borrower, the sole member of Borrower or Guarantor, as applicable (whether directly or indirectly), is prohibited by law or the Loan made by the Lender is in violation of Applicable Law.

Section 5.28 Intentionally Omitted.

Section 5.29 After Acquired Property. Borrower will grant to Lender a first lien security interest in and to all Property, easements, entitlements, equipment, licenses, authorizations, permits, and any other personal property owned by Borrower, whether or not used in the construction, maintenance and/or operation of the Improvements, immediately upon acquisition of same or any part of same.

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Section 5.30 Independent Consultant. Borrower will pay the reasonable fees and expenses of, and will at all times promptly cooperate with, Lender's independent consultant (if any) and, upon request, will promptly furnish to Lender's independent consultant any documents, instruments, agreements or other information requested by such independent consultant in connection with the performance of such independent consultant's duties relating to the Property.

Section 5.31 Licenses. Borrower will timely obtain all Licenses necessary for the development of the Property and the sale of Lots, and all such Licenses will timely be in full force and effect. Borrower will deliver to Lender copies of all Licenses or other agreements with a Governmental Authority related to the development of the Property.

Section 5.32 Dividends and Distributions. Borrower will not declare or pay any dividends or distributions on any class of its membership interests or shares, as applicable, make any payment on account of the purchase, redemption or other retirement of any such membership interests or shares, as applicable, or make any distribution in respect thereof, either directly or indirectly, at any time during the existence and continuance of any Default or Event of Default under this Agreement or the other Loan Documents or otherwise in any situation or circumstance where such dividend, distribution or payment would (a) violate or constitute a breach of any representation or warranty of Borrower under this Agreement or the other Loan Documents; (b) violate or constitute a breach of any covenant, condition or other term or provision of this Agreement or the other Loan Documents, or (c) otherwise cause, create or constitute a Default or Event of Default under this Agreement or the other Loan Documents.

Section 5.33 Assignment of Purchase Options. In connection with any sale of the Yolo Property or any portion thereof, Borrower shall, immediately upon the closing of such sale or sales, deliver to Lender a collateral assignment and pledge of any purchase options and/or repurchase options (the "Purchase Option Assignments") received by Borrower or any Affiliate in connection therewith, including without limitation those purchase options contemplated in connection with the sale of the Yolo Property in one or more phases to Netaj, LLC, a California limited liability company. One or more memoranda memorializing the Purchase Option Assignments may be filed of record at Lender's option in the Real Property Records of Yolo County, California. The preparation, delivery and recording of such Purchase Option Assignments and memoranda shall be at Borrower's cost and expense and upon forms reasonably acceptable to Lender.

VI CASUALTY; CONDEMNATION; ESCROWS

Section 6.1 Insurance; Casualty and Condemnation.

Section 6.1.1 Insurance.

(a) Borrower shall obtain and maintain, or cause to be maintained, during all times that any sum is outstanding under the Note or the other Loan Documents (the "Term"), insurance for Borrower and the Property providing at least the following coverages or such other coverages acceptable to the Lender and its insurance consultant:

(i) Commercial general liability coverage (which may be in the form of umbrella/excess liability insurance) with a \$1,000,000 combined single limit per occurrence and a minimum aggregate limit of \$2,000,000.

(ii) Such other insurance and in such amounts as Lender from time to time may reasonably request against such other insurable hazards which at the time are commonly insured against for property similar to the Property located in or around the region in which the Property is located. Additional coverages may include earthquake, mine subsidence, sinkhole, mold, personal property, supplemental liability, or coverages of other property-specific risks.

(b) All insurance provided for in Section 6.1.1(a) shall be obtained under valid and enforceable policies ("Policies" or in the singular, "Policy"), and shall be subject to the approval of Lender as to form and substance including deductibles, loss payees and insureds. Not less than ten (10) days prior to the expiration dates of the Policies theretofore furnished to Lender, certificates of insurance and, if requested by Lender, other documentation, in each case acceptable to Lender evidencing the Policies, accompanied by evidence satisfactory to Lender of payment of the premiums then due thereunder (the "Insurance Premiums"), shall be delivered by Borrower to Lender.

(c) All Insurance policies must require the insurance carrier to give the Lender a minimum of ten (10) days' notice in the event of cancellation or termination for non-payment of premium and a minimum of thirty (30) days' notice of non renewal. Borrower shall provide current policy documents confirming all required coverages and conditions and Acord 27, Acord 28 (Evidence of Property Insurance), and Acord 25 (Certificate of Liability Insurance), or another document satisfactory to the Lender conferring on the Lender rights and privileges of mortgagee. Upon the request of the Lender, Borrower shall supply an original or certified copy of the original policy within ninety (90) days. Borrower must also provide Lender with a paid insurance agent's receipt for all current coverages. All insurance policies required hereunder shall be carried by companies rated A-:VIII or better by A.M. Best Company and shall not contain exclusions for terrorism coverage. All binders, certificates of insurance, and policies must name Borrower as the insured, or as an additional insured, must include the complete and accurate property address and must bear the original signature of the issuing insurance agent. On all property insurance policies and coverages required under this Section (including coverage against loss of business income), the Lender must be named as "Lenders Loss Payable" under standard mortgagee clause. On all liability policies and coverages, the Lender must be named as an "additional insured." The Lender should be referred to verbatim as follows: "Romspen California Mortgage Limited Partnership, its successors and assigns."

(d) Each coverage required under this Section shall be primary rather than contributing or secondary to the coverage that Borrower may carry for other properties or risks, provided however, that blanket coverage shall be acceptable if Lender determines, in the exercise of its sole and absolute discretion, that the amount of such coverage is sufficient in light of the other risks and properties insured under the blanket policy.

(e) Borrower shall furnish to Lender, on or before thirty (30) days after the close of each calendar year, an Officer's Certificate stating the amounts of insurance maintained in compliance herewith, the risks covered by such insurance and the insurance company or companies which carry such insurance and, if requested by Lender, verification of the adequacy of such insurance by an independent insurance broker or appraiser acceptable to Lender.

(f) If at any time Lender is not in receipt of written evidence that all insurance required hereunder is in full force and effect, Lender shall have the right, after five (5) Business Days' notice to Borrower, to take such action as Lender deems necessary to protect Lender's interest in the Property, including the obtaining of such insurance coverage as Lender in Lender's sole discretion deems appropriate, and all expenses incurred by Lender in connection with such action or in obtaining such insurance and keeping it in effect shall be paid by Borrower to Lender upon demand and until paid shall be secured by the Loan Documents and shall bear interest at the Default Rate.

(g) In the event of foreclosure of any Security Instrument, or other transfer of title to the Property in extinguishment in whole or in part of the Debt all right, title and interest of Borrower in and to such Policies then in force concerning the Property and all proceeds payable thereunder shall thereupon vest in the purchaser at such foreclosure or Lender or other transferee in the event of such other transfer of title.

(h) Within thirty (30) days after written request by Lender, Borrower shall obtain such increases in the amounts of coverage required hereunder as may be reasonably requested by Lender, taking into consideration changes in the value of money over time, changes in liability laws, changes in prudent customs and practices of similarly situated lenders, and the like.

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(i) If the Property or any portion of the Property is materially damaged or destroyed, in whole or in part, by fire or other casualty, whether insured or uninsured (a "Casualty"), Borrower shall give prompt written notice thereof to Lender. The reasonable expenses incurred by Lender in the adjustment and collection of Insurance Proceeds shall become part of the Debt and be secured by the Loan Documents and shall be reimbursed by Borrower to Lender upon demand.

(j) Borrower shall comply with all insurance requirements of any insurer of the Property or any portion thereof and shall not bring or keep or permit to be brought or kept any article upon any of the Property or any portion thereof or cause or permit any condition to exist thereon which would be prohibited by an insurance requirement, or would invalidate any Policies then in effect or any of the insurance coverage required hereunder to be maintained by Borrower on or with respect to any part of the Property pursuant to this Agreement.

(k) Any reimbursement due to Lender pursuant to this Section 6.1.1 must be paid within ten (10) Business Days (or sooner if required), or such amount shall accrue interest at the Default Rate until paid to Lender.

(l) Lender shall not be responsible for nor incur any liability for the insolvency of any insurer or other failure of any insurer to perform, even though Lender has caused the insurance to be placed with the insurer after failure of Borrower to furnish such insurance. Borrower shall not obtain insurance for the Property in addition to that required by Lender without the prior written consent of Lender, which consent will not be unreasonably withheld provided that (i) Lender is named insured on such insurance, (ii) Lender receives complete copies of all policies evidencing such insurance, and (iii) such insurance complies with all of the applicable requirements set forth herein.

(m) Borrower acknowledges that Lender has disclosed to Borrower the contents of California Civil Code Section 2955.5(a), which states that no lender shall require a borrower, as a condition of receiving or maintaining a loan secured by real property, to provide hazard insurance coverage against risks to the improvements on that real property in an amount exceeding the replacement value of the improvements on the property.

Section 6.1.2 Casualty and Application of Proceeds.

(a) In case of loss or damages covered by any of the Policies, the following provisions shall apply:

(i) In the event of a Casualty that is less than \$250,000, Borrower may settle and adjust any claim without the consent of Lender and retain the proceeds thereof.

(ii) In the event of a Casualty in excess of \$250,000 if each of the following is true at all times: (A) the Insurance Proceeds are sufficient to pay for the Restoration as reasonably determined by Lender; (B) after such Restoration the Property will adequately secure the outstanding balance of the Loan; (C) no Default or Event of Default exists; (D) the Property and the use thereof after the Restoration will be in compliance with and permitted under all applicable Legal Requirements; and (E) the Casualty does not result in the loss of access to the Property or the Improvements, then the Insurance Proceeds shall be deposited with Lender and after reimbursement of any expenses incurred by Lender, such Insurance Proceeds shall be maintained and applied to pay for the cost of restoring or repairing the Property or part thereof subject to the Casualty ("Restoration"), in the manner set forth herein. Borrower hereby covenants and agrees to commence and diligently to prosecute such Restoration; provided that: (A) Borrower shall pay all costs (and if required by Lender, Borrower shall deposit the total thereof with Lender in advance) of such Restoration in excess of the net Insurance Proceeds made available pursuant to the terms hereof; (B) the Restoration shall be done in compliance with all applicable Legal Requirements; (C) Borrower shall commence the Restoration as soon as reasonably practicable (but in no event later than thirty (30) days after settlement with the applicable insurance carrier regarding the Insurance Proceeds arising from the Casualty) and shall diligently pursue the

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same to satisfactory completion; and (D) the Restoration shall be done and completed by Borrower in an expeditious and diligent fashion and in compliance with all applicable Legal Requirements, including any applicable Environmental Laws.

(b) Except as provided above in Section 6.1.2(a), the Insurance Proceeds collected upon any Casualty shall be deposited with Lender and at Lender's option (in its reasonable discretion), be applied to the payment of the Debt after reimbursement of any reasonable expenses incurred by Lender or, if Lender so elects (without any obligation to do so), after reimbursement of any reasonable expenses incurred by Lender, Lender shall hold such amount and such proceeds shall be maintained and applied in accordance with the Loan Documents to pay for the cost of any Restoration in the manner set forth herein. Any such application to the Debt shall be at Lender's reasonable discretion, except as specifically provided herein to the contrary, and shall be applied in accordance with the provisions of this Agreement.

(c) In the event Borrower is eligible for reimbursement out of Insurance Proceeds held by Lender, such Insurance Proceeds shall be disbursed from the Lender from time to time (but not more than once per month) upon Lender being furnished with (as applicable): (i) evidence satisfactory to Lender of the estimated cost of completion of the Restoration; (ii) evidence satisfactory to Lender that (A) all materials installed and work and labor performed (except to the extent that they are to be paid for out of the requested disbursement) have been paid for in full, and (B) there exist no notices of pendency, stop orders, mechanic's or materialman's liens or notices of intention to file same, or any other Liens or encumbrances of any nature whatsoever on the Property arising out of the Restoration which have not either been fully bonded to the satisfaction of Lender and discharged of record or in the alternative fully insured to the satisfaction of Lender by the Title Insurance Company; (iii) sufficient funds, or at Lender's option, assurances satisfactory to Lender that such funds are available, in addition to the Insurance Proceeds, to complete the proposed Restoration; (iv) such architect's certificates, waivers of Lien, contractor's sworn statements, title insurance endorsements, bonds, plats of survey and such other evidences of cost, payment and performance as Lender may reasonably require and approve; and (v) all plans and specifications for such Restoration, such plans and specifications to be delivered and approved by Lender prior to commencement of any work.

(d) In addition, no payment made prior to the final completion of the Restoration shall exceed ninety percent (90%) of the value of the work performed from time to time; funds other than Insurance Proceeds shall be disbursed prior to disbursement of such Insurance Proceeds; and at all times, the undisbursed balance of such Insurance Proceeds remaining in the hands of Lender, together with funds deposited for that purpose or irrevocably committed to the satisfaction of Lender by or on behalf of Borrower for that purpose, shall be at least sufficient in the reasonable judgment of Lender to pay for the cost of completion of the Restoration, free and clear of all Liens or claims for Lien. Any surplus which may remain out of Insurance Proceeds after payment of such costs of Restoration shall be applied to the Loan in accordance with the provisions of this Agreement.

Section 6.1.3 Condemnation.

(a) Borrower shall promptly give Lender written notice of the actual or threatened commencement of any condemnation or eminent domain proceeding against the Property or the Improvements or any part thereof (a "Condemnation") and shall deliver to Lender copies of any and all papers served by or on or received by any of the Borrower Parties in connection with such Condemnation. Following the occurrence of a Condemnation, Borrower, regardless of whether an Award is available, shall promptly proceed to restore, repair, replace or rebuild the Property to the extent practicable to be of at least equal value and of substantially the same character as prior to such Condemnation, all to be effected in accordance with all Legal Requirements.

(b) Lender is hereby irrevocably appointed as Borrower's attorney-in-fact, coupled with an interest, with exclusive power to collect, receive and retain any award or payment ("Award") for any taking accomplished through a Condemnation and to make any compromise or settlement in connection with such Condemnation, subject to the provisions of this Section. Notwithstanding any taking in connection with a Condemnation by any public or quasi-public authority (including any transfer made in lieu of or in anticipation

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of such a Condemnation), Borrower shall continue to pay the Debt at the time and in the manner provided for in the Note and the other Loan Documents and the Debt shall not be reduced unless and until any Award shall have been actually received and applied by Lender to expenses of collecting the Award and to discharge of the Debt. Lender shall not be limited to the interest paid on the Award by the condemning authority but shall be entitled to receive out of the Award interest at the rate or rates provided in the Note. Borrower shall cause any Award that is payable to Borrower to be paid directly to Lender.

(c) The proceeds of the Award collected upon any Condemnation shall be deposited directly with Lender pursuant to Section 6.1.3(b) and at Lender's option (in its sole discretion), shall be applied to the payment of the Debt (after reimbursement of any expenses incurred by Lender) or, if Lender so elects (without any obligation to do so), (after reimbursement of any expenses incurred by Lender), Lender shall hold such amount and such proceeds shall be maintained and applied in accordance with the Loan Documents to pay for the cost of any Restoration in the manner set forth herein. Any such application to the Debt shall be at Lender's sole discretion and shall be applied in accordance with the provisions of this Agreement. If the Property is sold, through foreclosure or otherwise, prior to the receipt by Lender of such Award, Lender shall have the right, whether or not a deficiency judgment shall be recoverable or shall have been sought, recovered or denied, to receive all or a portion of said Award sufficient to pay the outstanding balance of the Debt.

(d) In the event Borrower is entitled to reimbursement out of the Awards held by Lender, such Awards shall be disbursed from Lender from time to time (but not more than once per month) upon Lender being furnished with: (i) evidence satisfactory to Lender of the estimated cost of completion of the Restoration; (ii) evidence satisfactory that (A) all materials installed and work and labor performed (except to the extent that they are to be paid for out of the requested disbursement) have been paid for in full, and (B) there exist no notices of pendency, stop orders, mechanic's or materialman's liens or notices of intention to file same, or any other Liens or encumbrances of any nature whatsoever on the Property arising out of the Restoration which have not either been fully bonded to the satisfaction of Lender and discharged of record or in the alternative fully insured to the satisfaction of Lender by the Title Insurance Company; (iii) sufficient funds, or at Lender's option, assurances satisfactory to Lender that such funds are available, in addition to the Awards, to complete the proposed Restoration; (iv) such architect's certificates, waivers of Lien, contractor's sworn statements, title insurance endorsements, bonds, plats of survey and such other evidences of cost, payment and performance as Lender may reasonably require and approve; and (v) all plans and specifications for such Restoration, such plans and specifications to be delivered and approved by Lender prior to commencement of any work.

(e) All plans and specifications required in connection with the Restoration shall be subject to prior review and acceptance in all respects by Lender and, if required by Lender, by an independent consulting engineer selected by Lender. Lender shall have the use of the plans and specifications and all permits, Licenses and approvals required or obtained in connection with the Restoration. The identity of the general contractor engaged in the Restoration, as well as the general contract under which it has been engaged, shall be subject to prior review and acceptance by Lender. All costs and expenses incurred by Lender in connection with making the Awards available for the Restoration, including reasonable counsel fees and disbursements, shall be deducted by Lender from such Awards.

(f) In addition, no payment made prior to the final completion of the Restoration shall exceed ninety percent (90%) of the value of the work performed from time to time; funds other than Awards shall be disbursed prior to disbursement of such Awards; and at all times, the undisbursed balance of such Awards remaining in the hands of Lender, together with funds deposited for that purpose or irrevocably committed to the satisfaction of Lender by or on behalf of Borrower for that purpose, shall be at least sufficient in the reasonable judgment of Lender to pay for the cost of completion of the Restoration, free and clear of all Liens or claims for Lien. Any surplus, which may remain out of the Awards after payment of such costs of Restoration, shall be applied to the Loan in accordance with the provisions of this Agreement.

Section 6.2 Tax and Insurance Escrows. Lender shall have the right to require the establishment of a tax reserve by Borrower ("Tax Reserve Right"). In the event that Lender exercises the Tax Reserve Right,
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Borrower shall pay to Lender on each Scheduled Payment Date (a) one-twelfth of the Taxes that Lender reasonably estimates will be payable during the next ensuing twelve (12) months in order to accumulate with Lender sufficient funds to pay all such Taxes at least thirty (30) days prior to their respective due dates and (b) one-twelfth of the Insurance Premiums that Lender reasonably estimates will be payable for the renewal of the coverage afforded by the Policies for the succeeding annual period upon the expiration thereof in order to accumulate with Lender sufficient funds to pay all such Insurance Premiums at least thirty (30) days prior to the expiration of the Policies (all amounts in clauses (a) and (b) above hereinafter called the "Tax and Insurance Escrow Fund"). Borrower shall also deposit with Lender on the Closing Date such amount as is required by Lender in order to provide adequate funds therefor on the first payment date for such Taxes and Insurance Premiums. The Tax and Insurance Escrow Fund and the payments of interest or principal or both, payable pursuant to the Note, shall be added together and shall be paid as an aggregate sum by Borrower to Lender in immediately available funds. Lender will apply the Tax and Insurance Escrow Fund to payments of Taxes and Insurance Premiums required to be made by Borrower pursuant to Section 5.4 and under the other Loan Documents provided no Event of Default has occurred and is continuing. In making any payment relating to the Tax and Insurance Escrow Fund, Lender may do so according to any bill, statement or estimate procured from the appropriate public office (with respect to Taxes) or insurer or agent (with respect to Insurance Premiums), without inquiry into the accuracy of such bill, statement or estimate or into the validity of any tax, assessment, sale, forfeiture, tax Lien or title or claim thereof. Borrower shall arrange for any such bills, statements or estimates to be delivered to Lender at least fifteen (15) Business Days prior to the date any such payment is delinquent. If the amount of the Tax and Insurance Escrow Fund shall exceed the amounts due for Taxes and Insurance Premiums pursuant to Section 5.4, Lender shall, in its sole discretion, return any excess to Borrower or, at Lender's option, credit such excess against future payments to be made to the Tax and Insurance Escrow Fund. Any amount remaining in the Tax and Insurance Escrow Fund after the Debt has been paid in full shall be returned to Borrower, or at Lender's option, may be deducted from the Loan payoff amount. If at any time Lender reasonably determines that the Tax and Insurance Escrow Fund is not or will not be sufficient to pay the items set forth in clauses (a) and (b) above, Lender shall notify Borrower of such determination and Borrower shall increase its monthly payments to Lender by the amount that Lender estimates is sufficient to make up the deficiency at least thirty (30) days prior to delinquency of the Taxes and/or thirty (30) days prior to expiration of the Policies, as the case may be. Borrower hereby pledges, assigns, and grants a security interest to Lender, as security for the Loan in all of Borrower's right, title, and interest in and to the Tax and Insurance Escrow Fund, the Interest Reserve Fund and any other Reserve Fund and all monies, and deposits contained therein.

Section 6.3 Interest Reserve. Contemporaneously with the making of the Loan, Borrower will establish with Lender a reserve in the aggregate amount of approximately Five Hundred Thousand 00/100 Dollars (\$500,000.00) (the "Interest Reserve Fund") payable from the Loan proceeds. For so long as no Event of Default has occurred hereunder or under any of the other Loan Documents, Lender shall on each Scheduled Payment Date (or such other dates as it shall determine) advance from the Interest Reserve Fund to itself the amount of the Monthly Debt Service Payment (as defined in the Note) and other accrued interest then due and payable under the Note, and interest on any amounts advanced from the Interest Reserve Fund shall not accrue until the date of such advance. Once there are no funds remaining in the Interest Reserve Fund or upon an Event of Default, Lender shall have no further obligation for funding of accrued and unpaid interest, or amounts payable and unpaid, whereupon Borrower shall be and remain responsible for the continuation of all such Monthly Debt Service Payments from funds other than proceeds of the Loan.

VII DEFAULTS

Section 7.1 Event of Default

(a) Each of the following shall constitute an event of default hereunder (an "Event of Default"):

(i) if (A) any payment due pursuant to the Note, this Agreement or any of the other Loan Documents, including the payment due on the Maturity Date (or, if the Maturity Grace Period defined and described in the Note is applicable, due at the end of such Maturity Grace Period), is not paid on or

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before the date the same is due or (B) any other portion of the Debt is not paid on or before the date the same becomes due and payable by the terms of the Loan Documents;

(ii) subject to Borrower's right to contest Taxes and Other Charges pursuant to Section 5.4 above, any of the Taxes or Other Charges (other than any of the same payable on a Scheduled Payment Date) are not paid on or before the date the same are delinquent and payable except to the extent sums sufficient to pay such Taxes and Other Charges have been deposited with Lender in accordance with terms of this Agreement and Lender fails to pay same;

(iii) the Policies are not kept in full force and effect, or copies of the Policies are not delivered to Lender within ten (10) days of written request by Lender;

(iv) a Transfer (other than a Transfer specifically authorized and permitted by Section 5.18) shall occur without Lender's prior written consent;

(v) any representation or warranty made by Borrower or any of the Borrower Parties herein or in any other Loan Document, or in any report, certificate, financial statement or other instrument, agreement or document furnished to Lender in connection with the Loan, shall have been false or misleading in any respect as of the date the representation or warranty was made; provided, however, if such false or misleading representation or warranty is susceptible of being cured within thirty (30) days, the same shall be an Event of Default hereunder only if the same is not cured within a reasonable time, not to exceed thirty (30) days after notice from Lender;

(vi) if (a) Borrower or any Borrower Party shall commence any case, proceeding or other action (1) under any existing or future Bankruptcy Laws, or (2) seeking appointment of a receiver, trustee, custodian, conservator or other similar official for Borrower or any Borrower Party or for all or any substantial part of the assets of Borrower or any Borrower Party, or Borrower or any Borrower Party shall make a general assignment for the benefit of creditors; or (b) there shall be commenced against Borrower or any Borrower Party any case, proceeding or other action of a nature referred to in clause (a) above which (1) results in the entry of an order for relief or any such adjudication or appointment or (2) remains undismissed, undischarged or unbonded for a period of ninety (90) days; or (c) there shall be commenced against Borrower or any Borrower Party any case, proceeding or other action seeking issuance of a warrant of attachment, execution, distraint or similar process against all or any substantial part of its assets which results in the entry of any order for any such relief which shall not have been vacated, discharged, or stayed or bonded pending appeal within ninety (90) days from the entry thereof; or (d) Borrower or any Borrower Party shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (a), (b), or (c) above; or (e) Borrower or any Borrower Party shall generally not, or shall be unable to, or shall admit in writing or in any proceeding its inability to, pay its debts as they become due; or (f) Borrower or any Guarantor files a petition, complaint, answer or other instrument which seeks to effect a suspension of or which has the effect of suspending any of the rights or powers of Lender granted in this Agreement or in any of the other Loan Documents;

(vii) if Borrower shall be in default beyond any applicable notice and cure period under any other permitted mortgage, deed of trust or security agreement covering any part of the Property whether it be superior or junior in Lien to the Security Instruments and whether it be permitted under the Loan Documents or if Borrower shall be in default beyond any applicable notice and cure period of any other Indebtedness, secured or unsecured, owed by Borrower to any Person; provided, however, the foregoing shall not be deemed to permit Borrower to incur any other Indebtedness unless expressly permitted by the Loan Documents;

(viii) if Borrower or any Guarantor shall be in default beyond any applicable notice and cure period under any pledge agreement or security agreement covering any part of the equity interests in Borrower and whether it be permitted or prohibited under the Loan Documents;

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(ix) subject to Borrower's right to contest set forth in the Security Instruments, if the Property becomes subject to any mechanic's or materialman's lien or other Lien except a Lien for local real estate taxes and assessments not delinquent and the Lien shall remain undischarged of record (by payment, bonding or otherwise) for a period of thirty (30) days;

(x) an event of default under the terms of any other loan made by Lender or any of its Affiliates to Borrower or any Guarantor;

(xi) if any term, covenant or provision of this Agreement or of any of the other Loan Documents specifies a cure period for any breach thereof, if Borrower shall continue to be in default under such term, covenant, or provision of any of the Loan Documents (including this Agreement), beyond such applicable cure periods contained herein or in those documents, or if no cure period is provided by this Agreement or the other Loan Documents, any other default hereunder or thereunder, which default is not cured (i) in the case of any default which can be cured by the payment of a sum of money, within three (3) Business Days after receipt of written notice from Lender to Borrower, or (ii) in the case of any default which cannot be cured by the payment of a sum of money, within thirty (30) days after written notice from Lender to Borrower; provided, however, if such default is reasonably susceptible of cure, but not within such thirty (30) day period, then Borrower may be permitted up to an additional thirty (30) days to cure such default provided that Borrower diligently and continuously pursues such cure;

(xii) if Borrower violates or does not comply with any of the provisions of Section 4.1(s) or if any general partner, managing member or manager of Borrower violates or does not comply with any of the provisions of Section 4.1(s);

(xiii) the prohibition, enjoining or interruption of Borrower's right to occupy, use or lease the Property for a continuous period of more than thirty (30) days;

(xiv) the sequestration or attachment of, or any levy or execution upon any of the Property, any other collateral provided by Borrower under any of the Loan Documents, or any substantial portion of the other assets of Borrower, which sequestration, attachment, levy or execution is not released, expunged or dismissed prior to the earlier of thirty (30) days or the sale of the assets affected thereby;

(xv) the failure at any time of the Security Instrument to be a valid first lien upon the Property or any portion thereof, other than as a result of any release or reconveyance of the Security Instrument with respect to all or any portion of the Property pursuant to the terms and conditions of this Agreement;

(xvi) the discovery of any significant Hazardous Materials in, on or about the Property subsequent to the Closing Date which did not exist in, or about the Property prior to the Closing Date. Any such Hazardous Materials shall be "significant" for this purpose if the presence of said Hazardous Materials, in Lender's reasonable discretion, have, or could have, a Material Adverse Effect on the value of the Property;

(xvii) a Material Adverse Change in the financial condition, operations or business of Borrower, any Borrower Party, or any portion of the Property;

(xviii) except as permitted herein, the alteration, demolition or removal of any improvements at the Property without Lender's prior consent;

(xix) intentionally omitted;

(xx) if there shall be a default under any other Loan Document beyond any applicable notice and cure period, if any, or if any other event shall occur or condition shall exist; and the effect

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of such event or condition is to accelerate the maturity of any portion of the Debt or to permit Lender to accelerate the Maturity of any or all of the Debt;

(xxi) the liquidation, death, termination, dissolution, merger or consolidation of Borrower or the death of any Guarantor if a replacement guarantor acceptable to Lender is not provided within forty-five (45) days after such Guarantor's death;

(xxii) if Borrower or any Guarantor, or any party acting on behalf of Borrower or any Guarantor, shall take any action which seeks to cause any Loan Document or the liens, mortgages or security interests of Lender in any of the Property to cease to be in full force and effect, be declared null and void or unenforceable in whole or in part, cease to have the priority required herein, or the validity or enforceability thereof, in whole or in part, shall be challenged or denied by Borrower, any Guarantor or any party acting on behalf of Borrower or any Guarantor; or

(xxiii) Borrower's failure to deliver a Purchase Option Assignments as required by Section 5.33.

Section 7.2 Remedies.

(a) Upon the occurrence of any Event of Default, Lender may take such action, without notice, demand presentment, protest or other requirements of any kind (all of which are expressly waived by Borrower), as Lender deems advisable to protect and enforce its rights and remedies against Borrower and/or any Borrower Party and in and to the Property, including the following actions, each of which may be pursued concurrently or otherwise, at such time and in such order as Lender may determine, in its sole discretion, without impairing or otherwise affecting the other rights and remedies of Lender (provided that upon the occurrence of an Event of Default under Section 7.1(a)(vi), the Debt shall become immediately due and payable without notice, demand, presentment, notice of dishonor, notice of acceleration, notice of intent to accelerate, notice of intent to demand, protest, or other formalities of any kind (all of which are hereby expressly waived by Borrower)):

(i) declare the entire Debt to be immediately due and payable;

(ii) intentionally omitted;

(iii) exercise any of the rights or remedies specified in the Security Instruments;

(iv) apply any sums then deposited with Lender or any third party under the control of Lender and any other sums held in escrow or otherwise by Lender, including the Reserves, in accordance with the terms of this Agreement or any other Loan Document to the payment of the following items in any order in Lender's sole discretion: (i) Taxes and Other Charges; (ii) Insurance Premiums; (iii) interest on the unpaid principal balance of the Note; (iv) amortization of the unpaid principal balance of the Note; and (v) all other sums payable pursuant to the Note, this Agreement and the other Loan Documents, including advances made by Lender pursuant to the terms of this Agreement;

(v) pursue such other rights and remedies as may be available at law or in equity or under the Uniform Commercial Code including the right to receive and/or establish a lock box for all Rents, proceeds from the Intangibles (as defined in the Security Instruments) and any other receivables or rights to payments of Borrower relating to the Property;

(vi) with or without actual or threatened waste to the Property, Lender shall, at Lender's discretion, be entitled, and is hereby expressly and irrevocably authorized, upon application to a court of competent jurisdiction, without notice to Borrower, or any other party (any and all such notice being waived hereby) and without regard to the adequacy of any security for the Debt or the solvency of Borrower or

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any other party liable for payment of the Debt, to appoint a receiver(s), on an emergency basis or otherwise (and if allowed by applicable law, on an ex parte basis), to take possession of and to operate the Property, and at Lender's option, to collect the Rents. Borrower irrevocably waives all notice of and defenses and objections to the appointment of such receiver. Borrower further irrevocably agrees that the occurrence of any Event of Default per se would create an emergency and the necessity for immediate actions; and

(vii) pursue any other right or remedy allowed by any Loan Document or applicable law.

(b) Upon the occurrence and during the continuance of an Event of Default, interest on the outstanding principal balance and, to the extent permitted by law, overdue interest and other amounts due in respect of the Loan, shall accrue at the Default Rate, calculated from the date such payment was due without regard to any grace or cure periods contained herein. Interest at the Default Rate shall be computed from the occurrence of the Event of Default until the actual receipt and collection of the Debt (or that portion thereof that is then due). To the extent permitted by applicable law, interest at the Default Rate shall be added to the Debt, shall itself accrue interest at the same rate as the Loan and shall be secured by the Security Instruments. This paragraph shall not be construed as an agreement or privilege to extend the date of the payment of the Debt, nor as a waiver of any other right or remedy accruing to Lender by reason of the occurrence of any Event of Default; the acceptance of any payment by Lender shall not be deemed to cure or constitute a waiver of any Event of Default; and Lender retains its rights under this Agreement and the other Loan Documents to accelerate and to continue to demand payment of the Debt upon the happening of any Event of Default, despite any payments made to Lender after the occurrence of such Event of Default.

(c) Lender may resort to any remedies and the security given by any of the Loan Documents in whole or in part, and in such portions and in such order as determined by Lender in its sole discretion. No such action shall in any way be considered a waiver of any rights, benefits or remedies evidenced or provided by the Note, the Security Instruments or any of the other Loan Documents. The failure of Lender to exercise any right, remedy or option provided in any of the Loan Documents shall not be deemed a waiver of such right, remedy or option or of any covenant or obligation secured by the Note, the Security Instruments or the other Loan Documents. No acceptance by Lender of any payment after the occurrence of any Event of Default and no payment by Lender of any obligation for which Borrower is liable hereunder shall be deemed to waive or cure any Event of Default, or Borrower's liability to pay such obligation. No sale of all or any portion of the Property, no forbearance on the part of Lender, and no extension of time for the payment of the whole or any portion of the Debt or any other indulgence given by Lender to Borrower, shall operate to release or in any manner affect the interest of Lender in the remaining Property or the liability of Borrower to pay the Debt. No waiver by Lender shall be effective unless it is in writing signed by Lender and then only to the extent specifically stated.

(d) To the extent permitted by applicable law, with respect to Borrower and the Property, nothing contained herein or in any other Loan Document shall be construed as requiring Lender to resort to the Property for the satisfaction of any of the Debt, and Lender may seek satisfaction out of the Property or any part thereof or decline to do so, in Lender's sole and absolute discretion. In addition, Lender shall have the right from time to time to partially foreclose the Security Instruments in any manner and for any amounts secured by the Security Instruments then due and payable as determined by Lender in Lender's sole and absolute sole discretion including, without limitation, the following circumstances: (i) in the event Borrower defaults beyond any applicable grace period in the payment of one or more scheduled payments of principal and interest, Lender may foreclose the Security Instruments to recover such delinquent payments, or (ii) in the event Lender elects to accelerate less than the entire outstanding principal balance of the Loan, Lender may foreclose the Security Instruments to recover so much of the principal balance of the Loan as Lender may accelerate and such other sums secured by the Security Instruments as Lender may elect. Notwithstanding one or more partial foreclosures, the Property shall remain subject to the Security Instruments to secure payment of sums secured by the Security Instruments and not previously recovered.

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(e) Additionally, upon the occurrence of any Event of Default or if any Borrower Party fails to make any payment or to do any act as required in any of the Loan Documents, Lender may, but without any obligation to do so and without notice to or demand on any Borrower Party and without releasing any Borrower Party from any obligation under the Loan Documents, make or do the same in such manner and to such extent as Lender may deem necessary to protect the security hereof. Following an Event of Default, Lender is authorized to enter upon the Property for such purposes or appear in, defend, or bring any action or proceeding to protect its interest in the Property or to foreclose the Loan Documents or collect the Debt, and the reasonable cost and expense thereof (including reasonable attorneys' fees and disbursements to the extent permitted by law), with interest at the Default Rate (as defined in the Note) for the period after notice from Lender that such cost or expense was incurred to the date of payment to Lender, shall constitute a portion of the Debt, shall be secured by the Loan Documents and shall be due and payable to Lender upon demand.

(f) No delay or omission to exercise any remedy, right or power accruing upon an Event of Default, or the granting of any indulgence or compromise by Lender shall impair any such remedy, right or power hereunder or be construed as a waiver thereof, but any such remedy, right or power may be exercised from time to time and as often as may be deemed expedient. A waiver of one Default or Event of Default shall not be construed to be a waiver of any subsequent Default or Event of Default or to impair any remedy, right or power of Lender. Notwithstanding any other provision of this Agreement, to the extent permitted by applicable law, Lender reserves the right to seek a deficiency judgment or preserve a deficiency claim in connection with the foreclosure of the Security Instruments to the extent necessary to foreclose on all or any portion of the Property, the Rents or any other collateral.

Section 7.3 Right of Entry. In addition to any other rights or remedies granted under this Agreement, in the event of any default by Borrower hereunder, Lender and its agents shall have the right without notice to enter and inspect the Property at any reasonable time during the Term. The reasonable cost of such inspections or audits, including the cost of all follow up or additional investigations or inquiries deemed reasonably necessary by Lender, shall be borne by Borrower. The cost of such inspections, if not paid for by Borrower following demand, may, at Lender's option, be added to the principal balance of the sums due under the Note and shall bear interest thereafter until paid at the Default Rate.

Section 7.4 Costs of Enforcement. In the event of the (i) exercise of any remedy by Lender under this Agreement or the other Loan Documents or following the occurrence of an Event of Default, (ii) foreclosure of any mortgage prior to or subsequent to the Security Instruments in which proceeding Lender is made a party, (iii) bankruptcy, insolvency, reorganization, rehabilitation, liquidation or other similar proceeding in respect of any Borrower Party or an assignment by any Borrower Party for the benefit of its creditors, (iv) enforcement of any obligations of or collection of any payments due from any Borrower Party under this Agreement, the other Loan Documents or with respect to the Property, or (v) incurring of any costs or expenses by Lender in connection with any refinancing or restructuring of the credit arrangements provided under this Agreement in the nature of a "work-out," then Borrower, its successors or assigns, shall pay to Lender on demand any and all expenses, including legal expenses and attorneys' fees, incurred or paid by Lender in protecting Lender's interest in the Property or in collecting any amount payable hereunder or in enforcing Lender's rights hereunder with respect to the Property, whether or not any legal proceeding is commenced hereunder or thereunder and whether or not any Default or Event of Default shall have occurred and is continuing, together with interest thereon at the Default Rate from the date paid or incurred by Lender until such expenses are paid by Borrower.

Section 7.5 Violation of Legal Requirements. If the Property is not in compliance with one, some or all of the Legal Requirements, Lender may impose additional requirements upon Borrower in connection therewith including, without limitation, monetary reserves or financial equivalents.

Section 7.6 Remedies Cumulative. The rights, powers and remedies of Lender under this Agreement and the other Loan Documents shall be cumulative and not exclusive of any other right, power or remedy which Lender may have against Borrower or any of the Borrower Parties pursuant to this Agreement or the other Loan Documents, or existing at law or in equity or otherwise. Lender's rights, powers and remedies may be pursued singly, concurrently or otherwise, at such time and in such order as Lender may determine in

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Lender's sole discretion. Any and all amounts collected or retained by Lender after an Event of Default has occurred, including interest at the Default Rate, late charges or any escrowed amount, may be applied by Lender to payment of the Debt in any order or priority that Lender in its sole discretion may elect.

VIII TRANSFER OF LOAN AND REFINANCING

Section 8.1 Lender's Transfers. Lender may, at any time and at its sole cost and expense, (i) sell, transfer or assign the Loan Documents and any servicing rights with respect thereto or (ii) grant participations therein or issue mortgage pass-through certificates or other securities evidencing a beneficial interest in a rated or unrated public offering or private placement (collectively, the "Securities"). Lender may forward to any purchaser, transferee, assignee, servicer, participant, or investor in such Securities (collectively, "Investors"), to any Rating Agency (defined below) rating such Securities and to any prospective Investor, all documents and information which Lender now has or may later acquire relating to the Obligations, Borrower, guarantor(s), any indemnitor(s), the Leases, and the Property, whether furnished by Borrower, any guarantor(s), any indemnitor(s) or otherwise, as Lender determines advisable. Borrower, any guarantor and any indemnitor agree to cooperate with Lender in connection with any transfer made or any Securities created pursuant to this Section 8.1 including the delivery of an estoppel certificate and such other documents as may be reasonably requested by Lender. Borrower shall also furnish consent of any guarantor and any indemnitor in order to permit Lender to furnish such Investors or such prospective Investors or such Rating Agency with any and all information concerning the Property, the Leases, the financial condition of Borrower, any guarantor and any indemnitor, as may be reasonably requested by Lender, any Investor, any prospective Investor or any Rating Agency and which may be complied with without undue expense. "Rating Agency" shall mean any one or more credit rating agencies approved by Lender.

Section 8.2 Register. Lender, acting solely for this purpose as an agent of Borrower, shall maintain at one of its offices a register for the recordation of the names and addresses of each Lender, and principal amounts (and stated interest) of the Loans or other Obligations owing to such Lender pursuant to the terms hereof from time to time (the "Register"). The entries in the Register shall be conclusive absent manifest error, and Borrower and Lender shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement. The Register shall be available for inspection by Borrower and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

Section 8.3 Participations. Any Lender may at any time, without the consent of, or notice to, Borrower, sell participations to any Person (other than a natural Person or Borrower or any Affiliate of Borrower) (each, a "Participant") in all or a portion of such Lender's rights and/or obligations under this Agreement (including all or a portion of the Loan owing to it); provided that (i) such Lender's obligations under this Agreement shall remain unchanged, (ii) such Lender shall remain solely responsible to the other parties hereto for the performance of such obligations, and (iii) Borrower shall continue to deal solely and directly with such Lender in connection with such Lender's rights and obligations under this Agreement.

Any agreement or instrument pursuant to which a Lender sells such a participation shall provide that such Lender shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement; provided that such agreement or instrument may provide that such Lender will not, without the consent of the Participant, agree to any amendment, modification or waiver that affects such Participant and (i) reduces or forgives the principal amount of any Loan or reduces the rate of interest thereon, or reduces or forgives any interest or fees payable hereunder, (ii) postpones any scheduled date of payment of the principal amount of any Loan, or any date for the payment of any interest, fees or other Obligations payable hereunder, or reduce the amount of, waive or excuse any such payment, (iii) releases any Guarantor from its obligation under its Guaranty (except as otherwise permitted herein or in the other Loan Documents), or (iv) releases all or substantially all of the collateral securing any Loan. Borrower agrees that each Participant shall be entitled to the benefits of Section 2.6 (subject to the requirements and limitations therein, including the requirements under Section 2.6(f) (it being understood that the documentation required under Section 2.6(f) shall be delivered to the participating Lender)) to the same extent as if it were the Lender and had acquired its interest by assignment; provided that such Participant shall not be entitled to receive

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any greater payment under Section 2.6, with respect to any participation, than Lender would have been entitled to receive, except to the extent such entitlement to receive a greater payment results from a Change in Law that occurs after the Participant acquired the applicable participation. Each Lender that sells a participation shall, acting solely for this purpose as an agent of Borrower, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each Participant's interest in the Loan or other Obligations under the Loan Documents (the "Participant Register"); provided that no Lender shall have any obligation to disclose all or any portion of the Participant Register (including the identity of any Participant or any information relating to a Participant's interest in any loans or its other obligations under any Loan Document) to any Person except to the extent that such disclosure is necessary to establish that such loan or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Lender shall treat each Person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

Section 8.4 Waiver. Borrower agrees that upon any assignment or transfer of the Loan Documents by Lender to any third party, following receipt by Borrower of written notice of such transfer, such third party shall be substituted as the lender under the Loan Documents for all purposes, and Borrower shall look solely to such third party for the performance of any obligations under the Loan Documents or with respect to the Loan accruing on or after the date of such transfer.

Section 8.5 Collateral. Upon an assignment or other transfer of the Loan Documents, Lender may, at its discretion, deliver all collateral mortgaged, granted, pledged or assigned pursuant to the Loan Documents, or any part thereof, to the transferee who shall thereupon become vested with all the rights herein or under applicable law given to Lender with respect thereto, and Lender shall thereafter forever be relieved and fully discharged from any liability or responsibility for any matter arising from and after the date of such transfer; but Lender shall retain all rights hereby given to it with respect to any liabilities and the collateral not so transferred to Borrower or to the assignee or transferee of the Loan Documents. This provision shall apply to every transfer of any collateral mortgaged, granted, pledged or assigned pursuant to the Loan Documents, or any part thereof, to a new assignee or transferee.

Section 8.6 Right of First Opportunity. Lender shall have a right of first opportunity to finance or arrange any replacement financing for the Property, or for any further development of the Property or any improvements to be developed on the Property (herein referred to as the "Permanent Financing").

Section 8.7 Request. If Borrower intends to enter into Permanent Financing, no later than ninety (90) days prior to the Maturity Date, Borrower shall provide to Lender in writing, a request for Permanent Financing together with all information requested by Lender to process such request and within a commercially reasonable period of time after delivery of all said information, Lender shall be given a first opportunity to provide an offer of Permanent Financing.

Section 8.8 Right of First Refusal. Lender shall also be given a continuing right of first refusal to provide an offer of Permanent Financing to Borrower on terms substantially the same as any other written offer of financing received from a third party lender, which Borrower is prepared to accept and a copy of which has been provided to Lender.

IX EXCULPATION.

Section 9.1 Full Recourse. The Debt shall be fully recourse to Borrower. Borrower shall be fully personally liable for all of the Debt. Each Guarantor shall be, jointly and severally with Borrower, fully personally liable for all of the Debt in accordance with, and subject to the limitations set forth in, the Guaranty.

Section 9.2 No Waiver. Notwithstanding anything to the contrary in this Agreement or any of the other Loan Documents (including the provisions of this Article IX) Lender shall not be deemed to have waived any right which Lender may have under Sections 506(a), 506(b), 1111(b) or any other provisions of the

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Bankruptcy Code to file a claim for the full amount of the Debt or to require that all collateral shall continue to secure all of the Debt owing to Lender in accordance with the Loan Documents.

X INDEMNIFICATION.

Section 10.1 Indemnification. Borrower shall, at Borrower's sole cost and expense, protect, defend, indemnify, release and hold harmless the Indemnified Parties from and against any and all Losses (including attorneys' fees and costs incurred in the investigation, defense, and settlement of Losses incurred in correcting any prohibited transaction or in the sale of a prohibited loan, and in obtaining any individual prohibited transaction exemption under ERISA that may be required, in Lender's sole discretion) that Lender may incur, directly or indirectly.

Section 10.2 Duty to Defend; Attorneys' Fees and Other Fees and Expenses. Upon written request by any Indemnified Party, Borrower shall defend such Indemnified Party (if requested by any Indemnified Party, in the name of the Indemnified Party) by attorneys and other professionals reasonably approved by the Indemnified Parties. Notwithstanding the foregoing, any of the Indemnified Parties may, in their sole and absolute discretion, engage their own attorneys and other professionals to defend or assist them, and, at the option of Indemnified Parties, their attorneys shall control the resolution of claim or proceeding. Upon demand, Borrower shall pay or, in the sole and absolute discretion of the Indemnified Parties, reimburse, the Indemnified Parties for the payment of reasonable fees and disbursements of attorneys, engineers, environmental consultants, laboratories and other professionals in connection therewith; provided, however, that all of the Indemnified Parties shall be defended by one firm of attorneys unless Lender in good faith determines that more than one law firm should be retained because of conflicts of interest or potential conflicts of interest.

Section 10.3 Changes in Laws Regarding Taxation. If any law is enacted or adopted or amended after the date of this Agreement which deducts the Debt from the value of the Property for the purpose of taxation or which imposes a tax, either directly or indirectly, on the Debt or Lender's interest in the Property, Borrower will pay such tax, with interest and penalties thereon, if any. In the event Lender is advised by counsel chosen by Lender that the payment of such tax or interest and penalties by Borrower would be unlawful or taxable to Lender or unenforceable or provide the basis for a defense of usury, then in any such event, Lender shall have the option, by written notice of not less than ninety (90) days, to declare the Debt immediately due and payable.

Section 10.4 No Credits on Account of the Debt. Borrower will not claim or demand or be entitled to any credit or credits on account of the Debt for any part of the Taxes or Other Charges assessed against the Property, or any part thereof, and no deduction shall otherwise be made or claimed from the assessed value of the Property, or any part thereof, for real estate tax purposes by reason of the Loan Documents or the Debt. In the event such claim, credit or deduction shall be required by law, Lender shall have the option, by written notice of not less than ninety (90) days, to declare the Debt immediately due and payable.

Section 10.5 Recording of Security Instruments. Borrower forthwith upon the execution and delivery of this Agreement and thereafter, from time to time upon five (5) Business Days' notice from Lender, will cause the Security Instruments, and any other Loan Document creating a Lien or security interest or evidencing the Lien thereof upon the Property and each instrument of further assurance to be filed, registered or recorded in such manner and in such places as may be required by Lender or by any present or future law in order to publish notice of and fully to protect the Lien or security interest thereof upon, and the interest of Lender in, the Property or to correct any error in the legal description of the Property. Borrower will pay all filing, registration or recording fees, and all expenses incident to the preparation, execution and acknowledgment of the Security Instruments, any mortgage supplemental thereto, any security instrument with respect to the Property, any such other Loan Document and any instrument of further assurance, and all federal, state, county and municipal taxes, duties, imposts, assessments and charges arising out of or in connection with the execution and delivery of the Security Instruments, any mortgage supplemental thereto, any security instrument with respect to the Property, any such other Loan Document or any instrument of further assurance, except where prohibited by law so to do. Borrower shall hold harmless and indemnify Lender, its successors

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and assigns, against any liability incurred by reason of the imposition of any tax on the making and recording of the Security Instruments or any other Loan Document. If at any time any Governmental Authority shall require revenue or other stamps to be affixed to any of the Loan Documents, or impose any other tax or charge on the same, Borrower will pay for the same, with interest and penalties thereon, if any. Borrower hereby absolutely and irrevocably appoints Lender as Borrower's true and lawful attorney in fact, coupled with an interest, in Borrower's name and stead to make and execute all documents necessary or desirable to effect the provisions of this Section 10.5 if Borrower fails to do so for five (5) days after demand by Lender. Borrower hereby ratifies all that Borrower's said attorney in fact shall do by virtue of such power or authority. Borrower hereby acknowledges and agrees that Borrower shall have no claim or cause of action against Lender arising out of Lender's execution and/or recordation of any instruments by or on behalf of Borrower pursuant to the foregoing power of attorney.

Section 10.6 Brokers and Financial Advisors. Borrower hereby represents that, except as previously disclosed to Lender, Borrower has dealt with no financial advisors, brokers, underwriters, placement agents, agents or finders in connection with the transactions contemplated by this Agreement. Borrower hereby agrees to indemnify, defend and hold Lender harmless from and against any and all claims, liabilities, costs and expenses of any kind (including Lender's attorneys' fees and expenses) in any way relating to or arising from a claim by any Person that such Person acted on behalf of Borrower or Lender in connection with the transactions contemplated herein. The provisions of this Section 10.6 shall survive the expiration and termination of this Agreement and the payment of the Debt.

Section 10.7 Currency Adjustment. Borrower agrees to pay an additional amount to Lender (the "Currency Adjustment") in the event that Lender incurs any currency exchange losses when the Loan is repaid by Borrower and then converted to Canadian dollars by Lender upon such repayment. The Currency Adjustment, if any, will be determined by subtracting the amount of Canadian dollars received by Lender after converting U.S. dollar repayment(s) from Borrower from the aggregate cost in Canadian dollars required to fund the advances under the Loan. A positive difference represents a currency loss to be covered by Borrower by paying a Currency Adjustment to Lender. Lender shall convert funds at the offered or prevailing exchange rate of a financial institution or exchanger of its choosing, on a date within 30 days after repayment, and Lender shall have no obligation to ensure that it is obtaining the most favorable exchange rate available on the date of conversion. Lender will provide Borrower with a reconciliation of the Currency Adjustment calculation, and the payment by Borrower of the Currency Adjustment, if any, will be a condition of Lender providing Borrower with a release or discharge of its collateral.

XI WAIVERS

Section 11.1 Waiver of Counterclaim. All amounts due under this Agreement or the other Loan Documents shall be payable without setoff, counterclaim or any deduction whatsoever. Borrower hereby waives the right to assert a counterclaim, other than a compulsory counterclaim, in any action or proceeding brought against Borrower by Lender or its agents, or otherwise offset any obligations to make payments required under the Loan Documents. Any Investor or assignee of Lender's interest in and to the Loan Documents shall take the same free and clear of all offsets, counterclaims or defenses which Borrower may otherwise have against any assignor of the Loan Documents, and no such unrelated offset, counterclaim or defense shall be interposed or asserted by Borrower in any action or proceeding brought by any such assignee upon the Loan Documents, and any such right to interpose or assert any such offset, counterclaim or defense in any such action or proceeding is hereby expressly waived by Borrower. If Borrower is indebted to Lender pursuant to more than one note or pursuant to any subordinate loan documents, (i) the preceding provisions shall apply to any note or other loan documents assigned or transferred by Lender, even if one or more notes are retained by Lender, and (ii) Borrower waives and releases any right to assert any claim, cause of action, offset or defense against Lender with respect to the Loan or the Loan Documents which is any way related to such other note or subordinate loan documents.

Section 11.2 Marshalling and Other Matters. Borrower hereby waives, to the extent permitted by law, the benefit of all appraisal, valuation, stay, extension, reinstatement and redemption laws now or

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hereafter in force and all rights of marshalling in the event of any sale hereunder of the Property or any part thereof or any interest therein and the pleading of any statute of limitations as a defense to payment of the Debt or performance of the Obligations. Further, Borrower hereby expressly waives any and all rights of redemption from sale under any order or decree of foreclosure of the Security Instruments on behalf of Borrower, and on behalf of each and every Person acquiring any interest in or title to the Property subsequent to the date of this Agreement and on behalf of all Persons to the extent permitted by applicable law. Borrower hereby waives and renounces all homestead and exemption rights provided by the Constitution and the laws of the United States and of any state, in and to the Property as against the collection of the Debt, or any part thereof. The interests and rights of Lender under the Note, the Security Instruments or in any of the other Loan Documents shall not be impaired by any indulgence, including (i) any renewal, extension or modification which Lender may grant with respect to any of the Debt, (ii) any surrender, compromise, release, renewal, extension, exchange or substitution which Lender may grant with respect to the Property or any portion thereof; or (iii) any release or indulgence granted to any maker, endorser, Borrower Party or surety of any of the Debt.

Section 11.3 Waiver of Notice. Borrower shall not be entitled to, and hereby waives the right to receive, any notices of any nature whatsoever from Lender except with respect to matters for which this Agreement or the other Loan Documents specifically and expressly provide for the giving of notice by Lender to Borrower and except with respect to matters for which Borrower is not, pursuant to applicable Legal Requirements, permitted to waive the giving of notice.

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Section 11.4 Trial by Jury. TO THE GREATEST EXTENT PERMITTED BY LAW, BORROWER AND LENDER (BY ITS ACCEPTANCE HEREOF) EACH HEREBY AGREE NOT TO ELECT A TRIAL BY JURY OF ANY ISSUE TRIABLE OF RIGHT BY JURY, AND WAIVE ANY RIGHT TO TRIAL BY JURY FULLY TO THE EXTENT THAT ANY SUCH RIGHT SHALL NOW OR HEREAFTER EXIST WITH REGARD TO THIS AGREEMENT, THE MORTGAGE, THE NOTE OR THE OTHER LOAN DOCUMENTS, OR ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION THEREWITH. THIS WAIVER OF RIGHT TO TRIAL BY JURY IS GIVEN KNOWINGLY AND VOLUNTARILY BY BORROWER AND LENDER, AND IS INTENDED TO ENCOMPASS INDIVIDUALLY EACH INSTANCE AND EACH ISSUE AS TO WHICH RIGHT TO TRIAL BY JURY WOULD OTHERWISE ACCRUE. BORROWER AND LENDER EACH ARE HEREBY AUTHORIZED TO FILE A COPY OF THIS PARAGRAPH IN ANY PROCEEDING AS CONCLUSIVE EVIDENCE OF THIS WAIVER BY EACH OTHER. NOTWITHSTANDING THE FOREGOING TO THE CONTRARY, IN THE EVENT THAT THE JURY TRIAL WAIVER CONTAINED HEREIN SHALL BE HELD OR DEEMED TO BE UNENFORCEABLE, BORROWER HEREBY EXPRESSLY AGREES TO SUBMIT TO JUDICIAL REFERENCE PURSUANT TO CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 THROUGH 645.1 ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING HEREUNDER FOR WHICH A JURY TRIAL WOULD OTHERWISE BE APPLICABLE OR AVAILABLE (PROVIDED, HOWEVER, THAT NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, NO JUDICIAL REFERENCE SHALL BE APPLICABLE WITH RESPECT TO ANY ACTION IN RESPECT OF THE FORECLOSURE OF THE MORTGAGE). PURSUANT TO SUCH JUDICIAL REFERENCE, THE PARTIES AGREE TO THE APPOINTMENT OF A SINGLE REFEREE AND SHALL USE THEIR BEST EFFORTS TO AGREE ON THE SELECTION OF A REFEREE. IF THE PARTIES ARE UNABLE TO AGREE ON A SINGLE REFEREE, A REFEREE SHALL BE APPOINTED BY THE COURT UNDER CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 AND 640 TO HEAR ANY DISPUTES HEREUNDER IN LIEU OF ANY SUCH JURY TRIAL. BORROWER ACKNOWLEDGES AND AGREES THAT THE APPOINTED REFEREE SHALL HAVE THE POWER TO DECIDE ALL ISSUES IN THE APPLICABLE ACTION OR PROCEEDING, WHETHER OF FACT OR LAW, AND SHALL REPORT A STATEMENT OF DECISION THEREON; PROVIDED, HOWEVER, THAT ANY MATTERS WHICH WOULD NOT OTHERWISE BE THE SUBJECT OF A JURY TRIAL WILL BE UNAFFECTED BY THIS WAIVER. BORROWER HEREBY AGREES THAT THE PROVISIONS CONTAINED HEREIN HAVE BEEN FAIRLY NEGOTIATED ON AN ARMS-LENGTH BASIS, WITH BORROWER AGREEING TO THE SAME KNOWINGLY AND BEING AFFORDED THE OPPORTUNITY TO HAVE ITS LEGAL COUNSEL CONSENT TO THE MATTERS CONTAINED HEREIN.


Borrower's Initials

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Section 11.5 Credit Authorization and Consent to Disclosure. Lender may collect, retain, release, disclose, exchange, share, transfer and assign from time to time, as it may determine in its sole discretion, all information and materials (including financial statements and information concerning the status of the Loan, such as existing or potential Loan defaults, lease defaults or other facts or circumstances which might affect the performance of the Loan) provided to or obtained by it relating to Borrower, Property or the Loan (both before and after the disbursement of funds and/or default thereunder) without restriction and without notice to or the consent of Borrower and/or any guarantor (and each Borrower hereby irrevocably consents thereto):

- (a) to any other Lender or investor who has an interest in the Loan;
- (b) to any proposed purchaser or subsequent owner of the Loan including any subsequent or proposed Lender and their respective third party advisors and agents, such as lawyers, accountants, auditors, consultants, appraisers and credit verification sources;
- (c) to the public or any private group in any offering memorandum, prospectus or other disclosure document relating to any sale, syndication or securitization of the Loan (including all initial and continuing disclosure requirements), regardless of format or scope of distribution;
- (d) to the public or other interested persons, directly or indirectly through information service providers or other market participants, for the purpose of providing market information from time to time relating to the status of the Loan or any related securitization or any interest therein, regardless of format or scope of distribution;
- (e) to any governmental authority having jurisdiction over any sale, syndication or securitization of the Loan or any trade of any interest therein;
- (f) to any other Person in connection with the sale, syndication or securitization of the Loan, including insurers and rating agencies; and
- (g) to any other Person in connection with the collection or enforcement proceedings taken under or in respect of the Loan.

Without limiting the foregoing, Borrower hereby consents to the Lender obtaining all information as may be necessary from all available sources as to the creditworthiness of Borrower and acknowledges that the Lender may collect or come into possession of personal information relating to certain individuals either comprising or otherwise connected with the Borrower which information may include contact information (mailing address, e-mail address, telephone number or fax number), financial information and status (bank account numbers, existing debts, personal net worth or credit history), date of birth, place of employment and social security number. Borrower acknowledges and agrees that such personal information may be used by Lender in connection with the processing, approving, funding, servicing and administering the Loan and any sale, syndication or securitization of the Loan, and in so doing the Lender may disclose and otherwise deal with personal information in the same manner and to the same Persons as provided in the preceding paragraph without restriction and without notice to or the consent of Borrower or any related individual. Borrower for itself and on behalf of its directors, officers, shareholders and principals, hereby consents to and authorizes such use and disclosure of all such personal information by the Lender and represents and warrants that it has full power and authority to give such consent and authorization. Notwithstanding the foregoing, Lender shall act reasonably with respect to disclosure of information of Borrower or of any Affiliate of Borrower and will only do so when commercially necessary and advisable with respect to Lender's business.

Section 11.6 California Civil Code. Borrower hereby waives any rights or defenses available to Borrower based upon Section 2822 of the California Civil Code.

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XII MISCELLANEOUS

Section 12.1 Survival. This Agreement and all covenants, agreements, representations and warranties made herein and in the certificates delivered pursuant to any of the Loan Documents, including the Sources and Uses of Funds and the Loan Term Sheet, shall survive the making by Lender of the Loan and the execution and delivery to Lender of the Note, and shall continue in full force and effect so long as all or any of the Debt is outstanding and unpaid unless a longer period is expressly set forth herein or in the other Loan Documents. Whenever in this Agreement any of the parties hereto is referred to, such reference shall be deemed to include the legal representatives, successors and assigns of such party. All covenants, promises and agreements in this Agreement, by or on behalf of Borrower, shall inure to the benefit of the legal representatives, successors and assigns of Lender.

Section 12.2 Governing Law. Except as otherwise expressly set forth herein, this Agreement shall be governed, construed, applied and enforced in accordance with the laws of the state where the Land is located without regard to the conflicts of law provisions thereof ("Governing State"). Borrower hereby consents to personal jurisdiction in the Governing State. JURISDICTION AND VENUE OF ANY ACTION BROUGHT TO ENFORCE THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR ANY ACTION RELATING TO THE LOAN OR THE RELATIONSHIPS CREATED BY OR UNDER THE LOAN DOCUMENTS ("ACTION") SHALL, AT THE ELECTION OF LENDER, BE IN (AND IF ANY ACTION IS ORIGINALLY BROUGHT IN ANOTHER VENUE, THE ACTION SHALL AT THE ELECTION OF LENDER BE TRANSFERRED TO) A STATE OR FEDERAL COURT OF APPROPRIATE JURISDICTION LOCATED IN THE GOVERNING STATE. BORROWER HEREBY CONSENTS AND SUBMITS TO THE PERSONAL JURISDICTION OF THE STATE COURTS OF THE GOVERNING STATE AND OF FEDERAL COURTS LOCATED IN THE GOVERNING STATE IN CONNECTION WITH ANY ACTION AND HEREBY WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY OTHER STATE TO OBJECT TO JURISDICTION WITHIN SUCH GOVERNING STATE FOR PURPOSES OF ANY ACTION. Borrower hereby waives and agrees not to assert, as a defense to any Action or a motion to transfer venue of any Action, (i) any claim that it is not subject to such jurisdiction, (ii) any claim that any Action may not be brought against it or is not maintainable in those courts or that this Agreement may not be enforced in or by those courts, or that it is exempt or immune from execution, (iii) that the Action is brought in an inconvenient forum, or (iv) that the venue for the Action is in any way improper.

Section 12.3 Modification; Waiver in Writing. No modification, amendment, extension, discharge, termination or waiver of any provision of this Agreement, or of any other Loan Document, nor consent by Lender to any departure by any Borrower Party from the Obligations, shall in any event be effective unless the same shall be in a writing signed by the Person against whom enforcement is sought, and then such waiver or consent shall be effective only in the specific instance, and for the purpose, for which given. Except as otherwise expressly provided herein, no notice to, or demand on any Borrower Party shall entitle any Borrower Party to any other or future notice or demand in the same, similar or other circumstances.

Section 12.4 Delay Not a Waiver. Neither any failure nor any delay on the part of Lender in insisting upon strict performance or compliance of any term, condition, covenant or agreement, or Lender's delay in exercising any right, power, remedy or privilege hereunder, or under the Note or under any other Loan Document, or any other instrument given as security therefor, shall operate as or constitute a waiver thereof, nor shall a single or partial exercise thereof preclude any other future exercise, or the exercise of any other right, power, remedy or privilege. In particular, and not by way of limitation, by accepting payment after the due date of any amount payable under this Agreement, or any other Loan Document, Lender shall not be deemed to have waived any right either to require prompt payment when due of all other amounts due under this Agreement, or the other Loan Documents, or to declare a default for failure to effect prompt payment of any such other amount. Lender shall have the right, in its complete and sole discretion, to waive or reduce any time periods to which Lender is entitled under the Loan Documents.

Section 12.5 Notices. All notices, consents, approvals and requests required or permitted hereunder or under any other Loan Document shall be given in writing (including by facsimile) and shall be effective for

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all purposes if hand delivered or sent by (a) certified or registered United States mail, postage prepaid, (b) expedited prepaid delivery service, either commercial or United States Postal Service, with proof of attempted delivery, or (c) by facsimile (with a copy sent contemporaneously by certified or registered United States mail, postage prepaid, return receipt requested), addressed as follows:

If to Borrower: Woodland/Spreckels Industrial Business Park, LLC
11249 Gold Country Boulevard, Suite 190
Gold River, California 95670
Telephone: (916) 631-8440
Facsimile: (916) 631-8445
Email: gkamilos@kamilos.com

with a copy to: Trainor Fairbrook
980 Fulton Avenue
Sacramento, California 95825
Attention: Charles W. Trainor, Esquire
Telephone: (916) 929-7000
Facsimile: (916) 929-7111
Email: ctrainor@trainorfairbrook.com

If to Lender: Romspen California Mortgage Limited Partnership
162 Cumberland Street, Suite 300
Toronto, Ontario M5R 3N5
Attention: Joel Mickelson and Blake Cassidy
Telephone: (416) 928-4870
Facsimile: (416) 966-1161
JoelMickelson@romspen.com
BlakeCassidy@romspen.com

with a copy to:

Polsinelli PC
2950 N. Harwood, Suite 2100
Dallas, Texas 75201
Attention: Clifton M. Dugas, II, Esq.
Telephone: (214) 661-5545
Facsimile: (214) 889-5284
cdugas@polsinelli.com

or at such other address and Person as shall be designated from time to time by any party hereto, as the case may be, in a written notice to the other parties hereto in the manner provided for in this Section. A notice shall be deemed to have been given: in the case of hand delivery, at the time of delivery; in the case of registered or certified mail, when delivered or the first attempted delivery on a Business Day; in the case of expedited prepaid delivery, upon the first attempted delivery on a Business Day, in the case of facsimile, upon completion of transmission (which is confirmed by telephone or by a statement generated by the transmitting machine) with receipt acknowledged by the recipient thereof.

Section 12.6 Headings. The Article and/or Section headings and the Table of Contents in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose. "Section" refers to the entire section and not to any particular subsection, paragraph of other subdivision. Reference to days for performance shall mean calendar days unless Business Days are expressly indicated.

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Section 12.7 Severability. If any provision or obligation under this Agreement and the other Loan Documents shall be determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, that provision shall be deemed severed from the Loan Documents and the validity, legality and enforceability of the remaining provisions or obligations shall remain in full force as though the invalid, illegal, or unenforceable provision had never been a part of the Loan Documents.

Section 12.8 Preferences. Lender shall have the continuing and exclusive right to apply or reverse and reapply any and all payments by any of the Borrower Parties to any portion of the Obligations. To the extent any of the Borrower Parties makes a payment or payments to Lender, which payment or proceeds or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside or required to be repaid to a trustee, receiver or any other party under any Bankruptcy Law, state or federal law, common law or equitable cause, then, to the extent of such payment or proceeds received, the Obligations or part thereof intended to be satisfied shall be revived and continue in full force and effect, as if such payment or proceeds had not been received by Lender.

Section 12.9 Expenses. Borrower covenants and agrees to pay to Lender upon receipt of written notice from Lender for all costs and expenses (including attorneys' fees and disbursements) incurred by Lender in connection with (i) the preparation, negotiation, execution and delivery of this Agreement and the other Loan Documents and the consummation of the transactions contemplated hereby and thereby and all the costs of furnishing all opinions by counsel for the Borrower Parties (including any opinions requested by Lender as to any legal matters arising under this Agreement or the other Loan Documents with respect to the Property); (ii) the ongoing performance of and compliance with the respective agreements and covenants of the Borrower Parties contained in this Agreement and the other Loan Documents; (iii) Lender's ongoing performance and compliance with all agreements and conditions contained in this Agreement and the other Loan Documents, including extraordinary fees incurred by Lender in Lender's administration and servicing of the Loan; (iv) the negotiation, preparation, execution, delivery and administration of any consents, amendments, waivers or other modifications to this Agreement and the other Loan Documents and any other documents or matters requested by Lender; (v) securing compliance with any requests made by any Borrower Party pursuant to any provision of any of the Loan Documents; (vi) the filing and recording of the Loan Documents, title insurance and reasonable fees and expenses of counsel for providing to Lender all required legal opinions, and other similar expenses incurred in creating and perfecting the Liens in favor of Lender pursuant to this Agreement and the other Loan Documents; (vii) enforcing or preserving any rights, in response to third party claims or the prosecuting or defending of any action or proceeding or other litigation, in each case against, under or affecting any Borrower Party, this Agreement, the other Loan Documents, the Property, or any other security given for the Loan; (viii) costs incurred by Lender in the review of easements, lot line agreements or similar matters, the review and approval of or consent to Leases and the negotiation of subordination, non-disturbance and attornment agreements, and other similar items required by Borrower in connection with Borrower's use and enjoyment of the Property; (ix) costs incurred by Lender in responding to any subpoena or participating in, observing or preparing for any deposition or other legal or quasi-legal process; and (x) the amounts described in Section 7.4. Any cost and expenses due and payable to Lender shall be payable within thirty (30) Business Days of demand, shall be secured by the Loan Documents, and if not paid when due, shall bear interest at the Default Rate until paid.

Section 12.10 Relationship of Borrower and Lender. The relationship between Borrower and Lender is solely that of debtor and creditor, and Lender has no fiduciary or other special relationship with Borrower, and no term or condition of any of the Note, the Security Instruments, this Agreement and the other Loan Documents shall be construed so as to deem the relationship between Borrower and Lender to be other than that of the debtor and creditor relationship established pursuant to the Loan Documents. The relationship of Borrower and Lender is created and governed solely by the Loan Documents.

Section 12.11 No Joint Venture or Partnership. No Third Party Beneficiaries.

(a) Any provision herein or in any of the other Loan Documents to the contrary notwithstanding, Lender, by virtue of its acceptance of this Agreement and the making of the Loan or any

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approval rights Lender may have herein or in any of the Loan Documents shall not be deemed to constitute Lender a mortgagee-in-possession, tenant-in-common, or in control of, or a partner or joint venturer with, or insider (within the meaning of Section 101(31) of the Bankruptcy Code) of, any Borrower Party or any other Person; and Borrower shall indemnify Lender against, shall hold Lender harmless from, and shall reimburse Lender for, any and all claims, demands, judgments, penalties, fines, liabilities, costs, damages and expenses, including court costs and reasonable attorneys' fees incurred by Lender (whether incurred in connection with nonjudicial action, prior to trial, at trial, or on appeal or review) in any action against or involving Lender resulting from such a construction of the Loan Documents.

(b) Any inspection of the Property, any review or approval of any plans, contracts, subcontracts (including environmental reviews, audits, assessments and/or reports relating to the Property), and review or approval of budgets, expenses or obligations or any analysis of the Property made by Lender or any of its agents, architects or consultants is intended solely for the benefit of Lender and shall not be deemed to create or form the basis of any warranty, representation, covenant, implied promise or liability to Borrower or any of its employees or agents, any guest or invitee upon the Property, or any other Person.

(c) Except as otherwise provided in Article VIII hereof, this Agreement and the other Loan Documents are solely for the benefit of Lender and Borrower and nothing contained in this Agreement or the other Loan Documents shall be deemed to confer upon anyone other than Lender and Borrower any right to insist upon or to enforce the performance or observance of any of the obligations contained in the Loan Documents. Except as otherwise provided in Article VIII hereof, all conditions to the obligations of Lender to make the Loan hereunder are imposed solely and exclusively for the benefit of Lender and no other Person shall have standing to require satisfaction of such conditions in accordance with their terms or be entitled to assume that Lender will refuse to make the Loan in the absence of strict compliance with any or all thereof and no other Person shall under any circumstances be deemed to be a beneficiary of such conditions, any or all of which may be freely waived in whole or in part by Lender if, in Lender's sole discretion, Lender deems it advisable or desirable to do so.

Section 12.12 Publicity. All news releases, publicity or advertising by the Borrower Parties or their Affiliates through any media intended to reach the general public which refers to the Loan Documents or the financing evidenced by the Loan Documents or to Lender, or any of their Affiliates shall be subject to the prior written approval of Lender, which approval shall not be unreasonably withheld.

Section 12.13 Subrogation. If any or all of the proceeds of the Note have been used to extinguish, extend or renew any Indebtedness heretofore existing against the Property, then, to the extent of the funds so used, Lender shall be subrogated to all of the rights, claims, Liens, titles, and interests existing against the Property heretofore held by, or in favor of, the holder of such Indebtedness and such former rights, claims, Liens, titles, and interests, if any, are not waived but rather are continued in full force and effect in favor of Lender and are merged with the Lien and security interest created herein as cumulative security for the repayment of the Debt, the performance and discharge of the Obligations.

Section 12.14 Duplicate Originals; Counterparts. For the purpose of facilitating the execution of this Agreement and for other purposes, this Agreement may be executed simultaneously in any number of counterparts, each of which counterparts shall be deemed to be an original, and such counterparts shall constitute but one and the same instrument. A signature of a party by facsimile or other electronic transmission (including a .pdf copy sent by e-mail) shall be deemed to constitute an original and fully effective signature of such party. The failure of any party hereto to execute this Agreement, or any counterpart hereof, shall not relieve the other signatories from their obligations hereunder.

Section 12.15 Liability. If Borrower consists of more than one Person, the obligations and liabilities of each such Person hereunder shall be joint and several. This Agreement shall be binding upon and inure to the benefit of Borrower and Lender and their respective successors and assigns forever.

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Section 12.16 Prior Agreements. This Agreement and the other Loan Documents contain the entire agreement of the parties hereto and thereto in respect of the transactions contemplated hereby and thereby, and all prior agreements among or between such parties, whether oral or written, including any term sheets, discussion outlines or commitment letters (as same may be amended) between any of the Borrower Parties and Lender are superseded by the terms of this Agreement and the other Loan Documents. In the event of any conflict between the terms of this Agreement and the Loan Term Sheet, the terms of this Agreement shall govern.

Section 12.17 No Usury. Any provision herein, in any Loan Document or any other document executed or delivered in connection with the Loan, or in any other agreement or commitment, whether written or oral, expressed or implied, to the contrary notwithstanding, Lender shall not in any event be entitled to receive or collect, nor shall or may amounts received hereunder be credited, so that Lender shall be paid, as interest, a sum greater than the maximum amount permitted by applicable law to be charged to the Person primarily obligated to pay the Debt and the Obligations at the time in question. If any construction of this Agreement, any other Loan Document, or any other document executed or delivered in connection herewith, indicates a different right given to Lender to ask for, demand or receive any larger sum as interest, such is a mistake in calculation or wording which this clause shall override and control, it being the intention of Borrower and Lender that this Agreement, any other Loan Document and any other documents executed in connection herewith conform strictly to applicable usury laws. In no event shall the amount treated as the total interest exceed the maximum amount of interest which may be lawfully contracted for, charged, taken, received or reserved by Lender in accordance with the applicable usury laws, taking into account all items which are treated as interest under applicable law, computed in the aggregate over the full term of the Loan evidenced hereby. In the event that the aggregate of all consideration which constitutes interest under applicable law that is taken, reserved, contracted for, charged or received under this Agreement, any other Loan Document and any other documents executed in connection herewith shall ever exceed the maximum nonusurious rate under applicable law, any sum in excess thereof shall be applied to the reduction of the unpaid principal balance of the Debt and the Obligations, and if the Debt and the Obligations are paid in full, any remaining excess shall be paid to Borrower. In determining whether or not the interest paid or payable, under any specific contingency, exceeds the maximum nonusurious rate under applicable law, if any, Borrower and Lender shall, to the maximum extent permitted under applicable law, (a) characterize any nonprincipal amount as an expense or fee rather than as interest, (b) exclude voluntary prepayments and the effects thereof, or (c) "spread" the total amount of interest throughout the entire term of the Debt and the Obligations so that the interest rate is uniform throughout the entire term of the Debt and the Obligations; provided, however, that if the Debt and Obligations are paid and performed in full prior to the end of the full contemplated term thereof, and if the interest received for the actual period of existence thereof exceeds the maximum nonusurious rate, if any, Lender shall refund to Borrower the amount of such excess. If any provision of this Agreement would oblige the Borrower to make any payment of interest or other amount payable to any Lender in an amount or calculated at a rate which would be prohibited by any applicable law or would result in a receipt by that Lender of "interest" at a "criminal rate" (as such terms are construed under the Criminal Code (Canada)), then, notwithstanding such provision, such amount or rate shall be deemed to have been adjusted with retroactive effect to the maximum amount or rate of interest, as the case may be, as would not be so prohibited by applicable law or so result in a receipt by that Lender of "interest" at a "criminal rate", such adjustment to be effected, to the extent necessary (but only to the extent necessary), as follows:

- (i) first, by reducing the amount or rate of interest required to be paid to the Lender; and
- (ii) thereafter, by reducing any fees, commissions, costs, expenses, premiums and other amounts required to be paid to the affected Lender which would constitute interest for purposes of section 347 of the Criminal Code (Canada).

Section 12.18 Construction. Neither this Agreement nor any uncertainty or ambiguity herein shall be construed or resolved against Lender by virtue of the fact that this Agreement or any of the Loan Documents has originated with Lender as drafter. Borrower acknowledges that Borrower has reviewed this Agreement and the other Loan Documents and has had the opportunity to consult with counsel on same. This Agreement and the

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other Loan Documents, shall therefore be construed and interpreted according to the ordinary meaning of the words used so as to fairly accomplish the purposes and intentions of the parties to the Loan Documents. Borrower acknowledges that, with respect to the Loan, Borrower shall rely solely on its own judgment and advisors in entering into the Loan without relying in any manner on any statements, representations or recommendations of Lender or any parent, subsidiary or Affiliate of Lender.

Section 12.19 Invalidity of a Provision; Principles of Construction; Lender's Discretion. If any clause or provision shall be deemed invalid or unenforceable, then this Agreement shall be construed without such clause or provision and the remainder of such provision and this Agreement shall be given full force and effect to the greatest extent permissible by law. All references to sections and schedules are to sections and schedules in or to this Agreement unless otherwise specified. Unless otherwise specified, the words "hereof," "herein" and "hereunder" and words of similar import when used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The term "including" is not limiting (and shall mean "including but not limited to"), and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or." Wherever Lender's judgment, consent, approval or discretion is required under this Agreement or any other Loan Document for any matter or thing or Lender shall have an option, election, or right of determination or any other power to decide any matter relating to the terms and conditions of this Agreement, including any right to determine that something is satisfactory or not ("Decision Power"), such Decision Power shall be exercised in the reasonable discretion of Lender unless otherwise expressly stated to be exercisable in Lender's sole and absolute discretion. Such Decision Power and each other power granted to Lender upon this Agreement may be exercised by Lender or by any authorized agent of Lender (including any servicer and/or attorney-in-fact), and Borrower hereby expressly agrees to recognize the exercise of such Decision Power by such authorized agent.

Section 12.20 Lender. The rights of Lender pursuant to this Agreement and the other Loan Documents are in addition to all of the rights of Lender or any Affiliate of Lender may now or hereafter have by virtue of any ownership, directly or indirectly, in Borrower or any Affiliate of Borrower. In acting as Lender pursuant to this Agreement or the Loan Documents, Borrower acknowledges that Lender shall owe no duties of any kind to Borrower or any other Person (other than those specifically stated in the Loan Documents) on account of such role of Lender or any Affiliate of Lender or by virtue of any ownership interest in Borrower or such Affiliates (directly or indirectly) or otherwise, and there shall be no limitations on Lender's rights or remedies or Lender's ability to act solely in Lender's best interests or in Lender's discretion, notwithstanding the role Lender or any such Affiliate of Lender may have by virtue of any ownership interest in Borrower or any Affiliate of Borrower. Lender shall not be subject to any limitation whatsoever in the exercise of any rights or remedies available to Lender under any of the Loan Documents or any other agreements or instruments which govern the Loan by virtue of the ownership by Lender or any parent, subsidiary or Affiliate of Lender of any equity interest any of them may acquire (directly or indirectly) in Borrower, and Borrower hereby irrevocably waives the right to raise any defense or take any action on the basis of the foregoing with respect to Lender's exercise of any such rights or remedies. No assignee of any of Lender's rights with respect to the Loan or the Loan Documents shall be prejudiced or affected by any actions taken or not taken by Lender or its Affiliates prior to the assignment to the then current Lender and upon any such assignment, such assignee shall be in the same position as if such assignee had originated the Loan itself as of the date of such assignment and shall not be subject to any offsets, counterclaims or defenses to which Lender, any other Person which may from time to time be the "Lender" hereunder or their respective Affiliates might be subject. Borrower acknowledges that Lender and its Affiliates engage in the business of real estate financings and other real estate transactions and investments, which may be viewed as adverse to or competitive with the business of Borrower or its Affiliates.

Section 12.21 Limitation on Liability. Notwithstanding anything contained herein to the contrary, Borrower agrees that none of Lender, or its agents or employees shall be liable to Borrower for any special, consequential or punitive damages whatsoever.

Section 12.22 Appointment of Servicer and Delegation of Lender Rights. Borrower acknowledges and agrees that at the option of Lender, the Loan may be serviced by a servicer/trustee (the "Servicer") selected

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by Lender and Lender may delegate all or any portion of its responsibilities under this Agreement and the other Loan Documents to the Servicer pursuant to a servicing agreement between Lender and Servicer; provided, however, such delegation will not release Lender from any of its obligations under the Loan Documents. Borrower shall not be responsible for any servicing fees payable to Servicer; provided, however that Borrower shall be responsible for the payment of all out-of-pocket costs and expenses incurred by Servicer in connection with the Loan (including the negotiation of subordination, non-disturbance and attornment agreements, property inspections, casualty or condemnation matters or in connection with any Default or Event of Default). Any action or inaction taken by the Servicer pursuant to this Agreement and the Loan Documents shall be binding to the same extent as if taken by Lender, and Borrower shall be entitled to rely on all actions and directions given by Servicer with respect to all matters concerning the Loan and Loan Documents unless and until Borrower receives contrary written instructions from the Lender.

Section 12.23 Tax Withholding. Borrower shall deliver to Lender necessary documentation reasonably requested by Lender for Lender to obtain reduced or no withholding tax as portfolio interest under the Code or any applicable income tax treaty, including Lender providing IRS Form W 8BEN to Borrower. Under the United States – Canada Income Tax Treaty as in effect on the date of this Agreement, Lender and Borrower agree that there is currently no withholding required on the interest for the Loan. In order for the interest to qualify as portfolio interest, the Note shall be in registered form as to both principal and interest. In addition, the Note may be assigned or transferred only by the Lender, and Borrower must either reissue the Note to the new holder or issue a new note to the new holder, if so required by Lender or Lender's assignee.

Section 12.24 Advertising. Borrower hereby agrees Lender (together with its Affiliates, "Romspen") may publicly identify details of the Loan in Romspen's advertising and public communications of all kinds, including, but not limited to, press releases, direct mail, newspapers, magazines, journals, e-mail, or internet advertising or communications. Such details may include the name of the Property, the address of the Property, the amount of the Loan, the date of the closing and a description of the size/location of the Property.

Section 12.25 Full Repayment And Reconveyance. Upon receipt of all sums owing and outstanding under the Loan Documents, Lender shall issue a full reconveyance of the Property from the Lien of the Security Instruments; provided, however, that all of the following conditions shall be satisfied at the time of, and with respect to, such reconveyance: (a) Lender shall have received all escrow, closing and recording costs, the costs of preparing and delivering such reconveyance and any sums then due and payable under the Loan Documents; and (b) Lender shall have received a written release satisfactory to Lender of any set aside letter, letter of credit or other form of undertaking which Lender has issued to any surety, governmental agency or any other party in connection with the Loan and/or the Property. Lender's obligation to make further disbursements under the Loan shall terminate as to any portion of the Loan undisbursed as of the date of issuance of such release or reconveyance, and any commitment of Lender to lend any undisbursed portion of the Loan shall be cancelled.

Section 12.26 Delay Outside Lender's Control. Lender shall not be liable in any way to Borrower or any third party for Lender's failure to perform or delay in performing under the Loan Documents (and Lender may suspend or terminate all or any portion of Lender's obligations under the Loan Documents) if such failure to perform or delay in performing results directly or indirectly from, or is based upon, the action, inaction, or purported action, of any Governmental Authority, or because of war, rebellion, insurrection, strike, lock-out, boycott or blockage (whether presently in effect, announced or in the sole judgment of Lender deemed probable), or from any Act of God or other cause or event beyond Lender's control.

Section 12.27 Signage. Lender shall be entitled to place on the Property signage indicating Lender's participation in the funding of the Property.

Section 12.28 Modification, Waiver in Writing. No modification, amendment, extension, discharge, termination or waiver of any provision of any Loan Document, nor consent to any departure by Borrower therefrom, shall in any event be effective unless the same shall be in a writing signed by the party or parties against whom enforcement is sought, and then such waiver or consent shall be effective only in the specific instance, and for the specific purpose, for which given. Except as otherwise expressly provided herein, no

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notice to, or demand on Borrower, shall entitle Borrower to any other or future notice or demand in the same, similar or other circumstances.

Section 12.29 Set-Off. In addition to any rights and remedies of Lender provided by this Agreement and by law, Lender shall have the right, without prior notice to Borrower, any such notice being expressly waived by Borrower to the extent permitted by Legal Requirements, upon any amount becoming due and payable by Borrower hereunder (whether at the stated maturity, by acceleration or otherwise), to set-off and appropriate and apply against such amount any and all deposits (general or special, time or demand, provisional or final), in accordance with Legal Requirements, in any currency, and any other credits, indebtedness or claims, in any currency, in each case whether direct or indirect, absolute or contingent, matured or unmatured, at any time held or owing by Lender or any Affiliate thereof to or for the credit or the account of Borrower. Lender agrees promptly to notify Borrower after any such set-off and application made by Lender; provided that the failure to give such notice shall not affect the validity of such set-off and application

Section 12.30 Judicial Reference; Referee; Costs.

(a) **Controversies Subject to Judicial Reference; Conduct of Reference.** In the event that any action, proceeding and/or hearing on any matter whatsoever, including all issues of fact or law arising out of, or in any way connected with, the Note, this Agreement or any of the Loan Documents, or the enforcement of any remedy under any law, statute, or regulation (hereinafter, a "Controversy"), is to be tried in a court of the State of California and the jury trial waiver provisions set forth in Section 11.4 are not permitted or otherwise applicable under then-prevailing law:

(i) Each Controversy shall be determined by a consensual general judicial reference (the "Reference") pursuant to the provisions of California Code of Civil Procedure §§ 638 et seq., as such statutes may be amended or modified from time to time.

(ii) Upon a written request, or upon an appropriate motion by either Lender or Borrower, any pending action relating to any Controversy and every Controversy, shall be heard by the Referee (as defined below), who shall then try all issues (including any and all questions of law and questions of fact relating thereto), and issue findings of fact and conclusions of law and report a statement of decision. The Referee's statement of decision will constitute the conclusive determination of the Controversy. Lender and Borrower agree that the Referee shall have the power to issue all legal and equitable relief appropriate under the circumstances before him/her.

(iii) Lender and Borrower shall promptly and diligently cooperate with one another and the Referee, and shall perform such acts as may be necessary to obtain prompt and expeditious resolution of each Controversy.

(iv) Either Lender or Borrower may file the Referee's findings, conclusions and statement with the clerk or judge of any appropriate court, file a motion to confirm the Referee's report and have judgment entered thereon. If the report is deemed incomplete by such court, the Referee may be required to complete the report and resubmit it.

(v) Lender and Borrower will each have such rights to assert such objections as are set forth in California Code of Civil Procedure §§ 638 et seq.

(vi) All proceedings shall be closed to the public and confidential and all records relating to the Reference shall be permanently sealed when the order thereon becomes final.

(b) **Selection of Referee; Powers**

(i) Lender and Borrower shall select a single neutral referee ("Referee"), who shall be a retired judge or justice of the courts of the State of California, or a federal court judge, in each

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case, with at least ten years of judicial experience in civil matters. The Referee shall be appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts).

(ii) If within ten (10) days after the request or motion for the Reference, Lender and Borrower cannot agree upon a Referee, either Lender or Borrower may request or move that the Referee be appointed by the Presiding Judge of the Sacramento County Superior Court or of the U.S. District Court for the Northern District of California. The Referee shall determine all issues relating to the applicability, interpretation, legality and enforceability of this Section 12.26.

(c) Provisional Remedies.

(i) No provision of this Section 12.26 shall limit the right of either Lender or Borrower, as the case may be, to (1) exercise self-help remedies as might otherwise be available under applicable law (2) initiate judicial or non-judicial foreclosure against any real or personal property collateral, (3) exercise any judicial or power of sale rights, or (4) obtain or oppose provisional or ancillary remedies, including without limitation, injunctive relief, writs of possession, the appointment of a receiver, and/or additional or supplementary remedies from a court of competent jurisdiction before, after or during the pendency of the Reference.

(ii) The exercise of, or opposition to, any such remedy does not waive the right of Lender or Borrower to the Reference pursuant to this Section 12.26.

(d) Costs and Fees.

(i) Promptly following the selection of the Referee, Lender and Borrower shall each advance equal portions of the estimated fees and costs of the Referee.

(ii) In the statement of decision issued by the Referee, the Referee shall award costs, including reasonable attorneys' fees, to the prevailing party, if any, and may order the Referee's fees to be paid or shared by Borrower and/or Lender in such manner as determined by the Referee deems just.

Section 12.31 Partial Release. Provided no Event of Default shall have occurred and be continuing, Borrower shall have the right at any time prior to the Maturity Date to obtain the release (the "Partial Release") of all or a portion of the Yolo Undeveloped Property (each such portion, the "Released Property") from the lien of the Yolo Security Instrument thereon (and related Loan Documents) and the release of Borrower's obligations under the Loan Documents with respect to such Released Property (other than those expressly stated to survive), upon the satisfaction of each of the following conditions precedent:

(a) Borrower shall provide Lender with thirty (30) days prior written notice of the proposed Partial Release (the date of Lender's receipt of such notice shall be referred to herein as a the "Partial Release Notice Date");

(b) Prior to the date of such Partial Release, Borrower shall submit to Lender a release of lien (and related Loan Documents) for the Released Property for execution by Lender. Such release shall be in a form appropriate in each jurisdiction in which the Released Property is located and shall contain standard provisions, if any, protecting the rights of Lender. In addition, Borrower shall provide all other documentation as may be required to satisfy the prudent lender standard in connection with such release, together with an Officer's Certificate certifying that such documentation (i) is in compliance with all applicable Legal Requirements, (ii) will effect the Partial Release in accordance with the terms of this Agreement, and (iii) will not materially impair or otherwise adversely affect the liens, security interests and other rights of Lender under the Loan Documents not being released (or as to the parties to the Loan Documents and the Woodland Property (and, in the event of a Partial Release of only part of the Yolo Undeveloped Property, the remaining Yolo Undeveloped Property) subject to the Loan Documents not being released);

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(c) The Released Property shall be conveyed to a Person other than Borrower or an Affiliate of Borrower or refinanced from new financing sources; and

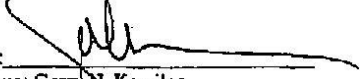
(d) Borrower shall (i) receive as part of its consideration for the sale, transfer or other conveyance of the Released Property an option to repurchase such Released Property from the purchaser thereof (the "Repurchase Option"), (ii) deliver to Lender a fully executed assignment of all of Borrower's right, title and interest in such Repurchase Option acceptable to Lender in its sole discretion and (iii) pay to Lender an administration fee equal to \$5,000.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their duly authorized representatives, all as of the day and year first above written.

BORROWER:

**WOODLAND/SPRECKELS INDUSTRIAL
BUSINESS PARK, I.T.C.**
a California limited liability company

By: 
Name: Gerry N. Kamilos
Title: Manager

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

On January 4, 2018, before me, Stephanie K. Clark
(insert name and title of the officer)

personally appeared Gerry N. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Stephanie K. Clark (Seal)



BORROWER SIGNATURE PAGE TO LOAN AGREEMENT

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LENDER:

ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP,
an Ontario limited partnership

By: **RMLP CALIFORNIA GP INC.,** an Ontario corporation, its general partner

By: Steven Mucha
Steven Mucha, Authorized Signing Officer

LENDER SIGNATURE PAGE TO LOAN AGREEMENT

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SCHEDULE I**DEFINITIONS**

"Acceptable Accounting Principles" shall mean GAAP or such other accounting methods or principles reasonably acceptable to Lender and consistently applied from time to time.

"Act" shall have the meaning specified in Section 4.1(s)(iii).

"Affiliate" shall mean as to any Person, (i) any Person that directly or indirectly through one or more intermediaries controls or is controlled by or is under common control with such Person, (ii) any Person (directly or indirectly) owning or controlling 10% or more of the outstanding voting securities of or other ownership interests in such Person, (iii) any officer, director, partner, employee or member (direct or indirect and no matter how remote) of such Person, (iv) if such Person is an individual, any entity for which such Person directly or indirectly acts as an officer, director, partner, employee or member, or (v) any entity in which such Person (together with family members if the Person in question is an individual) owns, directly or indirectly through one or more intermediaries an interest in any class of stock (or other beneficial interest in such entity) of 10% or more. Any reference in this Agreement to a "Person and an Affiliate" shall be deemed to refer to such Person and an Affiliate of such Person and any references in this Agreement to a "Person or an Affiliate" shall be deemed to refer to such Person or an Affiliate of such Person. As used in this Agreement, the term "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policy and/or policies of a Person, whether through ownership of voting securities or other ownership interests, by contract or otherwise.

"Affiliate Transaction" shall mean any contract, agreement or other arrangement between Borrower (or any other Person if such contract, agreement or other arrangement is in any way related to the Property) and any Borrower Party or any Affiliate of a Borrower Party or pursuant to which any Borrower Party or any Affiliate of any Borrower Party or any constituent member, partner or stockholder of Borrower or any Borrower Party or any Affiliate of a Borrower Party (direct or indirect) will receive any benefit of any kind.

"ALTA" shall mean American Land Title Association, or any successor thereto.

"Alteration Threshold" shall mean the amount of \$250,000.00.

"Approved Accounting Firm" shall mean (a) one of the accounting firms commonly known as a "Big Four" accounting firm or (b) any other certified public accounting firm acceptable to Lender in its sole discretion. For the purposes of this Agreement and the other Loan Documents, Gallina, LLP, is an Approved Accounting Firm.

"Assignment of Agreements" shall mean, with respect to the Property, that certain first priority Assignment of Agreements, Licenses, Permit and Contracts dated as of the date hereof, from Borrower, as assignor, to Lender, as assignee, assigning to Lender, subject to the terms thereof, all of Borrower's interest in and to contracts, Licenses, permits and approvals necessary for the use and operation and development of the Property as security for the Loan, as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time.

"Assignment of Leases" shall mean that certain Assignment of Leases and Rents dated even date herewith and from Borrower to Lender.

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"Authorized Representative" shall mean a Person at the time designated and authorized to act on behalf of Borrower by a written certificate furnished to Lender containing the specimen signature of such Person and signed by Borrower.

"Availability Period" means the period from and including the Closing Date to but excluding the Maturity Date.

"Award" shall have the meaning set forth in Section 6.1.3(b).

"Bankruptcy Code" shall mean Title 11 of the United States Code, as amended from time to time.

"Bankruptcy Laws" shall mean the Bankruptcy Code together with any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization, conservatorship, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to its debts or debtors.

"Borrower" has the meaning in the recitals hereto.

"Borrower Parties" shall mean the collective reference to Borrower, each Guarantor, any other guarantor, indemnitor or surety of any of the Obligations and any other Person (other than Lender) that is a party to any of the Loan Documents, other than any Manager that is not an Affiliate of Borrower. Individually, each of the Borrower Parties may be referred to herein as a "Borrower Party".

"Business Day" shall mean a day on which commercial banks are not authorized or not required by law to close in the State of New York or in the State where the Property is located.

"Casualty" shall have the meaning set forth in Section 6.1.1(i).

"Change in Law" means the occurrence, after the date of this Agreement, of any of the following: (a) the adoption or taking effect of any law, rule, regulation or treaty, (b) any change in any law, rule, regulation or treaty or in the administration, interpretation, implementation or application thereof by any Governmental Authority, or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority, provided that notwithstanding anything herein to the contrary, (x) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (y) all requests, rules, guidelines or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law," regardless of the date enacted, adopted or issued.

"Closing Date" shall mean the date of the funding of the Loan.

"Code" shall mean the Internal Revenue Code of 1986, as amended, and as it may be further amended from time to time, any successor statutes thereto, and applicable U.S. Department of Treasury regulations issued pursuant thereto in temporary or final form.

"Condemnation" shall have the meaning set forth in Section 6.1.3.

"Creditors' Rights Laws" shall mean any existing or future law (whether statute or case law) of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization, conservatorship,

SCHEDULE I TO LOAN AGREEMENT – Page 2

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arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to debts or debtors, including, without limitation, the Bankruptcy Code.

"Debt" shall mean all Indebtedness of Borrower to Lender, including, without limitation, the outstanding principal amount set forth in, and evidenced by, the Note together with all interest accrued and unpaid thereon, and all other sums due to Lender in respect of the Loan under the Note, this Agreement or any other Loan Document.

"Default" shall mean the occurrence of any event under this Agreement or under any other Loan Document which, but for the giving of notice or the passage of time, or both, would be an Event of Default.

"Default Rate" shall have the meaning set forth in the Note.

"Easements" shall have the meaning set forth in Section 4.1(bb).

"Embargoed Person" shall have the meaning set forth in Section 5.27(e).

"Enforcement Costs" shall mean any and all reasonable expenses, including reasonable legal expenses, attorneys' fees and expert witness fees, (i) described in Section 7.4 of this Agreement, (ii) incurred or paid by Lender in protecting Lender's interest in the Property, (iii) incurred in collecting any amount payable under this Agreement or the other Loan Documents, or (iv) incurred in enforcing Lender's rights under this Agreement or the other Loan Documents or with respect to the Property, in each of clauses (i) through (iv) whether or not any legal proceeding is commenced hereunder or thereunder and whether or not any Default or Event of Default shall have occurred and is continuing, together with interest thereon at the Default Rate from the date paid or incurred by Lender until such amounts are repaid to Lender.

"Environmental Indemnity" shall mean that certain Hazardous Materials Indemnity Agreement dated as of the date hereof, executed by Borrower and Guarantors in connection with the Loan for the benefit of Lender, as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time.

"Environmental Laws" has the meaning set forth in the Environmental Indemnity.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended.

"Event of Default" shall have the meaning set forth in Section 7.1(a).

"Excluded Taxes" means any of the following Taxes imposed on or with respect to Lender or required to be withheld or deducted from a payment to Lender, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of Lender being organized under the laws of, or having its principal office or its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) U.S. federal withholding Taxes imposed on amounts payable to or for the account of Lender with respect to an applicable interest in the Loan pursuant to a law in effect on the date on which Lender changes its lending office, except in each case to the extent that, pursuant to Section 2.6, amounts with respect to such Taxes were payable to Lender immediately before it changed its lending office, (c) Taxes attributable to Lender's failure to comply with Section 2.6(d), and (d) any U.S. federal withholding Taxes imposed under FATCA.

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"Executive Order" shall have the meaning set forth in Section 5.27(a).

"FATCA" means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with) and any current or future regulations or official interpretations thereof.

"Financial Statements" shall mean a balance sheet, income statement and statements of income and expense and cash flow of changes in financial position prepared in accordance with Acceptable Accounting Principles, and setting forth all items of income and expense and such other information required under Acceptable Accounting Principles to fairly present the financial position and results of operation of Borrower and the Property and which shall at a minimum be consistent in scope, form and content with such statements delivered to Lender prior to the Closing Date, unless otherwise agreed by Lender, and which are otherwise reasonably acceptable to Lender.

"Fiscal Year" shall mean each twelve-month period commencing on January 1 and ending on December 31 during the term of the Loan.

"GAAP" shall mean generally accepted accounting principles in the United States of America as of the date of the applicable financial report, consistently applied.

"Governmental Authority" shall mean any court, board, agency, commission, office or authority of any nature whatsoever for any governmental unit (federal, state, county, district, municipal, city or otherwise) whether now or hereafter in existence.

"Guarantor" shall mean, individually and collectively, as the context may require, GERRY N. KAMILOS, an individual, and KAREN L. KAMILOS, an individual.

"Guaranty" shall mean each Guaranty executed by a Guarantor, as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time.

"Hazardous Materials" has the meaning set forth in the Environmental Indemnity.

"Improvements" has the meaning set forth in the Security Instruments.

"Indebtedness" of a Person, at a particular date, means the sum (without duplication) at such date of (a) all indebtedness or liability for borrowed money; (b) obligations evidenced by bonds, debentures, notes, or other similar instruments; (c) obligations for the deferred purchase price of property or services (including trade obligations); (d) obligations under letters of credit; (e) obligations under acceptance facilities; (f) all guaranties, endorsements (other than for collection or deposit in the ordinary course of business) and other contingent obligations to purchase, to provide funds for payment, to supply funds, to invest in any Person, or otherwise to assure a creditor against loss; and (g) obligations secured by any Liens, whether or not the obligations have been assumed.

"Indemnified Parties" shall mean (a) Lender, (b) any prior or subsequent owner or holder of the Loan, (c) any Servicer or prior Servicer of the Loan, (d) any Investor or any prior Investor, (e) any trustees, custodians or other fiduciaries who hold or who have held a full or partial interest in the Loan for the benefit of any Investor or other third party, (f) any receiver or other fiduciary appointed in a foreclosure or other proceeding, (g) any officers, directors, shareholders, partners, members, employees, agents, servants, representatives, contractors, subcontractors, affiliates or subsidiaries of any and all of the foregoing, and (h) the heirs, legal representatives, successors and assigns of any and all of the foregoing (including any successors by merger, consolidation or acquisition of all or a substantial portion of the

SCHEDULE I TO LOAN AGREEMENT - Page 4

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Indemnified Parties' assets and business), in all cases whether during the term of the Loan or thereafter or as part of or following a foreclosure of the Loan.

"**Indemnified Taxes**" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of Borrower under any Loan Document.

"**Insurance Premiums**" shall have the meaning set forth in Section 6.1.1(b).

"**Insurance Proceeds**" shall mean all proceeds received under Policies required to be maintained by Borrower.

"**Interest Reserve Fund**" shall have the meaning set forth in Section 6.3.

"**Investor**" shall have the meaning set forth in Section 8.1.

"**Land**" shall have the meaning set forth in the Security Instruments.

"**Lease**" shall have the meaning set forth in the Security Instruments.

"**Legal Requirements**" shall mean all federal, state, county, municipal and other governmental statutes, laws, rules, orders, regulations, ordinances, judgments, decrees, development and redevelopment plans and injunctions of Governmental Authorities affecting the Property or any part thereof or the construction, use, development, alteration or operation thereof, or any part thereof, whether now or hereafter enacted and in force, and all permits, Licenses and authorizations and regulations relating thereto, and all covenants, agreements, restrictions and encumbrances contained in any instruments, either of record or known to Borrower, at any time in force affecting the Property or any part thereof, including (i) applicable restrictive covenants, zoning ordinances, zoning resolutions, and building codes, (ii) subdivision and land use laws and regulations, (iii) all applicable health and Environmental Laws and regulations, and (iv) all standards and regulations of appropriate supervising boards of fire underwriters and similar agencies.

"**Lender**" has the meaning in the recitals hereto.

"**Licenses**" shall have the meaning set forth in Section 4.1(m).

"**Lien**" shall mean any mortgage, deed of trust, lien, pledge, hypothecation, assignment, security interest, or any other encumbrance, charge or transfer of, on or affecting the Property or any portion thereof, or any interest of Borrower therein, including any conditional sale or other title retention agreement, any financing lease having substantially the same economic effect as any of the foregoing, the filing of any financing statement, and mechanic's or materialmen's liens and other similar liens and encumbrances.

"**LLC Agreement**" shall have the meaning set forth in Section 4.1(s)(ii).

"**Loan**" shall mean the loan made by Lender to Borrower pursuant to this Agreement.

"**Loan Documents**" shall mean, collectively, this Agreement, the Note, the Security Instruments, the Assignment of Leases, each Security Agreement, each Pledge Agreement, the Assignment of Agreements, the Assignment of Agreements, each Guaranty, all Uniform Commercial Code financing statements filed in connection with the Loan, and all other documents now or hereafter evidencing, securing or otherwise executed and/or delivered by one or more of the Borrower Parties in connection

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with the Loan, together with all amendments, modifications or replacements thereto. Each of the Loan Documents may be referred to herein individually as a "Loan Document".

"Loan Term Sheet" shall mean that certain letter from Lender to Borrower or an affiliate thereof dated December 20, 2017.

"Loss Proceeds" shall mean any and all Casualty insurance proceeds, condemnation awards and any settlement payments made in lieu of either which are made to Borrower in connection with or in respect of the Property.

"Losses" shall mean any and all claims, suits, liabilities (including strict liabilities), actions, proceedings, obligations, debts, damages, losses, costs (including any and all costs and expenses incurred in the preservation, restoration and protection of the Property), any deficiency claim in connection with the foreclosure of the Security Instruments, expenses, diminution in value of the Property, fines, penalties, charges, fees, judgments, awards, amounts paid in settlement, punitive damages payable by Lender or any Indemnified Party, foreseeable consequential damages payable by Lender or any Indemnified Party, and damages and expenses of whatever kind or nature (including but not limited to reasonable attorneys' fees and other costs of defense), including Enforcement Costs or any other amounts expended by Lender in connection with the Loan.

"Material Action" shall mean, with respect to any Person: (A) to file or consent to the filing of any petition, either voluntary or involuntary, to take advantage of any Creditors' Rights Laws, (B) to seek or consent to the appointment of a receiver, liquidator, trustee or any similar official, (C) to take any action that might cause such entity to become insolvent, (D) to make an assignment for the benefit of creditors, (E) admit in writing such Person's inability to pay its debts generally as they become due, (F) declare or effectuate a moratorium on the payment of any obligation, or (G) take action in furtherance of any such action.

"Material Adverse Change" shall mean a material adverse change in (i) the assets, operations, or financial condition of Borrower or the Person in question, (ii) the ability to pay the Debt of Borrower or the Person in question in accordance with the terms hereof and otherwise comply with the terms of this Agreement and the Loan Documents, (iii) the Property or the value thereof, (iv) the validity, priority or enforceability of this Agreement or any other Loan Document, (v) the ability of Lender to enforce its rights and remedies pursuant to this Agreement or any other Loan Documents, (vi) Lender's Lien on the Property or the priority of such Lien, or (vii) the Loan.

"Material Adverse Effect" shall mean a material adverse effect on (i) the assets, operations, or financial condition of Borrower or the Person in question, (ii) the ability to pay the Debt of Borrower or the Person in question in accordance with the terms hereof and otherwise comply with the terms of this Agreement, and the Loan Documents, (iii) the Property or the value thereof, (iv) the validity, priority or enforceability of this Agreement, or any other Loan Document, (v) the ability of Lender to enforce its rights and remedies pursuant to this Agreement or any other Loan Documents, (vi) Lender's Lien on the Property or the priority of such Lien, or (vii) the Loan.

"Maturity Date" shall mean the "Maturity Date" set forth in the Note or any earlier date due to acceleration of the Loan pursuant to the terms hereof, as may be extended in accordance with the terms of the Note.

"Member" shall have the meaning set forth in Section 4.1(s)(iii).

"Net Proceeds" shall mean collectively the Insurance Proceeds and Condemnation Proceeds.

SCHEDULE I TO LOAN AGREEMENT - Page 6

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"Note" shall mean that certain Promissory Note dated as of the date hereof, made by Borrower in favor of Lender, as the same may be amended, restated, replaced, extended, supplemented or otherwise modified from time to time.

"Obligations" shall mean any and all debt, liabilities and other obligations of Borrower, including all affirmative and negative covenants, to Lender or of any of the Borrower Parties in connection with the Loan or pursuant to the Loan Documents, including, without limiting the generality of the foregoing, the Debt.

"Officer's Certificate" shall mean a certificate delivered to Lender by Borrower, which is signed by an authorized senior officer of the manager, managing member or general partner of Borrower.

"Organizational Documents" shall mean (i) with respect to a corporation, such Person's certificate of incorporation and by-laws, and any shareholder agreement, voting trust or similar arrangement applicable to any of such Person's authorized shares of capital stock, (ii) with respect to a partnership, such Person's certificate of limited partnership, partnership agreement, voting trusts or similar arrangements applicable to any of its partnership interests, (iii) with respect to a limited liability company, such Person's certificate of formation, limited liability company agreement or other document affecting the rights of holders of limited liability company interests, and (iv) any and all agreements between any constituent member, partner or shareholder of Borrower, including any contribution agreement or indemnification agreements. In each case, "Organizational Documents" shall include any indemnity, contribution, shareholders or other agreement among any of the owners of the entity in question.

"Origination Fee" shall mean a fee equal to \$207,000.00, plus Lender's administration fee of \$1,000.00.

"Other Charges" shall mean all maintenance charges, charges or amounts payable under any reciprocal easement agreement, ground rents, impositions other than Taxes, and any other charges (including any charges, payments or amounts, for which the failure to pay may give rise to a Lien against the Property), including vault charges and license fees for the use of vaults, chutes and similar areas adjoining the Property, now or hereafter levied or assessed or imposed against the Property or any part thereof.

"Other Connection Taxes" means, with respect to Lender, Taxes imposed as a result of a present or former connection between Lender and the jurisdiction imposing such Tax (other than connections arising from Lender having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in the Loan or any Loan Document).

"Other Taxes" means all present or future stamp, court or documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment.

"Partial Release" shall have the meaning set forth in Section 12.31.

"Partial Release Notice Date" shall have the meaning set forth in Section 12.31(a).

SCHEDULE I TO LOAN AGREEMENT - Page 7

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"Patriot Act" shall have the meaning set forth in Section 5.27(a).

"Permitted Encumbrances" shall mean, with respect to the Property, collectively: (a) the Liens created by the Loan Documents, (b) all Liens, encumbrances and other matters disclosed in the Title Insurance Policy relating to the Property or any part thereof which have been approved by Lender and which do not in any event have a Material Adverse Effect, (c) Liens, if any, for Taxes imposed by any Governmental Authority not yet due or delinquent, and (d) statutory Liens for labor or materials securing sums not yet due and payable, provided Borrower has given advance written notice of same to Lender.

"Person" shall mean any individual, entity, corporation, partnership, limited liability company, joint venture, estate, trust, unincorporated association, any federal, state, county or municipal government or any bureau, department or agency thereof and any fiduciary acting in such capacity on behalf of any of the foregoing.

"Pledge Agreement" shall mean each certain Membership Interest Pledge Agreement dated of even date herewith between Lender and any of each Guarantor or WOODLAND INDUSTRIAL PARK, LLC, a California limited liability company.

"Policies" or "Policy" shall have the respective meanings specified in Section 6.1.1(b).

"Prior Loan" shall mean that certain loan in the original principal amount of \$12,550,000, secured by the Property, made to Borrower.

"Prohibited Person" shall have the meaning set forth in Section 5.27(b).

"Property" shall mean the Land, the Improvements thereof, all personal property owned by Borrower and encumbered by the Security Instrument and its Security Agreement, as applicable, in each case as more particularly described in the Security Instrument and its Security Agreement, as applicable.

"Rating Agency" shall have the meaning set forth in Section 8.1.

"Released Property" shall have the meaning set forth in Section 12.31.

"Rent(s)" shall have the meaning set forth in the Security Instruments.

"Repurchase Option" shall have the meaning set forth in Section 12.31(d).

"Request for Advance" shall have the meaning set forth in Section 2.2(a).

"Restoration" shall have the meaning set forth in Section 6.1.2(a).

"Reserve Funds" shall mean, collectively, the Tax and Insurance Escrow Fund, the Interest Reserve Fund and any other reserve fund account established pursuant to the Loan Documents.

"Scheduled Payment Date" shall mean the first day of each calendar month, or if such first day is not a Business Day, the next Business Day.

"Security Agreement" shall mean each first priority security agreement from Borrower to Lender and from each Guarantor to Lender, each dated as of the date hereof, as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time.

SCHEDULE I TO LOAN AGREEMENT – Page 8

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"Security Instrument" shall mean that certain first priority Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of the date hereof, executed and delivered by Borrower as security for the Loan made to Lender and encumbering the Property, as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time.

"Service Rights" shall mean any agreements, contracts, rights, licenses or other interests of any type (whether exclusive or non-exclusive) granted or given to any Person to provide any products or services to or for or with respect to the Property, any tenant or any occupants of the Property, including any of the same related to telecommunications, internet products or services, including, but not limited to, personal computer hardware and software, internet hardware and software, internet access services, printers, video display systems, audio sound systems and communication telephonic devices, as well as related and complementary products and services and any substitutes for, and items that are a technological evolution of, any of the foregoing products.

"Servicer" shall mean the servicer, if any, engaged by Lender with respect to the Loan.

"Single Purpose Entity" shall mean a Person, other than a natural person, whose structure and organizational and governing documents are in form and substance that comply with the provisions of Section 4.1(s) hereof and are otherwise acceptable to the Rating Agencies and otherwise acceptable to Lender in its discretion.

"Sources and Uses of Funds" shall mean the Sources and Uses of Funds delivered to Lender in connection with the Loan and attached hereto as Schedule VI.

"Subdivision Map" shall have the meaning set forth in Section 5.24.

"Survey" shall mean a survey of the Property prepared by a surveyor licensed in the state where the Property is located and satisfactory to Lender and the company or companies issuing the Title Insurance Policy, and containing a certification of such surveyor satisfactory to Lender.

"Taxes" shall mean (i) for all purposes other than for Section 2.6, all real estate and personal property taxes, assessments, water rates or sewer rents now or hereafter levied or assessed or imposed against the Property or any part thereof, including (a) any ad valorem real or tangible personal property taxes levied against the Property and (b) any intangible personal property tax levied or imposed on Lender with respect to its ownership in the Loan, and (ii) all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"Term" shall have the meaning set forth in Section 6.1.1(a).

"Title Insurance Company" shall mean a title insurance company or authorized agent acceptable to Lender that issues the Title Insurance Policy.

"Title Insurance Policy" shall mean the ALTA (or equivalent if ALTA is not available in the state where the Property is located) loan title insurance policy (or mortgagee title insurance policy or policies acceptable to Lender) issued with respect to the Property and insuring Lender (in an amount satisfactory to Lender) of the validity and priority of the Lien of the Security Instruments, with all endorsements thereto as required by Lender.

SCHEDULE I TO LOAN AGREEMENT – Page 9

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"Transfer" shall mean any sale, assignment, conveyance, alienation, mortgage, encumbrance, pledge, hypothecation or other transfer, including any swap, derivative or other transaction shifting the risks and rewards of ownership, whether voluntary or involuntary.

"UCC" or **"Uniform Commercial Code"** shall mean the Uniform Commercial Code as in effect in the applicable state or commonwealth in which the Property is located, as the same may be amended from time to time.

"UCC Financing Statement" shall mean a financing statement as defined by and in accordance with the requirements of the Uniform Commercial Code including all original financing statements or original fixture financing statements and any amendments, renewals, continuations or assignments thereof evidencing a security interest granted to Lender.

"U.S. Person" shall mean any Person that is a "United States Person" as defined in Section 7701(a)(30) of the Code.

"Yolo Property" shall mean the approximately 147 acres of undeveloped Land, the Improvements thereon and all personal property owned by Borrower thereon, known as Assessor's Parcel No. 021-210-007, located in Yolo County, California.

SCHEDULE I TO LOAN AGREEMENT – Page 10

61254861

SCHEDULE II**CONDITIONS PRECEDENT**

Each of the following shall be satisfied by Borrower as a condition precedent to the making of the Loan.

(a) **Representations and Warranties; Compliance with Conditions.** The representations and warranties of each Borrower Party contained in this Agreement and the other Loan Documents shall be true and correct in all respects on and as of the Closing Date and no Material Adverse Change has occurred and no Default or Event of Default shall have occurred and be continuing; and each Borrower Party shall be in compliance in all respects with all terms and conditions set forth in this Agreement and in each other Loan Document on their part to be observed or performed.

(b) **Delivery of Loan Documents; Title Insurance; Reports.**

(i) **Note, Loan Agreement, Security Instruments, Assignment of Agreements and other Loan Documents.** Lender shall have received from Borrower fully executed (and acknowledged if required) counterparts of this Agreement, the Note, and all other Loan Documents and evidence that counterparts of the Security Instruments have been delivered to the Title Insurance Company for recording, so as to effectively create upon such recording valid and enforceable first priority Liens upon the Property, in favor of Lender, subject only to the Permitted Encumbrances.

(ii) **UCC Financing Statements.** Lender shall have received from Borrower (i) such UCC financing statements as Lender shall require, and such financing statements shall have been filed of record in the appropriate filing offices in each of the jurisdictions required by Lender or delivered to the Title Insurance Company for filing so as to effectively create upon such filing a valid and enforceable first priority Lien on the Property in favor of Lender, subject only to the Permitted Encumbrances and (ii) a list of the principal places of business, tax identification numbers, organizational identification number issued by its state of organization, and doing business names for Borrower and all other information as Lender may require to properly file such UCC financing statements, all certified by Borrower.

(iii) **Title Insurance.** Lender shall have received the Title Insurance Policy dated as of the Closing Date, with co-insurance and/or reinsurance and direct access agreements acceptable to Lender. Such Title Insurance Policy shall (A) provide coverage in amounts satisfactory to Lender, (B) insure Lender that the Security Instrument creates a valid first Lien on the Property free and clear of all exceptions from coverage other than Permitted Encumbrances, (C) contain such endorsements and affirmative coverages as Lender may require and which are available in the state where the Property is located, (D) show good and marketable indefeasible fee simple title to the Property vested in Borrower, and (E) name Lender as the insured. The Title Insurance Policy shall be assignable. Lender also shall have received evidence that all premiums in respect of the Title Insurance Policy have been paid. The Lender shall have received satisfactory UCC financing statement, tax lien, judgment, bankruptcy, litigation and other Lien searches and reports conducted by a search firm acceptable to the Lender with respect to the Property and the Borrower Parties and all other relevant Persons, such searches to be conducted in each of the locations as shall be required by Lender.

(iv) **Insurance.** Lender shall have received valid certificates of insurance and the required endorsements for all Policies required hereunder or under any of the Loan Documents, and evidence of the payment of all premiums payable for the existing policy period, which

SCHEDULE II TO LOAN AGREEMENT - Page 1

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shall not be less than one year from the Closing Date. Lender shall have received a favorable opinion of Lender's insurance consultant on the adequacy of all Policies, certificates of insurance, and endorsements.

(v) Encumbrances. Borrower shall have taken or caused to be taken such actions in such a manner so that Lender has a valid and perfected first Lien as of the Closing Date on the Property, subject only to applicable Permitted Encumbrances and such other Liens as are permitted pursuant to the Loan Documents, and Lender shall have received satisfactory evidence thereof.

(vi) Certificate. Lender shall have received a certificate signed by Borrower confirming the representations and warranties contained in this Agreement.

(vii) Opinion of Counsel. Lender shall have received a satisfactory opinion of legal counsel to Borrower and Guarantors with respect to due execution, authority, enforceability (including no usury) of the Loan Documents and such other matters as Lender may require, all such opinions to be in form, scope and substance satisfactory to Lender and Lender's counsel.

(c) Delivery of Organizational Documents; Consents. Borrower shall have delivered or caused to be delivered to Lender certified copies of all Organizational Documents related to the Borrower Parties and if any of the Borrower Parties is a partnership or limited liability company, the partners or members thereof, as Lender may request in its sole discretion, including good standing certificates, qualifications to do business in the appropriate jurisdictions, resolutions authorizing the entering into of the Loan and incumbency certificates as may be requested by Lender. The Lender shall have received copies of all consents, resolutions, Licenses and approvals, if any, required in connection with the execution, delivery and performance by the Borrower Parties and the validity and enforceability of the Loan Documents and such consents, resolutions, Licenses and approvals shall be in full force and effect. Lender shall have received a chart depicting the ownership structure of Borrower, each constituent partner or member of Borrower (including their respective ownership interests, direct or indirect, and capital contributions), which chart shall identify each Person who owns or controls, directly or indirectly, any such partner or member of Borrower.

(d) Taxes, Insurance Premiums and Other Charges. Borrower shall have paid all Taxes, Insurance Premiums and Other Charges relating to the Property which are due and payable or in arrears, including (i) accrued but unpaid Insurance Premiums, (ii) currently due Taxes (including any in arrears) relating to the Property, and (iii) currently due Other Charges relating to the Property, which amounts may be funded with proceeds of the Loan if such proceeds are sufficient therefor and as set forth in the Sources and Uses of Funds.

(e) Payments. All payments, deposits or escrows required to be made or established by the Borrower under this Agreement, and the other Loan Documents on or before the Closing Date shall have been paid and Lender shall have received (i) a settlement statement setting forth the disbursement of the Loan in form and content satisfactory to Lender and (ii) tax and insurance bills for the two calendar years prior to the Closing Date.

(f) Third Party Reports. Lender shall have received a current seismic report, if required by Lender (prepared by a specialist acceptable to Lender), MAI appraisal report (prepared in compliance with FIRREA) (provided that Lender may accept evidence of value other than an MAI appraisal report, as determined by Lender), environmental property condition report (Phase I environmental reports for the Property and, where environmental consultants recommends, Phase II reports and/or further investigation or as Lender otherwise determines are required), and property condition / engineering report; each addressed to Lender and in form and substance satisfactory to Lender and dated within three (3) months of the Closing Date, or if approved by Lender, if such third party

SCHEDULE II TO LOAN AGREEMENT - Page 2

61254861

reports that are not dated within three (3) months of the Closing Date but are otherwise acceptable to Lender, Borrower has delivered a reliance letter to Lender within three (3) months of the Closing Date that is in form and substance satisfactory to Lender. An appraiser, engineer and environmental specialist, each satisfactory to Lender, shall perform the appraisal and the structural engineering and environmental property condition reports.

(g) Survey. Lender shall have received, reviewed, and be satisfied with an ALTA survey of the Property, prepared by a duly qualified land surveyor and certified to Lender and the Title Insurance Company showing (i) the boundaries and dimensions of the Land and each Parcel, (ii) the locations of all buildings and other improvements (if any) on the Property, (iii) the names and municipal block numbers of adjacent streets, (iv) the location of all recorded easements, rights of way, and other recorded encumbrances of the Property, and (v) anything else required by Lender.

(h) Costs. Borrower shall have paid all of Lender's cost and expenses associated with the making of the Loan with respect to the Property, including all out-of-pocket due diligence expenses, the cost of all third party reports (such as but not limited to environmental, structural, appraisal and/or market study), legal fees and expenses, survey costs, title costs, etc.

(i) Authorizations. Borrower shall provide to the appropriate taxation, municipal, utility, and other authorities an authorization by which Lender or any Person authorized by Lender as its legal counsel, agent, or manager, shall be able to obtain, in the name of Borrower, a confirmation from such authorities that all payments, declarations, and other filings of Borrower are up to date, whether the authorities concerned have issued or will issue a default notice or demand for payment to Borrower and whether any such notice concerns arrears.

(j) Site Inspection. Lender has received an acceptable site inspection of the Property.

(k) Interview. Lender has completed and is satisfied with an interview of Borrower and has reviewed and is satisfied with the present and intended use of the Property and the income to be generated from the Property.

(l) Diligence. Lender has received, reviewed, and is satisfied with all due diligence materials referred to in the Loan Term Sheet.

(m) Proceeds of Crime and Terrorist Financing Act. Lender shall have received evidence and be satisfied of Borrower's compliance with The Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada) and Regulations.

(n) Closing Date Advance. Lender shall have received, reviewed, and be satisfied with the amount of the advance to be made on the Closing Date together with copies of invoices for items to be paid with the proceeds of such advance and copies of all other documentation requested by Lender supporting such advance.

(o) No Violation of Legal Requirements. There shall be no outstanding notices of any uncorrected violations of any Legal Requirements with respect to the Property.

(p) Further Documents. Lender or its counsel shall have received such other and further approvals, opinions, documents and information as Lender or its counsel may have reasonably requested in form and substance satisfactory to Lender and its counsel.

SCHEDULE II TO LOAN AGREEMENT – Page 3

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(q) Sources and Uses of Funds. Lender shall have approved the Sources and Uses of Funds for the initial advance.

(r) Agreement to Advance. Lender has been advised by its legal counsel that, giving regard to all the circumstances, such advance should be made, it being understood that neither the preparation nor the recordation or filing of any of the documents contemplated herein shall bind the Lender to advance the funds or any unadvanced portion thereof, and that the advance of funds or any part thereof from time to time shall be in the sole, absolute, unfettered and unqualified discretion of the Lender.

SCHEDULE II TO LOAN AGREEMENT – Page 4

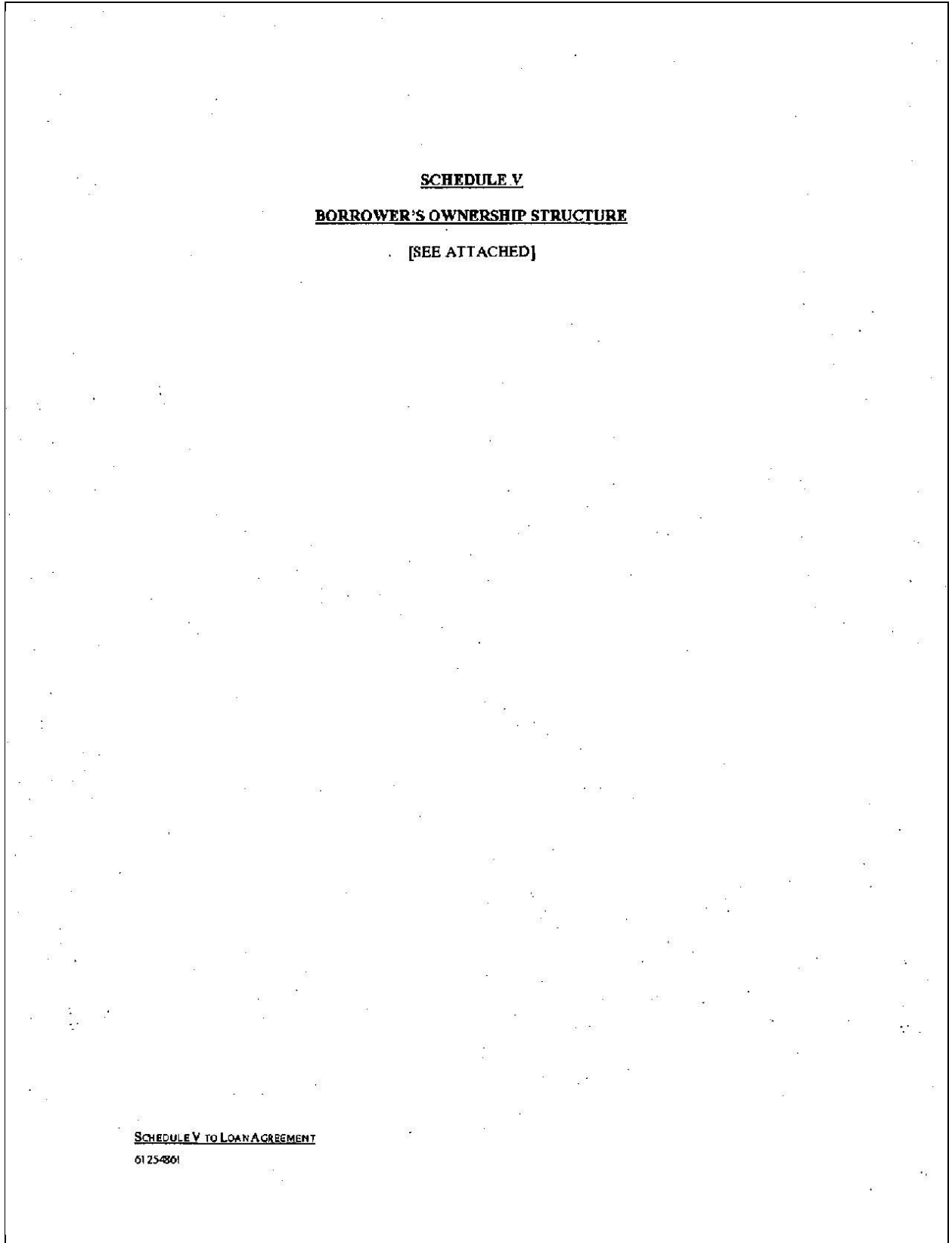
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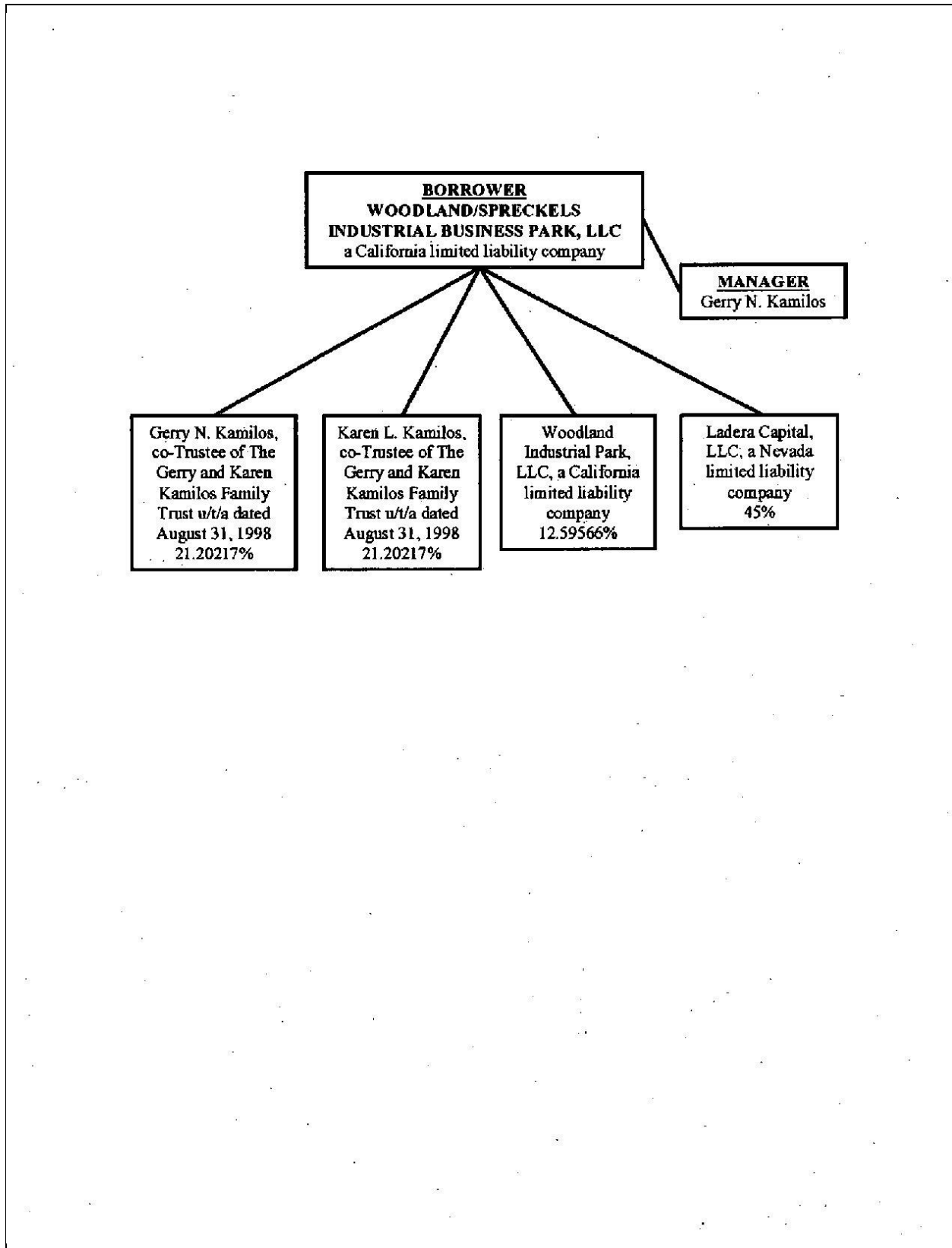
<u>SCHEDULE III</u>
<u>PENDING OR THREATENED LITIGATION</u>
NONE

SCHEDULE III TO LOAN AGREEMENT
61254861

SCHEDULE IV
DISCLOSURE SCHEDULE
NONE

SCHEDULE IV TO LOAN AGREEMENT
61254861





SCHEDULE VI
SOURCES AND USES OF FUNDS

PURPOSE	AMOUNT
Repay existing first mortgage on the Property	\$9,000,000.00
Repay unsecured debt owed by Borrower	\$110,000.00
Project related cost (grading, implementation design)	\$150,000.00
Assist in payment of unsecured debt owed by Borrower relate to the Property	\$150,000.00
Interest Reserve	\$500,000.00
Lender fee, broker fee, and other transaction costs	\$440,000.00

SCHEDULE VI TO LOAN AGREEMENT
61254861

EXHIBIT A-1

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

**U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Lenders That Are Not Partnerships For U.S. Federal Income Tax Purposes)**

Reference is hereby made to the Loan Agreement dated as of January 4, 2018 (as amended, restated, replaced, supplemented or otherwise modified from time to time, the "Loan Agreement"), between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company, as Borrower, and ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership, as Lender.

Pursuant to the provisions of Section 2.6 of the Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Lender and the Borrower with a certificate of its non-U.S. Person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Lender, and (2) the undersigned shall have at all times furnished the Borrower and the Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Loan Agreement and used herein shall have the meanings given to them in the Loan Agreement.

[NAME OF LENDER]
By:
Name:
Title:

Date: _____, 20[]

EXHIBIT A-1 TO LOAN AGREEMENT
6125/861

EXHIBIT A-2

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Participants That Are Not Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Loan Agreement dated as of January 4, 2018 (as amended, restated, replaced, supplemented or otherwise modified from time to time, the "Loan Agreement"), between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, a California limited liability company, as Borrower, and ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership, as Lender.

Pursuant to the provisions of Section 2.6 of the Loan Agreement, the undersigned hereby certifies that (i) it is the sole record and beneficial owner of the participation in respect of which it is providing this certificate, (ii) it is not a bank within the meaning of Section 881(c)(3)(A) of the Code, (iii) it is not a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code, and (iv) it is not a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with a certificate of its non-U.S. Person status on IRS Form W-8BEN. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender in writing, and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Credit Agreement and used herein shall have the meanings given to them in the Loan Agreement.

[NAME OF PARTICIPANT]
By:
Name:
Title:

Date: _____, 20[]

EXHIBIT A-2 TO LOAN AGREEMENT

61254861

EXHIBIT A-3

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

**U.S. TAX COMPLIANCE CERTIFICATE
(For Foreign Participants That Are Partnerships For U.S. Federal Income Tax Purposes)**

Reference is hereby made to the Loan Agreement dated as of January 4, 2018 (as amended, restated, replaced, supplemented or otherwise modified from time to time, the "Loan Agreement"), between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, a California limited liability company, as Borrower, and ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership, as Lender.

Pursuant to the provisions of Section 2.6 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the participation in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such participation, (iii) with respect such participation, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished its participating Lender with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform such Lender and (2) the undersigned shall have at all times furnished such Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Loan Agreement and used herein shall have the meanings given to them in the Loan Agreement.

[NAME OF PARTICIPANT]
By:
Name:
Title:

Date: _____, 20[]

EXHIBIT A-3 TO LOAN AGREEMENT
61254861

EXHIBIT A-4

FORM OF U.S. TAX COMPLIANCE CERTIFICATE

U.S. TAX COMPLIANCE CERTIFICATE

(For Foreign Lenders That Are Partnerships For U.S. Federal Income Tax Purposes)

Reference is hereby made to the Loan Agreement dated as of January 4, 2018 (as amended, restated, replaced, supplemented or otherwise modified from time to time, the "Loan Agreement"), between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, a California limited liability company, as Borrower, and ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership, as Lender.

Pursuant to the provisions of Section 2.6 of the Credit Agreement, the undersigned hereby certifies that (i) it is the sole record owner of the Loan(s) (as well as any Note(s) evidencing such Loan(s)) in respect of which it is providing this certificate, (ii) its direct or indirect partners/members are the sole beneficial owners of such Loan(s) (as well as any Note(s) evidencing such Loan(s)), (iii) with respect to the extension of credit pursuant to this Agreement or any other Loan Document, neither the undersigned nor any of its direct or indirect partners/members is a bank extending credit pursuant to a loan agreement entered into in the ordinary course of its trade or business within the meaning of Section 881(c)(3)(A) of the Code, (iv) none of its direct or indirect partners/members is a ten percent shareholder of the Borrower within the meaning of Section 871(h)(3)(B) of the Code and (v) none of its direct or indirect partners/members is a controlled foreign corporation related to the Borrower as described in Section 881(c)(3)(C) of the Code.

The undersigned has furnished the Lender and the Borrower with IRS Form W-8IMY accompanied by one of the following forms from each of its partners/members that is claiming the portfolio interest exemption: (i) an IRS Form W-8BEN or (ii) an IRS Form W-8IMY accompanied by an IRS Form W-8BEN from each of such partner's/member's beneficial owners that is claiming the portfolio interest exemption. By executing this certificate, the undersigned agrees that (1) if the information provided on this certificate changes, the undersigned shall promptly so inform the Borrower and the Lender, and (2) the undersigned shall have at all times furnished the Borrower and the Lender with a properly completed and currently effective certificate in either the calendar year in which each payment is to be made to the undersigned, or in either of the two calendar years preceding such payments.

Unless otherwise defined herein, terms defined in the Loan Agreement and used herein shall have the meanings given to them in the Loan Agreement.

[NAME OF LENDER]
By:
Name:
Title:

Date: _____, 20[]

EXHIBIT A-4 TO LOAN AGREEMENT

01254801

EXHIBIT B

PROMISSORY NOTE

U.S. \$10,350,000.00

January 4, 2018
Woodland, California

FOR VALUE RECEIVED, WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company, having an address at 11249 Gold Country Boulevard, Suite 190, Gold River, California 95670 ("Borrower"), absolutely and unconditionally promises to pay to the order of **ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP**, an Ontario limited partnership, having an address at 162 Cumberland Street, Suite 300, Toronto, Ontario M5R 3N5 ("Lender"), the principal sum of TEN MILLION THREE HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS (U.S. \$10,350,000.00), with interest on the unpaid principal balance to be computed from the date of the first disbursement of the Loan proceeds under this Promissory Note (this "Note") at the Applicable Interest Rate (defined below), in lawful money of the United States of America, in immediately available funds, which shall at the time of payment be legal tender for payment of all debts and dues, public and private (the "Loan"). This Note is secured by, among other things, that certain Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing executed of even date herewith by Borrower in favor of Lender (the "Security Instrument"). Simultaneously herewith, Borrower and Lender have entered into that certain Loan Agreement (as the same may be amended, modified, supplemented, replaced or otherwise modified from time to time, the "Loan Agreement").

PAYMENT OF PRINCIPAL AND INTEREST.

1.1 Payments. The principal, interest and all other sums due under this Note shall be payable at the office of Lender as set forth above, or at such other place as Lender may from time to time designate in writing, as follows:

(a) Interest on the unpaid balance of the Loan shall accrue at the rate of ten percent (10.0%) per annum (the "Interest Rate") from and including the date of the first disbursement of the Loan proceeds under this Note until the Maturity Date (defined below), and shall be payable on a monthly basis, in arrears, on each Scheduled Payment Date (defined below). Interest shall not accrue on the Interest Reserve Fund (as defined in Section 6.4 of the Loan Agreement) until such time as such funds are disbursed in accordance with the terms thereof.

(b) The Loan shall mature on the Maturity Date, subject to extension on the terms and conditions set forth herein. The entire outstanding principal balance of this Note, together with all accrued and unpaid interest and any other amounts due under this Note and the other Loan Documents (defined below) shall be due and payable in full on the Maturity Date. Subject to meeting the Maturity Extension Requirements, Borrower may extend the Maturity Date for up to two (2) additional six-month terms by exercising the First Maturity Extension and the Second Maturity Extension as set forth herein.

(c) If this Note is executed on a day other than the first (1st) day of a calendar month, Borrower shall pay to Lender, contemporaneously with the execution of this Note, an interest payment calculated by multiplying (i) the number of days from and including the date of this Note to and including the last day of the current month, by (ii) a daily rate based on the Interest Rate calculated for a 360 day year. Each interest accrual period (the "Interest Period") thereafter shall commence on the first (1st) day of each calendar month during the term of the Loan and shall end on the last day of the next occurring calendar month. Commencing on the Scheduled Payment Date occurring March 1, 2018, and on each Scheduled Payment Date thereafter throughout the term of the Loan, subject to the terms of Section 6.3 of the Loan Agreement establishing an Interest Reserve (as defined therein), Borrower shall make a payment

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to Lender monthly in arrears of interest accruing on the outstanding principal balance during each Interest Period (each such payment, a "Monthly Debt Service Payment").

(d) All amounts due under this Note and each other Loan Document shall be payable without setoff, counterclaim or any other deduction whatsoever.

(e) Principal payments shall be made on this Note as provided in Section 2.3 of the Loan Agreement.

1.2 Computation. Interest at the Applicable Interest Rate on the principal sum of this Note shall be calculated on the basis of a three hundred sixty (360) day year and the actual number of days elapsed in such period and shall be compounded monthly upon and during the continuance of an Event of Default. In computing the number of days during which interest accrues, the day on which funds are advanced shall be included regardless of the time of day such advance is made, and the day on which funds are repaid shall be included unless repayment is credited prior to Lender's close of business. For the purposes of the Interest Act (Canada) and disclosure thereunder, whenever any interest or any fee to be paid hereunder or in connection herewith is to be calculated on the basis of a 360-day year, the yearly rate of interest to which the rate used in such calculation is equivalent is the rate so used multiplied by the actual number of days in the calendar year in which the same is to be ascertained and divided by 360. The rates of interest under this Note are nominal rates, and not effective rates or yields. The principle of deemed reinvestment of interest does not apply to any interest calculation under this Note.

1.3 Determination. Payments under this Note or any other Loan Document made in federal funds immediately available in the place designated for payment which are received by Lender prior to 2:00 p.m. local time at said place of payment shall be considered by Lender as having been received prior to close of business, while other payments may, at the option of Lender, not be credited until immediately available to Lender in federal funds in the place designated for payment prior to 2:00 p.m. local time at said place of payment on a day on which Lender is open for business.

1.4 Making of Payments. Each payment by Borrower hereunder or under the Loan Agreement or any other Loan Document shall be made in immediately available funds to Lender on the date such payment is due to Lender, without presentment, demand, protest or notice of any kind, all such notices being hereby waived and without setoff, counterclaim or other deduction of any nature. Whenever any payment hereunder or under the Loan Agreement or any other Loan Document shall be stated to be due on a day which is not a Business Day such payment shall be made on the next following Business Day, and, if applicable, interest shall continue to accrue and be payable at the applicable interest rate during such extension. Borrower shall remit all payments to Lender via an automatic debit service approved by Lender.

1.5 Application. Payments under this Note shall be applied in accordance with Section 2.4 of the Loan Agreement. No principal amount repaid may be reborrowed.

1.6 Maturity Grace Period. If Borrower fails to pay the unpaid balance of the Loan and all unpaid accrued interest thereon on the Maturity Date (other than a Maturity Date arising pursuant to clause (iv) of the definition of Maturity Date), Lender may, at its sole discretion, grant to Borrower a Maturity Grace Period (in lieu of such occurrence being deemed an Event of Default). During the Maturity Grace Period, the unpaid balance of the Loan shall accrue interest at the Maturity Grace Period Interest Rate, with the unpaid balance of the Loan and all unpaid accrued interest thereon, including interest that accrues during the Maturity Grace Period, being due and payable in full on the last day of the Maturity Grace Period. There shall be no more than one (1) Maturity Grace Period. If Lender grants a Maturity Grace Period to Borrower, the Maturity Grace Period Fee shall automatically be added to the

outstanding balance of the Loan. Borrower's failure to pay the unpaid balance of the Loan and all unpaid accrued interest on the first day after the expiration of the Maturity Grace Period shall constitute an Event of Default.

1.7 **Definitions.** All capitalized terms used in this Note without definition shall have the meanings assigned to such terms in the Loan Agreement, all of the terms of such Loan Agreement being hereby incorporated into and made part of this Note by reference for all purposes. Additionally, for purposes of this Note, the following terms shall have the following meanings:

"Applicable Interest Rate" shall mean the Interest Rate, the Default Rate, or the Maturity Grace Period Interest Rate, as applicable.

"Banking Day" shall mean a day on which the Toronto, Ontario, head office for the Royal Bank of Canada is open for business and which is not a Saturday, Sunday, civic or statutory holiday in Canada.

"Business Day" shall mean a day on which commercial banks are not authorized or not required by law to close in the State where the Property is located.

"Default Rate" has the meaning given thereto in Section 2.3.

"First Maturity Extension" shall mean that Lender has determined that Borrower has timely satisfied all Maturity Extension Requirements prior to January 1, 2018, and Lender has extended the Maturity Date from February 1, 2019, to August 1, 2019.

"Interest Period" has the meaning given thereto in Section 1.1(c).

"Interest Rate" has the meaning given thereto in Section 1.1(a).

"Loan Agreement" has the meaning given thereto in the recitals above.

"Maturity Date" shall mean (i) if not extended pursuant to the First Maturity Extension, February 1, 2019, (ii) if extended pursuant to the First Maturity Extension, August 1, 2019, (iii) if extended pursuant to the Second Maturity Extension, February 1, 2020, or (iv) any earlier date on which the Loan has been accelerated pursuant to the terms of the Loan Agreement.

"Maturity Extension Requirements" shall collectively mean the following:

(i) Delivery by Borrower to Lender of written notice no less than thirty (30) days prior to the applicable Maturity Date (the "Maturity Extension Notice") that Borrower seeks to exercise the First Maturity Extension or the Second Maturity Extension, as the case may be;

(ii) Delivery by Borrower to Lender no later than the applicable Maturity Date of an extension fee in immediately available funds in an amount equal to one-half of one percent (0.5%) of the then outstanding principal balance of the Loan; and

(iii) No Default or Event of Default has ever occurred.

"Maturity Grace Period Interest Rate" shall mean an interest rate that is the greater of (i) the Interest Rate and (ii) the Royal Bank of Canada Prime Rate per annum, plus five percent (5%); as determined on the first (1st) Banking Day of the month in which the Maturity Date occurs.

“**Maturity Grace Period**” shall mean the period from the Maturity Date through and including the date that is one (1) month from the Maturity Date. There shall be no Maturity Grace Period available to Borrower if the Maturity Date arises pursuant to clause (iv) of the definition of Maturity Date.

“**Maturity Grace Period Fee**” shall mean an amount equal to the greater of (i) \$5,000.00, and (ii) one percent (1%) of the then outstanding principal balance of the Loan.

“**Prepayment Premium**” means payment in immediately available funds in the amount of the most recent Monthly Debt Service Payment.

“**Royal Bank of Canada Prime Rate**” means the rate of interest, expressed as a percentage per annum, published and quoted by the Royal Bank of Canada’s Toronto, Ontario, Head Office and which is commonly known as the prime lending rate for commercial loans in Canadian Dollars.

“**Scheduled Payment Date**” shall mean the first (1st) day of each calendar month, or if such first (1st) day is not a Business Day, the next Business Day.

“**Second Maturity Extension**” shall mean, if the Maturity Date has previously been extended pursuant to the First Maturity Extension, that Lender has determined that Borrower has timely satisfied all Maturity Extension Requirements prior to July 1, 2019, and Lender has extended the Maturity Date from August 1, 2019, to February 1, 2020.

2. **DEFAULT**

2.1 **Late Fee**. If any principal, interest or any other sum due under this Note or the other Loan Documents (other than the payment of principal during the Maturity Grace Period) is not paid by Borrower on the date on which it is due, Borrower shall pay to Lender upon demand an amount equal to the lesser of five percent (5%) of such unpaid sum or the maximum amount permitted by any Legal Requirements, in order to defray the expense incurred by Lender in handling and processing such delinquent payment and to compensate Lender for the loss of the use of such delinquent payment. Any such amount shall be secured by the Security Instrument and the other Loan Documents.

2.2 **Remedies**. The entire outstanding principal sum of this Note, together with all interest accrued and unpaid thereon and all other sums due under this Note, the Security Instrument, or any of the other Loan Documents, or any portion thereof, including without limitation, any amounts described in Section 12.9 of the Loan Agreement shall without notice become immediately due and payable at the option of Lender upon the occurrence of any Event of Default. Time is of the essence in this Note, the Security Instrument and the other Loan Documents. All of the terms, covenants and conditions contained in the Security Instrument and the other Loan Documents are hereby made part of this Note to the same extent and with the same force as if they were fully set forth herein. All payments from Borrower to Lender following the occurrence of an Event of Default shall be applied in such order and manner as Lender elects in reduction of costs, expenses, charges, disbursements and fees payable by Borrower hereunder or under any other Loan Document, in reduction of interest due on the outstanding principal balance of the Loan, or in reduction thereof. Lender may, without notice to Borrower or any other person, accept one or more partial payments of any sums due or past due hereunder from time to time while an Event of Default exists hereunder, after Lender accelerates the indebtedness evidenced hereby, and/or after Lender commences enforcement of its remedies under any Loan Document or applicable law, without thereby waiving any Event of Default, rescinding any acceleration, or waiving, delaying, or forbearing in the pursuit of any remedies under the Loan Documents. Lender may endorse and deposit any check or other instrument tendered in connection with such a partial payment without thereby giving

effect to or being bound by any language purporting to make acceptance of such instrument an accord and satisfaction of the indebtedness evidenced hereby.

2.3 Default Rate. Upon the occurrence of a default by Borrower under this Note, and following the expiration of the applicable cure period (if any) or any other Event of Default under the Loan Documents (each of the foregoing an "Event of Default") and during the continuance thereof, Lender shall be entitled to receive and Borrower shall pay interest on the entire unpaid principal sum at the Interest Rate plus five percent (5%) (the "Default Rate"). The Default Rate shall be automatically computed from the occurrence of the Event of Default until the actual receipt and collection of this Note in full or, the date such Event of Default is cured. This charge shall be added to this Note, and shall be deemed secured by the Security Instrument and the other Loan Documents. Borrower agrees that Lender's right to collect interest at the Default Rate is given for the purpose of compensating Lender at reasonable amounts for Lender's added costs and expenses that occur as a result of Borrower's default and that are difficult to predict in amount, such as increased general overhead, concentration of management resources on problem loans, and increased cost of funds. Lender and Borrower agree that Lender's collection of interest at the Default Rate is not a fine or penalty, but is intended to be and shall be deemed to be reasonable compensation to Lender for increased costs and expenses that Lender will incur if there occurs an Event of Default hereunder. Collection of interest at the Default Rate shall not be construed as an agreement or privilege to extend the Maturity Date or to limit or impair any rights and remedies of Lender under any Loan Documents. In the event the Default Rate would otherwise exceed the maximum rate permitted by applicable law, the Default Rate shall be the maximum rate permitted by applicable law.

2.4 Post-Judgment. Interest shall accrue on any judgment obtained by Lender in connection with the enforcement or collection of this Note or the other Loan Documents (including foreclosure of the Security Instrument) until such judgment amount is irrevocably paid in full at a rate equal to the greater of (a) the Default Rate or (b) the highest legal rate applicable to judgments within such jurisdiction; provided, however, that interest shall not accrue at a rate in excess of the maximum rate of interest, if any, which may be charged by Lender or collected from Borrower under applicable law.

2.5 Remedies Cumulative. The remedies available to Lender under this Note and in the other Loan Documents, or at law or in equity, shall be cumulative and concurrent, and may be pursued singly, successively or together in Lender's sole discretion and as often as occasion therefor shall arise.

3. PREPAYMENT.

3.1 Prepayment.

(a) Except as set forth in Sections 3.1(b) and 3.1(c), Borrower shall not have the right to prepay the Loan in whole or in part prior to the Maturity Date.

(b) At any time prior to the Maturity Date, Borrower shall have the right to prepay the Loan, in whole or in part, without premium or penalty as a result of payments made pursuant to Section 2.3 of the Loan Agreement.

(c) On any Scheduled Payment Date during the term of the Loan, so long as no Default or Event of Default shall have occurred and be continuing, Borrower may, at its option and upon not less than thirty (30) days prior notice to Lender, prepay the outstanding principal balance of the Loan in whole only (and not in part) with payment of the Prepayment Premium. If after notifying Lender of its intent to prepay, Borrower revokes such prior notice or fails to make such prepayment on the date specified in such notice, Borrower shall pay all actual costs and expenses incurred by Lender as a result of

such failure or revocation. Any prepayment received by Lender under this Section shall, in addition to the outstanding principal balance of the Loan and the Prepayment Premium, also be accompanied by (a) if for any reason such prepayment does not occur on a Scheduled Payment Date, all interest which would have accrued on the principal amount prepaid through, but not including, the next occurring Scheduled Payment Date, (b) all other sums due and payable under the Loan Documents, and (c) all reasonable out-of-pocket costs and expenses incurred by Lender in connection with such prepayment. Borrower acknowledges that Lender has made the Loan to Borrower in reliance on the actual receipt over time of the principal and interest as applicable as agreed to by Borrower herein and that Lender will incur additional costs and expenses in the event of a prepayment of the Loan and that the Prepayment Premium is reasonable and is a bargained for consideration and not a penalty and the terms of the Loan are in various respects more favorable to Borrower than they would have been absent Borrower's agreement to pay the Prepayment Premium as provided herein. Borrower agrees that Lender shall not, as a condition to receiving the Prepayment Premium, be obligated to actually reinvest the amount prepaid in any treasury obligation or in any other manner whatsoever. Nothing contained herein shall be deemed to be a waiver by Lender of any right it may have to require specific performance of any obligation of Borrower hereunder.

3.2 Prepayment Upon Default. If following the occurrence of any Event of Default, Lender shall accelerate the Loan, Borrower shall pay to Lender all amounts payable under this Note and the other Loan Documents. If Borrower shall tender payment of an amount sufficient to satisfy the Debt at any time prior to a sale of the Property, either through foreclosure or the exercise of the other remedies available to Lender under the Loan Documents, such tender by Borrower shall be deemed to be voluntary and Borrower shall pay all amounts due and payable under the Loan Documents, including without limitation, amounts described in Section 3.1.

3.3 **BORROWER HEREBY EXPRESSLY (A) WAIVES ANY RIGHTS THAT BORROWER MAY HAVE UNDER CALIFORNIA CIVIL CODE SECTION 2954.10 TO PREPAY THIS NOTE, IN WHOLE OR IN PART, WITHOUT PENALTY, UPON ACCELERATION OF THE MATURITY DATE OF THE NOTE, AND (B) AGREES THAT IF, FOR ANY REASON, A PREPAYMENT OF ANY OR ALL OF THIS NOTE IS MADE, WHETHER VOLUNTARY OR INVOLUNTARY, OR UPON OR FOLLOWING ANY ACCELERATION OF THE MATURITY DATE OF THE NOTE BY LENDER ON ACCOUNT OF ANY EVENT OF DEFAULT BY BORROWER UNDER ANY LOAN DOCUMENT, INCLUDING, BUT NOT LIMITED TO ANY TRANSFER OR DISPOSITION AS RESTRICTED BY LOAN AGREEMENT, THEN BORROWER SHALL BE OBLIGATED TO PAY, CONCURRENTLY THEREWITH, AS A PREPAYMENT FEE, THE APPLICABLE SUM SPECIFIED IN THIS NOTE. BY SIGNING THIS PROVISION IN THE SPACE PROVIDED BELOW, BORROWER AGREES THAT LENDER'S AGREEMENT TO MAKE THE LOAN EVIDENCED BY THIS NOTE AT THE INTEREST RATE AND FOR THE TERM SET FORTH IN THIS NOTE CONSTITUTES ADEQUATE CONSIDERATION, GIVEN INDIVIDUAL WEIGHT BY BORROWER FOR THIS WAIVER AND AGREEMENT.**

Borrower's Initials

4. SECURITY. The indebtedness evidenced by this Note is governed by the Loan Agreement and the obligations created hereby (including without limitation the amounts authorized by Section 2 to be collected by Lender) are secured by, among other things, the Security Instrument and other Loan Documents.

5. GENERAL

5.1 Written Amendment Only. This Note may not be modified, amended, waived, extended, changed, discharged or terminated orally or by any act or failure to act on the part of Borrower or Lender, but only by an agreement in writing signed by Borrower and Lender.

5.2 Certain Waivers. Except for any notices specifically required by the Loan Agreement, Borrower and all others who may become liable for the payment of all or any part of the Debt do hereby severally waive presentment and demand for payment, notice of dishonor, protest and notice of protest, notice of non payment, notice of acceleration, and notice of intent to accelerate the maturity hereof (and of such acceleration). No release of any security for the Loan or extension of time for payment of this Note or any installment hereof, and no alteration, amendment or waiver of any provision of this Note or the other Loan Documents made by agreement between Lender and any other Person shall release, modify, amend, waive, extend, change, discharge, terminate or affect the liability of Borrower, or any other Person who may become liable for the payment of all or any part of the Debt, under this Note and the other Loan Documents. Lender may release any guarantor or indemnitor of the Loan from liability, in every instance without the consent of the Borrower hereunder, and without waiving any rights the Lender may have hereunder, the other Loan Documents or by virtue of the laws of the State in which the Property is located or any other state of the United States.

5.3 Severability. If any provision or obligation under this Note and the other Loan Documents shall be determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, that provision shall be deemed severed from the Loan Documents and the validity, legality and enforceability of the remaining provisions or obligations shall remain in full force as though the invalid, illegal, or unenforceable provision had never been a part of the Loan Documents.

5.4 Notices. All notices or other written communications hereunder shall be given and become effective as provided in Section 12.5 of the Loan Agreement.

5.5 Set-Off Preference. Borrower is and shall be obligated to pay principal, interest and any and all other amounts which become payable hereunder or under the other Loan Documents absolutely and unconditionally and without any abatement, postponement, diminution or deduction and without any reduction for counterclaim or setoff. In the event that at any time any payment received by Lender hereunder shall be deemed by a court of competent jurisdiction to have been a voidable preference or fraudulent conveyance under any bankruptcy, insolvency or other debtor relief law, then the obligation to make such payment shall survive any cancellation or satisfaction of this Note or return thereof to Borrower and shall not be discharged or satisfied with any prior payment thereof or cancellation of this Note, but shall remain a valid and binding obligation enforceable in accordance with the terms and provisions hereof, and such payment shall be immediately due and payable upon demand.

5.6 Successors and Assigns. The terms and provisions hereof shall be binding upon and inure to the benefit of Borrower and Lender and their respective heirs, executors, legal representatives, successors, successors-in-title and permitted assigns, whether by voluntary action of the parties or by operation of law. As used in this Note and the other Loan Documents, the terms "Borrower" and "Lender" shall be deemed to include their respective heirs, executors, legal representatives, successors, successors-in-title and permitted assigns (no right to assign on the part of Borrower being implied hereby), whether by voluntary action of the parties or by operation of law.

5.7 Intentionally Omitted.

5.8 Interpretation. Sections 1.2, 12.18, and 12.19 of the Loan Agreement are hereby incorporated into this Note by reference for all purposes.

5.9 WAIVER OF TRIAL BY JURY. TO THE GREATEST EXTENT PERMITTED BY LAW, BORROWER AND LENDER (BY ITS ACCEPTANCE HEREOF) EACH HEREBY AGREE NOT TO ELECT A TRIAL BY JURY OF ANY ISSUE TRIABLE OF RIGHT BY JURY, AND WAIVE ANY RIGHT TO TRIAL BY JURY FULLY TO THE EXTENT THAT ANY SUCH RIGHT SHALL NOW OR HEREAFTER EXIST WITH REGARD TO THIS AGREEMENT, THE SECURITY INSTRUMENT, THE NOTE OR THE OTHER LOAN DOCUMENTS, OR ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION THEREWITH. THIS WAIVER OF RIGHT TO TRIAL BY JURY IS GIVEN KNOWINGLY AND VOLUNTARILY BY BORROWER AND LENDER, AND IS INTENDED TO ENCOMPASS INDIVIDUALLY EACH INSTANCE AND EACH ISSUE AS TO WHICH RIGHT TO TRIAL BY JURY WOULD OTHERWISE ACCRUE. BORROWER AND LENDER EACH ARE HEREBY AUTHORIZED TO FILE A COPY OF THIS PARAGRAPH IN ANY PROCEEDING AS CONCLUSIVE EVIDENCE OF THIS WAIVER BY EACH OTHER. NOTWITHSTANDING THE FOREGOING TO THE CONTRARY, IN THE EVENT THAT THE JURY TRIAL WAIVER CONTAINED HEREIN SHALL BE HELD OR DEEMED TO BE UNENFORCEABLE, BORROWER HEREBY EXPRESSLY AGREES TO SUBMIT TO JUDICIAL REFERENCE PURSUANT TO CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 THROUGH 645.1 ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING HEREUNDER FOR WHICH A JURY TRIAL WOULD OTHERWISE BE APPLICABLE OR AVAILABLE (PROVIDED, HOWEVER, THAT NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, NO JUDICIAL REFERENCE SHALL BE APPLICABLE WITH RESPECT TO ANY ACTION IN RESPECT OF THE FORECLOSURE OF THE SECURITY INSTRUMENT). PURSUANT TO SUCH JUDICIAL REFERENCE, THE PARTIES AGREE TO THE APPOINTMENT OF A SINGLE REFEREE AND SHALL USE THEIR BEST EFFORTS TO AGREE ON THE SELECTION OF A REFEREE. IF THE PARTIES ARE UNABLE TO AGREE ON A SINGLE REFEREE, A REFEREE SHALL BE APPOINTED BY THE COURT UNDER CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 AND 640 TO HEAR ANY DISPUTES HEREUNDER IN LIEU OF ANY SUCH JURY TRIAL. BORROWER ACKNOWLEDGES AND AGREES THAT THE APPOINTED REFEREE SHALL HAVE THE POWER TO DECIDE ALL ISSUES IN THE APPLICABLE ACTION OR PROCEEDING, WHETHER OF FACT OR LAW, AND SHALL REPORT A STATEMENT OF DECISION THEREON; PROVIDED, HOWEVER, THAT ANY MATTERS WHICH WOULD NOT OTHERWISE BE THE SUBJECT OF A JURY TRIAL WILL BE UNAFFECTED BY THIS WAIVER. BORROWER HEREBY AGREES THAT THE PROVISIONS CONTAINED HEREIN HAVE BEEN FAIRLY NEGOTIATED ON AN ARMS-LENGTH BASIS, WITH BORROWER AGREEING TO THE SAME KNOWINGLY AND BEING AFFORDED THE OPPORTUNITY TO HAVE ITS LEGAL COUNSEL CONSENT TO THE MATTERS CONTAINED HEREIN.

GAWK

Borrower's Initials

5.10 GOVERNING LAW. Except as otherwise expressly set forth herein, this Note shall be governed, construed, applied and enforced in accordance with the laws of the state where the Property is located without regard to the conflicts of law provisions thereof ("Governing State"). Borrower hereby consents to personal jurisdiction in the Governing State. JURISDICTION AND VENUE OF ANY ACTION BROUGHT TO ENFORCE THIS NOTE OR ANY OTHER LOAN DOCUMENT OR ANY ACTION RELATING TO THE TERM LOAN OR THE RELATIONSHIPS CREATED BY OR UNDER

THE LOAN DOCUMENTS ("ACTION") SHALL, AT THE ELECTION OF LENDER, BE IN (AND IF ANY ACTION IS ORIGINALLY BROUGHT IN ANOTHER VENUE, THE ACTION SHALL AT THE ELECTION OF LENDER BE TRANSFERRED TO) A STATE OR FEDERAL COURT OF APPROPRIATE JURISDICTION LOCATED IN THE GOVERNING STATE. BORROWER HEREBY CONSENTS AND SUBMITS TO THE PERSONAL JURISDICTION OF THE STATE COURTS OF THE GOVERNING STATE AND OF FEDERAL COURTS LOCATED IN THE GOVERNING STATE IN CONNECTION WITH ANY ACTION AND HEREBY WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY OTHER STATE TO OBJECT TO JURISDICTION WITHIN SUCH GOVERNING STATE FOR PURPOSES OF ANY ACTION. Borrower hereby waives and agrees not to assert, as a defense to any Action or a motion to transfer venue of any Action, (i) any claim that it is not subject to such jurisdiction, (ii) any claim that any Action may not be brought against it or is not maintainable in those courts or that this Note may not be enforced in or by those courts, or that it is exempt or immune from execution, (iii) that the Action is brought in an inconvenient forum, or (iv) that the venue for the Action is in any way improper.

5.11 **Expenses.** Borrower shall pay Lender, on demand, all Administration and Enforcement Expenses (as hereinafter defined) now or hereafter incurred by Lender, together with interest thereon at the Default Rate, from the date paid or incurred by Lender until such fees and expenses are paid by Borrower, whether or not an Event of Default then exists. Provided no Event of Default has occurred, fees and expenses related solely to origination and administration of the Loan shall be limited to reasonable fees and expenses, but charges of governmental entities or other third parties that are outside of the control of Lender shall not be subject to the reasonableness standard. For the purpose of this Note, "Administration and Enforcement Expenses" shall mean all fees and expenses incurred at any time or from time to time by Lender, including legal (whether for the purpose of advice, negotiation, documentation, defense, enforcement or otherwise), accounting, financial advisory, auditing, rating agency, appraisal, valuation, title or title insurance, engineering, environmental, collection agency, or other expert or consulting or similar services, in connection with: (a) the origination of the Loan, including the negotiation and preparation of the Loan Documents and any amendments or modifications of the Loan or the Loan Documents, whether or not consummated; (b) the administration, servicing or enforcement of the Loan or the Loan Documents, including any request for interpretation or modification of the Loan Documents or any matter related to the Loan or the servicing thereof (which shall include the consideration of any requests for consents, waivers, modifications, approvals, lease reviews or similar matters and any proposed transfer of the Property or any interest therein), (c) any litigation, contest, dispute, suit, arbitration, mediation, proceeding or action (whether instituted by or against Lender, including actions brought by or on behalf of Borrower or Borrower's bankruptcy estate or any indemnitor or guarantor of the Loan or any other person) in any way relating to the Loan or the Loan Documents including in connection with any bankruptcy, reorganization, insolvency, or receivership proceeding; (d) any attempt to enforce any rights of Lender against Borrower or any other person that may be obligated to Lender by virtue of any Loan Document or otherwise whether or not litigation is commenced in pursuance of such rights; and (e) protection, enforcement against, or liquidation of the Property or any other collateral for the Loan, including any attempt to inspect, verify, preserve, restore, collect, sell, liquidate or otherwise dispose of or realize upon the Loan, the Property or any other collateral for the Loan. All Administration and Enforcement Expenses shall be additional Debt hereunder secured by the Property, and may be funded, if Lender so elects, by Lender paying the same to the appropriate persons and thus making an advance on Borrower's behalf.

5.12 **Avoidance of Debt Payments.** To the extent that any payment to Lender and/or any payment or proceeds of any collateral received by Lender in reduction of the Debt is subsequently invalidated, declared to be fraudulent or preferential, set aside and/or required to be repaid to a trustee, to Borrower (or Borrower's successor) as a debtor in possession, or to a receiver, creditor, or any other party under any bankruptcy law, state or federal law, common law or equitable cause, then the portion of the

Debt intended to have been satisfied by such payment or proceeds shall remain due and payable hereunder, be evidenced by this Note, and shall continue in full force and effect as if such payment or proceeds had never been received by Lender whether or not this Note has been marked "paid" or otherwise cancelled or satisfied and/or has been delivered to Borrower, and in such event Borrower shall be immediately obligated to return the original Note to Lender and any marking of "paid" or other similar marking shall be of no force and effect.

5.13 Miscellaneous. Neither this Note nor any of the terms hereof, including the provisions of this Section, may be terminated, amended, supplemented, waived or modified orally, but only by an instrument in writing executed by the party against which enforcement of the termination, amendment, supplement, waiver or modification is sought, and the parties hereby: (a) expressly agree that it shall not be reasonable for any of them to rely on any alleged, non-written amendment to this Note; (b) irrevocably waive any and all right to enforce any alleged, non-written amendment to this Note; and (c) expressly agree that it shall be beyond the scope of authority (apparent or otherwise) for any of their respective agents to agree to any non-written modification of this Note. This Note may be executed in several counterparts, each of which counterpart shall be deemed an original instrument and all of which together shall constitute a single Note. The failure of any party hereto to execute this Note, or any counterpart hereof, shall not relieve the other signatories from their obligations hereunder. As used in this Note, (i) the terms "include," "including" and similar terms shall be construed as if followed by the phrase "without being limited to," (ii) any pronoun used herein shall be deemed to cover all genders, and words importing the singular number shall mean and include the plural number, and vice versa, (iii) all captions to the Sections hereof are used for convenience and reference only and in no way define, limit or describe the scope or intent of, or in any way affect, this Note, (iv) no inference in favor of, or against, Lender or Borrower shall be drawn from the fact that such party has drafted any portion hereof or any other Loan Document, (v) the words "Lender" and "Borrower" shall include their respective successors (including, in the case of Borrower, any subsequent owner or owners of the Property or any part thereof or any interest therein and Borrower in its capacity as debtor-in-possession after the commencement of any bankruptcy proceeding), assigns, heirs, personal representatives, executors and administrators, (vi) the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or," (vii) the words "hereof," "herein," "hereby," "hereunder," and similar terms in this Note refer to this Note as a whole and not to any particular provision or section of this Note, (viii) an Event of Default shall "continue" or be "continuing" until such Event of Default has been waived in writing by Lender, and (ix) in the computation of periods of time from a specified date to a later date, the word "from and including" and the words "to" and "until" each means "to but excluding." Wherever Lender's judgment, consent, approval or discretion is required under this Note or Lender shall have an option, election, or right of determination or any other power to decide any other matter relating to the terms of this Note, including any right to determine that something is satisfactory or not ("Decision Power"), such Decision Power shall be exercised in the reasonable discretion of Lender except as may be otherwise expressly and specifically provided herein. Such Decision Power and each other power granted to Lender upon this Note or any other Loan Document may be exercised by Lender or by any authorized agent of Lender (including any servicer and/or attorney-in-fact), and Borrower hereby expressly agrees to recognize the exercise of such Decision Power by such authorized agent. In the event of a conflict between or among the terms, covenants, conditions or provisions of the Loan Documents, the term(s), covenant(s), condition(s) and/or provision(s) that Lender may elect to enforce from time to time so as to enlarge the interest of Lender in its security, afford Lender the maximum financial benefits or security for the Debt, and/or provide Lender the maximum assurance of payment of the Debt in full shall control. Capitalized terms used herein shall, unless otherwise defined herein, have the meanings set forth in the Loan Agreement. BORROWER ACKNOWLEDGES AND AGREES THAT IT HAS BEEN PROVIDED WITH SUFFICIENT AND NECESSARY TIME AND OPPORTUNITY TO REVIEW THE TERMS OF THIS NOTE, THE SECURITY INSTRUMENT, AND EACH OF THE LOAN DOCUMENTS, WITH ANY AND ALL COUNSEL IT DEEMS APPROPRIATE, AND THAT NO INFERENCE IN FAVOR

OF, OR AGAINST, LENDER OR BORROWER SHALL BE DRAWN FROM THE FACT THAT EITHER SUCH PARTY HAS DRAFTED ANY PORTION HEREOF, OR THE SECURITY INSTRUMENT, OR ANY OF THE LOAN DOCUMENTS.

5.14 Usury Savings. Any provision herein, in any Loan Document or any other document executed or delivered in connection with the Loan, or in any other agreement or commitment, whether written or oral, expressed or implied, to the contrary notwithstanding, Lender shall not in any event be entitled to receive or collect, nor shall or may amounts received hereunder be credited, so that Lender shall be paid, as interest, a sum greater than the maximum amount permitted by applicable law to be charged to the Person primarily obligated to pay the Debt and the Obligations at the time in question. If any construction of this Note, any other Loan Document, or any other document executed or delivered in connection herewith, indicates a different right given to Lender to ask for, demand or receive any larger sum as interest, such is a mistake in calculation or wording which this clause shall override and control, it being the intention of Borrower and Lender that this Note, any other Loan Document and any other documents executed in connection herewith conform strictly to applicable usury laws. In no event shall the amount treated as the total interest exceed the maximum amount of interest which may be lawfully contracted for, charged, taken, received or reserved by Lender in accordance with the applicable usury laws, taking into account all items which are treated as interest under applicable law, computed in the aggregate over the full term of the Loan evidenced hereby. In the event that the aggregate of all consideration which constitutes interest under applicable law that is taken, reserved, contracted for, charged or received under this Note, any other Loan Document and any other documents executed in connection herewith shall ever exceed the maximum nonusurious rate under applicable law, any sum in excess thereof shall be applied to the reduction of the unpaid principal balance of the Debt and the Obligations, and if the Debt and the Obligations are paid in full, any remaining excess shall be paid to Borrower. In determining whether or not the interest paid or payable, under any specific contingency, exceeds the maximum nonusurious rate under applicable law, if any, Borrower and Lender shall, to the maximum extent permitted under applicable law, (a) characterize any nonprincipal amount as an expense or fee rather than as interest, (b) exclude voluntary prepayments and the effects thereof, or (c) "spread" the total amount of interest throughout the entire term of the Debt and the Obligations so that the interest rate is uniform throughout the entire term of the Debt and the Obligations; provided, however, that if the Debt and Obligations are paid and performed in full prior to the end of the full contemplated term thereof, and if the interest received for the actual period of existence thereof exceeds the maximum nonusurious rate, if any, Lender shall refund to Borrower the amount of such excess. In addition, if any provision of this Note would oblige the Borrower to make any payment of interest or other amount payable to any Lender in an amount or calculated at a rate which would be prohibited by any applicable law or would result in a receipt by that Lender of "interest" at a "criminal rate" (as such terms are construed under the Criminal Code (Canada)), then, notwithstanding such provision, such amount or rate shall be deemed to have been adjusted with retroactive effect to the maximum amount or rate of interest, as the case may be, as would not be so prohibited by applicable law or so result in a receipt by that Lender of "interest" at a "criminal rate", such adjustment to be effected, to the extent necessary (but only to the extent necessary), as follows:

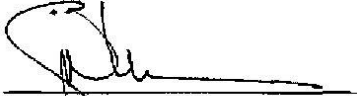
- (i) first, by reducing the amount or rate of interest required to be paid to the Lender; and
- (ii) thereafter, by reducing any fees, commissions, costs, expenses, premiums and other amounts required to be paid to the affected Lender which would constitute interest for purposes of section 347 of the Criminal Code (Canada).

5.15 Exculpation. The Debt shall be fully recourse to Borrower, and Borrower shall be fully personally liable for all of the Debt.

IN WITNESS WHEREOF, Borrower has duly executed this Note the day and year first above written.

BORROWER:

**WOODLAND/SPRECKELS INDUSTRIAL
BUSINESS PARK, LLC,**
a California limited liability company

By: 
Name: Gerry N. Kamilos
Title: Manager

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento

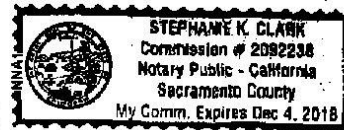
On January 4, 2018, before me, Stephanie K. Clark
(insert name and title of the officer)

personally appeared Gerry N. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Stephanie K. Clark (Seal)



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01/04/2018.V3

EXHIBIT C

BY FAX



YOLO Recorder's Office
Jesse Salinas, County Recorder
DOC- 2018-0000378-00
Acct 104-Placer Title
Thursday, JAN 04, 2018 14:52:00
Ttl Pd \$403.00 Rept # 0001285206
VRB/RE/4-35

P-242150
This document was prepared
by and after recording should
be returned to:

Polsinelli PC
2950 N Harwood, Suite 2100
Dallas, Texas 75201
Attn: Clifton M. Dugas, II, Esq.

(space above reserved for recorder's use)

**DEED OF TRUST, ASSIGNMENT OF LEASES AND RENTS,
SECURITY AGREEMENT AND FIXTURE FILING**
WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC,
a California limited liability company
(Borrower)
to
PLACER TITLE COMPANY,
a California corporation
(Trustee)
in favor of
ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP,
an Ontario limited partnership
(Lender)

THIS DEED OF TRUST CONSTITUTES A FIXTURE FILING UNDER SECTIONS 9-334, 9-501(a)(1) AND 9-502 OF THE UNIFORM COMMERCIAL CODE OF THE STATE OF CALIFORNIA. TO THE EXTENT THE GOODS ARE FIXTURES UNDER THE LAWS OF THE STATE OF CALIFORNIA, THE FIXTURES ARE OR SHALL BECOME FIXTURES ON THE REAL PROPERTY LOCATED IN THE COUNTY OF YOLO, STATE OF CALIFORNIA, MORE PARTICULARLY DESCRIBED ON EXHIBIT A ATTACHED HERETO, COMMONLY KNOWN BY THE STREET ADDRESS 1791 WEST KENTUCKY AVENUE, WOODLAND, CALIFORNIA 95776. THE NAME OF THE RECORD OWNER OF THE REAL PROPERTY IS WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY. THE ORGANIZATION IDENTIFICATION NUMBER OF BORROWER IS 201316310079.

Dated: [JAN 4], 2018
Location: 1791 West Kentucky Avenue, Woodland, California 95776

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**DEED OF TRUST, ASSIGNMENT OF LEASES AND RENTS, SECURITY AGREEMENT AND
FIXTURE FILING**

THIS DEED OF TRUST, ASSIGNMENT OF LEASES AND RENTS, SECURITY AGREEMENT AND FIXTURE FILING (this "Security Instrument") is made as of this 4th day of January, 2018, by **WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC**, a California limited liability company, having its principal place of business at 11249 Gold Country Boulevard, Suite 190, Gold River, California 95670, as Grantor ("Borrower") to **PLACER TITLE COMPANY**, a California corporation, having an address at 30 West Main Street, Suite A, Woodland, California 95695, as Trustee ("Trustee"), for the benefit of **ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP**, an Ontario limited partnership, having an address at 162 Cumberland Street, Suite 300, Toronto, Ontario M5R 3N5, as beneficiary (together with its successors and assigns, "Lender").

WITNESSETH:

WHEREAS, this Security Instrument is given to secure a loan (the "Loan") in the principal sum of Ten Million Three Hundred Fifty Thousand and No/100 Dollars (\$10,350,000.00) advanced pursuant to that certain Loan Agreement, dated as of the date hereof, between Borrower and Lender (as the same may hereafter be amended, restated, replaced, supplemented, renewed, extended or otherwise modified from time to time, the "Loan Agreement") and evidenced by that certain Promissory Note, dated the date hereof, made by Borrower in favor of Lender in the principal amount of Ten Million Three Hundred Fifty Thousand and No/100 Dollars (\$10,350,000.00) (as the same may hereafter be amended, restated, replaced, supplemented, renewed, extended or otherwise modified from time to time, the "Note"). All capitalized terms contained herein and not otherwise defined shall be as defined in the Loan Agreement;

WHEREAS, Borrower desires to secure the payment of the Debt (as defined in the Loan Agreement) and the performance of all of its obligations under the Note, the Loan Agreement and the other Loan Documents (as herein defined) (including, without limitation, any prepayment fees and the Environmental Costs (as defined in the Environmental Indemnity), excluding, however, any such Environmental Costs not permitted to be recovered pursuant to Section 736 of the California Code of Civil Procedure) (the term "Loan Documents", for the purposes of this Security Instrument, shall not include the Environmental Indemnity); and

WHEREAS, this Security Instrument is given pursuant to the Loan Agreement, and payment, fulfillment, and performance by Borrower of its obligations thereunder and under the other Loan Documents are secured hereby, and each and every term and provision of the Loan Agreement, and the Note, including the rights, remedies, obligations, covenants, conditions, agreements, indemnities, representations and warranties of the parties therein, are hereby incorporated by reference herein as though set forth in full and shall be considered a part of this Security Instrument (the Loan Agreement, the Note, this Security Instrument and all other documents evidencing or securing the Debt (including all additional mortgages, deeds to secure debt and assignments of leases and rents) or executed or delivered in connection therewith, are hereinafter referred to collectively as the "Loan Documents").

NOW THEREFORE, in consideration of the making of the Loan by Lender and the covenants, agreements, representations and warranties set forth in this Security Instrument:

ARTICLE I - GRANTS OF SECURITY

Section 1.1 Property Mortgaged. Borrower does hereby irrevocably mortgage, grant, bargain, sell, pledge, assign, warrant, transfer and convey to Trustee in trust for the benefit of Lender and

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its successors and assigns, WITH POWER OF SALE, the following property, rights, interests and estates now owned, or hereafter acquired by Borrower (collectively, the "Property"):

(a) Land. The real property described in Exhibit A attached hereto and made a part hereof (the "Land");

(b) Additional Land. All additional lands, estates and development rights hereafter acquired by Borrower and all additional lands and estates therein which may, from time to time, by supplemental mortgage or otherwise be expressly made subject to the lien of this Security Instrument;

(c) Improvements. The buildings, structures, fixtures, additions, enlargements, extensions, modifications, repairs, replacements and improvements now or hereafter erected or located on the Land (collectively, the "Improvements");

(d) Easements. All easements, rights-of-way or use, rights, strips and gores of land, streets, ways, alleys, passages, sewer rights, water, water courses, water rights and powers, air rights and development rights, and all estates, rights, titles, interests, privileges, liberties, servitudes, tenements, hereditaments and appurtenances of any nature whatsoever, in any way now or hereafter belonging, relating or pertaining to the Land and the Improvements and the reversion and reversions and remainders, and all land lying in the bed of any street, road or avenue, opened or proposed, in front of or adjoining the Land, to the center line thereof and all the estates, rights, titles, interests, dower and rights of dower, curtesy and rights of curtesy, property, possession, claim and demand whatsoever, both at law and in equity, of Borrower of, in and to the Land and the Improvements and every part and parcel thereof, with the appurtenances thereto;

(e) Equipment. All "goods" and "equipment," as such terms are defined in Article 9 of the Uniform Commercial Code (as hereinafter defined), now owned or hereafter acquired by Borrower, which is used at or in connection with the Improvements or the Land or is located thereon or therein (including all machinery, equipment, furnishings, and electronic data-processing and other office equipment now owned or hereafter acquired by Borrower and any and all additions, substitutions and replacements of any of the foregoing), together with all attachments, components, parts, equipment and accessories installed thereon or affixed thereto (collectively, the "Equipment");

(f) Fixtures. All Equipment now owned, or the ownership of which is hereafter acquired, by Borrower which is so related to the Land and Improvements forming part of the Property that it is deemed fixtures or real property under the law of the particular state in which the Equipment is located, including all building or construction materials intended for construction, reconstruction, alteration or repair of or installation on the Property, construction equipment, appliances, machinery, plant equipment, fittings, apparatuses, fixtures and other items now or hereafter attached to, installed in or used in connection with (temporarily or permanently) any of the Improvements or the Land, including engines, devices for the operation of pumps, pipes, plumbing, cleaning, call and sprinkler systems, fire extinguishing apparatuses and equipment, heating, ventilating, laundry, incinerating, electrical, air conditioning and air cooling equipment and systems, gas and electric machinery, appurtenances and equipment, pollution control equipment, security systems, disposals, dishwashers, refrigerators and ranges, recreational equipment and facilities of all kinds, and water, gas, electrical, storm and sanitary sewer facilities, utility lines and equipment (whether owned individually or jointly with others, and, if owned jointly, to the extent of Borrower's interest therein) and all other utilities whether or not situated in easements, all water tanks, water supply, water power sites, fuel stations, fuel tanks, fuel supply, and all other structures, together with all accessions, appurtenances, additions, replacements, betterments and substitutions for any of the foregoing and the proceeds thereof (collectively, the "Fixtures");

(g) Personal Property. All furniture, furnishings, objects of art, machinery, goods, tools, supplies, appliances, general intangibles, entitlements, approvals, authorizations, contract rights, accounts, accounts receivable, franchises, licenses, certificates and permits, and all other personal property of any kind or character whatsoever as defined in and subject to the provisions of the Uniform Commercial Code, other than Fixtures, which are now or hereafter owned by Borrower and which are located within or about the Land and the Improvements, together with all accessories, replacements and substitutions thereto or therefor and the proceeds thereof (collectively, the "Personal Property"), and the right, title and interest of Borrower in and to any of the Personal Property which may be subject to any security interests, as defined in the Uniform Commercial Code, as adopted and enacted by the state or states where any of the Property is located (the "Uniform Commercial Code"), superior in lien to the lien of this Security Instrument and all proceeds and products of the above;

(h) Leases and Rents. All leases, subleases or subsubleases, lettings, licenses, concessions or other agreements (whether written or oral) pursuant to which any Person is granted a possessory interest in, or right to use or occupy all or any portion of the Land and the Improvements, and every modification, amendment or other agreement relating to such leases, subleases, subsubleases, or other agreements entered into in connection with such leases, subleases, subsubleases, or other agreements and every guarantee of the performance and observance of the covenants, conditions and agreements to be performed and observed by the other party thereto, heretofore or hereafter entered into (collectively, the "Leases"), whether before or after the filing by or against Borrower of any petition for relief under the Bankruptcy Code and all right, title and interest of Borrower, its successors and assigns therein and thereunder, including cash or securities deposited thereunder to secure the performance by the lessees of their obligations thereunder and all rents, additional rents, revenues, issues and profits (including all oil and gas or other mineral royalties and bonuses) from the Land and the Improvements whether paid or accruing before or after the filing by or against Borrower of any petition for relief under the Bankruptcy Code (collectively, the "Rents") and all proceeds from the sale or other disposition of the Leases and the right to receive and apply the Rents to the payment of the Debt. "Rents" shall include all revenues, deposits (including security, utility and other deposits and Lease termination payments and tenant reimbursements), accounts, cash, issues, fees, profits, charges for services rendered, and other consideration of whatever form or nature received by or paid to or for the account of or benefit of Borrower or its agents or employees from any and all sources (including any Service Rights granted to any Person and any warrants, stock options or other rights granted to Borrower or its Affiliates in connection with any Lease) arising from or attributable to the Property, and proceeds, if any, from business interruption or other loss of income insurance, together with all proceeds from the sale or other disposition of the Leases and the right to receive and apply the Rents to the payment of the Debt and all right, title and interest of Borrower, its successors and assigns therein and thereunder, including all guarantees, letters of credit (including the proceeds thereof) and any other credit support given by any guarantor in connection therewith, and all rents, additional rents, revenues, issues and profits (including all oil and gas or other mineral royalties and bonuses) from the Property and the Improvements whether paid or accruing before or after the filing by or against Borrower of any petition for relief under the Bankruptcy Code and all proceeds from the sale or other disposition of the Leases and the right to receive and apply the Rents to the payment of the Debt.

(i) Condemnation Awards. All awards or payments, including interest thereon, which may heretofore and hereafter be made with respect to the Property, whether from the exercise of the right of eminent domain (including any Transfer made in lieu of or in anticipation of the exercise of the right), or for a change of grade, or for any other injury to or decrease in the value of the Property;

(j) Insurance Proceeds. All proceeds in respect of the Property under any insurance policies covering the Property, including the right to receive and apply the proceeds of any insurance, judgments, or settlements made in lieu thereof, for damage to the Property;

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(k) Tax Certiorari. All refunds, rebates or credits in connection with reduction in real estate taxes and assessments charged against the Property as a result of tax certiorari or any applications or proceedings for reduction;

(l) Conversion. All proceeds of the conversion, voluntary or involuntary, of any of the foregoing including proceeds of insurance and condemnation awards, into cash or liquidation claims;

(m) Rights. The right, in the name and on behalf of Borrower, to appear in and defend any action or proceeding brought with respect to the Property and to commence any action or proceeding to protect the interest of Lender in the Property;

(n) Agreements. All agreements, contracts, certificates, instruments, franchises, permits, licenses, plans, specifications and other documents, now or hereafter entered into, and all rights therein and thereto, respecting or pertaining to the use, occupation, construction, development, management or operation of the Land and any part thereof and any Improvements or respecting or pertaining to any business or activity conducted on the Land and any part thereof and all right, title and interest of Borrower therein and thereunder, including the right, upon the happening of any default hereunder, to receive and collect any sums payable to Borrower thereunder;

(o) Trademarks. All tradenames, trademarks, servicemarks, logos, copyrights, goodwill, books and records and all other general intangibles relating to or used in connection with the operation of the Property;

(p) Accounts. All reserves, escrows, accounts receivable, accounts (including, without limitation, all escrows, deposits, reserves and impounds established pursuant to the Loan Documents), documents, instruments, chattel paper, claims, reserves (including deposits) representations, warranties and general intangibles, as one or more of the foregoing terms may be defined in the Uniform Commercial Code, and all contract rights, franchises, books, records, plans, specifications, permits, licenses (to the extent assignable), approvals, actions, choses, claims, suits, proofs of claims in bankruptcy and causes of action which now or hereafter relate to, are derived from or are used in connection with the Property, all receivables, customer obligations, installment payment obligations and other obligations now existing or hereafter arising or created out of the sale, lease, sublease, license, concession or other grant of the right of the use and occupancy of property or rendering of services by Borrower or any operator or manager of the Improvements or acquired from others (including, without limitation, from the rental of any space and deposits securing reservations of such space), license, lease, sublease and concession fees and rentals, service charges, vending machine sales and proceeds, if any, from business interruption or other loss of income insurance, or arising from the sale of any Property or the rendition of services in the ordinary course of business or otherwise (whether or not earned by performance), together with the Property returned by or reclaimed from customers wherever the Property is located, or the use, operation, maintenance, occupancy or enjoyment thereof or the conduct of any business activities thereon and deposit accounts maintained by Borrower, together with all deposits or wire transfers made to such accounts, all cash, checks, drafts, certificates, securities, investment property, financial assets, instruments and other property held therein from time to time and all proceeds, products, distributions, dividends and/or substitutions thereon and thereof;

(q) Letter of Credit. All letter-of-credit rights (whether or not the letter of credit is evidenced by a writing) Borrower now has or hereafter acquires relating to the properties, rights, titles and interests referred to in this Section 1.1;

(r) Tort Claims. All commercial tort claims Borrower now has or hereafter acquires relating to the properties, rights, titles and interests referred to in this Section 1.1;

(s) Proceeds. All products and proceeds of any of the foregoing; and

(t) Other Rights. Any and all other rights of Borrower in and to the items set forth in Subsections (a) through (s) above.

AND without limiting any of the other provisions of this Security Instrument, to the extent permitted by applicable law, Borrower expressly grants to Lender as secured party, a security interest in the portion of the Property which is or may be subject to the provisions of the Uniform Commercial Code which are applicable to secured transactions; it being understood and agreed that the Improvements and Fixtures are part and parcel of the Land (the Land, the Improvements and the Fixtures collectively referred to as the "Real Property") appropriated to the use thereof and, whether affixed or annexed to the Real Property or not, shall for the purposes of this Security Instrument be deemed conclusively to be real estate and subject to this Security Instrument.

Section 1.2 Assignment of Rents. Borrower hereby absolutely and unconditionally assigns to Lender all of Borrower's right, title and interest in and to all current and future Leases and Rents; it being intended by Borrower that this assignment constitutes a present, absolute assignment and not an assignment for additional security only. Nevertheless, subject to Section 7.1(h) of this Security Instrument, Lender grants to Borrower a license revocable upon the occurrence of an Event of Default to collect, receive, use and enjoy the Rents and Borrower shall hold the Rents, or a portion thereof sufficient to discharge all current sums due on the Debt, for use in the payment of such sums.

Section 1.3 Security Agreement. This Security Instrument is both a real property mortgage and a "security agreement", a "financing statement" and a "fixture filing" within the meaning of the Uniform Commercial Code. The Property includes both real and personal property and all other rights and interests, whether tangible or intangible in nature, of Borrower in the Property. By executing and delivering this Security Instrument, Borrower hereby grants to Lender, as security for the Obligations (hereinafter defined), a security interest in the Fixtures, the Equipment and the Personal Property and other property constituting the Property, whether now owned or hereafter acquired, to the full extent that the Fixtures, the Equipment and the Personal Property and such other property may be subject to the Uniform Commercial Code (said portion of the Property so subject to the Uniform Commercial Code being called the "Collateral"). If an Event of Default shall occur and be continuing, Lender, in addition to any other rights and remedies which it may have, shall have and may exercise immediately and without demand, any and all rights and remedies granted to a secured party upon default under the Uniform Commercial Code, including the right to take possession of the Collateral or any part thereof, and to take such other measures as Lender may deem necessary for the care, protection and preservation of the Collateral. Upon request or demand of Lender after the occurrence and during the continuance of an Event of Default, Borrower shall, at its expense, assemble the Collateral and make it available to Lender at a convenient place (at the Land if tangible property) reasonably acceptable to Lender. Borrower shall pay to Lender on demand any and all expenses, including reasonable legal expenses and attorneys' fees, incurred or paid by Lender in protecting its interest in the Collateral and in enforcing its rights hereunder with respect to the Collateral after the occurrence and during the continuance of an Event of Default. Any notice of sale, disposition or other intended action by Lender with respect to the Collateral sent to Borrower in accordance with the provisions hereof at least ten (10) business days prior to such action, shall, except as otherwise provided by applicable law, constitute reasonable notice to Borrower. The proceeds of any disposition of the Collateral, or any part thereof, may, except as otherwise required by applicable law, be applied by Lender to the payment of the Debt in such priority and proportions as Lender in its discretion shall deem proper. Borrower's (debtor's) principal place of business is as set forth on page one hereof and the address of Lender (secured party) is as set forth on page one hereof. Borrower irrevocably authorizes Lender at any time and from time to time to file in any jurisdiction any initial financing statements and amendments thereto and continuations thereof that (i) indicate the

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Collateral as the collateral covered thereby, regardless of whether any particular asset comprised in the Collateral falls within the scope of Article 9 of the Uniform Commercial Code of the applicable jurisdiction, (ii) describe the Collateral in generic terms such as "all assets" or similar description, and (iii) contain any other information required by Article 9 of the applicable Uniform Commercial Code for the sufficiency or filing office acceptance of any financing statement or amendment, including (A) whether Borrower is an organization, the type of organization and any organization identification number issued to Borrower and, (B) in the case of a financing statement filed as a fixture filing, a sufficient description of real property to which the Collateral relates. Borrower agrees to furnish any such information to Lender promptly upon request. Borrower also ratifies its authorization for Lender to have filed in any jurisdiction any like initial financing statements or amendments thereto if filed prior to the date of this Security Instrument.

Borrower shall promptly notify Lender of the existence of any commercial tort claim now or hereafter existing for the benefit of Borrower or the Property, and shall execute, acknowledge and deliver a security agreement or other documentation as Lender shall from time to time require to acquire and perfect a valid and binding security interest in such commercial tort claim.

Section 1.4 Fixture Filing. Certain of the Property is or will become "fixtures" (as that term is defined in the Uniform Commercial Code) on the Land, and this Security Instrument, upon being filed for record in the real estate records of the city or county wherein such fixtures are situated, shall operate also as a financing statement filed as a fixture filing in accordance with the applicable provisions of said Uniform Commercial Code upon such of the Property that is or may become fixtures.

Section 1.5 Pledges of Monies Held. Borrower hereby pledges to Lender any and all monies now or hereafter held by Lender or on behalf of Lender as additional security for the Obligations until expended or applied as provided in this Security Instrument or the Loan Agreement.

Section 1.6 Common Law Pledge/Assignment. To the extent that the Uniform Commercial Code does not apply to any item of the Personal Property in which a security interest is granted hereby, it is the intention of the parties that this Security Instrument serve to evidence Borrower's common law pledge and/or collateral assignment of such item of Personal Property, and Borrower hereby pledges and assigns such Personal Property to Lender.

CONDITIONS TO GRANT

TO HAVE AND TO HOLD the above granted and described Property unto Trustee for the benefit of Lender and its successors and assigns, and to the use and benefit of Lender, and its successors and assigns, forever;

IN TRUST, WITH POWER OF SALE AND RIGHT OF ENTRY AND POSSESSION, to secure payment to Lender of the Debt at the time and in the manner provided for its payment in the Loan Agreement, the Note and in this Security Instrument.

PROVIDED, HOWEVER, these presents are upon the express condition that, if Borrower shall well and truly pay to Lender the Debt at the time and in the manner provided in the Note, the Loan Agreement and this Security Instrument, shall well and truly perform the Other Obligations as set forth in this Security Instrument and shall well and truly abide by and comply with each and every covenant and condition set forth herein and in the Note, the Loan Agreement and the other Loan Documents, these presents and the estate hereby granted shall cease, terminate and be void; provided, however, that Borrower's obligation to indemnify and hold harmless Lender pursuant to the provisions hereof shall survive any such payment or release.

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ARTICLE II - DEBT AND OBLIGATIONS SECURED

Section 2.1 Debt. This Security Instrument and the grants, assignments and Transfers made in Article I are given for the purpose of securing the Debt.

Section 2.2 Other Obligations. This Security Instrument and the grants, assignments and Transfers made in Article I are also given for the purpose of securing the following (the "Other Obligations"):

- (a) the performance of all other obligations of Borrower contained herein;
- (b) the performance of each obligation of Borrower contained in the Loan Agreement and any other Loan Document (but specifically excluding the Environmental Indemnity); and
- (c) the performance of each obligation of Borrower contained in any renewal, extension, amendment, modification, consolidation, change of, or substitution or replacement for, all or any part of the Note, the Loan Agreement or any other Loan Document (but specifically excluding the Environmental Indemnity).

Section 2.3 Debt and Other Obligations. Borrower's obligations for the payment of the Debt and the performance of the Other Obligations shall be referred to collectively herein as the "Obligations."

ARTICLE III - BORROWER COVENANTS

Borrower covenants and agrees that:

Section 3.1 Payment of Debt. Borrower shall pay the Debt at the time and in the manner provided in the Loan Agreement, the Note and this Security Instrument.

Section 3.2 Incorporation by Reference. All the covenants, conditions and agreements contained in (a) the Loan Agreement, (b) the Note and (c) all and any of the other Loan Documents, are hereby made a part of this Security Instrument to the same extent and with the same force as if fully set forth herein.

Section 3.3 Insurance. Borrower shall obtain and maintain, or cause to be maintained, in full force and effect at all times insurance with respect to Borrower and the Property as required pursuant to the Loan Agreement.

Section 3.4 Maintenance of Property. Borrower shall cause the Property to be maintained in a good and safe condition and repair. The Improvements, the Fixtures, the Equipment and the Personal Property shall not be removed, demolished or materially altered (except for normal replacement of equal or better quality of the Fixtures, the Equipment or the Personal Property, tenant finish and refurbishment of the Improvements) without the consent of Lender. Borrower shall promptly repair, replace or rebuild any part of the Property which may be destroyed by any Casualty or become damaged, worn or dilapidated or which may be affected by any Condemnation, and shall complete and pay for any structure at any time in the process of construction or repair on the Land.

Section 3.5 Waste. Borrower shall not commit or suffer any waste of the Property ("waste" meaning the diminution in the Property's value resulting from Borrower's negligent or willful failure to manage, maintain, repair and otherwise operate the Property in a commercially reasonable manner) or

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make any change in the use of the Property which will in any way materially increase the risk of fire or other hazard arising out of the operation of the Property (including the risk of any discharge of any Hazardous Material), or take any action that might invalidate or allow the cancellation of any Policy, or do or permit to be done thereon anything that may in any way materially impair the value of the Property or the security of this Security Instrument. Borrower shall not, without the prior written consent of Lender, permit any drilling or exploration for or extraction, removal, or production of any minerals from the surface or the subsurface of the Land, regardless of the depth thereof or the method of mining or extraction thereof.

Section 3.6 Payment for Labor and Materials. (a) Borrower shall promptly pay when due all bills and costs for labor, materials, and specifically fabricated materials ("Labor and Material Costs") incurred in connection with the Property and never permit to exist beyond the due date thereof in respect of the Property or any part thereof any lien or security interest, even though inferior to the liens and the security interests hereof, and in any event never permit to be created or exist in respect of the Property or any part thereof any other or additional lien or security interest other than the liens or security interests hereof except for the Permitted Encumbrances.

(b) After prior written notice to Lender, Borrower, at its own expense, may contest by appropriate legal proceeding, promptly initiated and conducted in good faith and with due diligence, the amount or validity or application in whole or in part of any of the Labor and Material Costs, provided that (i) no Event of Default has occurred and is continuing under the Loan Agreement, the Note, this Security Instrument or any of the other Loan Documents, (ii) Borrower is permitted to do so under the provisions of any other mortgage, deed of trust, security instrument, deed or other agreement or instrument to secure debt affecting the Property, (iii) such proceeding shall suspend the collection of the Labor and Material Costs from Borrower and from the Property or Borrower shall have paid all of the Labor and Material Costs under protest, (iv) such proceeding shall be permitted under and be conducted in accordance with the provisions of any other instrument to which Borrower is subject and shall not constitute a default thereunder, (v) neither the Property nor any part thereof or interest therein will be in danger of being sold, forfeited, terminated, canceled or lost, (vi) Borrower shall have furnished the security as may be required in the proceeding, or as may be reasonably requested by Lender to insure the payment of any contested Labor and Material Costs, together with all interest and penalties thereon, (vii) Borrower shall have furnished to Lender all other items reasonably requested by Lender, including title insurance coverage or bonding over such lien, and (viii) Lender shall have determined that Borrower is likely to prevail in such contest

Section 3.7 Performance of Other Agreements. Borrower shall observe and perform each and every term, covenant and provision to be observed or performed by Borrower pursuant to the Loan Agreement, any other Loan Document and any other agreement or recorded instrument affecting or pertaining to the Property and any amendments, modifications or changes thereto.

Section 3.8 Change of Name, Identity or Structure. Except as permitted in the Loan Agreement, Borrower shall not change Borrower's name, identity (including its trade name or names) or, if not an individual, Borrower's corporate, partnership, limited liability company, or other structure, without notifying Lender of such change in writing at least thirty (30) days prior to the effective date of such change and without first obtaining the prior written consent of Lender. Borrower hereby authorizes Lender to file, prior to or contemporaneously with the effective date of any such change, any financing statement or financing statement change required by Lender to establish or maintain the validity, perfection and priority of the security interest granted herein. At the request of Lender, Borrower shall execute a certificate in form satisfactory to Lender listing the trade names under which Borrower intends to operate the Property, and representing and warranting that Borrower does business under no other trade name with respect to the Property.

Section 3.9 Title. Borrower has good, marketable and insurable fee simple title to the real property comprising part of the Property and good title to the balance of such Property, free and clear all Liens (as defined in the Loan Agreement) whatsoever except the Permitted Encumbrances (as defined in the Loan Agreement), such other Liens as may be expressly permitted pursuant to the Loan Documents, the Liens created by the Loan Documents or such other Liens as may be created by or with the written consent of Lender in accordance with the terms of the Loan Documents. The Permitted Encumbrances in the aggregate do not materially and adversely affect the value, operation or use of the Property or Borrower's ability to repay the Loan. This Security Instrument, when properly recorded in the appropriate records, together with any Uniform Commercial Code financing statements required to be filed in connection therewith, will create (a) a valid, perfected first priority lien on the Property, subject only to Permitted Encumbrances and the Liens created by the Loan Documents and (b) perfected security interests in and to, and perfected collateral assignments of, all personalty (including the Leases), all in accordance with the terms thereof, in each case subject only to any applicable Permitted Encumbrances, such other Liens as are permitted pursuant to the Loan Documents, the Liens created by the Loan Documents or such other Liens as may be created by or with the written consent of Lender in accordance with the terms of the Loan Documents. There are no claims for payment for work, labor or materials affecting the Property which are past due and are or may become a lien prior to, or of equal priority with, the Liens created by the Loan Documents unless such claims for payments are being contested in accordance with the terms and conditions of this Security Instrument.

Section 3.10 Letter of Credit Rights. If Borrower is at any time a beneficiary under a letter of credit relating to the properties, rights, titles and interests referenced in Section 1.1 of this Security Instrument now or hereafter issued in favor of Borrower, Borrower shall promptly notify Lender thereof and, at the request and option of Lender, Borrower shall, pursuant to an agreement in form and substance satisfactory to Lender, either (i) arrange for the issuer and any confirmer of such letter of credit to consent to an assignment to Lender of the proceeds of any drawing under the letter of credit or (ii) arrange for Lender to become the transferee beneficiary of the letter of credit, with Lender agreeing, in each case that the proceeds of any drawing under the letter of credit are to be applied as provided in Section 7.2 of this Security Instrument.

ARTICLE IV - OBLIGATIONS AND RELIANCES

Section 4.1 Relationship of Borrower and Lender. The relationship between Borrower and Lender is solely that of debtor and creditor, and Lender has no fiduciary or other special relationship with Borrower, and no term or condition of any of the Loan Agreement, the Note, this Security Instrument and the other Loan Documents shall be construed so as to deem the relationship between Borrower and Lender to be other than that of debtor and creditor.

Section 4.2 No Reliance on Lender. The general partners, managers, members, principals and (if Borrower is a trust) beneficial owners of Borrower are experienced in the ownership and operation of properties similar to the Property, and Borrower and Lender are relying solely upon such expertise and business plan in connection with the ownership and operation of the Property. Borrower is not relying on Lender's expertise, business acumen or advice in connection with the Property.

Section 4.3 No Lender Obligations. (a) Notwithstanding the provisions of Subsections 1.1(h) and (n) or Section 1.2, Lender is not undertaking the performance of (i) any obligations under any Leases; or (ii) any obligations with respect to such agreements, contracts, certificates, instruments, franchises, permits, trademarks, licenses and other documents.

(b) By accepting or approving anything required to be observed, performed or fulfilled or to be given to Lender pursuant to this Security Instrument, the Loan Agreement, the Note or

the other Loan Documents, including any officer's certificate, balance sheet, statement of profit and loss or other financial statement, survey, appraisal, or insurance policy, Lender shall not be deemed to have warranted, consented to, or affirmed the sufficiency, the legality or effectiveness of same, and such acceptance or approval thereof shall not constitute any warranty or affirmation with respect thereto by Lender.

Section 4.4 Reliance. Borrower recognizes and acknowledges that in accepting the Loan Agreement, the Note, this Security Instrument and the other Loan Documents, Lender is expressly and primarily relying on the truth and accuracy of the warranties and representations set forth in Section 4.1 of the Loan Agreement without any obligation to investigate the Property and notwithstanding any investigation of the Property by Lender; that such reliance existed on the part of Lender prior to the date hereof, that the warranties and representations are a material inducement to Lender in making the Loan; and that Lender would not be willing to make the Loan and accept this Security Instrument in the absence of the warranties and representations as set forth in Section 4.1 of the Loan Agreement.

ARTICLE V - FURTHER ASSURANCES

Section 5.1 Recording of Security Instrument, etc. Borrower forthwith upon the execution and delivery of this Security Instrument and thereafter, from time to time, shall cause this Security Instrument and any of the other Loan Documents creating a lien or security interest or evidencing the lien hereof upon the Property and each instrument of further assurance to be filed, registered or recorded in such manner and in such places as may be required by any present or future law in order to publish notice of and fully to protect and perfect the lien or security interest hereof upon, and the interest of Lender in, the Property. Borrower shall pay all taxes, filing, registration or recording fees, and all expenses incident to the preparation, execution, acknowledgment and/or recording of the Note, this Security Instrument, the other Loan Documents, any note, deed of trust or mortgage supplemental hereto, any security instrument with respect to the Property and any instrument of further assurance, and any modification or amendment of the foregoing documents, and all federal, state, county and municipal taxes, duties, imposts, assessments and charges arising out of or in connection with the execution and delivery of this Security Instrument, any deed of trust or mortgage supplemental hereto, any other security instrument with respect to the Property or any instrument of further assurance, and any modification or amendment of the foregoing documents, except where prohibited by law so to do.

Section 5.2 Further Acts, Etc. Borrower shall, at the cost of Borrower, and without expense to Lender, do, execute, acknowledge and deliver all and every such further acts, deeds, conveyances, deeds of trust, mortgages, assignments, notices of assignments, transfers and assurances as Lender shall, from time to time, reasonably require, for the better assuring, conveying, assigning, transferring, and confirming unto Lender the property and rights hereby mortgaged, deeded, granted, bargained, sold, conveyed, confirmed, pledged, assigned, warranted and transferred or intended now or hereafter so to be, in trust with power of sale, or which Borrower may be or may hereafter become bound to convey or assign to Lender, or for carrying out the intention or facilitating the performance of the terms of this Security Instrument or for filing, registering or recording this Security Instrument, or for complying with all Legal Requirements. Borrower grants to Lender an irrevocable power of attorney coupled with an interest for the purpose of exercising and perfecting any and all rights and remedies available to Lender at law and in equity, including such rights and remedies available to Lender pursuant to this Section 5.2.

Section 5.3 Changes in Tax, Debt, Credit and Documentary Stamp Laws. (a) If any law is enacted or adopted or amended after the date of this Security Instrument which deducts the Debt from the value of the Property for the purpose of taxation or which imposes a tax, either directly or indirectly, on the Debt or Lender's interest in the Property, Borrower shall pay the tax, with interest and penalties thereon, if any. If Lender is advised by counsel chosen by it that the payment of tax by Borrower would

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be unlawful or taxable to Lender or unenforceable or provide the basis for a defense of usury, then Lender shall have the option by written notice of not less than one hundred twenty (120) days to declare the Debt immediately due and payable.

(b) Borrower shall not claim or demand or be entitled to any credit or credits on account of the Debt for any part of the Taxes or Other Charges assessed against the Property, or any part thereof, and no deduction shall otherwise be made or claimed from the assessed value of the Property, or any part thereof, for real estate tax purposes by reason of this Security Instrument or the Debt. If such claim, credit or deduction shall be required by law, Lender shall have the option, by written notice of not less than one hundred twenty (120) days, to declare the Debt immediately due and payable.

(c) If at any time the United States of America, any State thereof or any subdivision of any such State shall require revenue or other stamps to be affixed to the Note, this Security Instrument, or any of the other Loan Documents or impose any other tax or charge on the same, Borrower shall pay for the same, with interest and penalties thereon, if any.

Section 5.4 Severing of Security Instrument. (a) Upon the occurrence of an Event of Default, all or any one or more of the rights, powers, privileges and other remedies available to Lender against Borrower under this Security Instrument or any of the other Loan Documents executed and delivered by, or applicable to, Borrower or at law or in equity may be exercised by Lender at any time and from time to time, whether or not all or any of the Debt shall be declared due and payable, and whether or not Lender shall have commenced any foreclosure proceeding or other action for the enforcement of its rights and remedies under any of the Loan Documents with respect to all or any part of the Property. Any such actions taken by Lender shall be cumulative and concurrent and may be pursued independently, singularly, successively, together or otherwise, at such time and in such order as Lender may determine in its discretion, to the fullest extent permitted by law, without impairing or otherwise affecting the other rights and remedies of Lender permitted by law, equity or contract or as set forth herein or in the other Loan Documents. Without limiting the generality of the foregoing, Borrower agrees that if an Event of Default is continuing (i) to the extent permitted by applicable law, Lender is not subject to any "one action" or "election of remedies" law or rule, and (ii) all liens and other rights, remedies or privileges provided to Lender shall remain in full force and effect until Lender has exhausted all of its remedies against the Property and this Security Instrument has been foreclosed, sold and/or otherwise realized upon in satisfaction of the Debt or the Debt has been paid in full.

(b) With respect to Borrower and the Property, nothing contained herein or in any other Loan Document shall be construed as requiring Lender to resort to the Property for the satisfaction of any of the Debt in any preference or priority, and Lender may seek satisfaction out of the Property, or any part thereof, in its discretion in respect of the Debt. In addition, Lender shall have the right from time to time to partially foreclose this Security Instrument in any manner and for any amounts secured by this Security Instrument then due and payable as determined by Lender in its discretion including the following circumstances: (i) in the event Borrower defaults beyond any applicable grace period in the payment of one or more scheduled payments of principal and interest, Lender may foreclose this Security Instrument to recover such delinquent payments or (ii) in the event Lender elects to accelerate less than the entire outstanding principal balance of the Loan, Lender may foreclose this Security Instrument to recover so much of the principal balance of the Loan as Lender may accelerate and such other sums secured by this Security Instrument as Lender may elect. Notwithstanding one or more partial foreclosures, the Property shall remain subject to this Security Instrument to secure payment of sums secured by this Security Instrument and not previously recovered.

(c) Lender shall have the right from time to time to sever the Note and the other Loan Documents into one or more separate notes, mortgages and other security documents (the "Severed Loan

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Documents) in such denominations as Lender shall determine in its discretion for purposes of evidencing and enforcing its rights and remedies provided hereunder. Borrower shall execute and deliver to Lender from time to time, promptly after the request of Lender, a severance agreement and such other documents as Lender shall request in order to effect the severance described in the preceding sentence, all in form and substance reasonably satisfactory to Lender. Borrower hereby absolutely and irrevocably appoints Lender as its true and lawful attorney in fact, coupled with an interest, in its name and stead to make and execute all documents necessary or desirable to effect the aforesaid severance, Borrower ratifying all that its said attorney in fact shall do by virtue thereof; provided, however, Lender shall not make or execute any such documents under such power until three (3) Business Days after notice has been given to Borrower by Lender of Lender's intent to exercise its rights under such power. Borrower shall be obligated to pay any costs or expenses incurred in connection with the preparation, execution, recording or filing of the Severed Loan Documents and the Severed Loan Documents shall not contain any representations, warranties or covenants not contained in the Loan Documents and any such representations and warranties contained in the Severed Loan Documents will be given by Borrower only as of the Closing Date.

Section 5.5 Replacement Documents. Upon receipt of an affidavit of an officer of Lender as to the loss, theft, destruction or mutilation of the Note or any other Loan Document which is not of public record, and, in the case of any such mutilation, upon surrender and cancellation of such Note or other Loan Document, Borrower shall issue, in lieu thereof, a replacement Note or other Loan Document, dated the date of such lost, stolen, destroyed or mutilated Note or other Loan Document in the same principal amount thereof and otherwise of like tenor.

ARTICLE VI - DUE ON SALE/ENCUMBRANCE

Section 6.1 Lender Reliance. Borrower acknowledges that Lender has examined and relied on the experience of Borrower and its general partners, members, principals and (if Borrower is a trust) beneficial owners in owning and operating properties such as the Property in agreeing to make the Loan, and will continue to rely on Borrower's ownership of the Property as a means of maintaining the value of the Property as security for repayment of the Debt and the performance of the Other Obligations. Borrower acknowledges that Lender has a valid interest in maintaining the value of the Property so as to ensure that, should Borrower default in the repayment of the Debt or the performance of the Other Obligations, Lender can recover the Debt by a sale of the Property.

Section 6.2 No Sale/Encumbrance. Neither Borrower nor any Borrower Party (as defined in the Loan Agreement) shall Transfer the Property or any part thereof or any interest therein or permit or suffer the Property or any part thereof or any interest therein to be transferred other than as expressly permitted pursuant to the terms of the Loan Agreement. If the Property or any interest therein, or if any portion of the corporate stock, general partnership interests or limited liability company interests in Borrower, shall be sold, transferred, mortgaged, assigned, encumbered or leased, whether directly or indirectly, whether voluntarily, involuntarily or by operation of law, without the prior written consent of Lender, if required, and otherwise not in accordance with the terms and provisions of the Loan Agreement, THEN Lender, in its sole and absolute discretion, may declare all Obligations to be immediately due and payable.

ARTICLE VII - RIGHTS AND REMEDIES UPON DEFAULT

Section 7.1 Remedies. Upon the occurrence and during the continuance of any Event of Default (as defined in the Loan Agreement), Borrower agrees that Lender may take such action, without notice or demand, as it deems advisable to protect and enforce its rights against Borrower and in and to the Property, including the following actions, each of which may be pursued concurrently or otherwise, at

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such time and in such order as Lender may determine, in its discretion, without impairing or otherwise affecting the other rights and remedies of Lender:

- (a) declare the entire unpaid Debt to be immediately due and payable;
- (b) institute proceedings, judicial or otherwise, for the complete foreclosure of this Security Instrument under any applicable provision of law, in which case the Property or any interest therein may be sold for cash or upon credit in one or more parcels or in several interests or portions and in any order or manner;
- (c) with or without entry, to the extent permitted and pursuant to the procedures provided by applicable law, institute proceedings for the partial foreclosure of this Security Instrument for the portion of the Debt then due and payable, subject to the continuing lien and security interest of this Security Instrument for the balance of the Debt not then due, unimpaired and without loss of priority;
- (d) sell for cash or upon credit the Property or any part thereof and all estate, claim, demand, right, title and interest of Borrower therein and rights of redemption thereof, pursuant to power of sale or otherwise, at one or more sales, as an entirety or in parcels, at such time and place, upon such terms and after such notice thereof as may be required or permitted by law;
- (e) institute an action, suit or proceeding in equity for the specific performance of any covenant, condition or agreement contained herein, in the Note, the Loan Agreement or in the other Loan Documents;
- (f) recover judgment on the Note either before, during or after any proceedings for the enforcement of this Security Instrument or the other Loan Documents;
- (g) apply for and obtain the appointment, on an *ex parte* basis (any required notice of such appointment or any proceeding to appoint the same being hereby expressly waived) and without regard for the adequacy of the security for the Debt and without regard for the solvency of Borrower, any guarantor, indemnitor or of any Person liable for the payment of the Debt, of a receiver, trustee, liquidator or conservator of the Property to do all of the actions set forth in subparagraph (h) below and to, with the consent of Lender, dispose (by lease, sale or otherwise) of some or all of the Property in the course of the proceeding in which such receiver, trustee, liquidator or conservator is appointed;
- (h) the license granted to Borrower under Section 1.2 hereof shall automatically be revoked and Lender may enter into or upon the Property, either personally or by its agents, nominees or attorneys and dispossess Borrower and its agents and servants therefrom, without liability for trespass, damages or otherwise and exclude Borrower and its agents or servants wholly therefrom, and take possession of all books, records and accounts relating thereto and Borrower agrees to surrender possession of the Property and of such books, records and accounts to Lender upon demand, and thereupon Lender may (i) use, operate, manage, control, insure, maintain, repair, restore and otherwise deal with all and every part of the Property and conduct the business thereat; (ii) complete any construction on the Property in such manner and form as Lender deems advisable; (iii) make alterations, additions, renewals, replacements and improvements to or on the Property; (iv) exercise all rights and powers of Borrower with respect to the Property, whether in the name of Borrower or otherwise, including the right to make, cancel, enforce or modify Leases, obtain and evict tenants, and demand, sue for, collect and receive all Rents of the Property and every part thereof; (v) require Borrower to pay monthly in advance to Lender, or any receiver appointed to collect the Rents, the fair and reasonable rental value for the use and occupation of such part of the Property as may be occupied by Borrower; (vi) require Borrower to vacate and surrender possession of the Property to Lender or to such receiver and, in

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default thereof, Borrower may be evicted by summary proceedings or otherwise; and (vii) apply the receipts from the Property to the payment of the Debt, in such order, priority and proportions as Lender shall deem appropriate in its discretion after deducting therefrom all expenses (including reasonable attorneys' fees) incurred in connection with the aforesaid operations and all amounts necessary to pay the Taxes, Other Charges, insurance and other expenses in connection with the Property, as well as just and reasonable compensation for the services of Lender, its counsel, agents and employees;

(i) exercise any and all rights and remedies granted to a secured party upon default under the Uniform Commercial Code, including: (i) the right to take possession of the Fixtures, the Equipment, the Personal Property or any part thereof, and to take such other measures as Lender may deem necessary for the care, protection and preservation of the Fixtures, the Equipment, the Personal Property, and (ii) request Borrower at its expense to assemble the Fixtures, the Equipment, the Personal Property and make it available to Lender at a convenient place acceptable to Lender. Any notice of sale, disposition or other intended action by Lender with respect to the Fixtures, the Equipment, the Personal Property sent to Borrower in accordance with the provisions hereof at least ten (10) days prior to such action, shall constitute commercially reasonable notice to Borrower;

(j) apply any sums then deposited or held in escrow or otherwise by or on behalf of Lender in accordance with the terms of the Loan Agreement, this Security Instrument or any other Loan Document to the payment of the following items in any order in its discretion: (i) Taxes and Other Charges; (ii) Insurance Premiums; (iii) interest on the unpaid principal balance of the Note; (iv) amortization of the unpaid principal balance of the Note in the inverse order of maturity; and (v) all other sums payable pursuant to the Note, the Loan Agreement, this Security Instrument and the other Loan Documents, including advances made by Lender pursuant to the terms of this Security Instrument;

(k) surrender the Policies maintained pursuant to the Loan Agreement, collect the unearned Insurance Premiums and apply such sums as a credit on the Debt in such priority and proportion as Lender shall deem proper, and in connection therewith, Borrower hereby appoints Lender as agent and attorney-in-fact (which is coupled with an interest and is therefore irrevocable) for Borrower to collect such Insurance Premiums (provided, however, that such surrender may only be effective on or after the date that Borrower no longer owns an interest in the Property);

(l) prohibit Borrower and anyone claiming for or through Borrower from making use of or withdrawing any sums from any lockbox, escrow or similar account;

(m) pursue such other remedies as Lender may have under applicable law;

(n) apply the undisbursed balance of any other deposits or reserves of Borrower held by Lender, together with interest thereon, to the payment of the Debt in such order, priority and proportions as Lender shall deem to be appropriate in its discretion;

(o) give notice of default and of election to cause the Property to be sold. In connection with any sale or sales hereunder, and as a condition precedent to any such sale, Trustee shall give and record such notice as the law then requires. When the minimum period of time required by law after such notice has elapsed, Trustee, without notice to or demand upon Borrower except as required by law, shall sell the Property at the time and place of sale fixed by it in the notice of sale, at one or several sales, either as a whole or in separate parcels and in such manner and order, all as Lender in its sole discretion may determine, at public auction to the highest bidder for cash, in lawful money of the United States, payable at time of sale. Neither Borrower nor any other person or entity other than Lender shall have the right to direct the order in which the Property is sold. Subject to requirements and limits imposed by law, Trustee may from time to time postpone sale of all or any portion of the Property by

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public announcement at such time and place of sale. Trustee shall deliver to the purchaser at such sale a deed conveying the Property or portion thereof so sold, but without any covenant or warranty, express or implied. The recitals in the deed of any matters or facts shall be conclusive proof of the truthfulness thereof. Any person, including Trustee, Borrower or Lender may purchase at the sale; or

(p) upon sale of the Property at any judicial or non-judicial foreclosure, Lender may credit bid (as determined by Lender in its sole and absolute discretion) all or any portion of the Obligations. In determining such credit bid, Lender may, but is not obligated to, take into account all or any of the following: (i) appraisals of the Property as such appraisals may be discounted or adjusted by Lender in its sole and absolute underwriting discretion; (ii) expenses and costs incurred by Lender with respect to the Property prior to foreclosure; (iii) expenses and costs which Lender anticipates will be incurred with respect to the Property after foreclosure, but prior to resale, including, without limitation, costs of structural reports and other due diligence, costs to carry the Property prior to resale, costs of resale (e.g. commissions, attorneys' fees, and taxes), costs of any hazardous materials clean-up and monitoring, costs of deferred maintenance, repair, refurbishment and retrofit, costs of defending or settling litigation affecting the Property, and lost opportunity costs (if any), including the time value of money during any anticipated holding period by Lender; (iv) declining trends in real property values generally and with respect to properties similar to the Property; (v) anticipated discounts upon resale of the Property as a distressed or foreclosed property; (vi) the fact of additional collateral (if any), for the Obligations; and (vii) such other factors or matters that Lender (in its sole and absolute discretion) deems appropriate. In regard to the above, Borrower acknowledges and agrees that: (1) Lender is not required to use any or all of the foregoing factors to determine the amount of its credit bid; (2) this Section does not impose upon Lender any additional obligations that are not imposed by law at the time the credit bid is made; (3) the amount of Lender's credit bid need not have any relation to any loan-to-value ratios previously discussed between Borrower and Lender; and (4) Lender's credit bid may be (at Lender's sole and absolute discretion) higher or lower than any appraised value of the Property.

In the event of a sale, by foreclosure, power of sale or otherwise, of less than all of the Property, this Security Instrument shall continue as a lien and security interest on the remaining portion of the Property unimpaired and without loss of priority.

Upon written request of the Lender and surrender of this Security Instrument and the Note to Trustee for cancellation or endorsement, and upon payment of its fees and charges, Trustee shall reconvey, without warranty, all or any part of the property then subject to this Security Instrument. Any reconveyance, whether full or partial, may be made in terms to "the person or persons legally entitled thereto," and the recitals in such reconveyance of any matters or facts shall be conclusive proof of the truthfulness thereof.

Section 7.2 Application of Proceeds.

(a) After deducting all reasonable costs, fees and expenses of Trustee, and of this trust, including, without limitation, cost of evidence of title and attorneys' fees in connection with sale and costs and expenses of sale and of any judicial proceeding wherein such sale may be made, Trustee shall apply all proceeds of any foreclosure sale: (a) to payment of all sums expended by Lender under the terms hereof and not then repaid, with accrued interest at the rate of interest specified in the Note to be applicable on or after maturity or acceleration of the Note; (b) to payment of all other Obligations; and (c) the remainder, if any, to the person or persons legally entitled thereto.

(b) All sums received by Lender under this Section 7.2, less all reasonable costs and expenses incurred by Lender or any receiver under Section 7.1, including, without limitation, attorneys' fees, shall be applied in payment of the Obligations in such order as Lender shall determine in its sole discretion; provided, however, Lender shall have no liability for funds not actually received by Lender.

Section 7.3 Right to Cure Defaults; No Cure or Waiver.

(a) Upon the occurrence and during the continuance of any Event of Default, or if Borrower fails to make any payment or to do any act as herein provided, Lender may, but without any obligation to do so and without notice to or demand on Borrower and without releasing Borrower from any obligation hereunder, make any payment or do any act required of Borrower hereunder in such manner and to such extent as Lender may deem necessary to protect the security hereof. Lender is authorized to enter upon the Property for such purposes, or appear in, defend, or bring any action or proceeding to protect its interest in the Property or to foreclose this Security Instrument or collect the Debt, and the fee, cost and expense thereof (including reasonable attorneys' fees to the extent permitted by law), with interest as provided in this Section 7.3, shall constitute a portion of the Debt and shall be due and payable to Lender upon demand. All such fees, costs and expenses incurred by Lender in remedying such Event of Default or such failed payment or act or in appearing in, defending, or bringing any such action or proceeding shall bear interest at the Default Rate (as defined in the Note), for the period after notice from Lender that such fee, cost or expense was incurred to the date of payment to Lender. All such fees, costs and expenses incurred by Lender together with interest thereon calculated at the Default Rate shall be deemed to constitute a portion of the Debt and be secured by this Security Instrument and the other Loan Documents and shall be immediately due and payable upon demand by Lender therefor.

(b) Neither Lender's nor Trustee's nor any receiver's entry upon and taking possession of all or any part of the Property and Collateral, nor any collection of rents, issues, profits, insurance proceeds, condemnation proceeds or damages, other security or proceeds of other security, or other sums, nor the application of any collected sum to any Obligation, nor the exercise or failure to exercise of any other right or remedy by Lender or Trustee or any receiver shall cure or waive any breach, Event of Default or notice of default under this Security Instrument, or nullify the effect of any notice of default or sale (unless all Obligations then due have been paid and performed and Borrower has cured all other defaults), or impair the status of the security, or prejudice Lender or Trustee in the exercise of any right or remedy, or be construed as an affirmation by Lender of any tenancy, lease or option or a subordination of the lien of this Security Instrument.

Section 7.4 Actions and Proceedings. Lender has the right to appear in and defend any action or proceeding brought with respect to the Property and to bring any action or proceeding, in the name and on behalf of Borrower, which Lender, in its discretion, decides should be brought to protect its interest in the Property.

Section 7.5 Recovery of Sums Required To Be Paid. Lender shall have the right from time to time to take action to recover any sum or sums which constitute a part of the Debt as the same become due, without regard to whether or not the balance of the Debt shall be due, and without prejudice to the right of Lender thereafter to bring an action of foreclosure, or any other action, for a default or defaults by Borrower existing at the time such earlier action was commenced.

Section 7.6 Examination of Books and Records. At reasonable times and upon reasonable notice, Lender, its agents, accountants and attorneys shall have the right to examine the records, books, management and other papers of Borrower which reflect upon their financial condition, at the Property or at any office regularly maintained by Borrower where the books and records are located. Lender and its agents shall have the right to make copies and extracts from the foregoing records and other papers. In addition, at reasonable times and upon reasonable notice, Lender, its agents, accountants and attorneys shall have the right to examine and audit the books and records of Borrower pertaining to the income, expenses and operation of the Property during reasonable business hours at any office of Borrower where

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the books and records are located. This Section 7.6 shall apply throughout the term of the Note and without regard to whether an Event of Default has occurred or is continuing.

Section 7.7 Other Rights, etc. (a) The failure of Lender to insist upon strict performance of any term hereof shall not be deemed to be a waiver of any term of this Security Instrument. Borrower shall not be relieved of Borrower's obligations hereunder by reason of (i) the failure of Lender to comply with any request of Borrower or any guarantor or any indemnitor with respect to the Loan to take any action to foreclose this Security Instrument or otherwise enforce any of the provisions hereof or of the Note or the other Loan Documents, (ii) the release, regardless of consideration, of the whole or any part of the Property, or of any person liable for the Debt or any portion thereof, or (iii) any agreement or stipulation by Lender extending the time of payment or otherwise modifying or supplementing the terms of the Note, this Security Instrument or the other Loan Documents.

(b) It is agreed that the risk of loss or damage to the Property is on Borrower, and Lender shall have no liability whatsoever for decline in value of the Property, for failure to maintain the Policies, or for failure to determine whether insurance in force is adequate as to the amount of risks insured. Possession by Lender shall not be deemed an election of judicial relief if any such possession is requested or obtained with respect to any Property or collateral not in Lender's possession.

(c) Lender may resort for the payment of the Debt to any other security held by Lender in such order and manner as Lender, in its discretion, may elect. Lender may take action to recover the Debt, or any portion thereof, or to enforce any covenant hereof without prejudice to the right of Lender thereafter to foreclose this Security Instrument. The rights of Lender under this Security Instrument shall be separate, distinct and cumulative and none shall be given effect to the exclusion of the others. No act of Lender shall be construed as an election to proceed under any one provision herein to the exclusion of any other provision. Lender shall not be limited exclusively to the rights and remedies herein stated but shall be entitled to every right and remedy now or hereafter afforded at law or in equity.

Section 7.8 Right to Release Any Portion of the Property. Lender may release any portion of the Property for such consideration as Lender may require without, as to the remainder of the Property, in any way impairing or affecting the lien or priority of this Security Instrument, or improving the position of any subordinate lienholder with respect thereto, except to the extent that the obligations hereunder shall have been reduced by the actual monetary consideration, if any, received by Lender for such release, and may accept by assignment, pledge or otherwise any other property in place thereof as Lender may require without being accountable for so doing to any other lienholder. This Security Instrument shall continue as a lien and security interest in the remaining portion of the Property.

Section 7.9 Violation of Laws. If the Property is not in material compliance with Legal Requirements, Lender may impose additional requirements upon Borrower in connection herewith including monetary reserves or financial equivalents.

Section 7.10 Choice of Remedies. Without limiting the specificity of Section 5.4, nothing herein shall inhibit or prevent Lender from foreclosing or exercising any other rights and remedies pursuant to the Loan Agreement, the Note, this Security Instrument and the other Loan Documents, whether simultaneously with foreclosure proceedings or in any other sequence. In addition, Lender shall have the right but not the obligation to join and participate in, as a party if it so elects, any administrative or judicial proceedings or actions initiated in connection with any matter addressed in Article IX herein.

Section 7.11 Right of Entry. Upon reasonable notice to Borrower, Lender and its agents shall have the right to enter and inspect the Property at all reasonable times.

Section 7.12 Rights Pertaining To Sales. The following provisions shall, to the extent permitted by law, apply to any sale or sales of all or any portion of the Property under or by virtue of this Security Instrument, whether under any power of sale herein granted or by virtue of judicial proceedings or of a judgment or decree of foreclosure and sale:

(a) Trustee (for purposes of this Section 7.12 only, the term "Trustee" shall be interpreted to include any public officer or other person having the responsibility to conduct any sale of all or part of the Property pursuant to this Security Instrument) may conduct any number of sales from time to time. The power of sale shall not be exhausted by any one or more of such sales as to any part of the Property that has not been sold or by any sale that is not completed or is defective until the Debt has been paid in full.

(b) Any sale may be postponed or adjourned by public announcement at the time and place appointed for such sale or for such postponed or adjourned sale, and such sale may be completed at the time and place so announced without further notice.

(c) Lender is hereby appointed the true and lawful attorney-in-fact of Borrower, which appointment is irrevocable and shall be deemed to be coupled with an interest, in Borrower's name and stead, to make all necessary conveyances, assignments, Transfers and deliveries of the Property and rights so sold, and for that purpose Lender may execute all necessary instruments to accomplish the same, and may substitute one or more persons with like power, and Borrower hereby ratifies and confirms all that said attorney in fact or such substitute or substitutes shall lawfully do by virtue thereof. Nevertheless, Borrower, if requested by Lender, shall ratify and confirm any such sale or sales by executing and delivering to Lender or such purchaser or purchasers, as applicable, all such instruments as may be advisable, in Lender's judgment, for the purposes designated in such request.

(d) Any and all statements of fact or other recitals made in any of the instruments referred to in Section 7.12(c) given by Lender concerning nonpayment of the Debt, occurrence of any Event of Default, any declaration by Lender that all or any of the Debt is due and payable, any request to sell, any representation that notice of time, place and terms of sale and property or rights to be sold was duly given, or that any other act or thing was duly done by Lender, shall be taken as prima facie evidence of the truth of the facts so stated and recited.

(e) The receipt by Trustee of the purchase money paid at any such sale, or the receipt of any other person authorized to give the same, shall be sufficient discharge therefor to any purchaser of any property or rights sold as aforesaid, and no purchaser, or its representatives, grantees or assigns, after paying such purchase price and receiving such receipt, shall be bound to see to the application of such purchase price or any part thereof upon or for any trust or purpose of this Security Instrument or, in any manner whatsoever, be answerable for any loss, misapplication or non-application of any such purchase money, or part thereof, or be bound to inquire as to the authorization, necessity, expediency or regularity of any such sale.

(f) Any such sale or sales shall operate to divest all of the estate, right, title, interest, claim and demand whatsoever, whether at law or in equity, of Borrower in and to the properties and rights so sold, and shall be a perpetual bar both at law and in equity against Borrower and any and all persons claiming or who may claim the same, or any part thereof, by, through or under Borrower to the fullest extent permitted by applicable law.

(g) Upon any such sale or sales, Lender may bid for and acquire the Property and, in lieu of paying cash therefor, may make settlement for the purchase price by crediting against the Debt the amount of the bid made therefor, after deducting therefrom the expenses of the sale, the cost of any

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enforcement proceeding hereunder and any other sums that Lender is authorized to charge to Borrower under the terms of the Note, this Security Instrument, or any other Loan Document to the extent necessary to satisfy such bid.

(h) If Borrower, or any person claiming by, through or under Borrower, shall Transfer or refuse or fail to surrender possession of the Property after any sale thereof, then Borrower or such person shall be deemed a tenant at sufferance of the purchaser at such sale, subject to eviction by means of unlawful detainer proceedings or other appropriate proceedings, and to any other right or remedy available hereunder or under applicable law.

(i) Upon any such sale, it shall not be necessary for Trustee, Lender or any public officer acting under execution or order of court to have present or constructively in its possession any or all of the Property.

(j) In the event of any sale referred to in this Section 7.12, the entire Debt, if not previously due and payable, immediately thereupon shall, notwithstanding anything to the contrary in the Note, this Security Instrument or any other Loan Document, become due and payable.

(k) This instrument shall be effective as a mortgage. If a sale hereunder shall be commenced by Trustee, Lender may, at any time before the sale of the Property, direct the Trustee to abandon the sale, and may institute suit for the collection of the Debt or part thereof and for the foreclosure of this Security Instrument. If Lender shall institute suit for the collection of the Debt or part thereof, and for the foreclosure of this Security Instrument, Lender may at any time before the entry of final judgment in said suit dismiss the same (or part thereof) and direct the Trustee to sell the Property in accordance with the provisions of this Security Instrument. Lender may pursue its rights and remedies against any guarantor or other party liable for any of the obligations in such a suit for foreclosure or by separate suit, whether or not the Trustee is also pursuing a sale under the terms hereof.

ARTICLE VIII - PREPAYMENT

Section 8.1 Prepayment. The Debt may not be prepaid in whole or in part except in accordance with the express terms and conditions of the Note.

ARTICLE IX - INDEMNIFICATION

Section 9.1 General Indemnification. Borrower shall, at its sole cost and expense, protect (with legal counsel reasonably acceptable to Lender), defend, indemnify, release and hold harmless the Indemnified Parties from and against any and all claims, suits, liabilities (including strict liabilities), actions, proceedings, obligations, debts, damages, losses, costs, expenses, fines, penalties, charges, fees, expenses, judgments, awards, amounts paid in settlement, foreseeable and unforeseeable consequential damages, of whatever kind or nature (including reasonable attorneys' fees and other costs of defense) (collectively, the "Losses") imposed upon or incurred by or asserted against any Indemnified Parties and directly or indirectly arising out of or in any way relating to any one or more of the following: (a) ownership of this Security Instrument, the Property or any interest therein or receipt of any Rents; (b) any amendment to, or restructuring of, the Debt, the Note, the Loan Agreement, this Security Instrument, or any other Loan Documents; (c) any and all lawful action that may be taken by Lender in connection with the enforcement of the provisions of this Security Instrument, the Loan Agreement, the Note or any of the other Loan Documents, whether or not suit is filed in connection with same, or in connection with Borrower, any guarantor or any indemnitor Person and/or any partner, joint venturer or shareholder thereof becoming a party to a voluntary or involuntary federal or state bankruptcy, insolvency or similar proceeding; (d) any accident, injury to or death of persons or loss of or damage to property occurring in,

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on or about the Property or any part thereof or on the adjoining sidewalks, curbs, adjacent property or adjacent parking areas, streets or ways; (e) any use, nonuse or condition in, on or about the Property or any part thereof or on the adjoining sidewalks, curbs, adjacent property or adjacent parking areas, streets or ways; (f) any failure on the part of Borrower to perform or be in compliance with any of the terms of this Security Instrument, the Note, the Loan Agreement or any of the other Loan Documents; (g) performance of any labor or services or the furnishing of any materials or other property in respect of the Property or any part thereof; (h) the failure of any person to file timely with the Internal Revenue Service an accurate Form 1099-B, Statement for Recipients of Proceeds from Real Estate, Broker and Barter Exchange Transactions, which may be required in connection with this Security Instrument, or to supply a copy thereof in a timely fashion to the recipient of the proceeds of the transaction in connection with which this Security Instrument is made; (i) any failure of the Property to be in compliance with any Legal Requirements; (j) the enforcement by any Indemnified Party of the provisions of this Article IX; (k) any and all claims and demands whatsoever which may be asserted against Lender by reason of any alleged obligations or undertakings on its part to perform or discharge any of the terms, covenants, or agreements contained in any Lease; (l) any and all claims (including lender liability claims) or demands by Borrower or any third parties, including any guarantor or indemnitor; (m) the payment of any commission, charge or brokerage fee to anyone claiming through Borrower which may be payable in connection with the funding of the Loan; or (n) any misrepresentation made by Borrower in this Security Instrument or any other Loan Document. Any amounts payable to Lender by reason of the application of this Section 9.1 shall become immediately due and payable and shall bear interest at the Interest Rate (unless an Event of Default has occurred and is continuing, in which case at the Default Rate) from the date loss or damage is sustained by Lender until paid.

Section 9.2 Mortgage and/or Intangible Tax. Borrower shall, at its sole cost and expense, protect, defend, indemnify, release and hold harmless the Indemnified Parties from and against any and all Losses imposed upon or incurred by or asserted against any Indemnified Parties and directly or indirectly arising out of or in any way relating to any tax on the making and/or recording of this Security Instrument, the Note or any of the other Loan Documents, but excluding any income, franchise or other similar taxes. Borrower hereby agrees that, in the event that it is determined that any documentary stamp taxes or intangible personal property taxes are due hereon or on any mortgage or promissory note executed in connection herewith (including the Note), Borrower shall indemnify and hold harmless the Indemnified Parties for all such documentary stamp and/or intangible taxes, including all penalties and interest assessed or charged in connection therewith.

Section 9.3 ERISA Indemnification. Borrower shall, at its sole cost and expense, protect, defend, indemnify, release and hold harmless the Indemnified Parties from and against any and all Losses (including reasonable attorneys' fees and costs incurred in the investigation, defense, and settlement of Losses incurred in correcting any prohibited transaction or in the sale of a prohibited loan, and in obtaining any individual prohibited transaction exemption under ERISA that may be required, in Lender's discretion) that Lender may incur, directly or indirectly, as a result of a breach of any of the representations made under Section 4.1(k) of the Loan Agreement or a breach of any negative covenants contained in Section 5.1.9 of the Loan Agreement.

Section 9.4 Duty to Defend; Attorneys' Fees and Other Fees and Expenses. Upon written request by any Indemnified Party, Borrower shall defend such Indemnified Party (if requested by any Indemnified Party, in the name of the Indemnified Party) by attorneys and other professionals reasonably approved by the Indemnified Parties. Notwithstanding the foregoing, if the defendants in any such claim or proceeding include both Borrower and any Indemnified Party and Borrower and such Indemnified Party shall have reasonably concluded that there are any legal defenses available to it and/or other Indemnified Parties that are different from or adverse to those available to Borrower, such Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise

participate in the defense of such action on behalf of such Indemnified Party, provided that no compromise or settlement shall be entered without Borrower's consent, which consent shall not be unreasonably withheld. Upon demand, Borrower shall pay or, in the sole and absolute discretion of the Indemnified Parties, reimburse, the Indemnified Parties for the payment of reasonable fees and disbursements of attorneys, engineers, environmental consultants, laboratories and other professionals in connection therewith.

Section 9.5 Environmental Indemnity. Simultaneously with this Security Instrument, Borrower and Guarantor have executed that certain Environmental Indemnity. The obligations of Borrower and Guarantor under the Environmental Indemnity are not part of the Debt and are not secured by this Security Instrument.

ARTICLE X - WAIVERS

Section 10.1 Waiver of Counterclaim. To the extent permitted by applicable law, Borrower hereby waives the right to assert a counterclaim, other than a mandatory or compulsory counterclaim, in any action or proceeding brought against it by Lender arising out of or in any way connected with this Security Instrument, the Loan Agreement, the Note, any of the other Loan Documents, or the Obligations.

Section 10.2 Marshalling and Other Matters. To the extent permitted by applicable law, Borrower hereby waives the benefit of all homestead, appraisal, valuation, stay, extension, reinstatement and redemption laws now or hereafter in force and all rights of marshalling in the event of any sale hereunder of the Property or any part thereof or any interest therein. Further, Borrower hereby expressly waives any and all rights of redemption from sale under any order or decree of foreclosure of this Security Instrument on behalf of Borrower, and on behalf of each and every person acquiring any interest in or title to the Property subsequent to the date of this Security Instrument and on behalf of all persons to the extent permitted by applicable law, and hereby waives any defense Borrower might assert or have by reason of Lender's failure to make any tenant or lessee of the Property a party defendant in any foreclosure proceeding or action instituted by Lender.

Section 10.3 Waiver of Notice. To the extent permitted by applicable law, Borrower shall not be entitled to any notices of any nature whatsoever from Lender except with respect to matters for which this Security Instrument specifically and expressly provides for the giving of notice by Lender to Borrower and except with respect to matters for which Lender is required by applicable law to give notice, and Borrower hereby expressly waives the right to receive any notice from Lender with respect to any matter for which this Security Instrument does not specifically and expressly provide for the giving of notice by Lender to Borrower and except with respect to matters for which Lender is required by applicable law to give notice.

Section 10.4 Waiver of Statute of Limitations. To the extent permitted by applicable law, Borrower hereby expressly waives and releases to the fullest extent permitted by law, the pleading of any statute of limitations as a defense to payment of the Debt or performance of its Other Obligations.

Section 10.5 Survival. The indemnifications made pursuant to Sections 9.1, 9.2 and 9.3 herein shall continue indefinitely in full force and effect and shall survive and shall in no way be impaired by any of the following: any satisfaction or other termination of this Security Instrument, any assignment or other Transfer of all or any portion of this Security Instrument or Lender's interest in the Property (but, in such case, shall benefit both Indemnified Parties and any assignee or transferee), any exercise of Lender's rights and remedies pursuant hereto including foreclosure or acceptance of a deed in lieu of foreclosure, any exercise of any rights and remedies pursuant to the Loan Agreement, the Note or any of the other Loan Documents, any Transfer of all or any portion of the Property (whether by Borrower or by Lender

following foreclosure or acceptance of a deed in lieu of foreclosure or at any other time), any amendment to this Security Instrument, the Loan Agreement, the Note or the other Loan Documents, and any act or omission that might otherwise be construed as a release or discharge of Borrower from the obligations pursuant hereto.

Section 10.6 Trial by Jury. TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER HEREBY EXPRESSLY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION (A) ARISING UNDER THE LOAN DOCUMENTS, INCLUDING, WITHOUT LIMITATION, ANY PRESENT OR FUTURE MODIFICATION THEREOF OR (B) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF THE PARTIES HERETO OR ANY OF THEM WITH RESPECT TO THE LOAN DOCUMENTS (AS NOW OR HEREAFTER MODIFIED) OR ANY OTHER INSTRUMENT, DOCUMENT OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HERewith, OR THE TRANSACTIONS RELATED HERETO OR THERETO, IN EACH CASE WHETHER SUCH CLAIM, DEMAND, ACTION OR CAUSE OF ACTION IS NOW EXISTING OR HEREAFTER ARISING, AND WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE; AND BORROWER HEREBY AGREES AND CONSENTS THAT LENDER MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS SECTION WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF BORROWER TO THE WAIVER OF ANY RIGHT BORROWER MIGHT OTHERWISE HAVE TO TRIAL BY JURY.

ARTICLE XI - EXCULPATION

The Debt shall be fully recourse to Borrower and Borrower shall be personally liable for all of the Debt.

ARTICLE XII - NOTICES

All notices or other written communications hereunder shall be delivered in accordance with Section 12.5 of the Loan Agreement.

ARTICLE XIII - APPLICABLE LAW

Section 13.1 Governing Law. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, THIS SECURITY INSTRUMENT SHALL BE GOVERNED, CONSTRUED, APPLIED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE WHERE THE LAND IS LOCATED WITHOUT REGARD TO THE CONFLICTS OF LAW PROVISIONS THEREOF ("GOVERNING STATE"). BORROWER HEREBY CONSENTS TO PERSONAL JURISDICTION IN THE GOVERNING STATE. JURISDICTION AND VENUE OF ANY ACTION BROUGHT TO ENFORCE THIS SECURITY INSTRUMENT OR ANY OTHER LOAN DOCUMENT OR ANY ACTION RELATING TO THE LOAN OR THE RELATIONSHIPS CREATED BY OR UNDER THE LOAN DOCUMENTS ("ACTION") SHALL, AT THE ELECTION OF LENDER, BE IN (AND IF ANY ACTION IS ORIGINALLY BROUGHT IN ANOTHER VENUE, THE ACTION SHALL AT THE ELECTION OF LENDER BE TRANSFERRED TO) A STATE OR FEDERAL COURT OF APPROPRIATE JURISDICTION LOCATED IN THE GOVERNING STATE. BORROWER HEREBY CONSENTS AND SUBMITS TO THE PERSONAL JURISDICTION OF THE STATE COURTS OF THE GOVERNING STATE AND OF FEDERAL COURTS LOCATED IN THE GOVERNING STATE IN CONNECTION WITH ANY ACTION AND HEREBY WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY OTHER STATE TO OBJECT TO JURISDICTION WITHIN SUCH STATE FOR PURPOSES OF ANY ACTION. Borrower hereby waives and agrees not to assert,

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as a defense to any Action or a motion to transfer venue of any Action, (i) any claim that it is not subject to such jurisdiction, (ii) any claim that any Action may not be brought against it or is not maintainable in those courts or that this Security Instrument may not be enforced in or by those courts, or that it is exempt or immune from execution, (iii) that the Action is brought in an inconvenient forum, or (iv) that the venue for the Action is in any way improper.

Section 13.2 Usury Laws. Notwithstanding anything to the contrary, (a) all agreements and communications between Borrower and Lender are hereby and shall automatically be limited so that, after taking into account all amounts deemed interest, the interest contracted for, charged or received by Lender shall never exceed the maximum lawful rate or amount, (b) in calculating whether any interest exceeds the lawful maximum, all such interest shall be amortized, prorated, allocated and spread over the full amount and term of all principal indebtedness of Borrower to Lender, and (c) if through any contingency or event, Lender receives or is deemed to receive interest in excess of the lawful maximum, any such excess shall be deemed to have been applied toward payment of the principal of any and all then outstanding indebtedness of Borrower to Lender, or if there is no such indebtedness, shall immediately be returned to Borrower.

Section 13.3 Provisions Subject to Applicable Law. All rights, powers and remedies provided in this Security Instrument may be exercised only to the extent that the exercise thereof does not violate any applicable provisions of law and are intended to be limited to the extent necessary so that they will not render this Security Instrument invalid, unenforceable or not entitled to be recorded, registered or filed under the provisions of any applicable law. If any term of this Security Instrument or any application thereof shall be invalid or unenforceable, the remainder of this Security Instrument and any other application of the term shall not be affected thereby.

ARTICLE XIV - DEFINITIONS

All capitalized terms not defined herein shall have the respective meanings set forth in the Loan Agreement. Unless the context clearly indicates a contrary intent or unless otherwise specifically provided herein, words used in this Security Instrument may be used interchangeably in singular or plural form and the word "Borrower" shall mean "each Borrower and any subsequent owner or owners of the Property or any part thereof or any interest therein," the word "Lender" shall mean "Lender and any subsequent holder of the Note," the word "Note" shall mean "the Note and any other evidence of indebtedness secured by this Security Instrument," the word "Property" shall include any portion of the Property and any interest therein, and the phrases "attorneys' fees," "legal fees" and "counsel fees" shall include any and all attorneys', paralegal and law clerk fees and disbursements, including fees and disbursements at the pre-trial, trial and appellate levels incurred or paid by Lender in protecting its interest in the Property, the Leases and the Rents and enforcing its rights hereunder.

ARTICLE XV - MISCELLANEOUS PROVISIONS

Section 15.1 No Oral Change. This Security Instrument, and any provisions hereof, including the provisions of this Section, may not be modified, amended, waived, extended, changed, discharged or terminated orally or by any act or failure to act on the part of Borrower or Lender, but only by an agreement in writing signed by the party against whom enforcement of any modification, amendment, waiver, extension, change, discharge or termination is sought, and the parties hereby: (a) expressly agree that it shall not be reasonable for any of them to rely on any alleged, non-written amendment to this Security Instrument; (b) irrevocably waive any and all right to enforce any alleged, non-written amendment to this Security Instrument; and (c) expressly agree that it shall be beyond the scope of authority (apparent or otherwise) for any of their respective agents to agree to any non-written modification of this Security Instrument.

Section 15.2 Successors and Assigns. This Security Instrument shall be binding upon and inure to the benefit of Borrower and Lender and their respective successors and assigns forever.

Section 15.3 Inapplicable Provisions. If any term, covenant or condition of the Loan Agreement, the Note or this Security Instrument is held to be invalid, illegal or unenforceable in any respect, the Loan Agreement, the Note and this Security Instrument shall be construed without such provision.

Section 15.4 Headings, Etc. The headings and captions of various Sections of this Security Instrument are for convenience of reference only and are not to be construed as defining or limiting, in any way, the scope or intent of the provisions hereof.

Section 15.5 Number and Gender. Whenever the context may require, any pronouns used herein shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural and vice versa.

Section 15.6 Subrogation. If any or all of the proceeds of the Note have been used to extinguish, extend or renew any indebtedness heretofore existing against the Property, then, to the extent of the funds so used, Lender shall be subrogated to all of the rights, claims, liens, titles, and interests existing against the Property heretofore held by, or in favor of, the holder of such indebtedness and such former rights, claims, liens, titles, and interests, if any, are not waived but rather are continued in full force and effect in favor of Lender and are merged with the lien and security interest created herein as cumulative security for the repayment of the Debt, the performance and discharge of Borrower's obligations hereunder, under the Loan Agreement, the Note and the other Loan Documents and the performance and discharge of the Other Obligations.

Section 15.7 Entire Agreement. The Note, the Loan Agreement, this Security Instrument and the other Loan Documents constitute the entire understanding and agreement between Borrower and Lender with respect to the transactions arising in connection with the Debt and supersede all prior written or oral understandings and agreements between Borrower and Lender with respect thereto. Borrower hereby acknowledges that, except as incorporated in writing in the Note, the Loan Agreement, this Security Instrument and the other Loan Documents, there are not, and were not, and no persons are or were authorized by Lender to make, any representations, understandings, stipulations, agreements or promises, oral or written, with respect to the transaction which is the subject of the Note, the Loan Agreement, this Security Instrument and the other Loan Documents.

Section 15.8 Limitation on Lender's Responsibility. No provision of this Security Instrument shall operate to place any obligation or liability for the control, care, management or repair of the Property upon Lender, nor shall it operate to make Lender responsible or liable for any waste committed on the Property by the tenants or any other Person, or for any dangerous or defective condition of the Property, or for any negligence in the management, upkeep, repair or control of the Property resulting in loss or injury or death to any tenant, licensee, employee or stranger. Nothing herein contained shall be construed as constituting Lender a "mortgagee in possession."

Section 15.9 Rules of Construction. The following rules of construction shall be applicable for all purposes of this Security Instrument and all documents or instruments supplemental hereto, unless the context otherwise clearly requires:

(a) The terms "include," "including" and similar terms shall be construed as if followed by the phrase "without being limited to";

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(b) any pronoun used herein shall be deemed to cover all genders, and words importing the singular number shall mean and include the plural number, and vice versa;

(c) all captions to the Sections hereof are used for convenience and reference only and in no way define, limit or describe the scope or intent of, or in any way affect, this Security Instrument;

(d) the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or";

(e) the words "hereof," "herein," "hereby," "hereunder," and similar terms in this Security Instrument refer to this Security Instrument as a whole and not to any particular provision or section of this Security Instrument;

(f) an Event of Default shall "continue" or be "continuing" until such Event of Default has been waived in writing by Lender;

(g) No inference in favor of or against any party shall be drawn from the fact that such party has drafted any portion hereof or any other Loan Document;

(h) The cover page (if any) of, all recitals set forth in, and all Exhibits to, this Security Instrument are hereby incorporated herein; and

(i) Wherever Lender's judgment, consent, approval or discretion is required under this Security Instrument or any other Loan Document for any matter or thing or Lender shall have an option, election, or right of determination or any other power to decide any matter relating to the terms and conditions of this Security Instrument, including any right to determine that something is satisfactory or not ("Decision Power"), such Decision Power shall be exercised in the reasonable discretion of Lender unless otherwise expressly stated to be exercised in Lender's sole and absolute discretion. Such Decision Power and each other power granted to Lender upon this Security Instrument or any other Loan Document may be exercised by Lender or by any authorized agent of Lender (including any servicer and/or attorney-in-fact), and Borrower hereby expressly agrees to recognize the exercise of such Decision Power by such authorized agent. Without limiting the generality of the foregoing, any authorized agent of Lender (including any servicer and/or attorney-in-fact) is hereby specifically authorized to remove a trustee and select and appoint a successor trustee.

Section 15.10 Duplicate Originals; Counterparts. For the purpose of facilitating the execution of this Security Instrument and for other purposes, this Security Instrument may be executed simultaneously in any number of counterparts, each of which counterparts shall be deemed to be an original, and such counterparts shall constitute but one and the same instrument. A signature of a party by facsimile or other electronic transmission (including a .pdf copy sent by e-mail) shall be deemed to constitute an original and fully effective signature of such party. The failure of any party hereto to execute this Security Instrument, or any counterpart hereof, shall not relieve the other signatories from their obligations hereunder.

Section 15.11 Lender's Right to Subordinate. Lender may, at its election, subordinate the lien of this Security Instrument and any or all of Lender's rights, titles or interests hereunder to any lien, leasehold interest, easement, plat, covenant, restriction, dedication, encumbrance or other matter affecting the Property or any part thereof by recording a written declaration of such subordination in the office of the register or recorder of deeds or similar filing officer for the county in which the Land is located. If foreclosure sale occurs hereunder after the recording of any such declaration, the title received by the

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purchaser at such sale shall be subject to the matters specified in such declaration, but such declaration shall not otherwise affect the validity or terms of this Security Instrument or any other Loan Document or the priority of any lien or security interest created hereunder or under any other Loan Document. Without limitation of the foregoing, Lender shall have the right to unilaterally modify any Loan Document to release any lien on any portion of the Property.

ARTICLE XVI – DEED OF TRUST PROVISIONS

Section 16.1 Concerning the Trustee. Trustee shall be under no duty to take any action hereunder except as expressly required hereunder or by law, or to perform any act which would involve Trustee in any expense or liability or to institute or defend any suit in respect hereof, unless properly indemnified to Trustee's reasonable satisfaction. Trustee, by acceptance of this Security Instrument, covenants to perform and fulfill the trusts herein created, being liable, however, only for gross negligence or willful misconduct, and hereby waives any statutory fee and agrees to accept reasonable compensation, in lieu thereof, for any services rendered by Trustee in accordance with the terms hereof. Trustee may resign at any time upon giving thirty (30) days' notice to Borrower and to Lender. Lender may remove Trustee at any time or from time to time and select a successor trustee. In the event of the death, removal, resignation, refusal to act, or inability to act of Trustee, or in its discretion for any reason whatsoever Lender may, without notice and without specifying any reason therefor and without applying to any court, select and appoint a successor trustee, by an instrument recorded wherever this Security Instrument is recorded and all powers, rights, duties and authority of Trustee, as aforesaid, shall thereupon become vested in such successor. Such substitute trustee shall not be required to give bond for the faithful performance of the duties of Trustee hereunder unless required by Lender. The procedure provided for in this paragraph for substitution of Trustee shall be in addition to and not in exclusion of any other provisions for substitution, by law or otherwise.

Section 16.2 Trustee's Fees. Borrower shall pay all reasonable costs, fees and expenses incurred by Trustee and Trustee's agents and counsel in connection with the performance by Trustee of Trustee's duties hereunder and all such costs, fees and expenses shall be secured by this Security Instrument.

Section 16.3 Certain Rights. With the approval of Lender, Trustee shall have the right to take any and all of the following actions: (a) to select, employ, and advise with counsel (who may be, but need not be, counsel for Lender) upon any matters arising hereunder, including the preparation, execution, and interpretation of the Note, this Security Instrument or the Other Loan Documents, and shall be fully protected in relying as to legal matters on the advice of counsel, (b) to execute any of the trusts and powers hereof and to perform any duty hereunder either directly or through his/her agents or attorneys, (c) to select and employ, in and about the execution of his/her duties hereunder, suitable accountants, engineers and other experts, agents and attorneys-in-fact, either corporate or individual, not regularly in the employ of Trustee, and Trustee shall not be answerable for any act, default, negligence, or misconduct of any such accountant, engineer or other expert, agent or attorney-in-fact, if selected with reasonable care, or for any error of judgment or act done by Trustee in good faith, or be otherwise responsible or accountable under any circumstances whatsoever, except for Trustee's gross negligence or bad faith and (d) any and all other lawful action as Lender may instruct Trustee to take to protect or enforce Lender's rights hereunder. Trustee shall not be personally liable in case of entry by Trustee, or anyone entering by virtue of the powers herein granted to Trustee, upon the Property for debts contracted for or liability or damages incurred in the management or operation of the Property. Trustee shall have the right to rely on any instrument, document, or signature authorizing or supporting an action taken or proposed to be taken by Trustee hereunder, believed by Trustee in good faith to be genuine. Trustee shall be entitled to reimbursement for actual expenses incurred by Trustee in the performance of Trustee's duties hereunder and to reasonable compensation for such of Trustee's services hereunder as shall be rendered.

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Section 16.4 Retention of Money. All moneys received by Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated in any manner from any other moneys (except to the extent required by applicable law) and Trustee shall be under no liability for interest on any moneys received by Trustee hereunder.

Section 16.5 Perfection of Appointment. Should any deed, conveyance, or instrument of any nature be required from Borrower by any Trustee or substitute trustee to more fully and certainly vest in and confirm to the Trustee or substitute trustee such estates rights, powers, and duties, then, upon request by the Trustee or substitute trustee, any and all such deeds, conveyances and instruments shall be made, executed, acknowledged, and delivered and shall be caused to be recorded and/or filed by Borrower.

Section 16.6 Succession Instruments. Any substitute trustee appointed pursuant to any of the provisions hereof shall, without any further act, deed, or conveyance, become vested with all the estates, properties, rights, powers, and trusts of its or his/her predecessor in the rights hereunder with like effect as if originally named as Trustee herein; but nevertheless, upon the written request of Lender or of the substitute trustee, the Trustee ceasing to act shall execute and deliver any instrument transferring to such substitute trustee, upon the trusts herein expressed, all the estates, properties, rights, powers, and trusts of the Trustee so ceasing to act, and shall duly assign, transfer and deliver any of the property and moneys held by such Trustee to the substitute trustee so appointed in the Trustee's place.

ARTICLE XVII - STATE-SPECIFIC PROVISIONS

Section 17.1 Principles of Construction. In the event of any inconsistencies between the terms and conditions of this Article XVII and the terms and conditions of this Security Instrument, the terms and conditions of this Article XVII shall control and be binding.

Section 17.2 Appointment of Receiver for Breach of Environmental Covenants.

(a) Upon the occurrence of an Event of Default, or when permitted under Section 564 of the California Code of Civil Procedure (including without limitation in order to enforce Lender's rights under Section 2929.5 of the California Civil Code), Lender, as a matter of right and without notice to Borrower or anyone claiming under Borrower, and without regard to the then value of the Property or the interest of Borrower therein, shall have the right to apply to any court having jurisdiction to appoint a receiver or receivers of the Property, and Borrower hereby irrevocably consents to such appointment and waives notice of any application therefor. Any such receiver or receivers shall have all the usual powers and duties of receivers in like or similar cases and all the powers and duties of Lender in case of entry as provided in this Security Instrument and shall continue as such and exercise all such powers until the later of: (a) the date of confirmation of sale of the Property; (b) the disbursement of all proceeds of the Property collected by such receiver and the payment of all expenses incurred in connection therewith, including without limitation expenses incurred in connection with the cleanup, remediation or other response action concerning the release or threatened release of Hazardous Materials (as defined in the Environmental Indemnity) from or at the Property and/or the Improvements, whether or not such actions are pursuant to an order of any federal, state or local governmental agency; or (c) the termination of such receivership with the consent of Lender or pursuant to an order by a court of competent jurisdiction.

(b) Borrower on its own behalf and on behalf of its successors and assigns of any portion of the Property, and of future lienholders on any estate or interest of Borrower hereunder, hereby expressly waives all rights legal or equitable, to require a marshaling of assets by Trustee or Lender or to require Trustee or Lender, upon a foreclosure, to first resort to the sale of any portion of the Property which might have been retained by Borrower, or any further lienholder who might succeed to the title of Borrower, or could possibly be retained by any future lienholder who might succeed to the title of

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Borrower, before foreclosing upon and selling any other portions as may be conveyed by Borrower subject to this Security Instrument, including any rights under California Civil Code Sections 2899 and 3433, and all rights of Borrower under California Civil Code Section 2822.

(c) Borrower shall and does hereby agree that, if all or a portion of the principal sum of the Note has prior to the Stated Maturity Date fixed in the obligation, become due or been declared due by reason of an Event of Default the entire amount then due under the terms of this Security Instrument and the Note shall include all attorneys' fees and costs and expenses which are actually incurred as stated above, notwithstanding the provisions of Section 2924c(d) and Section 2924d of the California Civil Code.

(d) The foregoing provisions of this Section 16.2 are in addition to and not in limitation of the other provisions of the Loan Documents and Lender's rights and remedies thereunder and under applicable law and equity.

(e) At Lender's option, Lender shall be entitled to waive its lien against the Property or any portion thereof, whether fixtures or personal property, to the extent such property is found to be environmentally impaired in accordance with California Code of Civil Procedure Section 726.5 and to exercise any and all rights and remedies of an unsecured creditor against Borrower and all of Borrower's assets and property for the recovery of any deficiency and Environmental Costs (as defined below). For purposes of California Code of Civil Procedure Section 726.5, as between Borrower and Lender, Borrower acknowledges and agrees that it shall have the burden of proving that Borrower or any of its contractors, employees, agents, invitees, affiliates, related parties or customers was not in any way negligent in permitting the release or threatened release of any hazardous substances causing environmental impairment of the Property. Lender reserves its other rights under California Code of Civil Procedure Sections 726.5.

(f) At Lender's option, Lender shall be entitled to seek a judgment that Borrower has breached its covenants, representations and/or warranties with respect to the environmental matters set forth in the Environmental Indemnity, by commencing and maintaining an action or actions in any court of competent jurisdiction for breach of contract pursuant to California Code of Civil Procedure Section 736, whether commenced prior to foreclosure of the Property or otherwise, and to seek the recovery of any and all costs, damages, expenses, fees, penalties, fines, judgments, indemnification payments to third parties, and other out-of-pocket costs or expenses actually incurred or advanced by Lender relating to the cleanup, remediation or other response action, required by applicable law or to which Lender believes necessary to protect the Property (collectively, the "Environmental Costs") (excluding, however, any Environmental Costs not permitted to be recovered pursuant to Section 736 of the California Code of Civil Procedure), it being conclusively presumed between Lender and Borrower that all such Environmental Costs incurred or advanced by Lender relating to the cleanup, remediation, or other response action of or to the Property were made by Lender in good faith. Environmental Costs that are not permitted to be recovered pursuant to Section 736 may be referred to hereinafter as the "Unsecured Environmental Costs," and Environmental Costs other than the Unsecured Environmental Costs may be referred to hereinafter as the "Secured Environmental Costs." Any Unsecured Environmental Costs shall not be secured by this Security Instrument; provided, however, nothing herein shall prevent Lender from recovering any Unsecured Environmental Costs pursuant to the unsecured Environmental Indemnity, to the extent they are recoverable in accordance with said Environmental Indemnity. All Environmental Costs under this subparagraph (including, without limitation, court costs, consultant fees and attorneys' fees, whether incurred in litigation or otherwise and whether before or after judgment) shall bear interest at the Default Rate from the date of such costs and expenses have been incurred until said sums have been fully paid. Lender shall be entitled to bid, at a sale of the Property held as provided

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herein, the amount of such Secured Environmental Costs (including interest thereon) in addition to the amount of the other obligations hereby secured as a credit bid, the equivalent of cash.

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Section 17.3 Additional Rights and Remedies.

(a) In addition to the rights of Lender specifically granted by Borrower under this Security Instrument, upon the occurrence of an Event of Default under any Loan Document, Lender shall be entitled to enforce this Security Instrument as provided under California Civil Code Section 2938.

(b) Lender shall have the right to enforce this Security Instrument by (1) the appointment of a receiver; (2) obtaining possession of the rents, issues, or profits; (3) delivery to any one or more of the tenants of the Property of a written demand for turnover of rents, issues, and profits in the form specified in California Civil Code Section 2938, a copy of which demand shall also be delivered to Borrower, and a copy of which shall be mailed to all other assignees of record of the leases, rents, issues, and profits of the Property at the address for notices provided in the assignment or, if none, to the address to which the recorded assignment was to be mailed after recording; and (4) delivery to Borrower of a written demand for the rents, issues, or profits, a copy of which shall be mailed to all other assignees of record of the leases, rents, issues and profits of the Property at the address for notices provided in the assignment, or, if none, to the address to which the recorded assignment was to be mailed after recording.

(c) Monies received by the Lender pursuant to this Section 17.3, net of amounts paid to preserve and protect the Property, shall be applied in accordance with this Security Instrument and the other Loan Documents.

(d) Notwithstanding the foregoing, neither the application nor the failure to apply the rents, issues, or profits of the Property shall result in a loss of any lien or security interest which Lender holds in the Property or any other collateral pursuant to this Security Instrument and the other Loan Documents, render the obligation evidenced by the Note unenforceable, constitute a violation of Section 726 of the California Code of Civil Procedure, or otherwise limit any right available to Lender with respect to its security.

GMX

Borrower's Initials

[NO FURTHER TEXT ON THIS PAGE]

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Section 17.4 Notice of Default. Borrower hereby requests that any notice of default and any notice of sale hereunder be mailed to it at its address set forth in the introductory paragraph of this Security Instrument.

Section 17.5 Hazard Insurance Disclosure. This Section is being furnished by Lender in compliance with Section 2955.5(b) of the California Civil Code. California Civil Code Section 2955.5(a) reads as follows: "No lender shall require a Borrower, as a condition of receiving or maintaining a loan secured by real property, to provide hazard insurance coverage against risks to the improvements on that real property in an amount exceeding the replacement value of the improvements on the property." Borrower acknowledges and agrees that the above disclosure was made by Lender to Borrower prior to execution of this Security Instrument, the Note or the other Loan Documents.

Section 17.6 Commercial Loan. Borrower represents and warrants that the Loan is for commercial purposes, and not for personal, household or consumer purposes. For the avoidance of any doubt, no portion of the proceeds of the Loan shall be used by Borrower to finance the purchase or construction of real property containing four (4) or fewer residential units or on which four (4) or fewer residential units are to be constructed.

[NO FURTHER TEXT ON THIS PAGE]

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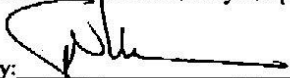
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IN WITNESS WHEREOF, this Security Instrument has been executed by Borrower as of the day and year first above written.

BORROWER:

**WOODLAND/SPRECKELS INDUSTRIAL
BUSINESS PARK, LLC,**
a California limited liability company

By: 
Name: Gerry N. Kamilos
Title: Manager

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

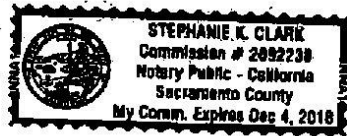
On January 4, 2018, before me, Stephanie K. Clark Notary Public
(insert name and title of the officer)

personally appeared Gerry N. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Stephanie K. Clark (Seal)



SIGNATURE PAGE TO DEED OF TRUST

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EXHIBIT A
LEGAL DESCRIPTION

EXHIBIT A TO DEED OF TRUST
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Order Number: P-243150

**EXHIBIT "A"
LEGAL DESCRIPTION**

The land described herein is situated in the State of California, County of Yolo, City of Woodland, described as follows:

Parcels C and D, as shown on Parcel Map No. 4600, filed for record December 28, 2005, in Book 2005 of Maps, Pages 215-216, Yolo County Records.

APN: 027-210-035-000, 027-210-036-000

END OF DOCUMENT

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EXHIBIT D

BY FAX

GUARANTY

THIS GUARANTY (this "Guaranty") is made as of January 4, 2018, by GERRY N. KAMILOS, an individual, and KAREN L. KAMILOS, an individual (individually and collectively, jointly and severally, "Guarantor"), for the benefit of ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership ("Lender").

RECITALS

The following recitals are a material part of this Agreement.

A. Pursuant to the terms of a Loan Agreement dated of even date herewith between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company ("Borrower"), and Lender (as the same may be modified, amended or restated from time to time, the "Loan Agreement"), Lender is making a loan to Borrower in the maximum principal amount of Ten Million Three Hundred Fifty Thousand and No/100ths Dollars (\$10,350,000.00) (the "Loan") for the purposes specified in the Loan Agreement, said purposes relating to the real property and improvements described in the Loan Agreement (which real property and improvements are collectively referred to herein as the "Property"). Each capitalized term used herein and not otherwise defined herein shall have the meaning given to such term in the Loan Agreement.

B. The Loan Agreement provides that the Loan shall be evidenced by the Note and shall be secured by the Security Instrument and by other security instruments, if any, specified in the Loan Agreement.

C. Lender is not willing to make the Loan, or otherwise extend credit, to Borrower unless Guarantor unconditionally guarantees payment and performance to Lender of the Guaranteed Obligations (as herein defined).

D. Guarantor is a direct or indirect owner of Borrower and will derive substantial direct and indirect benefits from the Loan and the transactions contemplated by the Loan Agreement, and the making of this Guaranty and such benefits are at least equal to the obligations incurred under this Guaranty.

AGREEMENT

NOW, THEREFORE, to induce Lender to enter into the Loan Agreement and make the Loan, and in consideration thereof and for other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, Guarantor unconditionally, absolutely and irrevocably guarantees and agrees as follows:

1. Guaranty. Subject to the limitations set forth in this Guaranty, Guarantor absolutely, unconditionally, and irrevocably guarantees to Lender, as primary obligor and not merely as surety, the due, prompt, and full payment and performance of all liabilities, obligations, or undertakings owing by Borrower to Lender of any kind or description arising out of or outstanding under, advanced or issued pursuant to, or evidenced by the Loan Agreement or the other Loan Documents or in any other agreement between Borrower and Lender, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, voluntary or involuntary, whether now existing or hereafter arising, and including all interest (including interest that accrues after the filing of a case under the Bankruptcy Code) and any and all costs, fees (including attorneys fees), and expenses which Borrower is required to pay pursuant to any of the foregoing, by law, or otherwise (collectively, the

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“Guaranteed Obligations”). Subject to the limitations set forth in this Guaranty, Guarantor unconditionally agrees to pay to Lender the full amount of the Guaranteed Obligations. Guarantor further agrees that all or part of the Guaranteed Obligations may be increased, extended, substituted, amended, renewed or otherwise modified without notice to or consent from Guarantor and such actions shall not affect the liability of Guarantor hereunder. Without limiting the generality of the foregoing, Guarantor's liability shall extend to all amounts that constitute part of the Guaranteed Obligations and would be owed by any other Person to Lender under or in respect of the Loan Documents but for the fact that they are unenforceable or not allowable due to the existence of a bankruptcy, reorganization or similar proceeding involving such other Person. If there shall be more than one guarantor with respect to any of the Guaranteed Obligations, then the obligations of each such guarantor (including Guarantor) shall be joint and several.

2. Remedies. If Guarantor fails to promptly perform its obligations under this Guaranty, Lender may from time to time, and without first requiring performance by Borrower or exhausting any or all security for the Loan, bring any action at law or in equity or both to compel Guarantor to perform its obligations hereunder, and to collect in any such action compensation for all loss, cost, damage, injury and expense sustained or incurred by Lender as a direct or indirect consequence of the failure of Guarantor to perform its obligations together with interest thereon at the rate of interest applicable to the principal balance of the Note.

3. Rights Of Lender. Lender may at any time, without the consent of or notice to Guarantor, without incurring responsibility to Guarantor and without impairing, releasing, reducing or affecting the obligations of Guarantor hereunder: (i) change the manner, place or terms of payment of all or any part of the Guaranteed Obligations, or renew, extend, modify, rearrange or alter all or any part of the Guaranteed Obligations; (ii) change the interest rate accruing on any of the Guaranteed Obligations (including, without limitation, any periodic change in such interest rate that occurs because such Guaranteed Obligations accrue interest at a variable rate which may fluctuate from time to time); (iii) declare all sums owing to Lender under the Note and the other Loan Documents due and payable upon the occurrence of a Default or Event of Default under the Loan Documents; (iv) amend, restate, or otherwise modify the terms of any Loan Document; (v) sell, exchange, release, surrender, subordinate, realize upon or otherwise deal with in any reasonable manner and in any order any collateral for all or any part of the Guaranteed Obligations; (vi) neglect, delay, omit, fail or refuse to take or prosecute any action for the collection of all or any part of the Guaranteed Obligations or this Guaranty or to take or prosecute any action in connection with any of the Loan Documents; (vii) exercise or refrain from exercising any rights against Borrower or others, or otherwise act or refrain from acting; (viii) release, substitute or add any one or more endorsers of the Note or guarantors of Borrower's obligations under the Note or the other Loan Documents; (ix) settle or compromise all or any part of the Guaranteed Obligations and subordinate the payment of all or any part of the Guaranteed Obligations to the payment of any obligations, indebtedness or liabilities which may be due or become due to Lender or others; (x) apply any deposit balance, fund, payment, collections through process of law or otherwise or other collateral of Borrower to the satisfaction and liquidation of the Guaranteed Obligations; (xi) apply any sums paid to Lender by Guarantor, Borrower or others to the Guaranteed Obligations in such order and manner as Lender, in its sole discretion, may determine; (xii) assign this Guaranty in whole or in part; and (xiii) assign, transfer or negotiate all or any part of the Guaranteed Obligations.

4. Guarantor's Waivers.

(a) Regardless of whether Guarantor may have made any payments to Lender, until such time as Borrower's Obligations have been paid in full or satisfied, Guarantor hereby waives: (a) intentionally omitted, (b) all rights to enforce any remedy that Lender may have against Borrower, and (c) all rights to participate in any security now or later to be held by Lender for the Loan. Guarantor

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further agrees that, until such time as the Borrower's Obligations have been paid in full or satisfied, any rights of subrogation, reimbursement, indemnification, and contribution Guarantor may have against Borrower or against any collateral or security, shall be junior and subordinate to any rights Lender may have against Borrower, and to all right, title and interest Lender may have in any such collateral or security.

(b) Guarantor understands and acknowledges that if Lender forecloses judicially or nonjudicially against any real property security for the Loan, that foreclosure could impair or destroy any ability that Guarantor may have to seek reimbursement, contribution, or indemnification from Borrower or others based on any right Guarantor may have of subrogation, reimbursement, contribution or indemnification for any amounts paid by Guarantor under this Guaranty. By executing this Guaranty, Guarantor freely, irrevocably, and unconditionally: (i) subject to the limitations set forth herein, waives and relinquishes that defense and agrees that Guarantor shall be fully liable under this Guaranty even though Lender may foreclose judicially or nonjudicially against any real property security for the Loan; (ii) acknowledges and agrees that the rights and defenses waived by Guarantor under this Guaranty include any right or defense that Guarantor may have or be entitled to assert based upon or arising out of any one-action, reimbursement, or other borrower or guarantor protective statute (including, without limitation, any defense that any exercise by Lender of any right or remedy hereunder or under the Loan Documents violates, or would, in combination with the previous or subsequent exercise by Guarantor of any rights of subrogation, reimbursement, contribution, or indemnification against Borrower or any other person, directly or indirectly result in, or be deemed to be, a violation of any of such statutory provisions); and (iii) acknowledges and agrees that Lender is relying on this waiver in making the Loan, and that this waiver is a material part of the consideration which Lender is receiving for making the Loan.

(c) Guarantor waives all rights and defenses arising out of an election of remedies by Lender, even though that election of remedies, such as a nonjudicial foreclosure with respect to security for a guaranteed obligation, may destroy Guarantor's rights of subrogation and reimbursement against Borrower.

(d) Guarantor waives any rights and defenses that are or may become available to Guarantor by reason of any statute governing guaranties or suretyship.

(e) Guarantor waives all rights and defenses that Guarantor may have because the Loan is secured by real property. This means, among other things:

- (i) Lender may collect from Guarantor without first foreclosing on any real or personal property collateral pledged by Borrower.
- (ii) If Lender forecloses on any real property collateral pledged by Borrower:
 - (A) The amount of the Loan may be reduced only by the price for which the collateral is sold at the foreclosure sale, even if the collateral is worth more than the sale price.
 - (B) Lender may collect from Guarantor even if Lender, by foreclosing on the real property collateral, has destroyed any right Guarantor may have to collect from Borrower.

(f) Intentionally omitted.

(g) Intentionally omitted.

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(h) Guarantor hereby unconditionally and irrevocably waives any right to revoke this Guaranty and acknowledges that this Guaranty is continuing in nature and applies to all presently existing and future Guaranteed Obligations.

(i) Guarantor hereby unconditionally and irrevocably waives promptness, diligence, notice of acceptance, presentment, demand for performance, notice of non-performance, default, acceleration, intention to accelerate, protest or dishonor.

(j) Guarantor hereby unconditionally and irrevocably waives any defense based on any right of set-off or recoupment or counterclaim against or in respect of the Guaranteed Obligations.

(k) No provision or waiver in this Guaranty shall be construed as limiting the generality of any other provision or waiver contained in this Guaranty.

(l) Guarantor agrees that the payment or performance of any act which tolls any statute of limitations applicable to any Loan Document shall similarly operate to toll the statute of limitations applicable to Guarantor's liability hereunder.

5. Guarantor's Warranties. Guarantor warrants and acknowledges that: (a) Lender would not make the Loan but for this Guaranty; (b) there are no conditions precedent to the effectiveness of this Guaranty; (c) Guarantor has established adequate means of obtaining from sources other than Lender, on a continuing basis, financial and other information pertaining to Borrower's financial condition, the Property and Borrower's activities relating thereto and the status of Borrower's performance of obligations under the Loan Documents, and Guarantor agrees to keep adequately informed from such means of any facts, events or circumstances which might in any way affect Guarantor's risks hereunder and Lender has made no representation to Guarantor as to any such matters; (d) the most recent financial statements of Guarantor previously delivered to Lender are true and correct in all respects, have been prepared in accordance with generally accepted accounting principles consistently applied (or other principles acceptable to Lender) and fairly present the financial condition of Guarantor as of the respective dates thereof, and no material adverse change has occurred in the financial condition of Guarantor since the respective dates thereof; and (e) Guarantor has not and will not, without the prior written consent of Lender, sell, lease, assign, encumber, hypothecate, transfer or otherwise dispose of all or substantially all of Guarantor's assets, or any interest therein, other than in the ordinary course of Guarantor's business. Notwithstanding the foregoing, the calculation of Guarantor's liabilities shall NOT include any fair value adjustments to the carrying value of liabilities to record such liabilities at fair value pursuant to electing the fair value option election under FASB ASC 825-10-25 (formerly known as FAS 159, The Fair Value Option for Financial Assets and Financial Liabilities) or other FASB standards allowing entities to elect fair value option for financial liabilities. Therefore, the amount of liabilities shall be the historical cost basis, which generally is the contractual amount owed adjusted for amortization or accretion of any premium or discount. Guarantor acknowledges and agrees that Lender may request and obtain additional information from third parties regarding any of the above, including, without limitation, credit reports.

6. Subordination. Guarantor subordinates all present and future indebtedness owing by Borrower to Guarantor to the obligations at any time owing by Borrower to Lender under the Note and the other Loan Documents. Guarantor assigns all such indebtedness to Lender, as security for this Guaranty, the Note and the other Loan Documents. Guarantor agrees to make no claim for such indebtedness until all obligations of Borrower under the Note and the other Loan Documents have been fully and indefeasibly discharged. Guarantor further agrees not to assign all or any part of such indebtedness unless Lender is given prior notice and such assignment is expressly made subject to the terms of this Guaranty. If Lender so requests, (a) all instruments evidencing such indebtedness shall be

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duly endorsed and delivered to Lender, (b) all security for such indebtedness shall be duly assigned and delivered to Lender, (c) such indebtedness shall be enforced, collected and held by Guarantor as trustee for Lender and shall be paid over to Lender on account of the Loan but without reducing or affecting in any manner the liability of Guarantor under the other provisions of this Guaranty, and (d) Guarantor shall execute, file and record such documents and instruments and take such other action as Lender deems necessary or appropriate to perfect, preserve and enforce Lender's rights in and to such indebtedness and any security therefor. If Guarantor fails to take any such action, Lender, as attorney-in-fact for Guarantor, is hereby authorized to do so in the name of Guarantor. The foregoing power of attorney is coupled with an interest and cannot be revoked.

7. Bankruptcy of Borrower. In any bankruptcy or other proceeding in which the filing of claims is required by law, Guarantor shall file all claims which Guarantor may have against Borrower relating to any indebtedness of Borrower to Guarantor and shall assign to Lender all rights of Guarantor thereunder. If Guarantor does not file any such claim, Lender, as attorney-in-fact for Guarantor, is hereby authorized to do so in the name of Guarantor or, in Lender's discretion, to assign the claim to a nominee and to cause proof of claim to be filed in the name of Lender's nominee. The foregoing power of attorney is coupled with an interest and cannot be revoked. Lender or its nominee shall have the right, in its reasonable discretion, to accept or reject any plan proposed in such proceeding and to take any other action which a party filing a claim is entitled to do. In all such cases, whether in administration, bankruptcy or otherwise, the person or persons authorized to pay such claim shall pay to Lender the amount payable on such claim and, to the full extent necessary for that purpose, Guarantor hereby assigns to Lender all of Guarantor's rights to any such payments or distributions; provided, however, Guarantor's obligations hereunder shall not be satisfied except to the extent that Lender receives cash by reason of any such payment or distribution. If Lender receives anything hereunder other than cash, the same shall be held as collateral for amounts due under this Guaranty. The liability of Guarantor hereunder shall be reinstated and revised, and the rights of Lender shall continue, with respect to any amount at any time paid by Borrower on account of the Note or the other Loan Documents which Lender shall be required to restore or return upon the bankruptcy, insolvency or reorganization of Borrower or for any other reasons, all as though such amount had not been paid. If all or any portion of the obligations guaranteed hereunder are paid or performed, the obligations of Guarantor hereunder shall continue and shall remain in full force and effect in the event that all or any part of such payment or performance is avoided or recovered directly or indirectly from Lender as a preference, fraudulent transfer or otherwise under the Bankruptcy Code or other similar laws, irrespective of (a) any notice of revocation given by Guarantor prior to such avoidance or recovery, or (b) full payment and performance of all of the indebtedness and obligations evidenced and secured by the Loan Documents.

8. Loan Sales and Participations; Disclosure of Information. Guarantor agrees that Lender may elect, at any time, to sell, assign, or grant participations in all or any portion of its rights and obligations under the Loan Documents and this Guaranty, and that any such sale, assignment or participation may be to one or more financial institutions, private investors, and/or other entities, at such Lender's sole discretion. Guarantor further agrees that Lender may disseminate to any such actual or potential purchaser(s), assignee(s) or participant(s) all documents and information (including, without limitation, all financial information) which has been or is hereafter provided to or known to Lender with respect to: (a) the Property and its operation; (b) any party connected with the Loan (including, without limitation, Guarantor, Borrower, any partner, joint venturer or member of Borrower, any constituent partner, joint venturer or member of Borrower, any other guarantor and any non-borrower trustor); and/or (c) any lending relationship other than the Loan which Lender may have with any party connected with the Loan. In the event of any such sale, assignment or participation, Lender and the parties to such transaction shall share in the rights and obligations of Lender as set forth in the Loan Documents only as and to the extent they agree among themselves. In connection with any such sale, assignment or participation, Guarantor further agrees that the Guaranty shall be sufficient evidence of the obligations of

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Guarantor to each purchaser, assignee, or participant, and upon written request by Lender, Guarantor shall within ten (10) days after such request by Lender, (x) deliver to Lender and any other party designated by Lender an estoppel certificate, in form and substance acceptable to Lender verifying for the benefit of Lender and any such other party the status, terms and provisions of this Guaranty and (y) enter into such amendments or modifications to this Guaranty and the Loan Documents as Lender may reasonably request in order to evidence and facilitate any such sale, assignment, or participation without impairing Guarantor's rights or increasing Guarantor's obligations hereunder.

Anything in this Guaranty to the contrary notwithstanding, and without the need to comply with any of the formal or procedural requirements of this Guaranty, including this Section 8, Lender may at any time and from time to time pledge and assign all or any portion of its rights under all or any of the Loan Documents; provided that no such pledge or assignment shall release Lender from its obligations thereunder.

9. Additional, Independent, and Absolute Obligations. This Guaranty is a continuing guaranty of payment and not of collection and cannot be revoked by Guarantor and shall continue to be effective with respect to any indebtedness referenced in Section 1 hereof arising or created after any attempted revocation hereof or after the death of Guarantor (if Guarantor is a natural person, in which event this Guaranty shall be binding upon Guarantor's estate and Guarantor's legal representatives). The obligations of Guarantor hereunder shall be in addition to and shall not limit or in any way affect the obligations of Guarantor under any other existing or future guaranties unless said other guaranties are expressly modified or revoked in writing. Subject to the limitations set forth herein, this Guaranty is independent of the obligations of Borrower under the Note, the Security Instrument, and the other Loan Documents. Lender may bring a separate action to enforce the provisions hereof against Guarantor without taking action against Borrower or any other party or joining Borrower or any other party as a party to such action. The liability of Guarantor hereunder is irrevocable, continuing, absolute and unconditional and the obligations of Guarantor hereunder, shall not be discharged or impaired or otherwise effected by, and Guarantor hereby irrevocably waives any defenses to enforcement it may have (now or in the future) by reason of:

(a) any illegality or lack of validity or enforceability of any Guaranteed Obligation or any Loan Document or any related agreement or instrument;

(b) any change in the time, place or manner of payment of, or in any other term of, the Guaranteed Obligations or any other obligation of any Borrower Party under any Loan Document, or any rescission, waiver, amendment or other modification of any Loan Document or any other agreement, including any increase in the Guaranteed Obligations resulting from any extension of additional credit or otherwise;

(c) any taking, exchange, substitution, release, impairment or non-perfection of any collateral, or any taking, release, impairment, amendment, waiver or other modification of any guaranty, for the Guaranteed Obligations;

(d) any manner of sale, disposition or application of proceeds of any collateral or other assets to all or part of the Guaranteed Obligations;

(e) any default, failure or delay, willful or otherwise, in the performance of the Guaranteed Obligations;

(f) any change, restructuring or termination of the corporate, company, partnership, or other entity structure, ownership or existence of Borrower or any insolvency, bankruptcy,

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reorganization or other similar proceeding affecting any Borrower or its assets or any resulting release or discharge of any Guaranteed Obligation;

(g) any failure of Lender to disclose to Guarantor any information relating to the business, condition (financial or otherwise), operations, performance, properties or prospects of Borrower or any other guarantor now or hereafter known to Lender, the Guarantor waiving any duty of Lender to disclose such information;

(h) the failure of any other Person to execute or deliver any other guaranty or agreement or the release or reduction of liability of any other guarantor or surety with respect to the Guaranteed Obligations;

(i) the failure of Lender to assert any claim or demand or to exercise or enforce any right or remedy under the provisions of any Loan Document or otherwise;

(j) any defense, set-off or counterclaim (other than a defense of payment or performance) that may at any time be available to, or be asserted by, Borrower against Lender; or

(k) any other circumstance (including, without limitation, any statute of limitations) or manner of administering the Loan or any existence of or reliance on any representation by Lender that might vary the risk of Guarantor or otherwise operate as a defense available to, or a legal or equitable discharge of, Borrower or any other guarantor or surety.

10. **Attorneys' Fees; Enforcement.** If any attorney is engaged by Lender to enforce or defend any provision of this Guaranty, or any of the other Loan Documents, or as a consequence of any Default under the Loan Documents, with or without the filing of any legal action or proceeding, Guarantor shall pay to Lender, immediately upon demand all attorneys' fees and costs incurred by Lender in connection therewith, together with interest thereon from the date of such demand until paid at the rate of interest applicable to the principal balance of the Note as specified therein. This provision is separate and several, and shall survive the merger of this provision into any judgment.

11. **Rules Of Construction.** The word "Borrower" as used herein shall include both the named Borrower and any other person at any time assuming or otherwise becoming primarily liable for all or any part of the obligations of the named Borrower under the Notes and the other Loan Documents. Section and subsection headings in this Guaranty are included in this Guaranty for convenience of reference only and shall not constitute a part of this Guaranty or be given any substantive effect. Unless the context of this Guaranty clearly requires otherwise, references to the plural include the singular and to the singular include the plural, the part includes the whole, the term "including" is not limiting (and means, including without limitation), and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or." The words "hereof," "herein," "hereby," "hereunder," and other similar terms in this Guaranty refer to this Guaranty as a whole and not exclusively to any particular provision of this Guaranty. Article, section, subsection, exhibit, and schedule references are to this Guaranty unless otherwise specified. All of the exhibits or schedules attached to this Guaranty shall be deemed incorporated in this Guaranty by reference. Any reference to any of the following documents includes any and all alterations, amendments, restatements, extensions, modifications, renewals, or supplements thereto or thereof, as applicable: this Guaranty or any of the other Loan Documents. No inference in favor of, or against, any party shall be drawn from the fact that such party has drafted any portion of this Guaranty, each party having been represented by counsel of its choice in connection with the negotiation and preparation of this Guaranty and the other Loan Documents.

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12. Credit Reports. Guarantor hereby authorizes Lender to order and obtain, from a credit reporting agency of Lender's choice, third party credit reports on Guarantor.

13. Governing Law: Venue. This Guaranty shall be governed, construed, applied and enforced in accordance with the laws of the State of California without regard to the conflicts of law provisions thereof ("Governing State"). Guarantor hereby consents to personal jurisdiction in the Governing State. JURISDICTION AND VENUE OF ANY ACTION BROUGHT TO ENFORCE THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR ANY ACTION RELATING TO THE LOAN OR THE RELATIONSHIPS CREATED BY OR UNDER THE LOAN DOCUMENTS ("ACTION") SHALL, AT THE ELECTION OF LENDER, BE IN (AND IF ANY ACTION IS ORIGINALLY BROUGHT IN ANOTHER VENUE, THE ACTION SHALL AT THE ELECTION OF LENDER BE TRANSFERRED TO) A STATE OR FEDERAL COURT OF APPROPRIATE JURISDICTION LOCATED IN THE GOVERNING STATE. GUARANTOR HEREBY CONSENTS AND SUBMITS TO THE PERSONAL JURISDICTION OF THE STATE COURTS OF THE GOVERNING STATE AND OF FEDERAL COURTS LOCATED IN THE GOVERNING STATE IN CONNECTION WITH ANY ACTION AND HEREBY WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY OTHER STATE TO OBJECT TO JURISDICTION WITHIN SUCH GOVERNING STATE FOR PURPOSES OF ANY ACTION. Guarantor hereby waives and agrees not to assert, as a defense to any Action or a motion to transfer venue of any Action, (i) any claim that it is not subject to such jurisdiction, (ii) any claim that any Action may not be brought against it or is not maintainable in those courts or that this Agreement may not be enforced in or by those courts, or that it is exempt or immune from execution, (iii) that the Action is brought in an inconvenient forum, or (iv) that the venue for the Action is in any way improper.

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14. Waiver of Right to Trial by Jury. GUARANTOR AND LENDER (BY ITS ACCEPTANCE HEREOF) HEREBY AGREES NOT TO ELECT A TRIAL BY JURY OF ANY ISSUE TRIABLE OF RIGHT BY JURY, AND WAIVES ANY RIGHT TO TRIAL BY JURY FULLY TO THE EXTENT THAT ANY SUCH RIGHT SHALL NOW OR HEREAFTER EXIST WITH REGARD TO THIS GUARANTY, THE NOTE, THE SECURITY INSTRUMENT OR THE OTHER LOAN DOCUMENTS, OR ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION THEREWITH. THIS WAIVER OF RIGHT TO TRIAL BY JURY IS GIVEN KNOWINGLY AND VOLUNTARILY BY GUARANTOR AND LENDER, AND IS INTENDED TO ENCOMPASS INDIVIDUALLY EACH INSTANCE AND EACH ISSUE AS TO WHICH RIGHT TO TRIAL BY JURY WOULD OTHERWISE ACCRUE. GUARANTOR AND LENDER EACH ARE HEREBY AUTHORIZED TO FILE A COPY OF THIS SECTION IN ANY PROCEEDING AS CONCLUSIVE EVIDENCE OF THIS WAIVER BY EACH OTHER. NOTWITHSTANDING THE FOREGOING TO THE CONTRARY, IN THE EVENT THAT THE JURY TRIAL WAIVER CONTAINED HEREIN SHALL BE HELD OR DEEMED TO BE UNENFORCEABLE, GUARANTOR HEREBY EXPRESSLY AGREES TO SUBMIT TO JUDICIAL REFERENCE PURSUANT TO CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 THROUGH 645.1 ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION ARISING HEREUNDER FOR WHICH A JURY TRIAL WOULD OTHERWISE BE APPLICABLE OR AVAILABLE (PROVIDED, HOWEVER, THAT NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, NO JUDICIAL REFERENCE SHALL BE APPLICABLE WITH RESPECT TO ANY ACTION IN RESPECT OF THE FORECLOSURE (OR SALE BY POWER OF SALE) OF THE SECURITY INSTRUMENT). PURSUANT TO SUCH JUDICIAL REFERENCE, THE PARTIES AGREE TO THE APPOINTMENT OF A SINGLE REFEREE AND SHALL USE THEIR BEST EFFORTS TO AGREE ON THE SELECTION OF A REFEREE. IF THE PARTIES ARE UNABLE TO AGREE ON A SINGLE REFEREE, A REFEREE SHALL BE APPOINTED BY THE COURT UNDER CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 638 AND 640 TO HEAR ANY DISPUTES HEREUNDER IN LIEU OF ANY SUCH JURY TRIAL. GUARANTOR ACKNOWLEDGES AND AGREES THAT THE APPOINTED REFEREE SHALL HAVE THE POWER TO DECIDE ALL ISSUES IN THE APPLICABLE ACTION OR PROCEEDING, WHETHER OF FACT OR LAW, AND SHALL REPORT A STATEMENT OF DECISION THEREON; PROVIDED, HOWEVER, THAT ANY MATTERS WHICH WOULD NOT OTHERWISE BE THE SUBJECT OF A JURY TRIAL WILL BE UNAFFECTED BY THIS WAIVER. GUARANTOR HEREBY AGREES THAT THE PROVISIONS CONTAINED HEREIN HAVE BEEN FAIRLY NEGOTIATED ON AN ARMS-LENGTH BASIS, WITH GUARANTOR AGREEING TO THE SAME KNOWINGLY AND BEING AFFORDED THE OPPORTUNITY TO HAVE ITS LEGAL COUNSEL CONSENT TO THE MATTERS CONTAINED HEREIN.

GNL

Guarantor's Initials

KLK

Guarantor's Initials

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15. Waiver of Special Damages. NOTWITHSTANDING ANYTHING CONTAINED HEREIN TO THE CONTRARY, GUARANTOR AGREES THAT NONE OF LENDER, OR ITS AGENTS OR EMPLOYEES SHALL BE LIABLE TO GUARANTOR FOR ANY SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES WHATSOEVER, WHETHER IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ANY OTHER LEGAL OR EQUITABLE PRINCIPLE.

16. Miscellaneous. The provisions of this Guaranty will bind and benefit the executors, administrators, legal representatives, nominees, successors and assigns of Guarantor and Lender. If any provision of this Guaranty shall be determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, that portion shall be deemed severed from this Guaranty and the remaining parts shall remain in full force as though the invalid, illegal or unenforceable portion had never been part of this Guaranty. Time is of the essence with respect to each provision of this Guaranty. The recitals to this Guaranty are hereby incorporated by this reference.

17. Additional Provisions. Such additional terms, covenants and conditions as may be set forth on any exhibit executed by Guarantor and attached hereto, if any, which recites that it is an exhibit to this Guaranty are incorporated herein by this reference.

18. Enforceability. Guarantor hereby acknowledges that: (a) the obligations undertaken by Guarantor in this Guaranty are complex in nature, (b) numerous possible defenses to the enforceability of these obligations may presently exist and/or may arise hereafter, (c) as part of Lender's consideration for entering into this transaction, Lender has specifically bargained for the waiver and relinquishment by Guarantor of all such defenses, and (d) Guarantor has had the opportunity to seek and receive legal advice from skilled legal counsel in the area of financial transactions of the type contemplated herein. Given all of the above, Guarantor does hereby represent and confirm to Lender that Guarantor is fully informed regarding, and that Guarantor does thoroughly understand: (i) the nature of all such possible defenses, (ii) the circumstances under which such defenses may arise, (iii) the benefits which such defenses might confer upon Guarantor, and (iv) the legal consequences to Guarantor of waiving such defenses. Guarantor acknowledges that Guarantor makes this Guaranty with the intent that this Guaranty and all of the informed waivers herein shall each and all be fully enforceable by Lender, and that Lender is induced to enter into this transaction in material reliance upon the presumed full enforceability thereof.

19. Counterparts. For the purpose of facilitating the execution of this Guaranty and for other purposes, this Guaranty may be executed simultaneously in any number of counterparts, each of which counterparts shall be deemed to be an original, and such counterparts shall constitute but one and the same instrument. A signature of a party by facsimile or other electronic transmission (including a .pdf copy sent by e-mail) shall be deemed to constitute an original and fully effective signature of such party.

20. Notices. All notices, consents, approvals and requests required or permitted hereunder shall be given in writing (including by facsimile) and shall be effective for all purposes if hand delivered or sent by (a) certified or registered United States mail, postage prepaid, (b) expedited prepaid delivery service, either commercial or United States Postal Service, with proof of attempted delivery, or (c) by facsimile (with a copy sent contemporaneously by certified or registered United States mail, postage prepaid) answer back acknowledged, addressed as follows:

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If to Guarantor: **Gerry N. Kamilos**
 [REDACTED]
 Telephone: [REDACTED]-8440
 Facsimile: [REDACTED]-8445
 Email: [REDACTED]@kamilos.com

Karen L. Kamilos
 [REDACTED]

Telephone: [REDACTED]-8440
 Facsimile: [REDACTED]-8445

with a copy to: **Trainor Fairbrook**
 980 Fulton Avenue
 Sacramento, California 95825
 Attention: Charles W. Trainor, Esquire
 Telephone: (916) 929-7000
 Facsimile: (916) 929-7111
 Email: ctrainor@trainorfairbrook.com

If to Lender: **Romspen California Mortgage Limited Partnership**
 162 Cumberland Street, Suite 300
 Toronto, Ontario MSR 3N5
 T: (416) 928-4870
 F: (416) 966-1161
 JoelMickelson@romspen.com
 BlakeCassidy@romspen.com

with a copy to: **Polsinelli PC**
 2950 N. Harwood, Suite 2100
 Dallas, Texas 75201
 Attention: Clifton M. Dugas, II, Esq.
 Telephone: (214) 661-5545
 Facsimile: (214) 889-5284
 cdugas@polsinelli.com

or at such other address and Person as shall be designated from time to time by any party hereto, as the case may be, in a written notice to the other parties hereto in the manner provided for in this Section. A notice shall be deemed to have been given: in the case of hand delivery, at the time of delivery; in the case of registered or certified mail, when delivered or the first attempted delivery on a Business Day; in the case of expedited prepaid delivery, upon the first attempted delivery on a Business Day; in the case of facsimile, upon completion of transmission (which is confirmed by telephone or by a statement generated by the transmitting machine) with receipt acknowledged by the recipient thereof.

21. **Principles of Construction.** To the extent any of the provisions of this Section 21 conflict with any of the other provisions of this Guaranty, the terms and provisions of this Section 21 shall control. Notwithstanding the foregoing, nothing in this Section 21 shall be deemed to contradict or supersede the terms and provisions of Section 13 hereof with respect to the governing law applicable to this Guaranty.

(a) **Waiver.** Guarantor expressly waives any and all suretyship defenses that may be available to Guarantor. Without limiting the generality of the foregoing, Guarantor makes the following additional waivers and covenants: Guarantor agrees that its obligations under this Guaranty shall not be subject to any counterclaims, offsets or defenses against Lender or against Borrower of any kind which may arise in the future. Guarantor agrees that nothing contained herein shall prevent Lender from foreclosing on the lien of the Security Instrument, or from exercising any rights available to Lender thereunder, and that the exercise of any of the aforesaid rights shall not constitute a legal or equitable discharge of Guarantor. Guarantor agrees that it hereby knowingly waives any defense which may arise in the future to enforcement of this Guaranty under California Code of Civil Procedure Sections 580b, 580d, 580a and 726 (or any other statute limiting a Lender's right to a deficiency) based on Lender's election to conduct a private, non-judicial foreclosure sale following a default by Borrower even though such an election destroyed, diminished or otherwise affected Guarantor's rights of subrogation against Borrower or other trustor under a deed of trust or the right of contribution, reimbursement or indemnity from any party, with the result that Guarantor's liability under this Guaranty became nonreimbursable in whole or in part. Nevertheless, Guarantor hereby authorizes and empowers Lender to exercise, in its sole discretion, any rights and remedies, or any combination thereof, which may then be available, since it is the intent and purpose of Guarantor that the obligations hereunder shall be absolute, independent and unconditional under any and all circumstances. Without limiting the generality of the foregoing, Guarantor hereby expressly waives any and all benefits under California Civil Code Sections 2809, 2810, 2815, 2819, 2822, 2839, 2845, 2846, 2847, 2848, 2849, 2850, 2899 and 3433 and California Code of Civil Procedure Sections 580b, 580a, 580d and 726. Notwithstanding any foreclosure of the lien of the Security Instrument or security agreement with respect to any or all of any real or personal property secured thereby, whether by the exercise of the power of sale contained therein, by an action for judicial foreclosure or by an acceptance of a deed in lieu of foreclosure, Guarantor shall remain bound under this Guaranty. Guarantor further waives any right to cause a fair value hearing to be conducted under Code of Civil Procedure Section 580a, or any other provision of law respecting the amount of any deficiency following a non-judicial foreclosure, and agrees that Guarantor's liability hereunder shall not be limited to the excess of the Guaranteed Obligations over the fair or market value of any real property which secured the indebtedness of Borrower. Nothing shall discharge or satisfy the liability of Guarantor hereunder except the full performance and payment of the Guaranteed Obligations of Borrower with interest.

22. **Additional Waivers.** In addition to and not in limitation of the other waivers agreed to and made by Guarantor set forth in this Guaranty, and pursuant to the provisions of Section 2856 of the California Civil Code, Guarantor acknowledges and understands that if Lender forecloses judicially or nonjudicially against any real property security for the Note, that foreclosure could impair or destroy any ability that Guarantor may have to seek reimbursement, contribution or indemnification from Borrower or others based on any right Guarantor may have of subrogation, reimbursement, contribution or indemnification for any amounts paid by Guarantor under this Guaranty. Guarantor further understands and acknowledges that in the absence of this provision, the potential impairment or destruction of Guarantor's rights, if any, may entitle Guarantor to assert a defense to this Guaranty based on California Code of Civil Procedure Section 580d as interpreted in *Union Bank vs. Gradsky*, to the extent applicable. By executing this Guaranty, Guarantor freely, irrevocably and unconditionally: (1) waives and relinquishes that defense, and agrees that Guarantor will be fully liable under this Guaranty, even though Lender may foreclose judicially or nonjudicially against any real property security for the Note; (2) agrees that Guarantor will not assert that defense in any action or proceeding that Lender may commence to enforce this Guaranty; (3) acknowledges and agrees that the rights and defenses waived by Guarantor under this Guaranty include any right or defense that Guarantor may have or be entitled to assert based upon or arising out of any one or more of the following: (A) California Code of Civil Procedure Sections 580a (which if Guarantor had not given this waiver, would otherwise limit Guarantor's liability after any nonjudicial foreclosure sale to the difference between the obligations for which Guarantor is liable and the fair market value of the property or interests sold at such nonjudicial foreclosure sale rather than the

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actual proceeds of such sale), 580b and 580d (which if Guarantor had not given this waiver, would otherwise limit Lender's right to recover a deficiency judgment with respect to purchase money obligations and after any nonjudicial foreclosure sale, respectively), or 726 (which, if Guarantor had not given this waiver, among other things, would otherwise require Lender to exhaust all of its security before a personal judgment may be obtained for a deficiency); or (B) California Civil Code Section 2848; and (4) acknowledges and agrees that Lender is relying on this waiver in making the Loan, and that this waiver is a material part of the consideration that Lender is receiving for making the Loan. In addition, and without limiting the foregoing, GUARANTOR WAIVES ALL RIGHTS AND DEFENSES THAT GUARANTOR MAY HAVE BECAUSE BORROWER'S DEBT IS SECURED BY REAL PROPERTY. THIS MEANS, AMONG OTHER THINGS:

- (i) LENDER MAY COLLECT FROM GUARANTOR WITHOUT FIRST FORECLOSING ON ANY REAL OR PERSONAL PROPERTY COLLATERAL PLEDGED BY BORROWER.
- (ii) IF THE CREDITOR FORECLOSES ON ANY REAL PROPERTY COLLATERAL PLEDGED BY BORROWER:
 - (A) THE AMOUNT OF THE DEBT MAY BE REDUCED ONLY BY THE PRICE FOR WHICH THAT COLLATERAL IS SOLD AT THE FORECLOSURE SALE, EVEN IF THE COLLATERAL IS WORTH MORE THAN THE SALE PRICE.
 - (B) LENDER MAY COLLECT FROM GUARANTOR EVEN IF LENDER, BY FORECLOSING ON THE REAL PROPERTY COLLATERAL, HAS DESTROYED ANY RIGHT GUARANTOR MAY HAVE TO COLLECT FROM BORROWER.

THIS IS AN UNCONDITIONAL AND IRREVOCABLE WAIVER OF ANY RIGHTS AND DEFENSES GUARANTOR MAY HAVE BECAUSE BORROWER'S DEBT IS SECURED BY REAL PROPERTY. THESE RIGHTS AND DEFENSES INCLUDE, BUT ARE NOT LIMITED TO, ANY RIGHTS OR DEFENSES BASED UPON CALIFORNIA CODE OF CIVIL PROCEDURE SECTIONS 580a, 580b, 580d, or 726.

23. Excluded Guarantor Property.

(a) Notwithstanding anything contained in this Guaranty to the contrary, in the event that, in the enforcement of any part of this Guaranty, any party hereto pursues an action or obtains a judgment against Guarantor, such party may not pursue any action against, or execute any judgment on, or be entitled to take, attach, encumber, collect upon, directly or indirectly, Guarantors' interest in the following assets:

- (i) Guarantors' personal residence located at 4119 Buchanan Drive, Fair Oaks, California 95628, or any portion thereof, including (A) any normal household property located within such residence (as a representative example, normal household property shall include items such as furniture, fixtures, appliances, computers, tools, and works of art) up to an aggregate of \$250,000 in value and (B) personal jewelry up to an aggregate of \$100,000 in value;
- (ii) three personal automobiles of Guarantor and Guarantors' daughter, up to an aggregate of \$100,000 in value;

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(iii) the 58-foot "Trumpy" motor yacht named "Aurora V" and owned by Guarantor as of the date of this Agreement;

(iv) the "dockminium" located at the Emery Cove Yacht Harbor in Emeryville, California, at which the yacht described in clause (iii) above is moored;

(v) the bank account at Wells Fargo Bank in Fair Oaks, California, in the name of Grantor open as of the date of this Agreement and containing approximately \$300,000 as of the date of this Agreement, which is designated by Guarantor as a college fund for their daughter, up to \$400,000 in value;

(vi) the bank account at American River Bank in Gold River, California, in the name of Guarantor open as of the date of this Agreement (or a successor account) and designated by Guarantor for household expenses and reserves, up to \$200,000 in value; and

(vii) Guarantor's ownership interests in the Mountain House (San Joaquin County, California), Souza (Elk Grove, California), Wackman (Sacramento County, California), Callahan (Rancho Cordova, California) and Ladera Triangle Point (Elk Grove, California) real estate projects.

(b) Any abstract of judgment which is issued in an action, or recorded with the Sacramento County Recorder or Yolo County Recorder, shall exclude such property. Lender agrees that, but for such limitations, Guarantor would not have agreed to enter into this Guaranty personally.

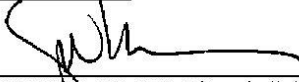
[Separate Signature Page Follows.]

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IN WITNESS WHEREOF, Guarantor has executed this Guaranty as of the date appearing on the first page of this Guaranty.

GUARANTOR:


GERRY N. KAMILOS, an individual

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

On ~~December~~ ^{Jan} 4, 2018, before me, Stephanie K. Clark
(insert name and title of the officer)

personally appeared Gerry N. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Stephanie K. Clark (Seal)



SIGNATURE PAGE TO GUARANTY

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IN WITNESS WHEREOF, Guarantor has executed this Guaranty as of the date appearing on the first page of this Guaranty.

GUARANTOR:


KAREN L. KAMILLOS, an individual

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Sacramento

On ~~December~~ ^{January} 4, 2018, before me, Jennifer Nolan, Notary Public
(insert name and title of the officer)

personally appeared Karen L. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jennifer Nolan



SIGNATURE PAGE TO GUARANTY

61257840

EXHIBIT E

BY FAX

SECURITY AGREEMENT

THIS SECURITY AGREEMENT (as amended, restated, supplemented or otherwise modified from time to time in accordance with the provisions hereof, this "Agreement"), made and entered into as of January 4, 2018; by and between GERRY N. KAMILOS, an individual, and KAREN L. KAMILOS, an individual (individually and collectively, jointly and severally, the "Grantor"), in favor of ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership (together with its successors and assigns, the "Secured Party").

RECITALS

A. Pursuant to the terms of a Loan Agreement dated of even date herewith between WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company ("Borrower"), and the Secured Party (as the same may be modified, amended or restated from time to time, the "Loan Agreement"), the Secured Party is making a loan to Borrower in the maximum aggregate principal amount of Ten Million Three Hundred Fifty Thousand and No/100ths Dollars (\$10,350,000.00) (the "Loan") for the purposes specified in the Loan Agreement, said purposes relating to the real property and improvements described in the Loan Agreement (which real property and improvements are collectively referred to herein as the "Property"). Each capitalized term used herein and not otherwise defined herein shall have the meaning given to such term in the Loan Agreement.

B. The Grantor has executed a Guaranty, dated of even date herewith, in favor of the Secured Party (as amended, restated, supplemented, ratified, or otherwise modified from time to time, the "Guaranty"), pursuant to which the Grantor has guaranteed Borrower's obligations to the Secured Party under the Loan Documents.

C. The Grantor is a direct or indirect owner of Borrower and will derive substantial direct and indirect benefits from the Loan and the transactions contemplated by the Loan Agreement, and the making of this Agreement and the Guaranty, and such benefits are at least equal to the obligations incurred under this Agreement.

D. The Secured Party has required, as security for making the Loan and the observance and performance of all the terms, covenants and provisions of the Loan Documents on the part of the Grantor to be observed and performed, a pledge of, and security interest in, all Collateral (as hereinafter defined) associated therewith as evidenced by this Agreement.

E. This Agreement is given by the Grantor in favor of the Secured Party to secure the payment and performance of all of the Secured Obligations (as defined below).

F. It is a condition to the Secured Party's agreement to make the Loan that the Grantor enter into this Agreement.

AGREEMENT

NOW, THEREFORE, to induce the Secured Party to enter into the Loan Agreement and make the Loan, and in consideration of the mutual promises, covenants, terms, conditions, representations, and warranties set forth in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties to this Agreement agree as follows:

1. Definitions.

(a) Unless otherwise specified herein, all references to Sections and Schedules herein are to Sections and Schedules of this Agreement.

(b) Unless otherwise defined herein, any term used herein that is defined in the UCC shall have the meaning assigned to such term in the UCC whether or not such term is capitalized herein. However, if a term is defined in Article 9 of the UCC differently than in another Article of the UCC, the term has the meaning specified in Article 9.

(c) For purposes of this Agreement, the following terms shall have the following meanings:

“**Collateral**” has the meaning set forth in Section 2.

“**Event of Default**” has the meaning set forth in Section 11.

“**Proceeds**” means “proceeds” as such term is defined in section 9-102 of the UCC and, in any event, shall include, without limitation, all dividends or other income from the Collateral, collections thereon or distributions with respect thereto.

“**Secured Obligations**” has the meaning set forth in Section 3.

“**UCC**” means the Uniform Commercial Code as in effect from time to time in the State of California or, when the laws of any other state govern the method or manner of the perfection or enforcement of any security interest in any of the Collateral, the Uniform Commercial Code as in effect from time to time in such state.

2. Grant of Security Interest. The Grantor hereby pledges and grants to the Secured Party, and hereby creates a continuing lien and security interest in favor of the Secured Party in and to all of its right, title and interest in and to the following, wherever located, whether now existing or hereafter from time to time arising or acquired (collectively, the “**Collateral**”):

- (a) all Accounts;
- (b) all Goods, including, without limitation: (i) all Equipment; (ii) all Inventory; (iii) all Fixtures; and (iv) all Accessions;
- (c) all Documents, Instruments and Chattel Paper, including, without limitation, all Electronic Chattel Paper and Tangible Chattel Paper;
- (d) all Letters of Credit and Letter-of-Credit Rights;
- (e) all Investment Property;
- (f) all Intellectual Property Collateral;
- (g) the Commercial Tort Claims described on Schedule 1 hereof as supplemented by any written notification given by the Grantor to the Secured Party pursuant to Section 4(d);
- (h) all General Intangibles, including, without limitation, all Payment Intangibles and Software;
- (i) all Money and all Deposit Accounts;

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- (j) all Supporting Obligations;
- (k) all books and Records relating to the Collateral;
- (l) to the extent not covered by clauses (a) through (k) of this sentence, all other assets, personal property and rights of the Grantor, whether tangible or intangible; and

(m) all Proceeds and products, whether tangible or intangible, of each of the foregoing and all accessions to, substitutions and replacements for, and rents, profits and products of, each of the foregoing, and any and all Proceeds of any insurance, indemnity, warranty or guaranty payable to such Grantor from time to time with respect to any of the foregoing, and any and all Accounts, Chattel Paper, Deposit Accounts, Documents, General Intangibles, Goods, Instruments, Investment Property, Letter of Credit Rights, Letters of Credit, real property, Supporting Obligations, money, or other tangible or intangible property resulting from the sale, exchange, collection, or other disposition of any of the foregoing, or any portion thereof or interest therein, and the Proceeds thereof;

provided, however, that the Collateral shall not include Grantor's right, title or interest in or to the following:

(i) Grantor's personal residence located at 4119 Buchanan Drive, Fair Oaks, California 95628, or any portion thereof, including (A) any normal household property located within such residence (as a representative example, normal household property shall include items such as furniture, fixtures, appliances, computers, tools, and works of art) up to an aggregate of \$250,000 in value and (B) personal jewelry up to an aggregate of \$100,000 in value;

(ii) three personal automobiles of Grantor and Grantor's daughter, up to an aggregate of \$100,000 in value;

(iii) the 58-foot "Trumpy" motor yacht named "Aurora V" and owned by Grantor as of the date of this Agreement;

(iv) the "dockminium" located at the Emery Cove Yacht Harbor in Emeryville, California, at which the yacht described in clause (iii) above is moored;

(v) the bank account at Wells Fargo Bank in Fair Oaks, California, in the name of Grantor open as of the date of this Agreement and containing approximately \$300,000 as of the date of this Agreement, which is designated by Grantor as a college fund for their daughter, up to \$400,000 in value;

(vi) the bank account at American River Bank in Gold River, California, in the name of Grantor open as of the date of this Agreement (or a successor account) and designated by Grantor for household expenses and reserves, up to \$200,000 in value; and

(vii) Grantor's ownership interests in the Mountain House (San Joaquin County, California), Souza (Elk Grove, California), Wackman (Sacramento County, California), Callahan (Rancho Cordova, California) and Ladera Triangle Point (Elk Grove, California) projects.

3. Secured Obligations. The Collateral secures the due and prompt payment and performance of the following (collectively, the "**Secured Obligations**"): all liabilities, obligations, or undertakings owing by the Grantor to the Secured Party of any kind or description arising out of or outstanding under; advanced or issued pursuant to, or evidenced by this Agreement, the Loan Agreement, or the other Loan Documents, irrespective of whether for the payment of money, whether direct or indirect, absolute or

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contingent, due or to become due, voluntary or involuntary, whether now existing or hereafter arising, and including all interest (including interest that accrues after the filing of a case under the Bankruptcy Code regardless of whether allowed or allowable in such proceeding) and any and all costs, fees (including attorneys fees), and expenses which the Grantor is required to pay pursuant to any of the foregoing, by law, or otherwise.

4. Perfection of Security Interest and Further Assurances.

(a) The Grantor shall, from time to time, as may be required by the Secured Party with respect to all Collateral, immediately take all actions as may be requested by the Secured Party to perfect the security interest of the Secured Party in the Collateral, including, without limitation, with respect to all Collateral over which control may be obtained within the meaning of sections 8-106, 9-104, 9-105, 9-106 and 9-107 of the UCC; as applicable, the Grantor shall immediately take all actions as may be requested from time to time by the Secured Party so that control of such Collateral is obtained and at all times held by the Secured Party. All of the foregoing shall be at the sole cost and expense of the Grantor.

(b) The Grantor hereby irrevocably authorizes the Secured Party at any time and from time to time to file in any relevant jurisdiction any financing statements and amendments thereto that contain the information required by Article 9 of the UCC of each applicable jurisdiction for the filing of any financing statement or amendment relating to the Collateral, including any financing or continuation statements or other documents for the purpose of perfecting, confirming, continuing, enforcing or protecting the security interest granted by the Grantor hereunder, without the signature of the Grantor where permitted by law, including the filing of a financing statement describing the Collateral as "all assets now owned or hereafter acquired by the Grantor," or words of similar effect. The Grantor agrees to provide all information required by the Secured Party pursuant to this Section promptly to the Secured Party upon request.

(c) If the Grantor shall at any time hold or acquire any certificated securities, promissory notes, tangible chattel paper, negotiable documents or warehouse receipts relating to the Collateral, the Grantor shall immediately endorse, assign and deliver the same to the Secured Party, accompanied by such instruments of transfer or assignment duly executed in blank as the Secured Party may from time to time specify.

(d) If the Grantor shall at any time hold or acquire a commercial tort claim, the Grantor shall (i) immediately notify the Secured Party in a writing signed by the Grantor of the particulars thereof and grant to the Secured Party in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance satisfactory to the Secured Party and (ii) deliver to the Secured Party an updated Schedule 1.

(e) If any Collateral is at any time in the possession of a bailee, the Grantor shall promptly notify the Secured Party thereof and, at the Secured Party's request and option, shall promptly obtain an acknowledgment from the bailee, in form and substance satisfactory to the Secured Party, that the bailee holds such Collateral for the benefit of the Secured Party and the bailee agrees to comply, without further consent of the Grantor, at any time with instructions of the Secured Party as to such Collateral.

(f) The Grantor agrees that at any time and from time to time, at the expense of the Grantor, the Grantor will promptly execute and deliver all further instruments and documents, obtain such agreements from third parties, and take all further action, that may be necessary or desirable, or that the Secured Party may request, in order to perfect and protect any security interest granted hereby or to enable the Secured Party to exercise and enforce its rights and remedies hereunder or under any other agreement with respect to any Collateral.

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5. Representations and Warranties. The Grantor represents and warrants as follows:

(a) (i) the Grantor's exact legal name as shown on his/her driver's license issued by the State of California is that indicated in the first paragraph of this Agreement and on the signature page hereof, (ii) the Grantor is an individual, and (iii) the Grantor's mailing address is 4119 Buchanan Drive, Fair Oaks, California 95628, and the books and records relating to the Collateral are located at 11249 Gold Country Boulevard, Suite 190, Gold River, California 95760.

(b) The Grantor holds no commercial tort claims except as indicated on Schedule 1. None of the Collateral constitutes, or is the proceeds of, "farm products" as defined in section 9-102(a)(34) of the UCC. None of the account debtors or other persons obligated on any of the Collateral is a governmental authority covered by the Federal Assignment of Claims Act or like federal, state or local statute or rule in respect of such Collateral. The Grantor shall at all times operate its business in compliance with all applicable provisions of the federal Fair Labor Standards Act, as amended, and with all applicable provisions of federal, state and local statutes and ordinances dealing with the control, shipment, storage or disposal of hazardous materials or substances.

(c) At the time the Collateral becomes subject to the lien and security interest created by this Agreement, the Grantor will be the sole, direct, legal and beneficial owner thereof, free and clear of any lien, security interest, encumbrance, claim, option or right of others except for the security interest created by this Agreement and other liens expressly permitted by the Loan Agreement.

(d) The pledge of the Collateral pursuant to this Agreement creates a valid and perfected security interest in the Collateral, securing the payment and performance when due of the Secured Obligations.

(e) It has full power, authority and legal right to borrow the Loan and pledge the Collateral pursuant to this Agreement.

(f) Each of this Agreement and the Loan Agreement has been duly authorized, executed and delivered by the Grantor and constitutes a legal, valid and binding obligation of the Grantor enforceable in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting creditors' rights generally and subject to equitable principles (regardless of whether enforcement is sought in equity or at law).

(g) No authorization, approval, or other action by, and no notice to or filing with, any governmental authority or regulatory body is required for the borrowing of the Loan and the pledge by the Grantor of the Collateral pursuant to this Agreement or for the execution and delivery of the Loan Agreement and this Agreement by the Grantor or the performance by the Grantor of its obligations thereunder.

(h) The execution and delivery of the Loan Agreement and this Agreement by the Grantor and the performance by the Grantor of its obligations thereunder, will not violate any provision of any applicable law or regulation or any order, judgment, writ, award or decree of any court, arbitrator or governmental authority, domestic or foreign, applicable to the Grantor or any of its property, or the organizational or governing documents of the Grantor or any agreement or instrument to which the Grantor is party or by which it or its property is bound.

(i) The Grantor has taken all action required on its part for control (as defined in sections 8-106, 9-104, 9-105, 9-106 and 9-107 of the UCC, as applicable) to have been obtained by the Secured

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Party over all Collateral with respect to which such control may be obtained pursuant to the UCC. No person other than the Secured Party has control or possession of all or any part of the Collateral.

6. Receivables. If any Event of Default shall have occurred and be continuing, the Secured Party may, or at the request and option of the Secured Party the Grantor shall, notify account debtors and other persons obligated on any of the Collateral of the security interest of the Secured Party in any account, chattel paper, general intangible, instrument or other Collateral and that payment thereof is to be made directly to the Secured Party.

7. Covenants. The Grantor covenants as follows:

(a) Except as permitted in the Loan Agreement, the Grantor will not, without providing at least 30 days' prior written notice to the Secured Party, change its legal name, identity or location of its mailing address. The Grantor will, prior to any change described in the preceding sentence, take all actions requested by the Secured Party to maintain the perfection and priority of the Secured Party's security interest in the Collateral.

(b) The Collateral, to the extent not delivered to the Secured Party pursuant to Section 4, will be kept at the Property or the address set forth in Section 5(a), and the Grantor will not remove the Collateral from such locations without providing at least 30 days' prior written notice to the Secured Party. The Grantor will, prior to any change described in the preceding sentence, take all actions required by the Secured Party to maintain the perfection and priority of the Secured Party's security interest in the Collateral.

(c) The Grantor shall, at its own cost and expense, defend title to the Collateral and the lien and security interest of the Secured Party therein against the claim of any person claiming against or through the Grantor and shall maintain and preserve such perfected security interest for so long as this Agreement shall remain in effect.

(d) The Grantor will not sell, offer to sell, dispose of, convey, assign or otherwise transfer, grant any option with respect to, restrict, or grant, create, permit or suffer to exist any mortgage, pledge, lien, security interest, option, right of first offer, encumbrance or other restriction or limitation of any nature whatsoever on, any of the Collateral or any interest therein.

(e) The Grantor will keep the Collateral in good order and repair and will not use the same in violation of law or any policy of insurance thereon. The Grantor will permit the Secured Party, or its designee, to inspect the Collateral at any reasonable time, wherever located.

(f) The Grantor will pay promptly prior to delinquency all taxes, assessments, governmental charges, and levies upon the Collateral or incurred in connection with the use or operation of the Collateral or incurred in connection with this Agreement.

(g) The Grantor will continue to operate its business in compliance with all applicable provisions of the federal Fair Labor Standards Act, as amended, and with all applicable provisions of federal, state and local statutes and ordinances dealing with the control, shipment, storage or disposal of hazardous materials or substances.

(h) The Grantor shall maintain accurate records of the Collateral, furnish the Secured Party any requested information related to the Collateral, and allow the Secured Party to inspect and copy all records relating to the Collateral.

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(i) The Grantor shall do, make, execute and deliver all such additional and further acts, things, assurances and instruments which the Secured Party may reasonably require to more completely vest in and assure to the Secured Party its lien in all Collateral.

(j) The Grantor shall promptly notify the Secured Party in writing of any loss, damage, investigation, action, suit, proceeding or claim relating to a material portion of the Collateral or which may result in any material adverse change in the Grantor's business, assets, liabilities or condition, financial or otherwise.

8. Secured Party Appointed Attorney-in-Fact. The Grantor hereby appoints the Secured Party the Grantor's attorney-in-fact, with full authority in the place and stead of the Grantor and in the name of the Grantor or otherwise, from time to time in the Secured Party's discretion to take any action and to execute any instrument which the Secured Party may deem necessary or advisable to accomplish the purposes of this Agreement (but the Secured Party shall not be obligated to and shall have no liability to the Grantor or any third party for failure to do so or take action). This appointment, being coupled with an interest, shall be irrevocable. The Grantor hereby ratifies all that said attorneys in fact shall lawfully do or cause to be done by virtue hereof.

9. Secured Party May Perform. If the Grantor fails to perform any obligation contained in this Agreement, the Secured Party may itself perform, or cause performance of; such obligation, and the expenses of the Secured Party incurred in connection therewith shall be payable by the Grantor; *provided that* the Secured Party shall not be required to perform or discharge any obligation of the Grantor.

10. Reasonable Care. The Secured Party shall have no duty with respect to the care and preservation of the Collateral beyond the exercise of reasonable care. The Secured Party shall be deemed to have exercised reasonable care in the custody and preservation of the Collateral in its possession if the Collateral is accorded treatment substantially equal to that which the Secured Party accords its own property, it being understood that the Secured Party shall not have any responsibility for (a) ascertaining or taking action with respect to any claims, the nature or sufficiency of any payment or performance by any party under or pursuant to any agreement relating to the Collateral or other matters relative to any Collateral, whether or not the Secured Party has or is deemed to have knowledge of such matters, or (b) taking any necessary steps to preserve rights against any parties with respect to any Collateral. Nothing set forth in this Agreement, nor the exercise by the Secured Party of any of the rights and remedies hereunder, shall relieve the Grantor from the performance of any obligation on the Grantor's part to be performed or observed in respect of any of the Collateral.

11. Events of Default.

(a) The occurrence of any of the following events shall constitute and is hereby defined to be an "Event of Default" hereunder:

(i) The Grantor fails to timely pay any monetary obligation under this Agreement in accordance with the terms hereof as and when such payment is due; or

(ii) The Grantor fails or neglects to timely perform, keep, or observe any other term, provision, condition, covenant, or agreement contained in this Agreement; or

(iii) an "Event of Default" under any other Loan Document shall have occurred.

(b) Upon the occurrence of any Event of Default (whether or not the Secured Party has knowledge that such Event of Default exists), all Secured Obligations, shall, at the option of the Secured

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Party and notwithstanding any time allowed in any Loan Document, immediately become due and payable without demand and without notice to the Grantor.

12. Remedies Upon Default. If any Event of Default shall have occurred and be continuing:

(a) The Secured Party, without any other notice to or demand upon the Grantor, may assert all rights and remedies of a secured party under the UCC or other applicable law, including, without limitation, the right to take possession of, hold, collect, sell, lease, deliver, grant options to purchase or otherwise retain, liquidate or dispose of all or any portion of the Collateral. If notice prior to disposition of the Collateral or any portion thereof is necessary under applicable law, written notice mailed to the Grantor at its notice address as provided in Section 15 hereof at least ten days prior to the date of such disposition shall constitute reasonable notice, but notice given in any other reasonable manner shall be sufficient. So long as the sale of the Collateral is made in a commercially reasonable manner, the Secured Party may sell such Collateral on such terms and to such purchaser(s) as the Secured Party in its absolute discretion may choose, without assuming any credit risk and without any obligation to advertise or give notice of any kind other than that necessary under applicable law. Without precluding any other methods of sale, the sale of the Collateral or any portion thereof shall have been made in a commercially reasonable manner if conducted in conformity with reasonable commercial practices of creditors disposing of similar property. At any sale of the Collateral, if permitted by applicable law, the Secured Party may be the purchaser, licensee, assignee or recipient of the Collateral or any part thereof and shall be entitled, for the purpose of bidding and making settlement or payment of the purchase price for all or any portion of the Collateral sold, assigned or licensed at such sale, to use and apply any of the Secured Obligations as a credit on account of the purchase price of the Collateral or any part thereof payable at such sale. To the extent permitted by applicable law, the Grantor waives all claims, damages and demands it may acquire against the Secured Party arising out of the exercise by it of any rights hereunder. The Grantor hereby waives and releases to the fullest extent permitted by law any right or equity of redemption with respect to the Collateral, whether before or after sale hereunder, and all rights, if any, of marshalling the Collateral and any other security for the Secured Obligations or otherwise. At any such sale, unless prohibited by applicable law, the Secured Party or any custodian may bid for and purchase all or any part of the Collateral so sold free from any such right or equity of redemption. Neither the Secured Party nor any custodian shall be liable for failure to collect or realize upon any or all of the Collateral or for any delay in so doing, nor shall it be under any obligation to take any action whatsoever with regard thereto. The Secured Party shall not be obligated to clean-up or otherwise prepare the Collateral for sale.

(b) Any cash held by the Secured Party as Collateral and all cash Proceeds received by the Secured Party in respect of any sale of, collection from, or other realization upon all or any part of the Collateral shall be applied in whole or in part by the Secured Party to the payment of expenses incurred by the Secured Party in connection with the foregoing or incidental to the care or safekeeping of any of the Collateral or in any way relating to the Collateral or the rights of the Secured Party hereunder, including reasonable attorneys' fees, and the balance of such proceeds shall be applied or set off against all or any part of the Secured Obligations in such order as the Secured Party may elect. Any surplus of such cash or cash Proceeds held by the Secured Party and remaining after payment in full of all the Secured Obligations shall be paid over to the Grantor or to whomsoever may be lawfully entitled to receive such surplus. The Grantor shall remain liable for any deficiency if such cash and the cash Proceeds of any sale or other realization of the Collateral are insufficient to pay the Secured Obligations and the fees and other charges of any attorneys employed by the Secured Party to collect such deficiency.

(c) If the Secured Party shall determine to exercise its rights to sell all or any of the Collateral pursuant to this Section, the Grantor agrees that, upon request of the Secured Party, the Grantor will, at its own expense, do or cause to be done all such acts and things as may be necessary to make such sale of the Collateral or any part thereof valid and binding and in compliance with applicable law.

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13. No Waiver and Cumulative Remedies. The Secured Party shall not by any act (except by a written instrument pursuant to Section 14), delay, indulgence, omission or otherwise be deemed to have waived any right or remedy hereunder or to have acquiesced in any Default or Event of Default. All rights and remedies herein provided are cumulative and are not exclusive of any rights or remedies provided by law.

14. Amendments. None of the terms or provisions of this Agreement may be amended, modified, supplemented, terminated or waived, and no consent to any departure by the Grantor therefrom shall be effective unless the same shall be in writing and signed by the Secured Party and the Grantor, and then such amendment, modification, supplement, waiver or consent shall be effective only in the specific instance and for the specific purpose for which made or given.

15. Addresses For Notices. All notices and other communications provided for in this Agreement shall be in writing and shall be given in the manner and become effective as set forth in the Loan Agreement, and addressed to the respective parties at their addresses as specified on the signature pages hereof or as to either party at such other address as shall be designated by such party in a written notice to each other party.

16. Continuing Security Interest; Further Actions. This Agreement shall create a continuing lien and security interest in the Collateral and shall (a) subject to Section 17, remain in full force and effect until payment and performance in full of the Secured Obligations (or such earlier time as a partial release of the Property (and any Collateral related to such portion of the Property being released) occurs in accordance with the terms of the Loan Agreement), (b) be binding upon the Grantor, its successors and assigns, and (c) inure to the benefit of the Secured Party and its successors, transferees and assigns; *provided that* the Grantor may not assign or otherwise transfer any of its rights or obligations under this Agreement without the prior written consent of the Secured Party. Without limiting the generality of the foregoing clause (c), any assignee of the Secured Party's interest in any agreement or document which includes all or any of the Secured Obligations shall, upon assignment, become vested with all the benefits granted to the Secured Party herein with respect to such Secured Obligations.

17. Termination; Release. On the date on which all Secured Obligations have been paid and performed in full (or such earlier time as there is a partial release of the Property (and any Collateral related to such portion of the Property being released) in accordance with the terms of the Loan Agreement), the Secured Party will, at the request and sole expense of the Grantor, (a) duly assign, transfer and deliver to or at the direction of the Grantor (without recourse and without any representation or warranty) such of the Collateral as may then remain in the possession of the Secured Party, together with any monies at the time held by the Secured Party hereunder, and (b) execute and deliver to the Grantor a proper instrument or instruments acknowledging the satisfaction and termination of this Agreement.

18. Expenses. The Grantor agrees to pay promptly to the Secured Party upon demand all expenses, costs, charges, fees and disbursements of any kind, type, nature, and description, including attorneys' fees, litigation expenses, and all court costs, incurred by the Secured Party in connection with the underwriting, origination, making, documentation, administration, enforcement, or collection of the Loan Documents, including this Agreement, and the creation, perfection, administration, defense of, and enforcement of the assignments, pledges, and security interests granted herein, and all expenses incurred by the Secured Party shall be a part of the Secured Obligations.

19. Severability. The provisions of this Agreement are severable, and if any clause or provision of this Agreement shall be held invalid or unenforceable in whole or in part in any jurisdiction, then such invalidity or unenforceability shall affect only such clause or provision or part thereof in such jurisdiction

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and shall not in any manner affect such clause or provision in any other jurisdiction or any other clause or provision in this Agreement in any jurisdiction.

20. **Governing Law: Venue.** This Agreement shall be governed, construed, applied and enforced in accordance with the laws of the State of California without regard to the conflicts of law provisions thereof (“**Governing State**”). Grantor hereby consents to personal jurisdiction in the Governing State. JURISDICTION AND VENUE OF ANY ACTION BROUGHT TO ENFORCE THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT OR ANY ACTION RELATING TO THE LOAN OR THE RELATIONSHIPS CREATED BY OR UNDER THE LOAN DOCUMENTS (“**ACTION**”) SHALL, AT THE ELECTION OF SECURED PARTY, BE IN (AND IF ANY ACTION IS ORIGINALLY BROUGHT IN ANOTHER VENUE, THE ACTION SHALL AT THE ELECTION OF SECURED PARTY BE TRANSFERRED TO) A STATE OR FEDERAL COURT OF APPROPRIATE JURISDICTION LOCATED IN THE GOVERNING STATE. GRANTOR HEREBY CONSENTS AND SUBMITS TO THE PERSONAL JURISDICTION OF THE STATE COURTS OF THE GOVERNING STATE AND OF FEDERAL COURTS LOCATED IN THE GOVERNING STATE IN CONNECTION WITH ANY ACTION AND HEREBY WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY OTHER STATE TO OBJECT TO JURISDICTION WITHIN SUCH GOVERNING STATE FOR PURPOSES OF ANY ACTION. Grantor hereby waives and agrees not to assert, as a defense to any Action or a motion to transfer venue of any Action, (i) any claim that it is not subject to such jurisdiction, (ii) any claim that any Action may not be brought against it or is not maintainable in those courts or that this Agreement may not be enforced in or by those courts, or that it is exempt or immune from execution, (iii) that the Action is brought in an inconvenient forum, or (iv) that the venue for the Action is in any way improper.

21. **Rules Of Construction.** Section and subsection headings in this Agreement are included in this Agreement for convenience of reference only and shall not constitute a part of this Agreement or be given any substantive effect. Unless the context of this Agreement clearly requires otherwise, references to the plural include the singular and to the singular include the plural, the part includes the whole, the term “including” is not limiting (and means, including without limitation), and the term “or” has, except where otherwise indicated, the inclusive meaning represented by the phrase “and/or.” The words “hereof,” “herein,” “hereby,” “hereunder,” and other similar terms in this Agreement refer to this Agreement as a whole and not exclusively to any particular provision of this Agreement. Article, section, subsection, exhibit, and schedule references are to this Agreement unless otherwise specified. All of the exhibits or schedules attached to this Agreement shall be deemed incorporated in this Agreement by reference. Any reference to any of the following documents includes any and all alterations, amendments, restatements, extensions, modifications, renewals, or supplements thereto or thereof, as applicable: this Agreement or any of the other Loan Documents. No inference in favor of, or against, any party shall be drawn from the fact that such party has drafted any portion of this Agreement, each party having been represented by counsel of its choice in connection with the negotiation and preparation of this Agreement and the other Loan Documents.

22. **Counterparts.** For the purpose of facilitating the execution of this Agreement and for other purposes, this Agreement may be executed simultaneously in any number of counterparts, each of which counterparts shall be deemed to be an original, and such counterparts shall constitute but one and the same instrument. A signature of a party by facsimile or other electronic transmission (including a .pdf copy sent by e-mail) shall be deemed to constitute an original and fully effective signature of such party.

23. **Waiver of Jury Trial.** TO THE GREATEST EXTENT PERMITTED BY LAW, GRANTOR HEREBY AGREES NOT TO ELECT A TRIAL BY JURY OF ANY ISSUE TRIABLE OF RIGHT BY JURY, AND WAIVES ANY RIGHT TO TRIAL BY JURY FULLY TO THE EXTENT THAT ANY SUCH RIGHT SHALL NOW OR HEREAFTER EXIST WITH REGARD TO THIS AGREEMENT, OR

SECURITY AGREEMENT – Page 10

61259187

ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION THEREWITH. THIS WAIVER OF RIGHT TO TRIAL BY JURY IS GIVEN KNOWINGLY AND VOLUNTARILY BY GRANTOR, AND IS INTENDED TO ENCOMPASS INDIVIDUALLY EACH INSTANCE AND EACH ISSUE AS TO WHICH THE RIGHT TO A TRIAL BY JURY WOULD OTHERWISE ACCRUE. LENDER IS HEREBY AUTHORIZED TO FILE A COPY OF THIS PARAGRAPH IN ANY PROCEEDING AS CONCLUSIVE EVIDENCE OF THIS WAIVER BY GRANTOR.

[Separate Signature Pages Follow.]

SECURITY AGREEMENT – Page 11
61259187

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

GRANTOR:


GERRY N. KAMILOS, an individual

Address:



ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Sacramento)

On January 4, ~~December~~ 2018, before me, Jennifer Nolan, notary public
(insert name and title of the officer)

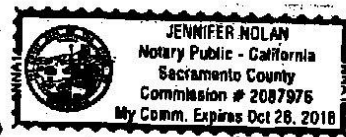
personally appeared Gerry N. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Jennifer Nolan

(Seal)



GRANTOR SIGNATURE PAGE TO SECURITY AGREEMENT

61259187

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

GRANTOR:

Karen L. Kamilos
KAREN L. KAMILOS, an individual

Address: [REDACTED]

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Sacramento

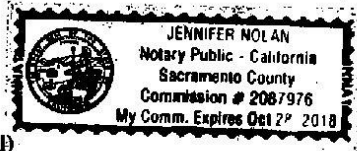
On January 4, 2018, before me, Jennifer Nolan, Notary Public
(insert name and title of the officer)

personally appeared Karen L. Kamilos, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature *Jennifer Nolan* (Seal)




GRANTOR SIGNATURE PAGE TO SECURITY AGREEMENT

61259187

SECURED PARTY:

ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario limited partnership

By: **RMLP CALIFORNIA GP INC.**, an Ontario corporation, its general partner

By: 
Steven Mucha, Authorized Signing Officer

SECURED PARTY SIGNATURE PAGE TO SECURITY AGREEMENT

61259187

<p>SCHEDULE 1</p> <p><u>COMMERCIAL TORT CLAIMS</u></p> <p>NONE</p>
<p><u>SCHEDULE 1 TO SECURITY AGREEMENT</u></p> <p>61259187</p>

EXHIBIT F



February 12, 2020

Trevor A. Jenkins
 Direct: 816/374-3262
 Fax: 816/855-3262
 trevor.jenkins@bdplaw.com

BRYAN CAVE LEIGHTON PAISNER LLP
 One Kansas City Place
 1200 Main Street, Suite 3800
 Kansas City, MO 64105 2122
 T: +1 816 374 3200
 F: +1 816 374 3300
 www.bcplaw.com

Woodland/Spreckels Industrial Business Park, LLC
 11249 Gold Country Boulevard, Suite 190
 Gold River, California 95670

Gerry N. Kamilos
 [REDACTED]

Karen L. Kamilos
 [REDACTED]

VIA FEDEX

Re: Notice of Acceleration, Demand for Payment in Full, and Notice of Intent to Exercise Rights and Remedies with respect to Promissory Note and Loan Documents.

Dear Borrower and Guarantors:

The undersigned is counsel for ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP, an Ontario, Canada limited partnership ("**Lender**"). This letter concerns the loan in the aggregate original maximum principal amount of up to Ten Million Three Hundred Fifty Thousand Dollars (\$10,350,000.00) (as the same has been or may be amended from time to time "**Loan**") advanced by Lender to WOODLAND/SPRECKELS INDUSTRIAL BUSINESS PARK, LLC, a California limited liability company ("**Borrower**"). Borrower and Lender are also parties to that certain Loan Agreement dated as of January 4, 2018, by and between Borrower and Lender (as the same has been or may be amended from time to time, collectively, "**Loan Agreement**"). All capitalized terms not otherwise defined in this letter shall have the meanings given to them in the Loan Agreement.

The Loan is evidenced by that certain Promissory Note dated as of January 4, 2018, from Borrower to the order of Lender in the amount of Ten Million Three Hundred Fifty Thousand Dollars (\$10,350,000.00) (as the same has been or may be amended from time to time, the "**Note**"). The Loan is guaranteed by Gerry N. Kamilos, an individual and Karen L. Kamilos, an individual (collectively referred to in the singular as "**Guarantor**"), pursuant to that certain Guaranty dated as of January 4, 2018, given by each Guarantor in favor of Lender. Any and all of the documents evidencing and relating to the Loan collectively shall be referred to as the "**Loan Documents**."

This letter serves to notify you that Borrower is in default of its obligations under the Loan Agreement and related Loan Documents by virtue of, among other things, the failure of Borrower to (a) make the required payments of interest due on the Loan as of November 1, 2018 through and including February 1, 2020, as required by Section 1.1(a) of the Note; (b) the Loan matured on February 1, 2019, and the Borrower failed to repay the entire outstanding principal balance of the Loan, together with all accrued

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Woodland/Spreckels Industrial Business Park, LLC
 February 12, 2020
 Page 2

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and unpaid interest and any other amounts due under the Loan Documents as required by Section 1.1(b) of the Note; (c) Borrower has failed to pay Taxes on the Property prior to delinquency as required by Section 5.4 of the Loan Agreement; and (d) Borrower has failed to provide Lender evidence of the insurance required to be carried by Borrower pursuant to Section 6.1.1 of the Loan Agreement. The outstanding principal balance of the Loan together with all accrued and unpaid interest and all other amounts, fees and charges due under the Note are hereby accelerated and immediately due and payable in full.

DEMAND UPON BORROWER

Lender hereby makes demand on Borrower for immediate payment of the full amount due and owing under the Note. The amounts due and owing, as of February 7, 2020, are summarized as follows:

Unpaid principal	\$10,350,000.00
Interest Due through February 7, 2020	\$2,317,658.20
Legal Fees	\$13,477.19
Statement Fee	\$700.00
Total	\$12,681,835.40
Per Diem	\$5,305.84

This amount does not include Lender's costs of collection, including without limitation attorneys' fees and expenses, all of which Borrower (and Guarantor) are obligated to pay under the terms of the Note and Loan Documents. The amount set forth above together with all costs of collection is referred to as the "**Indebtedness.**"

Please note pursuant to the provisions of the Loan Agreement and the Note, upon an Event of Default, the entire amount of the unpaid principal balance of the indebtedness together with all accrued but unpaid interest thereon shall accrue at a rate equal to the "**Interest Rate**" *plus* the "**Default Rate**" (both as defined in the Note), and Borrower shall be liable for late charges, attorneys' fees and other enforcement costs incurred in connection with the default.

DEMAND UPON GUARANTOR

Due to the Events of Default under the Loan Documents, Lender hereby declares Guarantors to be absolutely and unconditionally, jointly and severally, liable for payment of the Indebtedness to Lender and the performance and discharge of all Borrower's obligations under the Loan Documents as stated in the Guaranty. Lender hereby makes demand upon Guarantors for immediate payment of the full amount due and owing under the Note plus all costs and expenses incurred by Lender in collecting all or any part of the Indebtedness from Guarantors.

If Borrower and Guarantors fail to fully pay the amounts set forth above **on or before 3:00 P.M., Eastern Time, on February 22, 2020**, then Lender will pursue and enforce the rights and remedies available to it under the Loan Documents and under applicable law. Lender's enforcement actions may include, but are not limited to, the commencement of: (i) suit against Borrower, Guarantors and any other party having an obligation to pay the Indebtedness under the Note and Guaranty; (ii) foreclosure

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Woodland/Spreckels Industrial Business Park, LLC
February 12, 2020
Page 3

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and/or trustee sale proceedings under the deed of trust and security agreements; and/or (iii) the exercise of any and all other rights and remedies enumerated in the Loan Documents or otherwise available at law or in equity (including, without limitation, the appointment of a receiver over the property).

You may contact Lender for a statement of the amounts due as of any particular payment date. Payments should be sent to, and Lender's contact information, is as follows:

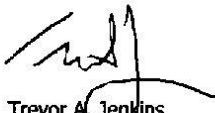
Lynne Moore
Mortgage Administration
Romspen Investment Corporation
162 Cumberland Street, Suite 300
Toronto, Ontario M5R 3N5

Notwithstanding anything to the contrary contained in this letter, nothing contained in this letter is intended to (a) waive or release Borrower or Guarantor from any of its respective obligations under the Loan Documents, and/or (b) waive or estop Lender from pursuing any of its rights or remedies against Borrower or Guarantor under the Loan Documents. No modification of the Loan Documents and no other agreement or understanding of any nature shall be deemed to have been entered into by or be binding on Lender unless and until Lender and Borrower have reached agreement on all issues, and such entire agreement shall have been reduced to a written document that expressly states that it modifies the Loan Documents and is duly executed by Lender and Borrower and each Guarantor of the Loan. Oral agreements, emails, memoranda of meetings, summaries of proposed terms, etc., shall have no effect whatsoever and shall not be binding on Lender.

Please note that Lender's acceptance of any future partial payment: (i) shall not be a waiver of any terms and conditions set forth in the Loan Documents, (ii) shall not in any way affect the obligation of Borrower or Guarantor under the Loan Documents to repay amounts which are due and owing under the Loan Documents, (iii) shall not deem Lender to have waived or cured any defaults which exist under the Loan Documents, (iv) shall not be deemed a reinstatement or satisfaction of the Loan, or a waiver, modification, relinquishment or forbearance by Lender from pursuing any of its rights or remedies under the Loan Documents or at law or in equity, all of which rights and remedies Lender hereby expressly reserves, and (v) shall not obligate Lender to fund any future Loan advances.

Please feel free to call with any questions.

Sincerely,



Trevor A. Jenkins

For the Firm

cc: Romspen California Mortgage Limited Partnership
Trainor Fairbrook, 980 Fulton Avenue, Sacramento, California 95825
Attention: Charles W. Trainor, Esquire

601645186.1

EXHIBIT M

1	TRAINOR FAIRBROOK JOHN D. FAIRBROOK	FILED Superior Court Of California, Sacramento
2	jfairbrook@trainorfairbrook.com 980 Fulton Avenue	05/06/2020 mwhitaker
3	Sacramento, California 95825 Telephone: (916) 929-7000	By _____, Deputy
4	Facsimile: (916) 929-7111 sjm:3653.178.2153188.1	Case Number: 34-2020-00276375
5		
6	Attorneys for Defendants GERRY N. KAMILOS, an individual; KAREN L. KAMILOS, an individual	
7		
8	SUPERIOR COURT OF THE STATE OF CALIFORNIA	
9	COUNTY OF SACRAMENTO	
10		
11	ROMSPEN CALIFORNIA MORTGAGE LIMITED PARTNERSHIP,	Case No. 34-2020-00276375
12	Plaintiff,	UNLIMITED JURISDICTION
13		ANSWER TO COMPLAINT
14	v.	
15	GERRY N. KAMILOS, an individual; KAREN L. KAMILOS, an individual; and DOES 1-50, inclusive,	
16	Defendants.	
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28		

SACRAMENTO, CALIFORNIA 95825
Telephone: (916) 929-7000
Facsimile: (916) 929-7111

By FAX

ANSWER TO COMPLAINT

- 0 -

SACRAMENTO, CALIFORNIA 95825
 Telephone: (916) 828-7000
 Facsimile: (916) 828-7111

1 GERRY N. KAMILOS, an individual; KAREN L. KAMILOS, an individual hereby
 2 respond to the Complaint of Plaintiff as follows:

3 **GENERAL DENIAL AS TO ALL CAUSES OF ACTION**

4 Defendants GERRY N. KAMILOS, an individual, and KAREN L. KAMILOS, an
 5 individual deny each and every, all and singular, generally and specifically, the allegations in the
 6 Complaint; and deny that Defendants are liable under the theories or in the manner set forth in the
 7 Complaint, or at all; and deny that Plaintiff was injured or damaged as a result of the alleged
 8 conduct of Defendants as set forth in the Complaint, or at all.

9 **AFFIRMATIVE DEFENSES**

10 As distinct, separate and affirmative defenses to the Complaint, Defendants GERRY N.
 11 KAMILOS, an individual, and KAREN L. KAMILOS, an individual respond as follows:

12 **FIRST AFFIRMATIVE DEFENSE**

13 **(Failure to State Facts)**

14 As a separate and affirmative defense to the Complaint and each cause of action alleged
 15 therein, these answering Defendants are informed and believe and thereon allege that the
 16 Complaint and each purported claim therein fails to state facts sufficient to constitute any cause of
 17 action against these answering Defendants.

18 **SECOND AFFIRMATIVE DEFENSE**

19 **(Estoppel)**

20 As a separate and distinct affirmative defense to the Complaint and each cause of action
 21 alleged therein, these answering Defendants are informed and believe and thereon allege that
 22 Plaintiff is estopped by its own conduct from asserting any and all claims it may have, or that it
 23 may have had against these answering Defendants, or others, arising from the transactions and
 24 occurrences set forth in the Complaint.

25 **THIRD AFFIRMATIVE DEFENSE**

26 **(Waiver)**

27 As a separate and distinct affirmative defense to the Complaint and each cause of action
 28 alleged therein, these answering Defendants are informed and believe and thereon allege that

ANSWER TO COMPLAINT

- 1 -

1 Plaintiff knowingly waived, by verbal expressions or conduct, any known rights which it may
2 have had against these answering Defendants.

3 **FOURTH AFFIRMATIVE DEFENSE**

4 **(Unconscionability)**

5 As a separate and distinct affirmative defense to the Complaint and each cause of action
6 alleged therein, these answering Defendants are informed and believe and thereon allege that
7 Plaintiff's Complaint is barred on whole or in part by virtue of the statutory and common law
8 prohibitions on the enforcement of unconscionable contracts, the prohibition on receipt of
9 benefits accruing from unconscionable conduct and the unconscionability of Plaintiff's acts and
10 claims.


11
12 Dated: April 6, 2020

TRAINOR FAIRBROOK

13
14 By: 

15 JOHN D. FAIRBROOK
16
17
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23
24
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28

DOCUMENT ID: CALIFORNIA 05628
Telephone: (916) 925-7000
Facsimile: (916) 925-7111

1 I declare that I am employed in the office of a member of the bar of this court at whose
2 direction the service was made.
3 I declare under penalty of perjury under the laws of the State of California that the above
4 is true and correct.
5 Executed on April 6, 2020, at Sacramento, California.
6 
7 _____
8 Sandra Morris
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ANSWER TO COMPLAINT - 4 -

Telephone: (916) 928-7000
Facsimile: (916) 928-7111

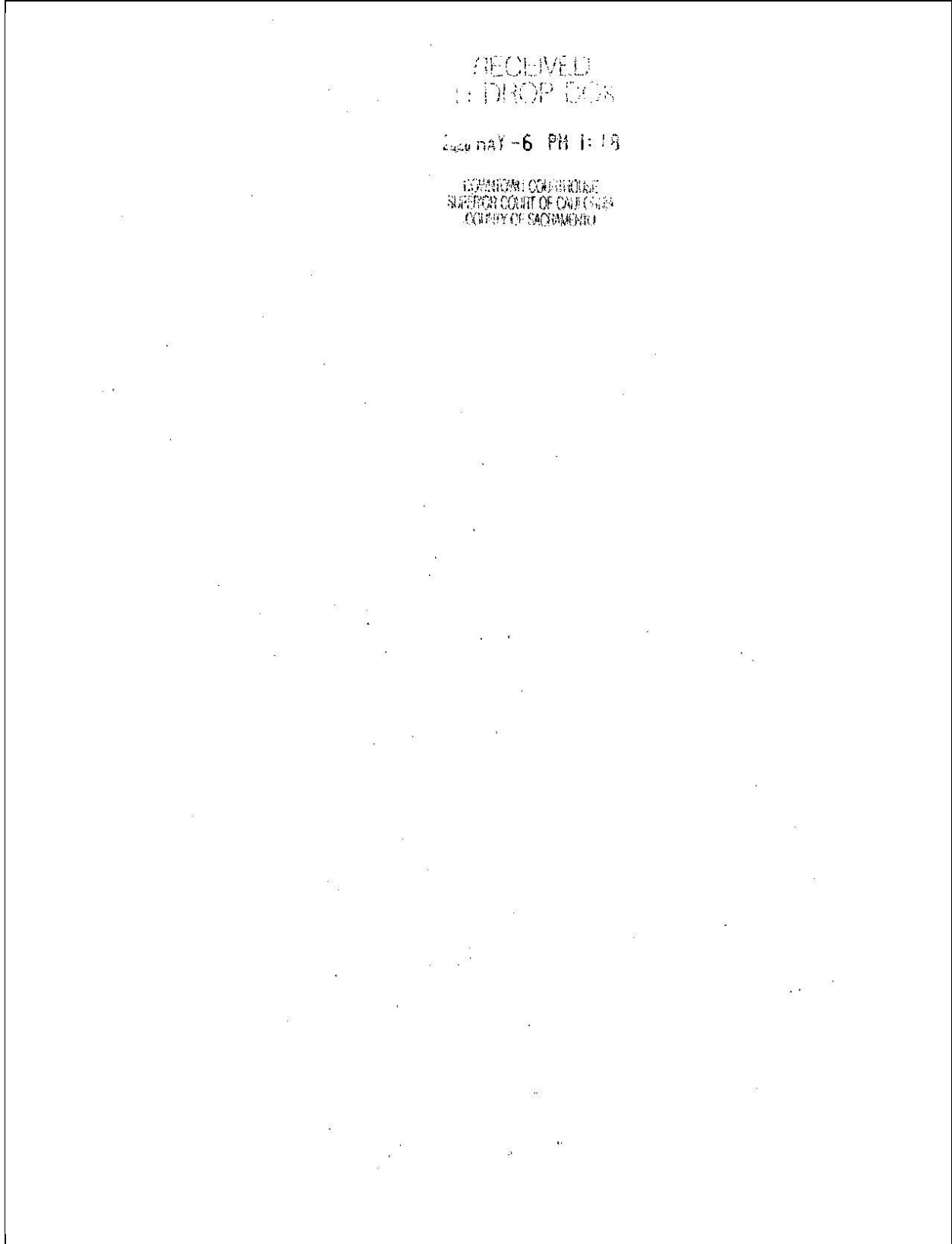


EXHIBIT N

Indian Wells
(760) 568-2611
Irvine
(949) 263-2600
Los Angeles
(213) 617-8100
Ontario
(800) 889-8564



500 Capitol Mall, Suite 1700, Sacramento, CA 95814
Phone: (916) 325-4000 | Fax: (916) 325-4010 | www.bbklaw.com

Riverside
(951) 686-1450
San Diego
(619) 525-1300
Walnut Creek
(925) 977-3300
Washington, DC
(202) 785-0600

Seth Merewitz
(213) 787-2567
seth.merewitz@bbklaw.com
File No. 65219.00001

Memorandum

To: Paul Navazio, City Manager;
Ken Hiatt, Community Development Director;
Brent Meyer, City Engineer

From: Kara Ueda and Seth Merewitz, City Attorney

Date: September 9, 2016

Re: Lower Cache Creek Feasibility Project; Comparison of 2003 Flood Barrier Alternative and 2016 Modified Alternative 2A; Compliance with Measure S

BACKGROUND

Measure S, adopted by the City's voters on March 2, 2004, encourages a regional flood control project, but prohibits the City from funding or taking any action that supports the Lower Cache Creek Flood Barrier studied by the Army Corps of Engineers ("USACE") in 2003 ("2003 Flood Barrier") or any substantially similar structure. Measure S was subsequently codified in Section 10, Chapter 10 of the City's Municipal Code.

While the flood protection alternative studies were restarted in 2013, they were then "paused" in 2016 to allow for an independent review of the alternatives.

QUESTION PRESENTED

Do the improvements presented in 2016 Modified Alternative 2A from the 2016 Lower Cache Creek Feasibility Study ("2016 Alternative") violate the City's Flood Control Policy as enacted by Measure S?

BRIEF ANSWER

Based on the technical information provided by MBK Engineers and as explained further below, it is our view that the 2016 Alternative is substantially different from the 2003 Flood Barrier in that both the physical features, as well as the effects of the improvements and mitigations to land owners, are substantially different. However, as Measure S was worded broadly and contained no guidance for interpretation, reasonable people may disagree with this view.



City of Woodland
Page 2

ANALYSIS

I. Physical Differences Between the 2003 Flood Barrier and 2016 Alternative:

The proposed 2003 Flood Barrier would have prevented waters from flowing into the City. The 2003 Flood Barrier also included features allowing drainage of the flood waters to remain over an extended period of time as compared to the 2003 existing condition. The 2003 Flood Barrier would have performed in a way that increased both flood depth and duration for many of the properties and structures north of the flood barrier.

The proposed 2016 Alternative has many physical differences that would allow it to perform much differently than the 2003 Flood Barrier. The 2016 Alternative would act more like a bypass to transport flood water through the floodplain more efficiently, which would reduce both the flood depth and duration as compared to the 2003 Flood Barrier. Moreover, changes in the alignment of the 2016 Alternative substantially reduce the flood stage as compared to the 2003 Flood Barrier.

A. The 2016 Alternative Reduces Flood Depth and Duration:

At the location of several of the structures in the residual floodplain, the 2016 Alternative reduces flooding below the existing condition. In the majority of locations in the vicinity of Highway (Hwy) 113 and west of I-5, the 2016 Alternative would reduce both the flood depth and duration as compared to the 2003 Flood Barrier.

The 2016 Alternative results in significantly lower flood stages and duration of flooding for many of the properties north of the proposed levee. The attached Exhibit 1 compares the flood stages of the 2003 Flood Barrier to the 2016 Alternative. The attached Exhibit 2 compares the flood hydrographs in the vicinity of Hwy 113 resulting from the 2003 Flood Barrier and 2016 Alternative. Both of these Exhibits highlight the substantial difference in the upstream and downstream food depth and duration.

B. The 2016 Alternative Reduces Flood Stage and Modifies the Alignment:

The 2016 Alternative has substantial differences in performance that are attributable to changes in alignment and the addition of elements that were not included in the 2003 Flood Barrier. These include the following:

1. Changing the alignment west of I-5 to route flood waters under I-5 at the California Northern Rail underpass;
2. The addition of culverts at Hwy 113 to reduce the flood stages in the vicinity of a number of structures in the floodplain;



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ATTORNEYS AT LAW

City of Woodland
Page 3

3. Construction of a new channel along the levee east of Hwy 113 to route floodwaters to culverts that drain into the Cache Creek Settling Basin ("CCSB") and the City's Pump Station;
4. A 2 foot lower crest elevation of the weir that directs flows into the CCSB; and
5. The addition of a detention basin at the confluence of the new levee and CCSB to improve drainage of the floodplain.

The 2016 Alternative also results in reduced flood stages by modifying the alignment of the levee, and the inclusion of additional features.

6. Rather than directing all flood flows across I-5, the 2016 Alternative directs flood flows under I-5 through the California Northern Railroad underpass;
7. The new weir in the west levee of CCSB would be relocated to the south and constructed to a crest elevation of 43 feet msl (NAVD 88) (two feet lower than the 2003 Flood Barrier). This lower elevation would not result in backflow from the CCSB to the agricultural area west of the CCSB and will facilitate drainage of ponded Cache Creek flood waters;
8. Eastern end of east – west levee joins with the CCSB west levee further south than the 2003 Flood Barrier, creating a triangular detention basin. The detention basin assists the drainage of the impounded flood waters when the flood stage is less than the weir crest;
9. Construction of a 400-foot wide flood conveyance under Hwy 113 and adjacent railroad tracks north of the secondary levee would prevent the naturally high ground in the vicinity of Hwy 113 from acting as a berm impeding the overland flow of flood waters. This action reduces flood stages below the existing condition flood stage; and
10. A widened channel, with base width of about 175-feet, north of the secondary levee, would provide additional storage and drainage of floodwaters from the area west of Hwy 113 to the CCSB.

II. Differing Effects Between the 2003 Flood Barrier and 2016 Alternative:

The 2003 Flood Barrier would have benefited the City, but would have adversely affected the property owners north of the flood barrier by increasing both depth and duration of flooding without consideration of any actions to mitigate these impacts or provide compensation to those impacted.



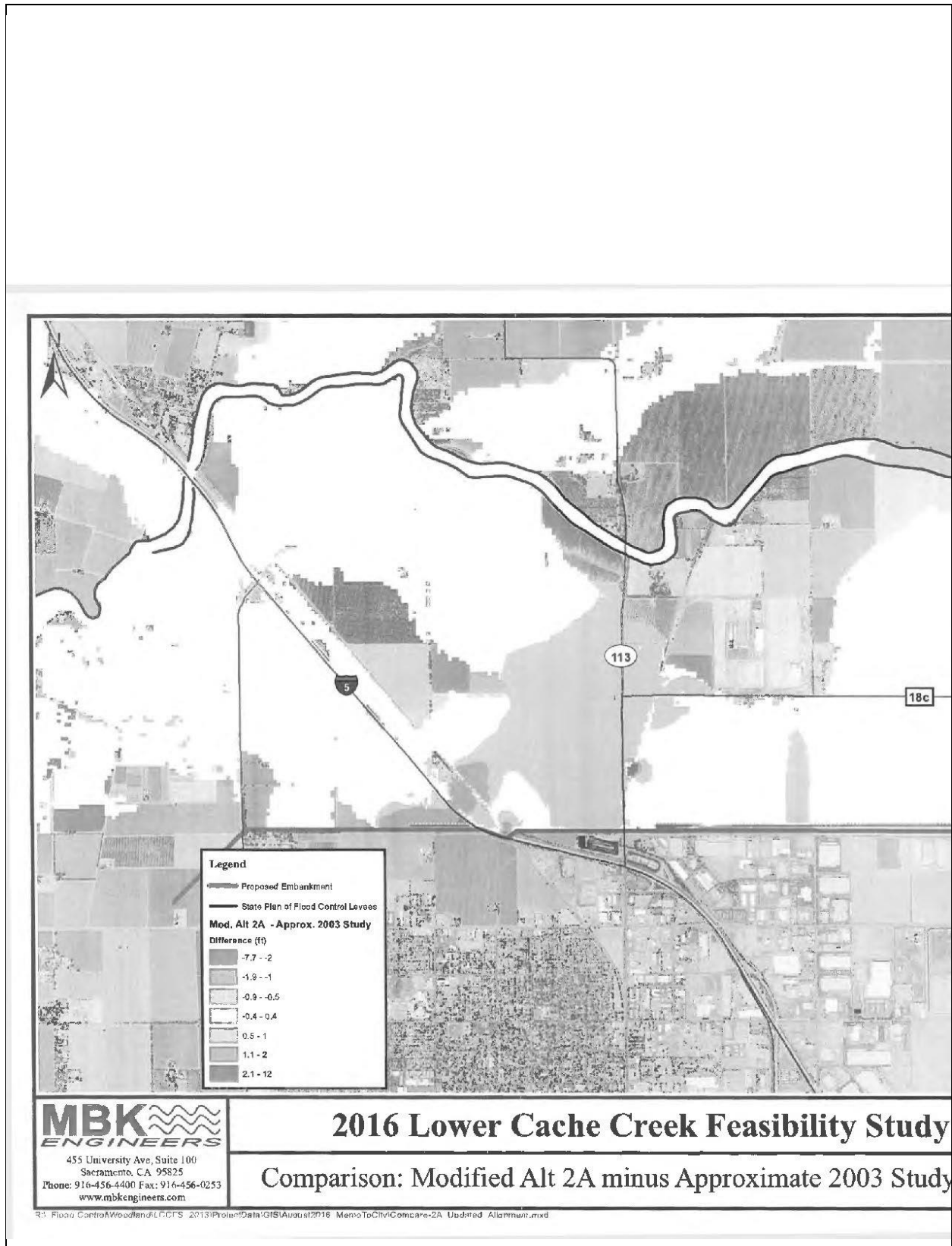
City of Woodland
Page 4

The effects of the 2016 Alternative on the residents north of the City are significantly different than the 2003 Flood Barrier, in the following ways:

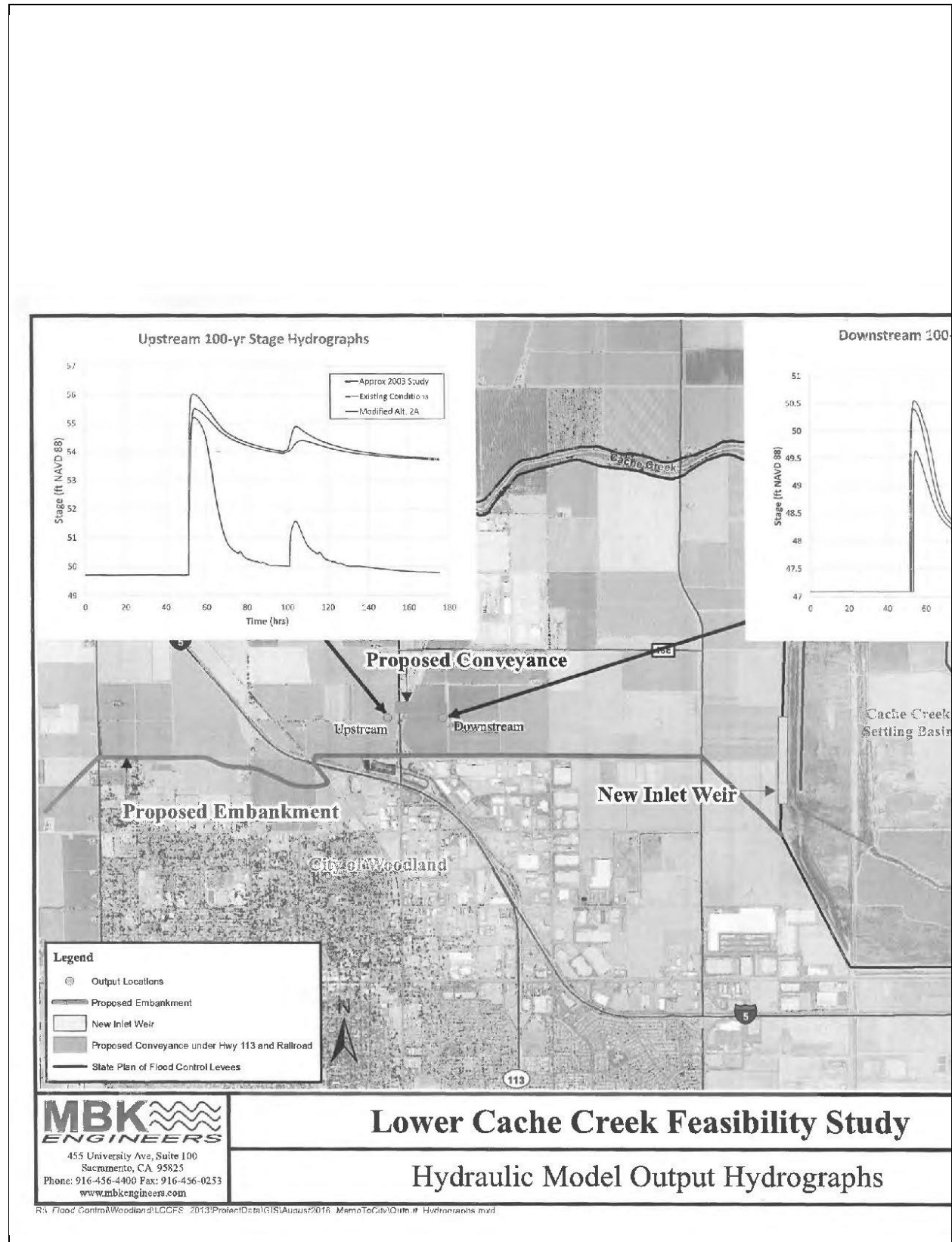
1. Lower flood depths and duration of flooding as described in paragraph IA above;
2. Inclusion of non-structural mitigations for properties north of the City which would include the purchase of flood easements, flood proof or elevation of structures, and/or subsidizing flood insurance for impacted property owners, such that no residences will be subject to an increased flood risk, and many will benefit from the project;
3. Inclusion of non-structural actions to raise or flood proof structures in the floodplain to avoid or minimize the damage these structures would incur as compared to the existing condition and an option to subsidize flood insurance or purchase flowage easements for properties that have an increase in flood depth or duration;
4. The City proposes to include non-structural flood protection for the nine remaining structures north of the City, that would flood as a result of the flood project, unlike the 2003 Flood Barrier, which would not have been provided protection;
5. The City will request that the USACE include the acquisition of temporary flowage easements over the agricultural areas that will be subject to significant additional depth and duration of flooding, as a result of the project;
6. The City will also request that the final feasibility report, prepared by the USACE, include assurances that the existing authorized Federal Cache Creek Flood Control Project continue to be maintained to provide benefits to the property north of the City; and
7. A commitment by the City to advocate for continued State funding to maintain the existing Cache Creek levee.

CONCLUSION

As we have outlined, the differences between the 2003 Flood Barrier and 2016 Alternative are substantial, both in the physical impacts of the improvements, as well as the effects of the improvements and various mitigation measures and commitments being made by the City in coordination with the USACE.



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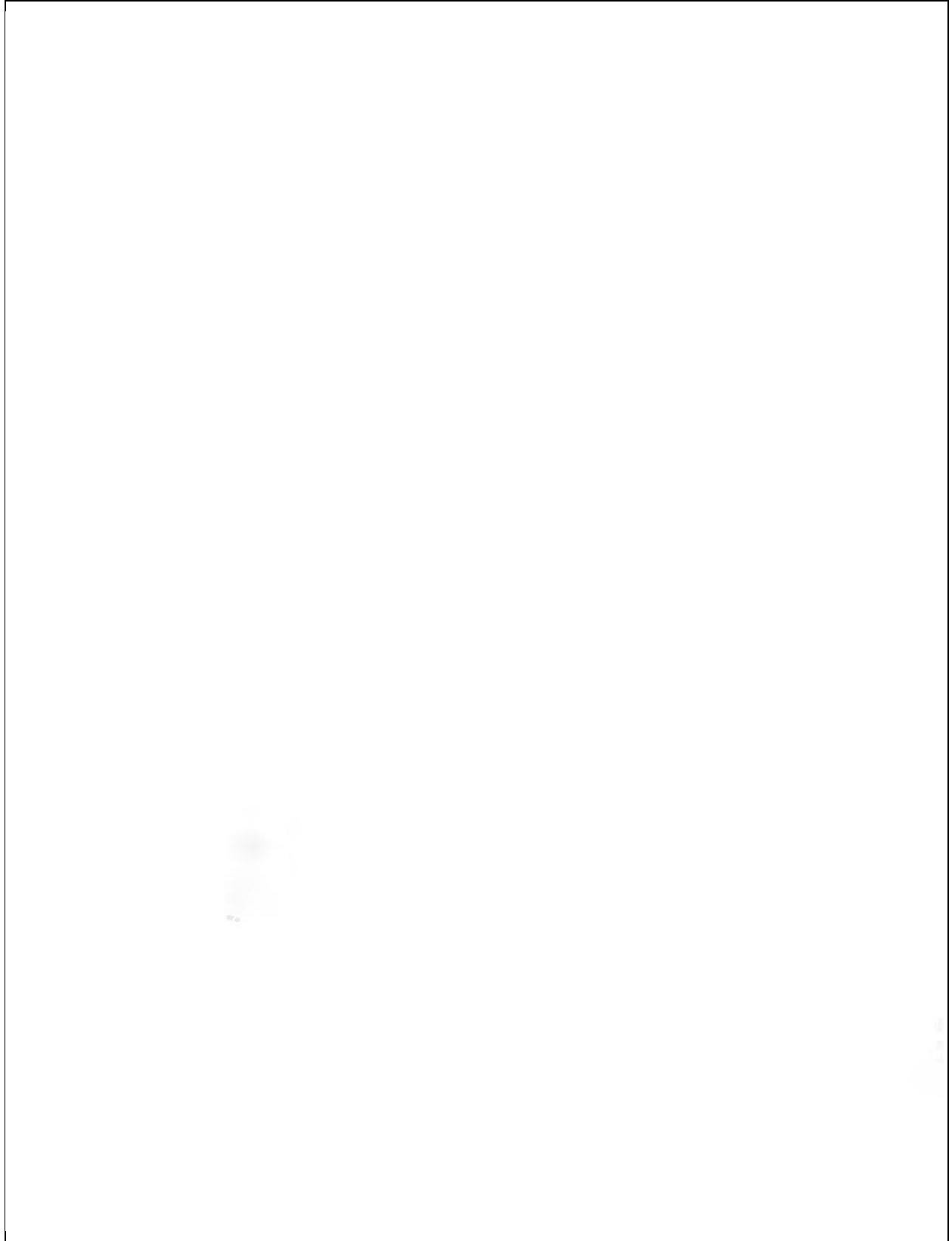


EXHIBIT 3

The attorney for the City of Woodland has prepared the following title and summary of the chief purposes and points of the proposed measure:

AN INITIATIVE MEASURE ESTABLISHING A REGIONAL FLOOD CONTROL POLICY FOR THE CITY OF WOODLAND

The proposed initiative would establish a City of Woodland policy to encourage a regional flood control project. The policy would prohibit the City of Woodland from funding or supporting the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Corps of Engineers or any other substantially similar project. If passed, the proposed initiative could not be repealed or amended except by the City of Woodland voters.

Initiative Text

Section 1: It shall be the policy of the City of Woodland to encourage a regional flood control project to protect both the City of Woodland and other areas in Yolo County. Therefore, the City of Woodland shall not fund or take any action that supports the Lower Cache Creek Flood Barrier (Flood Wall) studied by the United States Army Corps of Engineers, nor shall the City fund or take any action that supports a substantially similar structure.

Section 2: This ordinance shall not be repealed or amended except by a vote of the people of the City of Woodland.

NOTICE TO THE PUBLIC: THIS PETITION MAY BE CIRCULATED BY A PAID SIGNATURE GATHERER OR A VOLUNTEER. YOU HAVE THE RIGHT TO ASK.

All Signers of this petition must be registered in the City of Woodland, California			This column for official use only
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	Signature As Registered	City Zip	

EXHIBIT 4

FINAL REPORT

Agricultural and Economic Impacts of Yolo Bypass Fish Habitat Proposals

PREPARED FOR: Yolo County

PREPARED BY: Richard Howitt¹, Duncan MacEwan¹, Cloe Garnache¹,
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DATE: April 2013



Great egret in a harvested rice field. Photo courtesy of Dave Feliz

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Executive Summary

The California Natural Resources Agency and the U.S. Department of the Interior propose to increase the frequency and duration of flooding in the Yolo Bypass for seasonal fish rearing habitat, both as a major component of the Bay Delta Conservation Plan (BDCP) and also as a Reasonable and Prudent Alternative (RPA) in the federal National Marine Fisheries Service's Biological Opinion on the Coordinated Long Term Water Operations of the Central Valley Plan and State Water Plan for winter run salmon, spring run salmon, and Central Valley steelhead. While the state and federal government have not yet fully defined proposals to flood the Bypass for juvenile salmon, the project will have broader support and cost less if state and federal agencies minimize effects on existing land uses such as flood protection, migratory waterfowl and other terrestrial species habitat, and agriculture.

This report provides a quantitative framework for assessment of agricultural impacts of flooding in the Yolo Bypass consistent with initial proposals in the Biological Opinion RPA and BDCP Conservation Measure 2 (CM2). Since the RPA and CM2 are not fully developed, this report evaluates 12 possible scenarios and describes a range of possible impacts on agriculture and the Yolo County economy. Of the 12 scenarios evaluated, 10 scenarios assume annual inundation through a specified date (RPA scenarios) and 2 scenarios assume opportunistic inundation associated with natural overtopping of the Fremont Weir (CM2 scenarios). The modeling framework developed for this report can be used to evaluate any future proposal, and therefore is a useful tool for ongoing discussions regarding project design.

Background

The 57,000-acre Yolo Bypass is first and foremost one of the primary means of providing flood protection to the Sacramento region. Yolo Bypass agriculture also provides significant benefits to the local economy, migratory waterfowl, and the flood protection system. The Bypass can carry on average four times the flow of the Sacramento River or approximately 420,000 cfs. Yolo Bypass agriculture helps to maintain this flood capacity by controlling vegetation, thereby reducing the state's responsibility for vegetation removal. Yolo Bypass rice fields also provide habitat and food for migratory waterfowl when flooded for straw decomposition during the winter months.

"Natural" flooding in the Yolo Bypass can occur at any time from the Sacramento River overtopping the Fremont Weir and/or from tributary flows entering the Bypass from the west during storm events. Farmers have adapted to these conditions and landowners have lowered their lease rates to some extent to reflect the risk. Natural flooding delays planting times and reduces crop yields in the Bypass – or even prevents planting. Late season flood events may reduce crop yields through short-duration flooding, even if farmers prepare fields early in the season. As such, increased frequency and duration of inundation within the Bypass for fish habitat may translate into financial losses for farmers and the regional economy.

Scenarios

CM2, as described in the February 2012 BDCP draft, would lower a portion of the Fremont Weir to an elevation of 17.5 feet, from its current elevation of 32.8 feet, and construct an operable gate to allow Sacramento River water to flow into the Yolo Bypass (BDCP 2012). CM2 also includes a number of other actions within the Yolo Bypass including construction of fish passage improvements at the Fremont Weir. CM2 actions are designed to reduce migratory delays and loss of adult salmon, steelhead, and sturgeon, enhance rearing habitat for juvenile Sacramento River Basin salmonids, enhance spawning and rearing habitat for Sacramento splittail, and improve food sources for delta smelt downstream of the Bypass. Since CM2 is not fully developed, the authors created a “low-impact” scenario that is consistent with the 2012 draft. This scenario suggests supplemental flooding of up to 6,000 cubic feet per second (cfs) for 30 to 45 days in years when flooding occurs naturally in the Yolo Bypass.⁴ This scenario provides a low estimate of CM2 impacts to demonstrate the potential to develop a project that minimizes impacts on agriculture. This scenario should not be used as a proxy for actual CM2 agricultural impacts since CM2 is not fully developed. If the BDCP proposes flooding in years the Fremont Weir does not overtop, agricultural impacts will increase significantly relative to this scenario.

The RPA, in Actions I.6 and I.7, requires the U.S. Bureau of Reclamation and the California Department of Water Resources to evaluate modification of operations at the Fremont Weir to increase rearing habitat for juvenile salmon. Similar to BDCP, the Bureau of Reclamation plans to evaluate lowering a portion of the Fremont Weir and constructing an operable gate to allow Sacramento River water to flow into the Yolo Bypass. The RPA requires additional rearing habitat for juvenile winter run, spring run, and Central Valley steelhead from “December through April” in the “lower Sacramento River basin.” The RPA further identifies “an initial performance measure” of 17,000 to 20,000 acres with “appropriate frequency and duration.” Since Reclamation has not fully developed actions to implement the RPA, the authors created scenarios that are consistent with the existing language in Actions I.6 and I.7. These scenarios cover proposed annual flooding between 3,000 cfs and 6,000 cfs and end dates varying from February 15th to May 15th. These scenarios provide a range of possible RPA impacts, but should not be used as a proxy for actual RPA impacts since the RPA is not fully developed.

Flooding at the proposed volumes of 3,000 and 6,000 cfs would inundate⁵ between 12,200 and 25,000 total⁶ acres, assuming no flooding from creeks on the west side of the Yolo Bypass. An increase in flooding could result in economic losses to farmers and the local economy, dependent on timing, frequency, volume, and duration. In addition, flooding may increase the costs of late season rains which could affect land values, lending, and farming in the Yolo Bypass.

This study estimates the expected losses of total agricultural revenue, total Yolo County revenue (value added), tax revenue, and jobs for the twelve policy scenarios listed in Table 1.

⁴ See Table 3.4-3 of the February 2012 BDCP Draft Report.

⁵ This study is an agricultural impact analysis and, as such, areas of inundation include the literal flooding “footprint” plus fields that are partially inundated, discussed in Section 2.2.

⁶ 12,200 total acres includes 4,500 acres of wetlands and Liberty Island, and 25,000 total acres includes 9,200 acres of wetlands and Liberty Island. Thus, flooding will affect between 7,700 and 15,800 acres of land used for agricultural production. This footprint does not include any land in Solano County.

Table 1. Inundation Scenarios

3,000 cfs	6,000 cfs
Feb 15 (Annual)	Feb 15 (Annual)
Mar 24 (Annual)	Mar 24 (Annual)
Apr 10 (Annual)	Apr 10 (Annual)
Apr 30 (Annual)	Apr 30 (Annual)
May 15 (Annual)	May 15 (Annual)
Low-impact CM2 Scenario	Low-impact CM2 Scenario

Results

Table 2 identifies the expected total annual losses to the Yolo County economy (also known as value added losses) associated with the inundation scenarios evaluated in the study. The fundamental driving factors in the analysis are total acres inundated, reduced crop yields, and increased land fallowing. As the last day of flooding through the proposed gate in the Fremont Weir increases, farmers would delay field preparation and planting, resulting in reduced crop yields and increased land fallowing. Agricultural revenues would fall, translating into losses in the Yolo County economy and employment in the region.

Under the RPA scenarios, the effect of increased flooding early in the season would be small, less than \$0.25 million with 6,000 cfs flow. Flooding through May 15 significantly increases effects, with total losses to Yolo County economy of \$3.8 million and \$8.9 million under 3,000 cfs and 6,000 cfs, respectively. Under the low-impact CM2 scenario, in which flooding only occurs as an extension to natural flooding, expected annual losses would range from \$0.63 to \$1.5 million under 3,000 and 6,000 cfs, respectively.

Table 2. Expected Total Annual Loss to Yolo County Economy (Value Added) (Thousands of 2008 dollars)

Inundation Scenario	3,000 cfs	6,000 cfs
February 15	148	241
March 24	931	1,744
April 10	2,337	5,015
April 30	3,371	7,735
May 15	3,886	8,889
Low-impact CM2 Scenario	625	1,468

Assumptions

This analysis relies on assumptions that may increase or decrease the estimates of impacts if changed. The analysis does not explicitly consider, for example, changes in late season rains and management and associated operation difficulties that may affect drainage and field preparation times. Consideration of these impacts would increase the estimates of actual expected annual losses to the economy from the scenarios modeled in this analysis. In addition, the areas of assumed inundation under different flooding scenarios might change if different hydrologic models are used to estimate the footprint and the models are further developed to allow evaluation of tributary flows. Depending on the size of the footprint, impacts could increase or decrease. Impacts could also change if the expected crop price changes. This study uses an expected crop price that is representative of an average over recent years and neither relies on recent boom price levels nor on earlier depressed agricultural conditions. Finally, river levels may not be high enough in all years to allow flooding in the Yolo Bypass through an operable gate. If the Yolo Bypass gate cannot be used every year, the estimates of flooding for each inundation end date (with the exception of the low-impact CM2 scenario) would also decrease.

Recommended Additional Research

In addition to evaluating additional inundation scenarios as more information becomes available, the authors also recommend the following actions:

- Create inundation scenarios that include the west side tributaries to the Bypass once existing models are adequately reviewed.
- Create inundation scenarios that reflect potential constrained project footprints of 7,000 to 10,000 acres, since the current analysis only models unconstrained flooding and therefore includes acres that do not directly benefit fish.
- Analyze the effect of crop insurance on farmer responses to likely inundation proposals.
- Analyze the response of agricultural lending institutions to likely inundation proposals.
- Evaluate proposed inundation scenarios under a range of expected future crop prices.
- Compare the predicted area of inundation under the MIKE21 and HEC-RAS models.
- Analyze potential economic benefits to Yolo County from increased recreation opportunities (e.g. short-term construction benefits or additional recreational opportunities).
- Analyze potential benefits to farmers of increased groundwater recharge resulting from more frequent flooding of the Bypass.

Acknowledgements

The authors thank Yolo County, the State and Federal Contractors Water Agency (SFCWA), and the Conaway Preservation Group for the funding and support necessary to prepare this study.

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1 Introduction

The California Natural Resources Agency and the U.S. Department of the Interior propose to increase the frequency and duration of flooding in the Yolo Bypass for fish habitat, both as a major component of the Bay Delta Conservation Plan (BDCP) and also as a Reasonable and Prudent Alternative (RPA) in the federal National Marine Fisheries Service's Biological Opinion on the Coordinated Long Term Water Operations of the Central Valley Plan and the State Water Plan for winter run salmon, spring run salmon, and Central Valley steelhead. Under both alternatives, the project will have broader support and cost less if impacts on existing land uses – such as flood protection, migratory waterfowl and other terrestrial species, and agriculture – are minimized. Since the RPA and BDCP's Conservation Measure #2 (CM2) are not fully developed, this report evaluates 12 possible scenarios and describes a range of possible impacts on agriculture and the Yolo County economy with the goal of informing future decisions about project design. The modeling framework developed for this report also can be used to evaluate future proposals.

CM2, as described in the February 2012 BDCP draft, would lower a portion of the Fremont Weir to an elevation of 17.5 feet, from its current elevation of 32.8 feet, and construct an operable gate to allow Sacramento River water to flow into the Yolo Bypass (BDCP 2012). CM2 also includes a number of other actions within the Yolo Bypass including construction of fish passage improvements at the Fremont Weir. CM2 actions are designed to reduce migratory delays and loss of adult salmon, steelhead, and sturgeon, enhance rearing habitat for Sacramento River Basin salmonids, enhance spawning and rearing habitat for Sacramento splittail, and improve food sources for delta smelt downstream of the Bypass. Since CM2 is not fully developed, the authors created a "low-impact" scenario that is consistent with the 2012 draft. This scenario suggests supplemental flooding of up to 6,000 cubic feet per second (cfs) for 30 to 45 days in years when flooding occurs naturally in the Yolo Bypass.⁷ This scenario provides a low estimate of CM2 impacts to demonstrate the potential to develop a project that minimizes impacts on agriculture.

The RPA, as described in Actions I.6 and I.7, requires the Bureau of Reclamation and the California Department of Water Resources to evaluate modification of operations at the Fremont Weir to increase rearing habitat for juvenile salmon. Similar to BDCP, the Bureau of Reclamation plans to evaluate lowering a portion of the Fremont Weir and constructing an operable gate to allow Sacramento River water to flow into the Yolo Bypass. The RPA requires additional rearing habitat for juvenile winter run, spring run, and Central Valley steelhead from "December through April" in the "lower Sacramento River basin." The RPA further identifies "an initial performance measure" of 17,000 to 20,000 acres with "appropriate frequency and duration." Since Reclamation has not fully developed actions to implement the RPA, the authors developed scenarios to evaluate possible options for annual flooding between 3,000 cfs and 6,000 cfs and end dates varying from February 15th to May 15th. These scenarios are modeled to provide a range of possible RPA impacts.

This study estimates the extent of inundation, crop yield loss, and effects on the agricultural economy from increasing the frequency and duration of flooding in the Yolo Bypass, either as a

⁷ See Table 3.4-3 of the February 2012 BDCP Draft Report.

result of CM2 or the RPA. Of the 12 scenarios evaluated, 10 scenarios assume annual inundation through a specified date (RPA scenarios) and 2 scenarios assume opportunistic inundation associated with natural overtopping of the Fremont Weir (CM2 scenarios). All estimates include the direct economic effects associated with reduced agricultural production, as well as multiplier (direct and induced) effects associated with upstream and downstream changes to the regional economy. The authors used the HEC-RAS hydrologic model and the DAYCENT agronomic model to estimate the extent of inundation and change in crop yield, respectively, for each of the 12 scenarios. The authors estimated the effect on agricultural production using the Bypass Production Model (BPM), developed specifically for the Yolo Bypass. The BPM estimates the change in crop mix, agricultural revenues, and other factors due to crop yield loss (DAYCENT model) and the number of acres affected (HEC-RAS and MIKE-21 models) in the Yolo Bypass. Results from the BPM are linked to the IMPLAN regional input-output model to estimate total output, value-added, and employment losses within the Yolo Bypass and the Yolo County economy.

1.1 Scope of Analysis and Caveats

This report presents model results of the impacts of increased flooding on Yolo Bypass agriculture and the Yolo County economy. Thus, the geographic scope of the analysis is Yolo County and, in particular, the Yolo Bypass. The study does not consider crop production shifts out of the region. This would require, in part, an analysis of the rice mills in West Sacramento and Woodland to determine the proportion of business from Bypass production in addition to other regional economic effects. Additionally, whether rice production would shift out of the Bypass is an agronomic question since specific soil and climate data is required. The modeling approach also is sensitive to several parameters that are clearly described in the report. In addition, the authors conducted sensitivity analysis of key parameters. This report provides information about these important parameters in this section and reviews them throughout the text. Section 5 provides sensitivity analysis.

Subbing: Increased flooding in the Bypass may raise the groundwater table in regions out of the Bypass. This may restrict farming and/or reduce yields in affected areas, thereby increasing economic losses. We do not account for subbing in this analysis.

Late Rains: We provide expected annual loss estimates by using a time series of hydrologic conditions in the Bypass. However, late season rains may have additional costs that we have not captured. For example, if farmers begin field preparation late due to flooding for fish habitat and late rains occur, this may delay planting further and increase economic losses.

Prices: Expected future crop prices are uncertain. We use 2009-2010 average prices which do not reflect recent booms or historic depressed levels. We analyze the sensitivity of impact estimates to price changes in Section 5.

Lending and Insurance: We do not evaluate the effect of increased flooding on lending and insurance for farmers in the Bypass. This is related to late season rains and other management difficulties Bypass farmers may face with extended flooding.

Drought or Less Frequent Inundation: For the RPA scenarios, we have implicitly assumed water will be available for increases in the duration and frequency of Bypass flooding for fish

habitat in every year. We recognize that RPA Action 1.6.1 only requires an increase in the acreage of seasonal floodplain rearing habitat and allows that water may not be available for flooding in every year. In addition, extended drought may lower the river level below the range of the operable gate at Fremont Weir, which may decrease expected losses since flooding will not occur in these years.

1.2 Inundation Scenarios

We consider five inundation dates and two different flow rates associated with possible RPA implementation. Additionally, we consider one low-impact CM2 scenario under the same flow rates, for a total of twelve policy scenarios (see Table 1). The inundation dates correspond to the last day of Sacramento River water releases through operable gates in the Fremont Weir: February 15th, March 24th, April 10th, April 30th, and May 15th. The two flow rates are 3,000 cfs and 6,000 cfs, which correspond to the flows recommended for fish in *Technical Study #2: Evaluation of North Delta Migration Corridors: Yolo Bypass* prepared for the BDCP Integration Team in April 2009. As discussed in the Executive Summary and the Introduction, the authors created these inundation scenarios because the RPA and BDCP alternatives are not yet fully developed. This framework used to evaluate these scenarios can be used for evaluate other scenarios as the RPA and BDCP alternatives evolve.

We identified the five end dates to represent a range of outcomes from RPA alternatives to flooding for fish habitat in the Yolo Bypass. The RPA only includes flooding through April, but we include a May 15th date to inform discussions related to potential flooding for splittail. The 2010 BDCP draft proposes flooding for splittail every 7 years if flooding does not occur naturally, although the acres of splittail flooding are not specified. Once acreage targets are more fully refined, the model framework can be used to develop loss estimates specific to proposed flooding scenarios.

The low-impact CM2 scenario, as described in the introduction, corresponds to supplemental flooding in years with natural overtopping at Fremont Weir. As such, the end date in this scenario is variable and depends on the specific water year. In Section 3.3 we describe the time series of hydrologic conditions used to generate annual expected losses in the low-impact CM2 scenario.

Fields in the Bypass must drain before farmers can begin preparation for planting. Agricultural fields located along the east side of the Bypass adjacent to the Tule Canal/Toe Drain tend to drain more slowly than higher elevation fields to the west. According to author interviews with land managers and farmers, slower drainage on the east side delays planting and tends to lower crop yields. On average, it takes two weeks for fields to drain on the west side of the Bypass and four weeks on the east side of the Bypass. Field preparation takes an additional four weeks. Thus, the authors assumed a delay of six to eight weeks between the last day water is released through a Fremont Weir gate and planting, depending on the location of the field.

February 15th. February 15th represents an end date to Fremont Weir flooding when agriculture is largely unaffected. Farmers have an adequate buffer for unforeseen circumstances, such as rain or cool conditions that lengthen the time needed for field drainage. Farmers state they prefer to start ground preparation by March 15th to allow adequate time for field work and planting. It takes approximately 4 weeks from the date a farmer can start field work to the date of planting,

so an end date of February 15th would typically result in early April planting on the west side of the Bypass and mid-April planting on the east side.

March 24th. The March 24th end date translates into planting by late May on the east side of the Bypass and mid-May on the west side of the Bypass. This inundation end date represents a scenario in which growers are expected to experience yield losses (see Section 3), but are still able to plant their crops. We anticipate some land fallowing and shift in crop mix but in general crop yields are high enough to cover variable costs.

April 10th. The April 10th end date translates into planting by early June on the east side of the Bypass and late May on the west side of the Bypass. According to farmers interviewed, in an average year, June 10th is the last possible date to plant. As such, significant yield losses and land fallowing are expected in this scenario. If any unforeseen circumstances occur in this scenario, there is a high risk that planting will not occur.

April 30th. The April 30th end date translates into planting in late June on the east side of the Bypass and mid-June for the west side of the Bypass. It corresponds to the latest flood date under the RPA. According to farmers interviewed, in an average year, June 10th is the last possible date to plant. As such, significant yield losses and land fallowing are expected in this scenario. In this scenario, planting may not occur at all on the east side of the Bypass and there is a high risk that planting will not occur on the west side.

May 15th. The May 15th end date for water releases represents a date when farmers state they will not plant crops, as it corresponds with a plant date of mid-July on the east side of the Bypass and early July on the west side of the Bypass. This date is frequently referred to in public forums as important for splittail habitat. Yield response functions from the DAYCENT model confirm that crop yields are not high enough to cover variable operation costs if the flooding through the operable gate in the Fremont Weir continues through May 15th. Consequently, significant land fallowing would occur. Contracts and other fixed costs may induce farmers to plant late in the season, however.

Low-impact CM2 scenario. The low-impact CM2 scenario is consistent with the description of CM2 in the BDCP February 2012 draft, but represents a scenario in which the impacts would be significantly lower than other potential scenarios. The actual proposal may differ significantly from this scenario, depending on future policy decisions. In this scenario, flooding is extended by 30 days in years with natural flooding in the Bypass to augment habitat and there is no flooding in dry years. We use a 26-year hydrologic time series, described in Section 3.3, to simulate this proposal. For example, with natural flooding until February 1 the CM2 proposal extends flooding by 30 days, through March 1. If CM2 proposed flooding during years in which natural flooding does not occur, impacts will increase significantly.

2 Data Overview

We collected extensive data for the Yolo Bypass to facilitate an empirical analysis of the proposed inundation scenarios. These include the following: (i) field-level geo-referenced crop data and agricultural region definitions, (ii) crop yields and yield change based on planting date, (iii) crop prices, (iv) costs of production, and (v) area inundated under proposed flow volumes. We review these data in the following section.

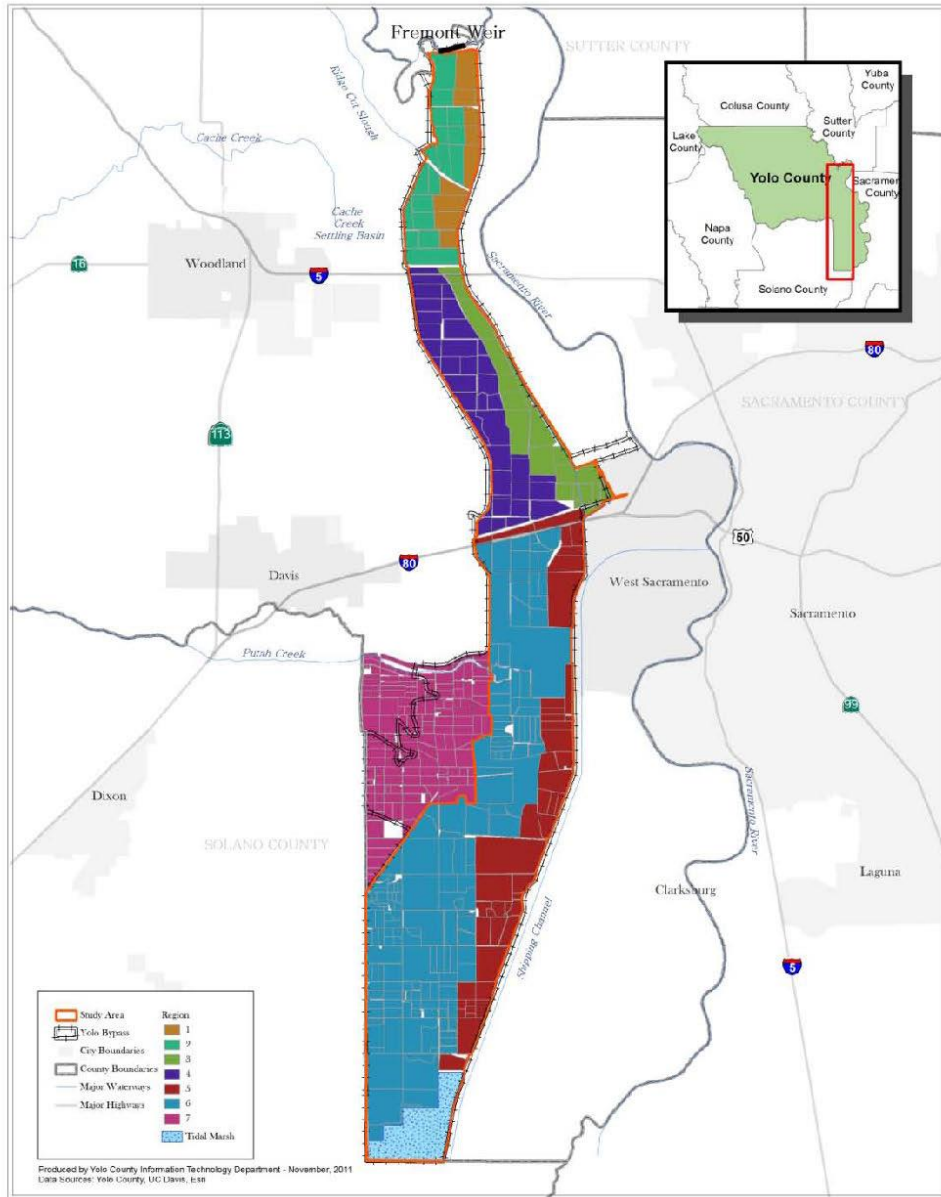
2.1 Agricultural Sub-regions

The Yolo Bypass slopes gradually downward from west to east and north to south. Temperatures are generally lower in the southern end of the Bypass. Consequently, there are heterogeneous production conditions across the region and natural differences in both yield and drainage times. We identified 7 homogenous agricultural sub-regions in the Yolo Bypass which represent these production conditions and, as such, form the basis of the BPM. We used soil and climate data, in addition to interviews with Bypass farmers, to develop homogenous agricultural sub-regions. The regions are illustrated in Figure 1.

Note that the BPM, as with the majority of agricultural production models, is a regional economic model, defined over the 7 regions illustrated in Figure 1. Field-level yield and production data are available for a subset of fields in the Bypass (discussed below), and these data are used in the DAYCENT agronomic model. We discuss this point again in Section 2.3 and again in Section 3, but want to raise the point here so the reader is not confused about the use of field-level data versus agricultural sub-regions in the model.

As shown in Figure 1, Regions 1 and 2 are located north of Interstate 5, Regions 3 and 4 are located between Interstate 5 and Interstate 80, and Regions 5, 6 and 7 are located south of Interstate 80. The area south of Interstate 80 is divided into three regions due to its relatively large width and the row crop region located in the western portion, which distinguishes it from the managed wetlands and grazing lands located to the east. CM2 and the RPA will most likely not affect Region 7, as this region is located outside of the flood inundation footprint. This region is therefore not discussed in further detail in this report or considered in the analysis.

Figure 1. Yolo Bypass Sub-regions



2.2 Field Level Crop Data and Flood Footprint

We compiled detailed land use data for 2005-2009 from Pesticide Use Reports, the Yolo Natural Heritage Program, the Sacramento-Yolo Mosquito and Vector Control District, the Yolo Basin Foundation, and individual farmers. As a result of the extent of data collected, and verification with key stakeholders, the database for this study is the most comprehensive and detailed information on Yolo Bypass land use available.⁸

Table 3 identifies major land uses in the area of the Bypass affected by each of the respective flow volumes (identified by the HEC-RAS hydrologic model, discussed in Section 2.6) over the five years of data collected for the study. Agricultural land constitutes the majority of the area within the Bypass, followed by wetland and fallow land. The main crops in the affected area of the Yolo Bypass are rice, irrigated pasture, processing tomato, vine seed, safflower, wild rice, corn, and sunflowers.

We model 3,000 cfs and 6,000 cfs scenarios in this report which correspond to different total affected acres, as estimated by the HEC-RAS model. An important consideration for the agricultural impacts analysis is that in any flooding scenario, a sub set of fields will be partially inundated. In other words, the HEC-RAS model estimates a “literal” footprint of affected acres dependent on the flow volume, but this does not account for partial flooding of existing agricultural fields. Cultivation of proportions of these partially-flooded fields is costly and, in many cases, impossible. Partial inundation makes it difficult or impossible to use machinery to begin field preparation and, as such, the field is effectively entirely inundated. It is essential to account for the difference between the literal footprint from hydrologic modeling and the effective footprint, the latter is relevant for agricultural impact analysis.

To incorporate the effective flood footprint, we conducted a series of interviews with Bypass farmers and extension specialists to determine the proportion of a field flooded at which farmers cannot begin preparation. Farmers interviewed report the decision to prepare a partially inundated field is different between rice and other field crops and depends on a number of factors including relative prices, weather, and costs. We determined when 20 percent of a rice field is flooded farmers will not begin preparation. For all other crops, 30 percent is the relevant proportion. Fields partially inundated according to the above proportions are modeled as completely flooded and consequently included in the estimates of affected acres.

Note that preparation of a partially inundated field includes installation of checks to control existing flooding and other potentially costly management alternatives. We do not include these production costs in the analysis, thus our estimates are lower than they would be if we included these costs in the analysis.

⁸DWR developed 2008 crop data for Yolo County, including the Yolo Bypass, that slightly differs from the 2008 data used for this dataset. The differences are small and do not affect the outcome of the study. Specifically, the BPM calibrates to a 5 year average (2005-2009), thus small changes to acreage in one year do not have a significant effect on model results.

Table 3. Major land uses in areas affected by increased inundation in the Yolo Bypass (acres)

Crop and Flow Volume	2005	2006	2007	2008	2009
Fallow					
3,000 cfs	3,220	3,606	1,702	1,514	984
6,000 cfs	6,640	6,860	2,858	3,526	2,297
Liberty Island					
3,000 cfs	2,071	2,071	2,071	2,071	2,071
6,000 cfs	2,071	2,071	2,071	2,071	2,071
Vine					
3,000 cfs	245	0	0	0	72
6,000 cfs	245	104	0	0	238
Pasture					
3,000 cfs	2,026	2,026	2,026	2,026	2,284
6,000 cfs	3,890	3,890	3,987	3,890	5,166
Rice					
3,000 cfs	765	173	931	968	1,531
6,000 cfs	2,358	1,254	2,920	2,409	4,263
Safflower					
3,000 cfs	606	657	519	770	499
6,000 cfs	1,450	1,545	1,616	1,840	1,273
Sunflower					
3,000 cfs	138	0	0	0	0
6,000 cfs	138	0	0	0	0
Processing Tomatoes					
3,000 cfs	662	867	721	930	1,047
6,000 cfs	1,285	1,285	1,370	1,829	1,779
Wetland					
3,000 cfs	2,501	2,502	2,503	2,504	2,505
6,000 cfs	7,076	7,076	7,076	7,076	7,076
Wild Rice					
3,000 cfs	0	195	427	494	494
6,000 cfs	0	928	2,292	2,303	2,393
Corn					
3,000 cfs	0	138	584	208	0
6,000 cfs	0	138	925	208	0

We identified 9 major crop groups in areas affected by flooding in the Bypass, which we use for the subsequent analysis. The 9 crops include corn, irrigated pasture, non-irrigated pasture, rice, wild rice, safflower, sunflower, processing tomatoes, vines (melons). Fallow land is an implicit tenth group. Approximately 100 acres of crops did not fit into these categories directly, including dry beans and organic rice. We determined the number of acres was not sufficient to require an additional crop group and these acres were included in the crop group with the most similar cost, return, and production characteristics. Specifically, organic rice acres were added to the rice crop group and dry bean acres were added to the corn crop group.

Figures 2-6 illustrate the distribution of land use across the entire Yolo Bypass, by field, for the years 2005 through 2009. These data show typical crop rotations across the sub-regions. In the southern end of the Bypass, the crops are predominately pasture and in the northern sub-regions the crops are predominately rice. The eastern sub-regions include a mix of pasture, rice, corn, and processing tomatoes.

Crop acreage increased during the dry years of 2007 through 2009 and fallow land decreased. In 2008 and 2009, high agricultural commodity prices potentially resulted in planting of larger acreages than average, in particular for corn and wheat. Rice prices spiked in 2008, which partially explains the increase in rice acreage in the Yolo Bypass. Water year type also affects production. The California Department of Water Resources classified 2005 as an above normal hydrologic year type, 2006 as wet, and 2007 through 2009 as dry years. The Fremont Weir overtopped through May 3rd in 2006, overtopped for three days in May of 2005 (resulting in a couple of weeks of inundation), and did not overtop in 2007 through 2009.

Figure 2. Agricultural Land Use, Yolo Bypass 2005

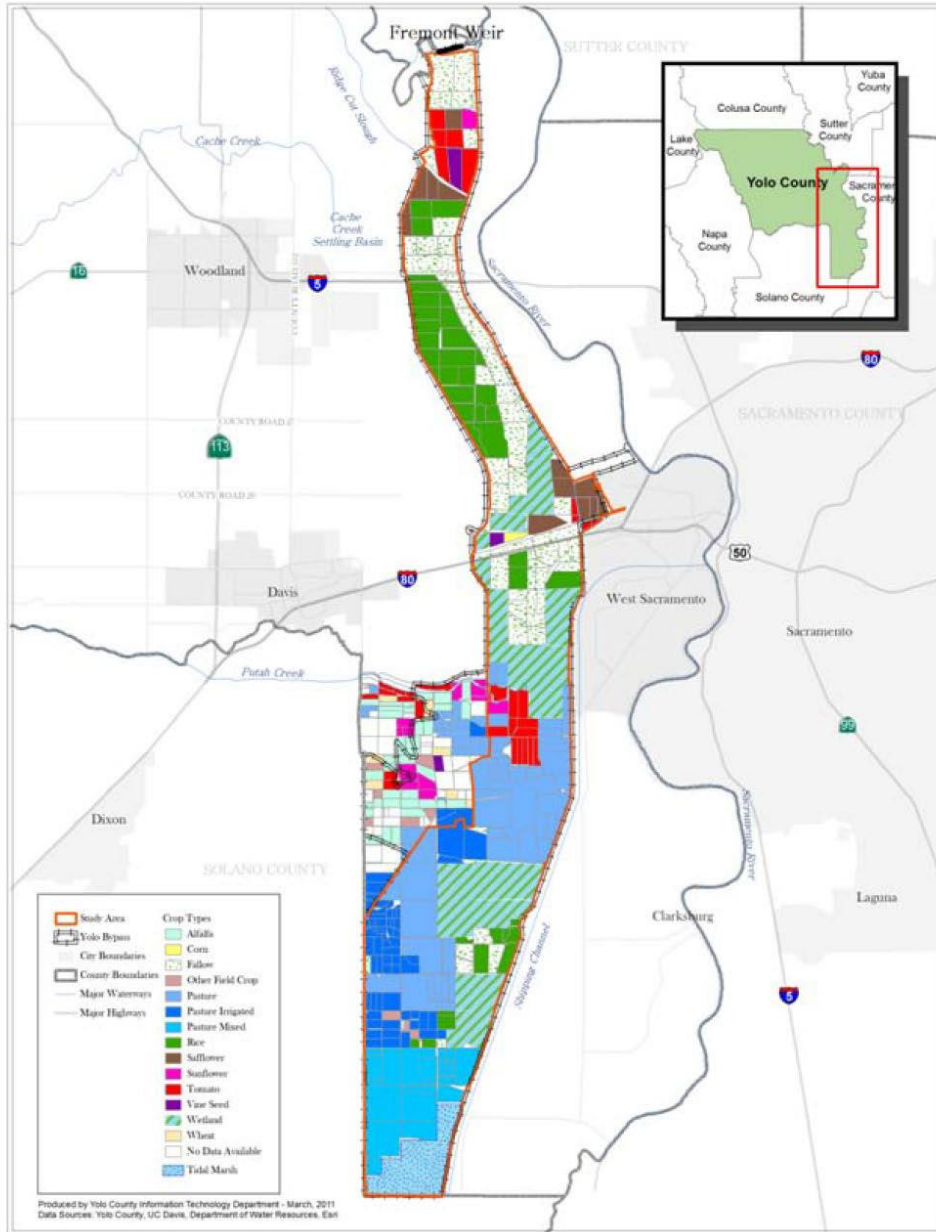


Figure 3. Agricultural Land Use, Yolo Bypass 2006

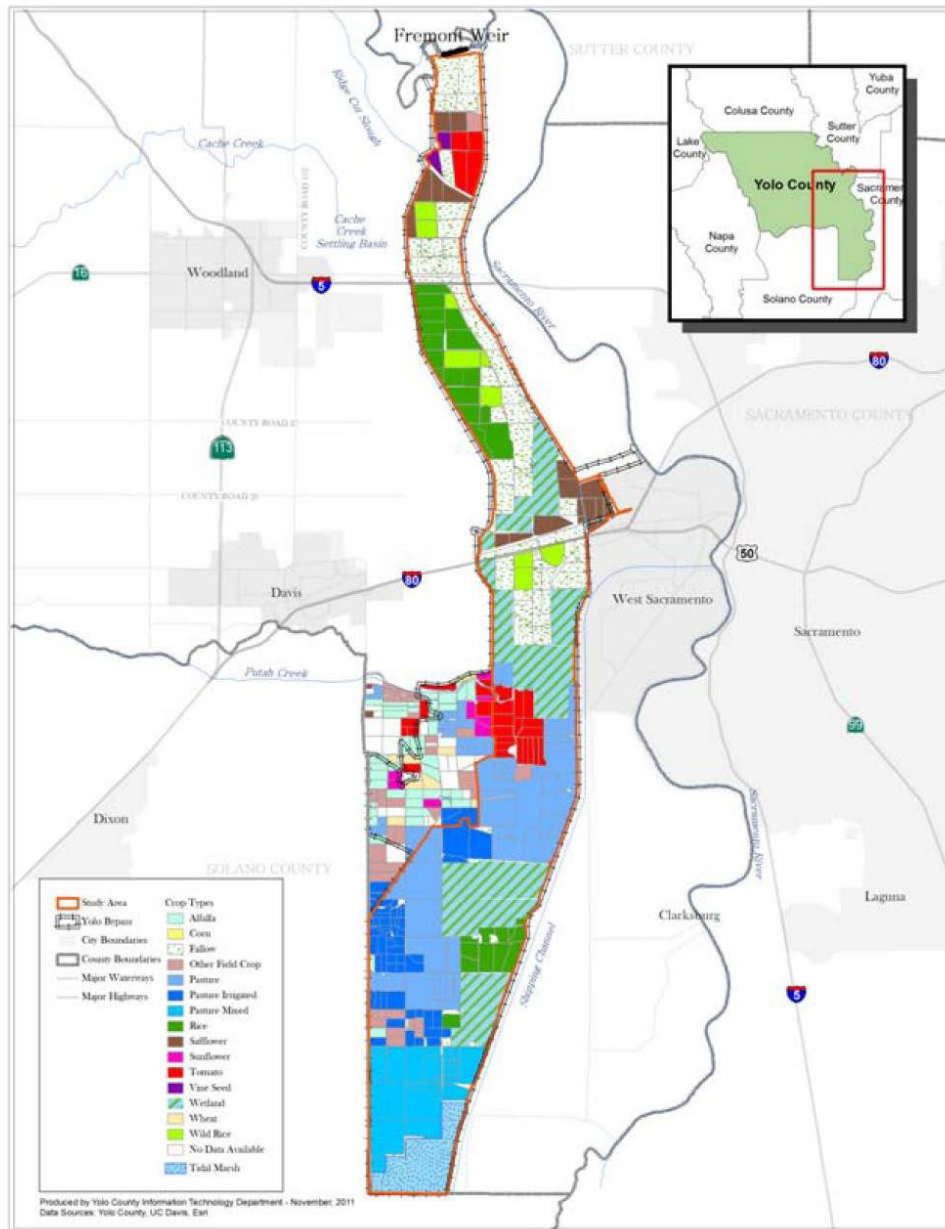


Figure 4. Agricultural Land Use, Yolo Bypass 2007

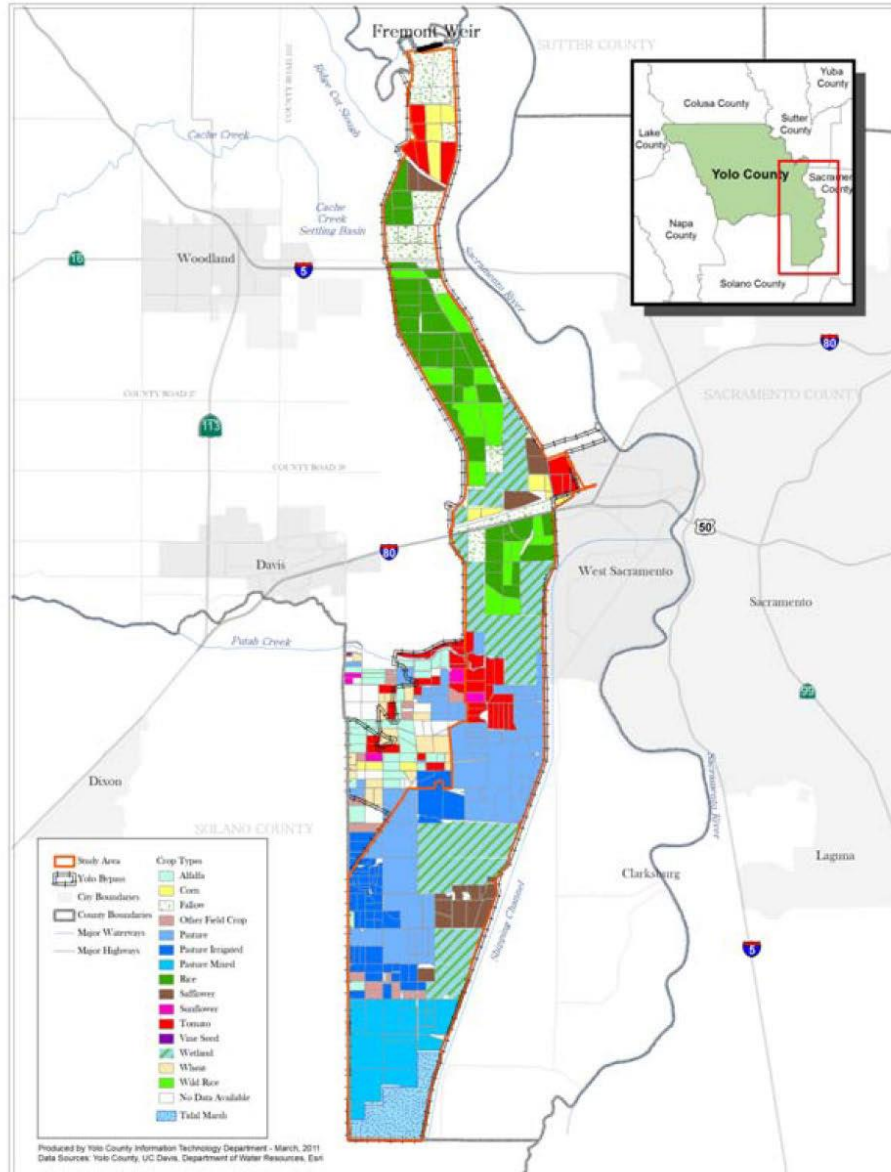


Figure 5. Agricultural Land Use, Yolo Bypass 2008

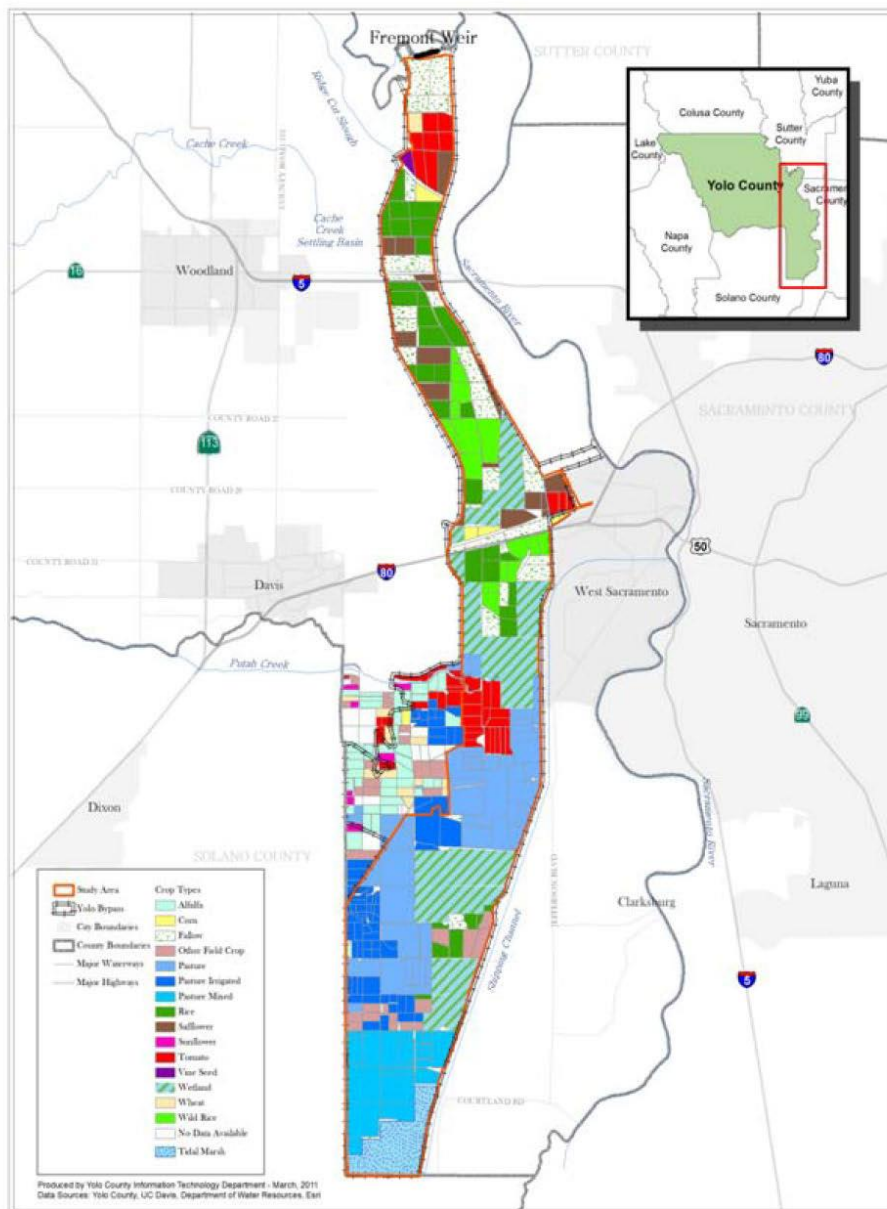
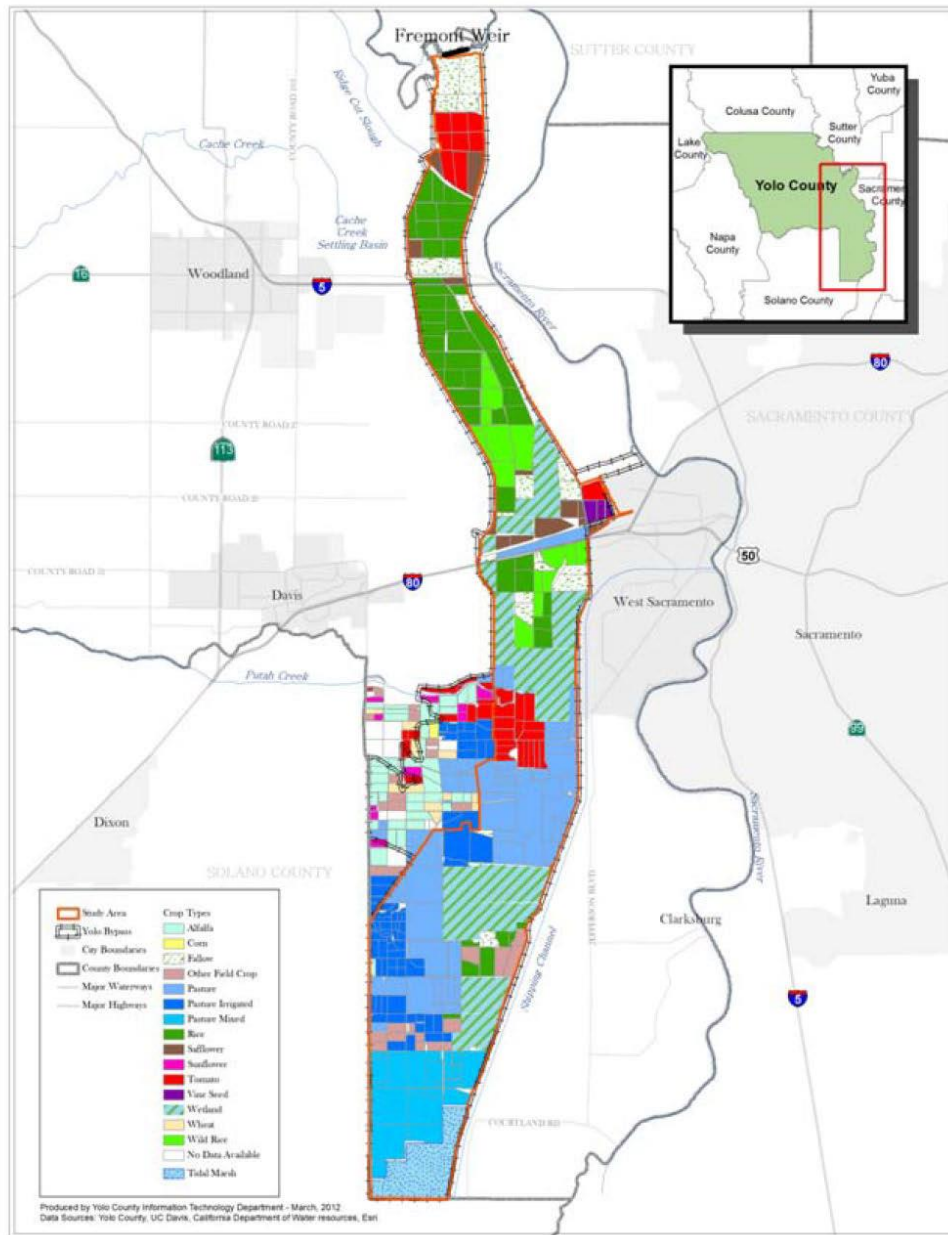


Figure 6. Agricultural Land Use, Yolo Bypass 2009



2.3 Crop Yields

Holding total area inundated constant, crop yields are the fundamental driving factor for agricultural revenue losses due to flooding in the Yolo Bypass. We use two sources of information on crop yields in this analysis. This procedure is outlined here, explained again in Section 3, and all the technical details and equations are contained in Appendix A.

We observe field-level yield data and other micro-production characteristics (soil, climate, etc.) for a subset of fields in the Bypass. These fields are used to calibrate the DAYCENT agronomic model. The DAYCENT model estimates the yield on any given field taking into account all production conditions, including climate and date the crop was planted. We then use the calibrated DAYCENT model to estimate crop yields on a subset of fields in each of the 6 regions of the BPM. We control for all other factors and allow the planting date to vary, thus the DAYCENT model generates a series of data points, for each crop and region, which tells us the expected yield conditional on the crop planting date.

We use the data points from the DAYCENT results to estimate a single yield function, for each crop and region. We fit this function using non-linear regression analysis (discussed in Section 3 and Appendix A). The result is a single function, for each crop and region in the Bypass, which relates crop yield to the planting date. These functions are included in the BPM, discussed in Section 3.

In summary, we use field-level production observations to calibrate a field-level agronomic model. We use the model to simulate the yield on a subset of fields for each crop and region as a function of planting date. Finally, we fit a non-linear function to these data for each crop and region. Thus, we are able to determine crop yields for each region as a function of the planting date.

Note that consistent data on the yields, prices and costs of growing melons for vine seed were unavailable. Instead, we use economic information for melons grown for fruit, accordingly crop yields and budgets are expressed in terms of melons grown for fruit. This is not a critical assumption since melon acreage in the affected area averages less than 200 acres per year (between 2005 and 2009).

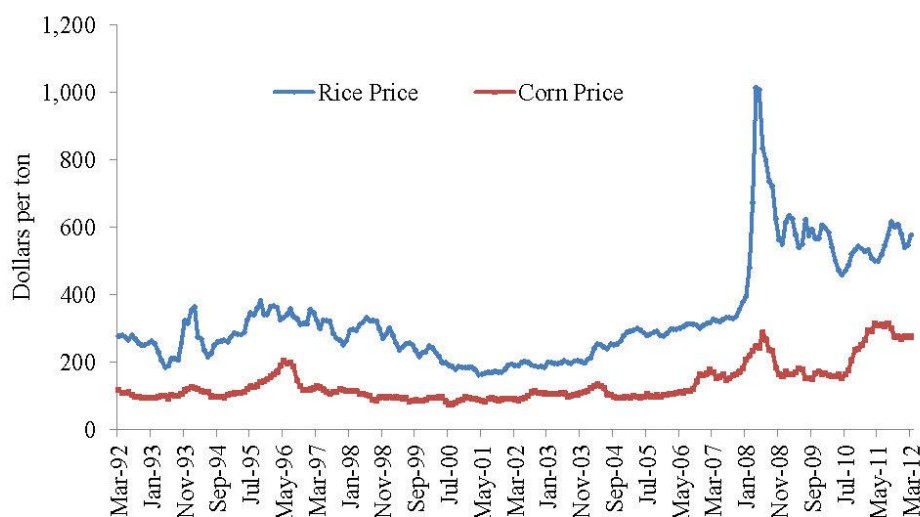
2.4 Crop Prices

We obtained crop prices for the 9 crops considered in the analysis from the Yolo County Agricultural Commissioner reports (Agricultural Commissioners Reports, 2012). No price data per animal unit month (AUM) or hay production was available for pasture, thus we used the price estimate per AUM per acre provided in the Cost and Returns study for flood irrigated pasture grown in the Sacramento Valley (UC Cooperative Extension, 2003). Additionally, sunflower prices are only available for 2007 and 2008 in the Agricultural Commissioner's data. Therefore, we used data reported by the National Agricultural Statistics Service (NASS). We also use NASS data for wild rice because no price data are available prior to 2006.

One of the key components of this analysis is expected crop prices. Higher crop prices translate into larger losses per acre and induce farmers to plant later in the season, thereby reducing fallow land. The results of this study are sensitive to the choice of expected future crop prices.

Unfortunately, there is no general consensus for future expected crop prices. The commodity price spike of 2007/2008 was unprecedented and followed decades of declining real commodity prices. Prices have since declined but remain higher than pre-spike levels and appear to have stabilized on a higher trend. Figure 7 illustrates the 20 year trend in corn and rice prices and highlights the difficulty of selecting representative prices to use in this analysis.

Figure 7. Commodity Price Trends, Monthly Prices from 1992 - 2012⁹ in Constant 2010 dollars



The impact analysis in this report uses a two-year average (2009-2010) of crop prices for each of the crop groups. There are two main reasons for this: (i) these years are representative of historical average prices in Yolo County and, (ii) 2009 and 2010 crop prices exclude the price spikes in 2008 and again in 2011.

Table 4 summarizes the average crop price¹⁰ (dollars per ton) for each of the crop groups included in the analysis. Column two shows the prices used (2009-2010 average) and column three shows the 10 year average crop price. Related to point (i) above, Table 4 shows that 2009-2010 average crop prices are representative of the recent history (2000 - 2009 average). Namely, rice and corn prices are slightly higher than the 10 year average but other crops are generally lower. Column four reports 2008 prices for each of the crops. With the exception of corn and safflower, all crop prices were significantly inflated in 2008. In summary, 2009 and 2010 average prices are representative of recent prices in Yolo County and, more importantly, omit the recent price spikes which would upward bias our economic impact estimates.

⁹ Data compiled from <http://www.indexmundi.com/>

¹⁰Rice prices do not include direct payments, counter-cyclical program payments, or marketing loan payments. Where applicable, these are included in the data used for the analysis.

Table 4. Crop Prices, 2009-2010 average and 2000-2009 average (2008 dollars per ton)

Crop Group	2009-2010 Average	2000-2009 Average	2008
Corn	172.69	124.31	152.20
Irrigated Pasture	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)
Non-Irrigated Pasture	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)
Rice	397.89	251.36	513.10
Wild Rice	961.85	1,275.30	1,684.20
Safflower	351.18	319.79	432.62
Sunflower	1,196.15	1,781.47	1,092.32
Processing Tomatoes	78.81	59.15	68.81
Vine Seed (Melon Proxy)	303.00	292.9	296.10

2.5 Costs of Production

In this report, we use Cost and Return studies developed by the UC Cooperative Extension (UCCE) to determine crop costs of production. These studies provide production costs for representative farmers in the Sacramento Valley and, as such, are representative of Bypass farming. Crop budgets are prepared for various years, thus we use the NASS prices paid indices for specific item categories to express each item cost in constant 2008 dollars.

Given the variety of lease arrangements and ownership structures among Bypass farm operators, we did not include an annual land cost in the net return calculation maximized by the BPM model. Thus the model optimizes the net returns to land and management. This is common in PMP models. The technical discussion of this issue is in Appendix A. Note that PMP captures implicit land costs through the calibration routine, thus these costs are not “omitted” from the model. Table 5 summarizes the variable costs of production for each crop.

Table 5. Variable Production Costs per acre (in 2008 dollars)

Crop Group	Cost
Corn	\$607
Melons	\$4,110
Pasture irrigated	\$269
Pasture dry	\$118
Rice	\$898
Safflower	\$239
Sunflower	\$553
Tomato, processing	\$1,838
Wild rice	\$502

2.6 Areas of Inundation

The second key driving factor in this analysis is the total number of affected acres under proposed flow volumes from Fremont Weir water releases through an operable gate. We consider two flow volumes (3,000 and 6,000 cfs) in this report.

We estimate the number of affected acres using the one-dimensional HEC-RAS hydrologic hydraulic simulation model. We use the HEC-RAS model for two reasons including, (i) the National Marine Fisheries Service used the HEC-RAS model to estimate inundated acreage for the Biological Opinion, and (ii) Yolo County recently completed an independent review of the MIKE-21 model that indicates additional data and improvements to the model are needed before it can be used for policy decisions related to Yolo Bypass flooding. An initial comparison of the MIKE-21 and HEC-RAS footprints for 3,000 cfs and 6,000 cfs indicate the difference is relatively small.

Given the potential interest in this issue, some additional information is necessary to justify the decision to rely on HEC-RAS. Both one-dimensional (1-D) and two-dimensional (2-D) models are useful tools in hydraulic engineering and water resource planning studies. The accuracy of both 1-D and 2-D models is strongly dependent upon the quality of information specified by the user as input into the model and on the boundary conditions (flow, initial water level and channel roughness) the user must also specify. It can therefore be difficult to compare results without understanding how each model was developed, including how bed roughness, inflow and stage boundary conditions were specified, and other how other assumptions and constraints were entered as user-specified inputs to each model. Once the MIKE-21 or other model is improved as specified in the 2012 model review, MIKE-21 or another model can be used for making policy decisions related to Bypass flooding.

Figures 8 and 9 identify the fields inundated under the 3,000 and 6,000 cfs flow rates. We consider a field, in terms of restricting farm operations, to be effectively inundated if 30 percent or more of the field was inundated for field crops and 20 percent or more for rice crops. As discussed in Section 2.2, this reflects input received from Bypass farmers indicating that they

would not typically initiate field preparation efforts if a portion of their field is still partially inundated. The blue areas in these figures identify the predicted flood inundation area. The red and yellow areas identify the contiguous fields that would be affected at 20% and 30%, respectively. Note that as the flow rate increases, the number of affected acres increases. Consequently, planting dates are delayed on more fields and farm revenue losses are expected to increase.

Figure 8. Agricultural Land Flooded under 3,000 cfs flow rates.

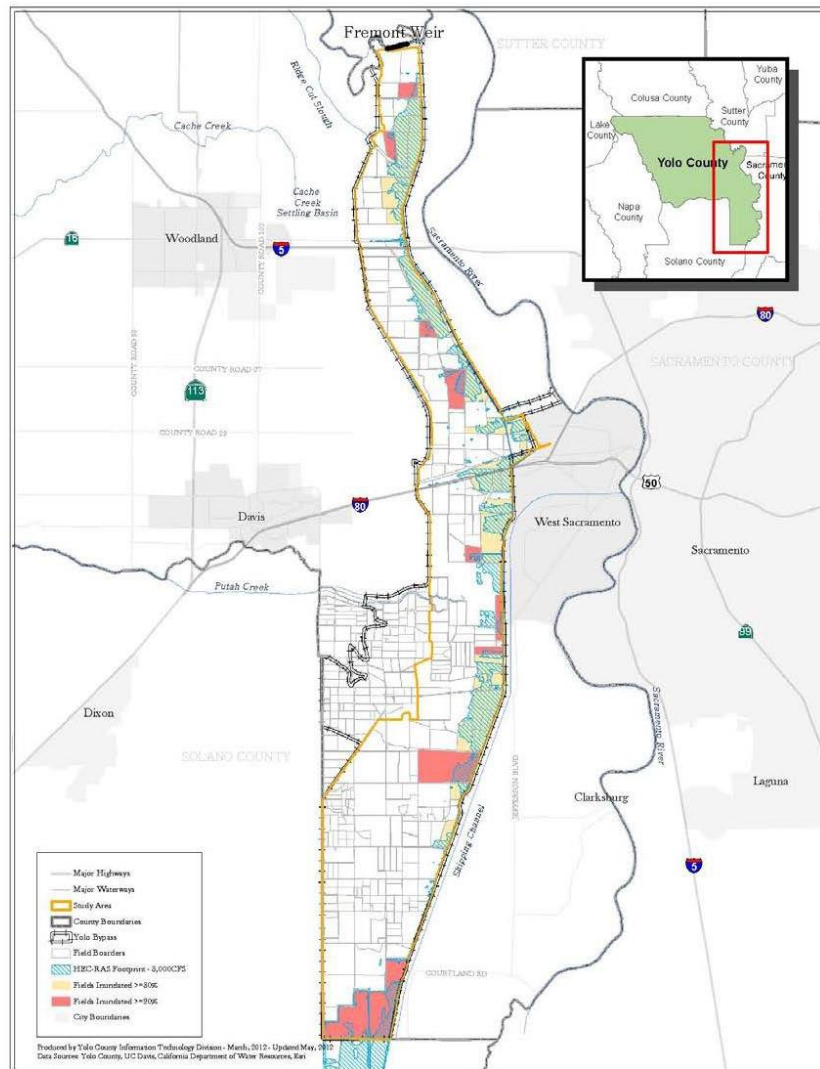
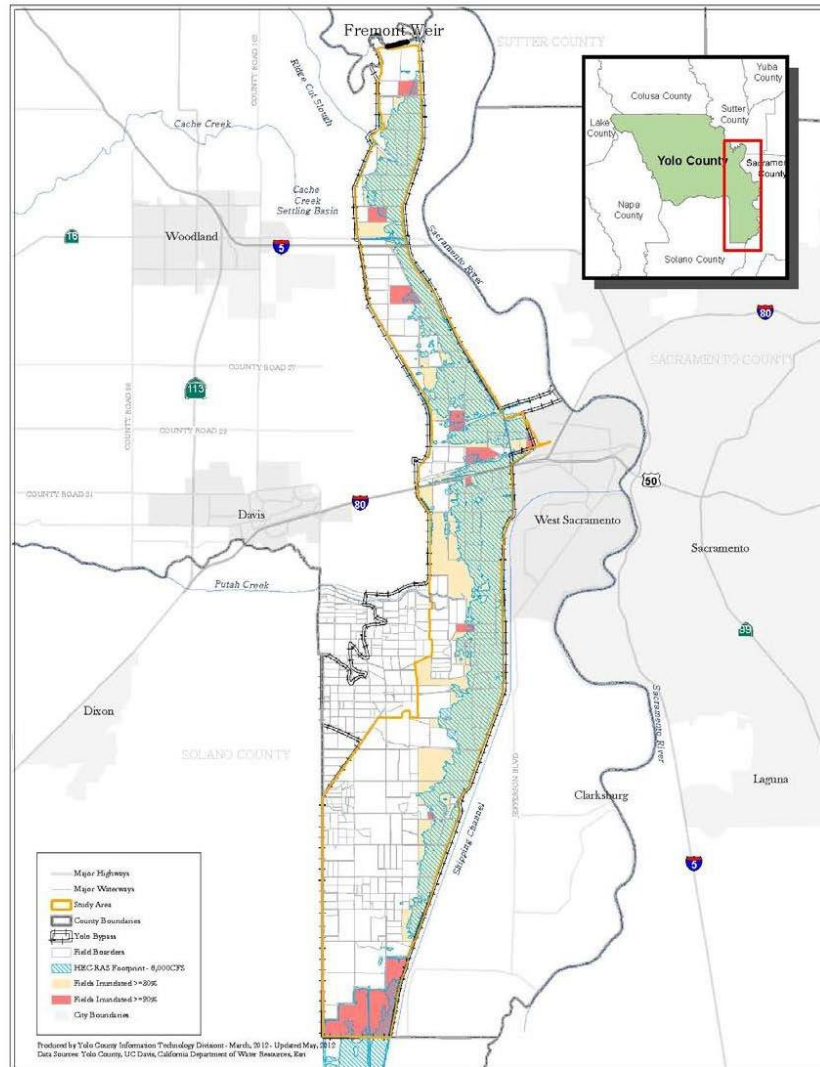


Figure 9. Agricultural Land Flooded under 6,000 cfs flow rates.

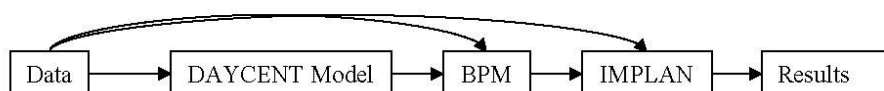


3 Overview of the Modeling Approach

We estimate the effect of the twelve proposed scenarios on Bypass agriculture based on the data summarized in Section 2 and a series of empirical models, summarized in this section. This section briefly reviews the modeling approach and policy scenarios evaluated. A detailed technical overview of the modeling approach is included in Appendix A.

Figure 10 provides an overview of the key steps in our analysis. Starting with input data described in the previous section, we use a series of linked models to estimate the effects on agriculture. The DAYCENT model is an agronomic model used to estimate field-level yields, as a function of planting date, for subsets of fields in each region of the Bypass. Regression analysis on the DAYCENT model output and additional input data are used to calibrate the BPM. Output from the BPM and other input data are used as inputs to the IMPLAN model. The fundamental results include direct, indirect, and induced (the sum of which is total) expected effects on total agricultural output (revenues), value added, agricultural employment, and statewide taxes.

Figure 10. Illustration of the Fundamental Modeling Approach



We briefly preview the five steps outlined in Figure 10, and provide more details in the subsequent sections.

Data: Input data were described in Section 2. In summary, we compiled a comprehensive economic, agronomic, and geo-referenced dataset of agricultural production in the Yolo Bypass between 2005 and 2009.

DAYCENT Model: Field-level data were used to calibrate the agronomic DAYCENT model (DeGryze et al 2009). We use the DAYCENT model to estimate crop yields as a function of various agronomic conditions, including planting date. We use non-linear regression analysis to fit a series of crop yield functions for each crop and region in the Bypass. Technical details are provided in Appendix A.

BPM: We use the crop yield functions estimated from the DAYCENT model, plus additional economic data, to calibrate the BPM. The BPM is the fundamental model of this analysis. The BPM relates changes in crop yield and total affected acres to changes in agricultural production and, fundamentally, changes in agricultural revenues. The BPM is a Positive Mathematical Programming (PMP after Howitt, 1995) model of agriculture in the 6 regions of the Yolo Bypass. PMP models calibrate exactly to an observed base year of production conditions and grower decisions and have been used extensively for water and agriculture policy analysis in

California and around the world. Appendix A reviews the technical details of the BPM and PMP calibration procedure.

IMPLAN: The IMPLAN model estimates regional economic losses. Expected revenue losses from the BPM analysis represent direct economic effects. Upstream and downstream industries will be affected, however, and some agricultural workers will lose their jobs when production in the Bypass decreases. We use the IMPLAN regional Input-Output (IO) model to estimate the direct, indirect, and induced effects of the 12 scenarios. The sum of these components represents the total impact of the scenarios.

The key result from this overview is that all of the analysis in this report is driven by observed data and observed grower decisions in the Bypass. We use a sequence of linked models to estimate the total (direct, indirect, and induced) effects of flood date and flow volume on agriculture in the Yolo Bypass. These effects are defined and described in detail in Section 4 and Appendix A.

3.1 Estimating Crop Yields (DAYCENT Model)

Crop yields are the fundamental driving factor for agricultural revenue losses due to flooding in the Yolo Bypass. As farmers delay planting, crop yields decline which in turn leads to lower revenues and land fallowing. We estimate crop yield, and variation based on planting date, using the DAYCENT agronomic model and non-linear regression analysis on output data.

We can summarize the procedure as two steps, (i) estimate field-specific yields using the DAYCENT model and, (ii) use the DAYCENT model output to perform regression analysis and estimate crop and region-specific yield functions. These functions relate crop yield to the planting date and are directly incorporated into the BPM. More information about this process is available in Appendix A.

Table 6 presents the results (after both steps are completed) from the yield data analysis by sub-region. Yields vary across regions and by planting date. Recall that after the last day of water releases through the Fremont Weir gate, there is a 6-8 week delay before planting occurs. This assumption is implicitly built into the yield data summarized in Table 6.

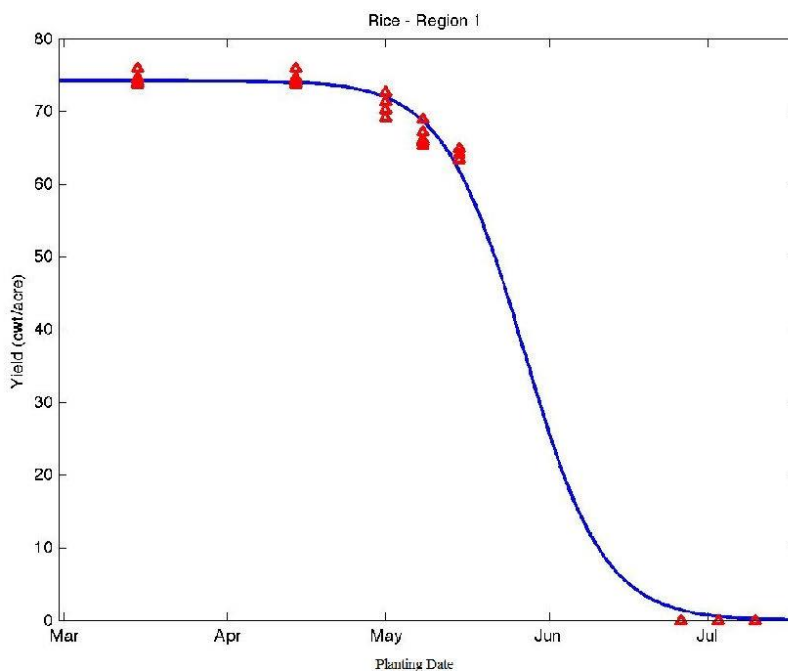
There are crop and region specific functions underlying all of the data summarized in Table 6. Figure 11 summarizes this function for an example crop of rice in Region 1. Yield functions for all the crops can be found in Appendix A. The vertical axis identifies the expected yield, the horizontal axis identifies the date, red triangles are output data from the DAYCENT field-level model, and the blue line represents the results of the fitted non-linear yield function.

There are several things to note from the example in Figure 11. First, one of these functions (the blue line) exists for every crop in every region. This governs the relationship between crop yield and planting date and, in part, drives the results of the economic (BPM) model. Second, note that the relationship is non-linear, as expected. Over some range early in the season, farmers will realize only a slight yield decline from a small delay in planting date. Substantial delays cause yields to decline rapidly.

Table 6. Estimated yield by planting date (last day of water releases) (tons/ac)

Yield (ton/acre)	Region	Last day of water releases at Fremont Weir			
		Feb 15th	March 24th	April 10th	May 15th
Com	1	5.84	4.72	0.51	0.00
Com	2	5.90	5.84	4.05	0.01
Com	3	5.88	4.76	0.59	0.00
Com	4	5.73	5.48	3.09	0.02
Pasture - dry (AUM/acre)	5	0.45	0.29	0.25	0.21
Pasture - dry (AUM/acre)	6	0.55	0.33	0.28	0.22
Pasture - irrigated (AUM/acre)	5	2.23	1.44	1.26	1.05
Pasture - irrigated (AUM/acre)	6	2.77	1.64	1.38	1.10
Rice	1	4.14	3.19	1.08	0.01
Rice	2	4.15	3.98	2.88	0.09
Rice	3	4.15	3.20	1.09	0.01
Rice	4	4.12	3.92	2.76	0.09
Rice	5	3.66	2.50	1.14	0.07
Rice	6	3.74	3.42	2.41	0.21
Safflower	1	1.07	0.51	0.29	0.07
Safflower	2	1.19	1.01	0.76	0.21
Safflower	3	1.09	0.51	0.29	0.08
Safflower	4	1.09	0.74	0.48	0.14
Safflower	5	0.98	0.41	0.21	0.04
Safflower	6	1.10	0.70	0.43	0.12
Sunflower	1	0.64	0.56	0.52	0.45
Sunflower	6	0.63	0.60	0.56	0.46
Processing Tomato	1	38.57	34.60	28.79	10.35
Processing Tomato	2	38.76	37.25	33.98	17.59
Processing Tomato	3	38.99	35.06	29.18	10.29
Processing Tomato	6	38.36	36.23	32.48	17.74
Melons	2	7.52	7.52	6.55	3.55
Melons	3	6.80	6.20	4.84	2.10
Melons	4	6.65	6.65	5.77	2.97
Wild rice	1	0.92	0.71	0.24	0.00
Wild rice	2	0.92	0.88	0.64	0.02
Wild rice	3	0.92	0.71	0.24	0.00
Wild rice	4	0.92	0.87	0.61	0.02
Wild rice	5	0.81	0.56	0.25	0.02
Wild rice	6	0.83	0.76	0.54	0.05

Figure 11. Example Expected Average Yield Function, Rice in Region 1



3.2 Bypass Production Model

The Bypass Production Model (BPM) combines the HEC-RAS data, DAYCENT yield functions, and other economic data into a Positive Mathematical Programming (PMP) agricultural production model of the Yolo Bypass. The model calibrates exactly to an observed base year of input and output data which, in our analysis, is 2005 - 2009 average land use. In other words, the model exactly replicates observed farmer behavior, in terms of input use and outputs, over this period. Once the model calibrates, and a series of economic and numerical checks are satisfied (see Howitt et al. 2012), we use the BPM to simulate changes in agricultural production under the twelve proposed policy scenarios. We review the basics of the BPM in this section. The interested reader can find technical details in Appendix A.

The BPM estimates the change in crop mix, agricultural revenues, and other factors due to crop yield loss (DAYCENT model) and the number of acres affected (HEC-RAS model) in the Yolo Bypass. The BPM calibrates to an average of 2005-2009 land use input data (summarized in Section 2). All dollars are expressed in 2008 real terms. Crop prices for calibration are an average of 2005-2007 prices in Yolo County. The 2005-2007 average prices were determined to be representative of conditions farmers in the Yolo Bypass faced, on average, when making

planting decisions between 2005 and 2009. Input costs are expressed in 2008 dollars, from the UCCE budgets. Policy simulations use 2009-2010 average crop prices, as discussed previously.

Technical details of the PMP calibration procedure and functional forms in the model are left to Appendix A. We briefly review the estimation procedure in this section. The BPM estimation procedure can be summarized as a series of five steps:

Step 1: Calibrate the BPM to base data (2005 - 2009, as discussed previously). Perform a series of checks to ensure economic and numerical conditions are satisfied.

Step 2: Run the BPM for a season with *known* overtopping dates at Fremont Weir, and flooding in the Yolo Bypass. This represents the base condition (e.g. natural flooding) for agriculture in the Bypass in the absence of the proposed policy flooding scenarios (for that year). Repeat Step 2 for a series of known years. There are 26 known overtopping dates in the analysis which are discussed in more detail in the following section.

Step 3: Over the same series of years as step two, run the BPM and impose (sequentially - one at a time) the twelve proposed policy flooding scenarios. This represents what *would have* happened to Bypass agriculture *if* the flooding policy was implemented in that year. Repeat Step 3 for all of the same years as Step 2.

Step 4: For each year simulated in Steps 2 and 3, calculate the difference in agricultural revenues (and other outputs). Record the result for negative changes in revenue. Intuitively, for policy evaluation we are interested in negative changes in revenue because a positive change in revenue implies that the policy was “better” than nature. For example, if natural flooding occurred in the Bypass until April 30th, imposing a policy which stops water releases from a Fremont Weir gate on April 10th would not be possible (i.e. it would increase revenues).

Step 5: Calculate the average loss of revenue (and other changes) across all of the years simulated in Steps 2 - 4. This represents the expected effects due to the proposed flooding scenarios, and is the fundamental output of the BPM.

The fundamental procedure of the BPM is to generate an *expected* effect on agriculture by using the calibrated model to estimate what would have happened under natural flooding, and then asking what would have happened if a specific policy (last day of water releases) was in place. This procedure allows us to generate an expected effect because we control for the expected natural flood events in the Bypass. The following section illustrates this point.

3.3 Adjustments for Natural Flooding

In many years flooding occurs naturally in the Yolo Bypass and, in some years, flooding may occur late in the season. Estimates of agricultural losses need to account for the fact that natural conditions may result in flooding beyond the proposed policy date. We use a 26 year (1984-2009) time-series of hydrologic conditions in the Bypass to estimate expected future revenue losses in the Bypass. The implicit assumption is that the previous 26 years are representative of expectations for natural flooding in the near future. The implications of this assumption and details on the procedure used in the BPM are described in more detail in Appendix A.

Given the 26 year time-series, estimates represent expected annual losses due to flooding for fish habitat in the Bypass. There are two reasons these 26 years of data were identified as reasonable, including (i) detailed flow information over the Fremont Weir was available for these years, and (ii) it is representative of current hydrologic conditions in the Sacramento Valley watershed. Older hydrologic information less accurately represents current conditions because it does not account for changes in urban development and reservoir operations that have altered flows in the Sacramento River over time.

Table 7 summarizes the observed last day of overtopping and provides some notes about the nature of flooding in key years. During the 26 years, there are five years (1989, 1996, 1998, 2003 and 2005) in which flooding events in the Yolo Bypass did not occur consecutively. In these years, except for 2003, an early dry period enabled farmers to proceed with their land preparation, but planting was delayed or significantly affected by late floods. To account for this in the analysis, 28 days (the amount of time needed for field preparation) was credited to the planting date in these years. This assumes that farmers had to wait for the fields to drain in these years, but required minimal field preparation effort since this was completed earlier in the season.

Table 7. Fremont Weir Overtopping End Dates

Year	End Date	Important Notes and Adjustments
1984	11-Jan	
1985	-	
1986	25-Mar	
1987	-	
1988	-	
1989	14-Mar	Early dry year, followed by late flooding, farmers able to prepare fields early reducing the effect of late flooding
1990	-	
1991	-	
1992	-	
1993	6-Apr	
1994	-	
1995	13-May	
1996	24-May	Early dry year, followed by late flooding, farmers able to prepare fields early reducing the effect of late flooding
1997	13-Feb	
1998	8-Jun	Early dry year, followed by late flooding, farmers able to prepare fields early reducing the effect of late flooding
1999	14-Mar	
2000	17-Mar	
2001	-	
2002	10-Jan	
2003	7-May	Flooding confined to the Toe Drain; minimal effect on agriculture
2004	10-Mar	
2005	24-May	Early dry year, followed by late flooding, farmers able to prepare fields early reducing the effect of late flooding
2006	5-May	
2007	-	
2008	-	
2009	-	

3.4 IMPLAN

We use the Impact Analysis for Planning model (IMPLAN) Professional Version 3 and a 2009 database for Yolo County. We link the IMPLAN model to results from the BPM, in order to estimate changes in total output value, value added, employment, and tax revenues as a result of the proposed flood policies. IMPLAN is an input-output model which accounts for relationships between sectors of the economy in order to estimate the effects of a change (e.g. reduced agricultural output) in another sector of the economy. IMPLAN is widely used by State and Federal agencies including the California Department of Water Resources, the California Regional Water Quality Control Boards, the U.S. Army Corps of Engineers, the U.S. Bureau of Reclamation, the U.S. Bureau of Economic Analysis, and the U.S. Bureau of Land Management.

We summarize four key outputs for this analysis: changes in total output value, changes in “value added”, changes in employment, and changes in statewide tax receipts. For each output we report direct, indirect, and induced effects, the sum of which is the total effect. We define these components below, further technical details can be found in Appendix A.

Total Output Value (e.g. Gross Revenues): The gross value of agricultural production in the Yolo Bypass to the “global” economy. For example, this is price multiplied by yield/acre multiplied by the total number of acres.

Total Value Added: The net value of agricultural production in the Yolo Bypass to the Yolo County economy. This measure recognizes that many inputs/outputs are produced or consumed outside of Yolo County and, as such, are not relevant effects for the flood policy analysis. For example, food production is exported out of the county, state, or country for many crops. Similarly, tractors are produced outside of the county, fertilizers are produced in another state, etc. The measure of value added controls for these effects. Total value added includes compensation for employees, income to business and landowners, and other business, specific to Yolo County.

Total Employment: The change in agricultural employment in Yolo County due to changes in agricultural production in the Yolo Bypass. Specifically, this includes NAICS classification system sector 111 - agricultural employment.

Total Statewide Tax Revenue: The change in tax receipts due to reduced output in the Yolo Bypass.

Each of these components has a direct, indirect, and induced effect on the Yolo County economy. The sum of the three is the total effect and sometimes the indirect and induced effects are jointly referred to as “multiplier” effects. We define these terms below.

Direct: Immediate effects on the relevant agricultural economy. For example, gross farm revenue losses due to reduced yields in the Bypass.

Indirect: Changes in related sectors as a result of direct changes to production in the Bypass. For example, reduced production in the Bypass will cause farmers to purchase fewer inputs, this is an indirect effect.

Induced: Changes in all other sectors of the economy as a result of the direct changes to production in the Bypass. For example, reduced production in the Bypass will lead to reduced hours for farm workers who will, in turn, purchase fewer goods and services from other industries in the region.

Total: Direct + Indirect + Induced

4 Results

We summarize the results of the analysis in this section. Results correspond to each of the 12 policy scenarios (water release end date and flow volume) for the four measures detailed in Section 3.4. First, we summarize changes in acreage across the Bypass.

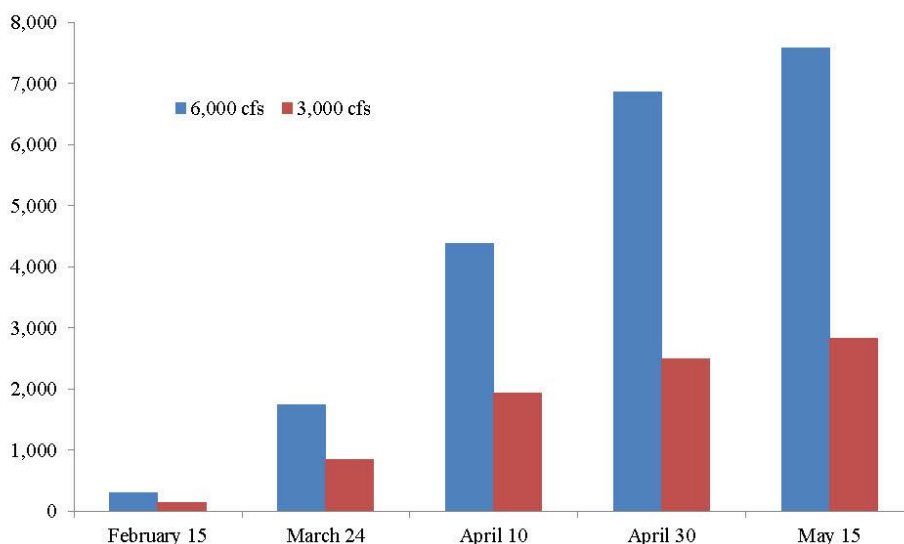
Results are annual expected losses, reported in constant 2008 dollars.

4.1 Acreage Change Summary

Farmers may fallow land or shift small amounts of land to alternative crops in response to delayed planting due to flooding. Figure 12 illustrates the expected annual acreage loss due to Bypass inundation policies. Specifically, this figure represents the average annual loss of acres across all crops, where the average is taken over the 26 year hydrologic time series. Flooding later in the season delays field preparation; this decreases crop yields and increases land fallowing. All else constant, the 3,000 cfs scenario affects fewer acres and results in less fallowing than the 6,000 cfs scenario.

There is a base level of average fallow acres in any given year within each of the affected 3,000 and 6,000 cfs flood areas. Specifically, in the 3,000 cfs flood region, the 2005 through 2009 base (calibration) data shows that an average of 2,200 acres are fallow in any given year. Similarly, in the 6,000 cfs flood region, 4,400 acres are fallow in any given year. These additional fallow acres are typically for rotation purposes and are not included in Figure 12.

Figure 12. Expected Annual Loss of Acres (26 year average), by Overtopping End Date.



We also evaluated a low-impact CM2 scenario where water flows through an operable gate at Fremont Weir are only imposed for an additional 30 days in years when there is natural flooding. As expected, the losses under this proposal are minimal. An average of 460 acres are expected to be fallowed under the 3,000 cfs low-impact CM2 scenario. This increases to 1,200 acres under the 6,000 cfs low-impact CM2 scenario.

4.2 Revenue Losses Summary

We summarize the expected agricultural revenue losses for each flow rate and last day of water releases from the Fremont Weir gate in Table 8. As shown, total output value (gross farm revenue) expected losses range from \$0.28 to \$17.3 million per year in the RPA scenarios, depending on the last day of water releases from the Fremont Weir gate and the flow rate. As expected, a later water release date delays planting and, consequently, reduces crop yields and increases farm revenue losses. Similarly, higher flow rates affect more fields and increase farm revenue losses.

Losses for the RPA scenarios should be interpreted as annual expected losses from continuous flooding up to the identified end date.

Table 8. Expected Annual Total Revenue Loss (2008 dollars), RPA Scenarios

Expected Total Revenue Loss (Output Value) (\$2008)		
	3,000 cfs	6,000 cfs
February 15		
Direct	172,278	280,530
Indirect+Induced	116,463	189,826
Total	288,741	470,356
March 24		
Direct	1,081,960	2,026,110
Indirect+Induced	731,777	1,370,310
Total	1,813,737	3,396,420
April 10		
Direct	2,713,780	5,823,400
Indirect+Induced	1,835,472	3,938,499
Total	4,549,252	9,761,899
April 30		
Direct	3,915,080	8,981,760
Indirect+Induced	2,647,896	6,074,741
Total	6,562,976	15,056,501
May 15		
Direct	4,512,650	10,333,200
Indirect+Induced	3,052,140	6,988,682
Total	7,564,790	17,321,882

Expected losses for the low-impact CM2 scenario range between \$1.2 to \$2.8 million per year. The low-impact CM2 scenario corresponds to supplemental releases only in years where natural flooding occurs. As such, loss estimates are much lower, between \$1.2 and \$2.8 million per year. Note that in some years losses are zero (when there is no natural flooding) and in other years losses are substantial (when there is late natural flooding). These loss estimates correspond to expected annual losses, summarized in Table 9.

Table 9. Expected Annual Total Revenue Loss (2008 dollars), Low-impact CM2 Scenario

Expected Total Revenue Loss (Output Value) (\$2008)		
	3,000 cfs	6,000 cfs
Low-impact CM2 Scenario		
Direct	725,930	1,704,640
Indirect+Induced	490,987	1,152,982
Total	1,216,917	2,857,622

A proportion of Yolo Bypass production and crop consumption occurs within Yolo County. As such, losses to Yolo County are expected to be less than total revenue losses. The proper measure of the effect on the Yolo County economy is change in “value added” (defined in section 3.4). Table 10 summarizes the change in value added under the proposed flooding policies. In the RPA scenarios expected losses in value added range from \$0.14 to \$8.9 million per year.

Table 10. Expected Annual Value Added Loss (2008 dollars), RPA scenarios

	Expected Total Yolo County Revenue Loss (Value Added) (\$2008)	
	3,000 cfs	6,000 cfs
February 15		
Direct	74,648	121,954
Indirect+Induced	73,568	119,914
Total	148,216	241,868
March 24		
Direct	469,589	879,285
Indirect+Induced	462,261	865,620
Total	931,850	1,744,905
April 10		
Direct	1,177,877	2,527,185
Indirect+Induced	1,159,463	2,487,936
Total	2,337,340	5,015,121
April 30		
Direct	1,699,112	3,898,193
Indirect+Induced	1,672,667	3,837,395
Total	3,371,779	7,735,587
May 15		
Direct	1,958,644	4,484,527
Indirect+Induced	1,928,028	4,414,727
Total	3,886,672	8,899,254

Comparable to the output value losses, value added losses in the low-impact CM2 scenario are lower than many of the RPA scenarios. Table 11 summarizes the CM2 results. Expected annual losses to value added range from \$0.63 to \$1.5 million per year.

Table 11. Expected Annual Value Added Loss (2008 dollars), Low-impact CM2 scenario

	Expected Total Yolo County Revenue Loss (Value Added) (\$2008)	
	3,000 cfs	6,000 cfs
Low-impact CM2 Scenario		
Direct	315,084	739,971
Indirect+Induced	310,155	728,336
Total	625,239	1,468,307

4.3 Employment Losses Summary

Table 12 summarizes the corresponding expected annual agricultural job losses under the proposed flooding policies. Employment effects are generally small, ranging from no effect to 130 jobs lost.

Table 12. Expected Annual Agricultural Jobs Loss, RPA scenarios

Expected Total Employment Loss		
	3,000 cfs	6,000 cfs
February 15		
Direct	1	2
Indirect+Induced	1	2
Total	2	4
March 24		
Direct	7	13
Indirect+Induced	7	12
Total	13	25
April 10		
Direct	17	37
Indirect+Induced	16	35
Total	34	73
April 30		
Direct	25	58
Indirect+Induced	24	55
Total	49	112
May 15		
Direct	29	66
Indirect+Induced	27	63
Total	56	129

Table 13 summarizes the low-impact CM2 scenario employment losses. Direct expected gross revenue losses are less than \$1.5 million per year and the corresponding job losses are small.

Table 13. Expected Annual Agricultural Jobs Loss, CM2 Scenario

Expected Total Employment Loss		
	3,000 cfs	6,000 cfs
Low-impact CM2 Scenario		
Direct	5	11
Indirect+Induced	4	10
Total	9	21

4.4 Tax Losses Summary

Table 14 summarizes the total expected annual losses in tax revenues to the state under the proposed flooding scenarios in the RPA. Annual tax revenue losses can be as high as \$0.82 million under the 6,000 cfs flow scenario that extends flooding as late as May 15. For the 3,000 cfs flow regime scenario, annual tax revenue losses are less than \$0.36 million.

Table 14. Expected Annual Total Statewide Tax Revenue Losses (2008 dollars), RPA Scenarios

Expected State and Local Tax Revenue Loss (\$2008)		
	3,000 cfs	6,000 cfs
February 15	13,604	22,193
March 24	85,515	160,130
April 10	214,496	460,241
April 30	309,428	709,892
May 15	356,677	816,686

Table 15 summarizes the expected annual tax revenue losses to the state for the low-impact CM2 scenario.

Table 15. Expected Annual Total Statewide Tax Revenue Losses (2008 dollars), Low-impact CM2 Scenario

Expected State and Local Tax Revenue Loss (\$2008)		
	3,000 cfs	6,000 cfs
Low-impact CM2 scenario	57,377	134,744

5 Sensitivity Analysis

Results of the analysis are sensitive to parameters and assumptions listed in Section 1.1. Some overstate and others understate expected losses. We believe our estimates are generally conservative. Nonetheless, some sensitivity analysis is warranted.

Expected loss estimates are most sensitive to changes in area inundated, yield loss, and crop prices. Area inundated is driven by HEC-RAS model results that are based on RPA and low-impact CM2 scenarios. As such, we don't have a basis to vary the number of affected acres. Similarly, yield loss is a function of planting date that is driven by agronomic data and non-linear regression analysis. As such, we do not have a justifiable basis to vary this relationship. Prices, as discussed in Section 2.2, are uncertain and we perform sensitivity analysis on these parameters.

We select 2005-2006 average prices to represent a "low" price scenario and 2008 prices to represent a "high" price scenario. Note that some crop prices are actually higher (lower) than the base scenario for the lower (higher) sensitivity analysis scenarios. This is expected since some crop prices are correlated and we typically don't expect to observe all prices trending in the same direction. In other words, a sensitivity analysis where all crop prices are 10 percent higher is not relevant sensitivity analysis. Table 16 summarizes the low and high prices used for sensitivity analysis, in addition to the base (2009-2010) prices used in the analysis. Note that the largest uncertainty occurs with the price of rice, which experienced a large spike in 2008 following years of lower prices.

Table 16. Price Sensitivity Analysis Range (2008 dollars), All Scenarios

Crop Group	2005-2006 Average (LOW)	2009-2010 Average (BASE)	2008 (HIGH)
Corn	141.00	172.69	152.20
Irrigated Pasture	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)
Non-Irrigated Pasture	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)	49.20 (based on \$35 per AUM)
Rice	274.80	397.89	513.10
Wild Rice	1,469.30	961.85	1,684.20
Safflower	314.80	351.18	432.62
Sunflower	1,056.10	1,196.15	1,092.32
Processing Tomatoes	67.75	78.81	68.81
Vine Seed (Melon Proxy)	349.80	303.00	296.10

Figure 13 summarizes the results of the price sensitivity analysis for the 3,000 cfs scenarios. Sensitivity analysis corresponds to the output of the BPM model, gross agricultural revenues (gross output value), or the direct effects listed in Table 8. The base estimate has been normalized to 1, thus the bars show the percentage deviation due to prices. For example, in the April 10 RPA scenario low prices reduce losses by 24 percent (0.76) and high prices increase losses by 23 percent (1.23).

Figure 13. Price Sensitivity Analysis for Gross Output Value under 3,000 cfs, All Scenarios.

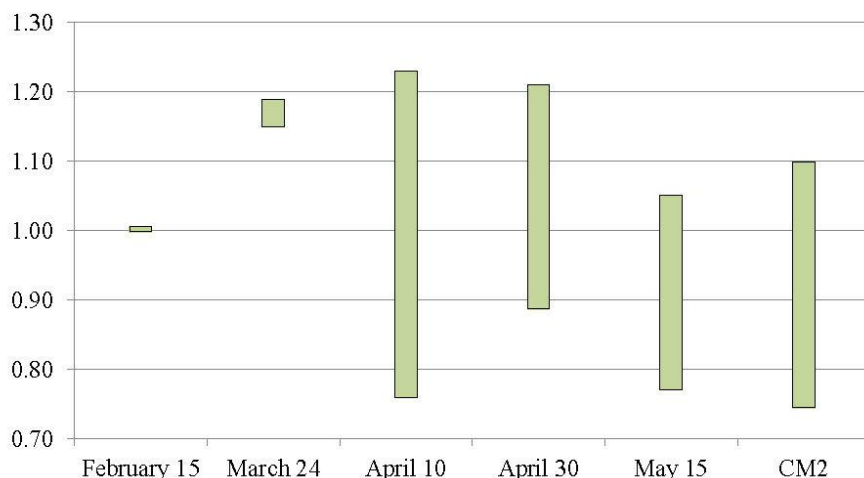
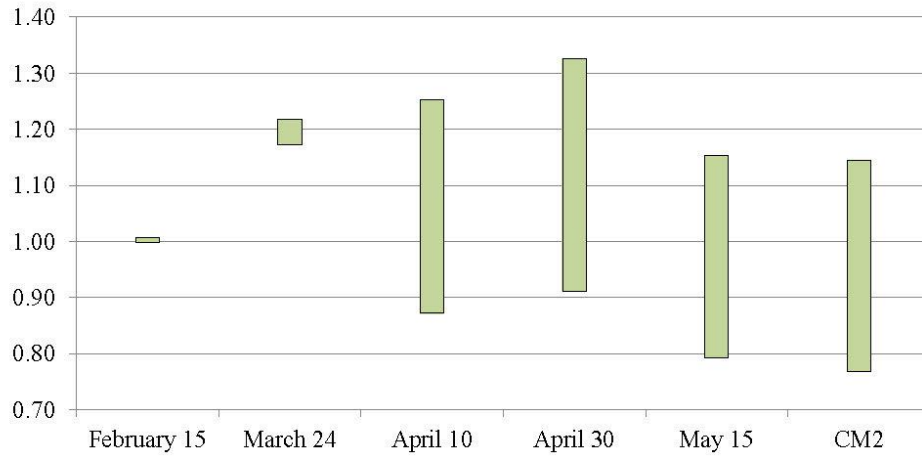


Figure 14 summarizes the results of the price sensitivity analysis for the 6,000 cfs scenarios. Again, sensitivity analysis corresponds to the output of the BPM model, gross agricultural revenues (gross output value), or the direct effects listed in Table 8. The base estimate has been normalized to 1, thus the bars show the percentage deviation due to prices. For example, in the April 10 RPA scenario low prices reduce losses by 13 percent (0.87) and high prices increase losses by 25 percent (1.25). Figures 13 and 14 indicate that results are slightly sensitive to crop prices, as expected. Our estimates based on 2009-2010 average prices are generally conservative since the deviation from the base is generally above 1.

Figure 14. Price Sensitivity Analysis for Gross output Value under 6,000 cfs, All Scenarios.



Other areas where we are unable to perform sensitivity analysis include weather shocks and changes in the cost of production. The latter raises an important point, namely we have implicitly assumed that the costs of production in the Bypass remain constant even with late flooding. However, if production costs go up, for example due to overtime labor or increased preparation costs, loss estimates will increase.

6 Conclusion

This study has assembled extensive data on cropping, water use, and the economics of the agricultural industry in the Yolo Bypass. We then use these data to calibrate and link four models. Namely, an engineering model of field flood inundation (HEC-RAS), an agronomic model of yield loss due to shorter growing seasons (DAYCENT), an economic production model of farm crop decisions in the Yolo bypass (BPM), and finally a regional economic model of the Yolo County economy (IMPLAN). The net economic results from these four models are measured as a set of output values for twelve alternative flood scenarios that cover two different volumes of flooding and five different ending dates for the RPA, plus an evaluation of the CM2 proposal. The five overtopping dates analyzed were selected to span the full range from no effect on cropping, to the cost of flooding that prevents any cropping, and intermediate values.

For each of the twelve scenarios the net dollar effect on the Yolo County economy is measured in terms of value-added. The loss in employment is measured in terms of full-time equivalent jobs, and the effect on the State tax receipts. The expected economic value added losses range widely from \$0.15 to \$8.9 million per year. The effect on job losses and tax receipts also varies widely, depending on the scenario.

Despite our efforts to assemble the very best data set, we would like to stress that the model results are sensitive to several assumptions. In particular, we would like to note that the areas of inundation under different flooding scenarios may well change with different engineering models and better data. In addition, we have attempted to use a weighted price for future crops that is representative of an average over recent years and neither relies on recent boom price levels or earlier depressed agricultural conditions.

We would also like to emphasize that this study is only able to measure the expected cost to the Yolo County economy, and is not able to account for changes in risk, management difficulties, and other factors facing the county and the agricultural industry in the Bypass.

7 References

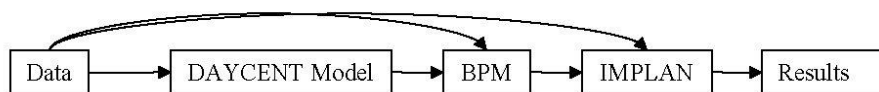
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0 Technical Appendix: Overview of the Modeling Approach

Evaluation of agricultural policies requires a modeling framework which can be used to simulate losses and estimate costs. In this report, we adopt a modeling framework driven entirely by a rich, empirical dataset, highlighted by Figure A1. We estimate the effect of 12 proposed policies of flood level and date for fish habitat on Bypass agriculture. The scenarios include flow rates of 3,000 and 6,000 cfs from the Sacramento River passing through an operable gate in the Fremont Weir. The last day of overtopping at Fremont Weir occurs on February 15, March 24, April 10, April 30 or May 15. Additionally, we evaluate the CM2 proposal which does not correspond to a specific end date.

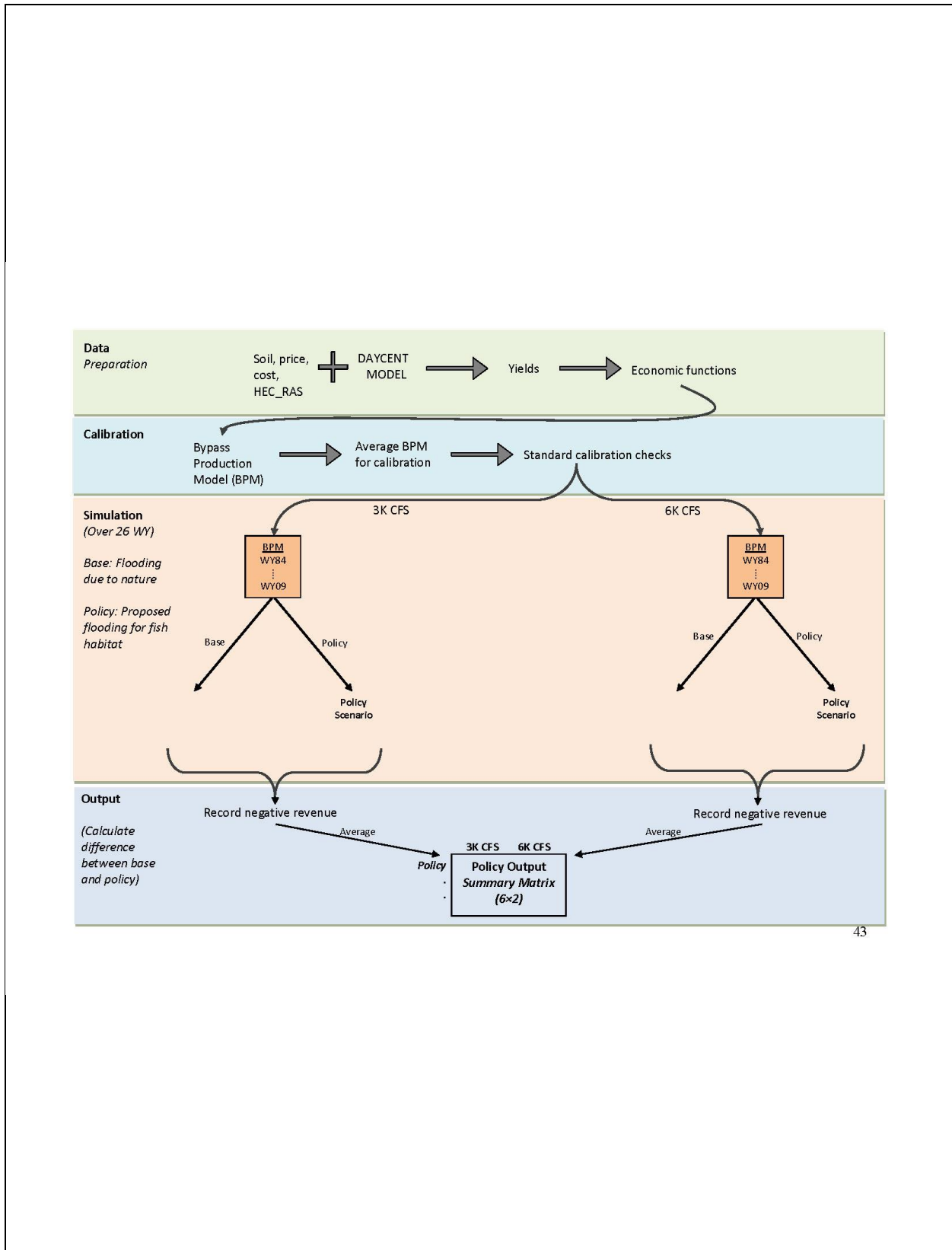
Figure A1 provides a simple illustration of the key steps in the analysis. Starting with input data (including the HEC-RAS model), we use a series of linked models to estimate the impacts to agriculture. The DAYCENT model is an agronomic model used to estimate field-level yields, as a function of planting date, for subsets of fields in each region of the Bypass. Regression analysis on the DAYCENT model output and additional input data are used to calibrate the BPM. Output from the BPM and other input data are used as inputs to the IMPLAN model.

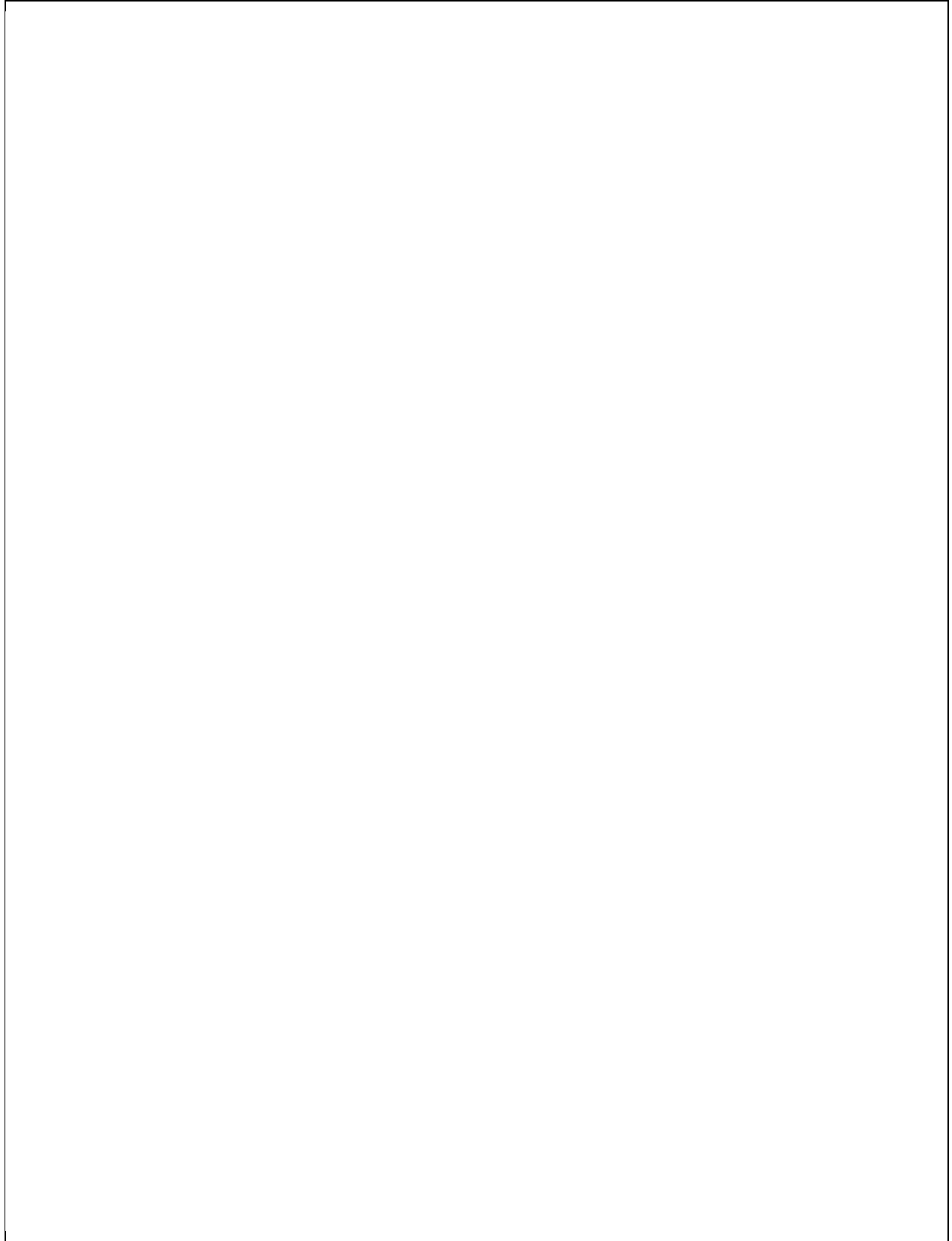
Figure A1. Illustration of the Fundamental Modeling Approach



Production and geo-referenced land use data, HEC-RAS output, DAYCENT simulations, and regression analysis are used as inputs to the Bypass Production Model (BPM). The BPM is the fundamental economic model in the analysis. The technical details of the analysis can be summarized in four phases including, (i) data preparation, (ii) calibration, (iii) estimation, and (iv) output. The flow chart in Figure A2 illustrates this process, which we review in detail in this technical appendix.

Data preparation involves the compilation and synthesis of model data, including geo-referenced land use data, production data, and HEC-RAS model output. This stage additionally includes field-level simulations with the DAYCENT model and regression analysis. Model calibration includes development of the Bypass Production Model (BPM) and exact calibration, through Positive Mathematical Programming, in inputs and outputs to a known base year. Estimation involves simulation of the calibrated BPM over a series of known water years (nature) and sequentially imposing the 12 proposed policies on the model. The difference between the base and policy simulations is recorded for all years with revenue losses. The output phase estimates losses from the BPM and generates expected annual gross revenue losses. Output from the BPM are input to the IMPLAN model to estimate Yolo County direct, indirect, and induced economic effects.





1 Data Preparation

We collected extensive data for the Yolo Bypass in order to conduct an empirical analysis of the proposed inundation scenarios. These include the following: (i) field-level geo-referenced crop data and region definitions, (ii) crop yields and yield change based on planting date, (iii) crop prices, (iv) costs of production, and (v) area inundated under 3,000 and 6,000 cfs flow volumes. We review these data in the following section.

1.1 Land Use and Production Data

Production and land use data are summarized in the main text of this report, we provide a brief summary in this section. Land use data are from a series of years, 2005-2009, of land use for major crops, fallow land, and wetland in the Yolo Bypass. We identified 6 agricultural sub-regions in the Yolo Bypass which represent homogeneous production conditions and form the basis of the BPM. We used soil and climate data, in addition to interviews with Bypass farmers, to develop homogenous agricultural sub-regions.

1.2 The DAYCENT Model

The DAYCENT model (DeGryze et al. 2009) is an agronomic model of field-level yields for specific agricultural production regions. Johan Six and Juhwan Lee in the Plant Sciences Department at UC Davis were responsible for model analysis and simulations.

The DAYCENT model calibrates to observed production conditions on a sub-set of fields in the Yolo Bypass. The sub-set of fields is selected to represent heterogeneous production conditions in the Bypass. The model is calibrated against data for corn, rice, safflower, sunflower, processing tomato, alfalfa and mixed melons. The model does not explicitly simulate pasture so we use alfalfa grown on a yearly rotation to proxy for irrigated pasture. Based on interviews with farmers we determined that the yearly yield of dry pasture in AUM/acre is a fifth that of irrigated pasture. The model does not simulate vine seed so we use the yield for mixed melons (honeydew and watermelon) as a proxy for vine seed.

The DAYCENT model estimates the yield on any given field taking into account all production conditions, including climate and date the crop was planted. We use the calibrated DAYCENT model to estimate crop yields on a subset of fields in each of the 6 regions of the BPM. We control for all other factors and allow the planting date to vary, thus the DAYCENT model generates a series of data points, for each crop and region, of the expected yield given the crop planting date.

1.3 Yield Functions Regression Analysis

We use the data points from the DAYCENT model results to estimate a single yield function, for each crop and region. We fit this function using non-linear regression analysis which results in a single function, for each crop and region in the Bypass, which relates crop yield to the planting date. The yield response functions are included in the BPM.

We control for all other factors and specify yield as a function of the planting date. We estimate the yield function by pooling all field observations, from the DAYCENT model, in each region for the years 2005-2009. This is because we want to estimate the average yield response to the planting date over a range of years rather than capturing yearly weather effects. The objective of this study is to estimate the expected effects on agriculture due to increased flooding for fish habitat and, as such, we do not want to capture weather or other effects in the yield response functions.

For each crop i and region g , define $y_{i,g}$ as crop yield and $d_{i,g}$ as the planting date. Note that the planting date is the last day of over-topping plus region-specific drainage and preparation times. Model parameters include $\alpha_{i,g}$, $\beta_{i,g}^0$, and $\beta_{i,g}^1$. The estimated model for all crops except pasture is defined as

$$y_{i,g} = \frac{\alpha_{i,g}}{1 + e^{\beta_{i,g}^0 + \beta_{i,g}^1 d_{i,g}}} \tag{1.1}$$

Pasture exhibits a different response than the other crops due to its resistance to delayed planting date. We define the yield response function for pasture as

$$y_{i,g} = \frac{\alpha_{i,g}}{1 + e^{\beta_{i,g} d_{i,g}}} \tag{1.2}$$

We experimented with a series of functional forms for the yield response functions and determined that the exponential provided the best fit of the data. Specifically, the AIC (and, AIC-corrected for small sample sizes) indicated that the models in Equations 1.1 and 1.2 were the best fit for the data.

We perform nonlinear regression analysis in Stata to generate parameter estimates. Not all crops are grown in all regions, thus yield functions only apply to regions where crops are grown. Dry and irrigated pasture have the same yield functions. Rice and wild rice have the same yield functions. These simplifications are made because there is limited data availability for these crops. The following tables summarize the parameter estimates and standard errors.

Table A1. Pasture Yield Function Parameter Estimates (standard errors in parentheses)

Pasture in Region	Alpha	Beta-0	Beta-1	Observations
5	0.900 (0.350)	2.784 (0.597)	-0.024 (0.009)	35
6	0.886 (0.350)	2.803 (0.602)	-0.025 (0.009)	35

Table A2. Corn Yield Function Parameter Estimates (standard errors in parentheses)

Corn in Region	Alpha	Beta-0	Beta-1	Observations
1	5.837 (0.037)	-32.354 (12.347)	0.222 (0.092)	43
2	5.905 (0.031)	-31.547 (9.015)	0.217 (0.067)	45
3	5.885 (0.038)	-31.247 (10.278)	0.214 (0.076)	45
4	5.731 (0.081)	-24.544 (9.789)	0.172 (0.073)	46

Table A3. Vine Seed (Melons) Yield Function Parameter Estimates (standard errors in parentheses)

Vine Seed in Region	Alpha	Beta-0	Beta-1	Observations
2	10.907 (1.786)	-5.012 (1.197)	0.032 (0.006)	37
3	8.871 (1.811)	-6.218 (2.107)	0.039 (0.010)	37
4	9.327 (1.801)	-5.544 (1.576)	0.036 (0.008)	37

Table A4. Rice Yield Function Parameter Estimates (standard errors in parentheses)

Rice in Region	Alpha	Beta-0	Beta-1	Observations
1	4.157 (0.014)	-19.492 (1.065)	0.132 (0.007)	54
2	4.160 (0.015)	-19.616 (1.125)	0.132 (0.008)	53
3	4.162 (0.015)	-19.571 (1.111)	0.132 (0.008)	53
4	4.140 (0.016)	-18.971 (1.139)	0.129 (0.008)	54
5	3.768 (0.009)	-22.392 (1.614)	0.154 (0.012)	47
6	3.821 (0.008)	-21.303 (1.053)	0.145 (0.007)	49

Table A5. Safflower Yield Function Parameter Estimates (standard errors in parentheses)

Safflower in Region	Alpha	Beta-0	Beta-1	Observations
1	1.472 (0.244)	-5.498 (1.364)	0.044 (0.008)	51
2	1.256 (0.073)	-8.812 (1.501)	0.059 (0.009)	51
3	1.531 (0.272)	-5.350 (1.369)	0.044 (0.008)	51
4	1.391 (0.200)	-5.830 (1.360)	0.046 (0.008)	51
5	1.278 (0.311)	-6.526 (2.606)	0.052 (0.016)	51
6	1.521 (0.294)	-5.429 (1.487)	0.045 (0.008)	51

Table A6. Sunflower Yield Function Parameter Estimates (standard errors in parentheses)

Sunflower in Region	Alpha	Beta-0	Beta-1	Observations
1	1.816 (0.077)	0.000 (0)	0.006 (0.000)	55
6	0.676 (0.054)	-5.104 (1.968)	0.025 (0.010)	55

Table A7. Processing Tomatoes Yield Function Parameter Estimates (standard errors in parentheses)

Processing Tomatoes in Region	Alpha	Beta-0	Beta-1	Observations
1	39.29 (0.536)	-10.09 (0.720)	0.06 (0.004)	55
2	39.49 (0.568)	-10.09 (0.756)	0.06 (0.004)	55
3	39.68 (0.557)	-10.25 (0.762)	0.06 (0.004)	55
6	39.76 (0.638)	-8.44 (0.592)	0.05 (0.003)	55

Equations (1.1) and (1.2), and the parameter estimates in Tables A1-A7, show that the best fit of the DAYCENT yield data is with a logistic-type functional form. Over a small range of planting delay there is a small effect on yields. Yields decline at an increasing rate over some intermediate range and, at some point, asymptote towards zero. Figures A3-A9 illustrate the yield functions for each crop in an example region. Data points are in red, fitted functions in blue.

Figure A3. Fitted Yield Function for Corn in Region 1

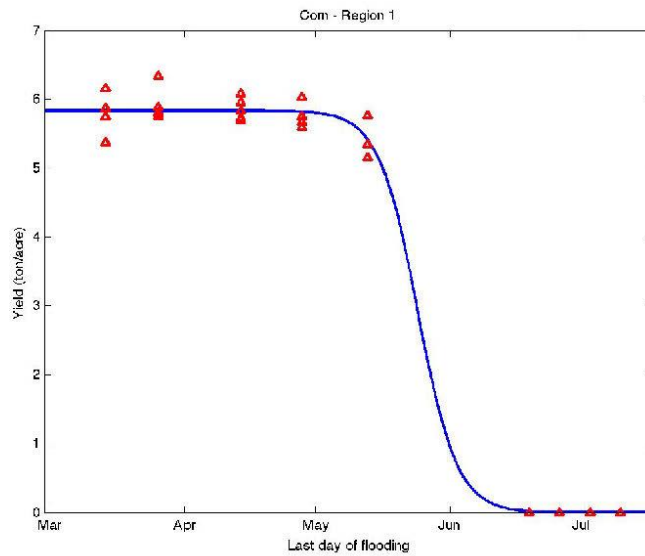


Figure A4. Fitted Yield Function for Pasture in Region 6

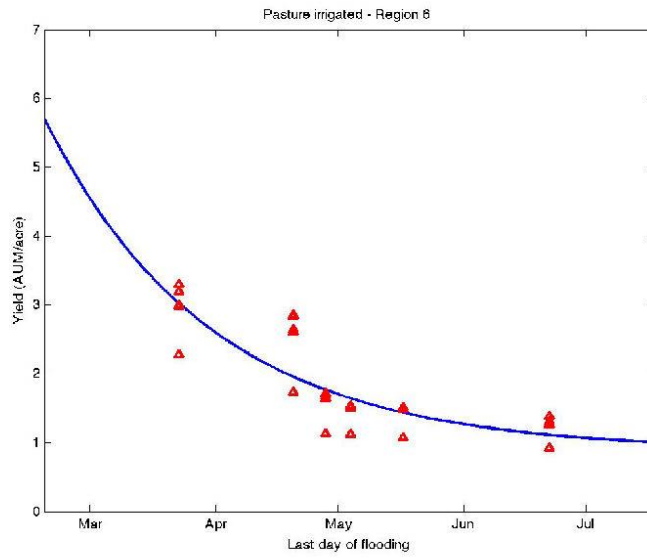


Figure A5. Fitted Yield Function for Rice in Region 2

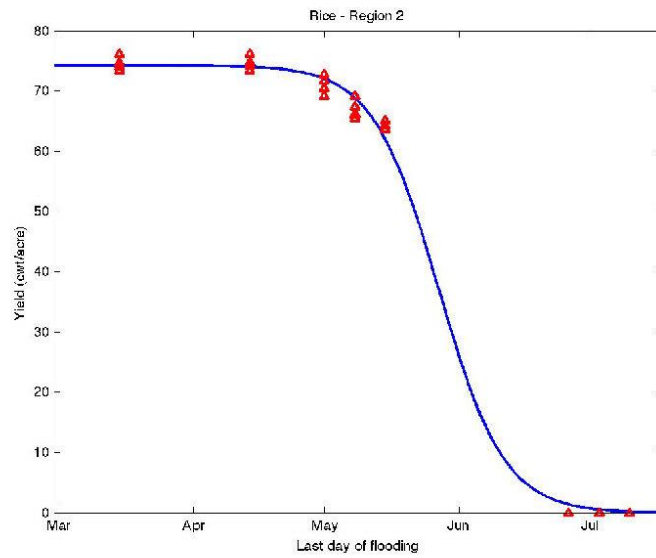


Figure A6. Fitted Yield Function for Safflower in Region 1

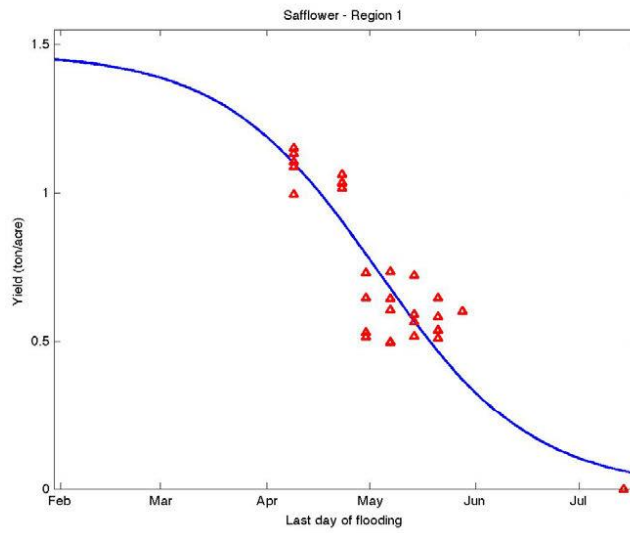


Figure A7. Fitted Yield Function for Sunflower in Region 1

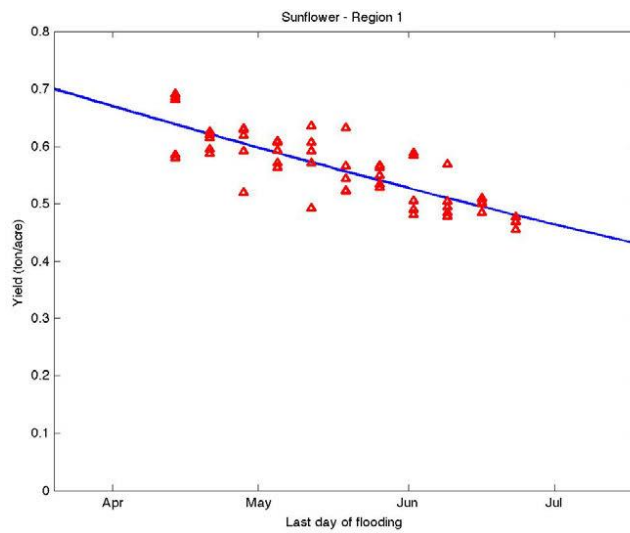


Figure A8. Fitted Yield Function for Processing Tomatoes in Region 3

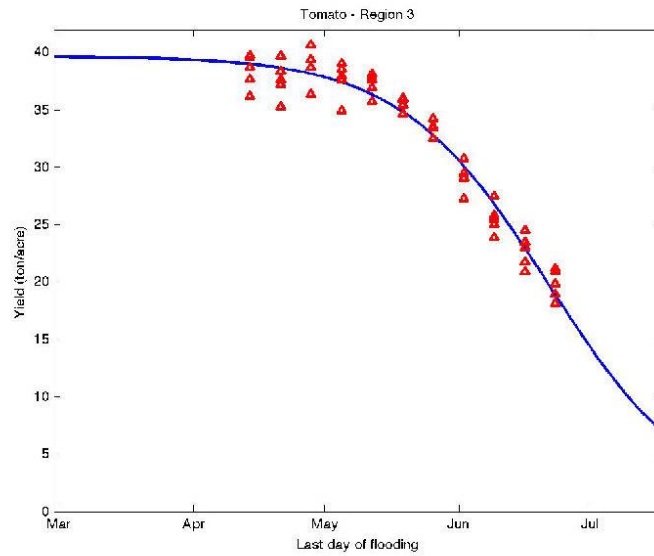
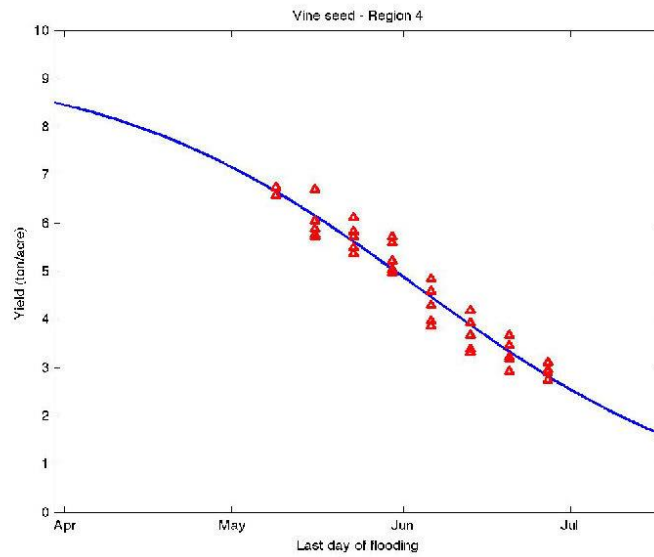


Figure A9. Fitted Yield Function for Melons (Vine Seed) in Region 4



2 The Bypass Production Model (BPM) Calibration

We use the crop yield functions estimated from the DAYCENT model, plus additional economic data, to calibrate the BPM. The BPM is the fundamental model of the analysis. The BPM relates changes in crop yield and total affected acres to changes in agricultural production and, fundamentally, changes in agricultural revenues. The BPM is a Positive Mathematical Programming (PMP after Howitt, 1995) model of agriculture in the 6 regions of the Yolo Bypass.

Note that a model is, by definition, a simplified representation of a real system. In the process of abstracting and simplifying a real system a model loses some information; thus even with theoretically consistent structure it is highly unlikely that a model will calibrate closely to observed (base year) data. The problem is well documented in the agricultural production modelling literature (Hazell and Norton 1986, Kasnakoglu 1990). One solution is to use observed farmer behavior, in the form of observed land use patterns, and additional exogenous information in order to calibrate the parameters of the structural model that exactly reproduce observed base-year conditions. The method of Positive Mathematical Programming is a common calibration method for structural agricultural production models (Howitt 1995), which we use in the BPM.

2.1 Positive mathematical programming (PMP)

The BPM self-calibrates using a three-step procedure based on Positive Mathematical Programming (PMP) (Howitt 1995) and the assumption that farmers behave as profit-maximizing agents. A traditional optimization model would have a tendency for overspecialization in production activities relative to what is observed empirically. PMP incorporates information on the marginal production conditions that farmers face, allowing the model to exactly replicate a base year of observed input use and output. Marginal conditions may include inter-temporal effects of crop rotation, proximity to processing facilities, management skills, farm-level effects such as risk and input smoothing, and heterogeneity in soil and other physical capital. In the BPM, PMP is used to translate these unobservable marginal conditions, in addition to observed average conditions, into region and crop-specific exponential cost functions.

Calibrating production models using PMP has been reviewed extensively in the recent literature. Buyssee et al. (2007) and Heckeley and Wolff (2003) argue that shadow values from calibration and/or resource constraints are an arbitrary source of information for model calibration. Subsequent research suggests using exogenous information such as land rents instead of shadow values (Heckeley and Britz 2005, Kanellopoulos et al. 2010). When multiple years of observations are available Heckeley and Britz (2005) propose a generalized maximum entropy formulation to estimate resource and calibration constraint shadow values. Merel and Bucaram (2010) and Merel et al. (2011) propose calibration against exogenous supply elasticity estimates. The BPM model is calibrated using traditional PMP with exogenous supply (acreage response) elasticity information.

2.2 Model Calibration

PMP is fundamentally a three-step procedure for model calibration that assumes farmers optimize input use for maximization of profits. In the first step a linear profit-maximization program is solved. In addition to basic resource availability and non-negativity constraints, a set of calibration constraints is added to restrict land use to observed values. In the second step, the dual (shadow) values from the calibration and resource constraints are used to derive the parameters for an exponential "PMP" cost function. In the third step, the calibrated model is combined into a full profit maximization program. The exponential PMP cost function captures the marginal decisions of farmers through the increasing cost of bringing additional land into production (e.g. through decreasing quality).

The BPM framework requires that additional land brought into production faces an increasing marginal cost of production. The most fertile land is cultivated first, additional land brought into production is of lower "quality" because of poorer soil quality, drainage or other water quality issues, or other factors that cause it to be more costly to farm. This is captured through an exponential land cost function (PMP cost function) for each crop and region. The exponential function is advantageous because it is always positive and strictly increasing, consistent with the hypothesis of increasing land costs. The PMP cost function is both region and crop specific, reflecting differences in production across crops and heterogeneity across regions. Functions are calibrated using information from acreage response elasticities and shadow values of calibration and resource constraints. The information is incorporated in such a way that the average cost data (known data) are unaffected.

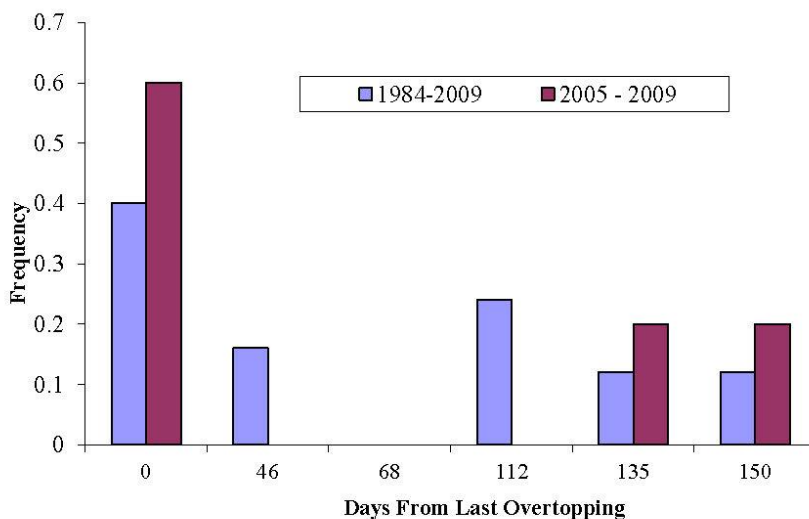
Formally, the exponential PMP cost functions are, for each crop i and region g , defined as

$$C_{gi}(x_{gi}) = \phi_{gi} e^{\gamma_{gi} x_{gi}}, \quad (1.3)$$

where ϕ_{gi} and γ_{gi} are parameters estimated by the PMP calibration routine described above and x_{gi} are total acres observed in production during the calibration base years.

The BPM calibrates to average observed land use between 2005 and 2009. We determined that 2005-2009 are representative of the full dataset (1984-2009) in terms of flood occurrence in the Yolo Bypass and, as such, are representative of land use in 3,000 and 6,000 cfs affected areas of the Bypass. Furthermore, detailed geo-referenced land use data were only available for 2005-2009 in the Yolo Bypass. The histogram in Figure A10 shows that the sub-set of years which we use for calibration (2005-2009) is representative of all years in the data (1984-2009) and, as such, represents a reasonable set of years to use for model calibration. While the data do omit some years of intermediate flood dates, Figure A10 shows that we capture the lower and upper bounds of inundation reasonably well. As such, we feel that calibration to average 2005-2009 land use accurately reflects base conditions in the Bypass.

Figure A10. Histogram of Overtopping Date Frequencies (84-09 and 05-09)



Standard calibration checks follow model calibration (see Howitt et al. 2012). These checks verify that the base year of observed data is reproduced by the calibrated model and that economic optimization requirements are satisfied.

We use a three year average of prices in the BPM, 2005-2007. These prices were determined to be representative of the average production conditions between 2005 and 2009 and, as such, are representative of the calibration data used in the model.

2.3 Profit Maximization Program Definition

The BPM solves for the cropping pattern that maximizes the agricultural profit across all regions subject to regional land constraints and yield functions estimated from the DAYCENT data. Data are as described previously. We assume the flood agency announces the policy it chooses for that year (or series of years) before farmers make their planting decisions. Therefore, farmers know the last day of overtopping for that year (with the exception of years where nature results in overtopping past the policy date) and the yields associated with that planting date. The objective function for the profit maximization program in the BPM is

$$\max_{x_{ig}} \sum_g \sum_l p_l \cdot y_{lg} \cdot x_{lg} - \sum_g \sum_l \phi_{lg} e^{r_{ig} x_{ig}} - \sum_g \sum_l vc_{lg} x_{lg}, \tag{1.4}$$

where subscripts and variables are as previously defined, p_l are individual crop prices, and vc_{lg} are region and crop-specific variable costs of production per acre. Yields (y_{lg}) vary by planting

date, as defined above, according to the yield functions estimated with DAYCENT model output as,

$$y_{i,g} = \frac{\alpha_{i,g}}{1 + e^{\beta_{i,g}x_{i,g} + \beta_{i,g}d_{i,g}}}, \quad \forall i \neq \text{pasture}, \quad (1.5)$$

and

$$y_{i,g} = \alpha_{i,g} + e^{\beta_{i,g} + \beta_{i,g}d_{i,g}}, \quad \text{for } i = \text{pasture}, \quad (1.6)$$

where subscripts, variables, and parameters are as previously defined. Finally, land constraints in each region are defined as

$$\sum_i x_{i,g} \leq b_g, \quad \forall g, \quad (1.7)$$

where b_g is the total number of acres (crop acres plus fallow) observed in each region.

In summary the procedure in the calibrated BPM model is to maximize Equation (1.4) subject to Equations (1.5) - (1.7) by selecting the optimal crop mix, $x_{i,g}$. Simulating the model over the base calibration data reproduces the observed base allocation.

3 BPM Simulation

BPM model simulations proceed for two flow volumes separately: 3k CFS and 6k CFS, given the calibrated model defined in Equations (1.4) - (1.7). we defined the simulation procedure in the main text of the report, and repeat here for completeness.

Step 1: Run the BPM for a season with *known* overtopping dates at Fremont Weir, and flooding in the Yolo Bypass. This represents the base condition (e.g. natural flooding) for agriculture in the Bypass in the absence of the proposed policy flooding scenarios (for that year). Repeat Step 1 for a series of known years, there are 26 total.

Step 2: Over the same series of years as step two, run the BPM and impose (sequentially - one at a time) the 12 proposed policy flooding scenarios. This represents what *would have* happened to Bypass agriculture *if* the flooding policy was implemented in that year. Repeat Step 2 for the all of the same years as Step 1.

Step 3: For each year simulated in Steps 1 and 2, calculate the difference in agricultural revenues (and other outputs). Record the result for negative changes in revenue. Intuitively, we only want negative changes in revenue because a positive change in revenue implies that the policy was “better” than nature. For example, if natural flooding occurred in the Bypass until April 30th then imposing a policy which stops overtopping at Fremont Weir on April 10th would not be possible (i.e. it would increase revenues).

Step 4: Calculate the average loss of revenue (and other changes) across all of the years simulated in Steps 1 - 3. This represents the expected impacts to agriculture due to the proposed flooding scenarios, and is the fundamental output of the BPM.

The fundamental procedure of the BPM is to generate *expected* losses to agriculture by using the calibrated model to estimate what would have happened under natural flooding, and then asking what would have happened if a specific policy (last day of overtopping) was in place. This procedure allows us to generate expected losses because we control for the expected natural flood events in the Bypass. The following section illustrates this point.

4 BPM Output and Expected Losses

The final phase in the analysis is to use the BPM simulations to estimate the change in agricultural gross revenues and acreage as a result of each of the policies (last overtopping date for RPA, or low-impact CM2 scenario) under both flow volumes (3k and 6k CFS). We estimate regional economic effects (jobs and income) using the IMPLAN model.

Economic losses are interpreted as expected annual losses in our analysis. The key assumption is that the previous 26 year hydrology in the Yolo Bypass is representative of expected future conditions. Specifically, natural overtopping at Fremont Weir will occur with the same expected frequency, duration, and volume. There are two reasons these 26 years of data were identified as reasonable, including (i) detailed flow information over the Fremont Weir was available for these years, and (ii) it is representative of current hydrologic conditions in the Sacramento Valley watershed. Older hydrologic information less accurately represents current conditions because it does not account for changes in urban development and reservoir operations that have altered flows in the Sacramento River over time. If better data become available we can revisit this assumption.

The policy analysis output in the report is the average, over 26 years, of annual losses as estimated by the individual policy scenarios in the BPM.

4.1 IMPLAN

The IMPLAN model estimates regional economic changes in production, value added, employment, and tax receipts. Expected revenue losses from the BPM analysis represent direct economic effects. However, upstream and downstream industries will be affected and some agricultural workers will lose their jobs when production in the Bypass decreases. We use the IMPLAN regional Input-Output model to estimate the direct, indirect, and induced effects of the 12 policy scenarios. The sum of these components represents the total effect of the policies.

IMPLAN is a multiplier model, which accounts for interrelationships among sectors and institutions in the regional economy. The input-output representation of the economy was first proposed by Leontief (1941). Production in this setting is assumed to occur by using fixed proportions of factors, such that the same amount of a production input.

Coverage if the IMPLAN area for this study is exclusive to Yolo County. We used the NAICS classification system and grouped agricultural production into a single sector, NAICS 111. We employed IMPLAN Professional Version 3 and a 2009 database for Yolo County.

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EXHIBIT 5



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FEATURE

Impact of levee breaches, flooding, and land scouring on soil productivity

Kenneth Olson, Jeffrey Matthews, Lois Wright Morton, and John Sloan

Flooding of agricultural lands after a natural or human-induced levee breach can have large and persistent effects on soils, crop productivity, and water quality, with negative economic, social, and ecological consequences. Many US water management strategies associated with levee-protected agricultural systems are dominated by policies that focus on engineered solutions designed to minimize short-term risk of flooding and breaching while overlooking resilience of the agroecosystem as a whole (Morton and Olson 2014; Park et al. 2013). A federal damage assessment of the effects of levee breaches and flooding on public and agricultural lands is needed each time a levee fails. Most federal damage assessments only include the levee itself and the adjacent crater lakes, gullies, and sand deltaic deposits but not the remaining flooded areas. Land scouring, sediment deposition in drainage and road ditches, and soil productivity loss are the most severe damages to soils on agricultural lands.

Levee breaches on the Mississippi River in the US interior have occurred since the Great Flood of 1927 (Barry 1997). The Flood of 2011 (Camillo 2012) on the Mississippi River well illustrates the impacts of flooding and levee breaching on agricultural soil conditions and productivity. The area of study for this paper is a 78 ha (195 ac) field on O'Bryan Ridge (35°51'09" N, 89°11'03" W) owned by Levee District Number 3 that

was impacted when the US Army Corps of Engineers (USACE) opened the New Madrid Floodway in Missouri by inducing a breach in the Birds Point fuse plug levee on May 2, 2011 (figure 1). An unintended conversion of agricultural land to wetlands and ponds occurred within the land scoured bottomlands (figures 2 and 3) in the O'Bryan Ridge field. These gully lands have since been partially regraded and reshaped in an effort to return the agricultural land to production.

The dramatic changes in land use from levee breaching demonstrate the need for a land scouring and deposition survey, an updated soil survey, and a soil and water conservation plan to reduce further soil loss and gully formation on reclaimed lands. An updated soil survey map with eroded and deposition phases of previously existing soils and new soil series can be used to estimate and compare the crop yields and production levels before levee breaching and after gully field creation and to guide the periodic reshaping and restoration of the gully fields. Further, gully

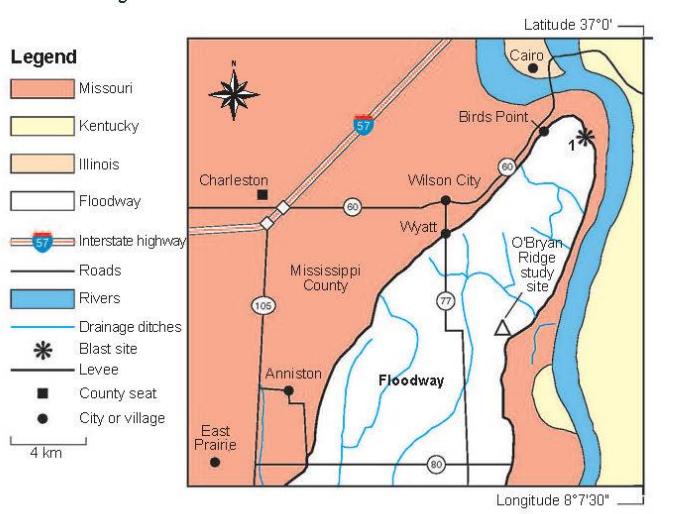
fields within the New Madrid Floodway are likely to remain vulnerable to the next induced levee breach and subsequent flooding if a revised plan to protect the area is not developed.

GULLY FIELDS ON O'BRYAN RIDGE IN NEW MADRID FLOODWAY

On May 2, 2011, the Cairo flood gage reached a record 18.7 m (61.7 ft), and for the first time in 74 years, at 10:00 p.m. the USACE opened the New Madrid Floodway (figure 1) using 240 t (265 tn) of trinitrotoluene (TNT). Approximately, 2 km (1.2 mi) of the fuse plug was blown up simultaneously in six places in the front line levee with one-fourth of the Mississippi River entering the 56 km (35 mi) long and 6.4 to 16 km (4 to 10 mi) wide New Madrid Floodway. The Mississippi River floodwaters were 4 m (13.2 ft) above the base of the Birds Point fuse plug levee and adjacent bottomlands when the human-induced breach occurred. After the Floodway was opened, the floodwaters poured through

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Figure 1
Location of O'Bryan Ridge gully fields in New Madrid Floodway. Map created by Mic Greenberg.



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Figure 2

June 15, 2011, land scouring of the bottomland located below the gully fields.



Figure 3

May of 2011 aerial view of O'Bryan Ridge gully fields.



the levee breach and dropped onto the protected bottomlands creating a crater and then spread out into the 8 km (5 mi) wide Floodway. Since the Floodway was four times wider than the induced levee breach, the water level quickly dropped by a factor of four to an approximate average 1 to 2 m (3.3 to 6.6 ft) depth, depending on the elevation of the bottomland surface. The drainage ditches and road ditches

had a greater depth of water (Olson and Morton 2012a).

By the time the leading edge of the floodwater reached the widest part of the Floodway, the water had traveled approximately 16 km (10 mi), and the average depth was further reduced by a factor of two to approximately 0.5 to 1 m (1.7 to 3.3 ft). As the water from the induced breach flowed south 32 km (20 mi), it merged with Mississippi River flood-

water that had backed up into the lower third of the Floodway through the open gap between the frontline and set back levee at New Madrid. As a result, there was little land scouring in the southern part of the Floodway.

The floodwater eventually covered 53,200 ha (133,000 ac). Along the way, 80 farmsteads and homes were inundated by 1 m (3.3 ft) of floodwater and severely damaged. The floodwaters ponded in front of O'Bryan Ridge, an old Mississippi River meander bank or natural levee, which was about 2 to 2.5 m (6.6 to 8.3 ft) higher than the alluvial bottomlands and approximately 10 km (6 mi) long and 1 km (0.6 m) wide. Once the ponded floodwater reached 2 to 2.5 m (6.6 to 8.3 ft), the water began to flow rapidly over the soybean (*Glycine max* L.) field on O'Bryan Ridge. As the floodwater dropped off the ridge it concentrated in old drainage areas and waterways (figures 3 and 4), cut gullies into the alluvial bottomland (Sharkey soils) on the west side of O'Bryan Ridge due to hydraulic jumping, and created canyon-sized gullies (figure 3) up to 1 km (0.6 mi) in length through the entire width of the ridge (Olson and Morton 2012a).

Three major gully fields were created on O'Bryan Ridge as a result of the induced breach (Londono and Hart 2013; Goodwell et al. 2014). Two of the gully fields were reclaimed in 2011 and 2012 by the land owners. In this paper we focus on the third major gully field (figures 2, 3, and 4) to assess the effects of gullies on soil properties, soils, soil productivity, land use change, and agricultural production. This gully field was located 8 km (5 mi) away from the Birds Point levee breach and apparently did not qualify as a priority area identified by USACE as needing immediate restoration and repairs. All the priority areas including levee, crater lakes, and roads were restored by the fall of 2012.

The disastrous consequences of severe erosion from the induced breach were probably not anticipated by landowners since the Floodway had not been used since 1937 (or in most landowners' lifetimes). The bottom of the trenches eroded more than 1 m (3.3 ft) below the bottomland surface (figure 4) and 3.6 m (12 ft) below the surface of the O'Bryan Ridge

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Figure 4
May of 2011 trees falling into channel and undercutting County Road 310.



(Londono and Hart 2013; Goodwell et al. 2014). A channel was created 1 km (0.6 mi) from west to east (figure 3), which undercut the gravel road (County Road [CR] 310) and extended into the wooded bottomland border area. A series of canyon-sized gullies cut into the O'Bryan Ridge in a dendritic pattern (figure 3). Some did not cross the entire 1 km (0.6 mi) ridge. Other gullies cut through the tree line on the south side of the gully field, dissected CR 312 on the south of O'Bryan Ridge, and nearly reached a section of the adjacent frontline levee. The gullies between CR 312 and frontline levee did qualify as a USACE priority area and were reclaimed in fall of 2011 and spring of 2012.

CROPS AND VEGETATION ON O'BRYAN RIDGE AFTER FLOODING

The O'Bryan Ridge field with slightly eroded soils (figure 5a) had been planted to soybeans in 2010. It was returned to soybean production by July of 2011, but 24 ha (60 ac) of the 78 ha (195 ac) field could not be farmed as a result of the deep gullies (figures 3 and 5b). Farm equipment had to be kept back from the 3.6 m (12 ft) high vertical edges of the gullies, and the land between the gullies could not be culti-

vated (Olson and Morton 2012a). In June of 2011, the farmers needed access to their fields and USACE had to get to their levees for maintenance, so CR 310, on the east side of the gully field, was reconstructed by partially filling in a 3.6 m (12 ft) deep and 33 to 55 m (100 to 160 ft) wide gully (figures 3 and 4). The field was again planted to soybeans in 2012, 2013, and 2014. No attempt was made to reclaim the gully fields until the spring of 2013, or two years after Floodway use by USACE.

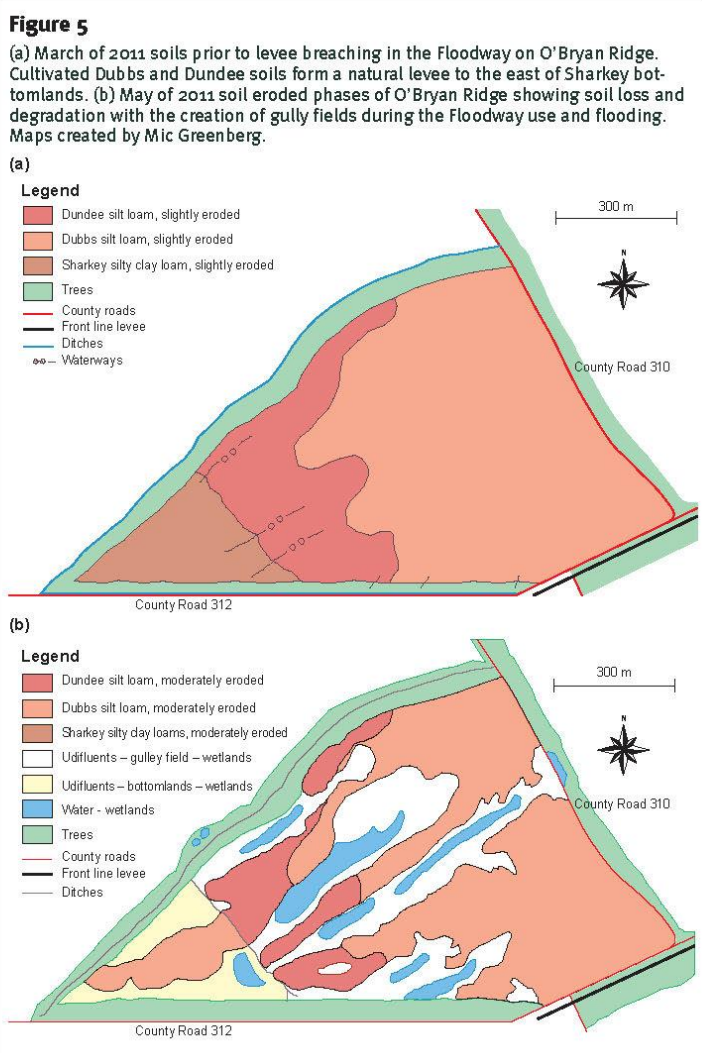
Ponds and herbaceous wetlands spontaneously developed in the gullies by 2013. The ponds that formed in the gully bottoms were 1 m (3.3 ft) below the first bottomlands and 3.6 m (12 ft) below the ridgetops. These deep gullies trapped water as well as whatever nutrients, pollutants, and contaminants the waters carried. The ponds and wetlands were partially filled in 2013 when the gully edges were bulldozed into the gullies to reshape and regrade the sides of the gullies (figure 6a). Once a soybean crop was planted on the Udifluvents sloping soils (figure 6a), sheet, rill and gully erosion occurred, and the sediment was transported by runoff water into the ponds and surrounding wetlands. In 2014, the remaining wetlands were dominated by early successional, herba-

ceous plant species. Species accounting for the greatest cover at the site included hog peanut (*Amphicarpa bracteata*), a leguminous vine; giant foxtail (*Setaria faberi*), an annual grass; tall boneset (*Eupatorium serotinum*); and beggar's ticks (*Bidens frondosa*). In addition to these early colonizing herbaceous species, several seedlings and saplings of early colonizing wetland trees and shrubs, particularly eastern cottonwood (*Populus deltoides*) and willows (*Salix nigra* and *Salix interior*), were noted. If left unchanged, the gully wetlands would likely become forested wetlands on the gully slopes, and the shallow bottoms become semipermanently inundated ponds in the deeper gullies.

ASSESSMENT OF THE RESULTING AGRICULTURAL PRODUCTIVITY CHANGE

Prior to 2011 Floodway use, the entire 78 ha (195 ac) O'Bryan Ridge field owned by Levee District Number 3 was in soybean production with no wetlands or ponds. The soybean crop averaged approximately 3 t ha⁻¹ (44 bu ac⁻¹) with a total average of approximately 233 t (8,550 bu) of soybeans per year. After creation of the gully field and scouring of the bottomlands and ridge, 20 ha (50 ac) of the field became gullies and could not be farmed, and approximately 12 ha (30 ac) between or adjacent to the deep gullies was not able to be planted. The remaining 46 ha (115 ac) were land scoured including the bottomland west of the O'Bryan Ridge. Thus, after the gully fields were created, a total of 50 ha (124 ac) were in agricultural production and 28.4 ha (71 ac) were wetlands and ponds (figure 5b). In 2013, 24 ha (60 ac) of sloping madeland or Udifluvents, was returned to soybean production from regrading 12 ha (30 ac) of nearly level ridge land and 12 ha (30 ac) of the gully bottoms with ponds (figure 6a). In the gully bottoms, approximately 16 ha (40 ac) became wetlands and ponds. The 30 ha (60 ac) of the Dubbs soil, 5.6 ha (14 ac) of Shatkey soils, and 24 ha (60 ac) of Udifluvents remained in agriculture—a total of 54 ha (134 ac). In sum, even after 2013 land regrading, approximately 24 ha (60 ac), or 31%, of the land had been unintentionally converted from agricultural

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lands to wetlands and ponds as a result of Floodway use.

The productivity of all the eroded Dubbs, Dundee, and Sharkey soils was lowered. Soybean production was reduced from 3.1 t ha⁻¹ (45 bu ac⁻¹) to 2.7 t ha⁻¹ (40 bu ac⁻¹) on the Dubbs and Dundee soils and from 2.7 to 1.9 t (40 to 30 bu) on the Sharkey soils based on soil properties and erosion phase changes on the remaining 30 ha (74 ac) of nearly level land either on ridge or bottomland scoured area (figure

2). The 20 ha (50 ac) of ridgetop that was pushed into the gullies and the 4 ha (10 ac) reclaimed from the gullies, yielded about 2.3 t ha⁻¹ (35 bu ac⁻¹) for the 24 ha (60 ac) of Udfluents (figure 6a). In 2013, the 24 ha (60 ac) of wetlands and ponds produced 0 bu ac⁻¹ of soybeans.

In the spring of 2014, deep ditches were dug to drain the ponds and were connected to a culvert under CR 312 and at the southwest corner of the O'Bryan Ridge gully field (figures 3 and 6b). Two

bulldozers pushed massive amounts of topsoil and subsoil from ridge tops into the gully bottoms, which eliminated most of the wetlands and ponds. This land redistribution continued until there was almost no topsoil and subsoil left on the ridgetops (figure 6b). This process of land reshaping reduced the slope from strongly sloping to gently sloping and reduced the erosion hazard. However, the filled in gullies are still lower than adjacent ridges and will remain vulnerable to the next use of the Floodway. This reclamation changed the land use again leaving only 10 ha (25 ac) remaining in wetlands and ponds and increased the agricultural land to 68 ha (170 ac). The soil productive capacity of the O'Bryan gully field tract was raised to 163 t (6,000 bu), reducing the permanent soil productive capacity loss to 30% from the 44% loss that occurred in 2011, the year the gully field was created.

Much of this loss of soil productivity and yield capacity on the land scoured, reshaped area, and the wetlands area was permanent. Even extensive reclamation efforts in the spring of 2014 (figure 6b) could only mitigate and restore part of the soil productivity and yield capacity loss. The land use change to wetlands appears to be temporary with the land being returned to agricultural use through grading and reshaping. The 78 ha (195 ac) Levee District field, which formerly produced an average of 233 t yr⁻¹ (8,550 bu yr⁻¹) of soybeans in 2010, produced an average of 131 t (4,820 bu) in 2011 and 2012—a loss of 44% or 102 t (3,730 bu) after gully field creation (figure 5b). After reclamation in spring 2013 and spring of 2014, the land produced 163 t (6,000 bu), a loss of 30% or 70 t (2,565 bu) of soybeans (figures 6a and 6b). In 2015, Levee District Number 3 plans additional earth moving in an attempt to further mitigate this permanent soil productivity and yield capacity loss. The source of the needed soil materials has not yet been identified, and there are only 15 ha (37 ac) of topsoil and subsoil materials left on the tract (figure 6b).

CONSERVATION RECOMMENDATIONS TO IMPROVE PRODUCTIVITY

The attempt to reshape the gullies by regrading and filling with soil increased soybean production but had the unin-

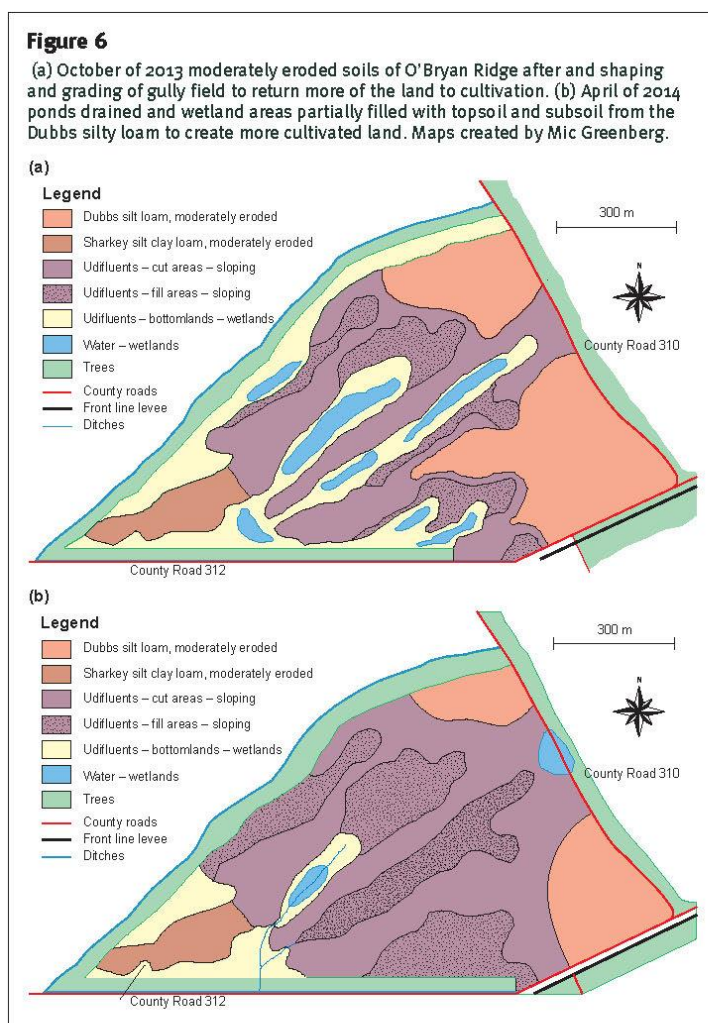
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tended outcome of creating rills (figure 7). The negative impacts of the cutting and filling operations on soil productivity will need to be remediated by restoring natural ecological functions to the affected soils. Organic matter additions to the soil, such as biosolids and composts, decrease the bulk density of soils, increase infiltration rates and porosity, and contribute to better soil structure (Ruehlmann and Körschens 2009; Sloan and Cawthon 2003; White et al. 1997). The use of cover crops can also be an important management tool for protecting soils from erosion during dormant seasons and for reestablishing key soil quality indicators (Abdollahi and Munkholm 2014; Stavi et al. 2012).

The Udifluents slope had little soil organic carbon (C) and aggregation in the surface layer. These madeland soils are now on 2% to 6% slope with an erosion rate above 66 t ha⁻¹ (30 tn ac⁻¹). Many rills were created in 2013 as a result of soybean production on these sloping soils (figure 7). A conservation plan is needed for the entire 78 ha (195 ac) area but has not been created as of 2014. The new sloping land created in spring of 2013 (figure 6a) is too erosive and no longer suited to continuous soybean production without conservation practices. A terrace system and contour farming with grassed waterways will likely be needed to retain production under continuous soybean. No-till management does not provide a mechanical method to eliminate annual rills, which can quickly turn into new gullies. Alternatively, continuous soybean could be modified in favor of a rotation with corn (*Zea mays* L.), forages and wheat (*Triticum aestivum* L.), which could make the soil less vulnerable to erosion. Had the 78 ha (195 ac) field had grassed waterways and been planted to winter wheat or had a cover crop and/or forages when the flooding occurred, the land scouring and gully formation would have been diminished. The middle and lowest parts of the gullies are no longer suitable for row crops and represent a significant land use change to wetlands and ponds.

ROAD INFRASTRUCTURE

The main 1 km (0.6 mi) gully remains partially open for future New Madrid Floodway use. However, CR. 310 was



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reconstructed across the largest gully without a culvert (figure 3). This road again will block future floodwaters until they flow over the road and with high probability convert the waterways into another gully field. This would dissect CR. 310 in many more places. Future reclamation efforts would then be required and result in even more conversion of agricultural lands to wetlands and ponds. It is recommended that a set of large culverts be placed in the main channel to permit future floodwaters to flow through the partially filled in channel.

DISCUSSION

The USACE manages more than 22,000 km (14,000 mi) of levees protecting Mississippi River and tributary bottomlands in river plains, four floodways, and 19,000 km (12,000 mi) of river navigation channel and control structures (Morton and Olson 2014) with goals that include supporting flood risk management activities in communities and restoring aquatic ecosystems (NRC 2012). Many of these levees and floodways are financed, built, and maintained cooperatively at the watershed level by local farmers and

Figure 7
Rill and gully erosion after soybeans planted in 2013 on regraded slopes and filled land.



communities to protect their livelihoods and shared community infrastructures. Extreme flooding events, such as the 1927, 1937, 1993, 2002, 2008, and 2011 floods along the Mississippi River and its tributaries, illustrate the continuing challenges for river communities, industry, and agriculture. These complex issues are related to evolving natural disasters, downstream flooding, and increased water pressure on levee protected bottomlands (Lowery et al. 2009; Olson 2009; Olson and Morton 2012a, 2012b, 2013a, 2013b; Morton and Olson 2013, 2014; Londono and Hart 2013; Goodwell et al. 2014). Of particular concern are the vulnerability of low-lying environments that rely on levee protection and the direct impacts of levee breaching on hydrologic patterns, sediment transport and distribution, soil erosion, and land scouring, as well as the indirect impacts on socioeconomic activities, especially agriculture, of flooded areas.

Leveed river bottomlands are designed to protect human populations and various land uses including agriculture from flooding. When a levee fails, the damage caused by floodwaters and contamination of water and land is significant. Waterborne organo-clay sediments often cover plants and soils and fill in road ditches, drainage ditches, and waterways or re-

enter water in rivers, streams, and lakes. Usually there are crater lakes created by floodwaters either topping or pouring through the levee breach and substantive gully development (Londono and Hart 2013; Goodwell et al. 2014). These gullies and land scour areas can extend into the floodplain such as the O'Bryan Ridge field site several kilometers (miles) beyond the breach into fields or along ridges (Olson and Morton 2012a).

The case of the O'Bryan Ridge site revealed that 31% of the land use was changed from agricultural use to wetlands and 44% of the agricultural productive capacity was lost as of 2013 due to erosion phase changes and reshaping of the gully sideslopes and soil reconstruction. Additional regrading efforts in 2014 affected the land use and restored some of the soil productivity and yield capacity of the tract to 70%, but there was still a 30% permanent productivity loss. Further, little has been done to prepare the land for the next Floodway use.

The land scouring and erosional processes remove topsoil, create eroded phases and depositional phases on a soil and sometimes subsoil, and result in less productive soils even if land is reshaped and reclaimed (Olson and Lang 2000). The effects of sediment deposition and land scouring on soil profiles and productivity need to be determined so agency technical staff, local leadership, and farmers have information to guide decision making in order to effectively return lands to agricultural production and put in place strategies and infrastructure to address future flood events. Findings from the mapping of hydrogeologic patterns, characterization, and measurement of soils and water after being affected by erosion, transport, and sediment deposition as a result of flooding with or without natural and human-induced levee breaches can offer valuable guidance to the restoration of flooded areas and improve decision making, risk analysis, and remedial effectiveness as well as future planning.

The type of vegetation present in the floodplain can have a significant influence on the scouring, transport, and deposition of sediments during a flood event, especially when the floodwater carries a large

amount of energy (Bruneta and Astin 2008). For example, during the 2011 flood and induced breach of the Birds Point fuse plug levee system, the field closest to the breach contained grassed waterways and a healthy stand of winter wheat, and the soil was mostly protected from scouring, whereas an adjacent recently tilled field further from the breach was severely impacted by scouring and loss of topsoil (Olson and Morton 2012a). The wheat residue fields also trapped more sediments than the soybean stubble fields. Feedbacks also exist between natural vegetation and hydrology in floodplains. Floods strongly influence the structure and composition of the vegetation, but vegetation contributes to hydraulic roughness and influences patterns of sediment deposition. As a consequence of these feedbacks, human-caused changes in river hydrology have complex effects on both natural and planted vegetation.

CONCLUSIONS

Levees protect public and private lands from the consequences of periodic flooding. However, when they fail naturally or as a result of human induced breaches the consequences are disastrous and can take different forms. The damages include crop loss; levee damage; crater lakes; gullies; thick sand deltaic deposits; land scouring; irrigation equipment destruction; soil and water degradation; building structure and farmstead damage; filling and blocking of drainage and road ditches; road deterioration; and ecological damage to forests, parklands, and wetlands. The effects of levee breaches and flooding on soils and soil productivity are seldom determined since updated soil surveys are not routinely made in response to levee breach and flooding. In the case of the O'Bryan Ridge gully field, the damage to soils included the permanent loss of 30% of the agricultural productive capacity as result of land use conversion, land scouring, water erosion, and gully field formation with little deposition of sediments since the rushing floodwaters drained quickly from the field except for 8.4 ha (21 ac) of ponds at the bottom of the deep gullies.

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RECOMMENDATIONS

The USACE, the Mississippi River Commission, and the USDA Natural Resource Conservation Service should develop an agreement to immediately update the soil survey maps, conduct a land scouring and deposition survey, and create a soil conservation plan to ensure a rapid federal response after every levee breach and subsequent flooding event. This should be part of the federal government emergency response to a disaster, which provides funds for restoration and repair work, including opening drainage ditches, levee repairs, crater lake filling, gully repairs, restoration of land-scoured areas, and sand deposit removal.

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EXHIBIT 6

Agricultural Lands: Flooding and Levee Breaches

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Abstract

Whenever levees on rivers are breached, there are soil and crop damages in the flooded bottomland areas that impact agricultural management capacities and crop productivity. Earthen levees and floodwalls can be undermined by sand boils, fail after weeks of high floodwater pressure and soil saturation, or even be topped. When a levee fails, there is often a crater lake created adjacent to the levee breach with gullies and land scouring extending into the previously protected lands. As the water spreads out and slows down, sand and sediments are deposited on the bottomlands and in road and drainage ditches. Floodwaters may drown crops and coat the entire flooded land surface with sediments containing a variety of pollutants, nutrients, and contaminants. Restoration of craters, gullies, land-scoured areas, and contaminated sediment depositional sites is necessary if agricultural lands are to be returned to some level of productivity.

INTRODUCTION

Alluvial soils are developed from fine-textured clay and silt sediments deposited in floodplains when rivers overflow their natural banks and flood into adjacent bottomlands. These water-saturated lands experience annual flooding for many months each year as the river levels vary with local and upstream precipitation and snowmelt. Fast moving floodwaters can also transport and deposit sand and gravel onto alluvial bottomlands. When these lands are drained and leveed to protect from river flooding, they are some of the most fertile and productive agricultural soils in the world. Whenever levees on rivers are breached, there are soil and crop damages in the flooded bottomland areas that impact agricultural management capacities and crop productivity. Earthen levees and floodwalls can be undermined by sand boils, fail after weeks of high floodwater pressure and soil saturation, or even be topped. When a levee fails, there is often a crater lake created adjacent to the levee breach with gullies and land scouring extending into the previously protected lands. As the water spreads out and slows down, sand and sediments are deposited on the bottomlands and in road and drainage ditches. Floodwaters may drown crops and coat the entire flooded land surface with sediments containing a variety of pollutants, nutrients, and

contaminants. Restoration of craters, gullies, land-scoured areas, and contaminated sediment depositional sites is necessary if agricultural lands are to be returned to some level of productivity.

River Bottomlands, Agriculture, and Levees

In the United States, the Mississippi River and tributaries drain 41% of the continental land mass including millions of hectares of agricultural lands protected by thousands of kilometers of earthen levees and floodwalls. By 1926, an extensive system of private and public levees along the Mississippi River was engineered to secure agricultural lands and river cities against flooding^[1] from the confluence of the Ohio and Mississippi rivers at Cairo, Illinois, all the way south to the Gulf of Mexico. The U.S. Army Corps of Engineers (USACE) and local levee districts continue to actively manage river levels to maintain navigation and protect against flooding. Prior to the construction of these levees, most river bottomlands experienced crop loss every time the river flooded, but the flooding caused little if any soil damage. Although these massive fortress-like structures seem impermeable, levees do fail for a variety of reasons and allow floodwater to flow through breaches with an intensity that can do substantive damage to agricultural crops. Not only does the crop drown if flooded during

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growing season, but considerable soil damage can also occur as a result of the levee breach and lead to the creation of crater lakes, gullies that extend into agricultural lands, land scouring, and sand and sediment deposition on bottomlands as well as drainage and road ditches. Further, as these fast moving waters slow down, the drowned crop and land surface are coated with silt, clay, organic matter, and other chemicals that the water carried. This flooding of crops and soils and the maintenance, repair, and strengthening of degraded levees cost millions of private and public dollars after every levee breach.

Changes in climate,^[2] such as shifts in the long-term seasonality and frequency of extreme weather events, can result in record flooding and droughts and increase the vulnerability and risks associated with managing levee-protected agricultural lands. To understand the impacts of natural and induced levee breaching during high water and flood events, the levee system, the processes and mechanisms by which land scouring and sediment deposition occur, and the remedial activities that are used to repair and guard against levee breaching are discussed in the following sections.

Earthen Levees and Floodwalls

The levee is a massive earthworks designed to contain and channelize the river at flood stage and protect agriculture and other land uses against flooding. It has a flat crown with 3:1 sloped sides. The texture of the materials used in earthen levee construction can vary from silty clay to sandy. Grasses with thick dense roots are planted on the levee to hold the soil in place and reduce the erosive effect of water.

Breaks in the levee, called breaches, can occur when a portion of the levee is eroded or breaks from a subsurface weakness. The higher the levee, the greater the force of the river on the protected land when a breach occurs; thus, a levee as high as a three- or four-story building can explode with the same power and suddenness of a dam bursting. Silty clay levees with a sand core can be affected by vegetation and animal burrowing, which in turn influence the susceptibility of the levee to erode and naturally breach. However, the greatest danger to levee failure is constant water pressure against the levee.^[1,3] The weight of the river can push water underneath the levee and create sand boils that undermine the strength of the levee and its capacity to hold back water. Another type of levee is a floodwall constructed of concrete. These are often built in urban areas at the most erosive points in the river, usually the bend where strong currents and constant pressure of flowing water can erode an earthen levee. Floodwalls may also replace earthen levees when a large quantity of desired soil material is not available or is too costly to transport.

Levee Saturation and Topping

The water-holding capacities of the soil in earthen levees affect its strength to withstand the pressure of the river. During record flooding, the levee can be saturated for a prolonged period and fail, or the floodwater can be higher than the levee and top (run over) the levee crest (Fig. 1). When floodwater starts over the top of the levee, it can cut an erosion channel into and through the levee. Once the floodwater flows over or through a break in the levee, the

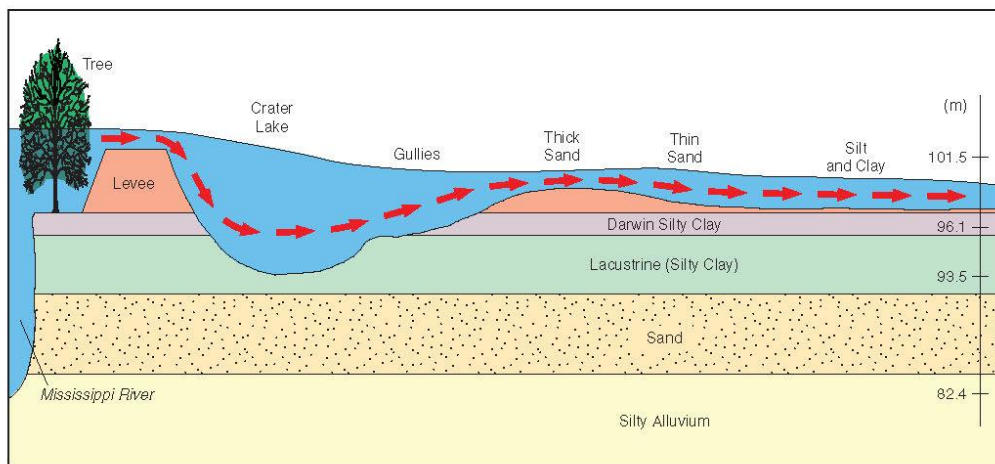


Fig. 1 Earthen levee topped by floodwaters resulting in a crater lake. Source: Reprinted with permission from Olson & Morton.^[5]

Downloaded by [University of Illinois at Urbana-Champaign], [Kenneth Olson] at 12:24 12 January 2017

Agricultural Lands: Flooding and Levee Breaches

river water drops with great force and cuts a crater lake on the inside of the levee. As more water flows through the eroding crack, the floodwaters' speed increases and widens the breach by removing sections of the adjacent levee.^[4] The breach can end up at 100 m or more in width and result in a deep crater lake.

Sand Boils

When floodwaters put significant pressure on floodwalls and levee systems, seepage and sand boils can occur, especially if there are sandy soils underneath the floodwall (Fig. 2) or earthen levee.^[3] Sand boils, including a mega sand boil, occur when the river is at or above flood stage. The bottomland inside the levee acts like an empty sunken basin with the higher floodwater outside the basin creating a hydraulic gradient (Fig. 2). As the water seeks to equalize the pressure on both sides of the levee, a stream of water (called piping) can force its way through even a tiny opening in the riverside of the levee

or floodwall.^[4] Once the water is piped through the soil into the basin, the pressure is released and water shoots up through the porous earth or sand creating a churning or boiling action from which the sand boil is derived.^[6]

Uncontrolled seepage, a major cause of levee failure, creates instability when high water pressure and soil saturation cause the earth materials to lose their strength. Most small sand boils are treated with a 1.5-m-high sandbag ring and filled with water.^[4] The sandbag dike is normally a temporary measure to increase the depth and weight of water over the sand boil in order to decrease the hydraulic gradient across the seepage path and reduce the potential for erosion of earth materials along the piping path.^[6] However, a sand boil can start small and quickly turn into a high-energy sand boil (Fig. 2). In a few hours, it can enlarge dramatically from a few centimeters to 0.6 m in diameter. In the case of a mega sand boil, the crew often has to construct a 15-m ring berm to a height of 2 m or more. When the counterweight of water alone is insufficient to control a mega

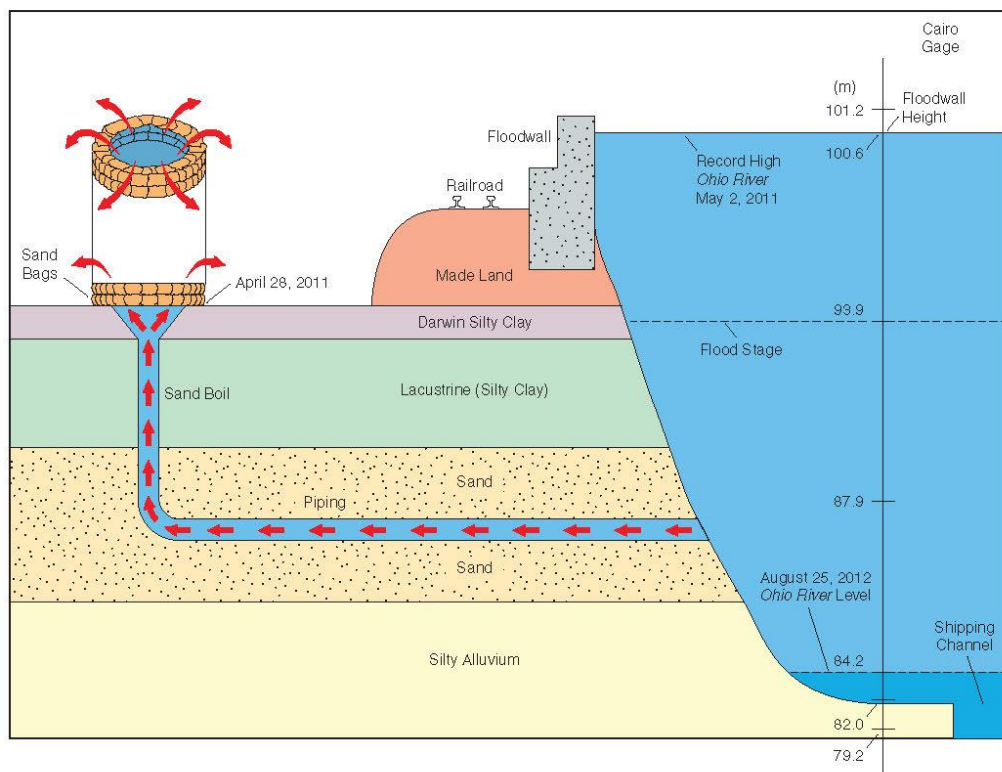


Fig. 2 Anatomy of a sand boil.
 Source: Reprinted with permission from Morton & Olson.^[7]

Accounting - Alpine



Fig. 3 Crater lake extending through 100-m levee breach.

sand boil, it is covered with a few meters of fly ash cinders or other available materials. The treatment of a mega sand boil can require big earth moving equipment such as bulldozers, backhoes, loaders, excavators, and dump trucks and a large crew to contain the mega sand boil and keep watch until the flood stage recedes.

Crater Lakes, Adjacent Gullies, and Thick Sand Deposits

As the floodwater tops or breaks through an earthen levee, it often drops many meters to the bottomland inside the levee and causes deep erosion of the soil and underlying geological parent material (Fig. 1). Most crater lakes (Fig. 3) are several meters deep.^[3] As the floodwater flows rapidly into the previously protected bottomland, gullies originating adjacent to the crater lake are cut into the soil and can extend 10 100 m beyond. Geologic materials, soil, sand bars, and sediment carried down river and from the degraded earthen levee are deposited in the bottomland after the floodwaters slow down (Fig. 1).^[3] The thick sand can be deposited on agricultural crops (Fig. 4) and other



Fig. 4 Sand delta covering corn field with tree residue from between river and levee.



Fig. 5 Gully fields on O'Bryan Ridge with levee in background.

vegetation in the land surface as well as in drainage and road ditches.

Land Scouring and Gully Fields

After a levee breach occurs and the fast current of the water has created crater lakes, extended gullies into the bottomland (Fig. 5), and scoured the land surface, the speed of the advancing floodwater begins to slow and deposit sand particles on the bottomland in large sand deltas. As the floodwaters continue to slow, the silts drop and then the clay and organic particles settle out and coat plant residues and the land surface.^[8,9] Significant land scouring can result in many hundreds of hectares of land losing centimeters of topsoil after each levee breach.

Levee-protected bottomlands normally have very little slope and are almost flat but can contain higher natural levees formed from old oxbows cut off from the river (Fig. 6). An oxbow is the wide curve portion of a meandering river channel. The floodwaters will pond in front of these meander scars or natural levees. When water flows over a natural levee ridge and drops down to another alluvial bottom, it concentrates and creates an eroded channel or waterway. This erosion process is called hydraulic jumping. As high-energy floodwater flows into the newly created waterway, it can cut into the ridge and carve additional new channels and gullies.

These deeply eroded soils or gully fields (Fig. 8) are extremely difficult and costly to reclaim.^[8] Often bulldozers are used to push in the tops of the vertical gully walls to fill in the bottom and then grade the side slopes. The pushing of topsoil into the gullies puts the soil material on slopes that are highly erodible, and the exposed subsoil and parent material of the scrapped areas lower the productivity of the original soils. Topsoil must be hauled in to raise the soil organic carbon content of the soil if the land is to be returned to the previous level of agricultural productivity. Terracing is another option for reshaping the side slopes above the gully

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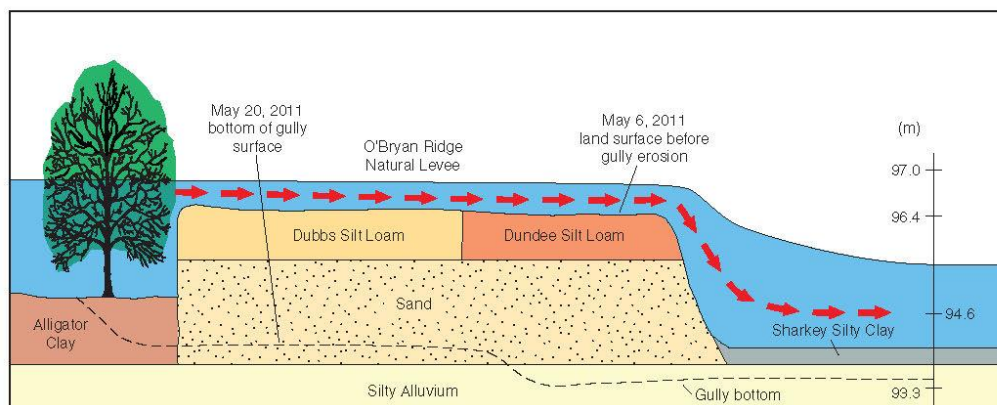


Fig. 6 Land scouring and gully formation when floodwaters flow over a natural levee ridge.

bottom. This approach will still result in the loss of long-term soil productivity and crop yields because the newly created soils will be less productive than the original soils as a result of mixing topsoil with parent material low in soil organic carbon. Reclamation efforts to restore these land-scoured ridges and gully fields can cost hundreds of thousands of dollars and are likely to still result in lowered soil productivity and crop yields when compared to original crop yields. When gully fields are created by levee breaching, the land use may change. Gullies that are not reclaimed will collect water and become wetlands. This loss of agricultural land to ponds and wetlands results in a net loss of agricultural productivity in the region.

Effect of Growing Crops and Residue on Erosion and Deposition

Crops grown in the Mississippi and Ohio River bottomlands are primarily wheat, corn, soybean, and forages. Depending on the time of year, the land cover may include these crops in various stages of growth or only plant residues remaining from the previous year's crop such as soybean stubble, corn stalks, and wheat stubble. When spring floods occur, winter wheat and forages are growing and are likely to drown. However, these fully developed plants can hold the soil in place and prevent the land scouring. Sediment carried by floodwaters is caught by the wheat and forage vegetation and deposited on the crop. If the levee breaching and flooding occur in the spring before corn and soybeans are planted, only previous crop plant residues are protecting the bottomland soils. These plant residues are often picked up and carried along by floodwaters and lose their protective capacity to prevent land scouring. When the flooding

and levee breaching occur later in the growing season, the soybean and corn plants help slow the speed of the floodwaters and anchor the soil. After the floodwaters recede and the land drains, the soil can either be dried and planted or be left idle but tilled to eventually mix in the sediments to help dry out the fields depending on the timing of the flooding. Thin layers of silt and clay deposits can be treated by sunlight, drying, and tillage to incorporate into the plow layer. Tillage equipment, such as chisel plows and moldboard plows, can be used on the areas with thin sand deposits (<15 cm) in an attempt to mix the sand into the underlying bottomland with silty and clayey topsoil.

Crop damages depend on the type of crops commonly grown in the area and the timing of the levee breach and subsequent flooding. If flooding occurs in the growing season of a crop and the plants are under floodwater for 24-36 hours, the submerged crop will drown and can result in a total crop failure for that year. If flooded early in the growing season, the crop can be replanted but usually results in lower yields. Crop insurance can provide replacement for a portion of the income for farmers who have purchased it.^[10,11]

Sediment Deposition in Road and Drainage Ditches

After a levee breach and flood event, road and drainage ditches in the area are filled with sediments and sand, sometimes as much as 1-2 m deep. Excavators are usually brought in by either the county or drainage districts or Natural Resources Conservation Service to remove debris and sediment that block drainageways and ditches to speed up the drainage process and to accelerate the drying out of low lying areas.^[8,9] The sediment in private drainageways

of most qualified landowners can sometimes be partially financed by the U.S. Department of Agriculture Emergency Services Agency's Conservation program. The local drainage district often provides additional matching funds for these projects.

Levee Repair, Sand Delta Removal, and Crater Lake Filling

If the funds are available, the USACE or the farmer levee and drainage districts usually begin reconstructing levees immediately after the floodwaters have drained. Sometimes, the levee is repaired in stages if the funds are insufficient for the entire reconstruction of the levee. Restoration and repair of the levee to the original height or higher is usually a concern of the landowners flooded by the levee breach.^[9] The sand deposits are often collected and used to fill in the crater lake and then topsoil is trucked in and spread over the crater lake to restore the previous land use. The thick deltaic sand deposits can be 3-20 ha in size and between 0.1 and 1 m deep. Both the crater lakes and the thick sand deposits can result in a permanent loss of agricultural productivity^[2,11] if they are not filled in or removed. The transported topsoil may come from other levees on smaller tributaries and drainage ditches or other adjacent soil deposits. The reconstructed soil profile will still be less productive than the original soils.

Damage to Farm Building and Homes

When a levee breach occurs, there is always the risk that lives and property may be lost or seriously harmed.^[1] When a levee breach is eminent, the U.S. National Guard usually sweep the area to make sure the people living and working in levee-protected bottomlands are evacuated. There is also a high risk of damage to the homes, barns, and other structures on these flooded bottomlands.^[12] Buildings can be impacted by the force of the flowing floodwater and become fully or partially submerged in the floodwater. Water pressure can result in the loss of the lower half of entire walls, damage wooden floors, or destroy structures completely. In addition, farm structures (sheds, barns, and grain bins) can be damaged, and depending on insurance coverage, only a few of these structures may be repaired.

Protected and Unprotected Agricultural Lands

River bottomland areas that are not protected by levees usually receive a thin layer of silt, clay, and organic matter during flood events. The crop is lost if flooding occurs in the growing season, but soils do not usually suffer permanent damage.^[13] This is not the case where levees fail. Levees can fail as a result of a sand boil or by levee topping. Blowout holes or craters can be created between 1 and 10 ha in size and can hold water. Fast-flowing water can remove hundreds of meters of

levee embankments and can erode thousands of cubic meters of soils and underlying outwash parent material to depths of many meters below the base of the earthen levee when the levee breaks.^[4] The force of the rushing water can uproot trees growing between the river and the levee and deposit them, as residue, on the previously protected floodplain. Deep gullies can extend a few hundred meters into the bottomland, and hundreds of mature trees can be transported hundreds to thousands of meters. Deltaic sand deposits up to 1 m thick cover many hectares on the floodplain at each breach site with additional hectares covered with a thin layer of sand. The remaining hundreds of hectares of previously protected floodplain soils receive a thin coating of silt and clay and can remain under floodwaters long enough to drown the year's crop if it was planted and not already removed by the wall of advancing floodwater. After a few weeks, the floodwater usually drains from the bottomland and back into the river or slowly evaporates and infiltrates bottomland soils sufficiently for the local landowners to begin the task of moving the trees from near the blowout holes and floodplain and begin filling in the craters and gullies.^[4]

CONCLUSION

Climate change will amplify the risks associated with snowmelt, rainfall, runoff patterns, and river flooding. As the odds for certain types of weather extremes increase in a warming climate, farmers, rural residents, and supporting institutions as well as public and private levee districts will need short- and long-term strategies to sustain their system of levees, address breaching events and reclamation of agricultural lands, and put in place adaptive management plans that anticipate events. Levees are complex engineered systems coupled with natural and social systems. Levee redesigns must account for not only the risks to the engineered system but how to make the social, economic, and environmental systems more resilient. One need is to better understand how the soils are affected by flooding and levee breaching and their capacities to support to agricultural productivity.

The following three recommendations are offered to provide valuable data in assessing soil degradation and to guide restoration in making levee-protected agricultural bottomlands more resilient: 1) improve characterization and measurement of eroded soils and distribution of sediment contaminants after levee breaching; 2) assess contamination effects on soil productivity and long-term agricultural production in order to understand the impacts of flooding on agricultural soils; and 3) evaluate reconstruction investments needed to repair levees based on return of the land to productivity and increased landscape resilience by reducing vulnerability to future flooding and levee breaching stress.

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Agricultural land fragmentation: the spatial effects of three land protection strategies in the eastern United States

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Abstract

Fragmentation of agricultural land by urban sprawl affects both the agricultural production capacity of the land and its rural scenic quality. In order to assess the resulting fragmentation of the three most common types of agricultural land conservation tools in the United States, this study analyzes the spatial form of three land protection strategies: a purchase of development rights (PDR) program, a clustering program and a transfer of development rights program. By assessing a series of measures of success such as total acreage protected, size of parcels, contiguity and farming status, the study compares the effectiveness of programs that have been in place for approximately 20 years, analyzing the extent to which each program prevents or enhances fragmentation. The analysis shows that although the number of acres protected is an important factor in program success, the amount of protected land remaining in active farming is additionally influenced by any development rights that may remain with the land, the use of a variety of tools to reduce the likelihood of parcel isolation, and the adjacency and contiguity of protected parcels. © 2002 Elsevier Science B.V. All rights reserved.

Keywords: Land conservation; Agriculture; Land protection; Metropolitan agriculture; Fragmentation; Urban sprawl

1. Introduction

Urban sprawl, caused by the continued flight of homeowners out of cities to relatively inexpensive land and housing in the urban fringe, has placed a tremendous pressure on farmland resources in the United States (Heimlich and Brooks, 1989). With the fragmentation of farms in the urban fringe has come a loss of the traditional farming economic base, and a change in the character and visual quality of rural communities (Heimlich, 1989; Lapping et al., 1989). To combat this loss and fragmentation of farmland, many communities in urbanizing areas of the United States

are adopting a variety of tools to protect farms, farmland and the rural landscape. The primary responses by communities have been two-pronged: governmental or non-profit agencies purchase significant tracts of land, and local governments impose zoning and other regulatory requirements on the development of the land (American Farmland Trust, 1997). While analysis of the numbers of acres protected by each type of tool has been completed in the past, the varying effects on fragmentation of these regulatory and acquisition programs have not been analyzed or compared (Daniels, 1997).

The issues for farmland fragmentation are two-fold. First, there is the issue of regional fragmentation: the erosion of the farmland base leading to a loss of sufficient farm support operations and facilities, which raise operating costs (Lapping, 1979; Pfeffer and

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Lapping, 1995). Second is the issue of parcel fragmentation:

“Development in rural/urban fringe areas creates other farm management problems. Without strict zoning regulations farmland often becomes parcelized as entire farms or parts of farms are sold to developers. This parcelization of farmlands leads to a “checkerboard distribution of farmlands, i.e. many noncontiguous fields. Farming such scattered plots is problematic. For example, field surveillance to monitor crop growth and pest populations is difficult, as is the movement of farm equipment because of transportation problems. Under these conditions consolidation of landholdings to achieve efficient scales of operation is nearly impossible.” (Pfeffer and Lapping, 1995, p. 85)

This study examines the use of the three dominant land conservation tools used in the urban fringe and urbanizing rural areas—transfer of development rights, purchase of development rights (PDR) and cluster development—to determine the effect of each type of program on fragmentation of agricultural land. The following analysis provides a brief description of each land preservation program, a history of the program in each community and then the results of the spatial analysis conducted for the targeted agricultural land.

2. A description of the programs reviewed

Three communities were chosen in the eastern United States as case studies for analysis: Montgomery County, Maryland, and the towns of Riverhead and Southampton on Long Island, in New York state. These communities were chosen based upon three primary factors which affect the ability to assess the long-term effects of a land protection strategy. First, all three have had active farmland preservation strategies and tools in place for approximately 20 years, a sufficient period of time to develop a clear analysis of the impact of the tools on the farmland resource. Secondly, while all three communities use a variety of land conservation tools, each community’s strategy relies significantly on one tool as the major leader in protection efforts: Montgomery County, Maryland relies primarily on transfer of development rights;

Riverhead, New York on PDR; and Southampton, New York on cluster development. Thirdly, all three communities have active farming economies located in or on the fringe of major metropolitan areas, therefore, each farmland protection strategy and its tools must deal with significant development pressures.

2.1. Transfer of development rights in Montgomery County, Maryland

A transfer of development rights (TDR) program is typically a broadly applied, regional program which defines an area to be protected from development (sending area) and an area where development will be allowed to occur (receiving area). Since the program allows landowners to transfer the rights to develop one parcel of land to another parcel of land, the parcel from which the development rights are being transferred can no longer be developed, or developed only in a limited way.

In theory, a TDR program that is mandatory in the sending area should result in a low rate of farmland fragmentation. Since all of the parcels in the sending area transfer development rights outside of the area, little to no fragmentation should result. Thus, TDR programs have been touted as a primary tool for protecting agricultural land (Lapping et al., 1989; Merriam, 1978).

In 1980, Montgomery County became one of the first municipalities in the nation to adopt a countywide TDR program for agriculture preservation through its 1980 master plan (M-NCPPC, 1980). The county articulated a number of public policies underlying the TDR program, among them: a desire to control public costs associated with sprawl by channeling growth to existing population centers and setting aside lands for agriculture preservation; a goal of ensuring the continued viability of farming for regional food supplies; and a desire to maintain rural open space and the rural character of the area (M-NCPPC, 1980).

The county delineated an agricultural reserve (the sending area) of approximately 96,000 acres in the northern portion of the County. The extent of the agricultural reserve was based on soil quality, existing agricultural use, amount of existing development, size of farm parcels, and the threat of projected future development (M-NCPPC, 1980) with the goal of preserving a “critical mass” of farmland. Within the

boundaries of the reserve, the TDR program was mandatory, and created easement restrictions on property from which development rights were transferred. In establishing the program, the county allowed landowners to sell development rights at the rate of one development unit per 5 acres, but decreased the allowable building density in the sending area to 1 unit per 25 acres (Montgomery County Code, 1997, Article 28, Section 59-C-9.6). The county allotted one development right for every 5 acres of land (no fractional development rights) regardless of the quality of land, proximity to existing development, or other factors. Once a landowner transferred the development rights, the county acquired a permanent easement on the land, limiting residential development and restricting that parcel to agricultural uses except for the residual 1 unit per 25 acres which the landowner retained (M-NCPPC, 1980).

The county created approximately 15,000 development rights on land within the Agriculture Reserve. As of 1997, 6629 development rights had been removed from the underlying parcels and 5123 transferred to receiving areas (leaving 1506 development rights that had been removed, but not transferred). Approximately 2170 development rights remain attached to the underlying land in the form of small, pre-existing parcels or the 1 unit per 25 acres underlying right the county permits for actual development in the area.

Today the county's active farms are primarily located in the northern portion of the county, in the agricultural reserve. Agricultural production remains a strong segment of the economy in Montgomery County, with approximately US\$ 28.6 million of agricultural products produced in 1997, up from US\$ 27.7 million in 1992 (US Census, 1997). Crops, including field and nursery crops, are the major agricultural land use with a value of almost US\$ 20 million in 1997 (US Census, 1997). Field analysis indicates that these crops are predominantly cereal and grain crops, with nursery and row crops composing a minor portion of the production. Livestock production, although still a strong component of the agricultural economy, is valued just under US\$ 9 million (US Census, 1997).

Of the approximately 96,000 acres that make up the agricultural reserve in Montgomery County, 30,062 acres are protected under the TDR program, alongside an additional 15,000 acres of public lands and 9058

acres of land protected under the county's other four preservation tools (see Fig. 1). Judging from these figures, the TDR program has been the most aggressive in terms of preserving the farmland base in the county and provides a point of comparison for the predominant PDR program in Riverhead and the Southampton cluster development program.

2.2. Purchase of development rights in the town of Riverhead, New York

A PDR program typically uses public funds—tax revenues or municipal or state bonds—to fund the purchase and retirement of development rights on agricultural land. They are a commonly used farmland preservation tool, and are touted as being highly efficient at farmland retention (Lapping et al., 1989), equitable for landowners (Daniels, 1991), and generally a permanent preservation solution (Daniels, 1991). Since the tool is voluntary on the part of the landowner, a PDR program does not hold the inherent protection against fragmentation of a TDR program. In addition, the tool's most often cited drawback is its expense (Daniels, 1991; American Farmland Trust, 1997; Nelson, 1994), therefore, its potential to avoid fragmentation is tied to the amount of public funds that are available for development rights purchase.

The town of Riverhead is an historic agricultural community on the eastern end of Long Island. Riverhead has abundant, high quality agricultural soils and is one of the most important agricultural areas in New York state. However, thus far, Riverhead has experienced only a fraction of the tourism and resulting resort economy that has come to define Southampton, located on its southeastern border. Of Riverhead's more than 46,000 acres, and 16,862 acres are in agricultural use, although only 14,584 acres are zoned for agriculture. Approximately 12,300 acres, or 84% of the agricultural zone, are currently engaged in agricultural production, while the remainder are engaged in other uses such as golf courses, camps and private hunting reserves.

Riverhead's agricultural economy is focused primarily on row crops and nurseries. Of the total land in agricultural production, 1970 acres are in nursery production, 1924 in potatoes, 3211 in row crops and 1610 in sod. According to the 1997 census for the

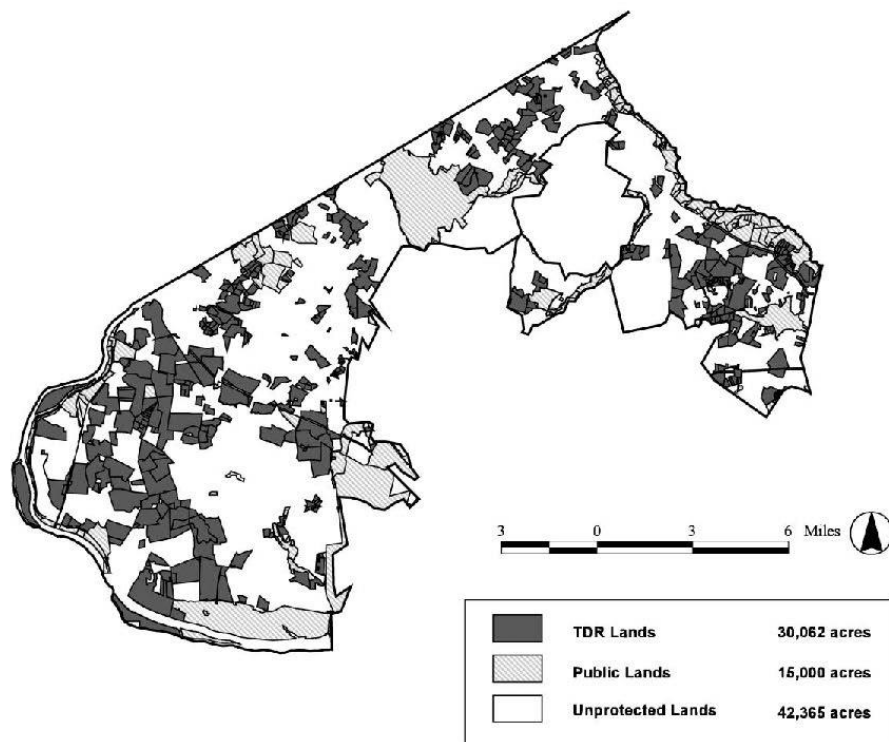


Fig. 1. Montgomery County's agricultural reserve area showing protected and unprotected lands.

entire area of Suffolk County, the agricultural economy relies on crop production, which includes potatoes, vegetables and orchards. The number of farms producing livestock is very small, producing only US\$ 12 million compared to the US\$ 155 million produced by crops (including nursery and greenhouse crops).

Unlike its neighbor Southampton, Riverhead depends primarily upon the Suffolk County PDR program to preserve agricultural land (see Fig. 2). Though Riverhead has established a town PDR program, the town has only purchased the development rights on two agricultural parcels. By contrast, the county PDR program has purchased the development rights on 70 parcels, preserving 3889 acres to the 61.5 acres preserved through the town program. Other tools have not been used effectively in Riverhead's strategy

to add to the protected pool of farmland. Local land trusts have not been active in Riverhead in the purchase of farmland or farmland development rights as they have in Southampton. While, the town has a transfer of development rights program on the books, it is not mandatory in the sending area, and the town has only designated a very small receiving zone, resulting in the lack of use of this tool.

The county PDR program, one of the nation's first PDR program, was implemented in 1977 (American Farmland Trust, 1997). According to the Suffolk County Planning Department, between 1977 and 1996, US\$ 40 million was spent to fund the acquisition of development rights, preserving over 7000 acres of land in the county. Another US\$ 9 million was spent in conjunction with partnerships between Suffolk County, town governments and non-profits to purchase

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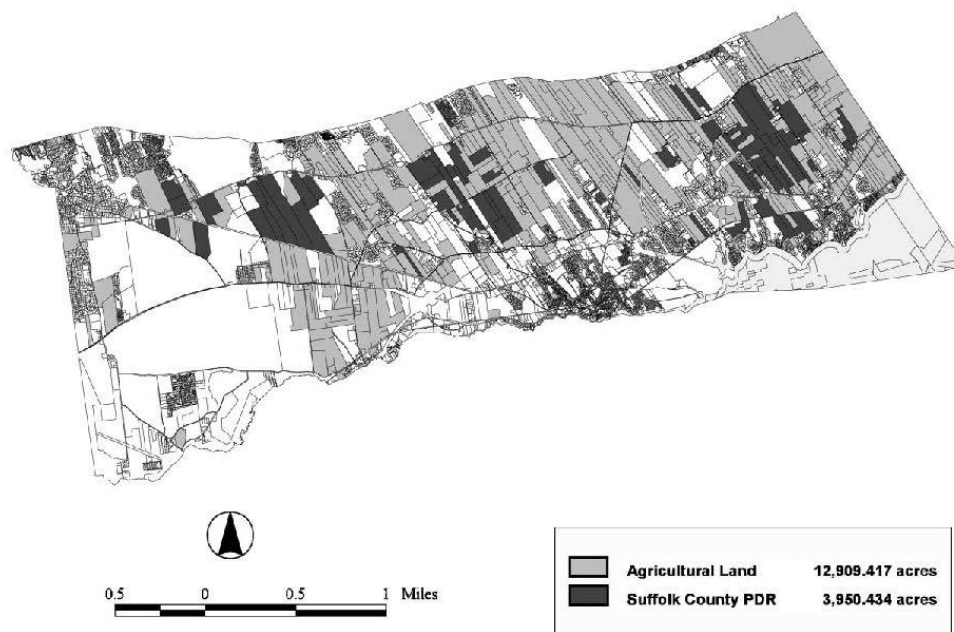


Fig. 2. The town of Riverhead showing extent of agricultural land, along with county PDR parcels.

development rights and conservation easements (Suffolk County Planning Department, 2000). The amount of land preserved in Riverhead by the county PDR program represents more than half of the total land preserved in the county through the program.

The county program used five factors in determining where to buy development rights: soils, current land use, contiguity of farmland, development pressure and the price of land (Suffolk County, 1996). Highest priority for acquisition was given to land in designated county Agricultural Districts, parcels over 10 acres in size and those with high-quality agricultural soils. In addition, parcels under consideration for purchase must have been engaged in active farming for at least 2 years prior to purchase.

2.3. Cluster program in Southampton, New York

In contrast to the regional focus and planning inherent in transfer and PDR programs, cluster development programs typically deal with development on

a site by site basis. While cluster programs may be mandated in a prescribed geographical area, development and preservation decisions are made on an individual site basis, providing the opportunity for significantly more fragmentation than in transfer or purchase programs, a tendency noted in previous reviews (Arendt, 1997; American Farmland Trust, 1997). Cluster programs work with the underlying zoning density, reducing minimum lot sizes and requiring that a portion of the site remain as open space. Obviously, the percentage of open space required to be set aside in any cluster program is a major determining factor in the overall effectiveness of that program, as is whether the program is mandatory or voluntary, and the degree of discretion granted to the statutory review body. In terms of the potential for fragmentation, the question of whether protected open space on adjacent clusters is contiguous is critical.

Fragmentation of the remaining open space into a patchwork that has limited use as agricultural land or

habitat is also a critical issue (Whyte, 1964; Arendt et al., 1994; Dramstad et al., 1996). Although, it is a very popular tool, clustering is not regarded by farmland protection advocates as a front-line means to protect agricultural land bases (Arendt, 1997; American Farmland Trust, 1997). Previous reviews have suggested that clustering may be better designed for preserving niche farms on the urban fringe that produce high-value specialty crops for sale to urban areas (Arendt, 1997) and as a means to protect rural character and scenic quality (Daniels, 1997; Arendt, 1991), even though clustering may produce development results that are visually and functionally incompatible with surrounding land uses (Arendt, 1991).

The town of Southampton, located on the eastern end of Long Island, has been an agricultural community since its settlement in the late 1600s. By the 1970s, tourism and second home development were beginning to fragment the existing farming areas. Mandated in the 1970 master plan for the town, residential clustering was adopted in 1979 and substantially revised in the early 1980s. The town defined an agricultural overlay district, that coincided with the concentrations of agricultural land in the town and prime agricultural soils. By mandating the use of planned residential development (PRD) subdivisions within the agricultural overlay district, the town granted the planning board the discretion to require that a subdivision cluster the development units on the portion of the parcel containing the least productive soils. The percentage of open space to be set aside in

Table 1
Prime agricultural soil preservation guidelines in the town of Southampton for the various development densities allowed in the agricultural overlay zone (Town of Southampton, 1989)

Zone	Minimum lot size requirements	Required percentage of prime soil preservation (%)
R-10	0.23 ac	35
R-15	0.34 ac	35
R-20	0.46 ac	35
R-40, CR-40	0.92 ac	35
R-60, CR-60	1.37 ac	35
CR-80, R-80	1.84 ac	50
CR-120, R-120	2.75 ac	65
CR-200	4.59 ac	65

the subdivision was governed by a sliding scale based on the minimum lot size of the underlying zoning (see Table 1).

Despite intense development pressure, farming continues in the town. Paradoxically perhaps, the most important farming areas are also located in the areas of highest land value located in the southeastern portion of the town adjacent to the prime beaches, comprising the highly desirable resort hamlets of Sagaponack, Bridgehampton and Water Mill. Cropping patterns provide evidence of the shift from traditional farming to metropolitan niche farming: row crops, particularly potatoes are being edged out by truck farming and nurseries as the predominant agricultural products.

Land in the agricultural overlay zone in the town of Southampton is protected under three different

Table 2
A breakdown of protected land by acres in the agricultural overlay zone, town of Southampton

Land type or protection tool	Total acres	Percent of total area	Average parcel size (acres)
Total land in farming use	6397.1	48.8	11.0
Total protected	2274.6	17.8	18.5
Subdivision reserve areas	755.7	5.8	13.7
County PDR	669.4	5.1	30.4
Town PDR	757.1	5.8	30.3
Local land trusts	149.1	1.1	3.4
Unprotected	4122.5	31.0	8.2
Total land not in farming use	6704.2	51.1	–
Protected	97.8	0.9	8.9
Developed and vacant land	6575.6	50.0	1.7
Public land	30.8	0.2	1.6
Total agricultural overlay	13101.3	100	–

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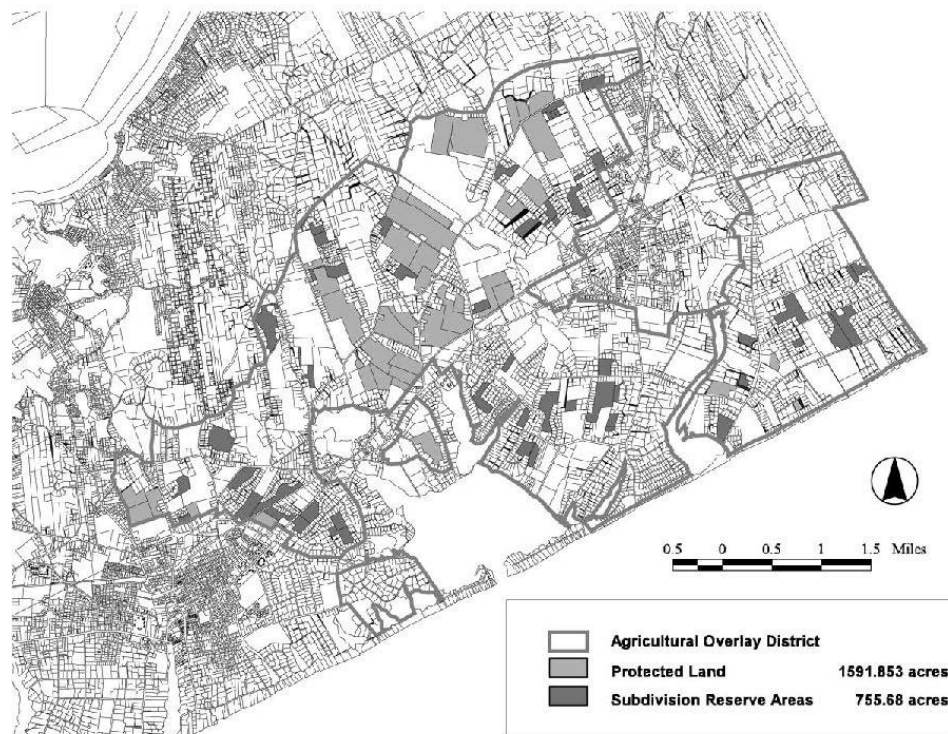


Fig. 3. The agricultural overlay zone in the eastern portion of the town of Southampton showing protected land and subdivision reserve areas.

tools: planned residential development (cluster), county and town PDR, and local land trusts. As of 1997, total preserved land accounted for 18% (2372 acres) of the total land acreage within the agricultural overlay, while unprotected land accounted for 4123 acres, or 31%. The remaining 6576 acres (50%) were developed (see Fig. 3 and Table 2).

3. The effects of the three programs on resource fragmentation

In order to compare the effect of the land protection tools and programs on fragmentation of the farmland resource, each major tool was analyzed according to the two major issues of fragmentation: (1) the erosion of the farmland base leading to a loss of sufficient farm

support operations and facilities; and (2) the issue of parcel fragmentation. These two issues give rise to three measures or indicators of fragmentation in the resource, described below.

First, to assess the issue of the erosion of the farmland base, the total number of acres protected by the program was determined according to each of its associated tools. In order to allow the comparison of programs with widely differing amounts of resource land, this number was compared to the total number of acres of targeted land, giving a relative percentage of land protected.

Second, to assess the issue of parcel fragmentation, two measures were analyzed: parcel size and parcel contiguity. The average protected parcel size was assessed as a key indicator of the continued viability of the protected parcels for farming. Parcel size is an

indicator for large-scale, traditional farming enterprises, and is often relied upon as an indicator of fragmentation and degradation of the resource (Daniels, 1997; Gerard, 1984). However, in metropolitan fringe areas, there is some indication that parcel size may not be as important an indicator of continued farm production, due to a change in focus from field crops to high yield specialty crops (Pfeffer and Lapping, 1995; Scarfo, 1990).

Contiguity, or the degree to which the protected parcels connect to other protected parcels, creating a large agglomeration of land available for farming (Lapping et al., 1989) is a key measure of fragmentation. Other reviewers have noted that isolated farm parcels that are not contiguous with other farmed parcels often experience negative impacts such as complaints from neighbors and lack of support that negatively affect farming operations (Bryant and Johnston, 1992; Scarfo, 1990) in addition to the management issues associated with farming isolated parcels of land.

Finally, to test the effects of fragmentation on active farming, all protected lands for the three major tools were checked for active farming status through a field inventory conducted during the summer of 1999.

3.1. Regional fragmentation: total acreage protected

The three tools show a wide variety in the total number of acres protected over the lifetime of the program (see Table 3). However, since the total acreage targeted for protection in each jurisdiction varies so dramatically, the percent of the total acreage protected and the average acres protected per year provide a clearer indication of the preservation potential of each program.

In these respects, the TDR and PDR programs are the clear forerunners, protecting 31 and 23% of their

respective land areas over the life of the program (see Table 3). However, when comparing the average acres protected per year, the TDR program at 1768 acres to the PDR program's 195 acres illustrates the TDR program's potential to protect large acreages of farmland. The cost of acquiring the development rights to large amounts of farmland (to acquire the amount of farmland preserved under Montgomery County's TDR program would require an almost 10-fold increase over the Riverhead totals) could make the goal of preservation almost prohibitive. It is interesting to note that in Montgomery County, an additional 10% of the land base (9058 acres) above that protected by TDR has been protected through the use of state and county PDR programs. The failure of clustering to protect a significant amount of the farmland base is underscored by the small amount (6%) protected in the Southampton program.

3.2. Parcel fragmentation

3.2.1. Size of parcels

Parcel sizes vary widely under the three tools, again with the TDR and PDR programs showing the most congruency. The greatest difference between these two tools is in the size of unprotected parcels, which in Montgomery County was 47.7 acres and in Riverhead, 28.5 acres. This reflects the fact that the PDR program has targeted the largest parcels for protection, leaving many of the smaller parcels for either future protection or development.

Pre-protection parcel sizes are relevant to the analysis only in terms of comparison between the cluster program and the other two programs. In Southampton, pre-protection parcel sizes ranged from the smallest at 6.6 acres to the largest at 71 acres. The mean pre-development or pre-protection parcel size was 37 acres, compared to 74.1 in Montgomery County

Table 3
Comparison of land protection achieved in acres for the three preservation programs: transfer of development rights, PDR and cluster

Program	Date of program inception	Total acreage targeted for protection ^a	Protected acreage ^b	Percent of total acreage protected (%)	Average acres protected per year
TDR, Montgomery County	1980	96485	30062	31	1768
PDR, Riverhead	1977	16862	3889	23	195
Cluster, Southampton	1979	13093	771	6	41

^a Acreage contained within the target protection zone.

^b Acreage permanently protected by the program: TDR by 1997, PDR by 1999; cluster by 1998.

Table 4
Comparison of parcel sizes across the three programs: transfer of development rights, PDR and cluster

Program	Affected parcel size		Unprotected parcel size ^a (mean acres)
	Pre-development or protection (mean acres)	Protected (mean acres)	
TDR, Montgomery County	74.1	74.1	11.3
PDR, Riverhead	51.1	51.1	37.5
Cluster, Southampton	37.0	13.7	8.5

^a Parcels in agricultural use.

(50% larger) and 51.1 acres in Riverhead (28% larger). In Southampton, the relatively small pre-development parcel size exacerbated the results of the mean protected development parcel. At 13.7 acres, the mean protected development parcel was less than half the size of the original parcel (see Table 4). Loss of parcel size is an inherent result of the clustering tool since only a portion of the affected parcel is protected from development, while in TDR and PDR, the entire affected parcel is protected.

3.2.2. Contiguity

Contiguity with other protected land can be an important factor in the long-term farming status of a particular parcel of land. In addition to the measure of adjacency of protected land is the question of how the tools and coordinated farmland protection strategies achieved an aggregation of protected parcels across the targeted protection area. Two measures are key: adjacency of a protected parcel with another protected parcel, and secondly, the extent to which

those protected parcels form a large mass of contiguous protected land. In assessing the results of the aggregations, the key factor is the average size of the resulting aggregations (see Table 5) and the overall percentage of protected land that remains isolated from other protected land (see Table 6).

In reviewing the adjacency of protected parcels in the three programs, the TDR and PDR showed the strongest results, with 91 and 75% of parcels adjacent to other protected parcels under the same program (see Table 7). In Southampton, only 36% of the protected parcels were adjacent to other subdivision reserve areas, and 46% were adjacent to only unprotected parcels. This result illustrates the failure of discretionary review to ensure contiguous protected land in a cluster program. Exacerbating the issue of adjacency in Southampton, 17% of the protected parcels (8 of the 47 subdivision reserve areas) were completely surrounded by residential subdivisions.

Due to its large target protection area, Montgomery County’s TDR program produced the largest aggrega-

Table 5
Aggregations of protected land achieved by the various tools and three preservation strategies of the study sites

Program	Percent of aggregations	Total acres	Average percent of parcels	Mean size of aggregation in acres	Maximum acres of aggregation	Minimum acres of aggregation
Montgomery County						
TDR	59	27406.2	10.0	464.5	11675.1	3.9
PDR	20	7758.8	6.25	387.9	2183.0	48.8
TDR and PDR	59	36963.1	12.7	626.5	14906.7	3.9
Riverhead						
PDR	12	2952.3	4.0	246.0	857.0	21.7
Southampton						
Cluster	18	275.9	2	30.7	56.7	9.7
PDR and land trust	75	1165.5	4.4	68.6	261.9	4.7
Cluster, PDR and land trust	27	1606.7	3.8	54.2	142.8	4.7

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Table 6
Relative area of the protected parcels that were aggregated and isolated by the tools used in the three study sites

Program	Percent of parcels	Total acres	Mean size of parcels (in acres)	Percent of protected area by tool
Montgomery County				
TDR				
Aggregated	593	27406.2	46.2	91
Isolated	50	2655.6	53.1	8
Total	643	30061.8	–	100
PDR				
Aggregated	125	7758.8	62.1	86
Isolated	18	1299.6	72.2	14
Total	143	9058.4	–	100
Riverhead				
PDR				
Aggregated	48	2952.3	61.5	75
Isolated	22	981.1	44.6	25
Total	70	3933.4	–	100
Southampton				
Cluster				
Aggregated	18	275.9	15.3	36
Isolated	30	496.9	16.6	64
Total	48	772.8	–	100
PDR and land trust				
Aggregated	75	1165.5	15.6	88
Isolated	8	161.5	20.3	12
Total	83	1327.0	–	100

tions of protected land. However, it is clear from Table 6 that the farmland protection strategies that use more than one tool—Montgomery County and Southampton—achieve a positive effect in protected land aggregation. In Southampton, aggregations of protected land increased in total acreage almost six-fold, while the average aggregation size increased by 43%. Montgomery County’s aggregation size increased by 25%.

When looking at the effects of the individual tools (Table 7), the TDR program showed a positive effect on fragmentation, resulting in the aggregation of 91% of the parcels into protected areas with an average size of 46.5 acres. The PDR programs also fared well, aggregating 86% of the total protected land area in Montgomery County, 75% in Riverhead, and 88% of the PDR and land trust parcels in Southampton. The parcel aggregations in Montgomery County and

Table 7
Breakdown of percentage of parcels contiguous with other protected parcels or unprotected land in agriculture

Program	Contiguous with other protected parcels ^a		Contiguous with only unprotected parcels (%)
	Same program (%)	Other programs (%)	
TDR, Montgomery County	92	2	7
PDR, Riverhead	78	–	20
Cluster, Southampton	38	19	46

^a A parcel may be contiguous with more than one type of protected parcel.

Table 8
Breakdown of programs detailing accessibility of preserved lands

Program	Accessible by (percent of parcels)		
	Road (%)	Protected (mean acres) (%)	Unprotected land in farm use (%)
TDR, Montgomery County	88	60	2
PDR, Riverhead	66	43	7
Cluster, Southampton	67	15	17

Riverhead communities averaged 387 and 246 acres, respectively.

The cluster program in Southampton did not fare as well. Of the protected parcels, 64% were isolated, with an average protected aggregation of only 30 acres. The additive effect of other tools in reducing fragmentation is particularly obvious here, since the average aggregation size rose to 54.2 acres with the addition of county and town owned PDR parcels and acquisitions by local land trusts.

3.3. Farming status

In order to test the effects of fragmentation on active farming, all protected lands for the three major tools were checked for active farming status. Farming status was determined for Montgomery County from tax

parcel information with field checks. In Riverhead and Southampton, status was based solely on field observations.

All three farmland preservation tools showed high rates of active agricultural use. In Riverhead, 97% of PDR protected land were in active farm use (see Table 8). Parcel size had a direct effect on the agricultural status of land in Riverhead. Analysis of the parcels identified that 40% of parcels under 5 acres were actively farmed, 92% of parcels between 10 and 25 acres were actively farmed and 96% of parcels larger than 25 acres were actively farmed; there are no PDR parcels between 5 and 10 acres. This analysis indicates that in Riverhead parcel size is factor in agricultural status: the larger the preserved parcel, the greater the likelihood it remains in agricultural use (Tables 9 and 10).

Table 9
Comparison of lands in active farm use

Program	Protected land in active farm use			Not in active farm use mean parcel size (acres)
	Acres	Percent (%)	Mean parcel size	
TDR, Montgomery County	24641	82	77.7	16.6
PDR, Riverhead	3786	97	59.2	32.6
Cluster, Southampton	709	92	13.7	8.9

Table 10
Summary comparison of land protection for the three programs^a

Program	Total acres protected	Percent of land base protected (%)	Average protected parcel size (acres)	Percent of protected parcels in active agriculture (%)	Percent of protected land in aggregations (%)
TDR, Montgomery County	30062	31	74.1	82	91
PDR, Riverhead	3889	23	51.1	97	75
Cluster, Southampton	771	6	13.7	92	36

^a In the TDR program, the land parcel retains development rights at the rate of 1 unit per 25 acres after transfer.

In Southampton, 92% of all subdivision reserve areas were actively farmed. For the purposes of this study, land in agricultural production includes equestrian land (153 acres), land used by commercial nurseries and orchards (45 acres), and farmland producing row or specialty crops (511 acres). The status of two SRA parcels (11.5 acres) was undeterminable due to the visual and/or physical inaccessibility of the lots from public property. It is important to note that in addition to equestrian uses, several of the subdivision reserve areas were used as wildflower meadows, both of which take land out of traditional agriculture. Riding arenas and academies, while popular, have a high ratio of built structures and impervious surfaces, therefore, these uses do not preserve the prime agricultural soils as intended by the goals of the program.

In Southampton, larger parcels are more likely to be farmed than smaller parcels. Half of parcels under 5 acres were actively farmed; 91% of parcels 5–10 acres in size were actively farmed; 79% of parcels 10–20 acres were actively farmed; and 100% of parcels larger than 20 acres were actively farmed. One explanation for the dip in percentage of parcels actively farmed in the 10–20 acres category is that 10 acres may be too large to be leased for efficient truck farming and 20 acres too small to support efficient row crop production.

The analysis of active farming status in Montgomery County indicates one flaw of TDR program as applied in the county. While 82% of the protected land continues in agricultural use, it is the lowest percentage of the three programs. Part of the reason for this can be found in the mean parcel size of land not in active farm use, 16.6 acres. This supports the finding that the remaining development right of 1 unit per 25 acres encourages the creation of smaller parcels that have a residential function.

4. Conclusions

Avoiding fragmentation—the isolation of farmland parcels—is a key aspect of any farmland preservation strategy. Therefore, it is critical to understand the triggers and the effects of fragmentation inherent in any farmland preservation strategy. The results of this initial investigation into the spatial forms produced by

three farmland preservation programs identify several key triggers of fragmentation.

At the regional level, when looking strictly at the numbers of acres of farmland protected by the three programs, transfer of development rights appears to be the most successful agricultural land protection method. Montgomery County's transfer of development rights program resulted in a higher rate of land conservation than either of the other two programs—31% of the land base from transfer of development rights in Montgomery County, compared to 23% from PDR in Riverhead and 6% for Southampton's cluster program. The most significant weakness in the cluster program is the issue of preservation of the agricultural land base: only 6% of the original agricultural land base has been protected through the use of clustering, and only an average of 36% of an original parcel is protected under the requirements of the program. Thus, the effect of the cluster program is increasing fragmentation and loss of the land base.

However, the number of acres protected provides only an initial indication of the success of any of the three programs in avoiding land fragmentation. The success or failure of each program is clarified by the amount of protected land that continues to remain in active farming. The PDR program resulted in 97% of the preserved parcels in active agricultural production, compared to 82% for the transfer of development rights program. This is due at least in part to the remaining development rights in the transfer program (at the rate of 1 unit per 25 acres) that allow for further subdivision of the land into residential estates, a popular commodity in the metropolitan real estate market. Even in Southampton, where the parcel sizes are much smaller, the active agricultural use is 92%, underscoring the importance of severing all future development rights from the protected parcel.

As important to the issue of fragmentation is the question of how the farmland preservation programs achieve contiguous blocks of protected farmland. Again, the transfer of development rights program in Montgomery County is the most successful in achieving large contiguous blocks. However, the results also underscore the importance of developing a coordinated strategy utilizing a variety of farmland protection tools. Two of the case studies, Montgomery County and Southampton, which used a variety of tools for protecting farmland showed both a dramatic

increase in size of protected areas and reduction of protected parcel isolation when all of the farmland protection tools are included in the analysis. Meanwhile, Riverhead did not have a variety of active tools. While the PDR program in Riverhead used adjacency in its selection criteria, isolated parcels remained a problem in the program.

Further, research and comparison between programs is certainly needed, however, this analysis illustrates key criteria for effectively reducing fragmentation in a farmland protection strategy. First, an emphasis on protecting large parcels is critical to reducing fragmentation as much as possible during the protection process. Secondly, using adjacency and contiguity criteria in making preservation decisions improves the ability to protect large contiguous blocks of land and are key in ensuring that farming can continue effectively in the targeted area. In this respect, severing all development rights from the land will ensure the continued viability of farming, lessening the potential of conversion to residential uses. In cluster programs, effectiveness is also influenced by the amount of review discretion granted to the site plan approval board, and the threshold of open space protection required in the ordinance. Finally, the analysis and comparison of the three land preservation strategies reinforces the importance of utilizing and coordinating a variety of protection tools to achieve optimum protection of the land base.

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EXHIBIT 8

NORTH WOODLAND FLOOD WALL IMPACT SUMMARY

All We Want For Christmas is to Save our Farms - And, Flood Protection for All !!

The City of Woodland is currently considering flood protection alternatives. One alternative is a "flood wall" which would consist of a levee along the north edge of the City that would channel flood waters across approximately five to six thousand acres of land north of the wall; land which would become a *de facto* bypass. **A second alternative that the City is considering, a set-back levee system, would protect both Woodland, the area north of Woodland, and area north of Cache Creek.** Other alternatives, such as upstream storage, higher levees coupled with creek clean out, etc., warrant further consideration.

1. **The Proposed Flood Wall Will Negatively Impact Agriculture.**
 - a. Floodwater height, duration and length of inundation will increase in the affected area, limiting farmers' ability to plant, raise and harvest crops.
 - b. Farmer/Landowner ability to obtain financing will be impaired due to banker perception that the land has been devalued.
 - c. Permanent crops will be damaged.
 - d. Loss of farming viability for the affected acreage will lead to compromises in the agriculture infrastructure.
2. **Loss of Farm Values Will Lead to Loss of Tax Base for the County of Yolo and the Woodland Joint Unified School District.**
3. **Landowners Will Lose Other Sources of Substantial Income, e.g. Sale of Conservation Easements.**
4. **Public Safety and Health in Our Area Will Be Impaired By Threatened Evacuations and Road Closures.**
5. **Assurances Have Not Been Given That Emergency Authorities Will Continue To Provide Us the Same Level of Flood Protection.**
6. **Businesses and Farms In Our Area Store Large Amounts of Chemicals and Petroleum Products Which Are Potentially Hazardous If Released Into Floodwaters.**
7. **A Flood Wall Would Result In Large Loss of Land and Other Current Uses.**
8. **A Flood Wall Will Create a Schism Between Residents of this Community.**

The Flood Wall will be the far more expensive alternative when all consequences are considered. The set back levee is a viable alternative which does not create schisms, economic loss and environmental damage. **North Woodland Property Owners - the Heartland of Yolo County - Commit to Do Their Part to Fund a Flood Protection System Which Will Provide Protection for All.**

Responses to Letter I14

I14-1

Please see Master Response 1: *Measure S*. Responses to the Schaaf & Wheeler letter are provided below. Comments within the Schaaf & Wheeler letter are numbered I14-67 through I14-84.

I14-2

This comment provides background and summarizes the specific comments presented later in the letter. A response to each specific comment, including comments on the project description, consistency with City and County policies, hydrology impacts, water quality impacts, agricultural impacts, public safety impacts, and growth inducing impacts, are provided below. Detailed responses regarding Measure S are provided in Master Response 1: *Measure S*, detailed responses regarding alternatives are provided in Master Response 4: *Alternatives*, and the responses to the Schaaf and Wheeler letter are provided under responses to comments numbered I14-67 through I14-84.

I14-3

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

I14-4

Regarding the reference to Measure S, please see Master Response 1: *Measure S*. Consistency with the City of Woodland's general plan and the County of Yolo's general plan are fully analyzed in the Draft EIR and the conclusions are fully supported by the analysis. Regarding compliance with the City of Woodland's general plan Goal 7.C, as described in Master Response 2: *Flood Risk*, the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project is, therefore, consistent with the City of Woodland's general plan Goal 7.C (discussed in Section 3.6, *Agricultural and Forestry Resources*, under Section 3.6.1.1, *Regulatory Setting*, of the Draft EIR), which calls for the City to promote preservation and economic viability of agricultural land surrounding the urban limit line. Agricultural impacts are discussed in the Draft EIR in Section 3.6.

I14-5

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city and the response to Comment I14-4, which explains that the Proposed Project is consistent with the City of Woodland's general plan Goal 7.C. Regarding a regional flood solution, please see Master Response 1: *Measure S*.

I14-6

Please see Master Response 2: *Flood Risk*, which explains that flooding would no longer occur south of the proposed levee (i.e., the city limits) under with-project conditions in both 100-year and 200-year flood events, thus meeting the overall Proposed Project objectives of providing 200-year flood protection and obtaining FEMA certification for the city. Additionally, the Proposed Project would decrease overall flood duration north of the proposed levee and would not increase flood risk, as

defined by FEMA, north of the proposed levee. The Proposed Project is, therefore, consistent with the City of Woodland's general plan Goal 8.B.

I14-7

Please see Master Response 1: *Measure S*.

I14-8

The comment alleges that the Draft EIR "fails to mention Policy 8.B.7;" however, this policy is described in Draft EIR Section 3.5.1.1, *Land Use and Planning, Existing Conditions, Regulatory Setting, Local, City of Woodland General Plan* and the Proposed Project's consistency with Policy 8.B.7 is analyzed under Impact LU-2. For a discussion of flood risk, please refer to Master Response 2: *Flood Risk*. Chapter 2, *Project Description*, Section 2.3.6.1, *Non-Structural Measures*, explains that the non-structural measures are proven methods and techniques implemented for reducing flood risk and flood damages by adapting to the natural characteristics of flooding within the unobstructed floodplain. Because of their adaptive characteristics to flood risk, these measures support the National Flood Insurance Program and generally cause no adverse effects to the floodplain, flood stages, flood velocities, flood duration, or the existing environment" (Association of State Floodplain Managers n.d.)." As described in Section 2.3.6.1, these proven methods include flood easements and offsetting annual cost of flood insurance. Therefore, the City has ensured the Proposed Project includes monetary support to the north of the project footprint, where needed and if decided by the landowner. The Proposed Project is, therefore, consistent with the City of Woodland's general plan Policy 8.B.7.

I14-9

Please see responses to Comments I14-4 through I14-8 regarding the referenced City of Woodland general plan policies. Please also see Master Response 1: *Measure S*, regarding the regional planning efforts related to flooding.

I14-10

Please see Master Response 1: *Measure S*.

I14-11

As described in Master Response 1: *Measure S*, the Proposed Project is consistent with Measure S. No revisions to the EIR are required.

I14-12

Consistency with the County of Yolo's general plan is fully analyzed in the Draft EIR and the conclusions are fully supported by the analysis. Consistency with Yolo County general plan Goal AG-1 and subsequent general plan Policies AG-1.4 and 1.5 are assessed in Draft EIR Section 3.5, *Land Use and Planning*, under Impact LU-2, Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. It is therefore consistent with Yolo County general plan Goal AG-1 and subsequent general plan Policies AG-1.4 and 1.5. The comment also mentions "Goal AG-22" but the Yolo County general plan contains no goal of that number.

I14-13

As described in Master Response 2: *Flood Risk*, lands north of the city are already classified as floodplain (subject to inundation by a 100-year flood event) by FEMA (as shown in Figure 3.1-1 of the Draft EIR), and the Proposed Project would not change the frequency of flood events. Further, as also described in Master Response 2: *Flood Risk*, the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project would not result in the redesignation of land uses north of the city.

As discussed in Master Response 2: *Flood Risk*, the Proposed Project benefits the community. It is, therefore, consistent with Yolo County general plan Policy AG-1.5.

A total of 800 structures would benefit from the Proposed Project. The areas that would be removed from the floodplain with implementation of the Proposed Project are shown in Figure 3.2-1 of the Draft EIR (e.g., those areas on Figure 3.2-1 without blue coloring but with purple hatching), which compares modeled flood extents under existing conditions and under the Proposed Project (Alternative 2A).

I14-14

Please see Master Response 2: *Flood Risk*.

I14-15

Please see Master Response 2: *Flood Risk*.

I14-16

As the commenter indicates, according to the *Yolo County 2030 Countywide General Plan*, surface water is the primary source of irrigation water in Yolo County in most years. The potential for the risk of release of pollutants as a result of project inundation is discussed in Impact WQ-4 (Section 3.2, *Water Quality*). As described for that impact, under both existing conditions as well as under the Proposed Project, a major flood event (e.g., 100-year event) could result in the upset and spread of stored hazardous materials from inundated homes, vehicles, industrial facilities, agricultural operations, etc. from Cache Creek floodwaters. While various contaminants (including pesticides flushed from agricultural fields north of the proposed levee) may be carried in floodwaters over the lower Cache Creek floodplain, this would not jeopardize the water quality of the primary source of surface water for agricultural irrigation (i.e., Clear Lake and Indian Valley Reservoirs). Groundwater quality could also be affected by infiltration of contaminants from flood water. To what extent this may occur under the Proposed Project relative to existing conditions, and to what extent infiltration of contaminated water would limit groundwater use for irrigation, is not known. It would be expected that in the long-term, rainfall and irrigation water would dilute contamination. Further, as indicated in Impact WQ-4 in the Draft EIR, the flood protection provided to the city and the area immediately west of SR 113 by the proposed levee would eliminate the risk of pollutants that could potentially be released in a flood event. In other words, any existing stored hazardous materials, sewage facilities, or other facilities, which are in great concentration in the city and this area, would no longer be at risk of upset during a flood. The small number of businesses and homes located in the remaining flood hazard area and the potential risk of upset associated with them would be negligible when compared with the elimination of risk within the city. The Proposed Project is,

therefore, consistent with Yolo County general plan Goal AG-2 and Policy AG-2.2. Further discussion of flood risk and contaminants is provided in Master Response 2: *Flood Risk*.

I14-17

As described in Master Response 2: *Flood Risk*, the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project is therefore consistent with Yolo County's general plan Policy AG-2.5.

I14-18

As discussed in the responses to Comments I14-12 through I14-17, the Proposed Project is consistent with Yolo County's general plan agriculture policies. Impacts to agriculture are analyzed in Draft EIR Section 3.6, *Agricultural and Forestry Resources*. No changes to the EIR are required.

I14-19

Section 3.15, *Aesthetics*, of the EIR provides an analysis of visual and aesthetic character impacts in the study area, including rural and agricultural landscapes. The local regulations subsection lists specific policies from the *Land Use and Community Character Element* of the *Yolo 2030 Countywide General Plan* relevant to aesthetics in the study area, including Policy CC-1.2, which is under Goal CC-1 and cited by the commenter. Policy CC-1.2 specifically addresses preserving and enhancing the rural landscape and was considered throughout the analysis. In particular, Impact AES-2 (less than significant with mitigation) and Impact AES-3 (significant and unavoidable) analyze impacts on visual character and quality of views in non-urbanized (rural/agricultural) areas due to construction and operation, respectively, of the Proposed Project. Please also see Master Response 2: *Flood Risk*.

I14-20

As described in the response to Comment I14-19, community character impacts are discussed in Section 3.15, *Aesthetics*. No changes to the EIR are warranted.

I14-21

Please see Master Response 2: *Flood Risk* and response to Comment I14-6 regarding flood risk. Figure 3.2-1 in the Draft EIR identifies areas removed from the floodplain under with-project conditions during a 100-year flood event (e.g., those areas on Figure 3.2-1 without blue coloring but with purple hatching). For example, portions of I-5 have been removed from flood risk under the Proposed Project. The Proposed Project would be consistent with Policy HS-2.4, *Clearly communicate the risks, requirements, and options available to those who own land and live within the floodplain*. As described in Section 3.1, *Hydrology*, Impact HYDRO-5, "the frequency of flooding in the area north of the city would not change relative to existing conditions, because the study area is already prone to flood risk, and the Proposed Project would not alter the geometry of Cache Creek (i.e., alter the pre-existing flooding regime)." In other words, residences and structures north of the Proposed Project are currently within a floodplain and are aware of the risks associated with flooding. In addition, the California Data Exchange Center has guidance plots that forecast flood stages at the Cache Creek at Yolo Gauge. This information is used to inform emergency response decision making, such as when to evacuate the community and close roads. The Proposed Project would not result in an increase in the occurrence of such flood events, and the structures would not

be activated unless such a large-scale (e.g., 100-year) flood event was occurring. Furthermore, as described in Chapter 2, *Project Description*, Section, 2.3.6.1, *Non-Structural Measures*, of the Draft EIR, residents with structures to the north of the project footprint would have multiple options to benefit the properties north of the city. Draft EIR Section 3.5, *Land Use*, addresses Goal HS-2: *Flood Hazards. Protect the public and reduce damage to property from flood hazards*, and specifically Policy HS-2.2, *Ensure and enhance the maintenance and integrity of flood control levees*. Policy HS-2.1 does not apply to the Proposed Project because the Proposed Project is not a development project. Policy HS-2.7 does not apply to the Proposed Project because the Proposed Project is a levee project and would not require modifications to existing water supply. Furthermore, there would be no substantial changes to the management of the existing floodplain to the north of the proposed levee, as the area that is currently within the floodplain and would continue to remain in a floodplain (see Draft EIR Figure 3.1-1; the project area is identified as Zone AE, which means it is subject to inundation by a 100-year flood event). Please refer to the response to Comment I14-13 regarding properties that will benefit from the Proposed Project.

I14-22

Section 3.1, *Hydrology*, of the Draft EIR fully analyzes flood risk and the implications of flooding to the project area. The analysis in Draft EIR Section 3.5, *Land Use*, relies on the technical flooding and water quality analyses contained in Sections 3.1 and 3.2, *Water Quality*, and Section 3.1 has been updated to reflect this (see Chapter 7, *Corrections and Revisions to the Draft EIR*, in this Final EIR).

I14-23

Please see Master Response 2: *Flood Risk* and responses to Comments I14-6, I14-8, I14-9, I14-21, and I14-22 regarding impacts related to flooding. The analysis contained in Draft EIR Section 3.5, *Land Use*, is based on the technical analysis and information disclosed in the EIR regarding flooding (e.g., in Sections 3.1, *Hydrology*, and 3.2, *Water Quality*).

I14-24

Please see Master Response 2: *Flood Risk* and responses to Comments I14-6, I14-8, I14-9, I14-21, and I14-22 regarding impacts related to flooding. The analysis contained in Draft EIR Section 3.5, *Land Use*, is based on the technical analysis and information disclosed in the EIR regarding flooding and appropriately analyzes consistency with relevant general plan policies that for the purposes of avoiding or mitigating an environmental effect.

I14-25

The introductory text under the header for Section IV in this comment summarizes the more specific comments provided further on in this section. The City has provided responses to each specific comment below. The Draft EIR fully analyzes the impacts of the Proposed Project under CEQA and meets all the legal requirements of CEQA, and recirculation is not required.

The introductory text under the header for Subsection A in this comment (page 12) summarizes the more specific hydrology and water quality comments provided further on in this section. The City has provided responses to each specific comment below. Please see Master Response 2: *Flood Risk* for a thorough discussion of flood risk. Responses to the Schaaf and Wheeler letter are provided under responses to comments numbered I14-67 through I14-84.

The lands north of the proposed levee are already in a floodplain (see Draft EIR Figure 3.1-1; the project area is identified by the FEMA as Zone AE, which means it is subject to inundation by a 100-year flood event). The Draft EIR does not mislead regarding the potential for increased flood depths north of the proposed levee; Section 3.1, *Hydrology*, under Section 3.1.2.1, *Methods for Analysis, Water Surface Elevation*, states:

...there are localized areas where flood depths increase north of the proposed levee. In general, water surface elevation increases (for the 100-year flood) range from 0.1 to 6.0 feet. The larger increases occur on the east end of the project area near the CCSB on a combination of publicly and privately owned agricultural lands that do not contain any structures and in the detention basin. There is also an area to the east and west of County Road 102 (south of Cache Creek) where, in the modeled scenario described above, water under the 100-year event would be present (approximately 0.1 to 2.0 feet), where no water is present under existing conditions. However, this area is already part of the 100-year floodplain as designated by FEMA, which is shown in Figure 3.1-1. There are no structures located in this area.

Differences in flood depths under with-project conditions are also shown in Draft EIR Figures 3.1-5 and 3.1-6. These changes are all considered in the hydrology analysis. A hydrograph for the area located east of County Road 102 has been included as Appendix 2 of this Final EIR. This hydrograph shows that, as described in Section 3.1 of the Draft EIR, flood surface elevation in this area would initially be higher under with-project conditions as compared to under existing conditions. However, the hydrograph also shows that overall flood duration in this area would decrease under the Proposed Project (i.e., floodwaters would be present for a shorter amount of time). This figure does not represent any substantial new information, nor does it require any changes to the EIR analysis.

I14-26

Please see Master Response 2: *Flood Risk*.

I14-27

Chapter 2, *Project Description*, Section 2.3.6.1, *Non-Structural Measures*, explains that the non-structural measures are, according to the Association of State Floodplain Managers,

...proven methods and techniques implemented for reducing flood risk and flood damages by adapting to the natural characteristics of flooding within the unobstructed floodplain. Because of their adaptive characteristics to flood risk, these measures support the National Flood Insurance Program and generally cause no adverse effects to the floodplain, flood stages, flood velocities, flood duration, or the existing environment.

The Association of State Floodplain Managers includes floodproofing of individual structures as well as berms in the category of "non-structural measures." Although these measures generally cause no adverse effects, Draft EIR Chapter 2, *Project Description*, Section 2.3.6.1, *Non-Structural Measures, Floodproofing of Individual Structures*, explains how the EIR addresses potential environmental effects caused by floodproofing of individual structures. As described in Section 2.3.6.1:

The City believes that the floodproofing measures most likely to be selected by property owners would be erectable floodwalls, which would be deployed during times of flood threat, or structure raising. Because erectable floodwalls involve the temporary placement and then removal of water filled plastic blocks or bladders and have been determined to have no potential impact under CEQA, they are not analyzed in this EIR. As noted in Chapter 1, additional CEQA analysis may be required for non-structural measures, including individual structure raising, either by the City or the County.

Individual structures in the project area that may be raised exist within the jurisdiction of Yolo County. The County would determine if the raising of a structure involved a ministerial action, which would not trigger CEQA, or a discretionary action. If raising of a structure is determined to be a discretionary action, the County would determine if the action qualifies for a categorical exemption under CEQA, or if the activity is to be covered by this EIR. Regardless, for disclosure purposes, the potential environmental effects of structure raises associated with this project are analyzed in this EIR. Although the number and location of property owners who would opt to raise their homes is not known, the analysis in this EIR assumes three structure raises could occur during the second year of project construction, with two structure raises taking place per year over the course of 5 years after construction is complete. This EIR assumes these structures would be residential homes, approximately 1,800 square feet in size, with slab-on-grade foundations, and that these structures would be raised an average of 3 feet.

Impacts resulting from implementation of the non-structural measures are analyzed in the EIR commensurate with available information. No change to the EIR is warranted.

I14-28

It is unclear what the commenter is referring to. The Draft EIR does not state on page 3.1-14 that the Proposed Project would reduce flooding below the existing condition for any structures.

I14-29

The commenter is referring to the analysis for Impact WQ-4, which considers whether implementation of the Proposed Project would risk release of pollutants due to project-related inundation given that much of the project area is in a flood hazard zone. (Section 3.2, *Water Quality*). Accordingly, the focus of the discussion is generally on the risk of pollutant release. Per the discussion, it is noted that under both existing conditions and with-project conditions, if a major flood event were to occur, there would be a risk of introducing contaminants to the flood waters. The increase in flood protection provided by the proposed levee for Woodland and the area immediately west of SR 113 would eliminate the risk of pollutants that could potentially be released from those areas in a flood event. Accordingly, any existing stored hazardous materials, sewage facilities, or other facilities, which are in great concentration in the city, would no longer be at risk of upset during a flood. The small number of businesses and homes located in the remaining flood hazard area and the potential risk of upset associated with them would be negligible when compared with the elimination of risk within the city and the area west of SR 113. It would be speculative to attempt to "evaluate the extent and severity" of potential water quality impact due to a flood in this area and would not provide accurate or useful information. The overall risk of pollutants would decrease as a result of the Proposed Project.

I14-30

As indicated in Draft EIR Section 3.2.1.2 of Section 3.2, *Water Quality*, the environmental setting discusses the setting relevant to water quality in the project area--"specifically, ...the two primary receiving waters either within or immediately adjacent to the project area," which are Cache Creek and the CCSB. Impairments in water quality for Lower Cache Creek are described, designated beneficial uses for Lower Cache Creek and Yolo Bypass are provided (Table 3.2-1), as is information regarding mercury sources upstream of the project area; Cache Creek watershed's contribution of mercury generally; mercury methylation in the CCSB (including numeric load estimates over time); and mercury as a contaminant in the Yolo Bypass. A "basic understanding" of the hydrologic system as it relates to the project area is provided in Draft EIR Section 3.1.1.2 of Section 3.1, *Hydrology*,

which provides pertinent information on Cache Creek, the CCSB, Yolo Bypass, Willow Slough Bypass, and the City's existing storm drain system.

I14-31

The water quality discussion referenced in this comment refers to Draft EIR Figure 3.2-1, which depicts the results of one hydraulic modeling run analyzing one potential 100-year flooding scenario based on specific Cache Creek levee failure criteria. It is important to note that this figure does not show overall 100-year flood risk and does not represent the 100-year floodplain as designated by FEMA. The FEMA-designated 100-year floodplain is shown in Draft EIR Figure 3.1-1.

For the purposes of the water quality discussion referenced in this comment, the modeling results shown in Draft EIR Figure 3.2-1 were used for comparison purposes. Figure 3.2-1 in the Draft EIR shows the relatively small area (north of County Road 18C and east of SR 113) that would be flooded in a 100-year flood event under the Proposed Project compared to the area south of the southern levee of the CCSB that would be flooded under existing conditions but not under the Proposed Project. It is evident from this figure that the area south of CCSB is substantially larger than the area north of County Road 18C and east of SR 113. It is not unreasonable to conclude that because of the difference in potentially flooded land area, it is unlikely that there would be an overall increase in methylmercury production north and south of the proposed levee. Further, while hydraulic modeling indicates that there could be an area of land inundated north of County Road 18C under the Proposed Project that would not be inundated under existing conditions in the modeled 100-year flood event (and therefore mercury deposition from Cache Creek floodwaters could occur in that area), if there is an increase in mercury methylation in that area, it is unlikely that there would be substantial increased transport to nearby surface waters (i.e., Cache Creek, CCSB, and Yolo Bypass) such that beneficial uses of water would be affected. Generally, mercury adsorbs to soil/humus and enters waterbodies from land bound to suspended soil in runoff. Runoff from farmed agricultural land during the irrigation season is generally avoided to minimize soil loss and maximize water conservation. Substantial runoff in rainwater would likely be limited to isolated heavy rain events, and runoff would be diluted. While mercury can leach from soils to groundwater, the degree to which this occurs is dependent upon multiple site-specific soil variables (e.g., pH, clay, and organic matter content). In addition, it is relevant to consider the extent to which irrigation water on agricultural lands north of the proposed levee comes from surface water sources as these sources likely include Cache Creek, which is impaired by mercury as well as other contaminants (Section 3.2, *Water Quality*); thus, annual irrigation with nearby surface water source potentially contributes more mercury to the soil in the project area under existing conditions than a single 100-year flood event under the Proposed Project. For these reasons, as well as those discussed for Impact WQ-3 in the Draft EIR, any potential increase in methylmercury production as a result of implementing the Proposed Project would not affect beneficial uses of surface water or groundwater and. Therefore, would not conflict with or obstruct implementation of the Basin Plan. Contaminants are further discussed in Master Response 2: *Flood Risk*.

I14-32

As discussed in the responses to Comments I14-25 through I14-31, the conclusions in the hydrology and water quality analyses are valid, and no changes to the EIR are necessary.

I14-33

This comment provides background information on the statewide and regional importance of agriculture and summarizes the more detailed agriculture comments that follow. The City has provided a response to each specific comment below. Agricultural impacts are discussed in the Draft EIR in Section 3.6, *Agricultural and Forestry Resources*. In the analysis in Section 3.6.2.3, *Impacts and Mitigation Measures*, Impact AG-1 determines that permanent conversion of Farmland to nonagricultural uses would occur where the footprint of the Proposed Project overlaps with Prime or Unique Farmland of Statewide Importance (Figure 3.6-1), resulting in 192 acres of converted Farmland (Table 3.6-2). This impact was found to be significant and unavoidable. As described in Impact AG-1, mitigation is proposed for all Farmland that would be converted to nonagricultural use. Impact AG-2 was determined to be less than significant because the Proposed Project would not conflict with existing zoning or with Williamson Act contracts. Further discussion of the Williamson Act is provided in the response to Comment L1-3. Finally, the Proposed Project was found to have a less-than-significant impact related to other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use (Impact AG-3). As further discussed in Master Response 2: *Flood Risk*, the Proposed Project would not affect overall agricultural productivity for lands north of the city and would, therefore, not result in indirect conversion of farmland.

I14-34

Draft EIR Section 3.6.1.1 of Section 3.6, *Agricultural and Forestry Resources*, provides a summary description of how the state Farmland Mapping and Monitoring Program (FMMP) categorizes Important Farmland (including Prime Farmland). The general characteristics of Prime Farmland per the California Department of Conservation (as cited) are provided in this section. As described in Section 3.6.2.1, a review of spatial data from FMMP (2016) to identify Important Farmland in the project footprint was done. Using geographic information system (GIS) software, this information provided the basis for calculating acreages associated with impacts on agricultural farmland. Figure 3.6-1 identifies Important Farmland (including Prime Farmland) in the project area based on information from the California Department of Conservation, Division of Land Resource Protection, FMMP, as cited in Figure 3.6-1.

I14-35

Please see response to Comment N1-55 regarding the LESA model.

I14-36

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project would, therefore, not cause indirect conversion of farmland. Please also see Master Response 2: *Flood Risk* and the response to Comment I14-16 regarding contaminants/hazardous materials in floodwaters.

I14-37

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. No mitigation is necessary.

I14-38

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project would, therefore, not cause indirect conversion of regional farmland or subsequent fragmentation of farmland. No revisions to the EIR are necessary.

I14-39

The EIR does not simply declare the impact significant without analysis. In Draft EIR Section 3.6, *Agricultural and Forestry Resources*, the EIR explains how farmlands were classified (Section 3.6.1.1, *Regulatory Setting*) and accounts for the loss of agricultural land, evaluating potential indirect impacts (Section 3.6.2.3, *Impacts and Mitigation Measures*, Impact AG-1). Impact AG-1 indicates that 192 acres Prime and Unique Farmland (combined) would be permanently converted to nonagricultural use because this land falls within the permanent footprint of the Proposed Project. Further, the impact discussion identifies that potential impacts on farmland resulting from staging would be temporary and that O&M activities would not affect agricultural uses because these activities would occur within the permanent project footprint. A 100-year flood event would potentially affect agricultural use of inundated farmlands in the project area under existing conditions as well as under with-project conditions regardless of the any potential modeled change in flood duration or flood surface elevation. However, flooding would be a temporary event; flood water would eventually recede and would not result in the permanent conversion of farmland to nonagricultural use.

Also, please see Master Response 2: *Flood Risk* and the response to Comment I14-34 regarding classification of farmland.

I14-40

As explained in Draft EIR Section 3.1, *Hydrology*, Impact HYDRO-5, the Proposed Project's potential flooding effects are considered less than significant without mitigation. Notably, the Proposed Project would not result in an increased FEMA flood zone risk for *any* areas. The Proposed Project would also not add any new areas to the 100-year floodplain. That is, no lands would experience an increase in flood frequency or risk designation as compared to existing conditions. In fact, as shown on Draft EIR Figure 3.1-5, the primary effect of the Proposed Project would be to *remove* large swaths of land from the floodplain.

Although some areas north of the new levee *could* experience increased flood depths during a 100-year flood event (a rare event by definition), the *duration* of such flooding would decrease versus existing conditions (i.e., the majority of lands north of the new levee would experience *no* change in flood depth as compared to existing conditions, and *all* lands north of the new levee would experience shorter flood duration as compared to existing conditions). Draft EIR Figure 3.1-5 shows that the areas north of the new levee that could experience increased flood depths are almost exclusively used for agriculture. Flooding impacts on orchards and row crops (as are found in this area) can occur if the roots are inundated for prolonged periods of time. However, the depth of the water is largely irrelevant because the effect of root inundation is the same whether the water is two feet deep or four feet deep. Thus, because the Proposed Project would *decrease* the duration of flooding versus existing conditions, potential root inundation effects during a 100-year flood event would actually be *improved* as compared to existing conditions.

As to the limited structures that could experience increased flood depths during a 100-year flood event, the increased depth would be insubstantial in terms of effects. As explained in Draft EIR Section 3.1.2.1, 12 structures could experience a potential increase in flood depth. Notably, each of these structures is already in the flood zone and would experience flooding under existing conditions. Further, the potential increased flood depth for 10 of these structures would be less than 1 foot, with the greatest increase being just over 6 inches. The other two structures could experience an increased flood depth of 1 to 2 feet. However, further site-specific analysis of these two structures has determined that their building pads are elevated such that the potential increase in flood depth would have no effect on one of them—the ARCO am/pm—and an insubstantial effect on the other—Denny’s (under existing conditions, the Denny’s would experience flood depths of approximately 2.5 feet; the Proposed Project could cause this depth to increase by 1.6 feet).

Furthermore, as discussed in Draft EIR Chapter 2, *Project Description*, Section 2.3.6, a primary component of the Proposed Project includes numerous non-structural actions to assist landowners north of the new levee in floodproofing or otherwise reducing potential flooding effects. These actions would be available for implementation *before* any potential flooding effects of the Proposed Project occur. That is, similar to the project components described in *Berkeley Hillside Preservation v. City of Berkeley* (2015) 241 Cal.App.4th 943, 961 [traffic plan considered project component] and *Save the Plastic Bag Coalition v. City and County of San Francisco* (2013) 222 Cal.App.4th 863, 868 [imposition of 10-cent fee considered part of project], the non-structural actions are not proposed subsequent actions to mitigate a significant effect of the Proposed Project. Furthermore, to the extent the nonstructural actions could be considered mitigation (which they should not be because they are a fundamental part of the Proposed Project), the change in characterization is insignificant because it does not preclude or obfuscate disclosure of the Proposed Project’s environmental effects and analysis because the Draft EIR contains a full analysis of potential flooding impacts. (See *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 185.)

In sum, because an increased flood depth has different effects on different land uses, the City considered the Proposed Project’s potential flooding effect qualitatively and deemed the impacts less than significant based on the following facts: (1) there would be no increase in flood frequency, (2) there would be no increase in FEMA flood zone risk, (3) no new properties would be added to the 100-year floodplain, (4) flood duration would decrease (i.e., improve) for all areas, (5) potential flooding events would be rare, 100-year events, (6) land uses in areas that *could* experience increased flood depth would be insubstantially effected (if at all), and (7) a component of the Proposed Project includes non-structural actions to assist landowners north of the new levee in floodproofing or otherwise minimizing and avoiding potential flooding effects.

I14-41

The non-structural measures are an important part of the Proposed Project and will be implemented. As explained in Draft EIR, Chapter 2, *Project Description*, Section 2.3.6.1, *Non-Structural Measures*, the City would work with each individual landowner to develop a suite of measures tailored for each parcel. The City has not proscribed specific measures for each property because the City wants the landowners to have the freedom to select the measures they would prefer and that work best for their individual properties.

I14-42

All relevant information from MBK Engineers' technical memorandum describing the non-structural measures was cited and referenced properly in the Draft EIR. As with all reference materials cited in the Draft EIR, it was and is available upon request from the City of Woodland. The memorandum has been included with the Final EIR as Appendix 4.

I14-43

As discussed in Draft EIR Chapter 2, *Project Description*, Section 2.3.6.1, *Non-Structural Measures*, the proposed non-structural measures are recognized by the Association of State Floodplain Managers as "proven methods and techniques implemented for reducing flood risk and flood damages."

Regarding the sustainability of agricultural practices, please see Master Response 2: *Flood Risk*.

I14-44

The non-structural measures are added to benefit the property owners north of the city, contributing to the goal of reducing the effects of flooding regionally. Because the Proposed Project would not change the flood frequency or flood risk for the lands north of the new levee, insurance premiums would not change for those property owners, contrary to what is claimed in the comment. Please see Master Response 2: *Flood Risk* and the response to Comment I14-40 for further discussion of the FEMA floodplain. Implementation of the non-structural measures would be limited to 10 years because of funding source constraints. The funding sources for the Proposed Project would largely be state and federal grants, which have sunset clauses. The intent is to implement the non-structural measures as part of project construction to take advantage of the funding that that comes with a large capital improvement program.

I14-45

Please see Master Response 2: *Flood Risk*.

I14-46

Please see the response to Comment I14-33.

I14-47

The Draft EIR does not state that the Proposed Project "should" be exempt from Yolo County's Agricultural Conservation and Mitigation Program; it states that the Proposed Project "is expected" to be exempt. Yolo County will be responsible for making this determination. If Yolo County makes a determination that the Proposed Project is not exempt, then the Proposed Project will be required to comply with the program.

I14-48

As discussed in the responses to Comments I14-40 through I14-47, apart from direct impacts in the Project footprint, the Proposed Project would not affect overall agricultural productivity for lands north of the city, nor would it result in indirect conversion of Farmland, and mitigation measures are provided for all potentially significant impacts. No revisions to the EIR are warranted.

I14-49

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

I14-50

Please see Master Response 3: *Maintenance of Existing Flood Management System*.

I14-51

As described in Draft EIR Chapter 5, *Other CEQA Considerations*, Section 15126.2(d) of the State CEQA Guidelines requires that an EIR “discuss the ways” a project could be growth inducing and to “discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment.” Chapter 5 analyzes the impacts of the Proposed Project’s likely inducement of growth within the context of the City’s existing planning efforts. The methodology used in Chapter 5 identifies areas within the City that may experience growth if the potential for flooding is reduced (e.g., SP-1) within the context of City planning and the degree to which growth associated with a project would or would not be consistent with regional and local planning. This is because the areas identified in Chapter 5 are areas under baseline conditions where growth is currently restricted due to the flooding potential; however, they are identified as Opportunity Sites by the City. Chapter 5 identifies the removal of the flood risk to these areas could directly or indirectly result in growth: “...removal of these potential barriers may represent an indirect growth-inducing effect as a result of the Proposed Project...”. The obstacles to growth include approval and funding for the Project, a vote of the City Council (with respect to lands in SP-2), and external parties deciding to develop the Opportunity Sites. Secondary effects of such planned growth would have to be identified and evaluated through a formal CEQA environmental review process. For the potential growth of the City, the general plan Final EIR (January 2017) identified impacts and mitigation measures associated with urban development that could occur within existing urban areas or within the urban limits of the city. These include potential impacts to noise, air quality emissions, GHGs, and traffic. The mitigation measures proposed in *Exhibit 1 (Addition to Mitigation Monitoring and Reporting Program) to Attachment A to Resolution Certifying the Final EIR, Adopting Environmental Findings, Statement of Overriding Considerations, and Errata for the City of Woodland 2035 GP and 2035 CAP, Final EIR Table 2-1, Final Summary of Impacts and Mitigation Measures* would be potentially appropriate to reduce or potentially mitigate secondary effects should the obstacles to growth be removed, depending on the type of development and where it may actually occur within the City. It would be speculative for the Proposed Project’s EIR to predict the type, timing, and intensity of development that might occur in the future, which, as mentioned above, would be subject to separate CEQA analyses at such time as development is proposed.

I14-52

As identified in Draft EIR Chapter 5, *Other CEQA Considerations*, the State CEQA Guidelines do not require a prediction or speculation of where, when, and in what form such growth would occur. There are a number of unknown variables that influence whether a parcel of land would be developed, including individual needs and decisions by parcel owners, market forces, and surrounding land uses. It would be speculation regarding the influences of these unknown variables on different parcels as to when, where, and in what form growth would occur. Chapter 5 does provide a broad context for the expected growth of the city based on general plan estimates, as

evaluated in the Final EIR for the general plan, but CEQA does not require speculation beyond that information (see Draft EIR Section 5.3.1.1, *City of Woodland*).

I14-53

Please see Master Response 4: *Alternatives*.

I14-54

As demonstrated in responses to Comments I14-2 through I14-53, the analysis and conclusions in the Draft EIR are sound, and no additional significant impacts would occur.

I14-55

As demonstrated in responses to Comments I14-2 through I14-53, the analysis in the Draft EIR is sound, complete, and accurate.

I14-56

Please see Master Response 4: *Alternatives*.

I14-57

Please see Master Response 4: *Alternatives*.

I14-58

Please see Master Response 4: *Alternatives*.

I14-59

As described in Master Response 1: *Measure S*, the Proposed Project is part of a program of actions proposed as a regional solution to managing flood risk by the Lower Sacramento River-Delta North Regional Flood Management Team, and is, therefore, consistent with Measure S.

I14-60

Please see Master Response 4: *Alternatives*.

I14-61

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

I14-62

Please see Master Response 4: *Alternatives*.

I14-63

Please see Master Response 4: *Alternatives*.

I14-64

As demonstrated in responses to Comments I14-2 through I14-53, the analysis and conclusions in the Draft EIR are sound, and no additional significant impacts would occur. To the extent revisions occur in the Final EIR, they do not constitute substantial new information, and recirculation is not necessary.

I14-65

Please see the response to Comment I14-64. The EIR is legally adequate.

I14-66

Please see Master Response 1: *Measure S*.

I14-67

Please see Master Response 1: *Measure S*.

I14-68

This comment is a summary of more detailed comments made later in the letter. Please refer to the responses to Comments I14-76, I14-78, I14-79, and I14-81.

I14-69

Please see Master Response 2: *Flood Risk*.

I14-70

This comment is a summary of more detailed comments made later in the letter. Please refer to the responses to Comments I14-77 and I14-80.

I14-71

Please see Master Response 4: *Alternatives*.

I14-72

Please see Master Response 1: *Measure S*.

I14-73

Please see Master Response 1: *Measure S*.

I14-74

Please see Master Response 1: *Measure S*.

I14-75

Please see Master Response 1: *Measure S*.

I14-76

The first paragraph of this comment alleges that the Draft EIR presents “incomplete information and inadequate analysis” in several instances within the hydrology and water quality analyses.

Responses to each of these allegations are provided below, under each individual comment.

Regarding the second paragraph of this comment, the rock slope protection and concrete armoring are not mitigation measures. As described in Draft EIR Chapter 2, *Project Description*, they are part of the project design.

I14-77

Please see the response to Comments I14-27 and I14-41 regarding non-structural measures.

I14-78

The Proposed Project is not a development project; therefore, relying on development permit requirements to determine significance would not be appropriate. As described under Impact HYDRO-5 in the Draft EIR, the deepest flood depth increases (up to 6 feet) would occur on lands that do not contain any structures. For each affected parcel, the City would work with individual landowners to develop a suite of non-structural measures tailored for each parcel to reduce flood damages and losses. These measures could include floodproofing of individual structures, subsidizing flood insurance costs, purchasing flowage easements, or confirming the adequacy of the existing flood warning system. This impact would be less than significant. Please see the response to Comment I14-40 for further discussion of why this impact is deemed less than significant.

I14-79

Please see Master Response 2: *Flood Risk*.

I14-80

Please see the response to Comments I14-27 and I14-41 regarding non-structural measures. "Flood barriers" associated with the Proposed Project's non-structural measures would not be "large in area;" floodproofing measures would be an option for protecting existing structures only, not swaths of land. For the lands (not structures) that would experience flood depth increases, other non-structural measures would be implemented, such as flood easements.

I14-81

As noted by the commenter, the Draft EIR acknowledges that there are some areas north of County Road 18C and east of County Road 102 that could be flooded for a longer duration, and this information informs the analyses in the EIR as they relate to the CEQA thresholds. As requested by the commenter, a hydrograph for the area located east of County Road 102, where initial flood surface elevations will be higher (by approximately 5 feet), has been included as Appendix 2 of this Final EIR. The hydrograph shows that although initial flood depths increase in this area under the Proposed Project, overall flood duration would decrease. This figure does not represent any substantial new information, nor does it require any changes to the EIR analysis.

I14-82

Please see the response to Comment I14-31 regarding methylmercury production. The magnitude of change in flood duration and depth would be smaller in lower flow events such as a 10- or 20-year flood event. Therefore, the magnitude of potential change in methylmercury production on the floodplain due to flooding (vs. existing conditions) would be expected to be smaller than may occur in the modeled 100- or 200-year event.

I14-83

Please see Master Response 2: *Flood Risk* for a discussion of the risk of pollutant release during a flood event, which explains that while floodwaters could potentially contain or release contaminants, the risk would be the same as under existing conditions. A description of non-structural measures, including floodproofing of individual structures, is provided in Draft EIR Section 2.3.6.1 of Chapter 2, *Project Description*. In addition, as referenced in that section, these measures are discussed in greater detail in the *Technical Memorandum: Non-Structural Plan Elements for Consideration in Conjunction with the Lower Cache Creek Project Technical Memorandum* (Appendix 4 of this Final EIR). As described in that cited memo, the non-structural measures include a variety of actions such as physically protecting individual structures in the floodplain; sharing flood insurance costs for structures that are permanently located within the floodplain; purchase of flowage easements; and expanding existing flood warning capabilities. The specific measures proposed for a given property would vary depending on the nature of the flooding characteristics and the type of structures involved. These measures would be coordinated and implemented through the Yolo County Office of Emergency Services. The memo provides a more detailed discussion (relative to that in Section 2.3.6.1) of floodproofing of individual structures.

I14-84

Please see Master Response 1: *Measure S* and Master Response 4: *Alternatives*.

Letter I15—Robert and Nancy Lea

Letter I15

Tim Busch, Principal Engineer, City of Woodland
Keleigh L. Duey, USACE

August 14, 2020

Email address: tim.busch@cityofwoodland.org
Keleigh.L.Duey@usace.army.mil

Subject Line: Comments on WFRMP Draft EIR

Comments: Robert and Nancy Lea: Woodland Flood Risk Management Project Draft EIR

Dear Sir or Madam:

We have read the comments filed by the Yolo County Farm Bureau and we support them.

I15-1

Our comments are directed to two basic issues, among many, that we believe have not been covered adequately in the DEIR: The goal of the environmental documents is to inform the citizenry who will be impacted by a possible project and also inform decision makers. This document has numerous serious deficiencies that have been pointed out by YCFB: we are singling out two of these for additional discussion in our comments: the failure to adequately discuss the impact on the agricultural land and economy by construction of the proposed project and also the failure to recognize the damage the proposed project will cause to the minority, low income communities of Knights Landing and Yolo.

Statement: The DEIR does not adequately address either the quality of the potentially converted farmland or the value of the “lost” area in which the conversion of farmland will occur. The DEIR must be re-examined and substantial basic and empirical research accessed or developed and included in order for decision makers to have a base of information to address these fundamental issues. This lack of information results in the requirement for a recirculation of the amended DEIR for public input before a decision on the EIR can reasonably be made.

I15-2

Anyone who lives or works in Yolo County knows that agriculture is the foundation of the local economy. Farmgate value in 2019 was \$765,231,000: approximately 6700 on-farm (and ranch) employees are directly connected to Yolo County agriculture. (See, Yolo County Agricultural Report, 2017 p.4) Woodland is essentially the heart of the specialized infrastructure needed to support our County agriculture: the tractor and ancillary equipment dealers, the agricultural supply companies, e.g. seed, irrigation, pumps and valves, fuel suppliers, etc. chemical dealers, the specialty harvesters, haulers etc., and food processors are in or around Woodland. Woodland is the heart of the highway transportation system for both raw and processed agricultural products. Additionally, in the City of Woodland, there are numerous food businesses that are connected with local agriculture: the City of Woodland has itself tried to capitalize on that connection with its “Food Front”.

However, the agricultural land component of the DEIR consumes only 10 pages out of an approximate 700 page document. (DEIR 3.6-1 – 3.6-10) To describe it as a very cursory review is being kind. The initial portion of the discussion covers the Federal Farmland Protection Policy Act that is applicable to Prime and Unique Farmland, and Land of Statewide or Local Importance. All apparently agree that the land at risk by construction of Flood Wall 2 (Proposed Project) meets this criteria. In theory, the federal agency involved (here, the USACE) arranges for the Natural Resource Conservation Service to prepare a LESA analysis (Land Evaluation and Site Analysis). The “land evaluation” consists basically of an evaluation of soil quality: the “site analysis” examines other factors that affect the farm’s viability, including water availability, farm size and adjacent zoning. Scores are given for each component and then the two are combined: if the combined score is 160 or greater, the federal agency must examine alternative sites. Apparently, the land was given 64 out of a possible 100, and the site, 79 out of a possible 160, with a total of 143. Thus, apparently, no further evaluation took place. We found no further analysis in the body of the DEIR: in the appendices we found an unexplained collection of numbers totaling those we note above. Absolutely no analysis or back up data is furnished. We have attached the screen shot of this Appendix to our comments.

I15-2
cont.

Apparently, the Site Assessment portion of the analysis is performed by the Federal agency involved with the project (here, the USACE) and is based on national criteria. It has been suggested that the federal agencies should determine their farmland impact studies by using state and local criteria, which would give local governments, and presumably their citizens, more awareness about the project. (See, The US Farmland Protection Policy Act (Another Case of Benign Neglect): Land Use Policy (January 1991 at p. 64)

We refer again to the function of an environmental document that is to provide adequate information upon which decisions can be based. We also note that what may be adequate and prescribed for the USACE may not be adequate to advise the citizens and the decision makers: this is one of those situations. (Indeed, in light of the total lack of supporting documentation we fail to see how it would suffice for the USACE: presumably, they would want some assurance that the process had been correctly done; it appears that adequate information for that purpose was not provided.)

Our research has disclosed that the process to obtain the “Land Evaluation” portion of the analysis changed very recently. First, it was and is based on the California Revised Storie Index. However, the local NRCS office, until a few months ago, prepared the land evaluation. Then, for a short period of time, the state soils office did that portion of the analysis until it was shifted again to the area office in Red Bluff. The State Soils office prepared the land analysis for this project. The USACE presumably could obtain the back up information for this evaluation because – apparently – no one else can. With that data perhaps we could understand the rating system. Without it – we understand nothing. In other words, this land evaluation, which is very important to an agricultural area, is totally meaningless, and by definition of no value to the citizens or the decision makers. We add that the site evaluation is similarly meaningless especially in the context of an agricultural area near Woodland, which, as we noted above, is a very important agricultural center.

Our inquiries have also ascertained that a local LESA model was developed approximately 25 years ago. It was “designed as a potential planning tool to assist in making decisions concerning the relative significance of agricultural land resources. The model . . . is rooted in concepts originally devised at the federal level, but has been customized to address the unique agricultural resource issues of Yolo County.” (Yolo County LESA Model Instruction Manual, at p 4) A highly respected Winters area grower and former YCFB president, Charlie Rominger, was one of the Committee members working on that project. Phil Hogan, District Conservationist, USDA Natural Resource Conservation District, was also on that committee as were many individuals with local knowledge and solid, professional soil related expertise. Unfortunately, we were not able to develop a LESA score for the Land Evaluation portion of this analysis because the local specialists no longer have access to the GIS shape file that would enable the analysis to be run. So, we are left with no back up information behind the “score” in the DEIR and no means to prepare a locally based – and no doubt much more valuable, score with back up information. We believe, in any event, that this entire omission must be addressed by the DEIR itself and it is not our job to develop it.

I15-2
cont.

One can only conclude that the DEIR with reference to agriculture is woefully inadequate in its content. We have very strong personal interests in local agriculture, and the document was meaningless to us. Environmental documents as to valuation of agricultural land lost to a project must provide more information from which those of us who live and work in our county can assess the loss of this farmland in the context of its both its unique value and also the over all site, and the damage caused by its change from agriculture to flood control.

All in all, we summarize the LESA analysis quandary as follows; All of us in the Yolo County community would have been much better served if the USACE reached out to NRCS for its LESA analysis before the locally based process was upended – and taken out of Yolo County. As it stands, this LESA analysis is probably meaningless to most people who would read it, and the DEIR contains nothing in addition to it. We believe most Woodland area residents have a more holistic and less “cut and dried” view of their surrounding farmland than exemplified in this very abbreviated LESA analysis. Thus, we conclude that we do not have sufficient information to draw a reasonable conclusion as to the value of the farmland converted, and the impact on the site. The DEIR must be buttressed by solid grounding of factual analysis: more work needs to be done.

Statement: The DEIR does not address the impact of the road(s) shutdown, an integral part of the Proposed Project, on the Hispanic, low-income communities of Knights Landing and Yolo. The Project violates basic principles of environmental justice. The DEIR needs to be augmented to include the environmental impacts and the possible mitigations of this major omission. In our opinion it is an issue that the City and the USACE have both tried to ignore and it is of sufficient importance to require new information to be developed and put into a new DEIR, which needs to be presented to the public again before a decision on the project can be made.

I15-3

We turn to our second concern presented in this environmental document: the marginalization of Hispanic, low-income communities by cutting off their road access. The topic of Environmental Justice in the arena of Environmental Review is broached in the Federal DEIS: at p. 3-37, it states that all alternatives were screened for "Environmental Justice" defined as "the extent to which the alternative provides fair treatment of all people in the study area." It concludes that there are no long term environmental injustices (see, p. ES-10). In its following discussions of Environmental Injustice it makes no attempt at all to break out impacts on the minority communities of Knights Landing or Yolo. It focuses on the socio-economic and ethnic makeup of Woodland area residents, or County of Yolo residents. (see, 56-61) It did attempt to break out for environmental injustice evaluation the homes and residents north of Flood Wall 2, and concluded that "compensation" for real estate losses in the project footprint would prevent those individuals from being victims of environmental justice (p. 63). It concludes its discussion by stating: census data is only available for cities and towns of a population of 5,000 or more. Surrounding towns like Yolo and Knights Landing do not have census data to compare poverty and minority status." (DEIS p. 61) However, the Project proponents were aware of this issue having relevance to the Project: the DEIS listed "primary concerns" relevant to the March 2004 voter rejection of Flood Wall 1 and included environmental injustices to residents living north of the flood barrier as one of those concerns. (DEIS/ES-8)

I15-4

The COW, in its DEIR, makes absolutely no attempt to discuss the issue of marginalizing Minority and Low Income communities by shutting down road access between Knights Landing and Woodland, or Yolo and Woodland. The access of Low Income, Minority Communities to Woodland being necessary in order to obtain essential goods and services is, or should be, an issue of equal importance to the local decision makers and the local citizenry as to the Federal sponsor. As we have pointed out, the DEIS recognizes the need for environmental documents to address environmental injustice – the EIR prefers to simply ignore it. Thus, the EIR turns its back on the approximate 1,000 residents of Knights Landing, who have a Median Household Income (MHI) of approximately \$45,500 (compared to a State MHI of \$57,708) and a population which is approximately 65% Hispanic. 26% of Knights Landing's population is children under the age of 18. It also ignores the approximately 450 residents of Yolo, again 65% Hispanic, with an even lower MHI of \$27,800. 30% of Yolo's population is children under the age of 18. This information is not hard to track down: both of these communities are "Designated Disadvantaged Unincorporated Communities" pursuant to SB 244: special care is required to protect their interests in the jurisdictional areas of Local Agency Formation with special concern for "cherry picking" when it comes to urban expansion. Contrary to statements in the DEIS, Census data for these communities is readily available: they are "Census Designated Places". There are 250 low income Census Designated Places in California, and two of them are near Woodland; both have residents who will be negatively impacted by Woodland's Flood Wall 2. (note: the income and ethnicity information provided herein is from the 2010 census) There is no reason why the DEIR could not access this same – and much more -information and adequately discuss the Project in the context of impact to Minority low-income communities.

The context of this denial of Environmental Justice is the planned shut down of road access for these communities to Woodland. YCFB recited throughout its Comments that a key element of the plan for Woodland’s proposed Flood Wall 2 is to flood CR 102 and shut down its use for up to one month at a time (see, DEIR at p. 3.5-6). Interstate 5 between Woodland and Yolo also will be shut down – north of the floodwall, as will State Highway 113 and CR 98 until the floodwaters drain off of those roads.(see, DEIR at p. 3.5-6) The COW made no effort to inform farmers and ranchers who live north of Flood Wall 2 of this pending project so we can assume that it made no effort to make sure the residents of Knights Landing and Yolo know about the project either. We have made inquiries of people who live in Knights Landing and Yolo and have found out that they know nothing about the project or its major impact on their lives. This project, if constructed, will have a huge negative impact on Knights Landing residents who have to travel to Woodland to obtain almost all goods and services: medical and dental care, schools (except for an elementary charter school in Knights Landing which is also attended by children from Woodland), banking, social services, church services, etc. Many Knights Landing residents work in Woodland. No Knights Landing resident will be able to use the only practical route to reach Woodland – or return to Knights Landing from Woodland. Knights Landing residents have advised us that many persons who live in and around Yuba City use the same road for commutes to Woodland. Similarly, the residents of Yolo must travel to Woodland for the same goods and services as do the Knights Landing residents. They need to access Woodland from either Interstate 5 or CR 98. For periods of time during the rainy season, assuming flood conditions, neither road option will be available to residents of Yolo. Apparently, the COW has determined that the legitimate concerns of these populations can be ignored. Residents of these communities will experience significant impacts when they cannot access critical supplies and services, their children denied access to schools, and they cannot travel to their employment.

I15-5

I15-6

Social Justice in the context of environmental regulation has been defined by the EPA as follows:

I15-7

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. . . . Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequence resulting from industrial, governmental and commercial operations or policies. Meaningful involvement means (1) People have an opportunity to participate in decisions about actions that may affect their environment and/or health. (2) The public’s contribution can influence the regulatory agency’s decision. (3) Their concerns will be considered in the decision making process. (4) The decision makers seek out and facilitate the involvement of those potentially affected. (EPA Guidelines: see, Environmental Justice As an Essential Tool in Environmental Review Statutes (2013) Alan Ramo, Golden Gate University School of Law, Environmental Law Commons, at p. 46)

In the context of the above “guidelines” with reference to this project, it is apparent that the first, second and third criteria will not be part of this environmental review process

because the Flood Wall 2 proponents did NOT follow the 4th guideline: which is to “seek out and facilitate the involvement” of those members of our society who will be negatively impacted by the Project. We cannot say we are surprised: since the early 2000’s the modus operandi of the COW, with reference to noticing persons who may be potentially negatively impacted by their Flood Wall, was to keep them in the dark.

I15-7
cont.

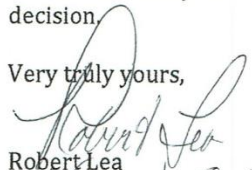
California has confirmed that Environmental Justice is also part of California law (see, Office of the Attorney General: “Environmental Justice at the Local and Regional Level: Legal Background (Updated 07/10/12) Under CEQA, “Public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environment effects of such projects . . .” (Pub. Resources Code section 21002).

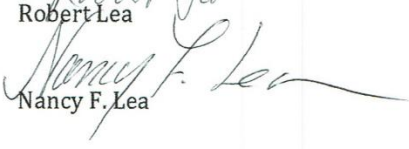
The COW is well aware of the proximity and transportation routes from and to Knights Landing and Yolo. It chose not to do any level of environmental analysis on the impact of the project on those two Hispanic, low income communities. These communities are a vital part of the COW: their children come to school in Woodland; they and their parents shop, worship, obtain medical/dental professional services and participate in recreation – all in Woodland. Their sales tax dollars support Woodland. Woodland owes them a duty of careful analysis of the major negative environmental impacts its Flood Wall 2 would visit on these individuals and families.

The two omissions that we single out are two of many (see, YCFB Comments). Cumulatively, the inadequacy of this DEIR is of such magnitude that it cannot simply have a few addenda attached thereto and thereafter be certified by the responsible agency. This DEIR needs substantial new information as to environmental impacts and mitigation in several areas, two of which we have discussed at some length. This cannot be done without significant research and outreach. Then, the essentially new DEIR must be circulated again to the community for comment. Clearly, as it stands it is inadequate upon which to base a decision.

I15-8

Very truly yours,


Robert Lea


Nancy F. Lea

Enc.

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FARMLAND CONVERSION IMPACT RATINGS

U.S. Department of Agriculture

PART I: For the purposes of this report, the following information is required:

Name of Project: Lower Cache Creek Feasibility Study
 Location and Use: Levee Improvements, Flood Risk
 Date of Report: 07/09/2019
 County and State: Yuba County, CA

PART II: For the purposes of this report, the following information is required:

County and State: Yuba County, CA
 Date of Report: 07/09/2019
 County and State: Yuba County, CA

PART III: For the purposes of this report, the following information is required:

Name of Land: California Agricultural ESA
 Address: 306 914
 City: Stone
 State: CA
 Date of Report: 07/16/2019

PART IV: For the purposes of this report, the following information is required:

Name of Land: California Agricultural ESA
 Address: 306 914
 City: Stone
 State: CA
 Date of Report: 07/16/2019

PART V: For the purposes of this report, the following information is required:

Name of Land: California Agricultural ESA
 Address: 306 914
 City: Stone
 State: CA
 Date of Report: 07/16/2019

PART VI: For the purposes of this report, the following information is required:

Name of Land: California Agricultural ESA
 Address: 306 914
 City: Stone
 State: CA
 Date of Report: 07/16/2019

PART VII: For the purposes of this report, the following information is required:

Name of Land: California Agricultural ESA
 Address: 306 914
 City: Stone
 State: CA
 Date of Report: 07/16/2019

Site A: February 27, 2019

Site A is the only alternative being considered in the Lower Cache Creek Feasibility Study Supplemental EIS and Feasibility Report, as all other alternatives were screened out as infeasible due to the low cost benefit ratios or substantial environmental impacts.

Prepared by: Kaleigh Dury

7-19-2019

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Responses to Letter I15

I15-1

Thank you for your comment letter. The responses to the letter from the Yolo County Farm Bureau (Letter N1) are located in Chapter 5 of this Final EIR.

I15-2

Please see response to Comment N1-55 regarding the LESA model. Regarding the comment on the quality of potential converted farmland, in accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would be considered to have a significant effect if it would result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to nonagricultural use. The FMMP categorizes farmland on the basis of its soil quality, the availability of irrigation water, current use, and slope, among other criteria (see discussion in Draft EIR Section 3.6.1.1 of Section 3.6, *Agricultural and Forestry Resources*). The Draft EIR analysis discloses that there is only Prime Farmland and Unique Farmland within the project footprint (see Table 3.6-2). A description of the general characteristics of Prime Farmland and Unique Farmland according to the California Department of Conservation is provided within Section 3.6.1.1 under *Important Farmland*. The permanent conversion of approximately 192 acres of Prime and Unique Farmland (combined) within the project footprint is considered a significant impact. As described in Impact AG-1, Yolo County requires agricultural mitigation for the conversion of land from an agricultural use to a predominantly nonagricultural use; however, public agency facilities and infrastructure that do not generate revenue are exempt from this mitigation program as determined on a case-by-case basis. The Proposed Project is a flood infrastructure project that would not generate revenue and as such, is expected to be exempt from the required mitigation. If it is determined that the Proposed Project is not exempt, Mitigation Measure AG-1 could be implemented to reduce impacts; however, impacts would remain significant because the agricultural land would still be converted. Accordingly, this impact would be significant and unavoidable.

Please see Master Response 2: *Flood Risk*, which explains that the Proposed Project would not affect overall agricultural productivity for lands north of the city. The Proposed Project will not, therefore, cause indirect conversion of farmland.

I15-3

Please see Master Response 2: *Flood Risk*, which explains that road closures would occur with or without implementation of the Proposed Project due to inundation during catastrophic flood events. Project implementation would not cause road closures to occur that would not already occur under existing conditions; therefore, residents of the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

I15-4

Please see Master Response 2: *Flood Risk* and the responses to Comments I15-3 and I15-6, which explain that residents of the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

I15-5

Please see the response to Comment N1-33 regarding CEQA noticing, Master Response 2: *Flood Risk*, and the responses to Comments I15-3 and I15-6, which explain that residents of the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

I15-6

The CEQA analysis evaluates potential effects during a 100-year catastrophic flood event, which is not a common occurrence; such an event has only a 1% chance of occurring in any given year. The project would not result in an increase in the occurrence of such flood events, and such 100-year catastrophic flood events would not occur each year during a typical rainy season as discussed in the comment. Please see Master Response 2: *Flood Risk* for a discussion of roadway access under the Proposed Project.

I15-7

Please see Master Response 2: *Flood Risk* and the responses to Comments I15-3 and I15-6, which explain that residents of the communities of Knights Landing and Yolo would not experience changes in access to Woodland with implementation of the Proposed Project.

I15-8

Responses to the two topics raised by this comment letter have been provided (under Master Response 2: *Flood Risk* and under responses to Comments I15-2 through I15-7) and show that these do not constitute inadequacies in the EIR.

Letter I16—Michael Valentine

Letter I16

From: Michael VALENTINE <mrvcconsulting@gmail.com>
Sent: Friday, August 14, 2020 4:12 PM
To: Tim Busch
Subject: Comments on WFRMP Draft EIR

Dear Mr. Busch;

Thank you for this opportunity to comment on the Draft Environmental Impact Report for the Lower Cache Creek flood control project prepared for the City of Woodland. The document represents a serious effort to analyze the benefits and environmental impacts of the project. However, I have two comments on the document in the hope they will assist you to further consider and mitigate for project impacts.

I16-1

Transportation

The document notes the project sponsor's intention that the project not divide the community as was perceived to be the case with previous flood control proposals and commitments are made in some cases to realize that goal. However, the discussion of transportation issues (section 3.12.2) reveals transportation and safety impacts to people residing to the north of the proposed project. Specifically, it is proposed that when Lower Cache Creek flooding is anticipated, closure structures on north-south roads will be placed to prevent flood waters-and vehicle traffic-from entering the City of Woodland over the levee at the project site. Under current conditions, of course, severe flooding would render most of these roads impassable when floodwaters are present. However, the plan to activate closure structures when flooding is "anticipated" will effectively close off roads toward Woodland that would be the most feasible evacuation route from the north prior to floodwaters being present. Other possible routes would either lead into flooded areas or would lead away from the most accessible shelter. This impact isn't analyzed or mitigated for (or even recognized) in the document. The draft EIR-and public safety- would be much improved if the impacts were considered and measures to avoid or mitigate the impacts were developed.

I16-2

Alternatives Analysis

Several potential alternatives are discussed in the document and Section 4.5 summarizes alternatives for which detailed analysis is not provided. Projects dismissed from analysis and the reasons for doing so are summarized there. The reasons mostly have to do with cost. However, there is little question that a setback levee would be environmentally superior both to the no project alternative and to the proposed project at least in the areas of water quality, biology, transportation, and aesthetics and would still achieve all flood control benefits forming the rationale for the project. In fact, a setback project would actually represent an improvement in all these critical parameters. Given that, it seems to me that some version of the setback levees should be fully analyzed even in light of its greater estimated cost. This is especially true since it appears from certain landowner comments (for example see those of Nancy Lea as provided in the public webinar you conducted on the project on July 28) that the analysis may significantly underestimate land costs associated with the project. Once the full costs associated with economic impacts on properties and potential acquisition costs are factored into the analysis, it could very well be that a setback levee alternative would compare very favorably to the proposed project. Therefore, I suggest that a full analysis of that alternative should be provided.

I16-3

Thank you again for this opportunity.

Michael Valentine

Responses to Letter I16

I16-1

Thank you for your letter. Responses to your comments are provided below under I16-2 and I16-3.

I16-2

Only one roadway closure structure would be constructed as part of the Proposed Project (at the proposed levee's intersection with SR 113). The rest of the roads that cross the proposed levee would be raised to travel up and over the levee. The California Data Exchange Center has guidance plots that forecast flood stages at the Cache Creek at Yolo Gauge. This information is used to inform emergency response decision making, such as when to evacuate the community and close roads. With regard to evacuation procedures and the potential closure of roadways during a catastrophic flood event, USACE would develop an operations and maintenance manual for the closure structure before project construction is complete that formalizes the timing of closure structure activation. The City anticipates that closure structure activation would occur when the road starts to flood, similar to the timing of road closures under existing conditions (Reinhardt pers. comm.). As the comment mentions, and as shown in Draft EIR Figure 3.1-2 and discussed in Master Response 2: *Flood Risk*, roads would be flooded during a 100-year flood event without implementation of the Proposed Project. The Proposed Project would not result in an increase in the occurrence of such flood events, and the structures would not be activated unless such a large-scale (e.g., 100-year) flood event was occurring.

I16-3

Please see Master Response 4: *Alternatives*.

Letter I17—Carl Franke

Letter I17

Concerns Regarding Extension of Cache Creek Floodwall into Western Yolo County Farmlands

Greetings Stake Holders in Design of Lower Cache Creek Flood Wall -

I17-1

The purpose of this letter is to express my concerns regarding the extension of the Lower Cache Creek Feasibility Study's proposed flood wall into prime agricultural farmland north and west of the City of Woodland. The concerns include impact on farming operations, issues of eminent domain, county representation on the flood wall committee, and the politics of constructing the flood wall in which the City of Woodland benefits but long term county farming interests are the losers.

Background

My name is Carl Franke and I am a property owner in the Willow Oak neighborhood located to the north and west of the City of Woodland. As the flood wall design currently stands, our neighborhood will be directly impacted by the construction of the proposed project. Our neighborhood is bounded by County Road (CR) 20 to the south, CR 98 to the east and CR 97-A to the west, forming a triangular agricultural community of neighborhood houses and farms. Construction of the project will directly affect everyone in the community on both the “wet” and “dry” sides of the proposed wall. From impacting farming operations to going to the grocery store in downtown Woodland, our lives will be affected.

Many of the families in the neighborhood have owned property here since the 1950's. In particular, my family owns property along the south side of County Road 19A which will be directly affected by the current design.

Issues With Current Design

Currently, as The Lower Cache Creek Feasibility Study Map (Alternative 2A) shows, the proposed flood wall extends into farmland in western Yolo County. The proposed wall heads west across County Road 98 (Highway 16) at County Road 19A and then diagonals in a southwestly direction across prime county farmland, terminating somewhere near the center of four parcels of agricultural land used for growing tomatoes, bell peppers and other row crops.

I17-2

As the current Alternative 2A proposal shows, constructing a flood wall of up to 6-8 feet high and 20-30 feet wide at its base will essentially make farming on these parcels very difficult, if not impossible to accomplish.

When this point was surfaced in several personal conversations with city representatives, the usual response has been that the flood wall design west of County Road 98/Highway 16 can be easily modified so that it doesn't run diagonally through county farmland. Instead, any changes just require a modification to the project's Environmental Impact Report (EIR).

Suggestions/proposals to replace the diagonal portion of the wall include two alternatives that I am aware of. The first is extending the flood wall due west along CR 19A, from CR 98 to CR 97A. The second alternative crosses CR 98 at Cherry Lane on the east side, and extends westward along farming parcel lines. This alternative also crosses farming property all of the way from CR 98 to CR 97-A

I17-2
cont.

This raises the first of my concerns. To date the only “blessed” proposal for the flood wall design is the map shown in Alternative 2A, with a diagonal wall extending to the southwest. This design seems to be a “worst choice” alternative. It removes more farmland from production and subjects it to confiscation/foreclosure due to issues of eminent domain than other alternatives, that run along county roads or along farming parcel property lines.

Other than Alternative 2C, which has no flood wall extension to the west of CR 98 at all, I have not seen any printed alternative designs which extend into the western farmland along existing county roads or along farming property lines. This leads me to believe that Alternative 2A is the only accepted design on which the EIR will be based and will be the final design implemented.

This report should best represent what is intended to be built and not be approved based on “tweaks” that will be made in the future. Once a large project such as this is approved, there is no guarantee for our farming community that the promised “tweaks” to the design will be made later.

Impact on Farming Operations

This topic brings me to the second of my concerns. Routinely, large agricultural equipment like tomato harvesters, combines, and large truck/trailers hired for hauling farming products to market are used in our neighborhood. These industrial machines and vehicles routinely drive on the county roads that bound the neighborhood. From spring planting to fall harvest, this equipment travels along (and across) the county roads of our farming community.

I17-3

As you can imagine, moving this equipment up and over (or along) a 6-8 foot flood wall or moving from one field to another will be greatly affected when encountering a flood wall in their path. The wall not only affects the property upon which it is built, but also the adjoining farming parcels in the neighborhood. The entire neighborhood is impacted. Designers of the wall probably never lived or worked on a farm to appreciate how this project can become an obstacle in the day to day farming activities of our community.

Disposition of Directly Impacted Farmland

Another concern is the disposition of property directly impacted by construction of the flood wall in our farming neighborhood. As referenced above, will property be condemned or foreclosed upon using eminent domain? Alternatively, will land owners be paid fair market value for the impacted farm parcels in their entirety or will they be paid for only land used even if the remaining property is no longer viable to turn a profit under farming operations?

I17-4

Currently, the proposal does not clearly specify what will happen to agricultural property that is directly in the path of the flood wall construction.

Need for a Flood Wall West of CR 98

Probably my biggest concern is regarding the need to extend the flood wall to the west side of CR 98 in the first place. It becomes a simple question weighing the benefits to the costs of extending the project into the farm land west of CR98. In my opinion, the costs associated with the yearly disruption to farming, loss of prime agricultural land to Yolo County production and the daily inconveniences of citizens living in the neighborhood far outweigh the benefits of preventing Cache Creek flooding from entering the City of Woodland from the west side of town. | 117-5

In the many years that that my wife and I have lived in this local Willow Oak neighborhood, I can count on one hand the number of times Cache Creek has over topped the levee in our immediate area. In all of those events, flooding from Cache Creek never reached the urban limit line on the west side of town. Instead many low lying areas along CR 98 did have standing water several inches deep, mostly due to local rainfall and runoff.

Also, levee improvements at 'Huff Corner" under a separate project, will further mitigate any damages caused by any flood waters entering the City of Woodland from its western border.

One other point to make is that CR 98 itself acts as a weir protecting the west side of Woodland. The crown of the highway is typically 1+ foot higher than the adjacent farmland to the west.

Cost of the Proposal

My understanding is that much of the project cost will be underwritten by the federal government, but that a substantial percentage will be cost shared by the City of Woodland. Although I don't have current numbers at my fingertips, the cost of the project to the citizens of Woodland will be in the millions of dollars. | 117-6

It seems to me that in this era of fiscal challenges for cities and states due to the CoronaVirus pandemic, that adding the cost of raising CR 98 and extending a flood wall into the farmland of western Yolo County is not a good use of the tax payer's money. The wall could be easily built eastward from CR 98 just north of Carter Lane, protecting the north side of Woodland and forgoing the large expense of moving westward into county farmland.

Political Considerations

My last concern is with the politics associated with this project. The last time this project was actively pursued, a Measure S was proposed, voted on, and passed by the citizens of Woodland. The measure in layman's terms stated that no new money will be spent on a flood wall concept, design or implementation unless approved by the voters in the City of Woodland. From my perspective this project seems to have gotten ahead of this fundamental requirement. | 117-7

Also, to the best of my knowledge, most, if not all of members of the current Flood Wall committee are from the City of Woodland, with little or no representation from the county. This also seems to be a problem. The current design clearly extends into the county, yet feedback from the county's agricultural community seems to be lacking. | 117-8

Finally, based on a local newspaper article and discussions with neighbors, there are developers who have purchased property in north-eastern portion of Woodland on the “dry” side of the flood wall who are pushing the city for implementation and construction of the flood wall. Their goals are not necessarily in the best interest of the county. These issues should be clearly vetted before proceeding with implementation of this proposal.

| 117-9

Summary

Here's the point of my letter and my opinions:

- Don't sacrifice long term farming operations on the west side of CR 98 to satisfy the interests of industry and developers on the northeast side of town. The flood wall is being proposed to benefit the City of Woodland at the expense of farming in the county. | 117-10
- If a flood wall does extend into the farmland located to the west of CR 98, please provide a accurate map of where the wall goes and whose property it affects. A diagonal wall extending to the southwest is not a good solution. Also, clearly specify how will eminent domain, purchases, foreclosures,etc. will be accomplished. | 117-11
- Consider removing the flood wall extension west of CR 98. The cost of raising CR 98, purchasing impacted farmland, and constructing a flood wall into Willow Oak farmland adds a large expense to the project. Avoiding this expense and being a good steward of the tax payers money will help the project in the long run. | 117-12
- The optics of this project are important. It feels like this project is being pushed forward without consideration of the voters of the City of Woodland or the opinions from the farming community of Yolo County. Efforts to bring these stake holders to the table must happen before true “buy in” to this project can exist. | 117-13

Respectfully Submitted,
Carl Franke

Responses to Letter I17

I17-1

This comment provides background information on the commenter and summarizes his comments. A response is provided for each comment below under I17-2 through I17-13. No further response is necessary.

I17-2

The alternatives presented in the Draft EIR are conceptual designs for the purposes of assessing potential impacts and selecting a preferred option. There are many steps and years between the adoption of this EIR and the actual construction of the Proposed Project. As the City moves forward with the Proposed Project, it will continue to meet with property owners to understand their concerns. Any adjustments to the preferred alternative would necessarily occur during the design process. These changes may trigger additional environmental analysis under CEQA.

I17-3

See Master Response 2: *Flood Risk*. This comment refers to "day to day farming activities." It does not describe any inadequacies in the EIR and is not a comment on the adequacy of the CEQA analysis. Under CEQA, "economic or social effects of a project shall not be treated as significant effects on the environment" (State CEQA Guidelines Section 15131(a); see also State CEQA Guidelines Section 15382).

I17-4

Once the Proposed Project is authorized, the State and the City will be responsible for acquiring the lands, easements, and rights-of-way for the Proposed Project. USACE will provide the State and City with the footprint to be acquired for each parcel within the project area. The City and or State will then follow the laws and regulations that govern the real estate acquisition process to acquire the lands needed. The parcels will be appraised, and an offer based on fair market value will be presented to the owner. The City and or State will negotiate with the property owner to complete the acquisition. If the parties cannot reach agreement, then eminent domain would be considered. For parcels that are severed, a determination will need to be made on whether there is an economic remnant. If there is not an economic remnant, the property owner will be compensated for the uneconomic remnant as well.

I17-5

Please see the response to Comment N1-10 for a discussion of levee alignment.

I17-6

Please see the response to Comment N1-10 for a discussion of levee alignment and for an explanation of why the levee is designed to continue west of County Road 98.

I17-7

Please see Master Response 1: *Measure S*.

I17-8

The City of Woodland Flood Control Advisory Committee is an ad hoc committee originally formed in 2015. Its members, which are appointed by the City Council, are charged with providing comments, feedback, and recommendations to the City Council. Membership is inclusive of all stakeholder groups, including regional agriculture and separately the Farm Bureau, and several committee members live north of the city, outside city limits. Committee membership can be found at <https://www.cityofwoodland.org/672/Flood-Control-Advisory-Committee>. Meeting agenda and minutes are also posted to <https://www.cityofwoodland.org/672/Flood-Control-Advisory-Committee>, and meetings are open to the public.

I17-9

The considerations raised by this comment will be evaluated by the decision-makers. This comment does not raise any inadequacies in the CEQA analysis. No further response is warranted.

I17-10

Please see Master Response 2: *Flood Risk*.

I17-11

Please see the response to Comment I17-4 for a discussion of the land acquisition process. As of the publication of the Draft EIR, Figure 2-1 shows the levee alignment as proposed as of the printing of the Draft EIR. Please see also response to Comment I17-2.

I17-12

Please see the response to Comment N1-10 for a discussion of levee alignment.

I17-13

As the floodplain manager for properties within city limits, the City is responsible for identifying flood risk and actions to reduce potential property and life loss. This includes more than 1,000 existing properties that FEMA has "mapped" into a Special Flood Hazard Area, resulting in building restrictions and mandatory, high-cost flood insurance for all properties with federally backed loans. Toward that end, the City has been publicly engaged in local, regional, and state flood risk reduction efforts to identify a project, or projects, to reduce flood risk for these property owners. As part of those efforts, the City's public outreach has included community meetings, direct mail notifications to affected property owners, meetings with property owners, presentations to local business, civic and agriculture organizations, and frequent updates at City Council meetings. The public comment period for the DEIR was extended well beyond the 45-day minimum to ensure interested parties had additional time for review and input. The City will continue with public outreach efforts.

Chapter 7

Corrections and Revisions to the Draft EIR

This chapter contains changes to the text of the Draft EIR in response to certain comments. These changes are generally referenced in the responses to comments in Chapters 2 through 6 of this Final EIR or are provided to be consistent with changes referenced in Chapters 2 through 6. The changes are presented in the order in which they appear in the Draft EIR and are identified by Draft EIR page number. Text deletions are shown in ~~strikeout~~ and additions are shown in underline. The changes identified below do not alter the conclusions of the Draft EIR with respect to any of the significant impacts of the Proposed Project and do not necessitate recirculation of the Draft EIR. Corrections to minor typographical errors in the Draft EIR are not shown as text changes in this Final EIR.

Chapter 1, Introduction

In response to Comment N1-82, the property damage estimate provided in the fourth paragraph of Section 1.1.1, Background (on page 1-2), has been corrected.

Since 2008, evaluations of the levee system, including topographic mapping, hydraulic analyses, and field observations, have confirmed that the channel capacity is less than originally designed, and levees begin to overtop at a flow of approximately 26,000 cfs. These conditions combined with ongoing regional subsidence issues suggest that channel capacity will continue to diminish and there is a real threat of potentially substantial flooding in Woodland. Potential costs due to property damage from future Cache Creek flooding are estimated at approximately \$~~12~~22 million annually. Additional losses or adverse effects would include potential for loss of life, contamination from sewage and hazardous materials, and the possible extended closure of portions of Interstate 5, other local roads, and railway access east of the City (Appendix A, *Technical Memorandum, City of Woodland, Previous Alternatives Analysis Related to the Lower Cache Creek Feasibility Study*).

Chapter 2, Project Description

In response to Comment L1-5, a reference to the County of Yolo Improvement Standards has been added to the discussion of culvert installation and other improvements in Section 2.3.1.5, Other Road and Railway Improvements (on page 2-5).

Precast box culverts would be installed under SR 113, the two adjacent railroad crossings, and the private access road to the west of SR 113 where they cross over the drainage channel. The total width of the culverts will be approximately 200 feet. In order to install the box culverts beneath the highway and an adjacent private access road, the roadways would need to be elevated approximately 4 feet from current grade. This work would require the closing of SR 113, the rail lines, and the private access road during construction. A roadway detour diverting traffic to County Road 18 and I-5 would be established during construction. For the private road, temporary access would be arranged (potentially utilizing a temporary ramp) to maintain continuous access for the

landowner. The duration of the closure is estimated to be 3 months total, for which time it is assumed that the rail lines would remain out of service and no shoofly or other temporary rerouting of rail traffic would be required. Close coordination with the railroad is anticipated in the future in order to develop a plan for this closure. All roadway culvert design and construction activities would be done in accordance with the roadway standards contained in the County of Yolo Improvement Standards (County of Yolo Department of Planning and Public Works 2008).

In response to Comments L1-7 and L1-10, grading and building permits from Yolo County have been added to the list of required approvals in Section 2.4, Required Approvals (on page 2-14).

- County of Yolo: Grading permits and building permits for any structures, whether permanent or temporary.

Chapter 3, Impact Analysis

Section 3.1, Hydrology

The second paragraph under Section 3.1.2.1, Methods for Analysis, Hydraulic Modeling, Proposed Conditions, Water Surface Elevation (on page 3.1-12) was revised to clarify that the Proposed Project does not add any lands to the FEMA-designated floodplain and to reflect that the lands where the larger water surface elevation increases would occur are under a combination of public and private ownership.

As shown in the figures, flooding is no longer present south of the proposed levee (i.e., the city limits) under both the 100-year and 200-year flood events; however, there are localized areas where flood depths increase north of the proposed levee. In general, water surface elevation increases (for the 100-year flood) range from 0.1 to 6.0 feet. The larger increases occur on the east end of the project area near the CCSB on UC-Davis a combination of publicly and privately owned agricultural lands that do not contain any structures and in the detention basin. There is also an area to the east and west of County Road 102 (south of Cache Creek) where, in the modeled scenario described above, water under the 100-year event would be present (approximately 0.1 to 2.0 feet), where no water is present under existing conditions. However, this area is already part of the 100-year floodplain as designated by FEMA, which is shown in Figure 3.1-1. There are no structures located in this area.

The third paragraph under the discussion of Impact HYDRO-5 (on page 3.1-18) was revised to reflect that the lands where the larger water surface elevation increases would occur are under a combination of public and private ownership.

Although the proposed project would not cause flooding at any structures that are not already subject to flooding, modeled water surface elevations do increase in portions of the existing floodplain north of the proposed levee. In general, water surface elevations increase in areas where there are structures (for the 100-year flood) range from 0.1 to 2.0 feet. The deepest increases (up to 6.0 feet) would occur on the east end of the project area near the CCSB on UC-Davis a combination of publicly and privately owned agricultural lands that do not contain any structures and in the detention basin.

Section 3.4, Biological Resources

In response to Comment S3-2, the reference to Fish and Game Code Section 3315 has been corrected to Section 5515 where fully protected fish are discussed in Section 3.4.1.1, Regulatory Setting, State, California Fish and Game Code (on page 3.4-5).

Section 3511, ~~3515~~, 4700, 5515, and 5050: Fully Protected Species

The California Fish and Game Code provides protection from take for a variety of species, referred to as “fully protected species.” Section 5050 lists fully protected amphibians and reptiles; Section ~~3515~~ 5515 lists fully protected fish; Section 3511 lists protected birds, including the white-tailed kite, for which there is potential nesting and foraging habitat in the study area; and Section 4700 lists protected mammals. The California Fish and Game Code defines “take” as “an action hunt, pursue, catch, capture, or kill or an attempt to hunt, pursue, catch, capture, or kill.” Except for take related to scientific research, all take of fully protected species is prohibited.

Section 3.5, Land Use and Planning

Language was added to Section 3.5.2.2, Thresholds of Significance (on page 3.5-5), to clarify that the land use and planning impact analysis incorporates and relies on the hydrology and water quality technical analyses.

According to CEQA, policy conflicts do not, in and of themselves, constitute a significant environmental impact. A policy inconsistency is considered to be a significant adverse environmental impact when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse physical impact. Any such associated physical impacts are discussed in this EIR under specific topical sections such as noise, air quality, and transportation and circulation, as appropriate. In addition, the technical sections of this EIR identify specific policies that guide the determination of environmental impact significance (e.g., noise levels and traffic). The impact analysis relies on the technical flooding and water quality analysis in Sections 3.1, Hydrology, and 3.2, Water Quality.

Section 3.6, Agricultural and Forestry Resources

In response to Comment N1-55, the text under Section 3.6.2.1, Methods for Analysis, was revised to clarify that the LESA Model is discussed for informational purposes only and is not the basis for conclusions in the EIR (second paragraph on page 3.6-8).

A LESA was prepared for the Proposed Project by the U.S. Department of Agriculture, Natural Resources Conservation Service and the U.S. Army Corps of Engineers (USACE). As discussed in Section 3.6.1.1, *Regulatory Setting*, the LESA Model is a point-based approach for rating the relative importance of agricultural land resources based on specific measurable features and may be used by lead agencies in assessing impacts on agriculture and farmland. As part of the land evaluation, the relative value of farmland to be converted was scored 64 out of 100 points, and the site assessment score was 79 out of 160 points; the total combined score was 143. As stated in Section 3.6.1.1, per the FPPA, project sites receiving a total combined score of less than 160 need not be given further

consideration for protection and no additional sites need to be evaluated. This score ~~was considered generally in the impact analysis and is primarily~~ identified herein for the purposes of public disclosure.

In response to Comment N1-55, the text under Impact AG-3 (on page 3.6-10) has been revised to clarify that the conclusion does not rely on the LESA Model score.

Impact AG-3: Other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use (less than significant)

Although the Proposed Project would permanently convert Farmland, as described in Impact AG-1, the purpose of the Proposed Project is to reduce flood risk for the City of Woodland and, thus, to increase public safety for the long term. Unlike a highway project or housing project, which could promote urbanization in the area, The Proposed Project is not a use, ~~such as a highway,~~ that would induce further conversion ~~to of existing Farmland to nonagricultural uses in the project area or in Yolo County.~~ This is evidenced by the combined total LESA score of 143, which takes into account ~~socioeconomic aspects of a project that might result in additional potential conversion.~~ Therefore, the Proposed Project would not result in other changes to the existing environment, which, due to their location or nature, could result in the conversion of Farmland to nonagricultural uses. Similarly, floodproofing individual structures would not result in other changes to the existing environment that would result in the conversion of Farmland because the purpose of the floodproofing would be to support the structures that are there to support farming and agricultural lands. Impacts would be less than significant.

Section 3.12, Transportation

In response to Comment L1-15, discussion has been added regarding potential roadway deterioration issues resulting from heavy trucks under Impact TRA-3 (on page 3.12-13). This addition is now the third paragraph under Impact TRA-3.

In addition to the potential increase of hazards from a temporary increase in heavy truck traffic along roadways, the increase in haul trucks along the roadway network for the duration of project construction could potentially result in accelerated deterioration of the roadway quality (e.g., an increase in potholes or other roadway damage). An increase in roadway damage along the local network could result in increased hazards to vehicles, pedestrians, and bicyclists.

In response to Comment L1-15, discussion has been added regarding potential roadway deterioration issues resulting from heavy trucks under Impact TRA-3 (fifth paragraph on page 3.12-14).

Because a temporary increase in incompatible uses (such as heavy trucks utilizing a relatively small county road) or in hazards on area roadways could occur during project construction, and because roadway quality may degrade as a result of the influx of heavy trucks on the local roadway network, impacts would be significant. Implementation of Mitigation Measure TR-1, which includes measures that would minimize roadway and transportation hazards during and resulting from project construction, would reduce any potential increase in hazards that could occur during or result from project construction to a less-than-significant level.

In response to Comment L1-15, text has been added to Mitigation Measure TRA-1 (on page 3.12-14) to require roadways to be restored to pre-project or better conditions after construction is complete.

Mitigation Measure TRA-1: Traffic management plan for project construction

The City of Woodland will develop and, upon review and consultation with Yolo County implement a traffic management plan for construction of the Proposed Project to address issues related to transportation-related circulation, access, staging, and hours of delivery during the construction window. The traffic management plan would disseminate appropriate information to contractors and affected agencies regarding coordinating construction activities to minimize disruption and maintain circulation to the extent possible, with particular focus on ensuring connectivity for transit, people walking, and people bicycling. In addition, the plan would include provisions for roadways to be surveyed and repaired after construction is complete to ensure roadways that experience damage from the effects of heavy traffic during the construction window are restored to their pre-project (or better) condition. The traffic management plan would supplement and expand, rather than modify or supersede, any manual, regulations, or provisions set forth by relevant City or County departments and agencies, and the California Department of Transportation.

In response to Comment N1-60, a provision for additional signage to be added to nearby detours that have potentially hazardous roadway features has been added to Mitigation Measure TRA-1 (on page 3.12-15).

- **Roadway Signage**—The City or the City’s contractor will clearly identify the work zone, ~~and~~ any temporary roadway modifications, or potentially hazardous roadway features located along construction detours with signage and warning lights, noting that the driver’s sight lines will vary from location to location depending on the curve of the road, hills/valleys, or objects/buildings beside the road. The contractor will ensure that any signs, devices, or barriers are visible in all varying conditions of light and weather, and make sure that the work zone is indicated far enough in advance (so that drivers have time to adjust their speed and plan for temporary roadway changes). In addition, electrically operated programmable signs warning the public about upcoming closures or modifications will be placed at locations of closures beginning 1 week prior to the roadway closure.

In response to Comment L1-15, text has been added to Mitigation Measure TRA-1 (on page 3.12-15) to require roadways to be restored to pre-project or better conditions after construction is complete. This new bullet item is now the last bullet item listed under Mitigation Measure TRA-1.

- **Roadway Quality Monitoring and Repairs**—After the completion of project construction, the City of Woodland will conduct a survey to assess potential damage to the roadway quality (e.g., the appearance of new potholes, etc.) along project construction routes. Where damage is observed, repairs will be completed to restore the roadways to pre-construction or better conditions.

Language was added to the first paragraph of Impact TRA-4 (on page 3.12-16) to clarify what type of access restrictions are being discussed.

Impact TRA-4: Result in inadequate emergency access (less than significant with mitigation)

The Proposed Project would not result in any major or long-term changes to roadways in the study area except for the raising of some roadways and the construction of one roadway closure structure (which would only close during a large-scale flood event when the road is already at risk of flooding, or during an emergency situation). As described under Impact TR-3, although there would be some roadway modifications (e.g., the raising of roads), all roadways in the study area would maintain their basic footprint after the completion of construction. For this reason, there would be no long-term change in emergency access in the study area. During large flood events, there would be fewer access restrictions related to roadway closures than under existing conditions. This is because the proposed levee would prevent some portions of roadways that provide access to Woodland, (such as I-5 and SR 113 south of the proposed levee); from flooding and becoming inaccessible (see Figures 3.1-5 and 3.1-6). As described in Section 3.12.1.2, I-5 would be largely under water and inaccessible from the City in either direction under existing conditions. Implementation of the Proposed Project would remove the risk of flooding from I-5 both in the city and to the east of the city, allowing access into and out of the city from/to the east towards Sacramento.

Section 3.13, Public Services, Utilities, and Service Systems

Although Nelson's Grove (a recreational facility) is appropriately discussed and analyzed in Section 3.16, Recreation, text has been added to Section 3.13, Public Services, Utilities, and Service Systems, to include mention of Nelson's Grove in Section 3.13.2.2, Thresholds of Significance (first paragraph on page 3.13-7), in response to Comment N1-64.

The Proposed Project, including floodproofing individual structures, would not result in a direct population increase that would require new government facilities or lead to the physical alteration of existing facilities, including fire and police protection, schools, parks, or other public facilities. Nelson's Grove is the only recreational facility in the project area, but the park is well outside of the project footprint and would not be affected by construction or operation of the Proposed Project. ~~There are no community facilities within the project area and~~ The project would not physically alter any government facilities because the Proposed Project is an infrastructure project. The Proposed Project would not result in any loss of service ratios, response times, or other performance objectives of fire, police, or library services because the Proposed Project is not resulting in a direct population increase that would require these services to increase to maintain existing service ratios. Emergency access would be maintained during construction as already described in Sections 3.12, *Transportation*, and 3.18, *Hazards, Hazardous Materials, and Wildfire* through the preparation of a transportation management plan. Accordingly, impacts on public services do not apply to the Proposed Project and are not considered further.

Section 3.15, Aesthetics

In response to Comment N1-68, text has been added to Section 3.15.1.2, Environmental Setting, Visual Character and Quality (on page 3.15-7, last paragraph), to clarify that the study area is located within a FEMA-designated floodplain.

In the study area when Cache Creek floods, the agricultural lands and parts of the city of Woodland can experience floodwater inundation. In 1958 and 1995, Cache Creek rose to the top of both levees and overflowed its banks toward the city of Woodland. In 1983, a breach in the Cache Creek south levee occurred just upstream of the CCSB, flooding areas in the eastern part of an area now within the city limits of Woodland (industrial area). In 1995, overland flood flows reached within one block of Woodland. Floods are part of the existing conditions in the study area because the study area is located within a FEMA-designated floodplain (see Figure 3.1-1), and floods they have occurred and been experienced by viewer groups in the past (i.e., 1958, 1983, and 1995). Floodwaters change the immediate views of the rural nature of the study area for viewer groups. Typically, floodwaters are brown and may contain debris such as trees, fences, or other materials, depending on the severity of the flood, including the depth and velocity. Flood waters can also be reflective depending on the depth, coverage area, and the weather conditions, causing some amount of light and glare.

In response to Comment N1-68, the text in Section 3.15.1.2, Environmental Setting, Viewer Groups and Responses, Residents (on page 3.15-8), has been revised to clarify that views of floodwaters would depend on the magnitude of the flood event.

Residents

Residents in the study area with views of the project footprint consist of people living in suburban and rural areas. Most suburban residences are oriented inward toward the housing developments of North Park and Woodland West and do not have views of the project footprint because orientation and intervening development prevent views. Although some suburban residences are located directly adjacent to the western end of the project footprint, only residences on the outer edge of the developments or those on Hanging Oak Way, Carter Lane, the end of North Ashley Avenue/County Road 98B, or Cherry Lane currently have views of project footprint. These views consist of open agricultural land in the foreground and middleground and I-5 or local roadways in the middleground and background. However, fences or vegetation prevent direct, open views of the project footprint for some of these residents. Rural residents along Pedrick Road/CR 98 have foreground views of the project footprint and middleground and background views of agricultural lands that are backdropped by the Vaca Mountains and Coast Ranges on a clear day. Other rural residents north of the project footprint are separated from the project footprint by distance and oriented such that inhabitants have views of the surrounding mature oaks and other trees, orchards, or agricultural lands but generally do not have views of the project footprint. Both these residential groups could have views of floodwaters depending on their exact location and the magnitude of the flood event flooding in 1958, 1983, and 1995. Both suburban and rural residents are likely to value highly the inherent scenic quality of the largely pastoral open space around them. Because residents live within a short distance of the project footprint and have a sense of ownership of nearby visual resources, residents in and near the study area are considered to have high sensitivity to changes in the viewshed.

In response to Comment N1-68, the text in Section 3.15.1.2, Environmental Setting, Viewer Groups and Responses, Roadway Users (on page 3.15-9), has been revised to clarify that views of floodwaters would depend on the magnitude of the flood event.

Roadway Users

Available views of the project footprint vary for roadway users based on the nature of the roadway they are traveling, the direction the viewer is traveling, the elevation of the roadway, and the speed at which the viewer is traveling on the roadway. Motorists traveling on I-5, which bisects the study area going northwest midway through the project footprint, have expansive views of the area, including agricultural lands extending to the background, with scattered rural residences and agricultural industry in the foreground and middleground; those traveling north can see the existing Lower Cache Creek levee and associated riparian vegetation in the middleground, and those traveling south from the northern portion of the study area experience a dramatic and sudden change in scenery moving from a rural landscape to seeing the city of Woodland's industrial, commercial, and residential development south of the project footprint. All travelers also could see flood waters in middle and foreground throughout the study area, depending on the magnitude of the flood event. However, drivers on the interstate are typically occupied with the act of driving safely at high speeds and with getting to their destination. Travelers can also enter the study area and Woodland from the north and south on SR 113 or on local roads, such as County Roads 102, 101, 99, or 98. These travelers have views of the study area similar to those of travelers on I-5; however, because of the slower speed of travel and the smaller, more rustic nature of the roadways, these views are more available to motorists. Overall, viewers who travel these routes generally possess moderate visual sensitivity to their surroundings. The passing landscape becomes familiar to these viewers, and their attention typically is focused not on the passing views but on the roadways, road signs, and surrounding traffic.

Section 3.18, Hazards, Hazardous Materials, and Wildfire

In response to Comment N1-75, reference to an updated Environmental Site Assessment that considers the initial database records searches valid and did not identify any new environmental concerns or sites was added to Section 3.18.1.2, Environmental Setting, Hazardous Materials Sites in the Project Area, Previous Investigations (on page 3.18-7).

Previous Investigations

In 2000, a Phase 1 Environmental Site Assessment (Phase I ESA) was performed by the Environmental Design Section of the U.S. Army Corps of Engineers (USACE) Sacramento District for the 2003 *Lower Cache Creek, Yolo County, California, Draft Environmental Impact Statement/Environmental Impact Report for Potential Flood Damage Reduction Project*. This assessment resulted in the identification of 12 potential hazardous materials sites. However, these sites have been investigated and remedial efforts completed. As such, these sites no longer pose a threat. In January 2020, the USACE, Sacramento District reviewed government databases of hazardous waste sites and facilities to determine if any new hazardous environmental concerns occurred within the project area. No new environmental concerns were identified (U.S. Army Corps of Engineers 2020).

In response to Comments S2-2, S2-4, S2-5, and S2-6, text has been added to Mitigation Measure HAZ-2 (on pages 3.18-14 and 3.18-15) to make clear that the project proponent will consult with the California Division of Oil, Gas, and Geothermal Resources.

Mitigation Measure HAZ-2: Perform a phase I environmental site assessment prior to construction activities and remediate if necessary

Prior to construction, the project proponent will conduct a phase I environmental site assessment in conformance with the American Society for Testing and Materials Standard Practice E1527-05. All environmental investigation, sampling, and remediation activities associated with properties in the project area will be conducted under a work plan approved by the regulatory oversight agency and will be conducted by the appropriate environmental professional consistent with Phase I environmental site assessment requirements.

A Phase I environmental site assessment will, at a minimum, include the following components.

- An onsite visit to identify current conditions (e.g., vegetative dieback, chemical spill residue, presence of above- or underground storage tanks).
- An evaluation of possible risks posed by neighboring properties.
- Interviews with persons knowledgeable about the site's history (e.g., current or previous property owners, property managers).
- An examination of local planning files to check prior land uses and any permits granted.
- File searches with appropriate agencies (e.g., State Water Board, fire department, County health department) having oversight authority relative to water quality and groundwater and soil contamination.
- Consultation with the California Division of Oil, Gas, and Geothermal Resources (Division) to identify if wells are present.
- Examination of historical aerial photography of the site and adjacent properties.
- A review of current and historic topographic maps of the site to determine drainage patterns.
- An examination of chain-of-title for environmental liens and/or activity and land use limitations.

If the phase I environmental site assessment indicates likely site contamination, or consultation with the Division identifies an abandoned well, a phase II environmental site assessment will be performed (also by an environmental professional).

A phase II environmental site assessment would comprise the following.

- Collection of original surface and/or subsurface samples of soil, groundwater, and building materials to analyze for quantities of various contaminants. This includes sampling at the location of any well identified by Division consultation to identify potential leaks.
- An analysis to determine the vertical and horizontal extent of contamination (if the evidence from sampling shows contamination).

Chapter 5, Other CEQA Considerations

Language was added to the discussion of the Sacramento River General Reevaluation Study within the Cumulative Impacts section to clarify the status of the study (on page 5-4, first paragraph).

5.2.2.7 Sacramento River General Reevaluation Study

USACE, CVFPB, and DWR are conducting a general reevaluation of the design and operation of the SRFCP, which includes the Yolo Bypass. These agencies will also prepare a joint draft environmental impact statement (EIS)/EIR to evaluate environmental effects. This is a system-wide flood risk management and ecosystem restoration feasibility study intended to identify opportunities to restore ecosystem function along the Sacramento River and improve flood risk reduction capabilities of the flood conveyance system originally constructed in 1917. A number of alternatives integrating a combination of ecosystem restoration and flood risk management measures will be evaluated. Proposed measures to be considered are widening existing bypasses, modifying existing weirs, optimizing weir operations, construction of setback levees, developing floodplain management plans, restoring riverine aquatic and riparian habitat, removing barriers to fish passage, and restoring natural geomorphic processes. An NOP was prepared in October 2015 that stated the draft EIS/EIR is/was scheduled to be available for public review and comment in spring 2017.

In response to Comment L1-16, the text describing the Yolo HCP/NCCP within the Cumulative Impacts section has been updated to reflect the current status of the Yolo HCP/NCCP and RCIS/LCP (on page 5-4).

5.2.2.8 Yolo Habitat Conservation Plan/Natural Communities Conservation Plan and Yolo Local Conservation Plan

The *Yolo Habitat Conservation Plan (HCP)/Natural Communities Conservation Plan (NCCP)* and *Yolo Local Conservation Plan* are county-wide plans for the approximate 653,817,549-acre planning area that provides habitat for many special-status and at-risk species found in five dominant habitats/a variety of natural communities and compatible agricultural lands. The Yolo HCP/NCCP describes the measures required to conserve important biological resources and to provide ESA and CESA take authorization and associated mitigation for infrastructure (e.g., roads and bridges) and development activities (e.g., agricultural facilities, housing, and commercial buildings) identified for construction over the next 50 years in Yolo County. Implementation of the Yolo HCP/NCCP was initiated in January 2019.

The Yolo Regional Conservation Investment Strategy/Local Conservation Plan (RCIS/LCP) is a collaborative conservation planning effort of the County, Yolo Habitat Conservancy, California Natural Resources Agency, and California Department of Water Resources. The RCIS/LCP is intended to provide a complementary framework for future conservation efforts, including stewardship-driven conservation and mitigation-driven conservation, to enhance the conservation benefits in Yolo County. The Draft Yolo RCIS/LCP was prepared in March 2018. The HCP/NCCP will describe the measures that will be undertaken to conserve important biological resources, obtain permits for urban growth and public infrastructure projects, and continue Yolo County's agricultural heritage. The public review draft document is under preparation and is expected to be available

~~later in 2016. The HCP/NCCP will provide coverage to a broad range of activities in Yolo County, including various water supply, flood control, and ecosystem restoration projects.~~

Chapter 7, References Cited

In response to Comment N1-75, a citation to an updated Environmental Site Assessment was added to Section 3.18.1.2 (see first revision shown under Section 3.18, Hazards, Hazardous Materials, and Wildfire, above). The full reference for that citation was subsequently added to Section 7.3.18 (on page 7-27).

U.S. Army Corps of Engineers. 2020. Phase I Environmental Site Assessment (ATSM 1527-13/ER 1165-2-132). Lower Cache Creek Yolo County, Woodland Area, California Feasibility Study. Sacramento, CA. January.

Printed References

- City of Woodland. 2017. *2035 General Plan and Climate Action Plan Final Environmental Impact Report*. January.
- University of California Davis (UC Davis). 2016., *Amendment to the Cache Creek Settling Basin Trap Efficiency Study for the City of Woodland's Urban Flood Risk Reduction (UFRR) Study and Preliminary Design, Final Report, January 1, 2016 – August 3, 2016*. Cache Creek Settling Basin/Yolo Bypass Project, Contract No. 4600010003. Prepared for California Department of Water Resources. UC Davis J. Amorocho Hydraulics Laboratory, Department of Civil and Environmental Engineering. Davis, CA.
- U.S. Army Corps of Engineers. 1961. *Supplement to Standard Operation and Maintenance Manual, Sacramento River Flood Control Project, Unit No. 126, Cache Creek Levees and Settling Basin, Yolo Bypass to High Ground*. Sacramento, CA. November.
- U.S. Army Corps of Engineers. 2003. *Lower Cache Creek, Yolo County, CA, City of Woodland and Vicinity Draft Feasibility Report for Potential Flood Damage Reduction Project*. Sacramento, CA. March.
- U.S. Army Corps of Engineers, Sacramento District. 2007. *Cache Creek Basin, California, Cache Creek Settling Basin Enlargement Operation & Maintenance Manual*. March.
- U.S. Army Corps of Engineers, Sacramento District. 2019. *Lower Cache Creek, Yolo County, CA, City of Woodland and Vicinity Draft Supplemental Environmental Impact Statement for Potential Flood Risk Reduction Project*. December. Sacramento, CA. Available:
[https://www.spk.usace.army.mil/Portals/12/documents/civil works/lower cache creek/2019 Lower Cache Creek DraftSEIS.pdf?ver=2019-12-19-124659-133](https://www.spk.usace.army.mil/Portals/12/documents/civil%20works/lower%20cache%20creek/2019%20Lower%20Cache%20Creek%20DraftSEIS.pdf?ver=2019-12-19-124659-133). Accessed: October 13, 2020.
- Yolo County. 2009. *Agriculture and Economic Development Element*. County of Yolo 2030 Countywide General Plan. Woodland, CA. November 10. Available:
<https://www.yolocounty.org/home/showdocument?id=14465>. Accessed: October 7, 2020.

Personal Communications

- Reinhardt, Ric. Principal Engineer and Program Manager. MBK Engineers, Sacramento, CA. September 21, 2020—email exchange with Sara Martin at ICF about roadway closure structure activation under the Proposed Project.

Chapter 9

List of Recipients

Pursuant to State CEQA Guidelines Section 15095, a copy of the Final EIR will be filed with the planning departments of the City of Woodland and the County of Yolo. Upon certification, a copy of the certified Final EIR will be provided to each Responsible Agency.

Additionally, in compliance with State CEQA Guidelines Section 15088, the City provided the Final EIR, containing its proposed responses to comments from public agencies, at least 10 days prior to certification of the Final EIR to the following public agencies.

Government Departments and Agencies

State Agencies

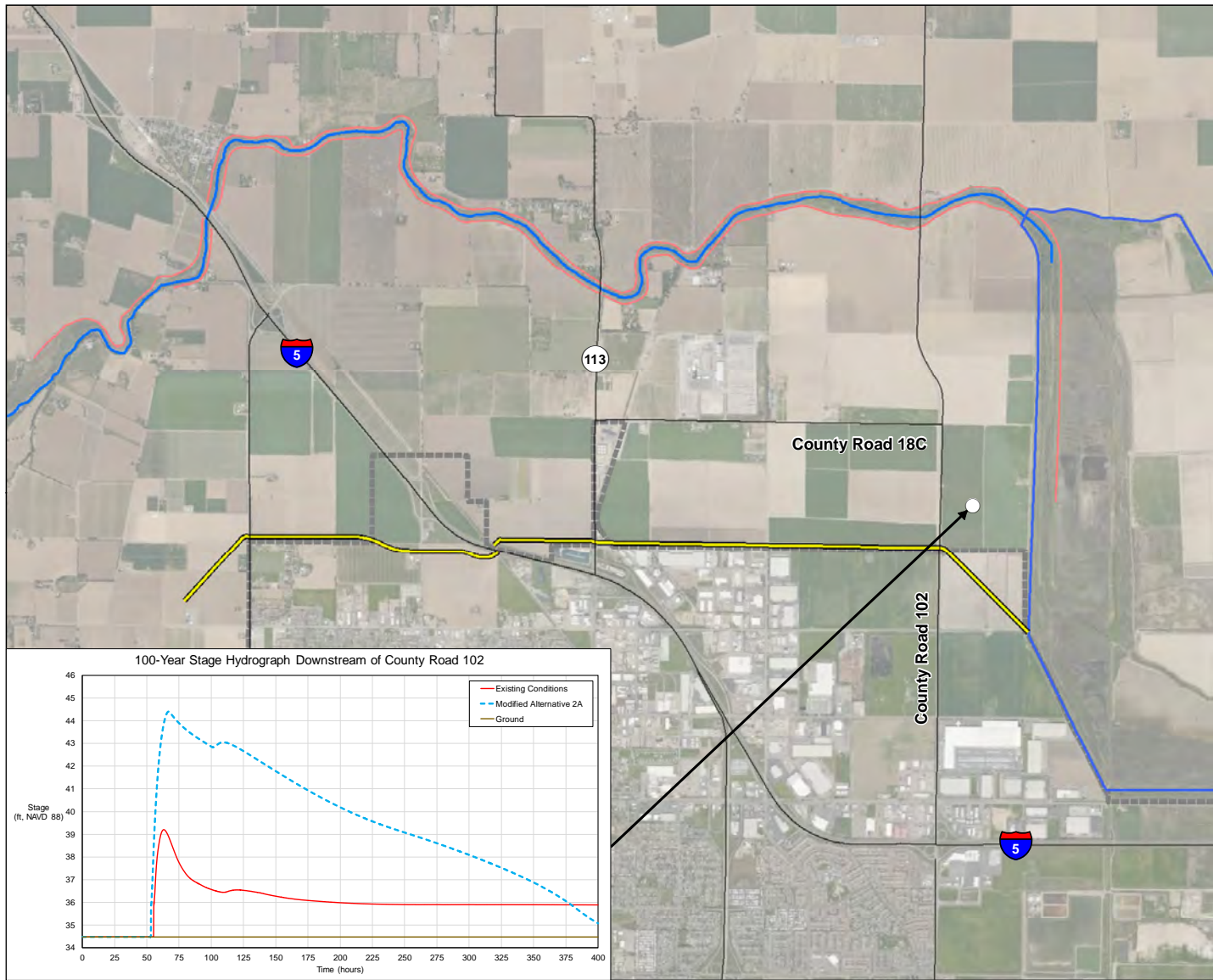
- Native American Heritage Commission
- California Department of Conservation, Geologic Energy Management Division
- California Department of Fish and Wildlife

Local Agency

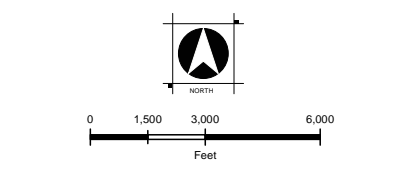
- County of Yolo Department of Community Services

Appendix 1

**Flood Duration East of County Road 102,
100-Year Flood Event**



- City of Woodland
- State Plan of Flood Control Levee
- Cache Creek
- Cache Creek Settling Basin
- Proposed Embankment

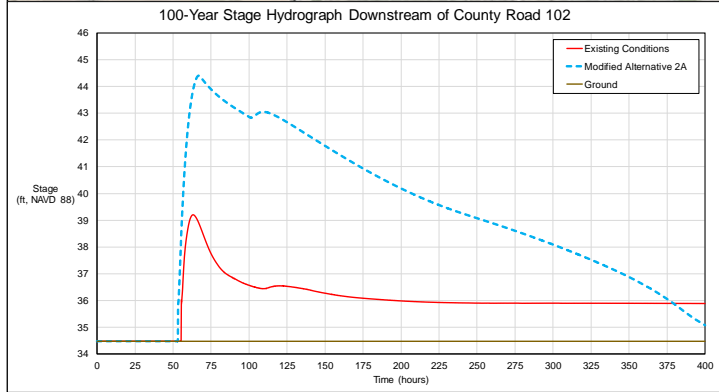


Lower Cache Creek Feasibility Study
 Refined Hydraulic Analysis of Alternative 2A

**100-Year Duration of
 Flooding Map**

October, 2020

PRELIMINARY



Graphics ... 00244.19 (11/17/20) AB



Appendix 2

**Highest and Best Use Study for the Properties South of
Cache Creek and North of the City of Woodland,
March 20, 2017**

HIGHEST AND BEST USE OF:

**PROPERTIES SOUTH OF CACHE CREEK
AND NORTH OF THE CITY OF WOODLAND
WOODLAND, CALIFORNIA 95776**

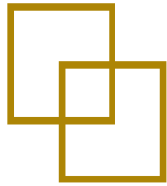
FOR:

**TIM BUSCH
PRINCIPAL UTILITIES CIVIL ENGINEER
300 FIRST STREET
WOODLAND, CALIFORNIA 95695**

AS OF:

MARCH 20, 2017

BRI 16-302



**BENDER
ROSENTHAL, INC.**

COMMERCIAL VALUATION AND RIGHT OF WAY SERVICES

4400 Auburn Boulevard, Suite 102
Sacramento, CA 95841
main: 916.978.4900 • *fax:* 916.978.4904
www.benderrosenthal.com

March 20, 2017

City of Woodland
Mr. Tim Busch
Principal Utilities Civil Engineer
300 First Street
Woodland, CA 95695

Re: Lower Cache Creek Feasibility
Highest and Best Use Study

Dear Mr. Busch:

We have completed the Highest and Best Use Study of the properties south of Cache Creek and north of the City of Woodland, within the specified study area as defined by the client. The purpose of this study is to provide an opinion as to the whether there will be an impact on agricultural values within the study area due to the proposed levee project. The agricultural properties within the study area are currently within a 100-year flood plain and based on hydrographs provided by MBK Engineers for the Modified Alternative 2A project plan (proposed levee project), these properties will not see an increase in the existing flood risk. The study area is further refined as those properties where there is no increase in the flood risk, including those areas not flooded during existing and project conditions and those areas that are subject to flooding but where there is no change in the depth of flooding as a result of the project.

The following report contains the scope of the assignment, investigation, data and analyses upon which conclusions of the study are based.

We are pleased to have this opportunity to assist you with this project.

BENDER ROSENTHAL, INC.

Cydney G. Bender Reents, MAI
California Certified General
Real Estate Appraiser
Certificate No. AG017559

Amy J. Woodward
California Certified General
Real Estate Appraiser
Certificate No. AG044210

BRI 16-302

BENDER ROSENTHAL, INC.

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ITEM 1 YOLO COUNTY OVERVIEW

ITEM 2 AGRICULTURAL MARKET OVERVIEW

ITEM 3 PROJECT DESCRIPTION

ITEM 4 APPRAISERS' QUALIFICATIONS

EXECUTIVE SUMMARY & FINDINGS

The City of Woodland has retained Bender Rosenthal Inc. for a Highest and Best Use Study of properties within a specified study area, south of Cache Creek and north of the City of Woodland. The purpose of this study is to provide an opinion as to the whether there will be an impact on agricultural values within the study area due to a proposed levee project. A full description of the proposed project is provided in the Addenda.

As will be shown in the data provided by the client, there is no increase in the flood depth or duration of flooding from existing conditions in the study area and in some areas of the study there is a decrease/improvement in flooding depth and duration. The flood zone designation for the study area also does not change from the existing designation. Interviews with individuals involved in the financing of agricultural real estate also indicated that there were no anticipated impacts to the cost or availability of financing as a result of the flood control project.

With no changes from existing conditions, the Highest and Best Use conclusions are the same as pre-project conclusions and as a result, our opinion is that there will be no impact on agricultural values within the study area.

The following report provides the data and narrative summary of our study and conclusions.

INTRODUCTION

The City of Woodland, together with the California Department of Water Resources (DWR) and the US Army Corps of Engineers (USACE), are engaged in studies to identify a project to address flooding from the right (south) bank of Cache Creek north of the city of Woodland. Due to the limited capacity of the Lower Cache Creek, flooding is anticipated to occur on a once-in-twenty-year to once-in-thirty-year recurrence interval.

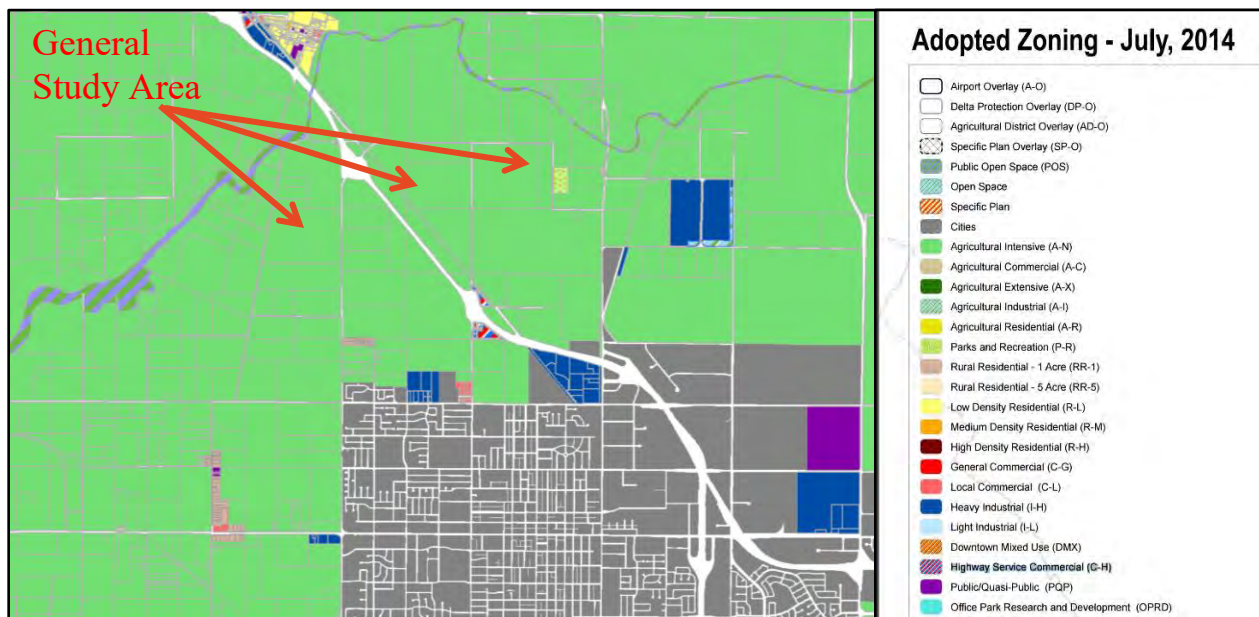
The primary objective of the project is to improve flood protection for the City of Woodland. Several preliminary plans have been studied in an effort to provide an economically feasible and environmentally sensitive method of preventing flood related damages. Public workshops were held in 2000 and 2001 and public opinions and concerns regarding these project alternatives were received by the city from both concerned property owners as well as lending institutions with secured agricultural assets in the area. A concern identified through communications with the public, which is the purpose for this study, was that the installation of a flood wall would have negative impacts on agricultural properties in the area.

Potential impacts presented by the respondents were in general, that as a result of the project all lands north of the city would be placed into a “bypass”, which would impact the ability and cost to obtain financing and diminish the value of agricultural properties and assets currently financed. The purpose of this study is to provide an opinion as to the whether there will be an impact on agricultural values within the study area due to the proposed levee project.

SCOPE OF WORK

The study consists of a highest and best use analysis of the properties both “before” the project and “after” the project. The study includes research for the area, community, and neighborhood to determine physical conditions and market influences. An overview of the agricultural market and value trends for agricultural properties located in existing flood zones is presented in the Addenda and utilized in our determination of the existing highest and best uses of properties within the study area. Flood data provided by MBK Engineers for the Modified Alternative 2A project plan (proposed levee project) is utilized in our analysis of the flood risks both “before” and “after” the project and interviews with market participants such as farmers, brokers and individuals from lending institutions were also utilized in our final determination of potential value impacts.

Overview of Land Uses. The study area’s neighborhood is characterized by agricultural lands with field and row crops, orchard developments, minimal single family residential properties and grazing ranches. While there are a few sites zoned for commercial and industrial uses, this study only includes analysis of the agricultural land areas. A review of the Yolo County Zoning Map dated 2014 indicates that the predominant zoning designation within the study area neighborhood is the Agricultural Intensive (A-N) Zone as shown in the map below.



The Agricultural Intensive (A-N) Zone is applied by the county to preserve lands best suited for intensive agricultural uses typically dependent on higher quality soils, water availability, and relatively flat topography. The purpose of the zone is to promote those uses, while preventing the encroachment of non-agricultural uses. Uses in the A-N Zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses. This includes allowing agriculturally-related support uses, excluding incompatible uses, and protecting the viability of the family farm. Minimum lot size for newly created parcels in the A-N Zone is 40 acres for irrigated parcels primarily planted in permanent crops, such as orchards; 80 acres for irrigated parcels that are cultivated; 160 acres for parcels that are generally uncultivated and/or not irrigated.

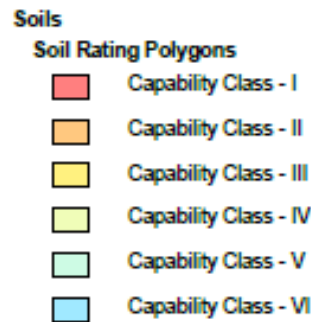
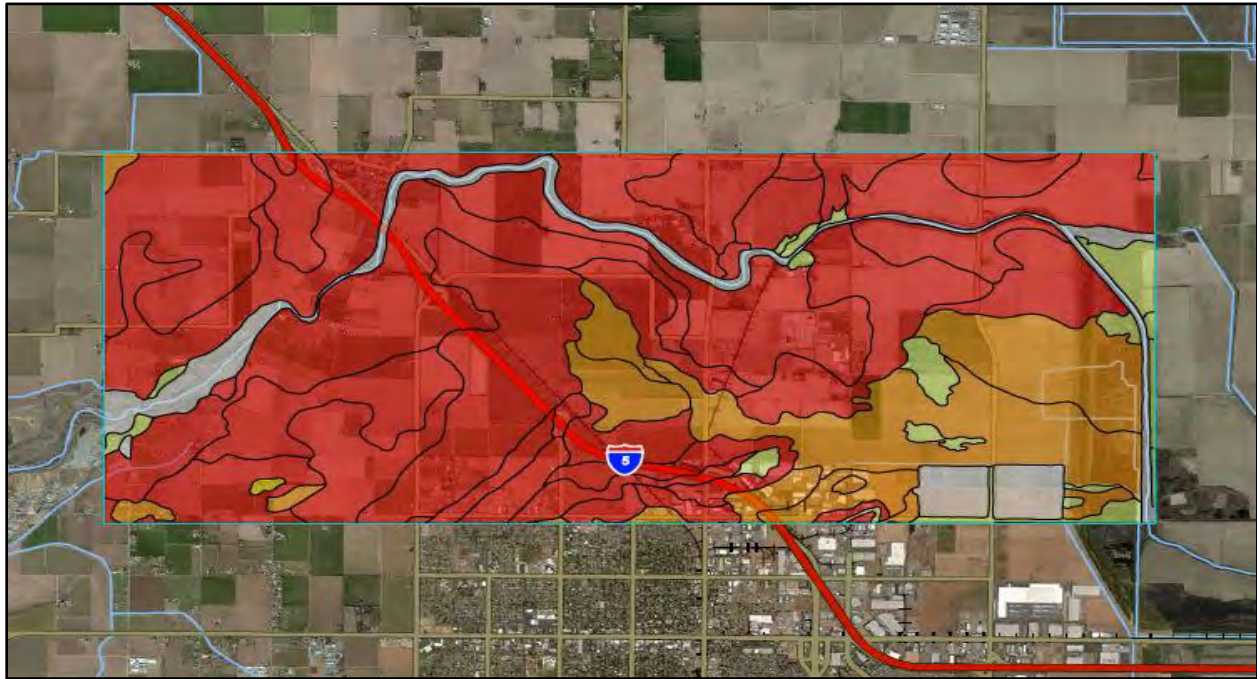
The General Plan designation for these Agricultural Intensive Zoned properties is Agriculture (AG), which allows for the full range of cultivated agriculture, such as row crops, orchards, vineyards, dryland farming, livestock grazing, forest products, horticulture, floriculture, apiaries, confined animal facilities and equestrian facilities. It also includes agricultural industrial uses (e.g. agricultural research, processing and storage; supply; service; crop dusting; agricultural chemical and equipment sales; surface mining; etc.) as well as agricultural commercial uses (e.g. roadside stands, “Yolo Stores,” wineries, farm-based tourism (e.g. u-pick, dude ranches, lodging), horseshows, rodeos, crop-based seasonal events, ancillary restaurants and/or stores) serving rural areas. Agriculture also includes farmworker housing, surface mining, and incidental habitat.

Soils. There are several sources and ways to characterize land and soil resources. For agricultural purposes soil surveys are often utilized to understand the characteristics of soils, beginning with the types of soils and their suitability for a range of agricultural uses. According to the Agriculture & Economic Development Element of the *County of Yolo 2030 Countywide General Plan*, two of the most widely used systems, the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Land Capability Classification system and the California Department of Conservation Farmland Mapping and Monitoring Program, are used to describe Yolo County farmland and soil resources. The NRCS Land Capability Classification System is based on the limitations of soils for irrigated field crops, the risk of damage if soils are used for crops and the way soils respond to management. Land capability classes for irrigated land are designated by the numbers I through VII, indicating progressively greater limitations and narrower choices for agricultural use and are defined as follows.

- Class I soils have slight limitations that restrict their use.
- Class II soils have moderate limitations that restrict the crop selection or that require moderate conservation practices.
- Class III soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
- Class IV soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
- Class V soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland and/or wildlife habitat. There are no Class V soils in Yolo County.
- Class VI soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class VII soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland and/or wildlife habitat.

The distribution of NRCS soils classifications in Yolo County is presented in the map on the following page.

IRRIGATED LAND CAPABILITY CLASSIFICATION MAP

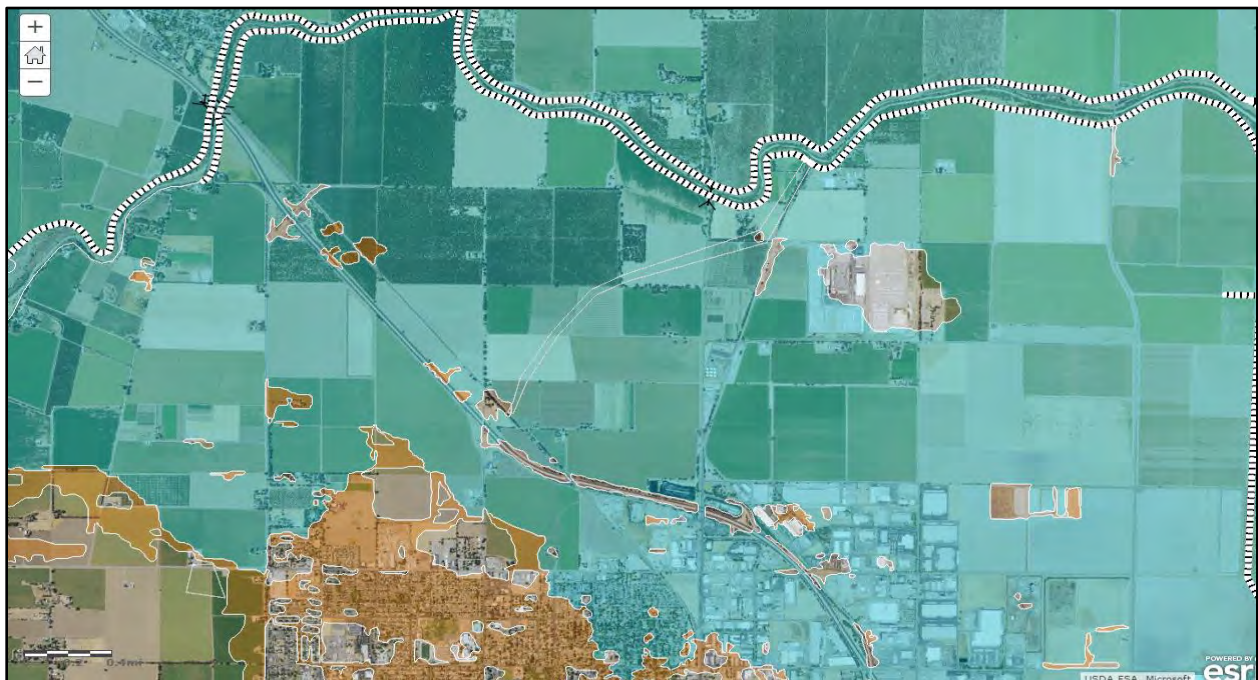


As can be seen in the soil classification exhibit above, the study area consists predominantly of Class 1 soils with some Class 2 and minimal areas of 3 and 4 soils. The study area is also primarily Prime Farmland as designated by the California Department of Conservation Farmland Mapping and Monitoring Program. This land is considered to have the best combination of physical and chemical soil characteristics, growing season and moisture supply needed to sustain long term, high-yield agricultural production and has been used for production of irrigated crops.

According to data provided through Web Soil Survey, the Class 1 soils within the study area consists mostly of Brentwood silty clay loam, Reiff very fine sandy loam and Yolo silt loam. These soils are well to moderately well drained and most areas are irrigated and are used for tree fruit, nut crops, vegetables, and field crops. The Class 2 and 3 soils consist of mainly Marvin silty clay loam, Merritt silty clay loam (deep), Maria Silt loam (deep) and Rincon silty clay loam which are characterized as poorly drained; slow runoff; moderately slow permeability. These soils are under intensive cultivation and are irrigated, producing a wide variety of field and row crops.

Flood Zone & Existing Flood Conditions. The primary objective of the proposed levee project is to improve flood protection for the City of Woodland. Currently the Lower Cache Creek channel and existing levee system do not provide sufficient conveyance capacity to provide protection from floods that have a 1 in 100 chance of occurring in any given year and flooding is anticipated to occur on a once-in-twenty-year to once-in-thirty-year recurrence interval. Lower Cache Creek has a history of flooding, with four major flood periods documented for the Cache Creek basin during the last half of the 20th century.

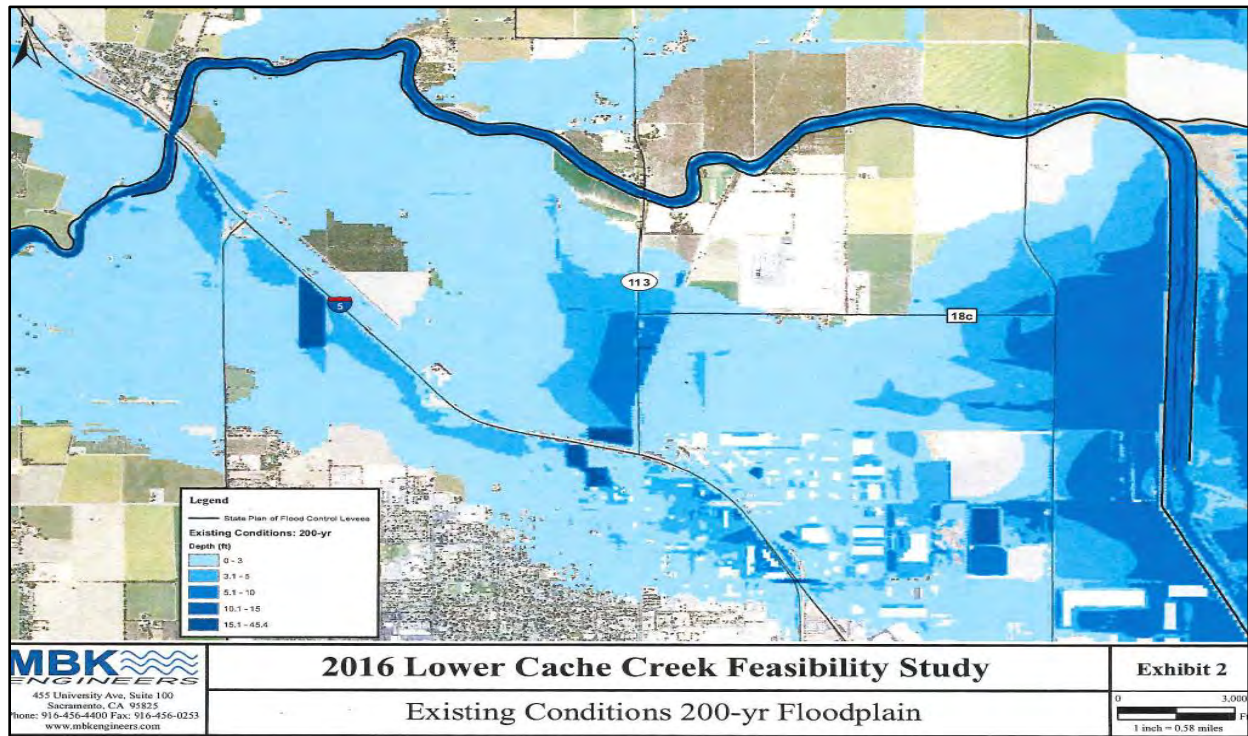
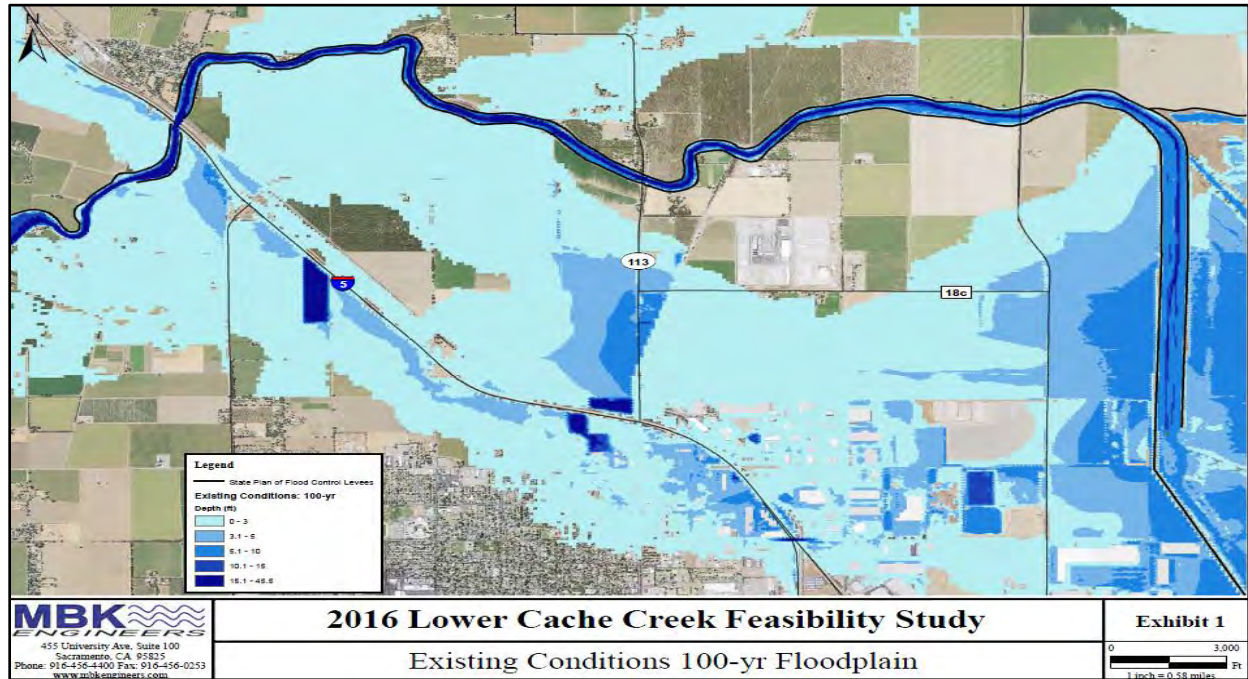
In the late 1990's, new Federal Emergency Management Agency (FEMA) maps placed the City of Woodland within the Cache Creek floodplain, particularly if levees failed. The map below depicts FEMA's National Flood Hazard layers within the study area and general neighborhood. Areas shaded blue are in Flood Zone designation AE, areas within 1% annual chance flood hazard.



In 1998, FEMA issued its preliminary flood maps for the Cache Creek Basin and placed all land downstream of I-5 and south of Cache Creek in an "unnumbered A" zone, meaning that it was susceptible to flooding but that exact depths were still to be determined. In 2001, FEMA completed its study of the basin and issued new flood maps to take effect in April 2002.

According to the FEMA Flood Insurance Study dated April of 2001, the city of Woodland has no recorded history of flooding. In 1958, 1983 and 1995 Cache Creek overflowed its banks and in 1983 flood waters reached the easterly part of what is now an industrial area within the city limits of Woodland. These flood waters were due to a levee break downstream from County Road 102, just west of the settling basin. In 1995 flood waters came within one block of Woodland.

The following hydrologic maps prepared by MBK Engineers show existing flood conditions and projected flood depths based upon a forecasted 100-year and 200-year flood event.



These maps depict the flood depths anticipated during the flood event and range from 0 to about 7 feet in depth within the study area. Flooding typically sheets from east to west and south. As can also be seen in these exhibits, the elevated grades of I-5 and the California Northern Railroad, in addition to the west levee of the Cache Creek Settling Basin cause the deepest flooding along these embankments, as waters are not able to pass through.

Land Value Trends. The study area is an area predominantly utilized for agricultural production. The agricultural market the recent economic recession better than the other real estate sectors. Generally, commodity prices have risen over the last nine years, with steady demand for inexpensive vacant and improved agricultural land. In the past year the agricultural market has shown a slight decline, primarily due to drought conditions and water conservation restrictions. Almonds, one of the top commodities, have softened in price within the past year, as well as walnuts and tomatoes. Properties with reliable water sources are anticipated to remain in high demand.

The following information was obtained from the American Society of Farm Manager's and Rural Appraisers 2016 trends in Agricultural land values. They note that strong demand for nearly all types of irrigated cropland properties in the North State area continued throughout the past year with values remaining stable to increasing. Supply of available properties for sale; however, was very limited. Most of the market participant interest was for irrigated cropland property that was adaptable to permanent plantings development, namely for almonds and walnuts. The transactions that have occurred indicate strong upward trends in value, driven by the lack of supply, statewide demand, and stable and strong nut commodity prices over the past five years.

The significant decline in walnut commodity prices and slight decline in almond commodity prices in the later part of 2015 could have a negative impact on irrigated cropland values- though none were noted to date. Drought concerns have also been added to the equation as there are at least two counties in the North State area that enacted well drilling moratoriums in 2015. The moratoriums are to remain in place until normal rainfall resumes and the drought ends.

Although recent rains in Northern California provided an encouraging start to the 2016-2017 water year (Oct. 1, 2016 – Sept. 30, 2017), many areas continue to experience the effects of drought, including Central Valley communities that still depend on water tanks and bottled water. Groundwater, the source of at least a third of California's water supplies, remains significantly depleted in many areas. California has undergone more than five years of extreme drought with significant impacts to communities, agriculture, and fish and wildlife. The State Water Board announced February 7, 2017 that they will continue to monitor conservation levels and water supply conditions, and have extended emergency conservation regulations. This conservation effort helps to create a stronger demand for those properties with existing, relatively reliable, irrigation water sources.

Recent transactions indicate a value range of \$11,000 to upwards of \$23,500 per acre for Class I and II soil types suitable for orchard development. Yolo County land sales for orchard development have been within the lower end of this range from \$11,000 to \$14,000 per acre. Sales of marginal Class III and Class IV irrigated cropland properties over the past year have also seen a significant increase in value, ranging from \$5,250 to \$14,500 per acre; the result of market participants looking for any type of ground with permanent plantings adaptability.

Land Values South Sutter, Western Placer, Solano and Yolo Counties			
Crop	Low Range Price / Acre	High Range Price / Acre	Activity / Trend
Rice	\$7,500.00	\$13,000.00	Moderate- Increasing
Vegetable Crops: Class 1 & 2	\$13,000.00	\$23,500.00	Strong - Increasing
Irrigated Field Crops: Class 3 & 4	\$5,250.00	\$14,500.00	Strong - Increasing
Rangeland	\$750.00	\$5,000.00	Moderate - Stable
Walnuts	\$18,000.00	\$35,000.00	Very Limited - Increasing
Vineyards	\$13,000.00	\$30,000.00	Limited - Increasing

As seen in the table above, the lowest indicator of land values are the rangeland properties, followed by rice land. Interestingly enough, the Class I and Class II irrigated cropland/vegetable crops are selling for higher prices per acre than improved vineyards in this particular submarket, denoting the strong demand for well irrigated land with good soils. The long-term growth outlook for the area remains positive despite slight declines in the agricultural market, with agricultural properties still making up a sizable portion of the overall local economy.

PRE-PROJECT HIGHEST AND BEST USE ANALYSIS

The definition of Highest and Best Use is defined as the reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Legally Permissible Uses. Possible uses are constrained by legal restrictions on a property both private and public. As previously discussed, the study area is zoned A-N (Agricultural Intensive Zone). This zone is applied to preserve lands best suited for intensive agricultural uses typically dependent on higher quality soils, water availability, and relatively flat topography. The purpose of the zone is to promote those uses, while preventing the encroachment of nonagricultural uses. Uses in the A-N Zone are primarily limited to intensive agricultural production and other activities compatible with agricultural uses. This includes allowing agriculturally-related support uses, excluding incompatible uses, and protecting the viability of the family farm. Minimum lot size for newly created parcels in the A-N Zone is 40 acres for irrigated parcels primarily planted in permanent crops, such as orchards or vineyards; 80 acres for irrigated parcels that are cultivated; 160 acres for parcels that are generally uncultivated and/or not irrigated. The agricultural uses allowed include the full range of cultivated agriculture, such as the on-site production of plant and animal products by agricultural methods, as well as agricultural commercial uses, agricultural industrial uses, and agricultural residential uses, serving the rural areas. This zoning is consistent with the AG General Plan land use designation. Given the general plan designation and zoning, agricultural uses and agricultural rural residential uses are permissible in the study area.

Physically Possible Uses. The size, topography, soil type, drainage and availability of irrigation are important factors in determining the use of the properties. The study area is characterized by agricultural lands with field and row crops, orchard developments, minimal single family residential properties and grazing ranches.

The size of the site can have a significant effect on the type of development that is possible and on the economies of scale. The sizes of the parcels within the study area range in size from 0.14 acres to 469 acres. The AG zoning allows for a rural home site, however, rural residences are not in typical demand and not financially feasible, but are common in conjunction with farming operations. Due to the AE flood zone, any residence or structure to be built must satisfy the requirements of the Floodplain Management Ordinance. The ordinance requires that projects planned for construction within a SFHA must meet development and construction standards specifically designed to prevent or limit flood damage. All new construction and substantial improvements to residential living areas, utility areas, storage areas or any enclosed area, including a basement, must be above the base flood elevation. Also, federally funded loans on structures require the purchase of flood insurance.

The immediate area is sparsely populated as demonstrated earlier in the Neighborhood section of the Master Report, with minimal demand for rural residential uses. There has been greater demand for larger properties which accommodate agricultural developments. According to the U.S.D.A. Natural Resources Conservation Service, the irrigated soils in the study area are of mostly irrigated Class I with some Class II and minimal Class III soils. The soils also have variations of drainage

capabilities, with the Class I soils having good drainage while some of the Class II and III soils indicate poor draining soil types. Drainage can also vary based upon the topography of the site. The study area appears to be substantially level throughout the study area.

Irrigation sources in the area are by agricultural wells and/or water pumped from Cache Creek. Based upon aerial photographs, the area appears to have adequate irrigation available.

Those properties that are level, well-draining and have Class 1 or 2 soils are suitable for permanent plantings (walnut, almond or pistachio orchards) or row/field crops. Properties that have poor draining soils are best suited to row/field crop uses such as rice, alfalfa, and tomatoes.

Financially Feasible / Maximally Productive Uses. The proposed property improvement must be able to deliver an income return that generates the market value sufficient to pay for the developmental costs, the risks involved, and profit appropriate for the type of development.

Based on market research, orchard use typically requires higher quality soil than row crop use, and farmers will pay more for land with orchard potential. Commodity pricing, although slightly down this past year, is still substantially higher than historical average pricing. Several recent local sales of orchards and land that can be developed into orchards support the financially feasible use of the properties within the study area which are suitable for orchard development. This is the predominant property category within the study area.

Although crop yields and land prices are not as high for field and row crop properties, there is reasonable demand for these properties in this market area. This use is the financially feasible and maximally productive use for properties where the soils are suitable for such use due to poor drainage.

PROJECT CONDITIONS & EXISTING CONDITIONS

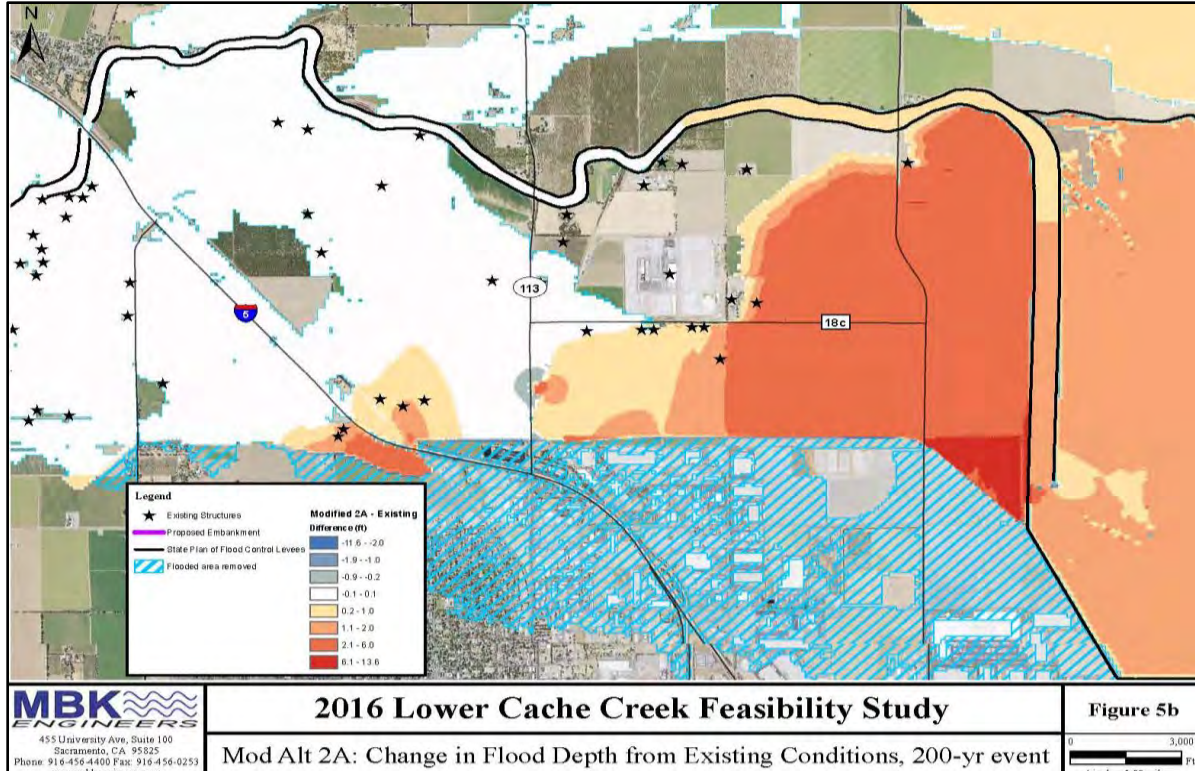
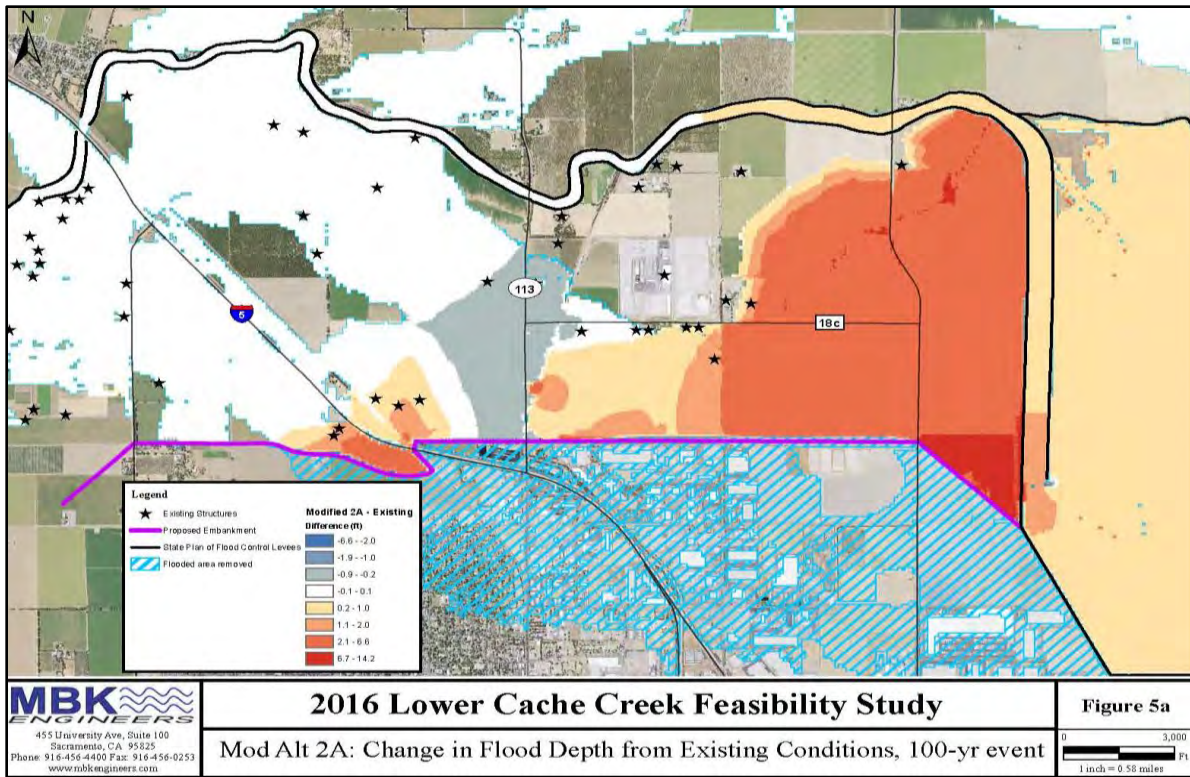
A full description of the project is provided in the Addenda for review. The following information addresses the flood zone and flood conditions with hydrology information for the study area and any changes to these attributes as a result of the project.

Flood Zone Designation. In 2001, FEMA issued new flood maps placing much of the land downstream of I-5 and south of Cache Creek, including approximately 35% of Woodland in the floodplain. The Modified Alternative 2A will provide a 200-year level of flood protection from Cache Creek for the City; there will be no change to the flood plain designation within the study area.

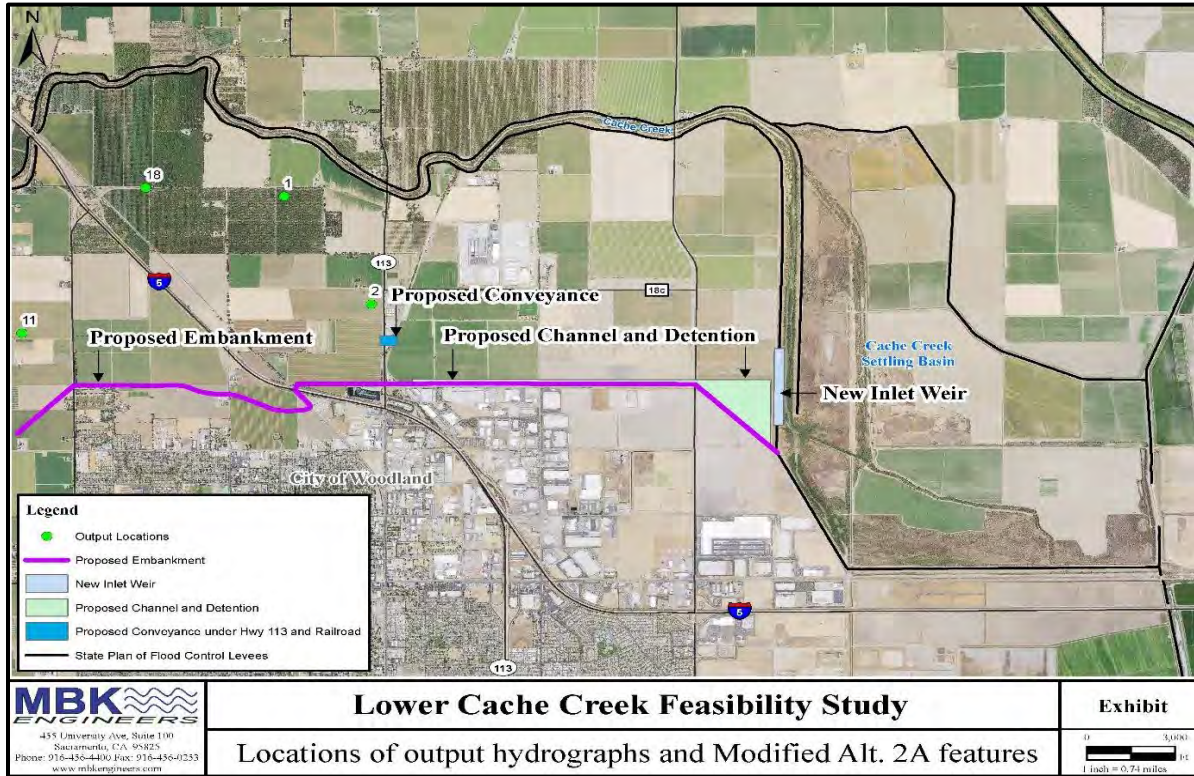
Hydraulic Analysis. The 200-year Design Water Surface Elevation (DWSE) was developed by MBK Engineers, Inc. (MBK) using a coupled one-dimensional and two-dimensional hydraulic model developed in TUFLOW. The basis for the Cache Creek watershed hydrology is described in the USACE Sacramento District report, “Central Valley Hydrology Study, Cache Creek Watershed Hydrologic Analysis,” dated September 2012. Hydrographs are based on scaled versions of the 1964 historic storm pattern for each n-percent ACE flood simulation. They are shifted in time in relation to the Cache Creek hydrographs to maintain the relative timing of the 1964 flood and create a condition whereby flooding in Cache Creek is coincident with flooding in the Sacramento River system.

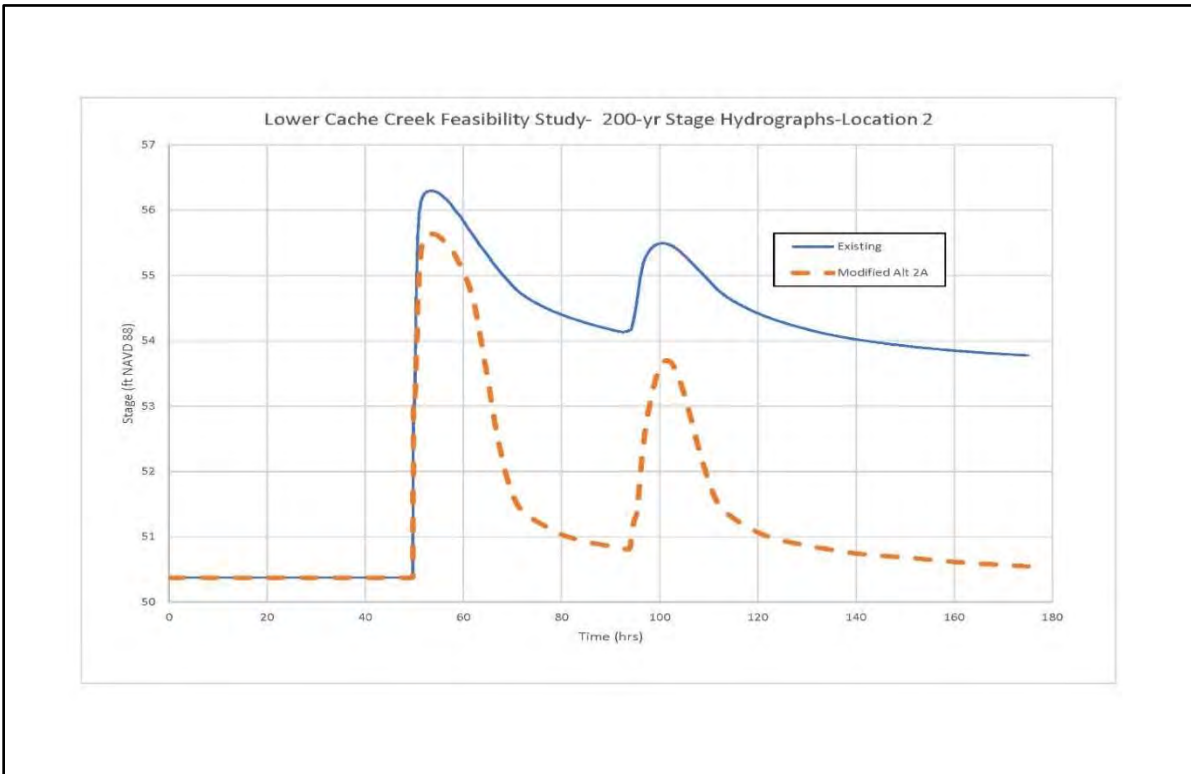
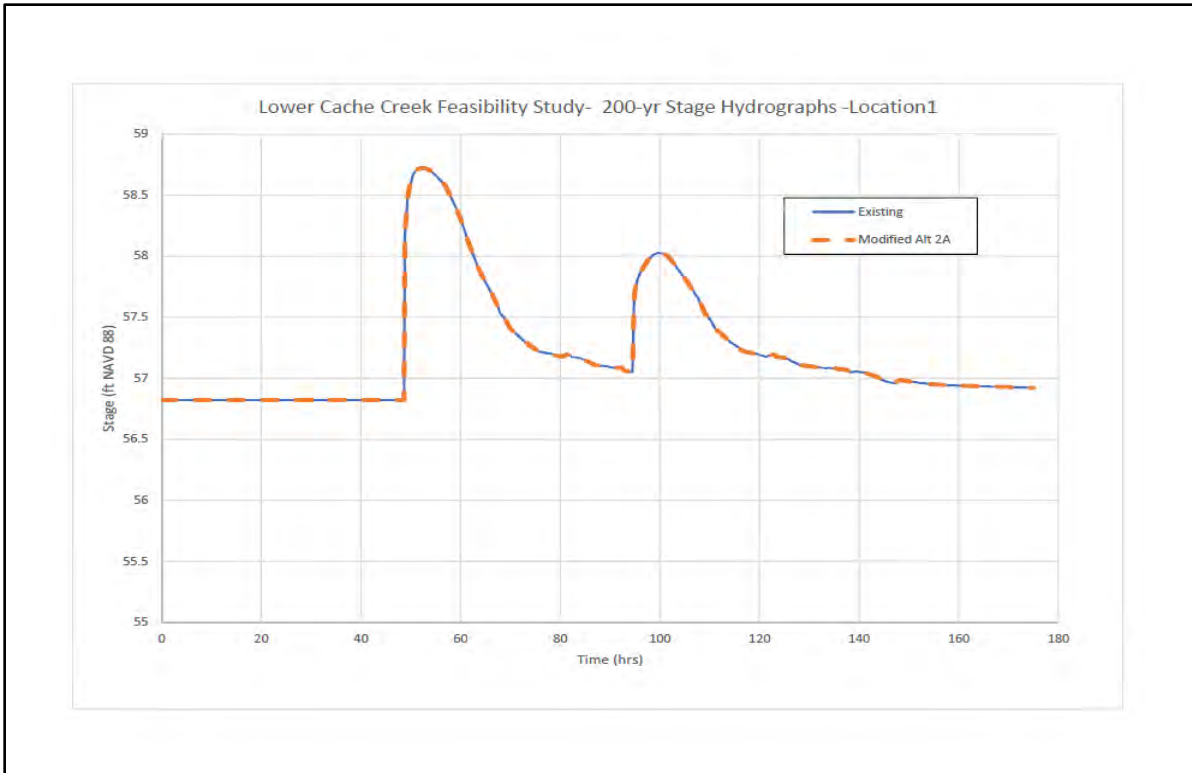
Existing flood conditions in the study area, as shown in the map previously presented, are flood depths ranging from 0 to 3 feet. The results of MBK’s hydraulic evaluation indicate that the study area (areas shown in white) will see no change in the flood depth from existing conditions. Other areas outside of the study will see an increase in the depth of flooding north of the proposed levee east of Highway 113 by as much as 6.6 feet (*Note: These areas are outside of our defined study area*), and will decrease the depth of flooding west of Highway 113 by between 0.2 foot and 0.9 foot during a 100-year flood event.

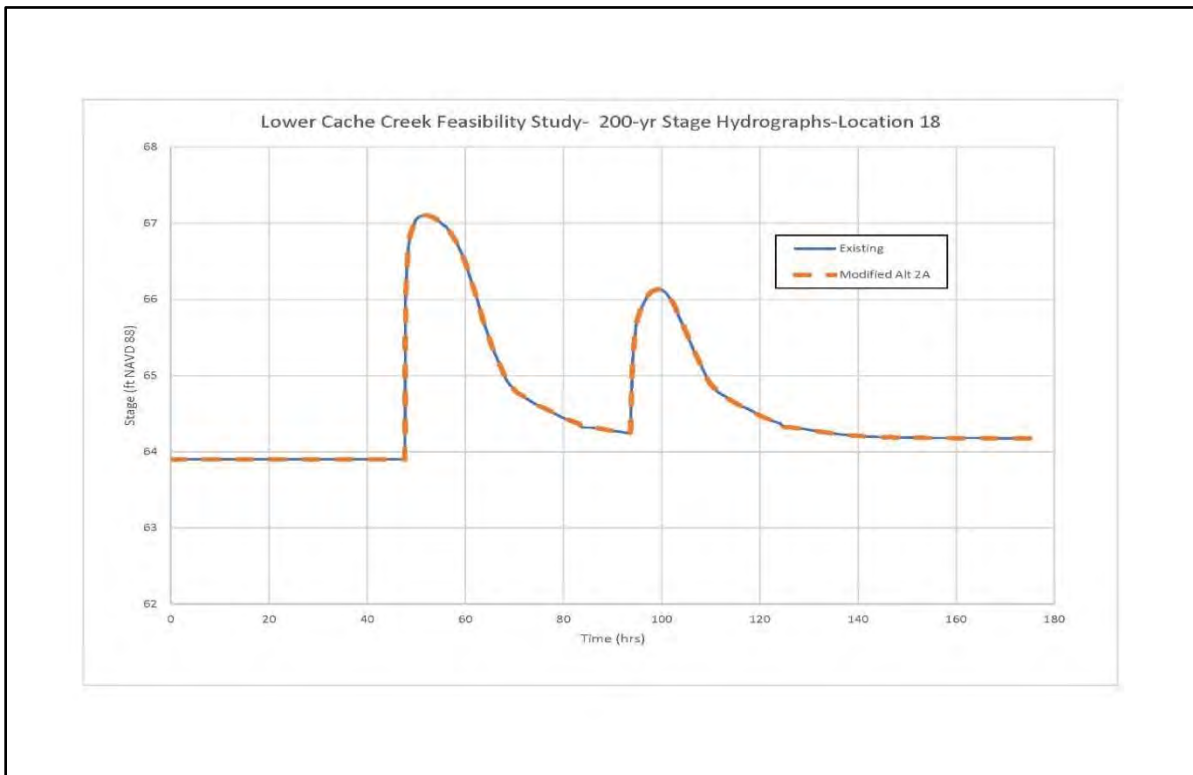
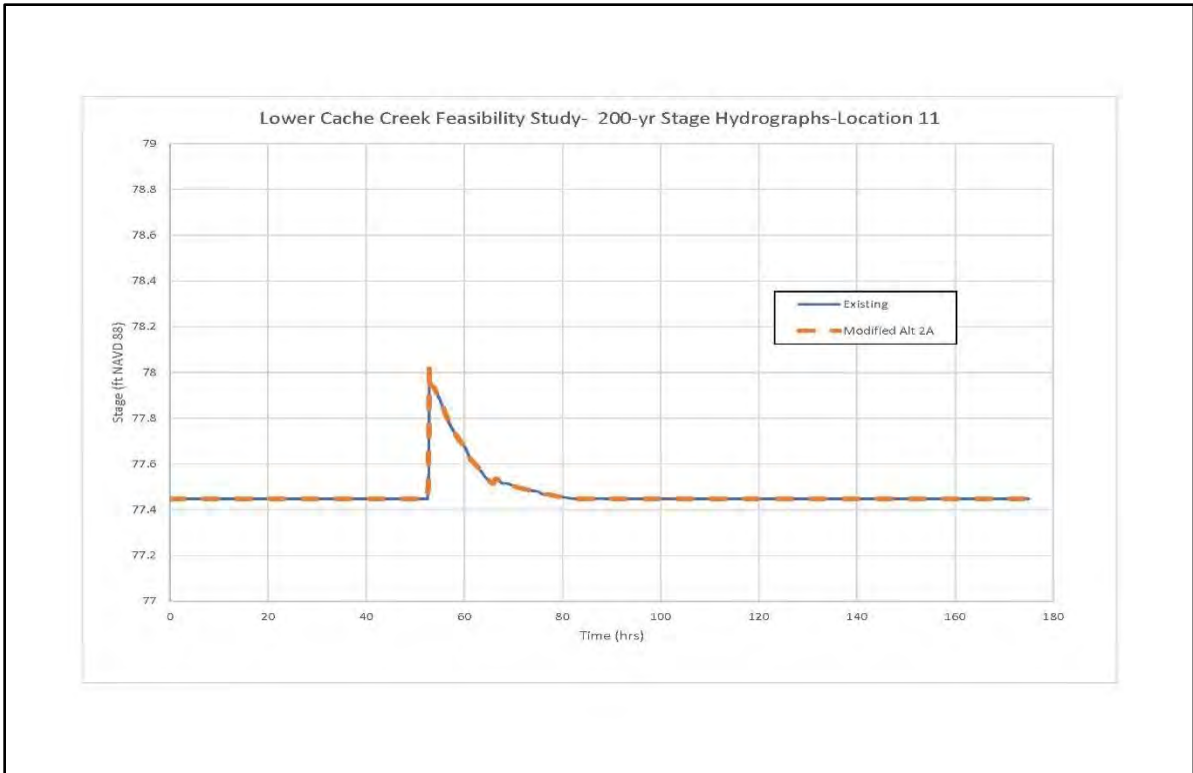
The change in flood depth between project conditions and the existing conditions is shown in the following maps for both a 100-yr Event and 200-yr Event. The study area consists of those areas shown in white.



The following hydrographs provide hydrologic data for different locations north of the proposed levee. The first map identifies the locations of the output hydrographs. These maps are followed by the hydrograph charts for these mapped locations identified as Location 1, 2, 11 and 18. Location 2 is not within the study area but is included to show the decreased flooding area.







As can be seen by the data, the results of MBK's evaluation indicate that in some areas there is a decrease/improvement in flooding depth and duration, and in the study area there is no change in the flood depth or duration of flooding from existing conditions.

Potential Flood Damages as a Result of the Project. The existing flood conditions within the area are due to the physical location being south of Cache Creek, within the flood risk area of this flood source. Some public concern of the project has been that the lands north of the city (which includes the study area) would be placed into a "bypass". A bypass is designed to divert water from a flood source to another location. The proposed project does not introduce new or additional waters from this existing flood source and divert it through the study area, therefore the project does not place the area into a "bypass". This is supported by the hydraulic models presented previously, which indicate there is no anticipated increase in flood water or the flood risk within the study area. This includes those areas not flooded during existing and project conditions and those areas that are subject to flooding, but there is no change in the depth or duration of flooding as a result of the project.

It is noted that there will be an increase in depth near the Cache Creek Settling Basin, where flood flows are restricted by the west levee and the settling basin. This area is not within our specified study area and is not included in our impact analysis.

There are no anticipated flood damages or increase in risk of flood damages as a result of the project within the study area.

MARKET PARTICIPANT INTERVIEWS

This study intends to address some of the concerns previously identified by the public, with regard to potential negative impacts on agricultural properties due to the installation of a flood wall. Potential impacts identified were in general, that the project would cause flood damages, impact the ability and cost to obtain financing and diminish the value of agricultural properties and assets currently financed due to an increased flood risk. The potential flood damages were addressed previously in the section above. Potential impacts to financing are addressed as follows.

Potential Impacts to Financing. Our research regarding the potential impacts on financing was conducted through interviews with individuals from lending institutions as well as market participants with experience in farming, appraising, and/or real estate brokerage. The following is a list of the individuals that were interviewed and the questions that were asked of the interviewees.

INTERVIEWEES

Patrick McHone – Executive Vice President/Chief Credit Officer, River City Bank

Greg Peters – Senior Appraiser, Golden State Farm Credit

Stephen W. Kritscher – Agricultural Real Estate Finance, California Agricultural Properties Inc.

Justin Hill – Agricultural Real Estate Broker & Investor, Gary Miller Realty

Johnathan Schrader, MAI, AI-GRS – Vice President & Chief Appraiser, Farmers & Merchants Bank

QUESTIONS

- Have you financed farm lands located in a flood zone? Do you currently lend on properties located in a flood zone? Examples?
- Are the lending rates similar to other properties not in a flood zone?
- Do lending requirements change for properties located in a flood zone?
- Do lenders consider proximity to the flood source (creek/river)?
- Would you anticipate any impact on financing for agricultural lands/development due to a levee project- even if there is no increase in depth of flooding or duration of flooding when compared to existing conditions?

Synopsys of Interviews. All of the individuals interviewed have had either direct or indirect experience with financing properties located in flood zones (100-year flood hazard area). In their experience, there has been little to no difference in lending rates for properties located in a flood zone. There is however, from a market value perspective, a slight value difference for properties located within a flood zone versus properties outside of a flood zone, with properties outside of a flood zone being superior (slightly higher in value). Lending requirements for properties located in a flood zone area are similar, with the exception to mandatory flood insurance requirements on structures located within a flood zone; this is a requirement for all federally funded loans by the FDIC. There is no flexibility in the flood insurance requirements. If the structural improvements are in a special flood hazard area, flood insurance is required. Proximity to the flood source is not typically a factor in lending decisions, but rather industry norms for the agricultural use are considered. For example, walnut orchards have been developed in some cases in river bottom lands, where flooding is much more frequent than lands situated outside the river. If a farmer were proposing to develop an almond orchard in that same location, a lender would have significant concerns about the risk of such planting as it would be outside of industry norms, which would ultimately impact credit pricing and/or availability. Almond orchards are known for being less tolerant to standing water than walnuts and pistachio orchards.

The primary concern regarding the project from a lending perspective would be to determine whether elements of the flood control project would impact the cash flows of properties. If there were elements of the project that negatively impacted the cash flows, such as additional flooding, delayed planting, damaged crops, then financing costs would increase due to the additional risk of the investment.

With no changes to the existing flooding conditions, there are no anticipated impacts to the cash flows of properties or assets financed. Industry participants indicated there would be no impacts to the costs or availability of financing due to the project.

FINDINGS & CONCLUSIONS

Summary of Project Impacts on Value. We have studied the project construction elements, hydrographs, area flooding history, area soils and drainage characteristics, the study area's agricultural market and interviewed multiple individuals involved in agricultural real estate, appraisal and financing. We have been unable to determine any negative potential impacts on value for properties within the study area as a result of the proposed flood control project.

Highest & Best Use Conclusions. There is no increase in the flood depth or duration of flooding from existing conditions in the study area and in some areas of the study there is a decrease/improvement in flooding depth and duration. The flood zone designation for the study area also does not change from the existing designation. Discussions with individuals involved in the financing of agricultural real estate located in flood zones also indicated that there were no impacts anticipated as a result of the flood control project.

With no changes from existing conditions, the Highest and Best Use conclusions are the same as the Pre-Project conclusions. Those properties that are level, well-draining and have Class 1 or 2 soils have a Highest and Best Use conclusion of orchard use (walnut, almond or pistachio orchards). Properties that have poor draining soils have a Highest and Best Use conclusion of row/field crop use such as rice, alfalfa, and/or tomatoes.

This concludes our report.

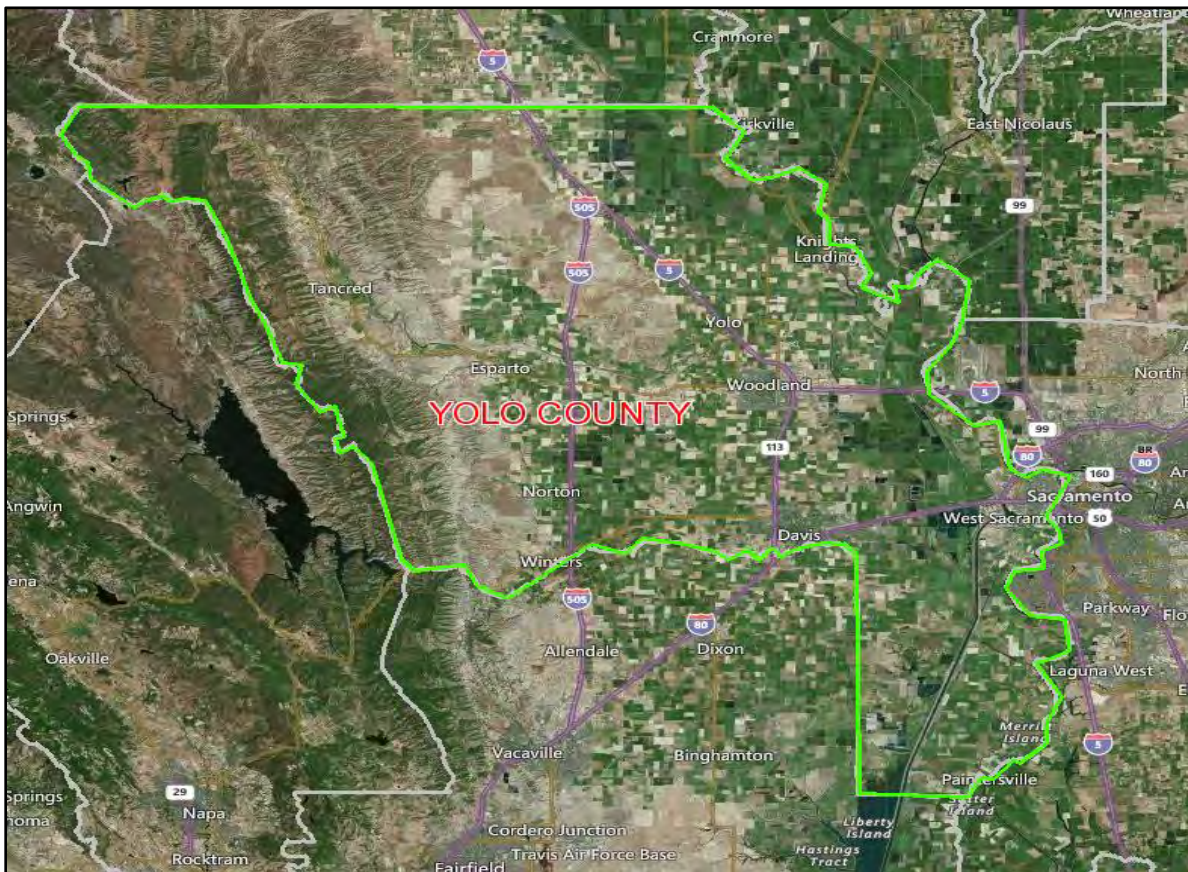
ADDENDA

ITEM 1
YOLO COUNTY OVERVIEW

YOLO COUNTY OVERVIEW

General Overview of Yolo County. Located in northern California, Yolo county is close to both the San Francisco Bay Area and Sacramento. Surrounding counties include Colusa to the north, Sacramento and Sutter to the east, Solano to the south, and Napa and Lake to the west. Availability of transportation is a major asset to Yolo County providing access to water, rail, and air transportation facilities, as well as an extensive roadway system, including major Interstate 5 and Interstate 80. Much of Yolo County remains a relatively rural agricultural region.

YOLO COUNTY MAP



Yolo County was one of the original 27 counties created when California became a State in 1850. The county is located in the rich agricultural regions of California's Central Valley and the Sacramento River Delta. It is directly west of Sacramento, the State Capital of California, and northeast of the Bay Area counties of Solano and Napa. Yolo County is located within the Sacramento-Roseville-Arden-Arcade Metropolitan Statistical Area. Yolo County has experienced, and will continue to experience, tremendous pressures to provide additional residential, commercial, and industrial development. According to the U.S. Census Bureau, the county has a total area of 1,024 square miles of which 1,015 square miles is land and 8.9 square miles (0.9%) is water.

Transportation The main transportation routes servicing the Yolo County area are Interstate (I)-5, I-505, state route (SR) 113 and I-80. These major transportation corridors allow access from much of the rural agricultural properties lying throughout the county. I-5, which traverses generally north and south through the county, is one of the major routes within this area, along with the I-505, which also travels north and south and bisects the county. I-80 traverses in a generally southwest direction and leads into Solano County. Other minor transportation routes include SR-16 which leads from Woodland into the agricultural properties to the west of the city, and County Road 31, which provides access to the west of the county from Davis. The ease of access provided by the Sacramento International Airport, the Capitol Corridor train, the Port of Sacramento and Interstates 5, 80 and 505, have all exacerbated existing growth pressures in the county.

Population In January 2016, the population of Yolo County was 214,555. The largest city within the County is the City of Davis with 68,314 residents, or 31% of the County’s total population. This is primarily due to the University of California, Davis. UC Davis is the largest campus in the UC system, spanning over 5,500 acres. The second largest city in the county is the City of Woodland with approximately 27% of the county’s total population

COUNTY / CITY	2013	12 to 13	2014	13 to 14	2015	14 to 15	2016	15 to 16
		% Ch		% Ch		% Ch		% Ch
California	38,239,207	0.94%	38,567,459	0.85%	38,907,642	0.87%	39,255,883	0.89%
Yolo County	207,380	1.35%	208,961	0.76%	211,813	1.35%	214,555	1.28%
Davis	67,024	1.76%	67,684	0.98%	68,254	0.84%	68,314	0.09%
West Sacramento	50,464	1.47%	51,152	1.35%	51,963	1.56%	53,082	2.11%
Winters	7,074	1.87%	7,134	0.84%	7,200	0.92%	7,214	0.19%
Woodland	56,211	0.68%	56,784	1.01%	57,401	1.07%	57,526	0.22%
Balance of County	26,607	1.36%	26,207	-1.53%	26,995	2.92%	28,419	5.01%

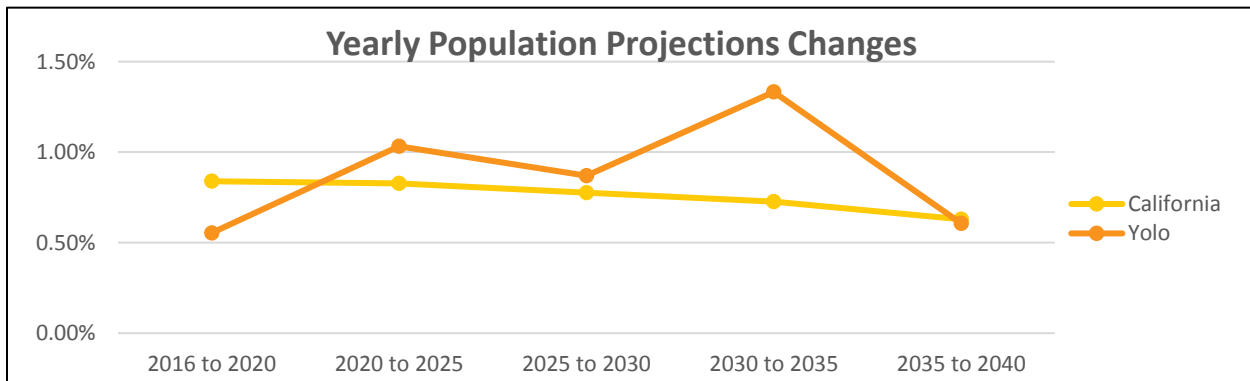
Source: Department of Finance, Demographic Research

The table above shows that all cities, and even the county, are experiencing a period of population increase, in particular the city of West Sacramento. The city of West Sacramento has experienced a large 2.11% increase in population between 2015 and 2016. In addition, outside areas of the county (not within cities) have also experienced large population increases (more than 5%) year over year.

Although the County of Yolo has experienced a period of increasing population, this population indication is anticipated to slow down a bit into coming years as per the Department of Finance.

Area	2020	2016 - 2020 Yearly Change	2025	2020 – 2025 Yearly Change	2030	2025 2030 Yearly Change	2035	2030 – 2035 Yearly Change
California	40,619,346	0.84%	42,373,301	0.83%	44,085,600	0.78%	45,747,645	0.73%
Yolo	219,415	0.55%	231,369	1.03%	241,898	0.87%	259,163	1.33%

Source: Department of Finance, Population Projections



Source: Department of Finance, Population Projections

The Department of Finance projects that the yearly growth rate of the County of Yolo will fluctuate in coming years, quite different than the constant state growth rate. In particular, the growth rate between 2020 and 2035 will show large amounts of population increases while the population increase into 2040 is forecasted to be lower and in line with the state's growth rate.

**Lower Cache Creek Feasibility
Highest & Best Use Study
Woodland, California**

Yolo County Major Employers The Employment Development Department shows the following twenty-five employers as the Major Employers in Yolo County.

Employer Name	Location	Industry	No. Of Employees
University of California-Davis	Davis	Schools-Universities & Colleges Academic	10,000+
Cache Creek Casino Resort	Brooks	Casinos	1,000-4,999
Target Distribution Ctr	Woodland	Distribution Centers (whls)	1,000-4,999
Teachers' Retirement System	West Sacramento	Government Offices-State	1,000-4,999
Pacific Coast Producers	Woodland	Canning (mfrs)	1,000-4,999
Woodland Healthcare	Woodland	Hospitals	1,000-4,999
Woodland Healthcare Foundation	Woodland	Health Services	1,000-4,999
Yolo County District Attorney	Woodland	Government Offices-County	1,000-4,999
Ambius Sacramento	West Sacramento	Plants-Interior Design & Maintenance	500-999
Norcal Beverage Co	West Sacramento	Vending Machines-Manufacturers	500-999
UPS Customer Ctr	West Sacramento	Mailing & Shipping Services	500-999
Walmart Supercenter	Broderick	Department Stores	500-999
Tony's Fine Foods	West Sacramento	Food Products-Retail	500-999
Promega Corp	Madison	Biotechnology Products & Services	500-999
Raley's Family of Fine Stores	West Sacramento	Business Management Consultants	500-999
Raley's Pharmacy	West Sacramento	Pharmacies	500-999
Rite Aid Customer Support Ctr	Woodland	Distribution Centers (whls)	500-999
Seagate Technology	West Sacramento	Computer Storage Devices (mfrs)	500-999
Bel Air Markets	West Sacramento	Grocers-Retail	250-499
Coventry Workers Comp Svc	West Sacramento	Workmen's Compensation Consultants	250-499
Dennis Blazona Construction	West Sacramento	Construction Companies	250-499
Mariani Nut Co	Winters	Nuts-Edible	250-499
Procurement Office	Broderick	State Government-General Offices	250-499
Sutter Davis Hospital	Davis	Hospitals	250-499
UCD Coffee House	Davis	Restaurants	250-499

Source: Employment Development Department- Top Employers

Not surprisingly; the major employers shown in the above chart are primarily located in the areas of Davis, West Sacramento, and Woodland. The largest employer in the county is the University of California, Davis with over 10,000 employees. No other employer in the county has anywhere near that employee count. The latest economic impact report for UC Davis shows that the university is an economic driver for Yolo County and the entire Sacramento region, as well as for California overall.

Yolo County Employment The unemployment rate in the Yolo County was 5.4 percent in October 2016, up from the month before 5.1 percent in September, but down from the 2015 (annual estimate) of 6.4 percent. This compares with an unadjusted unemployment rate of 5.5 percent for California and 4.9 percent for the nation during the same period.

The County has unemployment levels above those of the statewide average and average wages that are substantially below statewide levels. Despite a shift away from its agricultural base and expansion of the industrial job base, the County continues to lag behind the state in income and employment. The introduction of ever greater numbers of commuters and of service and industrial jobs should raise the educational and income levels of the County's labor force.

ITEM 2

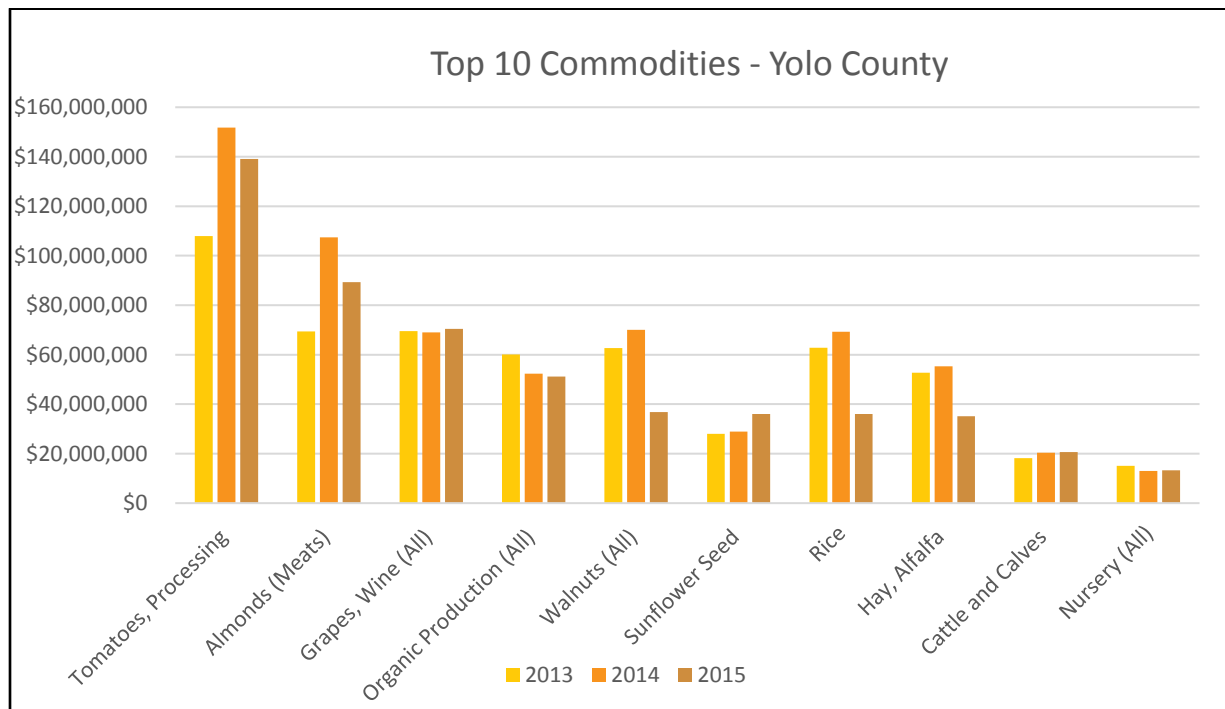
AGRICULTURAL MARKET OVERVIEW

AGRICULTURAL MARKET OVERVIEW

Yolo County Agricultural Market. According to the 2015 Yolo County Crop Report (the most recent available), The \$661,752,000 gross value of Yolo County’s agricultural production for 2015 was below 2014’s value of \$796,963,000; this represents a 17% decrease in value. The majority of this decline is due to continued severe drought conditions coupled with overall lower commodity prices.

Processing tomatoes remain Yolo County’s leading commodity with a gross value of \$139,135,000. Almonds, Wine Grapes, Organic Production, and Walnuts are among the top five commodities based on gross values. Sunflower Seed, Rice, Alfalfa, Cattle, and Nursery Products round out the top ten commodities for 2015. A summary of the top 10 commodities in Yolo County is presented in the next table.

TOP 10 COMMODITIES – YOLO COUNTY



Source: 2015 Yolo County Crop Report

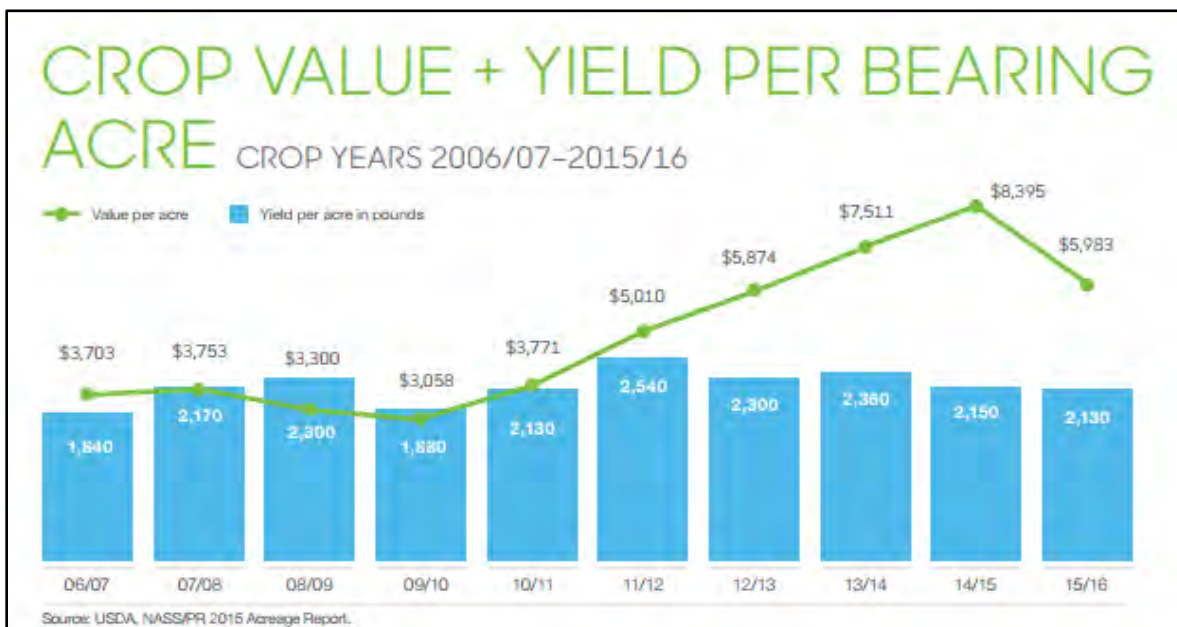
The County’s economy is primarily based on agriculture. This is evidenced by the multibillion-dollar state of California tomato industry that accounts for 90% of the canned and processed tomato production in the United States and 35% worldwide, to which Yolo County is a major contributor.

Although tomatoes are the top commodity for the county, returns per acre are much greater for nut commodities such as almonds and walnuts. This is evident when comparing land values for properties compatible for growing field and row crops versus orchards. Because the subject study area is primarily good quality soils that are well draining and suitable for permanent plantings (orchards) the rest of our agricultural focus will be on the nut market including almonds, walnuts and the newest crop to come into this area- pistachios.

Almond Market Overview. According to the most recent USDA-NASS acreage estimate, California almonds are grown on 1.11 million acres in California. Acreage has nearly doubled over the last two decades and California produces over 80% of the world’s supply of almonds. The largest production of almonds are grown in southern California in the county growing regions of Stanislaus, Kern and Fresno.

Northern California counties produce approximately 16% of the state’s total production, with 27.3 million pounds produced in Yolo County in the 2015/2016 crop year¹

According to the 2015 California Almond Acreage Report produced by the California Food and Agriculture Department, there were 1,089 acres of almonds planted in Yolo County during 2015. Bearing acreage is reported at 9,990 acres and 2,419 non-bearing acres.



As can be seen in the chart above, although the crop value per acre has declined since the 2014/2015 crop year, growers are still earning more than they were five years ago and the yield per acre remains strong with historical average yields per acre.

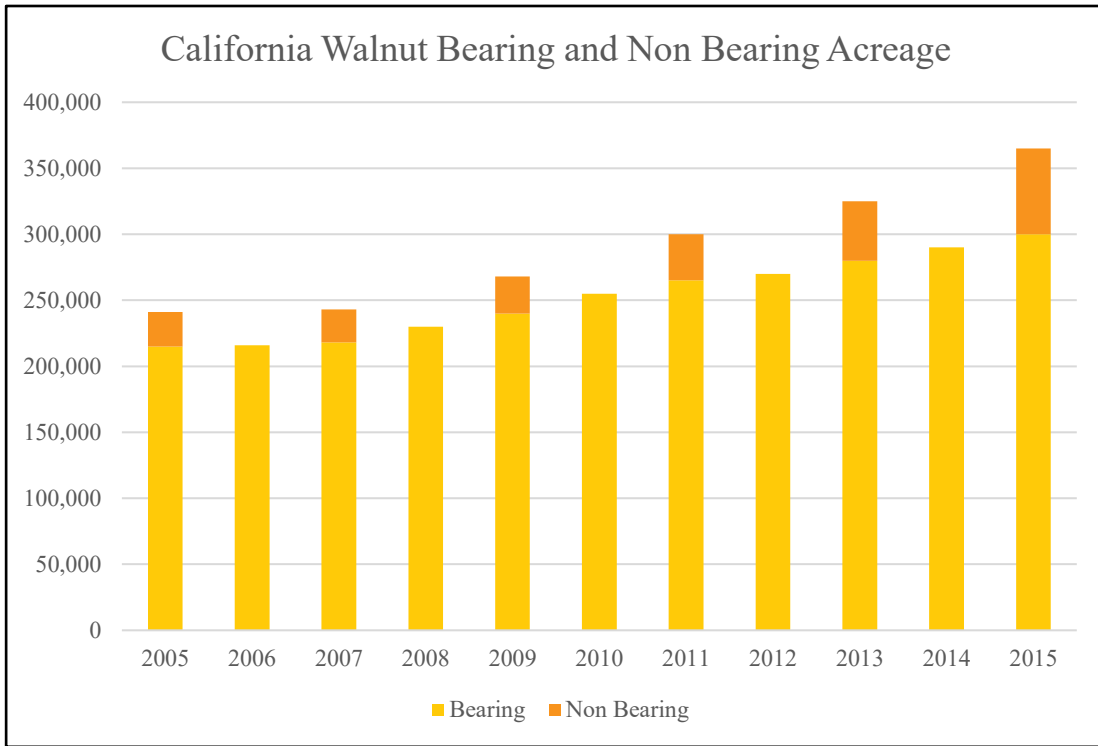
Walnut Market Overview. California’s Sacramento and San Joaquin Valleys have the ideal conditions for growing walnuts, including mild climate, rich soil, and abundant sunshine. Unlike California’s reduced almond crop, the State’s walnut crop for the 2015/2016 season is slightly bigger than the last crop. The 2015 California walnut production forecast is at a record 575,000 tons, up 1 percent from 2014’s production of 570,000 tons. If realized, this will surpass the 2014 crop and be the largest walnut crop on record. Despite a lack of chilling hours and a drought that continued to impact California, the 2015 walnut crop forecast is at a record level.

¹ USDA Form FV193, Report of Inedible Content of Almond Receipts

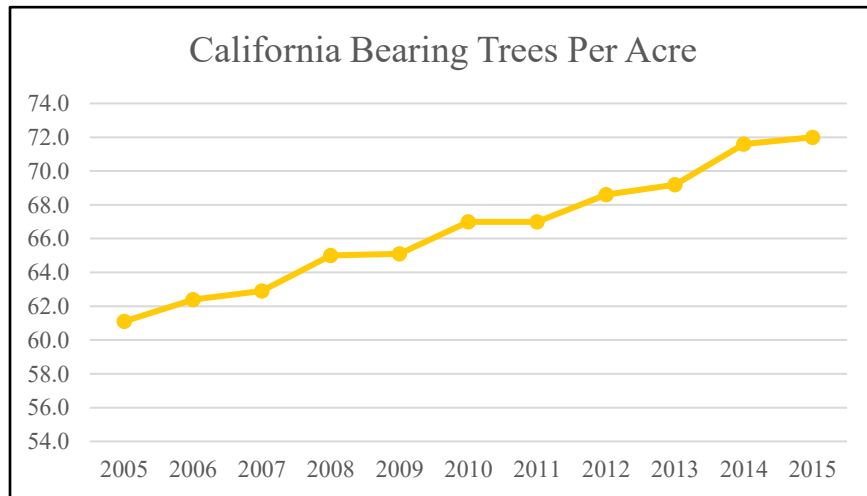
Relatively mild summer temperatures have benefitted the crop. Growers used surface water where available and groundwater when necessary to provide adequate water supply to the trees. Crop quality is reported to be excellent with low disease and insect pressures. Of the walnut acreage reported, Chandler continues as the leading variety with 104,450 bearing acres, followed by Hartley with 33,002 bearing acres. Chandler also accounted for 67 percent of the non-bearing acreage. A summary of the historical bearing acres in California, along with the non-bearing acres are presented in the next table and graph.

California Acreage				
Crop Year	Bearing	Non Bearing	Total	Bearing Trees Per Acre
2005	215,000	26,000	241,000	61.1
2006	216,000	N/A	216,000	62.4
2007	218,000	25,000	243,000	62.9
2008	230,000	N/A	230,000	65.0
2009	240,000	28,000	268,000	65.1
2010	255,000	N/A	255,000	67.0
2011	265,000	35,000	300,000	67.0
2012	270,000	N/A	270,000	68.6
2013	280,000	45,000	325,000	69.2
2014	290,000	N/A	290,000	71.6
2015	300,000	65,000	365,000	72.0

Source: United States Department of Agriculture, NASS, 2015 California Walnut Acreage Report



Source: United States Department of Agriculture, NASS, 2015 California Walnut Acreage Report



Source: United States Department of Agriculture, NASS, 2015 California Walnut Acreage Report

The 2015 Walnut O.M. Survey utilized a total of 745 blocks with two sample trees per block. Survey data indicated an average nut set of 1,272 per tree, down 7 percent from 2014’s average of 1,372. Percent of sound kernels in-shell was 98.5 percent Statewide. In-shell weight per nut was 22.7 grams and the average in-shell width suture measurement was 32.8 millimeters. The in-shell cross-width measurement was 32.8 and the average length in-shell was 38.5 millimeters. All of the sizing measurements were above previous year.

The average PPI for walnuts from September-December 2015, as reported by BLS, showed a significant dip from the same time the previous year, a good gauge that the combined effects of the record-breaking crop and higher-than-average carry-in stocks are likely dampening grower prices this season. Prices at terminal markets, based on AMS data, also reflect the downward pressure on walnut prices for this season. Prices for conventional California English walnuts at the San Francisco and Los Angeles Terminal Markets averaged about \$132 per 50-lb sack, Hartley sub-variety, size jumbo, through December 2015, compared with \$135 for the same period the previous season.

During the 2014/15 season, ending stocks rose to a record 74 million pounds, up sharply from the previous season despite record-high exports, suggesting weakened demand in the domestic market. Due to upward adjustments to ending stocks over the course of the season, U.S. walnut per capita use in 2014/15 has been revised down to an estimated 0.40 pounds, marking a drop from the 2013/14 estimate of 0.49 pounds. This, in combination with record-setting production in 2014/15, lowered walnut grower prices to an average \$3,230 per ton (\$1.62/lb) for the season, down from \$3,710 (\$1.86/lb) in 2013/14.

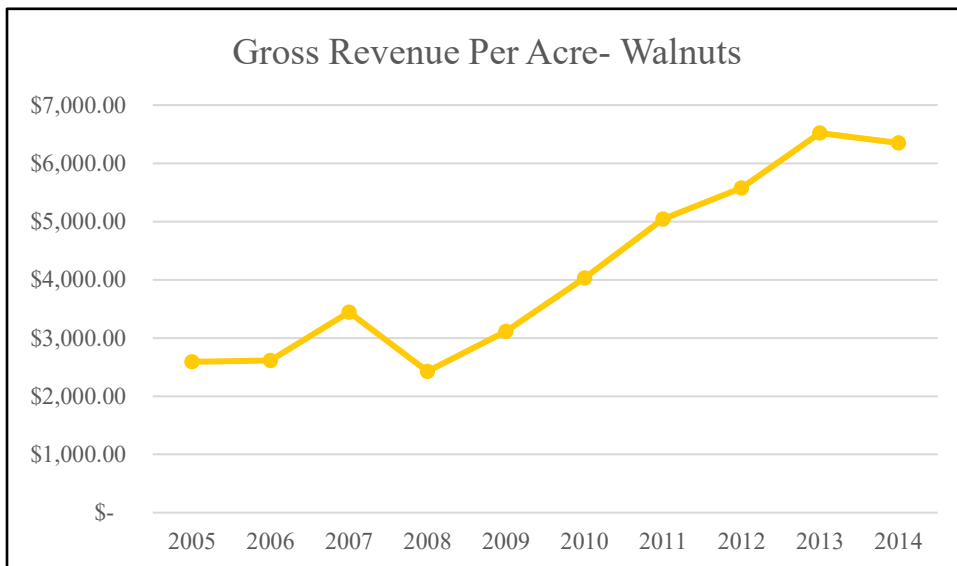
Walnut Commodity Prices, Production & Acreage

Crop Year	Total CA Production (tons)	Average Price (per ton)	Bearing Acre Yield (tons)	CA Acreage		
				Bearing	Non-Bearing	Total
2005	355,000	\$1,570	1.65	215,000	26,000	241,000
2006	346,000	\$1,630	1.60	216,000	N/A	216,000
2007	328,000	\$2,290	1.50	218,000	25,000	243,000
2008	436,000	\$1,280	1.90	230,000	N/A	230,000
2009	437,000	\$1,710	1.82	240,000	28,000	268,000
2010	504,000	\$2,040	1.98	255,000	N/A	255,000
2011	461,000	\$2,900	1.74	265,000	35,000	300,000
2012	497,000	\$3,030	1.84	270,000	N/A	270,000
2013	492,000	\$3,710	1.76	280,000	45,000	325,000
2014	570,000	\$3,230	1.97	290,000	N/A	290,000
2015	603,000	N/A	2.01	300,000	65,000	365,000
10-Yr Avg:	457,182	\$2,339	1.80	252,636	37,333	273,000

Source: USDA National Agricultural Statistics Service & the Almond Board of California

The 2015 USDA Objective Forecast came in at 2.01 tons, which represents a 1.99% increase from the 2014 crop year. Combined with an estimated 3.45% increase in bearing acreage for the 2015 crop. Though prices initially responded by strengthening, prices have lately begun to soften slightly, defying all market signals. Specifically, the average market walnut prices have been increasing every year since 2008, with a dip in 2014 predominantly because of the high bearing acres available in the market.

Based on the average price per ton and bearing acre yield statistics from the USDA National Agricultural Statistics Service, the estimated gross revenue per acre over the last decade is presented in the chart below.

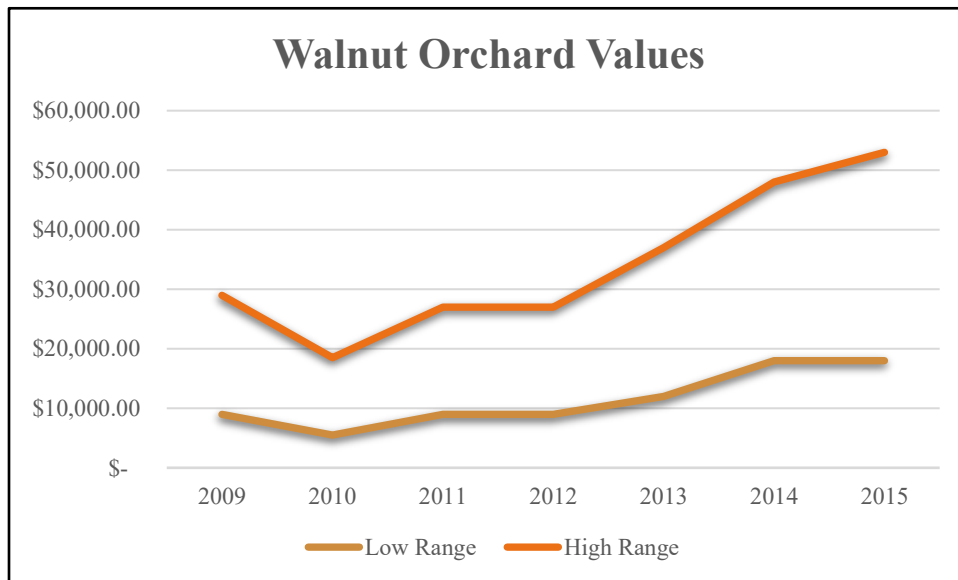


According to the 2016 Agricultural land and lease values, the current market for walnut orchard properties is described as active. When priced appropriately, available walnut orchard offerings readily clear the market. Due to recently enjoyed high commodity prices, orchardists have been reluctant to sell their walnut orchards, particularly orchards in their prime producing years. As a result, the supply of walnut orchard properties available to buyers is minimal. Buyers continue to show a strong desire to purchase quality walnut orchards and have the resources for acquisition. Demand is good to very good. Although walnut commodity prices have reached record levels in recent years, the market saw an abrupt adjustment in 2015.

By years' end Chandler nut prices hovered around \$1.15 per pound, with Howard and Tulare prices being slightly lower. Varieties such as Vina and Ashley nuts typically reflect the lowest prices. Annual total production continues to reach historic highs, due primarily to the increased number of bearing acres as well as stronger yields. The world market favors Chandlers, Howards and Tulare walnuts. This trend was reflected throughout 2015 with new orchards being planted in these varieties. The following chart and graph portray the historical value range (per acre) for walnut orchards in the region.

Walnut Orchards in South Sutter, Western Placer, North Sacramento and Yolo Counties		
Year	Low Range (Price Per Acre)	High Range (Price Per Acre)
2009	\$ 9,000.00	\$ 20,000.00
2010	\$ 5,500.00	\$ 13,000.00
2011	\$ 9,000.00	\$ 18,000.00
2012	\$ 9,000.00	\$ 18,000.00
2013	\$ 12,000.00	\$ 25,000.00
2014	\$ 18,000.00	\$ 30,000.00
2015	\$ 18,000.00	\$ 35,000.00

Source: The 2016 Agricultural land and lease values



As previously presented, values for walnut orchards have been increasing since 2010. The largest increase took place between 2012 and 2013, followed by more modest increases in recent years.

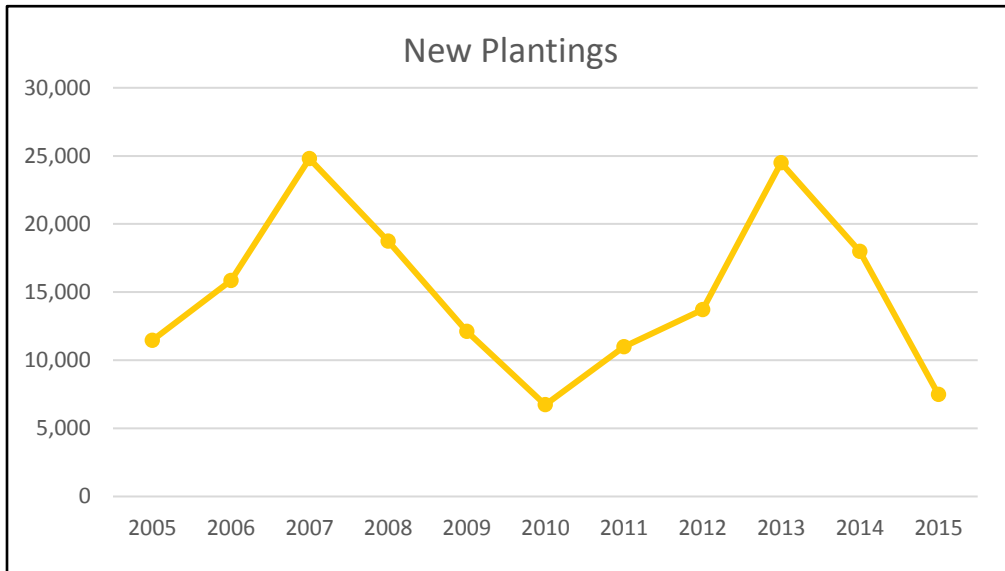
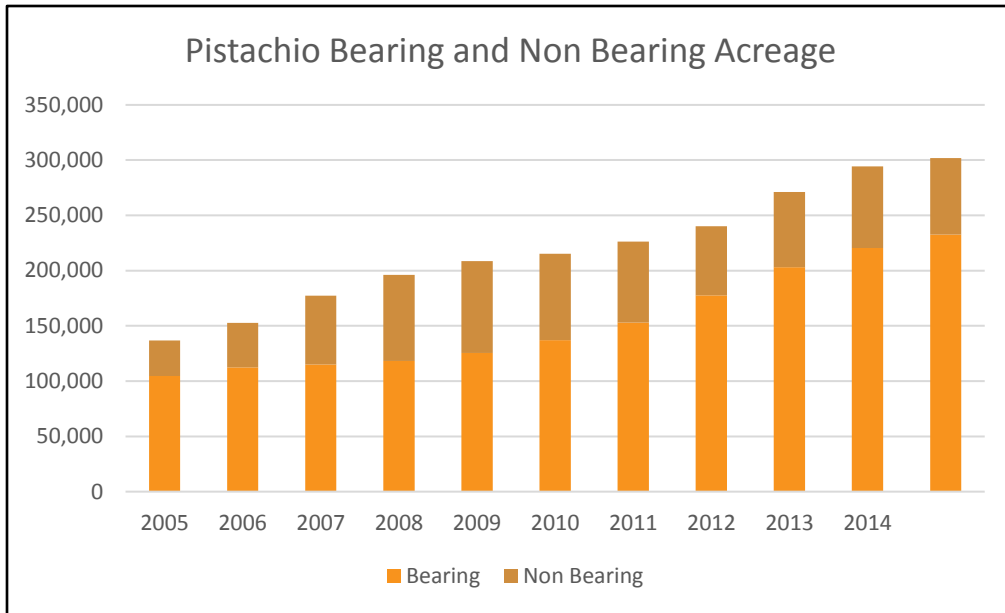
Pistachio Market Overview. Pistachios are a fairly new crop to the Yolo County agricultural market- so new that there are not enough bearing acres to include the crop in the Yolo County Crop Report as of yet. This is expected to change in the next few years due to the influx of pistachio developers who are coming from the drought stricken southern California, where water is a significantly depleted commodity. Brokers familiar with the Woodland area indicated that the county has an ample supply of good soils and water. Although the area is known to have boron in the soils and ground water, pistachio orchards are an attractive permanent planting due to their tolerance to boron.

Approximately 90% of the nation’s pistachio crop is planted in the San Joaquin Valley, which is located south of Yolo County. In general, pistachio plantings in California have expanded rapidly to the including mild climate, rich soil, and abundant sunshine. California produces approximately 98% of the pistachios grown in the United States. Other pistachio producing states included in the marketing order are Arizona and New Mexico. Some counties have been combined to prevent disclosure of individual operations and confidential business information. Most commercial production in California comes from Kern, Madera, Tulare, Kings, Fresno, and Merced Counties and these six counties account for over 95% of the production in California. Pistachio orchard developments are new to this Yolo County agricultural market, as developers have begun to move further north from the southern California area to improve production by increasing the chilling hours that have been insufficient over the past few years, causing major crop failure down south.

Of the pistachio acreage reported, the Kerman (female) and Peters (male) varieties are the prominent crop grown in California. A summary of the historical bearing acres in California, along with the non-bearing acres are presented in the next table and graph. The 2015 statistics were provided by the Administrative Committee for Pistachios.

California Acreage				
Crop Year	Bearing	Non Bearing	Total	New Plantings
2005	104,552	32,295	136,847	11,465
2006	112,532	40,112	152,644	15,842
2007	115,007	62,341	177,348	24,794
2008	118,133	78,155	196,288	18,740
2009	125,637	82,969	208,606	12,128
2010	137,102	78,234	215,336	6,730
2011	152,944	73,392	226,336	11,000
2012	177,738	62,308	240,046	13,710
2013	202,997	68,068	271,065	24,500
2014	220,527	73,940	294,467	18,000
2015	232,655	69,312	301,967	7,500

Source: Administrative Committee for Pistachios 2015 Statistics



Source: Administrative Committee for Pistachios 2015 Statistics

As seen by the data presented above, both the bearing and non-bearing acreage in California has increased largely in the past ten years. The bearing acreage in 2005 was 104,552 which increased 122% within the ten years (2015 data shows 232,655 acres). The increase in bearing acreage has consistently been in the double digits, until 2014. The increase in bearing acreage from 2013-2014 was 7.9%, followed by a smaller 5.3% change between the 2014 and 2015 bearing acreage.

Even more interesting is the drastic decrease in new plantings of pistachios noted in 2014 and 2015. There were only noted to be 7,500 acres of new plantings in 2015, which is the smallest amount of new crop since 2010 (6,730 acres).

NASS will not release the 2015/16 season-average grower price for California pistachios until July 2016; therefore, the prices for 2014 are the most up-to-date. One very important factor in 2015 for the pistachio market was the remarkably low yield of the crop overall. According to the Administrative Committee for Pistachios, the crop potential for 2015 was highly impacted by various factors. Initially, the alternate bearing years impacted the crops (2014 was an ‘on year’), however inadequate chilling in most of the growing areas caused significant crop failure.

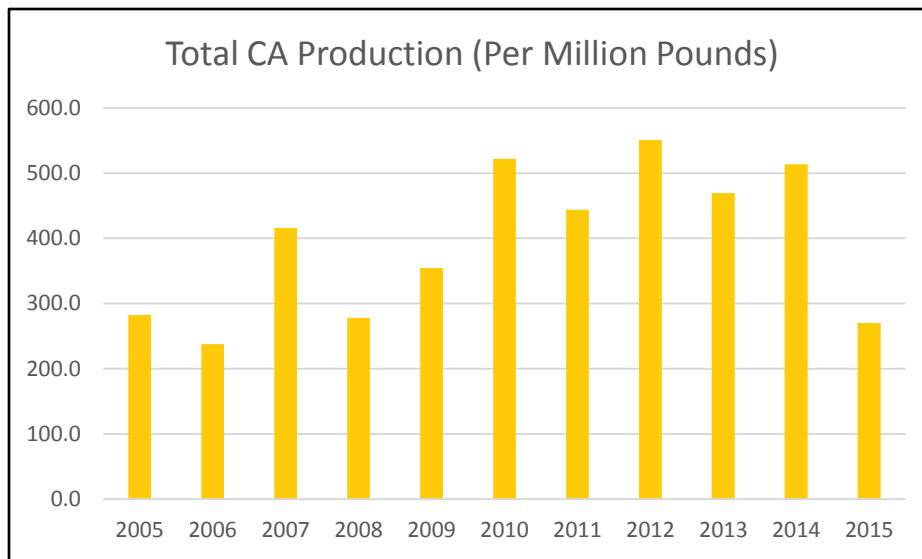
The Administrative Committee for Pistachios denotes that there was a decline in shipments in 2014/2015 and the marketable inventory at the beginning of the 2014 harvest was noted to be low. The 2015 crop was well below current levels of consumer demand, even though consumer demand has been decreasing in recent years. The committee states that this decrease in demand is possibly due to the “higher consumer prices”.

As previously described, the year 2015 was a very low year for pistachios in terms of yields. The following table and graphs demonstrate the impacts of the 2015 poor crop year.

PISTACHIO COMMODITY PRICES, PRODUCTION & ACREAGE

Crop Year	Total CA Production (million pounds)	Average Return (per pound)	Bearing Yield / Acre	CA Acreage		
				Bearing	Non-Bearing	Total
2005	282.4	\$2.05	2,701	104,552	32,295	136,847
2006	237.5	\$1.89	2,110	112,532	40,112	152,644
2007	415.7	\$1.41	3,615	115,007	62,341	177,348
2008	278.0	\$2.05	2,353	118,133	78,155	196,288
2009	354.5	\$1.67	2,822	125,637	82,969	208,606
2010	521.8	\$2.22	3,806	137,102	78,234	215,336
2011	443.8	\$1.98	2,902	152,944	73,392	226,336
2012	551.0	\$2.61	3,100	177,738	62,308	240,046
2013	469.3	\$3.48	2,312	202,997	68,068	271,065
2014	513.6	\$2.50	2,329	220,527	73,940	294,467
2015	270.1	Not Available	1,161	232,655	69,312	301,967
10-Yr Avg:	394.3	\$2.19	2,656	154,529	65,557	220,086

Source: Administrative Committee for Pistachios 2015 Statistics



Source:Administrative Committee for Pistachios 2015 Statistics

As seen above, the total California production was noted to be between 400 million pounds and 550 million pounds for the past five years. This trend was abruptly stopped in 2015 with the total California production dropping to 270 million pounds.

Land Value Trends. The following information was obtained from the American Society of Farm Manager’s and Rural Appraisers 2016 trends in Agricultural land values. They note that strong demand for nearly all types of irrigated cropland properties in the North State area continued throughout the past year with values remaining stable to increasing. Supply of available properties for sale; however, was very limited. Most of the market participant interest was for irrigated cropland property that was adaptable to permanent plantings development, namely for almonds and walnuts. The transactions that have occurred indicate strong upward trends in value, driven by the lack of supply, statewide demand, and stable and strong nut commodity prices over the past five years.

The significant decline in walnut commodity prices and slight decline in almond commodity prices in the later part of 2015 could have a negative impact on irrigated cropland values- though none were noted to date. Drought concerns have also been added to the equation as there are at least two counties in the North State area that enacted well drilling moratoriums in 2015. The moratoriums are to remain in place until normal rainfall resumes and the drought ends.

Although recent rains in Northern California provided an encouraging start to the 2016-2017 water year (Oct. 1, 2016 – Sept. 30, 2017), many areas continue to experience the effects of drought, including Central Valley communities that still depend on water tanks and bottled water. Groundwater, the source of at least a third of California’s water supplies, remains significantly depleted in many areas. California has undergone more than five years of extreme drought with significant impacts to communities, agriculture, and fish and wildlife. The State Water Board announced February 7, 2017 that they will continue to monitor conservation levels and water supply conditions, and have extended emergency conservation regulations. This conservation effort helps to create a stronger demand for those properties with existing, relatively reliable, irrigation water sources.

Recent transactions indicate a value range of \$11,000 to upwards of \$23,500 per acre for Class I and II soil types suitable for orchard development. Yolo County land sales for orchard development have been within the lower end of this range from \$11,000 to \$14,000 per acre. Sales of marginal Class III and Class IV irrigated cropland properties over the past year have also seen a significant increase in value, ranging from \$5,250 to \$14,500 per acre; the result of market participants looking for any type of ground with permanent plantings adaptability.

Land Values			
South Sutter, Western Placer, Solano and Yolo Counties			
Crop	Low Range Price / Acre	High Range Price / Acre	Activity / Trend
Rice	\$7,500.00	\$13,000.00	Moderate- Increasing
Vegetable Crops: Class 1 & 2	\$13,000.00	\$23,500.00	Strong - Increasing
Irrigated Field Crops: Class 3 & 4	\$5,250.00	\$14,500.00	Strong - Increasing
Rangeland	\$750.00	\$5,000.00	Moderate - Stable
Walnuts	\$18,000.00	\$35,000.00	Very Limited - Increasing
Vineyards	\$13,000.00	\$30,000.00	Limited - Increasing

As seen in the table above, the lowest indicator of land values are the rangeland properties, followed by rice land. Interestingly enough, the Class I and Class II irrigated cropland/vegetable crops are selling for higher prices per acre than improved vineyards in this particular submarket, denoting the strong demand for well irrigated land with good soils.

ITEM 3
PROJECT DESCRIPTION

PROJECT DESCRIPTION

Modified Alternative 2A: This project generally consists of improving existing levees and constructing a new levee north of the City in order to protect the City from flooding emanating from Lower Cache Creek. Descriptions of the proposed project are outlined in the City of Woodland Lower Cache Creek Feasibility Study Alternatives Analysis Report as provided by the client and are provided as follows below.

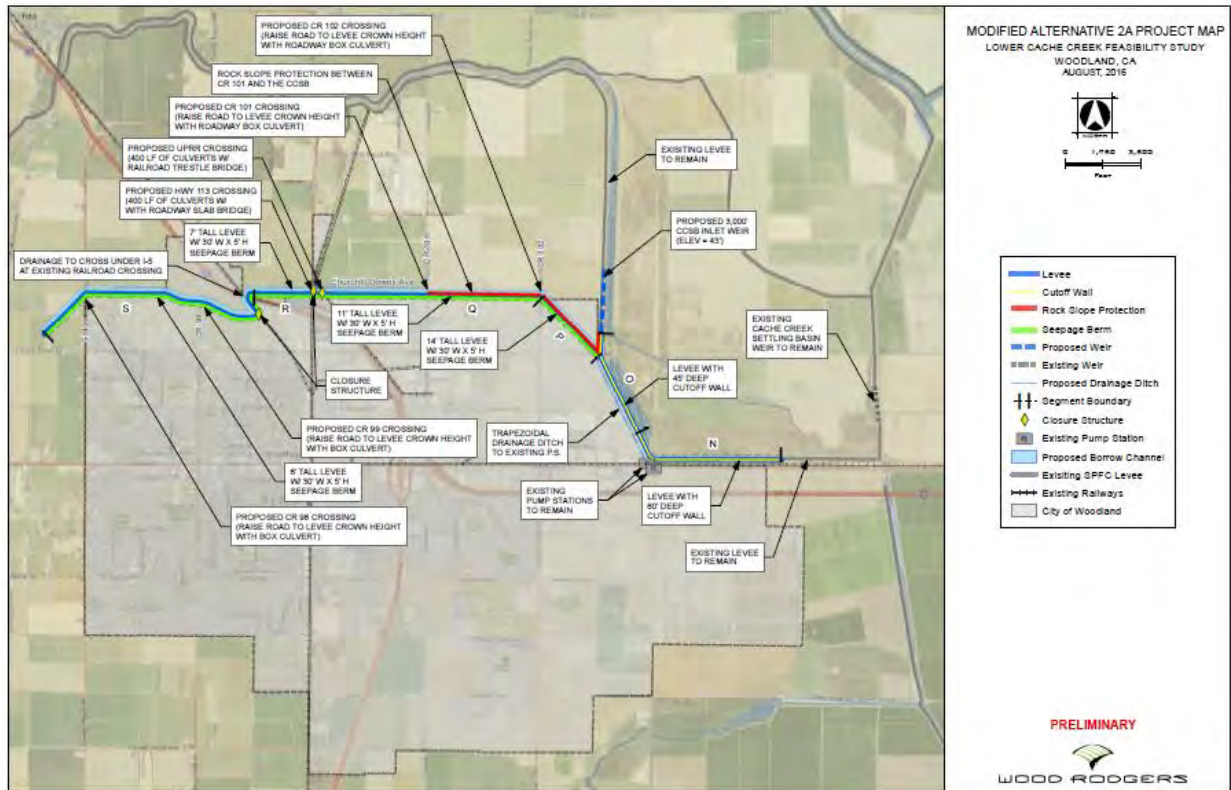
1. Modifications to Existing CCSB

Modified Alternative 2A would rehabilitate the southwest levee of the Cache Creek Settling Basin (CCSB) by constructing a 45-foot-deep cutoff wall through the levee, and a portion of the southern levee of the CCSB would be rehabilitated with a 60-foot-deep cutoff wall. A 3,000-foot-long section of the west levee of the settling basin would be degraded to an elevation of 43 feet (NAVD 88) to accommodate a concrete weir (a height of approximately 11 feet above existing adjacent grade). The weir would serve to accept floodwater emanating from Cache Creek west of the CCSB, and would prevent backflow from the CCSB to the west during smaller, more frequent flood events. Finally, the existing outlet weir of the CCSB would remain unchanged.

2. New Levees and Other Improvements

A new levee with a 30-foot-wide landside seepage berm would begin near the intersection of County Road 19B and County Road 98 and extend east to the CCSB. The alignment of the levee would follow the northern City limit line west of State Highway 113 (Highway 113) and Churchill Downs Avenue east of Highway 113. The height of the new levee would vary from six feet near County Road 98 to 14 feet at its intersection with the existing west levee of the CCSB. Rock slope protection (RSP) is proposed on the waterside slope of the new levee from County Road 101 east to the CCSB. A low-flow canal would be constructed north (waterward) of the new levee along the length of the levee to capture smaller, more frequent events and discharge them to the CCSB. The new levee would require the raising of County Road 98, County Road 99, County Road 101, and County Road 102. Culverts would be installed at each of these raised crossings. Conveyance facilities would be added across Highway 113, and at the railroad tracks north of Churchill Downs Avenue in order to reduce the residual floodplain upstream (west) of Highway 113. Closure structures would be constructed at I-5, Highway 113, and the Union Pacific Railroad (UPRR) crossings. The levee alignment upstream (west) of Highway 113 will be constructed in order to utilize an existing I-5 overpass above an existing railroad to convey flood waters across I-5 (this will require a closure structure across the railroad and coordination with the railroad to get this concept approved if the railroad line is not abandoned in this area). Water impounded by the proposed levee and the west levee of the CCSB would be drained via outlets into the CCSB and to the City's interior drainage system. The design and operation of these outlets will be optimized by USACE during later phases of the project.

*Lower Cache Creek Feasibility
Highest & Best Use Study
Woodland, California*



ITEM 4
APPRAISERS' QUALIFICATIONS

**PROFESSIONAL QUALIFICATIONS OF
CYDNEY G. BENDER REENTS, MAI
(Principal in the firm of Bender Rosenthal, Inc.)**

PROFESSIONAL EXPERIENCE

Cydney G. Bender, MAI has been in real estate appraising and consulting since 1991. Her professional experience in real estate appraisal encompasses a broad range of property types that include office, retail, multi-family, mobile homes, park land, elderly housing, condemnation, and residential subdivisions. She is a member of the Appraisal Institute with the MAI designation and is a Certified General Real Estate Appraiser in the State of California.

Ms. Bender is the Past President of the Sacramento Chapter of the Construction Specifications Institute, Past President of Commercial Real Estate Women, Sacramento Chapter, Past President of the Sacramento Sierra Chapter of the Appraisal Institute and Past President of the Sacramento Valley Conservancy.

Prior to her career in real estate, Ms. Bender attended California Polytechnic State University in San Luis Obispo, majoring in Agricultural Business Management. Upon graduation, she entered the commercial construction field as a Project Manager for a Sacramento based general contractor. Projects included tenant improvements, manufacturing plants, auto dealerships, industrial warehouses, and elderly housing developments ranging valued from \$60,000 to \$1.5 million dollars. This unique background enables Ms. Bender to grasp complicated construction issues as they relate to valuation.

REPRESENTATIVE VALUATIONS INCLUDE

Industrial - Industrial property including distribution warehouses, storage warehouses, office-warehouses and research and development properties.

Office - Existing and proposed office developments for lending institutions, national developers, and investors.

Retail - Proposed and existing shopping centers and franchise restaurants, convenience stores, and pad sites.

Multi-Family Residential - Existing and proposed apartment complexes, in the Sacramento Metropolitan Area, Placer, San Luis Obispo, Santa Clara counties, and Las Vegas, Nevada including low income housing.

Medical - Existing and proposed medical clinics and dental offices.

Mobile Homes - Existing mobile home parks in the Alameda, Sacramento, Solano, and Yolo counties.

Elderly Housing - Proposed congregate care and residential care facilities.

Residential Developments - Proposed and existing residential subdivisions in Sacramento, Placer, El Dorado, Sutter, Yuba and Lake Counties.

Eminent Domain - Improved and unimproved properties of partial takings representing municipalities, conservancies, and property owners.

PROFESSIONAL AFFILIATIONS

Appraisal Institute (MAI), Current Member

Construction Specifications Institute, Past President

Sacramento Sierra Chapter, Appraisal Institute, Member and Past President

Commercial Real Estate Women, (CREW) Sacramento, Member and Past President

Sacramento Valley Conservancy, Past President

Lambda Alpha International, an Honorary Land Economics Society

**PROFESSIONAL QUALIFICATIONS OF
AMY J. WOODWARD**

Certified General Real Estate Appraiser *CL# AG044210*

PROFESSIONAL EXPERIENCE

Amy J. Woodward is employed as a Senior Appraiser with Bender Rosenthal Inc. and has been involved in real estate appraising and consulting since 2004. Her professional experience in real estate appraisal encompasses a broad range of property types, with a specialty in right-of-way assignments. Ms. Woodward received her Bachelor of Science in Business Administration at the California State University, Sacramento with an emphasis in Real Estate and Land Use. She continues her education with courses from the Appraisal Institute and the International Right of Way Association.

REPRESENTATIVE VALUATIONS INCLUDE

Industrial – Existing and proposed industrial properties including distribution warehouses, storage warehouses, light industrial/manufacturing and research and development properties.

Office - Existing and/or proposed office developments for lending institutions and owners.

Medical - Existing and proposed medical, dental, and veterinary clinics.

Retail - Proposed and/or existing shopping centers, free standing buildings, mixed-use buildings, and restaurants.

Residential Developments - Proposed and existing residential subdivisions.

Single-Family and Multi-Family Residential - Existing and proposed apartment complexes, condominiums, mobile home parks and single-family residential properties.

Agricultural – Vineyards, orchards, field/row crop land, and rural residential properties.

Land - Various types of land appraised such as commercial land, retail pad sites, residential land, transitional land, and agricultural/rural residential land.

Special Use- Alternative energy/Solar land leases, schools, churches, community centers, railroad corridors, seed tree orchards for nursery use.

Eminent Domain - Improved and unimproved properties of partial takings representing municipalities, conservancies, and property owners.

LICENSES, DESIGNATIONS, PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS

Certified General Real Estate Appraiser, State of California (CA 044210)
Appraisal Institute, Current Member of Sacramento-Sierra Chapter

Appendix 3

**Lower Cache Creek, Yolo County, CA, City of Woodland
and Vicinity Draft Feasibility Report for Potential Flood
Damage Reduction Project, December 2019**



US Army Corps
of Engineers®

LOWER CACHE CREEK, YOLO COUNTY, CA CITY OF WOODLAND AND VICINITY

DRAFT FEASIBILITY REPORT FOR POTENTIAL FLOOD DAMAGE REDUCTION PROJECT



Cache Creek Levee Failure, January 27, 1983, looking south towards Woodland.

December 2019

Lower Cache Creek Draft Feasibility Study Executive Summary

Introduction

This Feasibility Report (FR) describes the planning process followed to develop and evaluate an array of alternatives and identify the Tentatively Selected Plan (TSP) to address FRM problems and opportunities in Lower Cache Creek. This report (i) assesses the risk of flooding to the City of Woodland and surrounding agricultural areas; (ii) describes a range of alternatives formulated to reduce flood risk; and (iii) identifies a recommended plan for implementation. A standalone Supplemental Environmental Impact Statement (SEIS) accompanies this draft Feasibility Report.

This FR is being released for concurrent public review, internal policy review, Agency Technical Review (ATR), and Independent External Peer Review (IEPR). All comments received during the ATR, IEPR, and the 45-day public review period will be considered and incorporated into the final FR, as appropriate. The final FR will present the recommended plan for potential authorization by Congress.

Study Area

The study area is located along the lower portion of Cache Creek in Yolo County, California. The watershed is approximately 1,139 square miles and includes portions of Colusa, Lake, and Yolo Counties. The main stem of Cache Creek originates with the outflows of Clear Lake in the Coast Range Mountains of Northern California. Water flows from Clear Lake through the Clear Lake Outlet Channel, and then through the Cache Creek Dam approximately five miles downstream, which regulates flows and generates hydroelectricity. The north fork of Cache Creek is impounded by Indian Valley Dam and joins the main stem above Capay Valley before flowing out of the foothills into California's Central Valley on an alluvial fan. The creek is ephemeral and water only reaches the Woodland area at certain times of year due to natural precipitation patterns, upstream retention, and diversions for water supply. Figure ES 1-1 provides a map of the watershed.

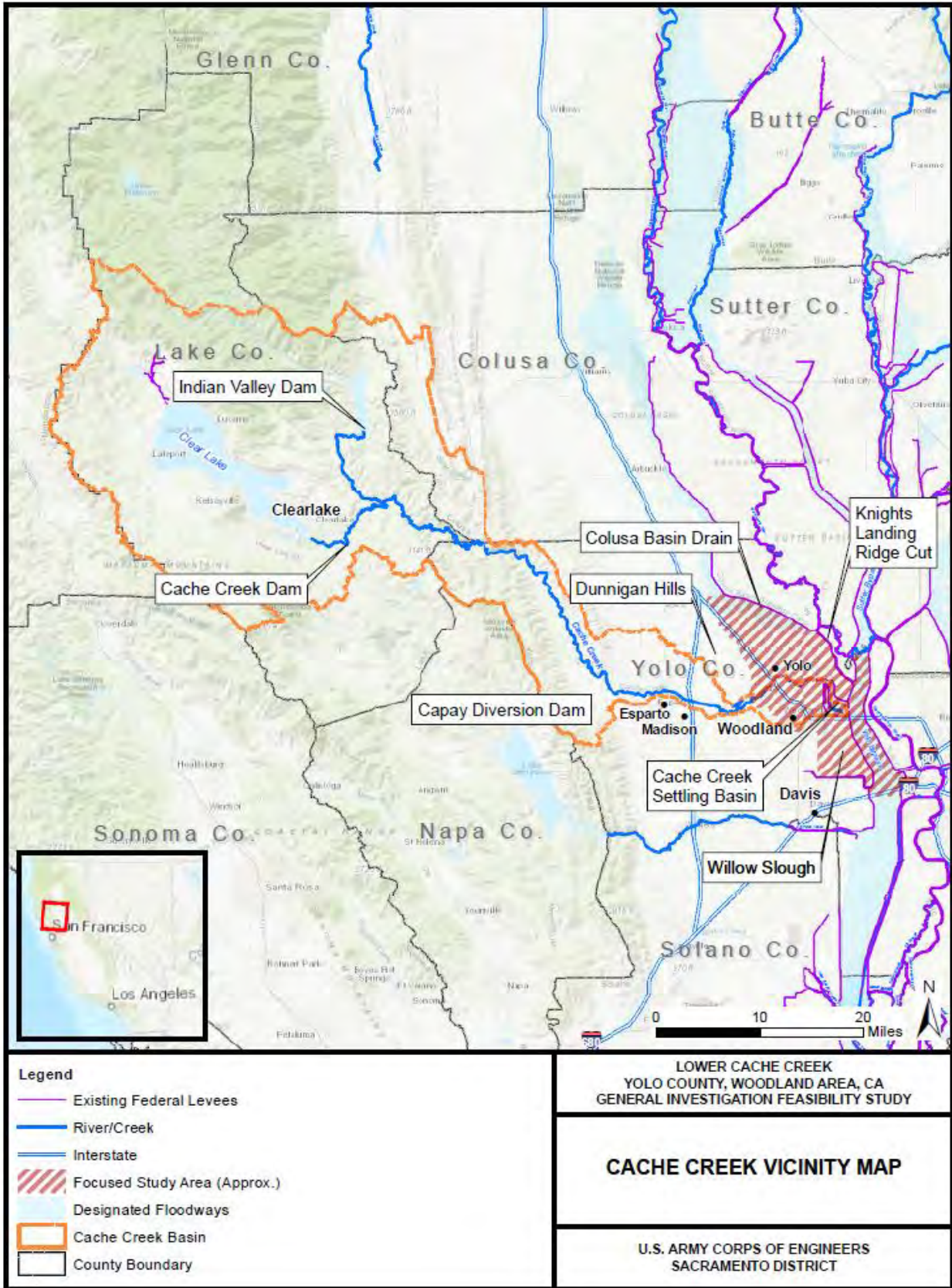


Figure ES 1-1. Cache Creek Watershed (Vicinity Map)

The focused study area encompasses the City of Woodland, town of Yolo, and surrounding agricultural areas, as shaded in red in Figure ES 1-1. The Cache Creek channel passes north of the City of Woodland through levees constructed by USACE as part of the Federally-authorized Sacramento River Flood Control Project (SRFCP). Construction began in 1918 and most facilities were completed by 1958. Design capacity of the Cache Creek levees was minimized at the time, as a flood storage reservoir was anticipated upstream (Wilson Valley Dam and Reservoir). However, the reservoir was never constructed due to seismic and environmental concerns. Given that the design of the Cache Creek levees assumed the construction of upstream flood protection measures that were never constructed, the existing FRM system has a relatively low level of performance relative to other levees in the Sacramento River Flood Control Project. The existing Cache Creek levee profile was designed to provide a freeboard of at least 3 feet above an adopted flood profile calculated using a project design flood of 30,000 cubic feet per second (cfs) (USACE, 1961). Based on current analysis presented in this report, the existing levee profile would pass a 10% (1/10) annual exceedance probability (AEP) event (30,000 cfs) with 90% assurance, if the levee is assumed to not fail prior to overtopping.

Purpose and Need

The purpose of the Lower Cache Creek Feasibility Study (LCCFS) is to investigate and determine the extent of Federal interest in a range of alternative plans that reduce flood risk to the City of Woodland and surrounding agricultural areas (study area). Lower Cache Creek has a history of flooding, and the study area experienced multiple flood events since the mid-1900s. Four major flood periods have been documented for the Cache Creek basin during the last half of the 20th century, and 20 severe floods have occurred since 1900. The most severe high water events of recent years in the Cache Creek basin downstream from Clear Lake occurred in 1939, 1955, 1956, 1958, 1964, 1965, 1970, 1983, 1995, 1997, 2005, and 2019.

Problems:

The following key problems were identified during the planning process by the study team and concerned stakeholders:

- There is risk to public health, safety, and critical infrastructure in the City of Woodland, town of Yolo, and surrounding agricultural areas from flooding from Lower Cache Creek.
- There is a significant risk of economic damages from flooding in the City of Woodland, town of Yolo, and surrounding agricultural areas.

Opportunities:

Opportunities for this study include the potential to:

- Increase public understanding of flood risk within the study area over the period of analysis.
- Leverage other existing or ongoing FRM initiatives, particularly the Central Valley Flood Protection Plan, within the study area and over the period of analysis.

Consideration of Alternative Plans

During the feasibility study, the Federal planning process for development of water resource projects was followed to identify a recommended plan for implementation. Following definition of flood-related problems and opportunities, specific planning objectives and planning constraints were identified. Then various management measures were identified to achieve the planning objectives and avoid the planning constraints. Management measures were screened based on how well they met the study objectives and cost effectiveness, and some measures were dropped from further consideration at that point. The retained management measures were combined to form the building blocks of alternative plans.

A preliminary array of alternatives was developed that encapsulated the identified measures to address flooding problems in the study area. These preliminary alternatives included strengthening the existing Cache Creek levee system, constructing setback levees, bypasses, levees near urban area of the City of Woodland, and various non-structural measures, some of which incorporated natural or nature-based approaches. The preliminary alternatives were developed to a level of detail to allow a basic comparison of the costs and benefits of each proposed plan. Many of these preliminary alternatives were eliminated based on efficiency and effectiveness. The PDT then developed more detailed cost estimates for a focused array of alternatives. Plans were compared to identify the plan that reasonably maximized Net Economic Development (NED) benefits. Due to the nature of flooding and concentrated areas of potential damages, most alternative plans would have generated similar benefits, but at significantly different costs. Plans were eliminated that required higher costs to achieve a similar level of benefits. The tentative NED plan is also the TSP.

The Tentatively Selected Plan (Levee and Conveyance)

The TSP is Alternative 2A, Levee and Conveyance Plan. This plan meets the study objectives of reducing flood risk and flood damages in the study area. The plan significantly reduces flood risk to people and property in the City of Woodland and surrounding areas. With the TSP in place, areas in northeast Woodland, where damages are concentrated, would see a reduction in the annual chance of flooding from approximately 5.3% to 7.0%, depending on location, to about 0.1%.

Alternative 2A consists, overall, of improving existing levees and constructing a new levee north of the City of Woodland in order to prevent floodwaters emanating from Lower Cache Creek from reaching the built up portion of the City of Woodland. Proposed project features include levee embankment, seepage berms, drainage channel; cutoff walls; weir, and closure structures across roads and railways. Figure ES 1-2 shows the proposed project features.

Significant Environmental Effects

An evaluation of environmental effects determined that the proposed action has the potential for adverse effects on a variety of environmental resource areas. A summary of impacts, mitigation measures, and level of impacts with mitigation is provided in Figure ES 1-2.

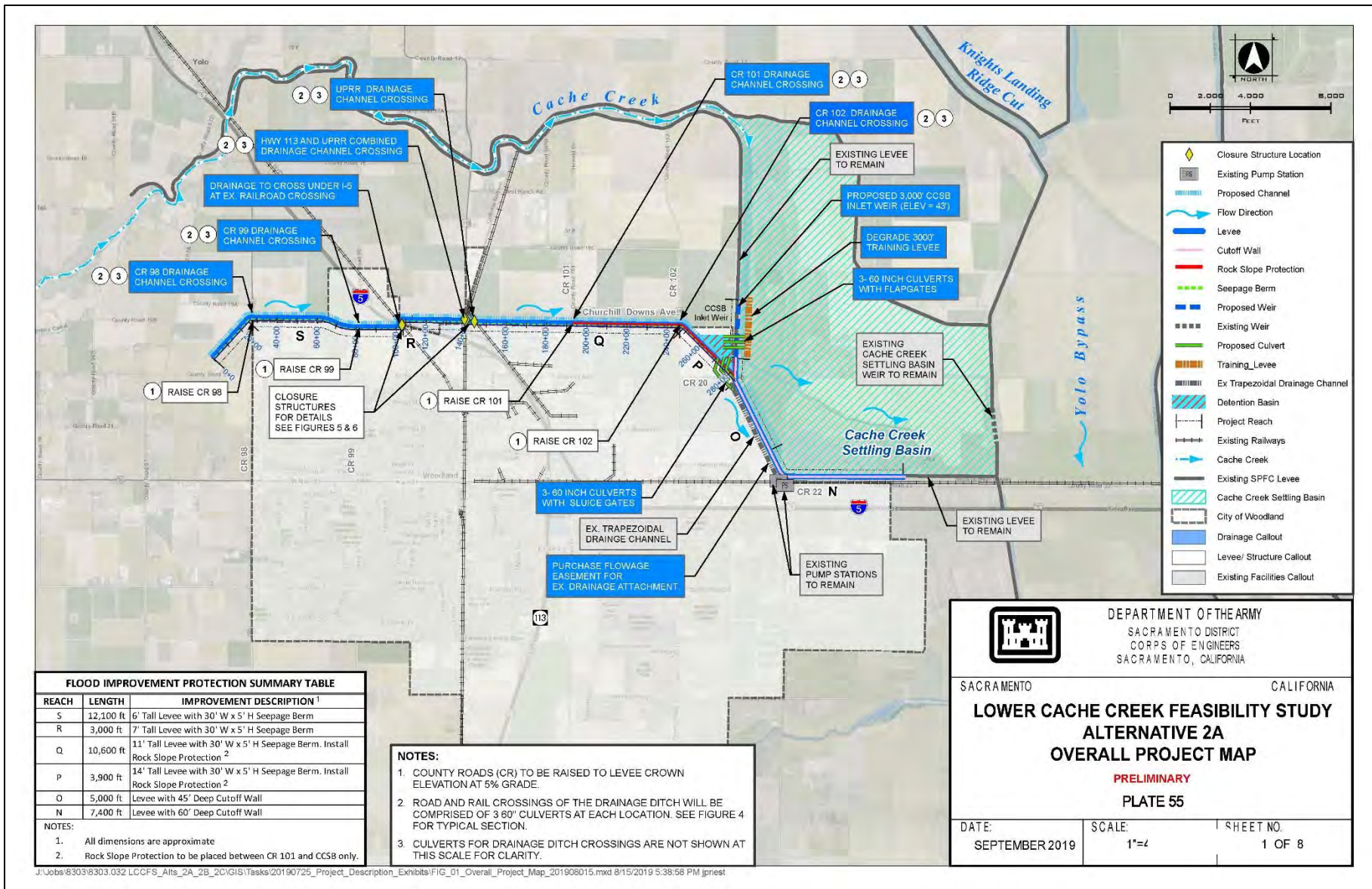


Figure ES 1-2. Tentatively Selected Plan and Design Features

Table ES-1-1. Comparative Summary of Environmental Effects, Mitigation, and Levels of Significance

	No-Action Alternative	Alternative 2A Levee and Conveyance Alternative
Socioeconomic Resources and Environmental Justice		
Effect	Landowners with Federally insured mortgages and some businesses within the FEMA 1 in 100 chance floodplain would be required to pay flood insurance. Flooding of residential areas and displacement of populations during a flood event.	The new levee would result in localized areas of slight increase in depth north of the levee and only impact approximately eight structures. An additional 14 structures north of the City will remain in the floodplain, but will not experience a change in depth or duration of flooding in frequency events less than or equal to 1/50 AEP. Temporary disruption to residents alongside construction sites from traffic, noise, and dust. Acquisition of properties for construction and staging easements. No long-term environmental injustices.
Significance	Significant.	Less than significant. Benefits to urban area.
Mitigation	None.	Landowner notification of potential disruptions and real estate acquisitions. Fair market value paid for acquisitions with implementation of appropriate BMPs.
Land Use and Agriculture		
Effect	Inconsistent with local land use policies requiring protection of the existing urban area from flood damages. Land use and future growth and development would continue as described in the City and County General Plans. Urban areas and farmlands would be susceptible to flooding during storm events.	The project would require approximately 370 acres of permanent project features and temporary haul roads and staging areas. Agricultural lands compose about 283 acres of the total land needs, 235 acres of which are Prime and Unique Farmland.
Significance	Significant.	Less than significant with mitigation.
Mitigation	None.	Compliance with Relocation Assistance and Real Property Acquisition Policies Act of 1970. Compliance with Farmland Policy Protection Act. Fair market value paid for acquisitions.
Transportation		

	No-Action Alternative	Alternative 2A Levee and Conveyance Alternative
Effect	The potential for flooding of local, county, and major transportation corridors like Interstate-5 (I-5) and State Route 113 would remain during major storm events. Damage to roadways during flood event. Emergency road repairs would increase traffic congestion.	The project would protect important roadway infrastructure from Woodland to Sacramento during flood events that would enable residents to leave flood affected areas and for emergency responders to enter.
Significance	Significant.	Minor and only occurring during construction.
Mitigation	None.	Preparation of a Traffic Control and Road Management Plan and implementation of BMPs. Culverts under roadways to redirect floodwaters off roads.
Noise		
Effect	Noise levels would be the same as existing conditions. Noise during flood-fighting and levee repairs may increase.	Local increase in noise levels during construction would occur that may exceed ambient noise thresholds. After construction concludes, noise levels would return to pre-project conditions.
Significance	Negligible, incremental short-term effects but no lasting increase in noise levels.	Significant. Moderate to major increases in noise levels during construction to adjacent receptors (residences and businesses).
Mitigation	None.	Coordination with local residents and compliance with City of Woodland noise ordinances. Work would occur during daylight hours.
Air Quality		
Effect	Woodland population expected to grow and corresponding increase in criteria pollutant emissions likely with-projected traffic volume increases. Increased emissions during emergency flood fighting activities without BMPs in place. Increased emissions during clean-up and reconstruction of the urban area.	Temporary emissions of criteria pollutants from construction equipment and haul trucks.
Significance	Significant.	Less than significant with mitigation.
Mitigation	None.	Implementation of YSAQMD Basic Construction Emission Control Practices and BMPs.
Climate Change		

	No-Action Alternative	Alternative 2A Levee and Conveyance Alternative
Effect	Inland hydrology models predict higher intensity storms which could lead to local pump stations being overwhelmed. Increased GHG emissions during flood fight.	Increased GHG emissions from construction equipment.
Significance	Significant.	Less than significant with mitigation.
Mitigation	None.	Implementation of YSAQMD Basic Construction Emission Control Practices and BMPs.
Water Quality		
Effect	Risk of contaminants entering the water from utilities, stored chemicals, septic systems, and flooded vehicles during flood event. Flood flows would increase bank erosion increasing turbidity. Climate change may create drought conditions and higher intensity wildfires in the watershed, leading to greater sediment deposit in Cache Creek.	Potential impacts include increased turbidity during drainage canal construction and tie-in to existing drainage ditch. Potential for storm water runoff from exposed soils and cement, slurry or fuel spills during construction.
Significance	Significant.	Less than significant with mitigation.
Mitigation	None.	Preparation of a Stormwater Pollution Prevention Plan, Spill Prevention Control and Countermeasure Plan, and a Bentonite Slurry Spill Contingency Plan and implementation of BMPs.
Vegetation and Wildlife		
Effect	Vegetation and wildlife that utilize the CCSB for habitat would continue to be affected by O&M of the existing levee system. Erosion during a flood event would cause vegetation and wildlife habitat loss. Future flood fighting and repairs would affect vegetation and wildlife. Wildlife that occupy farmlands would continue to be subject to agricultural practices.	The project would result in the loss of 0.05 acres of cottonwood willow riparian, 2 acres of valley oak woodland, 10 acres of seasonal marsh/wetland, and 8 acres of orchard habitat. 83 acres of non-native annual grassland would be also be temporarily lost.
Significance	Significant.	Less than significant with compensatory mitigation.
Mitigation	None.	Mitigation credits for riparian, wetland, and oak woodlands habitat would be purchased at a mitigation bank. Annual grasslands would be planted with a native forb/grass mix. Orchards would be mitigated by

No-Action Alternative		Alternative 2A Levee and Conveyance Alternative
		purchasing equivalent oak woodland habitat at a bank. Additional analysis would be required for any on-site mitigation. Lands with the CCSB may accommodate habitat creation.
Special Status Species		
Effect	Habitat for special-status species is likely to affect by O&M of the existing levee system and CCSB. Flood event or flood fight could cause fatality to species.	The project would result in the loss of 0.85 acre of palmate-bracted bird's beak, 6 elderberry shrubs, 0.82 acres of giant garter snake, and 0.65 acre of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat.
Significance	Significant.	Less than significant with compensatory mitigation.
Mitigation	None.	Mitigation credits for the impacted special status species would be purchased from a bank. Additional analysis would be conducted to determine if on-site habitat restoration or creation could be constructed.
Cultural Resources		
Effect	Archaeological sites could be damaged from future flood events.	Potential for adverse effects to historic properties from construction of the project.
Significance	Significant.	Less than significant with mitigation.
Mitigation	None.	Cultural resources surveys would be conducted prior to construction, to identify historic properties that would be affected by the project. Adverse effects would be mitigated through measures described in a Programmatic Agreement executed pursuant to Section 106 of the NHPA.
Aesthetic and Visual Resources		
Effect	O&M needed to maintain existing levees would continue to degrade the visual character of Lower Cache Creek by removing or altering remaining riparian forest. A flood event could damage the visual character in the study area.	Temporary construction related interruption of visual resources. Views obstructed by the new levee would disrupt the rural, agricultural and sparsely populated visual conditions of the study area.
Significance	Not significant.	Significant.

	No-Action Alternative	Alternative 2A Levee and Conveyance Alternative
Mitigation	None.	New levee would be reseeded to match local conditions. Further analysis needed to determine feasibility of planting trees to provide a vegetation barrier between residents and travelers and proposed project.
Utilities		
Effect	In a flood event there could be significant damage to utility systems. Debris from flooded homes and properties could overwhelm solid waste disposal facilities.	Temporary disruptions to utility services possible, particularly during relocation of utilities that penetrate the new levee.
Significance	Significant.	Less than significant.
Mitigation	None possible.	Notification of potential interruptions would be provided to the appropriate agencies and landowners.
Hydrology and Hydraulics		
Effect	Emergency repairs during a flood event could result in the loss of channel capacity and alternation of current geomorphic processes.	During a large flood event (e.g. 1% AEP event) duration of flooding west of SR 113, near I-5 would be shorter than existing conditions, lasting only several days. Near SR 113, flood depths would decrease by up to 1 foot from existing conditions. Flood depths increase gradually to a maximum of 4-6 feet near the CCSB inlet weir during flood events greater than 2% AEP events. Induced flooding would impact industrial/agricultural area north of the city limit line.
Significance	Significant.	Less than significant.
Mitigation	None.	None needed.

Estimated Costs and Cost Sharing

Investment costs, annual costs, and annual benefits are displayed in Table ES-1-2 below.

Table ES-1-2. Estimated Annual Costs and Benefits for the Tentatively Selected Plan

Item	Cost (\$1000's) ¹
Investment Costs:	
First Cost ²	258,861
Interest During Construction	7,151
Total Project Investment Cost	266,012
Annual Costs:	
Annualized First Cost	9,853
Annual OMRR&R	180
Total Average Annual Cost	10,033
Average Annual Benefits	20,657
Net Benefits	10,623
Benefit to Cost Ratio	2.1

¹ Costs are October 2019 price levels at 2.75%, for a 50-year period of analysis.

² Does not include cultural resources data recovery.

Table ES-1-3 below shows the preliminary cost apportionment for Alternative 2A. The non-Federal sponsors are responsible for all Lands, Easements, Rights of Way, Relocations, and Disposal Sites (LERRDs) costs, a minimum of 5% cash, and any additional cash needed to reach a minimum of 35% of the total project cost. The maximum non-Federal share is 50% of the total project cost.

Table ES-1-3. Preliminary Cost-Share Apportionment for Tentatively Selected Plan¹

Item	Federal	Non-Federal
Flood Risk Management	\$168,852	\$90,601
Total	\$168,852	\$90,601
Breakdown of Non-Federal		
LERRD		\$20,687
5% Cash Requirement		\$12,943
Remaining Cash		\$56,971
Total		\$90,601

¹Costs (\$1,000s) are October 2019 price levels at 2.75%, for a 50-year period of analysis.

Major Conclusions

The preliminary recommendation of the District Engineer of the Sacramento District, U.S. Army Corps of Engineers is that the report be finalized based on results of public review, internal policy review, ATR, and IEPR of this draft Feasibility Report, and if warranted, recommended for authorization for implementation as a Federal project. The estimated first cost of the tentatively selected plan is \$258,861,000 and the estimated annual OMRR&R costs are \$180,000. The Federal portion of the estimated first cost is \$168,852,000. The non-Federal sponsor portion of the estimated first cost is \$90,601,000.

The project would significantly reduce flood risk to people and property in the City of Woodland and surrounding areas. With the TSP in place, the annual chance of flooding in northeast Woodland—the most at risk area of the city—would decrease from between 5.3% and 7.1% depending on the specific area to about 0.1%. The plan would remove 636 structures from the 1/100 ACE event floodplain, of which 425 are residences, and would remove I-5 south of Woodland from the floodplain for up to the 1/500 ACE event. The existing Cache Creek levees would continue to reduce flood risk for areas adjacent to Lower Cache Creek. The average annual benefits from the project, estimated as a reduction in flood related damages, is \$20,657,000.

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B1. Hydraulics and Civil Design Plates

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List of Acronyms

ACRONYM	MEANING
ADM	Agency Decision Milestone
ARA	Abbreviated Risk Analysis
ARCF	American River Common Features
BCR	benefit to cost ratio
CAP	Continuing Authorities Program
CCSB	Cache Creek Settling Basin
CDEC	California Data Exchange Center
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CFS	cubic feet per second
CH	fat clay
CL	lean clay
CPT	cone penetration test
CVFED	Central Valley Floodplain Evaluation and Delineation
CVFPB	Central Valley Flood Protection Board
CVFPP	Central Valley Flood Protection Plan
CVHS	Central Valley Hydrology Study
DFC	David Ford Consulting
DWR	Department of Water Resources
EAD	expected annual damage
EGM	Economic Guidance Memorandum
EIA	economic impact areas
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMA	Emergency Management Action
EO	Executive Order
EPA	Environmental Impact Agency
EQ	Environmental Equality
ER	Engineer Regulation
ESA	Endangered Species Act
FCSA	Feasibility Cost Share Agreement
FDA	Flood Damage Analysis
FEMA	Federal Emergency Management Agency

FPS	feet per second
FR	Federal Register
FRM	flood risk management
FWCA	Fish and Wildlife Coordination Act
FWOP	future without-project condition
GDM	General Design Memorandum
H&H	hydrologic and hydraulic
HEC	Hydrologic Engineering Center
IDC	interest during construction
KLRC	Knights Landing Ridge Cut
LCCFS	Lower Cache Creek Feasibility Study
LERRD	Lands, Easements, Rights-of-Ways, Relocations and Disposal Areas
LPP	Locally Preferred Plan
ML	plastic silt
NAVD	North American Vertical Datum
NED	National Economic Development
NEMDC	Natomas East Main Drainage Canal
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NFS	non-Federal sponsors
NOI	notice of intent
NRCS	Natural Resource Conservation Service
O&M	operations and maintenance
OLS	Ordinary Least Squares regression equation
OMRR&R	Operations, Maintenance, Repair, Rehabilitation, and Replacement
OSE	Other Social Effects
PA	Programmatic Agreement
PCET	Parametric Cost Estimating Tool
PDT	Product Delivery Team
PED	Preconstruction Engineering and Design
PPA	Project Partnership Agreement
RCC	Reinforced cement concrete
RE	Real Estate
RED	Regional Economic Development
REP	Real Estate Plan
ROW	Rights-of-way
SAFCA	Sacramento Area Flood Control Agency
SB	Senate Bill
SB	Soil-Bentonite
SCFRRP	Small Communities Flood Risk Reduction Program
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Officer
SPFC	State Plan of Flood Control
SR 113	State Route 113

SRBPP	Sacramento River Bank Protection Project
SRFCP	Sacramento River Flood Control Project
TAC	Total Annual Cost
TMDL	Total Maximum Daily Load
TPCS	Total Project Cost Summary
TSP	tentatively selected plan
TUFLOW	Two-dimensional Unsteady FLOW
ULDC	Urban Levee Design Criteria
ULOP	Urban Level of Protection
UPRR	Union Pacific Rail Road
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VE	value engineering
WCM	Water Control Manual
WDL	Water Data Library
WY	water year

Chapter 1 – Study Information

1.1 Introduction

The U.S. Army Corps of Engineers, Sacramento District (USACE), in conjunction with the State of California's Central Valley Flood Protection Board (CVFPB) and the City of Woodland, conducted a flood risk management (FRM) feasibility study of the Lower Cache Creek watershed. Detailed investigations centered on the lower portion the Cache Creek and the Cache Creek Settling Basin, specifically, areas in the vicinity of the City of Woodland, town of Yolo and surrounding agricultural areas.

This study describes the Federal, State, and local interest in FRM along Lower Cache Creek based on input provided by multiple agencies and the interested public during prior and current phases of study. This chapter presents information on the study authority.

1.2 Study Authority

This study was authorized by Section 209 of the Flood Control Act of 1962, Pub. L. 87-874, § 209, 76 Stat. 1196 (1962), which states as follows for the Sacramento River Basin:

“The Secretary of the Army is hereby authorized and directed to cause surveys for flood control and allied purposes, including channel and major drainage improvements, and floods aggravated by or due to wind or tidal effects, to be made under the direction of the Chief of Engineers, in drainage areas of the United States and its territorial possessions, which include the following named localities: Provided, That after the regular or formal reports made on any survey are submitted to Congress, no supplemental or additional report or estimate shall be made unless authorized by law except that the Secretary of the Army may cause a review of any examination or survey to be made and a report thereon submitted to Congress, if such review is required by the national defense or by changed physical or economic conditions: Provided further, That the Government shall not be deemed to have entered upon any project for the improvement of any waterway or harbor mentioned in this title until the project for the proposed work shall have adopted by law:...

Sacramento River Basin and streams in northern California draining into the Pacific Ocean for the purposes of developing, where feasible, multiple-purpose water resource projects, particularly those which be eligible under the provisions of title III of Public Law 85-500...”

This study will only partially address the Sacramento River Basin authority. Therefore, the LCCFS will be called an “Interim Feasibility Report” to indicate that the study addresses the flood risk issues of a specific area within the authority, rather than the entire authorized area. This report does not rule out additional studies for this, or other areas, within the authorized study area at a future date.

Per Section 1203 of America's Water Infrastructure Act of 2018, Pub. L. 115-270, § 1203, 132 Stat 3803, the “Secretary shall expedite the completion of a feasibility study” for Lower Cache Creek, subject to the availability of funding.

1.3 Purpose and Need for the Project and Report

The purpose of the Lower Cache Creek Feasibility Study (LCCFS) is to investigate and determine the extent of Federal interest in a range of alternative plans that reduce flood risk to the City of Woodland and surrounding agricultural areas (study area). Lower Cache Creek has a history of flooding and the study area experienced multiple flood events since the mid-1900s. Four major flood periods have been documented for the Cache Creek basin during the last half of the 20th century, and 20 severe floods have occurred since 1900. The most severe high water events of recent years in the Cache Creek basin downstream from Clear Lake occurred in 1939, 1955, 1956, 1958, 1964, 1965, 1970, 1983, 1995, 1997, 2005, and 2019.

This report (i) assesses the risk of flooding to the City of Woodland and surrounding agricultural areas; (ii) describes a range of alternatives formulated to reduce flood risk; and (iii) identifies a recommended plan for implementation. A standalone Supplemental Environmental Impact Statement (SEIS) accompanies this draft Feasibility Report. This draft report will be circulated for review by the public and governmental agencies. USACE headquarters will review and approve the report, and then it will be transmitted to Congress for potential project authorization and funding of the Federal share of the project.

1.4 Study Location

The study area is located along the lower portion of Cache Creek in Yolo County, California. The watershed is approximately 1,139 square miles and includes portions of Colusa, Lake, and Yolo Counties. The main stem of Cache Creek originates with the outflows of Clear Lake in the Coast Range Mountains of Northern California. Water flows from Clear Lake through the Clear Lake Outlet Channel, and then through the Cache Creek Dam approximately five miles downstream, which regulates flows and generates hydroelectricity. The north fork of Cache Creek is impounded by Indian Valley Dam and joins the main stem above Capay Valley before flowing out of the foothills into California's Central Valley on an alluvial fan. The creek is ephemeral and water only reaches the Woodland area at certain times of year due to natural precipitation patterns, upstream retention, and diversions for water supply. Figure 1-1 provides a map of the watershed.

The focused study area encompasses the City of Woodland, town of Yolo, and surrounding agricultural areas as indicated in Figure 1-2. The Cache Creek channel passes north of the City of Woodland through levees constructed by USACE as part of the Federally-authorized Sacramento River Flood Control Project (SRFCP). Construction began in 1918 and most facilities were completed by 1958. Design capacity of the Cache Creek levees was selected at the time in anticipation of the construction of an upstream flood storage reservoir (Wilson Valley Dam and Reservoir); however, the reservoir was never constructed due to seismic and environmental concerns. Given that the design of the Cache Creek levees assumed the construction of upstream flood protection measures that were never constructed, the existing FRM system has a relatively low level performance relative to other levees in the Sacramento River Flood Control Project. The existing Cache Creek levee profile was designed to provide a freeboard of at least 3 feet above an adopted flood profile calculated using a project design flood of 30,000 cubic feet per second (cfs) (USACE, 1961). Based on current analysis presented in this report, the existing levee profile would pass a 10% (1/10) annual exceedance probability (AEP) event (30,000 cfs) with 90% assurance, if the levee is assumed to not fail prior to overtopping. However, including the probability of geotechnical failure (i.e., collapse or 'washout' of a levee) prior to overtopping, the existing levee project would pass a 50% (1/2) AEP event (10,800 cfs) with 90% assurance.

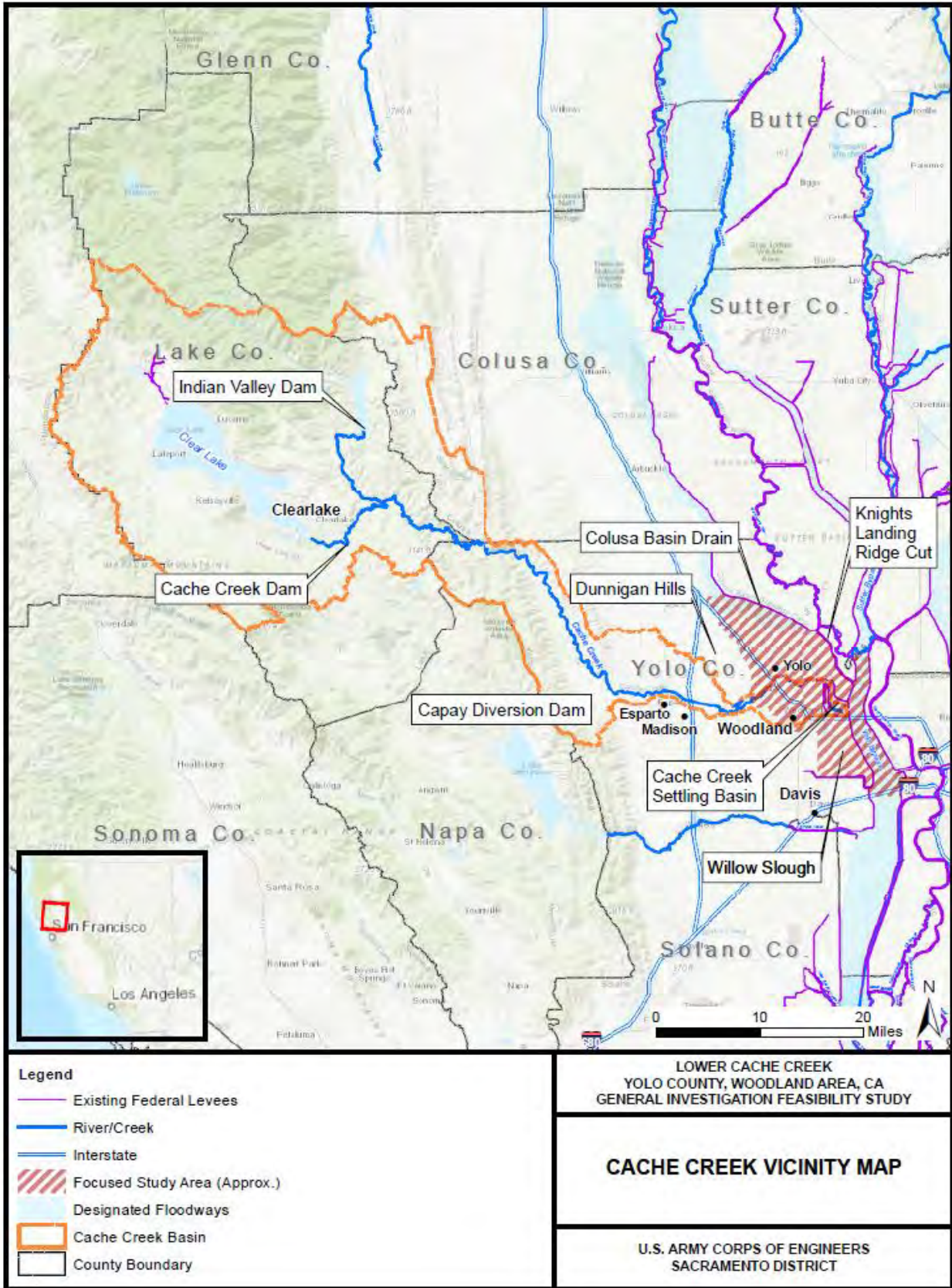


Figure 1-1. Cache Creek Watershed (Vicinity Map)

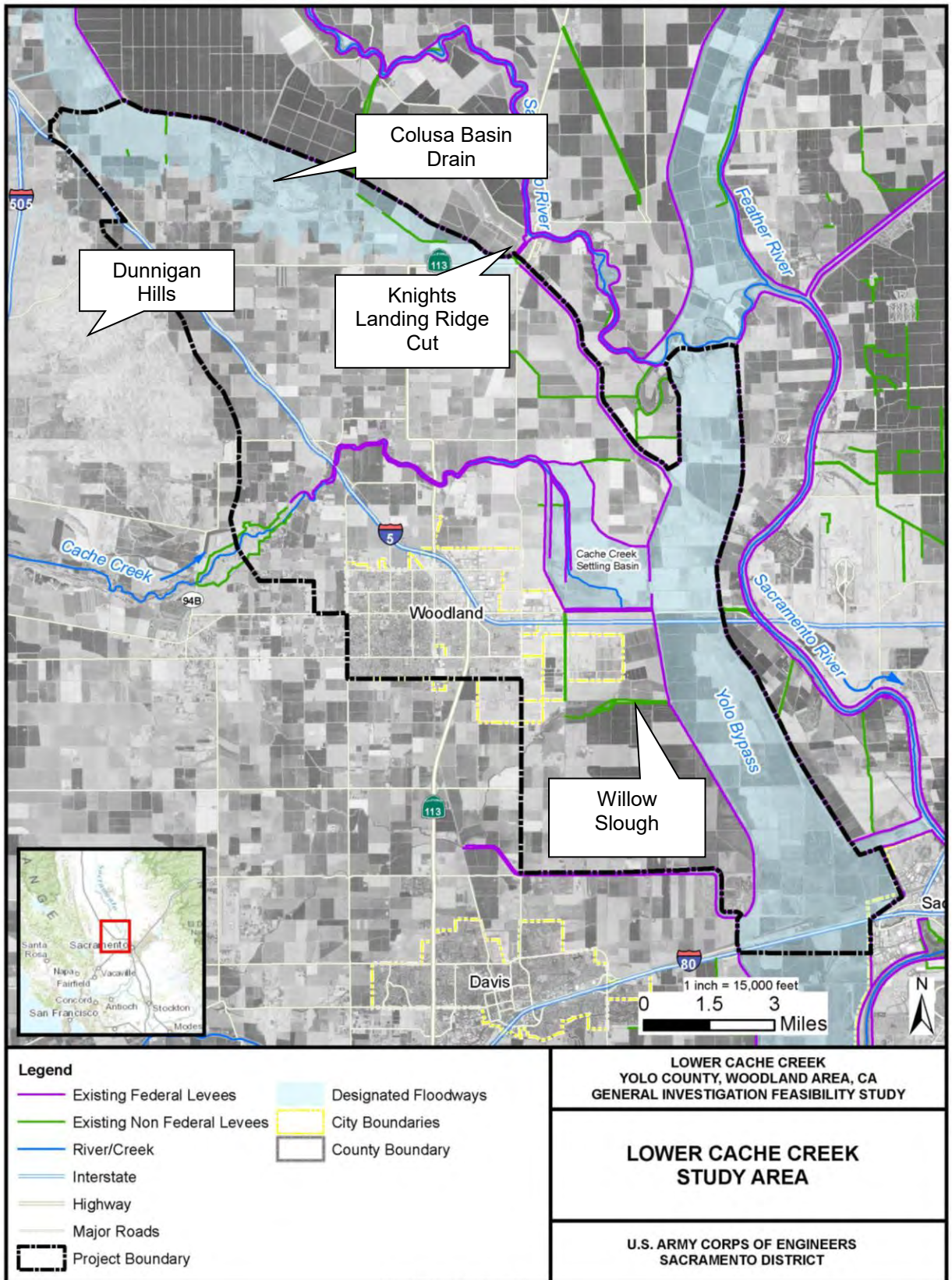


Figure 1-2. Lower Cache Creek Focused Study Area

The leveed portion of Cache Creek discharges into the Cache Creek Settling Basin (CCSB), which was constructed by USACE in 1937 and enlarged in 1993 as a separately authorized component of the SRFCP. Cache Creek carries a large sediment load that historically was distributed along the alluvial fan via small, braided channels prior to the creek emptying into the Yolo Bypass. The CCSB was constructed to reduce the volume of sediment carried by Cache Creek to the Yolo Bypass and reduce flood risk to the City of Sacramento. Coarse-grained sediment (sands, gravels) deposit in the CCSB, while silts and clays that do not increase the flood risk in receiving waters flow over a concrete weir into the Yolo Bypass.

Flooding in the Cache Creek basin is principally caused by runoff of high-intensity rainstorms during the winter and spring. The flood threat to life and property in the study area is increased by the raised bed of I-5. The existing I-5 corridor diverts flood flows into the City of Woodland. The existing Cache Creek levee profile was designed to provide a freeboard of at least 3 feet above an adopted flood profile calculated using a project design flood of 30,000 cfs (USACE, 1961). Based on current analysis presented in this report, the existing levee profile would pass a 10% (1/10) AEP event (30,000 cfs) with 90% assurance, if the levee is assumed to not fail prior to overtopping. However, including the probability of geotechnical failure prior to overtopping, the existing levee project would pass a 50% (1/2) AEP event (10,800 cfs) with 90% assurance.

Annual Exceedance Probability (AEP)

This report uses the term "Annual Exceedance Probability" (AEP) to describe the likelihood associated with storm and flood events. The AEP is expressed as a percentage that reflects the probability that a certain flow value will be equaled or exceed on any given year.

During the formation of the Central Valley, sediment deposition over time has resulted in a perched channel, where Lower Cache Creek sits at a slightly higher elevation than surrounding land. Consequently, any flows that break out of the channel quickly spread overland to the north and south of the creek and cover a large area. The resulting flooding is then prevented from releasing into the Sacramento River by the existing Yolo Bypass levees.

1.5 Study Sponsor and Participants

The non-Federal sponsors (NFS) for the study are the Central Valley Flood Protection Board (CVFPB, representing the State of California) and the City of Woodland. USACE is the lead National Environmental Policy Act (NEPA) agency; the CVFPB and the City of Woodland are the lead agencies for the California Environmental Quality Act (CEQA). Numerous other agencies, organizations, and individuals participated in the study, including local landowners, residents, the U.S. Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), and California Department of Fish and Wildlife (CDFW).

1.6 History of Lower Cache Creek Investigations

USACE has a lengthy history of involvement at Lower Cache Creek. A reconnaissance study completed in 1995 found sufficient potential Federal interest to proceed with a feasibility-level investigation of FRM along Lower Cache Creek. A feasibility study was undertaken from 2000 to 2003. A tentatively selected plan (TSP) was identified that included construction of an embankment at the northern city boundary, which increased flood depths between the urban limits and the creek. Public opposition to the plan led the NFS to request a pause in the study at that time. In 2009, the NFS expressed interest in restarting the feasibility study in response to renewed public interest in and support for FRM. A new Feasibility Cost Share Agreement (FCSA) was signed in May 2011. The TSP milestone was held in February 2019 after a series of financial

pauses and a period of inactivity at the NFS's request to conduct further technical analysis and build public support.

1.7 Existing Programs, Projects, and Studies

There are several ongoing water resources related programs, studies, and projects that could affect FRM and ecosystem conditions in the Sacramento River Basin. The following list is not exhaustive, but highlights efforts that pertain to this feasibility study.

1.7.1 Programs

Federal Emergency Management Agency (FEMA), Flood Mitigation Assistance Program and the Hazard Mitigation Grant Program

These programs seek to reduce or eliminate loss of life and property damage due to natural and human-caused hazards. In order to qualify for these programs, a community must be enrolled in the National Flood Insurance Program (NFIP) and have a Flood Mitigation Plan approved by the FEMA Regional Director. This plan must include a description of the existing flood hazard and flood risk, including estimates of the number and type of structures at risk, repetitive loss properties and the extent of flood depth and damage potential. The City of Woodland and County of Yolo are enrolled in the NFIP. Yolo County's enrollment covers the unincorporated areas, which includes the study area outside the cities' limits.

Central Valley Flood Protection Plan (CVFPP)

The CVFPB approved the CVFPP in July 2012. SB 5 required that California Department of Water Resources and CVFPB address flooding problems in the Central Valley (Sacramento-San Joaquin Valley) and report to the Legislature with updates every 5 years. In response to SB 5, the State initiated the CVFPP to develop a comprehensive approach to FRM and related problems. The CVFPP proposed a State-wide investment approach for improving the State-Federal FRM system to meet the new standard, while addressing ecosystem and other water related objectives. This approach permits modification or improvement of existing facilities of the State Plan of Flood Control (SPFC), construction of new facilities and opportunities for ecosystem improvements within the SPFC. Further evaluations will continue and will be reported in the CVFPP 2022 update.

Designated Floodway Program

The CVFPB administers the Designated Floodway Program for California, which addresses land use management within the floodway. This program provides a nonstructural way to keep development from encroaching into flood-prone areas and reduces future potential flood damages by preserving the reasonable flood passage capacities of natural watercourses. The CVFPB adopts floodway boundaries, develops plans for modifications of boundaries and approves changes in acceptable use and types of structures within the floodways. Floodway areas in the study area are primarily limited to the areas between levees.

Yolo Small Communities Flood Risk Reduction

The Small Communities Flood Risk Reduction Program (SCFRRP) was created as part of the 2012 Central Valley Flood Protection Plan. The SCFRRP is a local assistance program whose objective is to reduce flood risk for small communities protected by State Plan of Flood Control facilities, as well as for legacy communities. In late 2017, Yolo County received a SCFRR Grant to complete a feasibility study for the town of Yolo. A draft feasibility report was prepared that recommends between 0 and 4 feet of levee raise above its current height near the town of Yolo and widening the levee at the base by as much as 10 to 15 feet in certain locations, particularly

along the downstream easterly portion of the levee system (Yolo County, 2019). Yolo County submitted a Draft Report to DWR in September 2019.

1.7.2 Projects

Development of water resources projects in the Sacramento Valley began in the 1850s and currently includes large, multipurpose reservoirs, extensive levee systems, and large bypasses. An array of Federal, state, and local entities are involved in water resources in the basin, including the USACE, United States Bureau of Reclamation (USBR), county irrigation districts, and local reclamation and levee districts.

Ongoing USACE projects in the basin include:

American River Common Features (ARCF), Natomas Basin Project

In 2007, the Natomas Levee Improvement Project was initiated by the Sacramento Area Flood Control Agency (SAFCA) in order to provide flood protection as an early implementation project to the Natomas Basin as quickly as possible. These projects consisted of improvements to the perimeter levee system of the Natomas Basin in Sutter and Sacramento Counties, as well as associated landscape and irrigation/drainage infrastructure modifications. SAFCA, DWR, CVFPB, and USACE initiated this effort with the aim of incorporating the Landside Improvements Project and the Natomas Levee Improvement Project into the Federally-authorized American River Common Features, Natomas Basin Project. Proposed improvement primarily involve constructing cutoff walls through the levees, or alternatively an adjacent levee in some reaches. Construction on the Natomas Basin Project is anticipated to continue through 2024.

American River Common Features 2016 Project

The ARCF 2016 project was fully funded by the Bipartisan Budget Act of 2018 and is scheduled for construction from 2019 through 2024. The purpose of this project is to reduce the risk of flooding for the city of Sacramento. The project will involve construction of levee improvements along the American and Sacramento River levees, as well as proposed improvements to the Natomas East Main Drainage Canal (NEMDC) east levee and Magpie Creek. The levee improvements scheduled for implementation include construction of cutoff walls, erosion protection, seepage and stability berms, relief wells, levee raises, and a small stretch of new levee. In addition, USACE would widen the Sacramento Weir and Bypass in order to divert additional flows into the Yolo Bypass. The project would also involve construction of a number of mitigation sites in the area.

Sacramento River Bank Protection Project

The Sacramento River Bank Protection Project (SRBPP) was authorized to protect the existing levees and flood control facilities of the Sacramento River Flood Control Project. The SRBPP was authorized in 1960 and initially consisted of the construction of 436,397 linear feet of bank protection from 1963 to 1975. In 1974, Congress authorized the SRBPP to continue into a Phase II with an additional 405,000 linear feet of bank protection. Construction proposed for 2019 includes a site at river mile 1.0 on the Feather River levee, which is located approximately 7.5 miles to the northeast of the LCCFS study area.

West Sacramento Project

The West Sacramento general reevaluation study determined the Federal interest in reducing the flood risk within the West Sacramento project area. The purpose of the West Sacramento Project is to bring the 50 miles of perimeter levees surrounding West Sacramento into compliance with applicable Federal and State standards for levees protecting urban areas. The West Sacramento

Project was authorized in WRDA 2016, and in the Fiscal Year 2019 work plan, the project received initial funding to begin preconstruction design. Construction of the project by USACE is estimated to begin in approximately 2021.

Folsom Dam Raise Project

The Folsom Dam Raise project includes raising the right and left wing dams, Mormon Island Auxiliary Dam and dikes 1-8 around Folsom Reservoir by 3.5 feet. Similar to the ARCF 2016 Project, the Folsom Dam Raise Project was fully funded by the Bipartisan Budget Act of 2018. Construction on the Folsom Dam Raise Project is scheduled to begin in 2019 with the Dike 8 construction, followed by Dike 7 in 2020, Dikes 1 through 3, the wing dams, and MIAD in 2021, and completing the project with Dikes 4 through 6 in 2022.

Folsom Dam Water Control Manual Update

The Folsom Dam Water Control Manual (WCM) was updated to reflect authorized changes to the flood management and dam safety operations at Folsom Dam to reduce flood risk in the Sacramento area. The WCM Update will utilize the existing and authorized physical features of the dam and reservoir, specifically the recently completed auxiliary spillway. Along with evaluating operational changes to utilize the auxiliary spillway, the WCM Update will assess the use of available technologies to enhance the FRM performance of Folsom Dam to include a refinement of the basin wetness parameters and the use of real time forecasting to inform dam operation. The study resulted in an Engineering Report as well as a Water Control Manual that implements the recommendations of the analysis. The WCM was finalized and approved in summer 2019. The WCM will be further revised in the future to reflect the capabilities to be provided by the Folsom Dam Raise Project and ARCF 2016, as appropriate.

Other activities in the basin include:

Off-Channel Gravel Mining

There are currently seven off-channel mining operations (Schwarzgruber, Syar, Solano, Teichert [Woodland], Teichert [Esparto], Granite Capay, and Granite Woodland) that are permitted along Cache Creek (Yolo County, January 2001). The gravel mining reach of the Cache Creek Basin extends approximately 14.5 miles along Cache Creek between Capay and Yolo. Facilities include sand and gravel processing plants, asphalt-concrete hot mix plants, concrete batch plants, material stockpiles, settling ponds, water wells, stationary and mobile equipment, and haul roads (USACE, 1995). In-stream mining is permitted by industry only as a flood control measure. This project began in 1996 and is expected to continue for 30 years.

Teichert/Yolo County Mining Reclamation Site

East of the 95B Bridge at Teichert (Woodland) above I-5, Yolo County reclaimed its old gravel extraction site previously used for county projects. The area was reclaimed as required in the original mining and reclamation plan (Yolo County, January 2001). Teichert Materials has requested approval of a new 30-year Mining Permit and Reclamation Plan, currently undergoing environmental review (Yolo County, June 2019).

2018 Water & Sewer Repair and Replacement Project

The City of Woodland launched this project as part of an annual program to replace water mains over 60 years old and repair sewer deficiencies. The project began in September 2018, repairing water mains and service laterals, as well as replacing sanitary sewer mains and laterals within city limits (City of Woodland, 2019).

North Regional Pond & Pump Station Project

North Regional Pond serves as a storm drainage mitigation feature for Spring Lake Area developments and was formerly the site of wastewater treatment operations in the mid-1980s. The site is centrally located with Woodland's Water Pollution Control Facility to the north, and the Regional Water Treatment Facility to the south. The City of Woodland recognizes the need to repurpose the area to meet population and housing increases. The project would include increasing detention capacity within the existing pond by 1,000 acre-feet, as well as constructing an additional storm drainage pumping plant on Main Street. Construction of this project is expected to begin in 2019.

Yolo Bypass/Cache Slough Partnership Improvement Projects

Huff's Corner and Wallace Weir Improvement Projects are part of the short-term improvements proposed in a joint program with CVFPB, USACE, and DWR. The Cache Creek Settling Basin Multi-Objective Project is incorporated into the long-term improvements plan of the joint partnership. The series of multi-benefit projects in the Yolo Bypass-Cache Slough Region incorporates Sacramento, Yolo, Solano, and Sutter Counties, with the regional objectives of flood risk reduction, ecosystem restoration, agricultural sustainability, and water supply reliability. The initiation request for project review is dated July 2019 by the CVFPB.

1.7.3 Studies

Cache Creek Area Plan Update

Yolo County adopted the Cache Creek Area Plan in 1996 for the 14.5 miles along Lower Cache Creek. Generally, the plan covers the area west of Capay Dam to the town of Yolo. The drafted update to the watershed management plan proposes increases to current in-channel material removal limits, modifications to in-channel boundaries, rezoned areas for future aggregate mining, and a 50 year program extension. The draft EIR was completed in May 2019 (Yolo County, 2019).

1.8 Planning Process and Report Organization

The organization and chapter headings in this report reflect the plan formulation process and broadly track the six steps of the USACE planning process. Environmental documentation is provided in the attached Supplemental EIS and in the Draft Environmental Impact Report (EIR) being prepared by the NFS. The balance of this report is organized as follows:

- Chapter 2, Problem Description and Planning Objectives, covers the first step in the planning process: specification of water resources and related land resources problems and opportunities. It also covers the second step of the planning process (inventory and forecast) to the extent necessary to establish the future without-project conditions prior to the development of the alternatives.
- Chapter 3, Plan Formulation, covers the third step in the planning process (formulation of alternative plans), the fifth step in the planning process (comparison of alternative plans), and the sixth step (selection of the recommended plan based upon comparison of the alternative plans).
- Chapter 4, Recommended Plan, describes the recommended plan in detail.
- Chapter 5, Public Involvement, Coordination, Consultation, and Compliance describes public involvement and coordination, as well as consultation and compliance with applicable law, policies, and plans.
- Chapter 6, Recommendations, presents the study recommendation.

This Feasibility Report also includes technical appendices that support the plan formulation and evaluation process. Technical appendices provide detailed information on studies related to the

hydrologic, hydraulic analyses, geotechnical investigations, design and structural engineering, cost estimating, economic evaluation, and real estate investigations. Further detail about environmental impacts and compliance is provided in the SEIS.

Chapter 2 – Problem Description and Planning Objectives

2.1 Problems and Opportunities

A problem is an existing undesirable condition to be changed. An opportunity is a chance to create a future condition that is desirable. Within the context of solving problems, opportunities contribute to the overall beneficial outcome of the project. The difference between problems and opportunities is often indistinct, but in both cases a changed future condition is preferred. The feasibility study identifies, evaluates, and recommends to decision makers an appropriate, coordinated, and implementable solution to the identified water and land resources problems for the LCCFS area. The following key problems were identified during the planning process by the study team and concerned stakeholders.

2.1.1 Flooding

Problem: There is risk to public health, safety, and critical infrastructure in the City of Woodland, town of Yolo, and surrounding agricultural areas from flooding from Lower Cache Creek.

There is a risk to human life and safety in the City of Woodland, town of Yolo, and surrounding areas from flooding of Lower Cache Creek. Floodwaters from Lower Cache Creek create a significant life safety risk by inundating roadways from city streets to I-5, which create hazards for motorists and isolate citizens from critical facilities such as hospitals. I-5, a major economic artery and an evacuation route, passes through the northern portion of the City of Woodland and lies within the Lower Cache Creek floodplain, shown in Figure 2-3. The topography of the floodplain is shown in Figure 2-2. High water events have led to significant flood-fighting efforts, evacuations, swift water rescues, and road closures in the study area (see I-5 near Woodland in Figure 2-1).



Figure 2-1. I-5 Near Woodland Partially Submerged

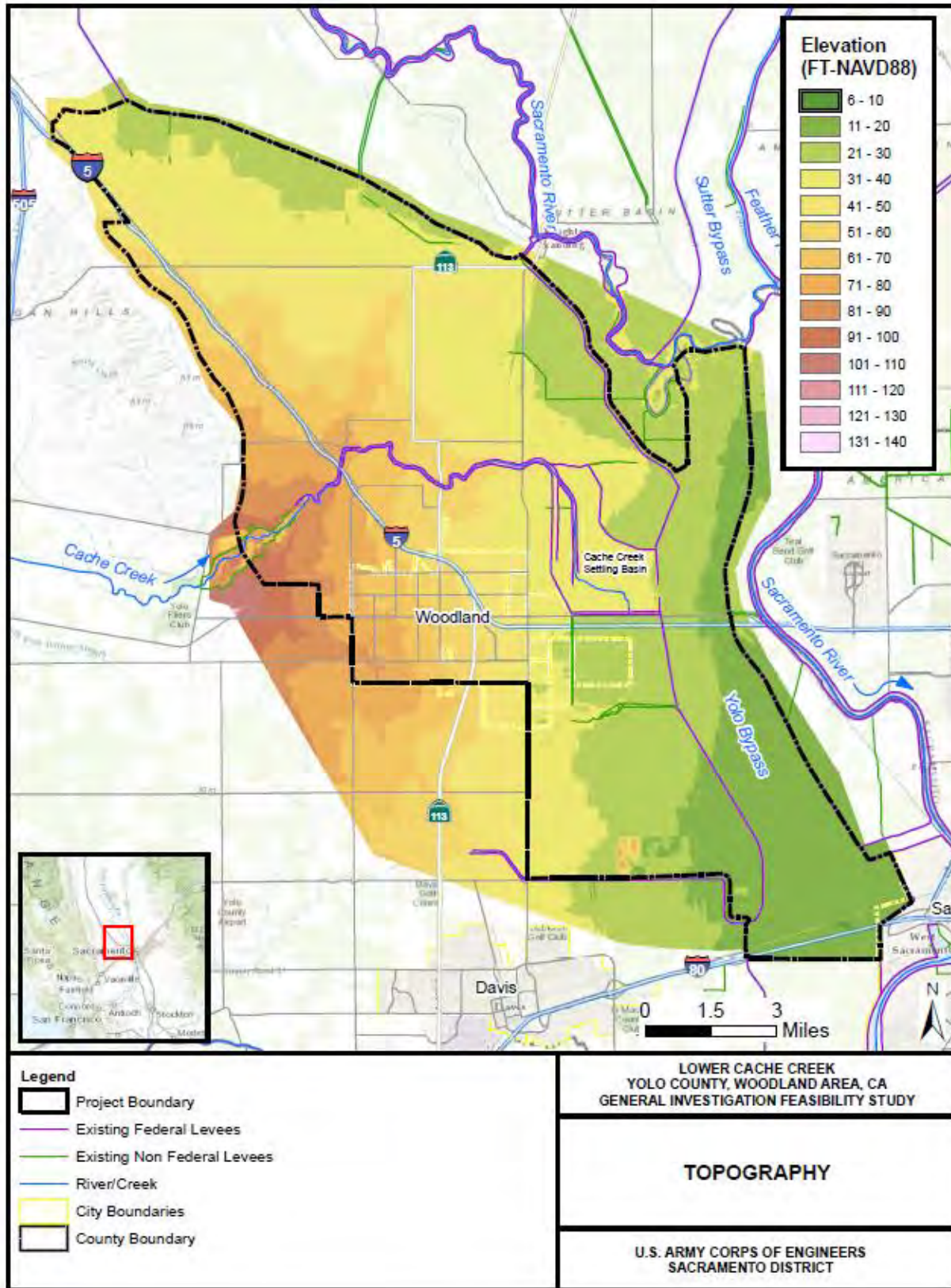


Figure 2-2. Topography of the Lower Cache Creek Floodplain

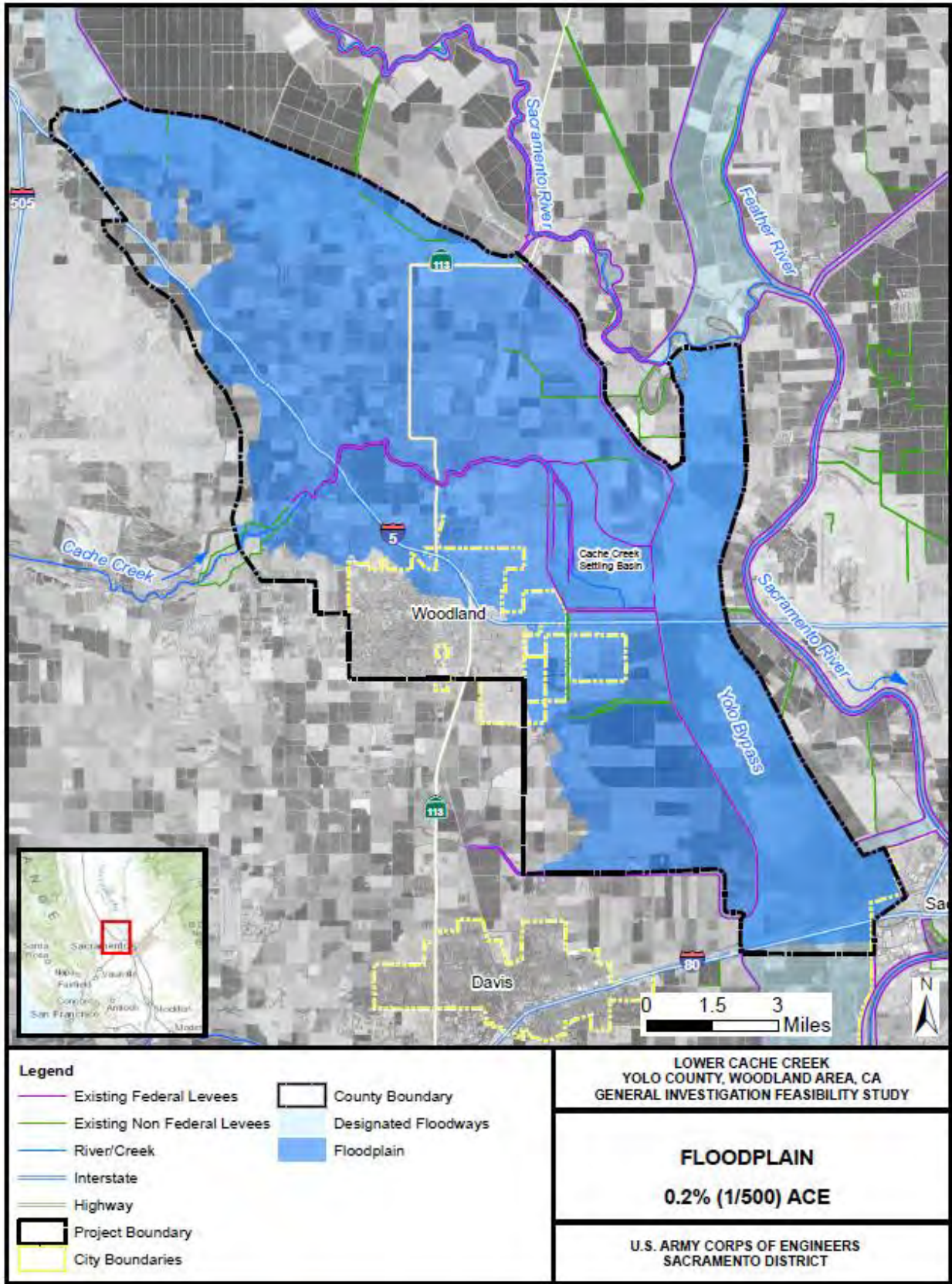


Figure 2-3. Lower Cache Creek 1/500 AEP Floodplain

Existing Hydraulic Infrastructure

An extensive levee system regulates water in and adjacent to the study area. There are 19 miles of Federal and non-Federal levees along Lower Cache Creek, which begin east of I-5 and continue to the CCSB. These levees accommodate 30,000 cfs, which corresponds to approximately a 1/10 AEP event, with 90% assurance before overtopping. However, including the probability of geotechnical failure prior to overtopping, the existing levee project would pass a 50% (1/2) AEP event (10,800 cfs) with 90% assurance. Natural banks between RD 94B and the town of Yolo begin to overtop between approximately 36,000 and 38,000 cfs, which are higher than the 1/10 AEP and lower than the 1/50 AEP event. There are nine miles of levee along the boundary of the CCSB. Seventeen miles of levees are along the Yolo Bypass. Ten miles are in the Colusa Basin Drain. Twelve miles are along the Knights Landing Ridge Cut, and 16 miles are along Willow Slough.

Existing Flood Behavior

Peak flows in Cache Creek at the upstream end of the project area (at County Road 94B) are 58,310 cfs for the 1/100 AEP event, and 74,233 cfs for the 1/500 AEP event. The primary source of flooding of the City of Woodland, town of Yolo, and surrounding areas is from overtopping of the Lower Cache Creek levees or flanking upstream of the levees. Flooding in the study area is driven by storms upstream in the Lower Cache Creek basin and not significantly influenced by flooding in the Sacramento River, Colusa Basin Drain, Knights Landing Ridge Cut, or Yolo Bypass.

Floodwaters begin to emanate from Lower Cache Creek northwest of central Woodland, near where I-5 crosses the Creek. Flows generally move in a southeasterly direction into the incorporated portion of Woodland. Flooding is sheet flow with average depths of about 3 feet and average velocity about 3 feet per second for the 1/100 AEP overtopping event. These sheet flows radiate from Lower Cache Creek until the floodwaters come against embankment features and levees of the CCSB and Yolo Bypass, where the flood depths can reach 10 to 16 feet and remain for days or weeks until it can be pumped out and into the Yolo Bypass. Figure 2-4 shows the approximate direction of flows as they emanate from Cache Creek and spread across the floodplain.

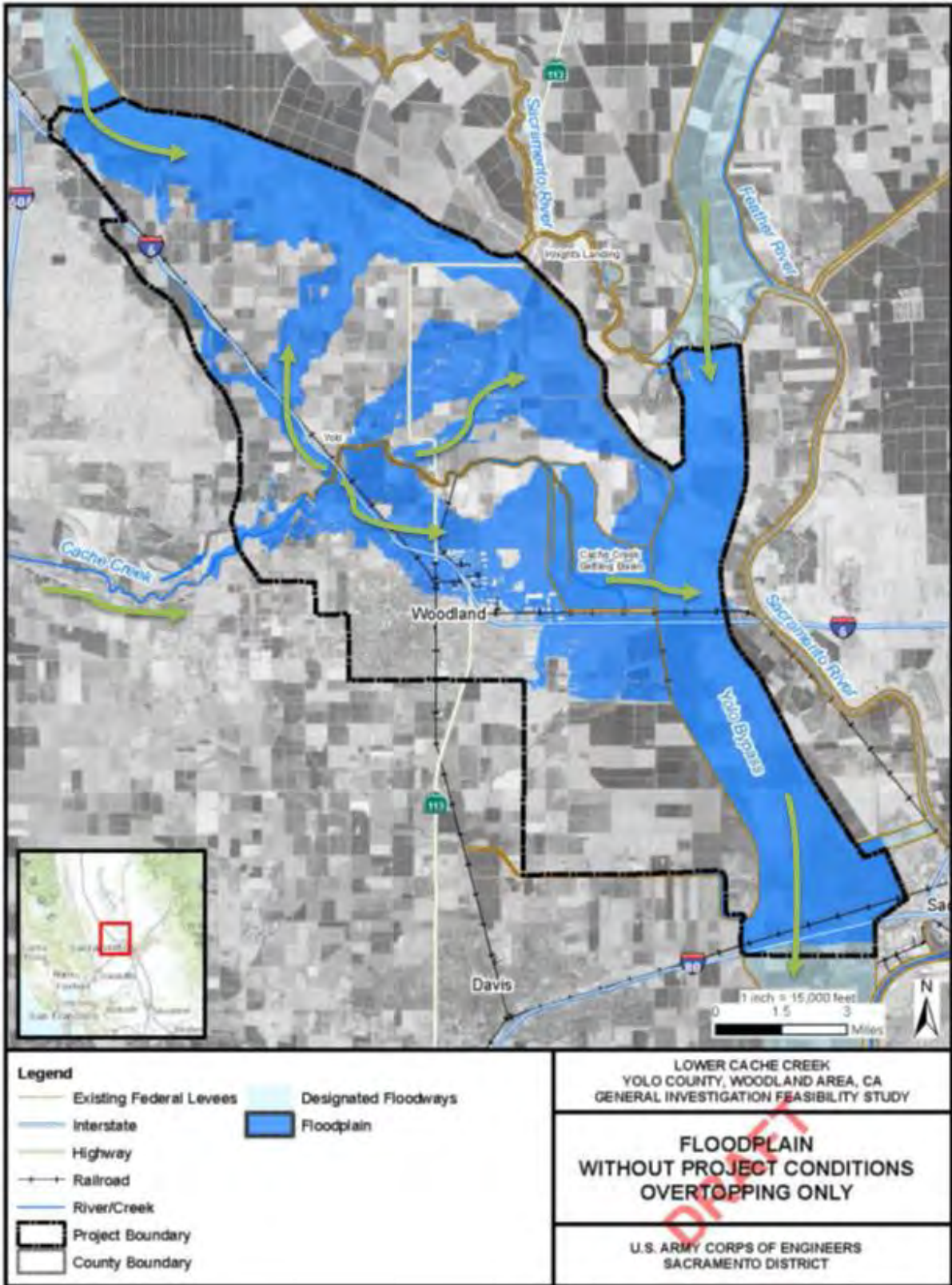


Figure 2-4. Without-Project Condition Floodplain

Flood Behavior

The primary source of flooding of the City of Woodland, town of Yolo, and surrounding areas is from overtopping of the Lower Cache Creek levees or flanking upstream of the levees. Overtopping of the existing levees, and subsequent breach due to water flowing quickly over the exposed soil of the levee, is a significant concern given the levee design height corresponds to an approximately 1/30 AEP event. Flooding in the study area is driven by storms upstream in the Lower Cache Creek basin and not significantly influenced by flooding in the Sacramento River, Colusa Basin Drain, Knights Landing Ridge Cut, or Yolo Bypass.

Lower Cache Creek has a history of flooding. Flood flows are most likely to occur between November and April; no known floods have occurred between June and August. Large floods result from rainstorm events. Four major flood periods have been documented for the Cache Creek basin during the last half of the 20th century, and 20 severe floods have occurred since 1900. The most severe high water events of recent years in the Cache Creek basin downstream from Clear Lake occurred in 1939, 1955, 1956, 1958, 1964, 1965, 1970, 1983, 1995, 1997, 2005, and 2019. Estimated unregulated annual peak discharges at the US Geological Survey (USGS) Cache Creek at Rumsey gage are provided in Figure 2-5.

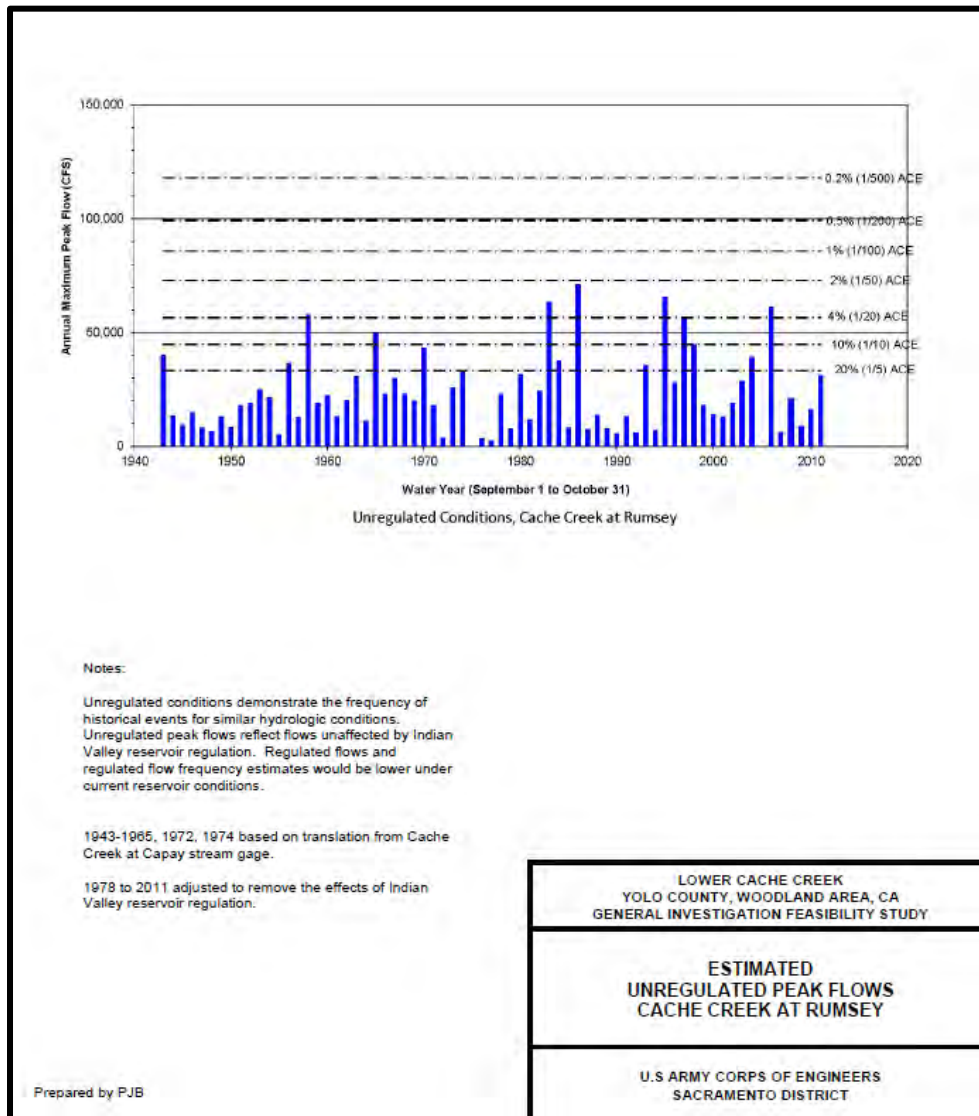


Figure 2-5. Unregulated Peak Annual Flows from USGS Gage Cache Creek at Rumsey

Existing Levee Failure Modes

Based on analysis of the existing Lower Cache Creek embankments, the primary levee failure modes are through- and under-seepage (when water moves away from the river channel, either below or through the levee and surrounding land surface), as well as overtopping. In addition, the potential for a levee breach due to erosion also exists and is particularly relevant downstream of I-5 where the channel is incised, before flows enter into the CCSB. Past performance records support these findings and demonstrate the vulnerability of the existing Lower Cache Creek embankments with each high water event (see, for instance, a 1983 levee break in Figure 2-6 and 2019 flood fight pictured in Figure 2-7). The analysis in this report assumes that the flood source with the highest expected annual damage is representative of both without-project and residual risk in each damage area.



Figure 2-6. Cache Creek Levee Break, 1983



Figure 2-7. Flood Fight Along Existing Cache Creek Levees East of I-5, February 2019

The failure methods described above would result in large-volume flood flows at high velocities that would enter the City of Woodland suddenly and unpredictably. These failures have minimal warning and minimal time for effective implementation of evacuation and emergency plans. Study area flood events generally occur during winter months when colder air and water temperatures

increase the risk of death by exposure. The risk of flooding from unexpected levee failure presents a continued threat to public health, safety, and critical infrastructure in the City of Woodland, town of Yolo, and surrounding areas.

Problem: There is a significant risk of economic damages from flooding in the City of Woodland, town of Yolo, and surrounding agricultural areas.

Flooding from Lower Cache Creek poses a risk of economic damage to property and critical infrastructure within the City of Woodland, town of Yolo, and surrounding areas. The anticipated damageable property (structures and contents) is \$2.3 billion (October 2019 price levels) over the period of analysis. Damages are concentrated in an industrial area in northeastern Woodland, southwest of the CCSB. Additional information on the computation of economic damages is available in Appendix F: Economics.

Table 2-1. Number of Structures by Land Use

Land Use	Number of Structures	0.2% AEP Floodplain
Residential	12,929	588
Commercial	793	155
Industrial	366	242
Public	25	1
Total	14,113	986

Table 2-2. Damageable Property in 0.2% AEP Floodplain (in \$1,000, October 2019 prices)

Land Use Type	Structure Value	Content Value	Total
Commercial	162,528	114,999	277,527
Industrial	662,080	1,045,810	1,707,890
Public	2,116	206	2,322
Residential	167,154	167,154	334,309
Total	993,879	1,328,169	2,322,048

2.1.2 Opportunities

Opportunities for this study include the potential to:

- Increase public understanding of flood risk within the study area over the period of analysis.
- Leverage other existing or ongoing FRM initiatives, particularly the Central Valley Flood Protection Plan, within the study area and over the period of analysis.

2.2 Objectives and Constraints

2.2.1 Federal Objectives

In the Flood Control Act of 1970, Congress identified four equal national objectives in water resources development planning. These objectives are: NED, Regional Economic Development (RED), Environmental Equality (EQ) and Social Wellbeing and Other Social Effects (OSE). These four categories are known as the System of Accounts, whereby each proposed plan can be easily compared to the No Action Plan and other alternatives. The Federal objective identified in the Economic and Environmental Principles for Water and Related Land Resources Implementation Studies (Principles and Guidelines) of February 3, 1983 (42 U.S.C. 1962 a-2 and d-1), is:

“The Federal objective of water and related land resources planning is to contribute to national economic development consistent with protecting the Nation’s environment, pursuant to national environmental statutes, applicable Executive Orders and other Federal planning requirements.”

2.2.2 Non-Federal Objectives

The NFS has an additional objective to meet the California State Urban Level of Protection (ULOP) requirement defined in California Government Code 65007(I). In general, to comply, levees and floodwalls in the Sacramento-San Joaquin Valley are to provide FRM protection against a flood that has a 1-in-200 chance of occurring in any given year. The NFS is responsible for demonstrating a plan meets the ULOP objectives or requirements. The NFS would also seek FEMA accreditation of any new or strengthened levees. Neither the ULOP nor FEMA accreditation are Federal planning objectives or requirements. However, USACE and the NFS are sharing hydrologic and hydraulic modeling alternatives analyses and results, particularly associated with the NED plan, to allow the NFS to independently assess how the alternatives address ULOP or FEMA requirements.

2.2.3 Planning Objectives

Besides the national objective, which is to contribute to national economic development, the goal of the proposed project is to reduce flood risk to public health and safety, property, and critical infrastructure over the period of analysis in the City of Woodland, town of Yolo, and surrounding areas, in a manner consistent with national policy and to the degree that would meet Federal, state, and local objectives. The planning objectives of the study are:

- Reduce risk to public health, life, and safety from flooding of Lower Cache Creek in the City of Woodland, town of Yolo, and surrounding areas. This objective will be measured in terms of a reduction in expected annual damages.
- Reduce risk of damages to property from flooding of Lower Cache Creek in the City of Woodland, town of Yolo, and surrounding areas, to the fullest extent consistent with Federal participation and community financial capabilities.
- Reduce risk of damages to infrastructure from flooding of Lower Cache Creek in the City of Woodland, town of Yolo, and surrounding areas, to the fullest extent consistent with Federal participation and community financial capabilities.

2.2.4 Planning Constraints

Planning constraints represent restrictions that limit the extent of the planning process. They are statements of things that alternative plans must avoid. Constraints are designed to avoid undesirable changes between without and with-project conditions. The planning constraint for this study is:

- Under existing conditions, mercury deposits into the CCSB from mercury-laden sediment in Lower Cache Creek become methylated as a result of natural processes. Methylmercury is a potential hazard to downstream receptors in the Sacramento/San Joaquin delta. This feasibility study does not seek to remedy the methylmercury situation in CCSB. Proposed alternatives must avoid or mitigate any interference with the State of California’s obligation to maintain compliance with the Total Maximum Daily Load (TMDL) of mercury-laden sediment in the Yolo Bypass, as mandated by the Environmental Policy Agency (EPA) in accordance with the Clean Water Act. USACE will follow all applicable Federal, State, and local law and policies (including TMDLs for pollution and sediment), as stated in ER1105-2-100.

2.3 Inventory and forecast of future without-project conditions

The future without-project condition (FWOP) is the most likely condition expected to exist in the future in the absence of the proposed water resource project. The FWOP defines the benchmark against which alternative plans are evaluated. While most of the documentation of affected resources is located in the SEIS, a few critical assumptions that affect plan formulation are highlighted below.

Critical assumptions in defining the FWOP condition include:

- Based on the condition of the existing levee system, the risk of economic damages and the risk to human life and safety from floodwater from Lower Cache Creek will remain.
- The existing Lower Cache Creek levee system will continue to provide flood protection for the City of Woodland, town of Yolo, and surrounding areas for events up to about 1/10 AEP.
- All existing levees will continue to be maintained as per current practices. Erosion protection, including the practice of placing rock revetment as needed, will continue as part of regular operations and maintenance.
- The sediment aggradation and degradation processes occurring within the channel will continue to impact the hydraulic capacity of the creek resulting in changes to the floodplain patterns as related to overbank flooding, levee overtopping, and breaching locations.
- Sedimentation in the CCSB will continue. DWR will maintain the CCSB per O&M manual. Future sedimentation below the maintenance threshold was not considered significant for hydraulic modeling.
- Lands within the unincorporated areas of the study area are primarily zoned agricultural. Lands within the incorporated areas of Woodland and Yolo are primarily zoned Residential or Industrial. The City of Woodland and Yolo County both have policies intended to limit urban development and preserve agricultural land.
- Recreation facilities will remain limited along Lower Cache Creek and in the CCSB.
- The CCSB will likely continue to be a point source of methylmercury for the period of performance of any project alternative.

2.3.1 Existing Non-Structural Features

The Yolo County Office of Emergency Services, in coordination with the City of Woodland, administers a warning system that notifies residents of potential flood threats or evacuations via phone, email, and text message (Yolo County, 2016). It is assumed that this warning system would remain in place under the FWOP condition.

There are several small FRM features that were constructed by private landowners or local or regional governments to reduce the consequences of flooding in the study area. These features include small berms, diversion structures, and drainage canals. It is assumed that all of these features will remain in place under the FWOP condition.

Chapter 3 – Plan Formulation

The formulation, evaluation, and comparison of alternative plans comprises the third, fourth, and fifth steps of the USACE planning process, referred to collectively as Plan Formulation. Plan Formulation is a structured and highly iterative process to develop and refine a reasonable range of alternative plans, then narrow down to a final array of feasible plans, from which a single plan may be recommended for authorization and implementation.

3.1 Flood Risk Management Measures

Measures are the building blocks that are grouped together to form alternative plans. Alternative plans are developed by grouping dependent and independent measures together to address the planning objectives. A measure is a feature or an activity that can be implemented at a specific geographic area to address one or more planning objectives. Various measures were identified to achieve the planning objectives and avoid planning constraints. The measures were screened to determine whether they should be retained for use in the formulation of alternative plans based on the following criteria:

- Effective – Measure meets planning objectives.
- Implementable – Measure is technically implementable (sound) and is feasible within the context of the study area.
- Efficient – The potential benefits/outcome of the measure are greater than what could be provided by another measure of equal or greater cost.

Screening for effective and implementable used a graduated rating of “high”, “medium”, or “low”. This is based on a qualitative assessment, using professional judgment, to rate the extent that a measure may satisfy these criteria. Screening for efficiency used rough order costs to screen out measures that were clearly inefficient. Table 3-1 presents the measures considered, the screening process, and shades dropped measures in red.

Table 3-1. Summary of Management Measures Retained or Dropped

Measures	Effective	Implementable	Efficient	Result	Notes
<i>Non-Structural Measures</i>					
<u>Enhance Educational Outreach:</u> This measure would consist of enhancing the existing flood educational outreach program for the public and policy makers.	Medium	High	High	Retained	
<u>Reservoir Reoperation:</u> This measure would consist of revising the operation procedures at Clear Lake and/or Indian Valley dam reservoirs to reduce the timing of peak flows in the watershed.	Low	Low	Medium	Dropped	Limited improvement possible. Clear Lake operations strictly governed by existing Court Decrees and modification would cause damages to numerous structures around lake. Operations for Indian Valley Dam established by USACE in 1974 are effective for reducing peak flood flow.
<u>Flood Warning System:</u> This measure includes an enhanced flood warning system, or components of a system, such as gages, software, and threat recognition system.	Low	High	High	Dropped	The Yolo County Office of Emergency Services, in coordination with the City of Woodland, administers a warning system that notifies residents of potential flood threats or evacuations via phone, email, and text message (Yolo County, 2016).
<u>Flood Response Plans:</u> This measure would develop or enhance plans for flood response actions for Woodland and/or Yolo.	High	High	High	Dropped	Yolo County has an existing Multijurisdictional Hazard Mitigation Plan (Yolo County, 2018) which negates the need to include one in this study.
<u>Flood Proofing:</u> This measure would reduce damages to structures and contents by applying wet or dry flood proofing techniques.	High	High	Medium	Retained	This includes flood proofing existing pump stations to maintain operability during a flood event.
<u>Raising Structures:</u> This measure would reduce the risk to structures and content by elevating structures above the base flood elevation.	High	High	Medium	Retained	Number of structures would vary from plan to plan, though would likely be in the dozens.

Measures	Effective	Implementable	Efficient	Result	Notes
<u>Removing Flood Prone Structures (Buyout)</u> : This measure would reduce the risk to life and property damage by removing/buying out structures, creating open space with no damageable property.	High	High	Medium	Retained	This measure would contribute to restoration of the floodplain and enable more natural movement of water. Number of structures would vary from plan to plan, though would likely be in the dozens.
<u>Relocating Structures</u> : This measure would reduce the risk to life and property by moving (relocating) structures and residents to locations outside of the floodplain.	High	High	Medium	Retained	This measure would contribute to restoration of the floodplain and enable more natural movement of water. Number of structures would vary from plan to plan, though would likely be less than ten.
<u>Preserve Floodplain</u> : This measure would include setting aside property/land that is used for containing/conveying floodwater by acquiring flowage easements or fee title in floodplain lands.	High	High	Medium	Retained	These nature-based measures would contribute to the natural movement of water across the floodplain, enabling ecosystem benefits such while reducing flood risk to life and property.
<u>Floodplain Management</u> : This measure includes revising existing floodplain management policies, such as zoning or land use planning in an attempt to limit or avoid future development in areas subject to flooding.	High	High	High	Retained	
Structural Measures					
Containment					
<u>Strengthen Existing Levees</u> : This measure strengthens the existing levees, or portions of existing levees.	High	High	High	Retained	Appropriate seepage control measures will be employed. This measure includes levees along Cache Creek and the CCSB.

Measures	Effective	Implementable	Efficient	Result	Notes
<u>Raise Existing Levees</u> : This measure raises the existing levees, or portions of levees, to contain higher flow than is currently possible. This considers the larger footprint to account for an increased base wide for a higher levee (levee prism requirements).	High	High	High	Retained	Appropriate seepage control measures will be employed. This measure includes levees on the creek and the CCSB and may be considered around the existing I-5 bridge.
<u>New Levees</u> : This measure would replace existing levees or build new levees, including setback levees, using current engineering methods. This potentially includes removal of existing levees, or portions of, prior to replacement.	High	High	High	Retained	Appropriate seepage control measures will be employed. This measure is not limited to levees along the creek alignment and could include new setback levees located away from the channel. Setback levees favor ecosystem health by allowing the creek to meander within a defined area and for high flows to deposit nutrients within the levee corridor, while also reducing flood risk beyond the levees.
<u>Floodwalls</u> : This measure would build floodwalls to contain floodwaters in a channel or provide a line of defense around the urban area or critical infrastructure.	High	High	High	Retained	Floodwalls were considered in areas with limited available real estate for FRM features, however floodwalls increase construction cost.
<u>Upstream Detention</u> : This measure would include a large upstream detention facility.	Medium	Medium	Medium	Retained	
<u>In-channel Retention</u> : This nature-based measure would entail one or more retention facilities, such as a constructed wetland, mid-watershed or along the channel to reduce peak flows in Cache Creek.	Medium	Low	Medium	Dropped	The perched channel of Cache Creek limits the usefulness of near channel retention, such as constructed wetlands, given that flows that leave the channel are prone to spread across the floodplain.

Measures	Effective	Implementable	Efficient	Result	Notes
<u>Stormwater Detention</u> : This measure would retain local stormwater in one or more small detention/retention facilities.	Low	Low	Medium	Dropped	Local stormwater ordinance exists; the volume of flow is from outside these municipalities. Not effective at meeting objectives.
Channel Modification					
<u>Vegetation Clearing</u> : This measure would increase flow conveyance capacity by removing riparian vegetation from the channel. The cleared area would be reseeded with grass, and rock slope protection would be placed where required.	Low	Low	Low	Dropped	Would significantly affect the existing environment. Not effective at meeting FRM objectives. Overgrowth does not strongly contribute to flooding and thus clearing would offer little change to flood behavior.
<u>Sediment Removal/Channel Deepening</u> : This measure would increase conveyance capacity by removing sediment deposits from the channel.	Low	Low	Low	Dropped	Channel is largely sediment starved, little improvement could be gained. Would require to be combined with vegetation clearing.
<u>Channel Straightening</u> : This measure would replace selected winding courses in the creek and replace them with straight cuts.	Medium	Low	Low	Dropped	There are few locations along the creek that would provide a reduction in flooding. The effort and cost to straighten these sections of the creek are greater than the small benefit that could be realized. Additionally, potentially significant adverse environmental impacts.
<u>Channel Widening</u> : This measure would increase channel capacity by increasing the width of the channel at selected locations, but not for the full channel. This also includes channel benching.	High	Low	Low	Dropped	There are few locations along the creek that would provide a reduction in flooding. The effort and cost to widen specific sections of the channel are greater than the benefit that could be realized.

Measures	Effective	Implementable	Efficient	Result	Notes
<u>Bank and/or Bed Protection</u> : This measure would consist of rock slope protection of the water-side banks of levees and/or the bed of the creek to prevent or reduce erosion due to high flows or to provide grade control.	Medium	High	High	Retained	New and strengthen levees include bank protection. The PDT will consider different bank protection approaches, including rock revetment and nature-based methods.
Transportation Infrastructure					
<u>Raise I-5 Roadbed</u> : This measure would raise the portion of I-5 south of the CCSB to reduce the potential for damage to the roadbed and motorists. It would also reduce the potential for closing this major interstate during flooding.	High	High	Low	Dropped	Potentially provides FRM benefits, though cost is significant and could induce flooding in other areas.
<u>Lower I-5 Roadbed</u> : This measure would lower portions of I-5 in vicinity of Yolo, north of Woodland. The intent is to allow floodwater to overtop the roadway, thus removing the constriction that currently results in backflow flooding.	High	Low	Low	Dropped	This measure could reduce backflow flooding, though is very costly and could increase risk to motorists and damage to transportation infrastructure, as well as lengthen closures of I-5.
<u>Raise Railroad Bed</u> : This measure would raise portions of the railroad bed in select locations to reduce ponding of floodwater.	Medium	Low	Low	Dropped	It was eliminated due to high costs, low efficiency and low implementability.
<u>Bridging/Culverts</u> : This measure would include raising, protecting, or otherwise modifying bridges and	Medium	High	Medium	Retained	This measure contributes to opening of the floodplain and more natural movement of floodwaters. This measure

Measures	Effective	Implementable	Efficient	Result	Notes
roads within the floodplain to reduce constriction points in the channel that cause channel bank or levee overtopping; for example, adding large scale culverts under select locations of I-5, Union Pacific Rail Road (UPRR), and county roads to reduce ponding of floodwater.					could be combined with other structural or non-structural features.
Use Existing Floodplains					
<u>Bypass/floodway</u> : This measure would channel floodwater (from levee overtopping upstream out of bank flow, or levee breach) away from urban areas into one of several locations.	High	High	Medium	Retained	The bypass or floodway may include features such as weirs or flap gates to allow water to move from the existing channel into another channel. The bypass may follow the natural floodplain or may require levees or floodplain contouring. Flood easements could be required in the bypasses as well.
<u>Floodplain Contouring</u> : This measure would consist of modifications to the floodplain to contain or direct flow.	Medium	High	Medium	Retained	This measure would be combined with bypass or floodway features to direct flow.
<u>Modification of outlet weir</u> : Increase the height of the existing CCSB outlet weir into the Yolo Bypass.	Low	Medium	Low	Dropped	Sedimentation of the CCSB has not reached the level where a modification of the weir would be necessary.

These measures preliminarily achieve FRM objectives in the study area. FRM measures can be structural or non-structural. Non-structural measures reduce flood damages without altering the nature or extent of the flooding and are accomplished by changing the use of the floodplains or by adapting existing uses to the flood hazard. In contrast, structural measures alter the nature or extent of the flooding by modifying the magnitude, direction, extent, or timing of the flooding. Several measures incorporate natural or nature-based approaches, which is the intentional alignment of natural and engineering processes to efficiently and sustainably deliver benefits.

Early screening measures that considered opportunities to apply FRM measures in the study area used a coarse estimate of the basic magnitude of construction costs compared to the maximum potential FRM benefits possible. Reduction in flood damages translates into monetary benefits, which in turn help determine if the Federal government can participate in the project (i.e., the Federal interest).

3.2 Plan Formulation Strategy

At this stage in the planning process, the PDT identified broad alternatives to address flood risk in the City of Woodland: non-structural approaches, diverting floodwater to the north of Cache Creek, diverting floodwater to the south of Cache Creek and north of the City of Woodland, diverting floodwater south of the City of Woodland, retaining water upstream, several levee configurations to keep water in or near the channel, and various combinations of the above. An initial array of FRM alternatives was developed, evaluated, and compared to identify a plan that reasonably maximizes net benefits (benefits minus costs). The alternatives were formulated to address specific flooding sources using measures to reduce the consequences to the maximum extent possible. The initial array of 11 alternative plans primarily consists of various levee configurations to prevent floodwaters from Cache Creek from entering the City of Woodland, and to strengthen the CCSB.

The retained measures generally need to be combined with other retained measures in order to develop complete alternative plans. Table 3-2 illustrates which measures were combined to form the various alternative plans. The initial array broadly groups potential plans as bypass alternatives or containment alternatives. While each individual measure contributes to one or more of the FRM objectives, most need to be applied in combination with the others in order to provide a complete plan that achieves the multiple objectives identified by the study. A description of each of the preliminary alternative plans follows Table 3-2.

Table 3-2. Inclusion of Measures in Initial Alternative Plans

Retained Measures	Alternatives												
	No Action	Bypass Alternatives				Containment Alternatives					Non-Structural Alternatives		
	0	1	2	3	4	5	6	7	8	9	10	11	
Enhance educational outreach		X	X	X	X	X	X	X	X	X	X	X	X
Flood proofing		X	X	X	X			X	X	X	X	X	X
Raising structures		X	X	X	X			X	X	X	X	X	X
Removing structures / buyout		X	X	X		X		X	X	X	X	X	X
Relocating Structures		X	X	X		X		X	X	X	X	X	X
Flowage Easements		X	X	X	X	X	X	X	X				
Strengthen Existing Levees		X	X		X		X	X		X			
Raise Existing Levees							X						
New Levees		X	X			X	X	X	X	X			
Floodwalls			X										
Upstream Detention						X							
Bank / Bed Protection		X	X	X	X	X	X	X	X	X			
Bridging / culverts		X	X	X	X								X
Bypass/floodway		X	X	X	X		X	X	X				
Floodplain contouring		X											

3.2.1 Alternative 0: No Action Plan

The No Action Plan is the existing and future without-project condition, which is described in Chapter 2. This plan serves as the baseline against which the effects and benefits of the action plans are evaluated. The Federal Government would take no action to implement a specific plan to reduce flooding of the city of Woodland under the No-Action Plan; and the Cache Creek levee system, with continued maintenance and repairs/rehabilitation, would continue to provide for the reliable conveyance of the 1/20 AEP event. Larger events would continue to pose significant flood risk for the City of Woodland and surrounding areas. Annual damages to real property from overflows from Cache Creek would be expected to continue to be about \$22.7 million. Other losses or adverse effects would continue to include the potential for flood-related loss of life, contamination from sanitary sewage and hazardous materials, and the extended closure of the section of I-5 east of the city of Woodland.

Bypass Alternatives

3.2.2 Alternative 1: North Bypass

This alternative would allow flow over approximately 30,000 cfs to leave the creek and flow north either following the natural floodplain or by being somewhat contained by subtle floodplain contouring or new levees. The new bypass, represented by areas A and B in Figure 3-1, would convey high flows into either the Colusa Basin Drain or Knights Landing Ridge Cut, depending on configuration, and from there into the Yolo Bypass. The new bypass would likely require rights of way, likely flood easements. There are different possible alignments for this alternative: one alignment could follow the natural floodplain into the Colusa Basin Drain, one could follow the natural floodplain into the Knights Landing Ridge Cut, or both alignments can be used. Further analysis may find that new levees are needed along both sides of I-5 to County Road 94B; this will depend on the alignment of the bypass. This alternative includes bridging (large culverts) of I-5 and possibly UPRR, as well as strengthening portions of the existing Lower Cache Creek and CCSB levees to reduce breach potential. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

3.2.3 Alternative 2: South Bypass

This alternative consists of diverting flows over approximately 30,000 cfs from the right overbank by constructing a bypass, or conveyance channel, to the south of Cache Creek and to the north of the City of Woodland, represented by area C in Figure 3-1. High flows would pass through or from the CCSB into the Yolo Bypass. Construction of a flood barrier (levee and floodwall combination) north of Woodland will provide an urban line of defense from flood surges. This alternative includes bridging (large culverts) of I-5, county roads, and possibly UPRR. There are two different alignment possibilities with this alternative. A wide bypass alignment removes a portion of the existing CCSB (southern portion of basin), rebuilding the south levee, and expanding the basin geographically to mitigate for the portion of the basin that is removed. The intent is to continue agricultural production in this bypass. The second alignment is a narrow bypass located to the south of the CCBS (and thus does not impact the CCSB). The narrow alignment would require relocation of major warehouses. Either alignment includes strengthening portions of the existing Lower Cache Creek and CCSB levees to reduce breach potential. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

3.2.4 Alternative 3: West Bypass

This alternative consists of a bypass, with easements, diverting flows over approximately 30,000 cfs from Cache Creek, downstream of I-505, with an outlet to Yolo Bypass near Willow Slough,

north of the City of Davis, as represented by area D in Figure 3-1. The alignment would cross several county roads, thus bridge/culvert improvements might be required. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

3.2.5 Alternative 4: North and South Bypass

This alternative includes two bypasses, a south bypass into Yolo Bypass and a north bypass following one of two possible alignments described in Alternative 1, represented by areas A, B, and C in Figure 3-1. The alternative consists of diverting flows over approximately 30,000 cfs from the right overbank and left overbank by constructing two bypasses downstream of County Road 94B to convey flows away from the City of Woodland and into the Yolo Bypass. This alternative also includes bridging/culverts under UPRR, I-5, and county roads. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

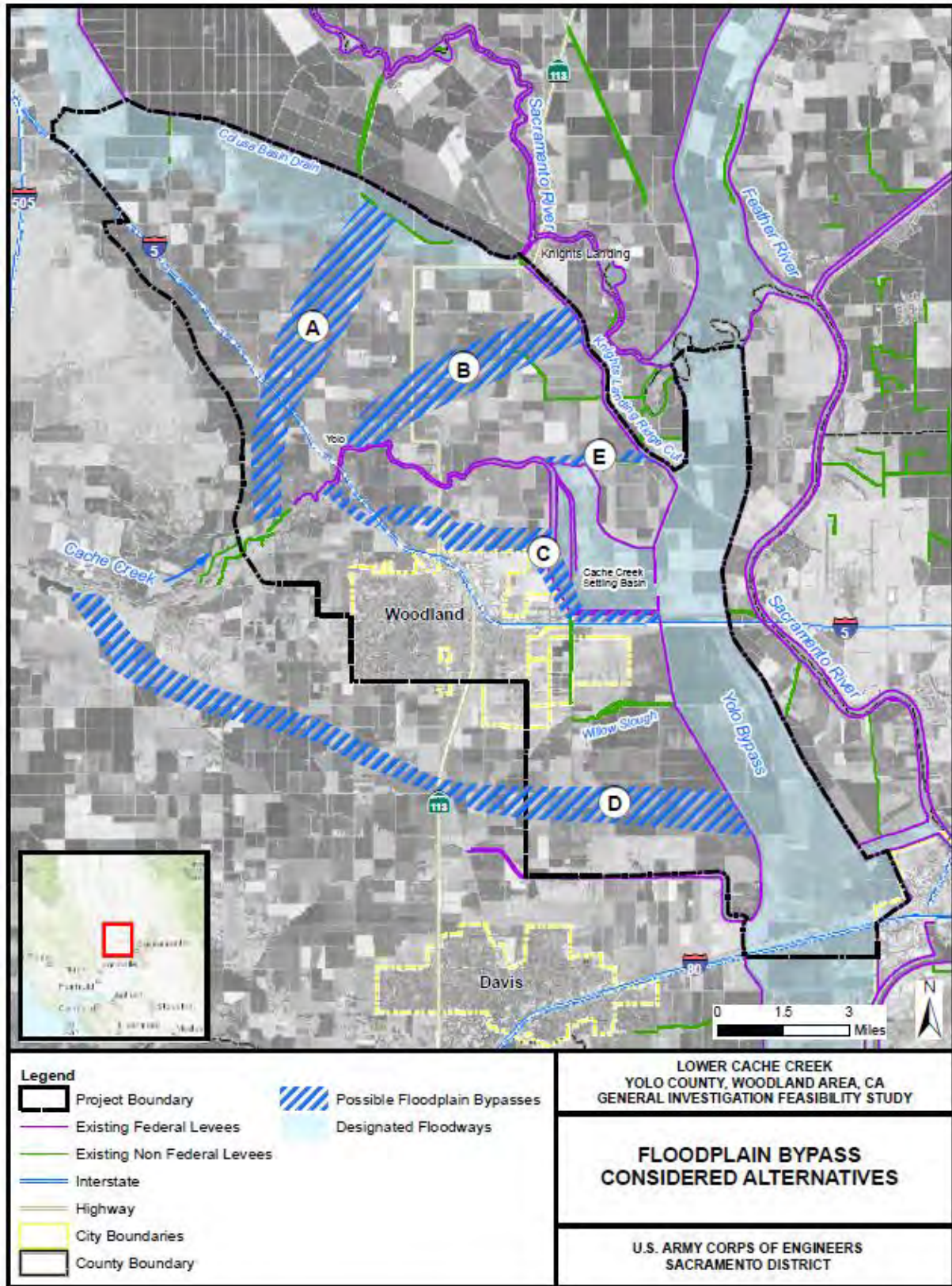


Figure 3-1. Bypass Alternatives

3.2.8 Alternative 7: Partial Setback Levees

The purpose of this alternative is to contain flow within a levee system. New levees would be built upstream (West) of I-5 to prevent overtopping in this location, as illustrated in Figure 3-3. Setback levees would be added to the right and left banks in advantageous locations to prevent flooding due to overtopping of the existing levee. Areas where setback levees will not be built would be strengthened. This includes levees from the northernmost portion of the CCSB to the Yolo Bypass to mitigate and prevent seepage concerns. Lands or rights of way will be required (either easement or fee). The alternative will also require either a geographic expansion of the CCSB to accommodate increased inflow of water or controlled overtopping of levees with a small floodway to the Yolo Bypass, or a construction of a new bypass north of the CCSB into the Yolo Bypass, as indicated in area E of Figure 3-2. Bridging/culverts under I-5 and UPRR might be required. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

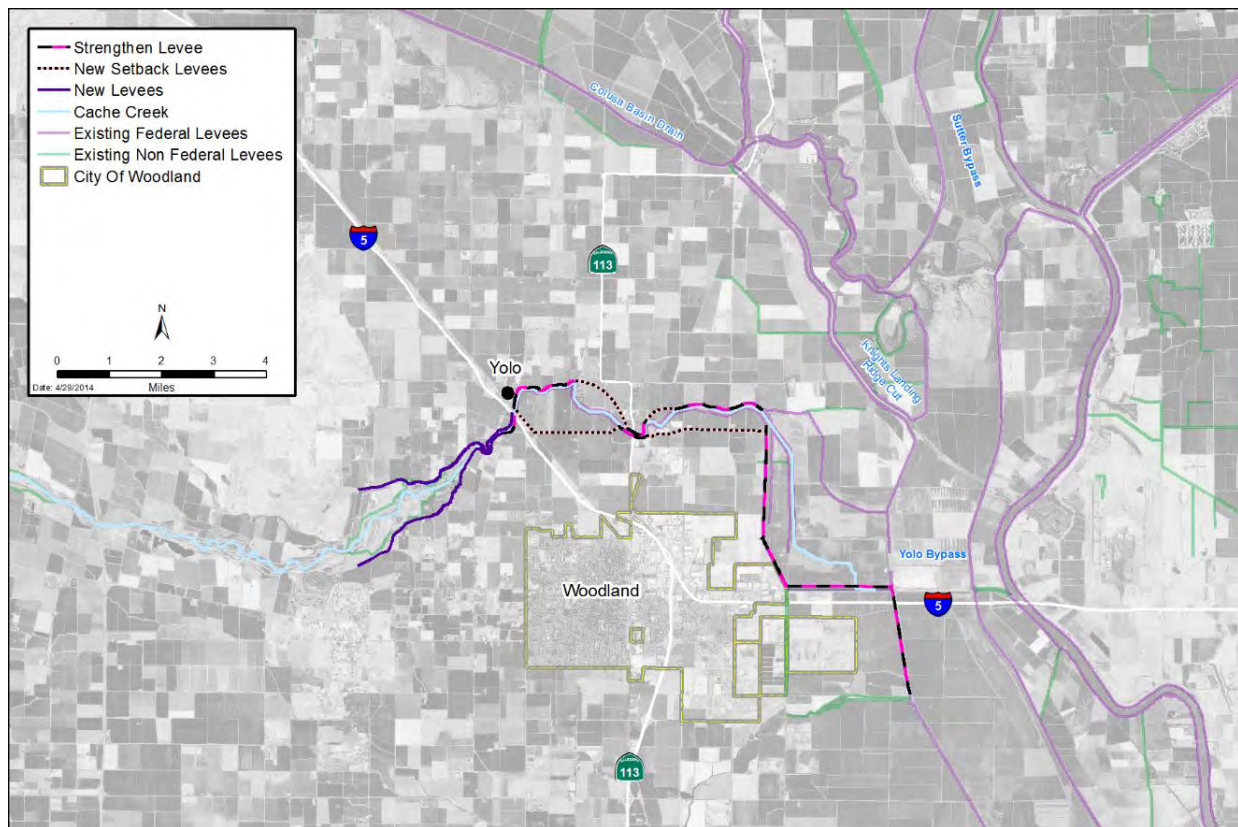


Figure 3-3. Alternative 7: Partial Setback Levees

3.2.9 Alternative 8: Continuous Setback Levees

The purpose of this alternative is to build setback levees to contain flow within the levee system. Different alignments are possible. The first alignment would follow the existing river channel, on both the right and left banks. This consists of approximately 19 miles of levees along the creek and would require increasing the capacity of the CCSB. The second alignment would include a continuous right bank setback levee closely following the alignment of the urban area and would extend south to parallel the Yolo Bypass. This would provide a line of defense for the city of Woodland. Lands or rights of way would be required (either easement or fee). This alignment would have an outlet into the Yolo Bypass and would require new levees upstream, west of I-5, to prevent overtopping in that location. Bridging/culverts under the UPRR might be required. This

alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

3.2.10 Alternative 9: Yolo Flood Risk Reduction

This alternative consists of strengthening the left bank levees from I-5 to CCSB to reduce breach potential and building new levees, where needed, to reduce flood risk in the town of Yolo. This alternative includes flood-proofing structures and property buyouts, where needed, as well as enhanced educational outreach.

Non-Structural Alternatives

3.2.11 Alternative 10: Raise, Flood-proof, Buyout

This alternative is a combination of non-structural measures aimed at removing or reducing risk to people and property in the floodplain. This would include raising and flood-proofing structures in-place, where possible. Other structures would be considered for relocation or buyout. The plan also incorporates enhanced educational outreach.

3.2.12 Alternative 11: Bridging with Raise, Flood-proof, Buyout

This alternative is a combination of non-structural measures with structural roadway improvements. Bridging/culverts under known roadway constriction points, I-5, railroad, and county roads would alleviate some backwater flow into the urban area. Structures that are still at risk would be considered for flood-proofing or raising in-place where possible. Other structures would be considered for buyout or relocation. The plan also incorporates enhanced educational outreach.

3.3 Initial Alternatives Analysis

Alternative plans were screened during a series of workshops with the USACE, DWR, and the City of Woodland (the California Department of Transportation participated on a limited basis). Screening criteria were developed in the first workshop and later refined. The second workshop focused on screening alternatives using a graduated rating of “high”, “medium”, or “low” for each criterion. This is based on qualitative assessment, using professional judgment, to rate the extent that an alternative satisfies these criteria. The No Action Plan was carried forward in order to serve as the baseline against which all retained alternative plans are compared.

- High indicates the alternative meets planning objectives, is technically implementable, and is considered efficient.
- Medium indicates the alternative somewhat meets objectives, is technically implementable, and is considered efficient.
- Low indicates the alternative does not meet objectives, is not technically implementable, and/or is not considered efficient.

Coarse cost estimates were identified using information from the sponsor and previous studies, as needed, for screening. Several similar alternatives were combined.

Results of the initial array screening using the criteria below are shown in Table 3-3, which shades dropped alternatives in red:

- Complete – The extent to which the plan provides and accounts for all necessary investments or other actions. To be complete, a plan must not rely on other activities to function.

- Effective – The extent to which the plan meets planning objectives.
- Efficient – The extent to which the benefits of a plan are likely to exceed the costs. (Even though costs were developed, the uncertainty was such that the team elected not to use cost for screening; rather, the criterion of “efficient” was based on professional judgment of how plans compared to each other.)
- Implementable – The extent to which an alternative is technically sound and feasible to implement in the context of the study area.
- Acceptable – The extent to which an alternative is environmentally, economically, politically, and socially acceptable. The acceptability criterion also captures the extent to which the alternative is consistent with the CVFPP and SB 5.

The “Effective” score is a composite of the following parameters and represents the extent of how each alternative meets study objectives of:

- Reduces Risk to Public Health, Life, Safety – The extent to which the alternative reduces risk to life (life safety) for the City of Woodland and town of Yolo.
- Risk Reduction to Property – The extent to which the alternative reduces risk to property in the City of Woodland and town of Yolo.
- Risk Reduction to Infrastructure – The extent to which the alternative reduces risk to critical infrastructure in the City of Woodland and town of Yolo.

Alternatives were also screened based on the following criteria:

- Encourages Wise Use of Floodplains – The extent to which the alternative conveys water away from urban area, is compliant with Executive Order 11988, and does not increase development in floodplains subject to a 1% or greater chance of flooding in any given year.
- Environmental Justice – The extent to which the alternative provides fair treatment of all people in the study area.
- Opportunities – Whether or not the alternative achieves the opportunities of increasing public understanding of flood risk and leveraging other ongoing FRM initiatives.
- Constraints – The extent to which the alternative avoids or mitigates any interference with the State of California’s obligation to maintain compliance with the TMDL of mercury-laden sediment in the Yolo Bypass and adheres to Laws/Policies.

Alternative plans were eliminated if a rating of “Low” was identified for the criteria of complete, effective, efficient, or implementable. All criteria were considered during screening; however, decisions were weighted toward alternatives being complete, effective, efficient, and implementable. The initial screening was undertaken prior to the development of hydraulic and economic modeling efforts that would provide quantitative benefits, and also prior to the development of alternative-specific costs. Thus, the qualitative screening effort was based on professional judgment. The retained preliminary alternatives were later evaluated and compared with a greater level of detail to identify the National Economic Development (NED) plan.

Table 3-3. Screening of Initial Array of Alternatives

Alternative	Complete	Effective	Efficient	Implementable	Acceptable	Result	Reason for Dropping
1. North Bypass	High	High	High	High	Medium	Retained	
2. South Bypass	High	High	Medium	Medium	Medium	Retained	
3. West Bypass	Medium	High	Medium	Low	Low	Dropped	This alternative was eliminated as it transferred risk to the city of Davis.
4. North and South Bypass	High	High	Low	High	Medium	Dropped	This alternative was eliminated as it is likely less efficient than other bypass alternatives—it would generate similar benefits but at a higher cost. Other bypass alternatives are more efficient as they accomplish the same reduction in risk with a single bypass.
5. Upstream Detention	High	High	High	Low	Low	Dropped	Previous studies investigated the possibility for upstream detention in the study area. A few sites were previously identified as suitable, but later found to be unsuitable due to Seismic and environmental concerns rule out most potential sites. Topography of the upstream area does not provide any other suitable location for detention/retention basins of a suitable size that would provide adequate flood risk reduction to the downstream communities. This alternative was eliminated as it is not implementable.
6. Levee Fix in Place	High	Medium	High	Medium	Medium	Retained	
7. Partial Setback	High	High	High	High	Medium	Retained	

Alternative	Complete	Effective	Efficient	Implementable	Acceptable	Result	Reason for Dropping
Levees							
8. Continuous Setback Levees	High	High	Low	High	Medium	Dropped	The PDT eliminated this alternative because it was less efficient than other containment alternatives. The buyouts and easements required for this alternative would be significant, in comparison to other options, and there would need to be significant improvements to increase the capacity of the CCSB. Despite the higher costs, it would not generate higher benefits than other alternatives.
9. Yolo Flood Risk Reduction	Medium	High	High	Medium	High	Retained	
10. Raise, Flood-proof, Buyout	Low	Medium	Medium	Medium	High	Dropped	The PDT considered various approaches to flood-proofing structures with the highest damages, such as wrapping the building in plastic and closing off openings for depths less than 3 feet. However, this approach was not considered feasible because the flood warning time is likely to be less than the time required to deploy the flood proofing for individual structures. These methods are not considered feasible for depths greater than 3 feet because hydrostatic forces could cause the walls to collapse inward. Individual ring levees or floodwalls

Alternative	Complete	Effective	Efficient	Implementable	Acceptable	Result	Reason for Dropping
							<p>surrounding each structure were considered for depths greater than 3 feet. However, to address the requirements of ECB 2016-01 the levees and floodwalls are not considered non-structural methods and would have to meet USACE design criteria for levees and floodwalls (e.g. patrol roads, real estate, etc.)-These methods are unlikely to be economically justified. Other alternatives incorporate non-structural elements considered under this alternative.</p> <p>Raises and buyouts for all structures in the floodplain were dropped on account of high costs (low efficiency), limited effectiveness, and low acceptability.</p>
11. Bridging with Raise, Flood-proof, Buyout	Low	Medium	Medium	Medium	High	Dropped	<p>The PDT considered various approaches to flood-proofing structures with the highest damages, including the construction of small ring levees or floodwalls to reduce risk on individual structures or adjacent groups of structures. Flood-proofing was not economically viable (the construction cost of small flood risk reduction measures to USACE design standards outweighed the benefits). Bridging does not significantly reduce flood</p>

Alternative	Complete	Effective	Efficient	Implementable	Acceptable	Result	Reason for Dropping
							<p>risk in the study area. Other alternatives incorporate non-structural elements considered under this alternative.</p> <p>Raises and buyouts for all structures in the floodplain were dropped on account of high costs (low efficiency), limited effectiveness, and low acceptability.</p>

3.4 Focused Array of Alternatives

Based on the screening process of the initial array described above, the no action and four action alternatives were carried forward to the focused array: Alternative 1: North Bypass, Alternative 2: South Bypass, Alternative 6: Levee Fix in Place, and Alternative 7: Partial Setback Levees. The PDT developed and evaluated several configurations of each alternative in the focused array based on a qualitative assessment of inflection points in the costs and/or benefits of alternatives, as described below. Letters following the alternative number (i.e., 1A, 1B, 1C) represent various performance options of each alternatives. A value engineering (VE) study conducted on the focused array further informed the screening of alternatives and lead to the inclusion of alternatives 1D, 7A, and 7B. The following provides a description of the focused array of alternatives.

3.4.1 Alternative 1A: North Bypass A

This alternative includes strengthening the right bank of the existing levees from downstream of I-5 to the CCSB, as well as the left bank near the town of Yolo. In addition, this alternative includes a grade control structure and a right bank levee extension upstream of I-5, to accommodate excess flows. Figure 3-4 shows the project features. These features would increase the stage upstream of I-5, resulting in floodwaters overtopping the left bank and flowing north towards the Colusa Basin Drain. This alternative would include seepage mitigation and rock bank protection along most of its length.

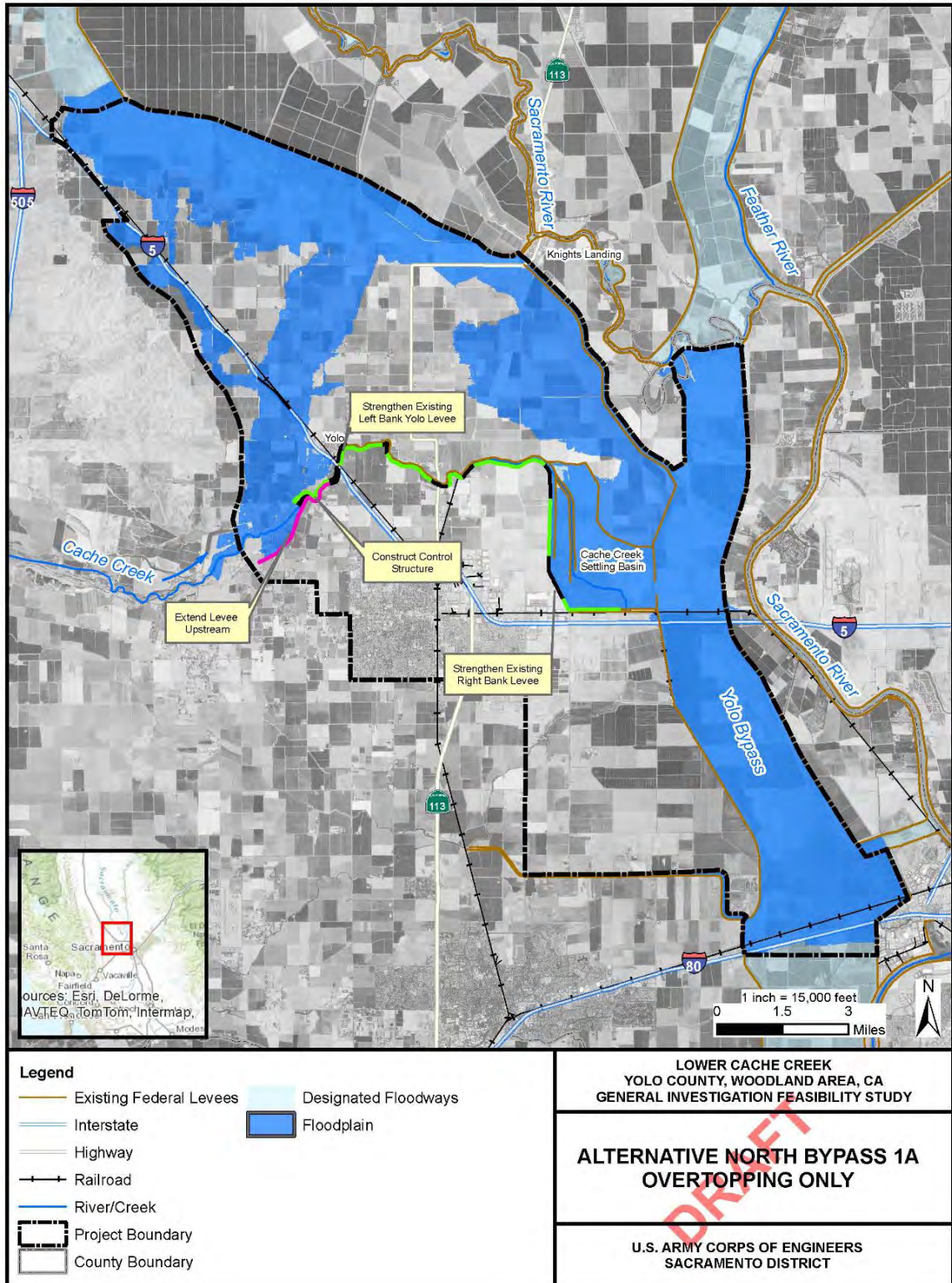


Figure 3-4. Alternative 1A: North Bypass A

3.4.2 Alternative 1B: North Bypass B

This alternative consists of the same structural features as Alternative 1A, though it adds the purchase of flowage easements on the land that would convey floodwaters to the Colusa Basin Drain. This alternative would include seepage mitigation and rock bank protection along most of its length. A map of this alternative is shown in Figure 3-5.

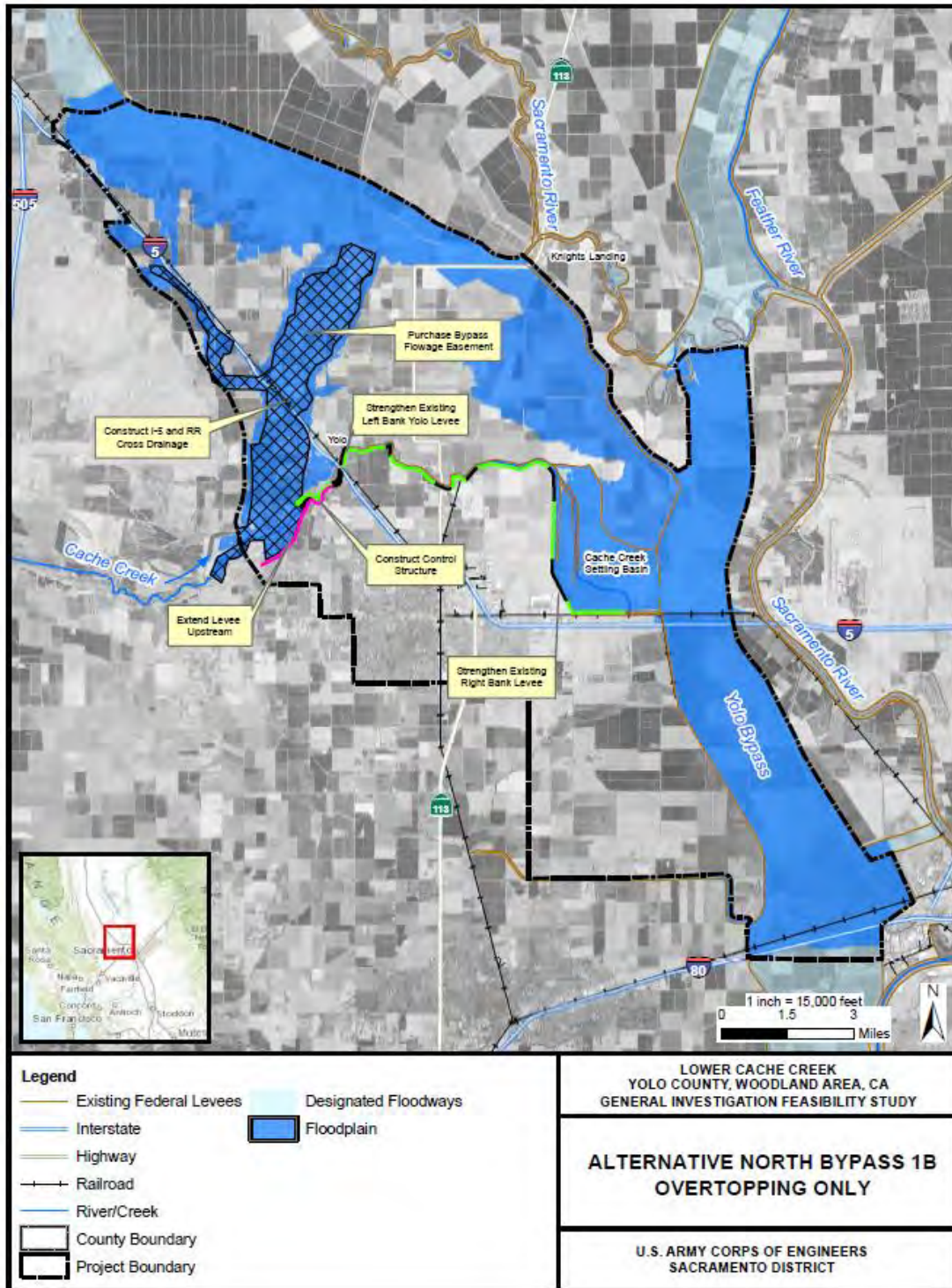


Figure 3-5. Alternative 1B: North Bypass B

3.4.3 Alternative 1C: North Bypass C

This alternative includes strengthening the right bank of the existing levees from downstream of I-5 to the CCSB, similar to the structural features in Alternatives 1A and 1B. However, it includes the construction of bypass levees to ensure the floodwaters are conveyed to the Colusa Basin Drain. This alternative would include seepage mitigation and rock bank protection along most of its length. A map of this alternative is shown in Figure 3-6.

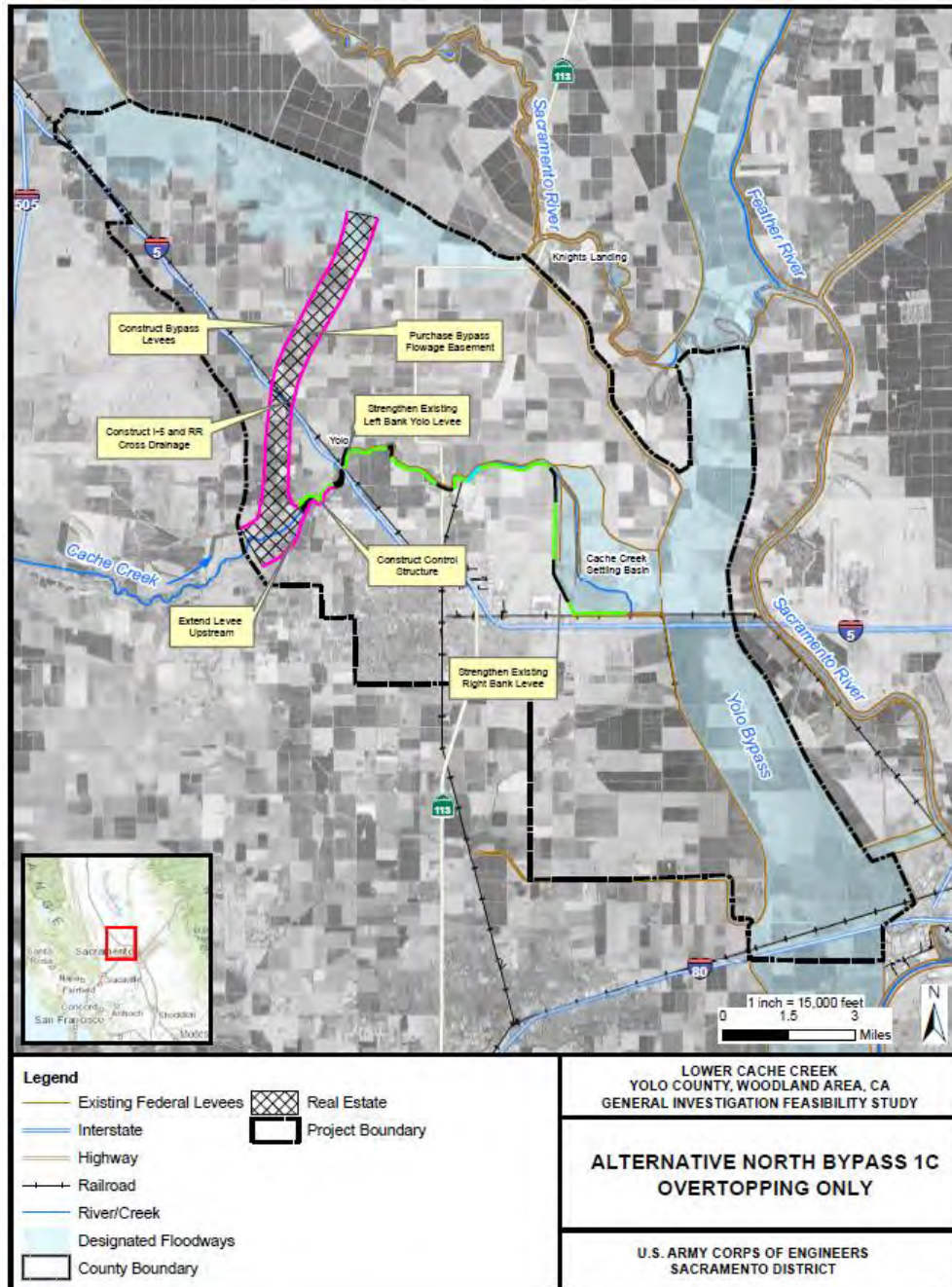


Figure 3-6. Alternative 1C: North Bypass C¹

¹ Focused array alternatives that were screened out early on in the planning process due to cost analysis did not undergo a full hydraulic analysis. This alternative was expected to provide similar benefits as 1A and 1B, but was found to have higher costs, and therefore was eliminated. This map includes designated floodways, but not floodplains.

3.4.4 Alternative 1D: North Bypass D

This alternative is similar to Alternative 1A. However, it replaces the grade control structure and a right bank levee extension upstream of I-5 with a smaller extension of the right bank, a degrading of the left bank levee upstream of I-5, a new levee segment adjacent to I-5, and no strengthening of levees on the right bank of Cache Creek downstream of I-5. A map of this alternative is shown in Figure 3-7.

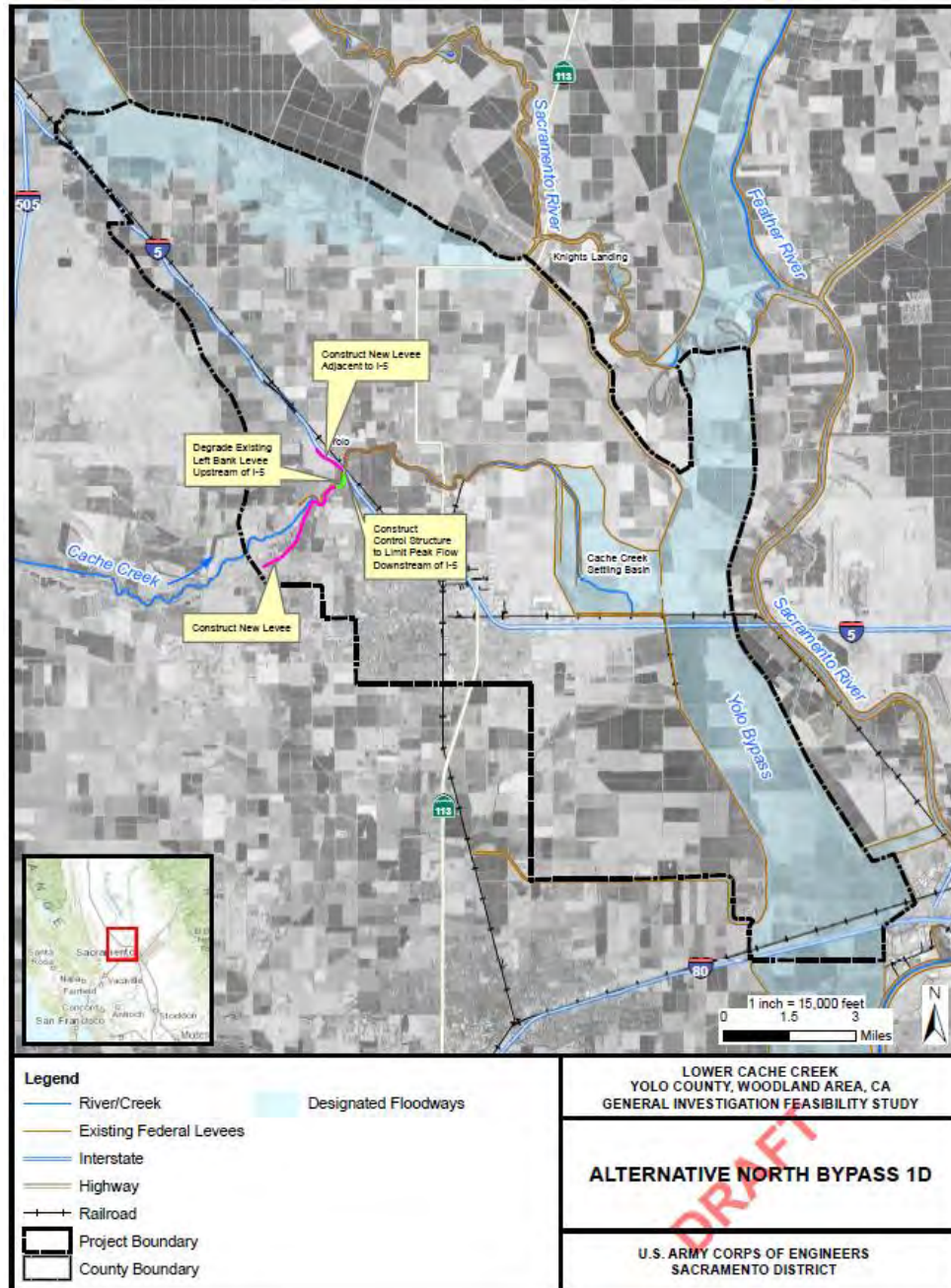


Figure 3-7. Alternative 1D: North Bypass D²

² Focused array alternatives that were screened out early on in the planning process due to cost analysis did not undergo a full hydraulic analysis. This alternative was expected to provide similar benefits as 1A and 1B, but was found to have higher costs, and therefore were eliminated. This map includes designated floodways, but not floodplains.

3.4.5 Alternative 2A: South Bypass A, or Levee and Conveyance Alternative

This alternative would consist of a levee that would direct floodwaters that would otherwise enter the urban area of the City of Woodland east towards the Cache Creek Settling basin. The floodwaters would then pass into the CCSB through a new inlet weir. The new inlet weir in the western levee of the CCSB would allow the floodwater to enter the CCSB while reducing the probability that Cache Creek floodwaters would escape the CCSB during smaller flood events. The inlet weir reduces stages west of the CCSB and is less costly than flowage easements that would have been required due to frequent flooding in the absence of the inlet weir. A portion of the floodwaters overtopping the south bank of Cache Creek would be conveyed by a channel created by the borrow area adjacent to the proposed levee. The channel would divert flows to the CCSB or to the City of Woodland pumping plant which would then discharge to the Yolo Bypass. The alternative also includes removal of a portion of a sediment training levee inside the CCSB so it does not obstruct the inlet weir. A map of this alternative is shown Figure 3-8.

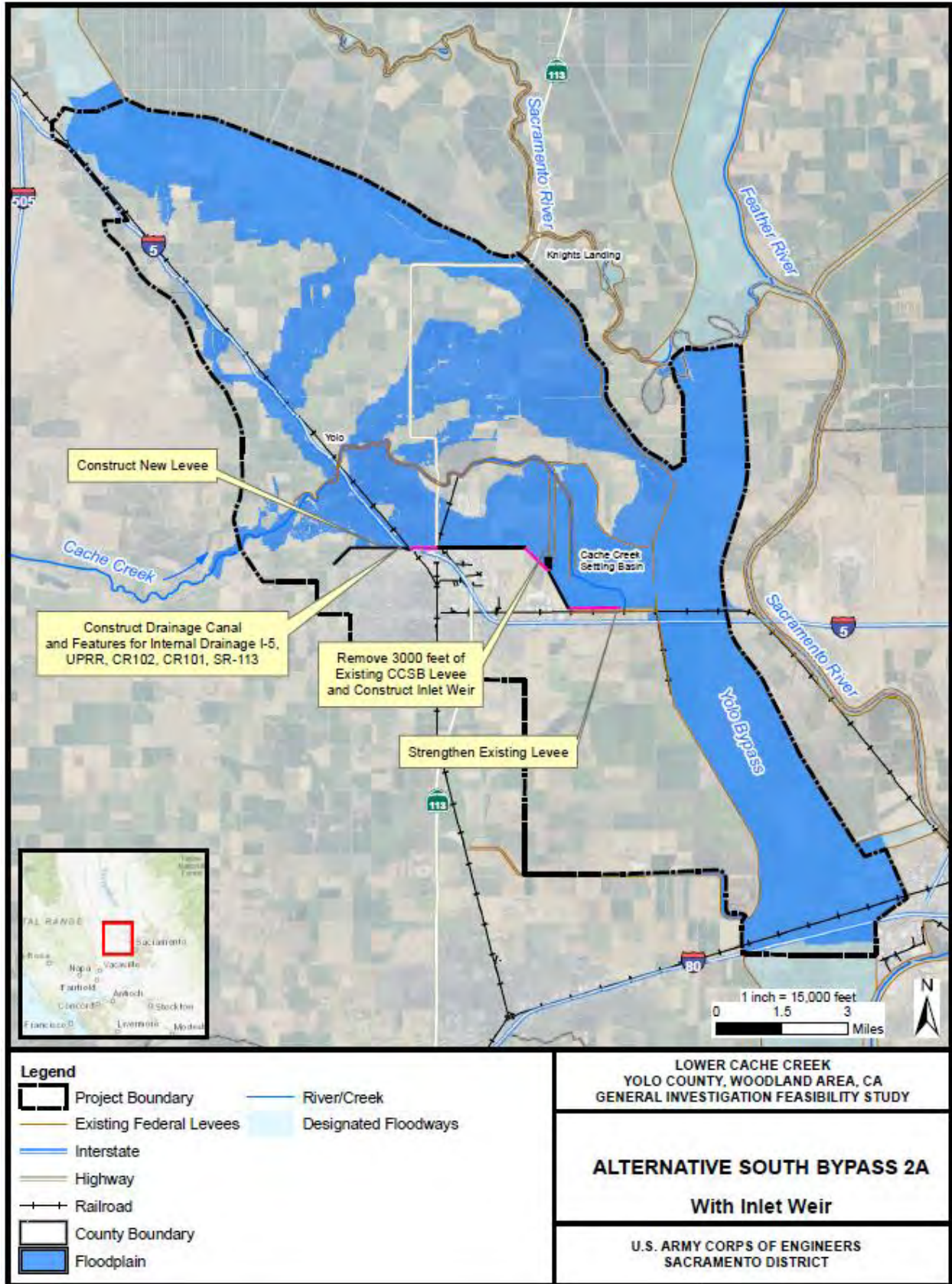


Figure 3-8. Alternative 2A: South Bypass A (Levee and Conveyance)

3.4.6 Alternative 2B: South Bypass B

This alternative would consist of a levee that would direct floodwaters that would otherwise enter the urban area of the City of Woodland east towards the Cache Creek Settling basin, similar to Alternative 2A. However, rather than constructing an inlet weir to convey the water into the CCSB, a channel would convey floodwaters to the south of the CCSB and into the Yolo Bypass. This channel would involve moving a portion of the CCSB west levee further to the east to avoid a large industrial complex. Based on additional qualitative analysis, including of real estate requirements in an industrial complex adjacent to the CCSB, this alternative was screened out of the focused array. Alternative 2C incorporates some of the proposed features of Alternative 2B. A map of this alternative is shown in Figure 3-9.

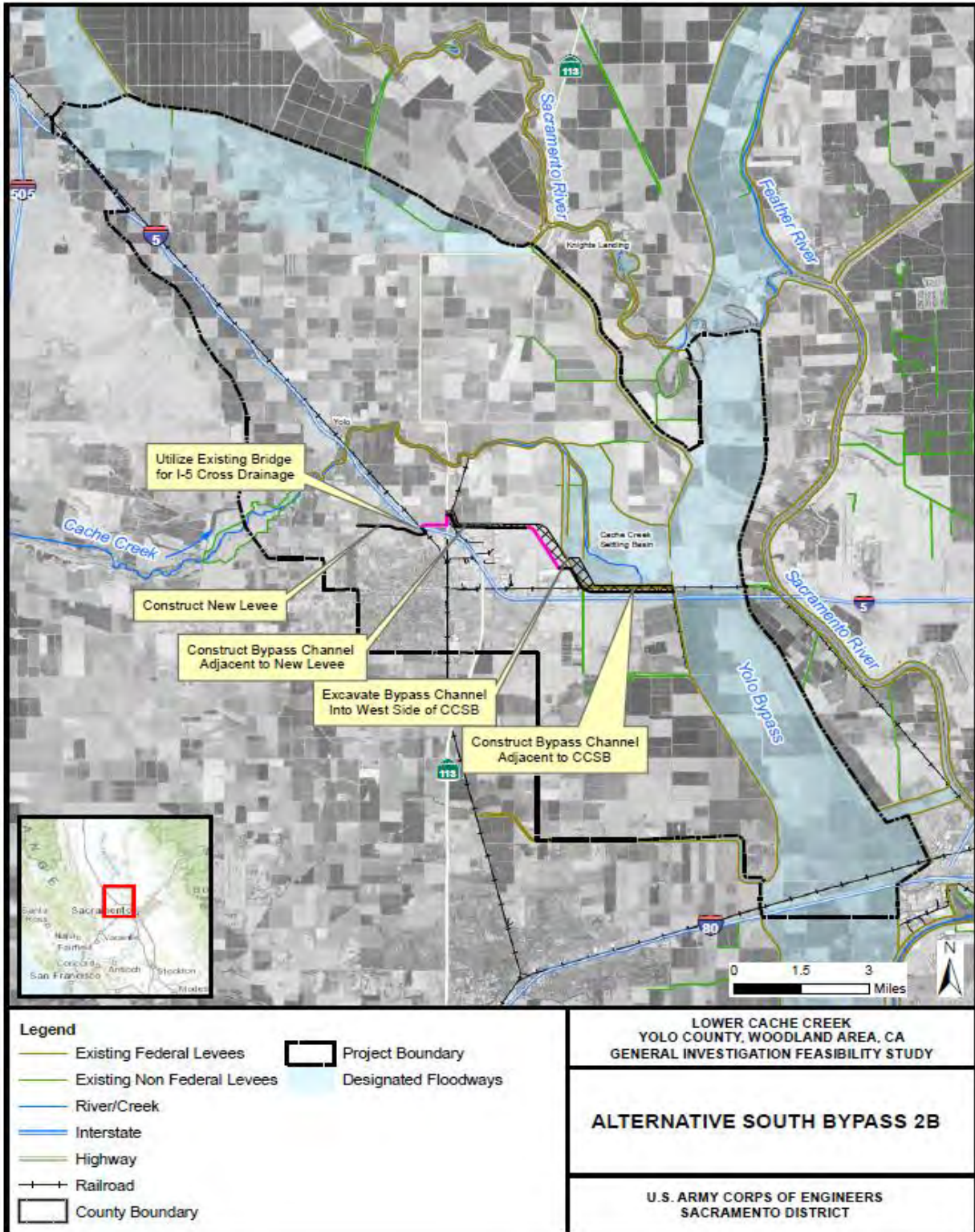


Figure 3-9. Alternative 2B: South Bypass B³

³ Focused array alternatives that were screened out early on in the planning process due to cost analysis did not undergo a full hydraulic analysis. This alternative was expected to provide similar benefits as 2A, but was found to have higher costs, and therefore was eliminated. This figure includes designated floodways, but not floodplains.

3.4.7 Alternative 2C: South Bypass C

This alternative would consist of a levee that would direct floodwaters that would otherwise enter the urban area of the City of Woodland east towards the Cache Creek Settling basin, similar to Alternative 2A and 2B, but rather than constructing an inlet weir to accommodate excess flows to the west of the CCSB, a channel would convey floodwaters to the south of the CCSB and into the Yolo Bypass. The railroad line along the south side of the CCSB would also require extensive modifications to allow for the flood conveyance channel. A map of this alternative is in Figure 3-10.

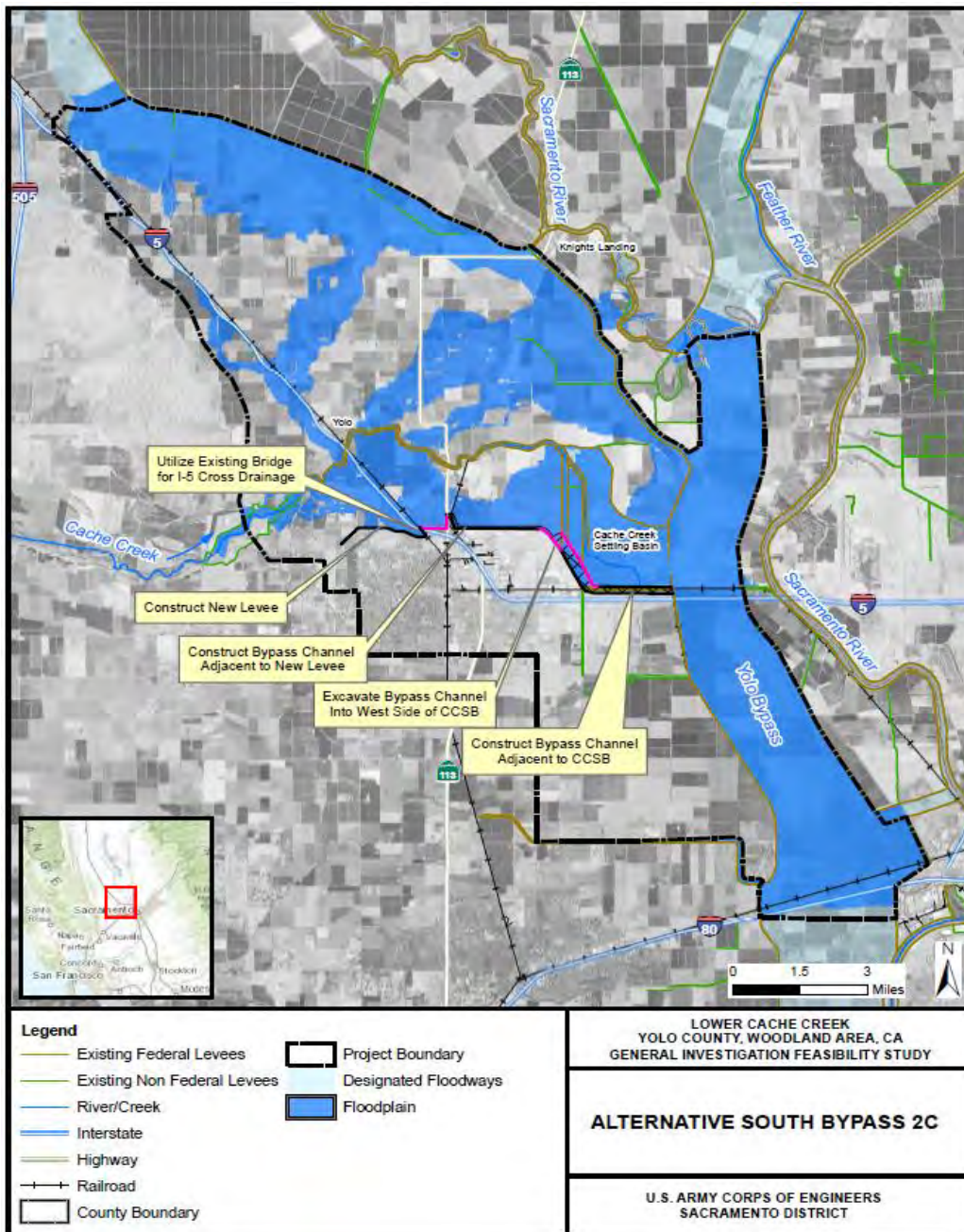


Figure 3-10. Alternative 2C: South Bypass 2

3.4.8 Alternative 2D: South Bypass D

This alternative would consist of a levee that would direct floodwaters that would otherwise enter the urban area of the City of Woodland east towards the CCSB, similar to Alternative 2C. However, it would also include strengthening the right bank levee of Cache Creek to reduce flooding north of the City of Woodland and strengthen the left bank levee of Cache Creek adjacent to the town of Yolo. This alternative includes seepage mitigation and rock bank protection along most of right bank of Cache Creek. A map of this alternative is shown in Figure 3-11.

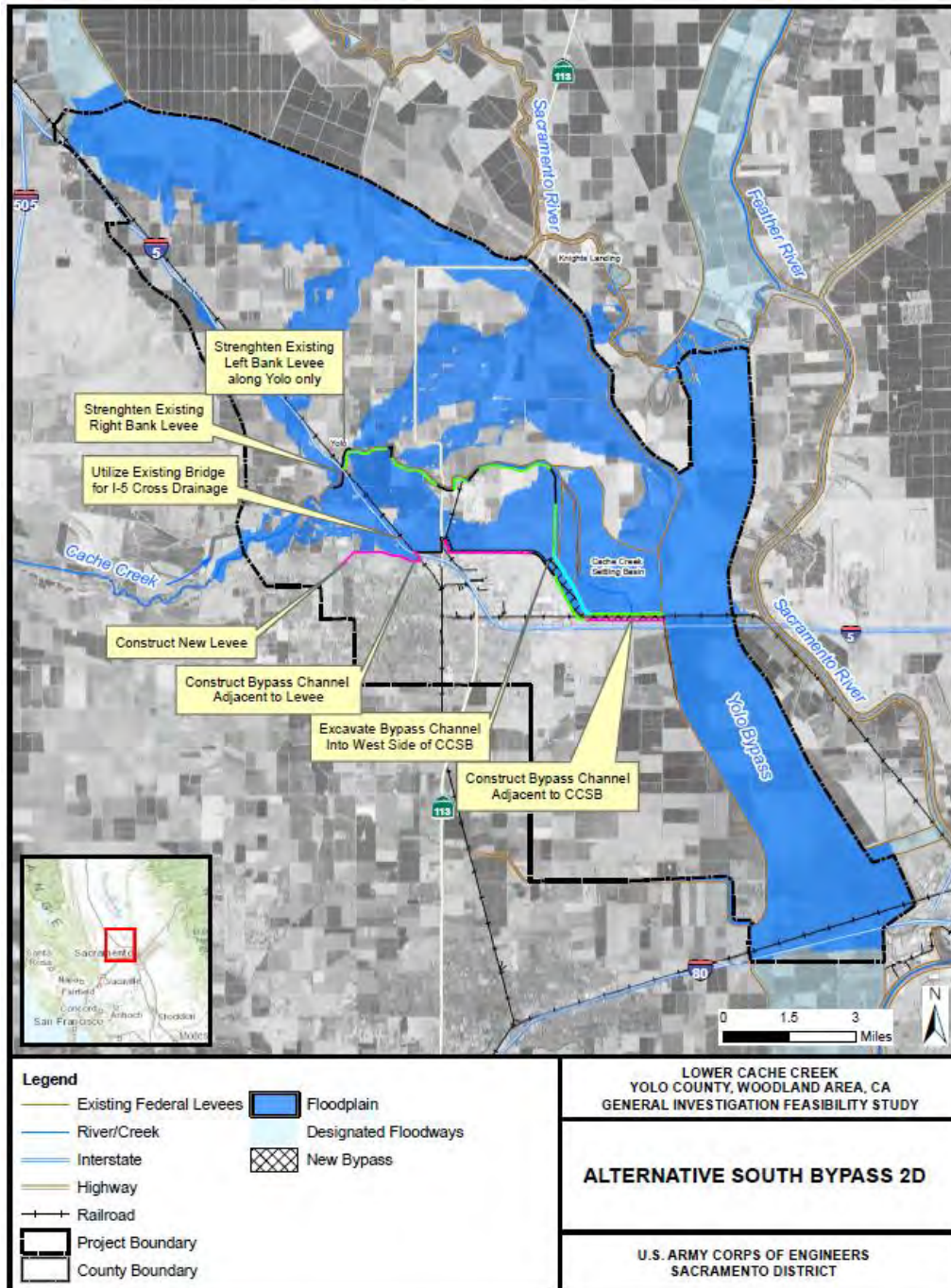


Figure 3-11. Alternative 2D: South Bypass D

3.4.9 Alternative 6A: Strengthen In Place A

This alternative would involve strengthening the right bank levee of Cache Creek. The alternative would also include strengthening the left bank levee of Cache Creek along the town of Yolo. This alternative reduces the risk of flooding associated with geotechnical related failures (e.g. through- and under-seepage). However, the hydraulic capacity (overtopping) related failure probability would remain the same. This alternative includes seepage mitigation and rock bank protection along most of its length. A map of this alternative is shown in Figure 3-12.

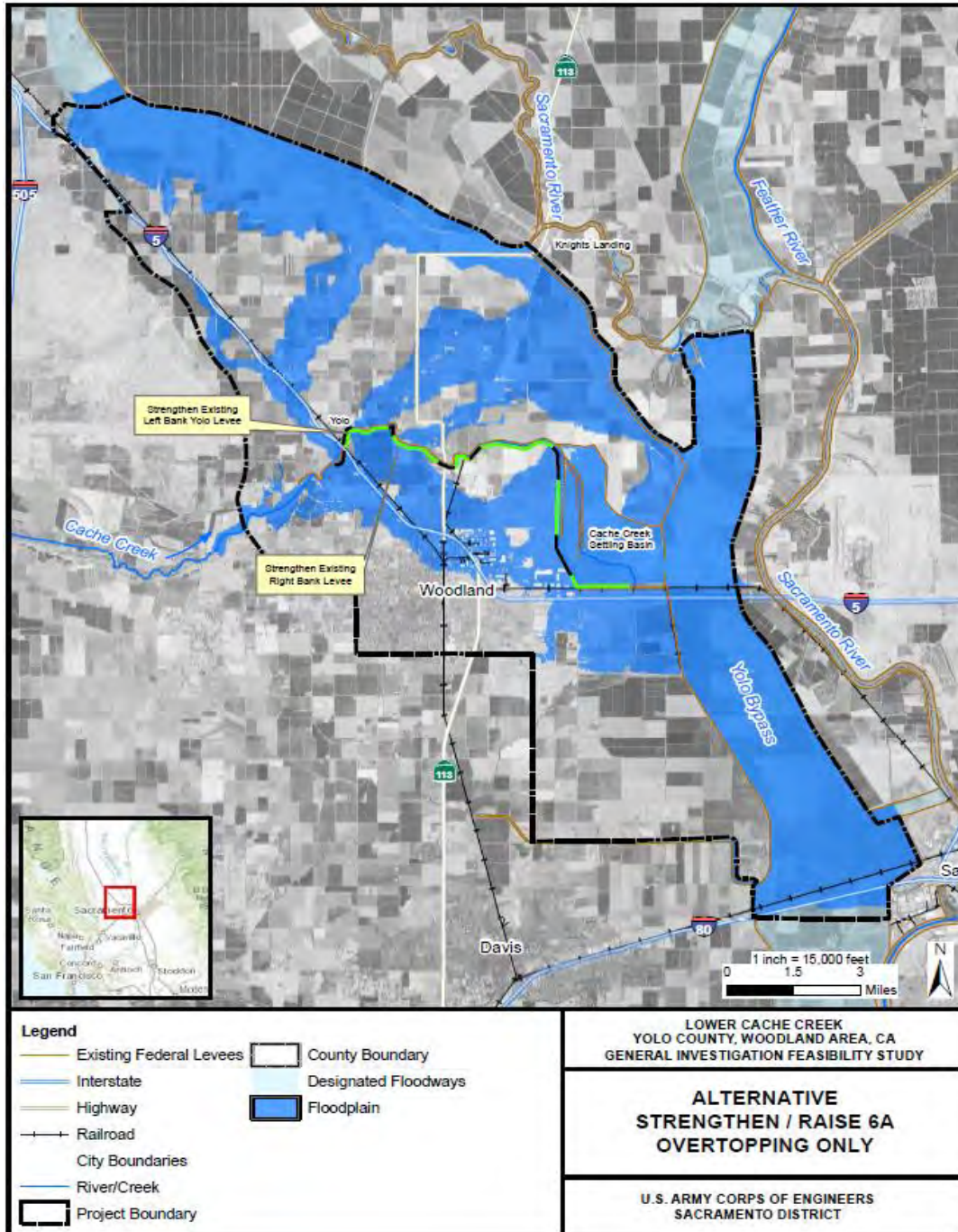


Figure 3-12. Alternative 6A: Strengthen/Raise in Place A

3.4.10 Alternative 6B: Strengthen/Raise In Place B

This alternative strengthens and increases the height of the right bank levee and the left bank levee near Yolo. Floodwaters would flow overland to the Colusa Basin Drain and Knights Landing Ridge Cut before draining into the Yolo Bypass. This alternative includes seepage mitigation and rock bank protection along most of its length. A map of this alternative is shown in Figure 3-13.

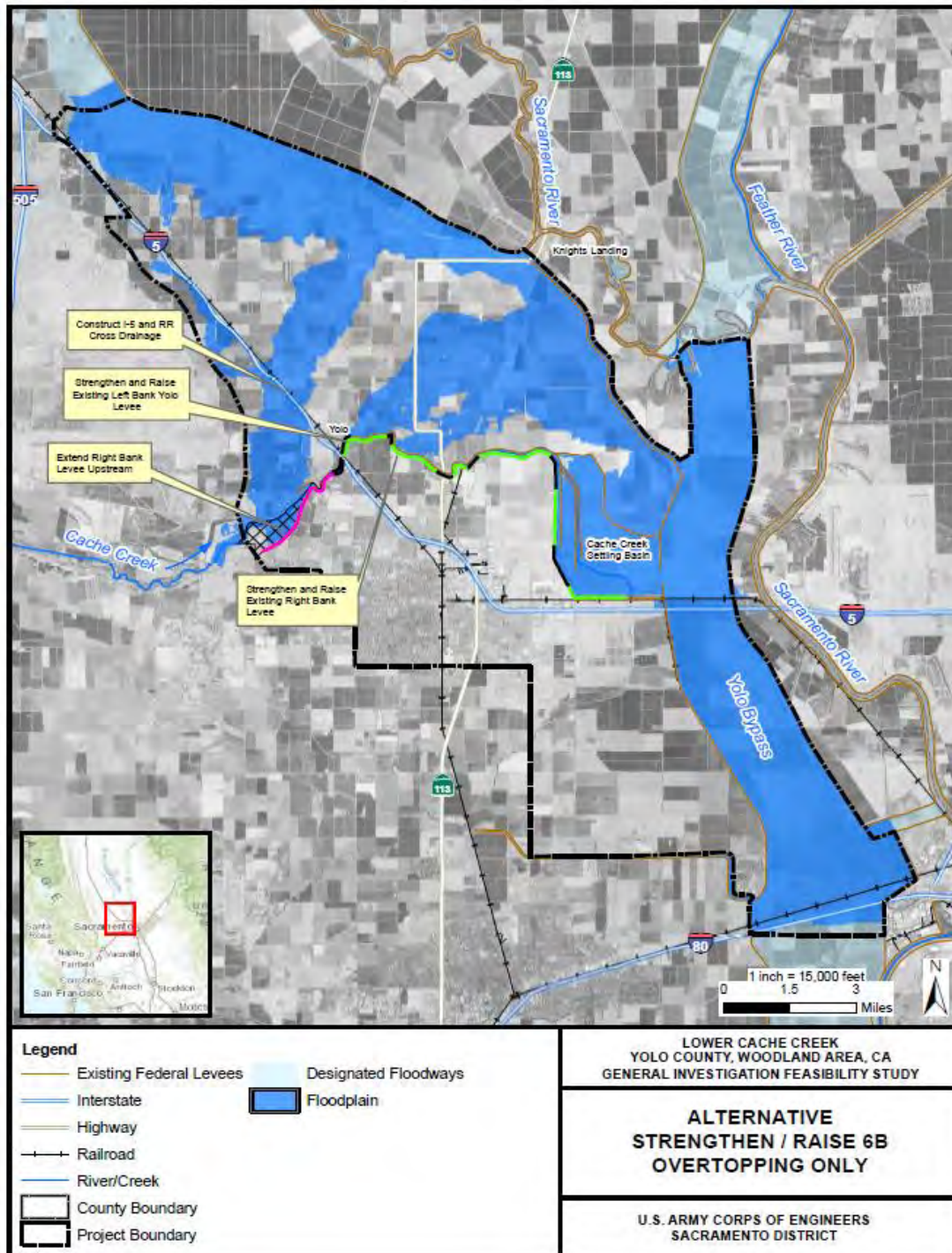


Figure 3-13. Alternative 6B: Strengthen/Raise in Place B

3.4.11 Alternative 6C: Strengthen/Raise In Place C

This alternative includes strengthening or increasing the height of existing left and right bank levees to contain flow in the existing levee alignment. The left bank levee upstream of I-5 would be removed and a new levee would be constructed adjacent to I-5, to force the floodwaters to the north where they would be conveyed across I-5 through a bank of culverts. This alternative would include seepage mitigation and rock bank protection along most of its length. A map of this alternative is shown in Figure 3-14.

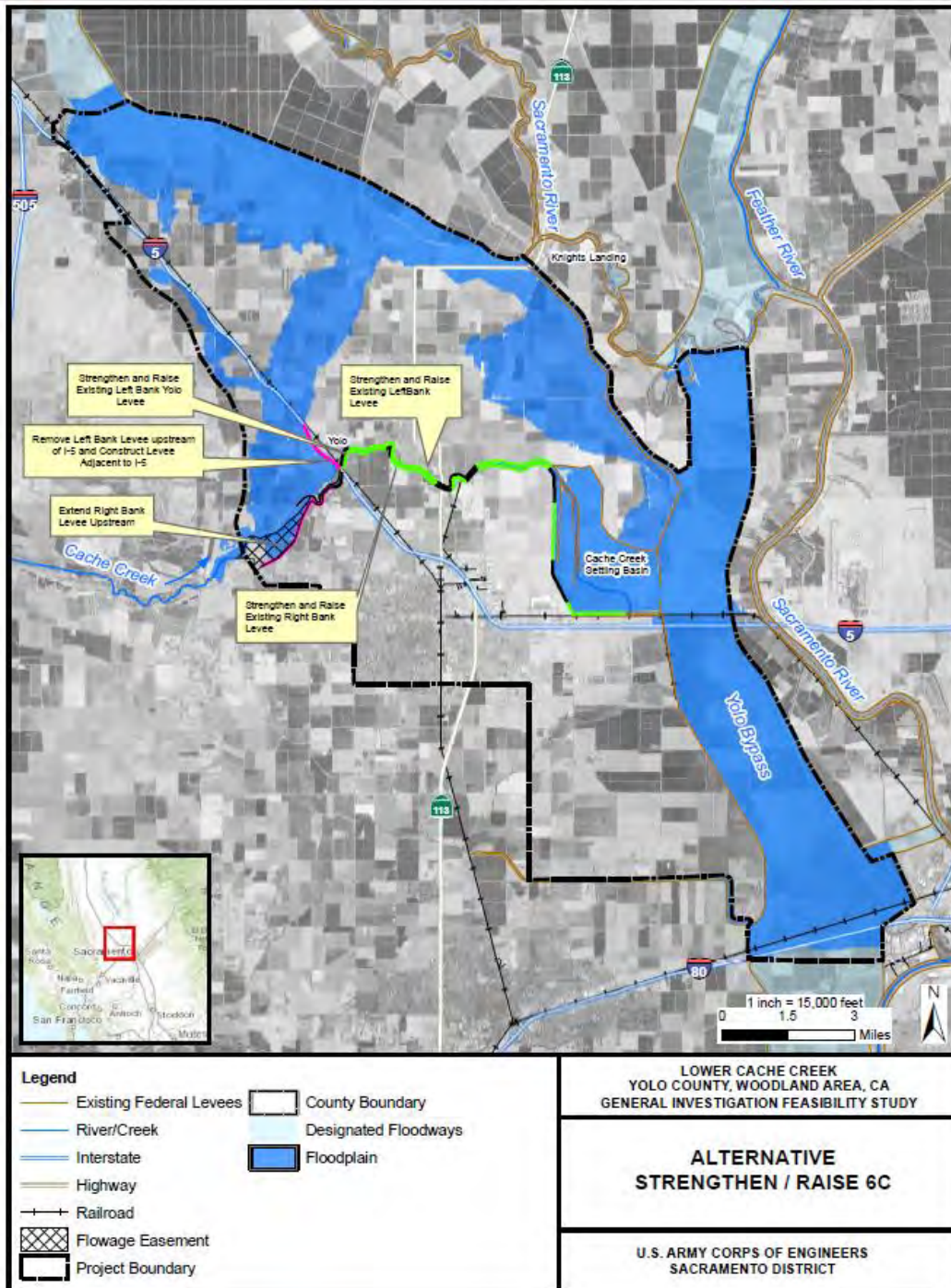


Figure 3-14. Alternative 6C: Strengthen/Raise in Place C

3.4.12 Alternative 7A: Partial Setback Levee A

This alternative would involve building levees set back from Cache Creek on the right bank to contain flow within an expanded levee system, reducing the probability of flooding in the City of Woodland. The channel dimensions for the setback levee configuration would be designed to maintain the same water surface profile as existing condition but with additional flow. The additional flow would be based on maintaining the same left bank overflow upstream of I-5 as the No Action Plan. At bridges, culverts would be included in the overbank area to eliminate constrictions. The alternative would modify the existing CCSB outlet weir into the Yolo Bypass to accommodate the increased flow. A map of this alternative is shown in Figure 3-15.

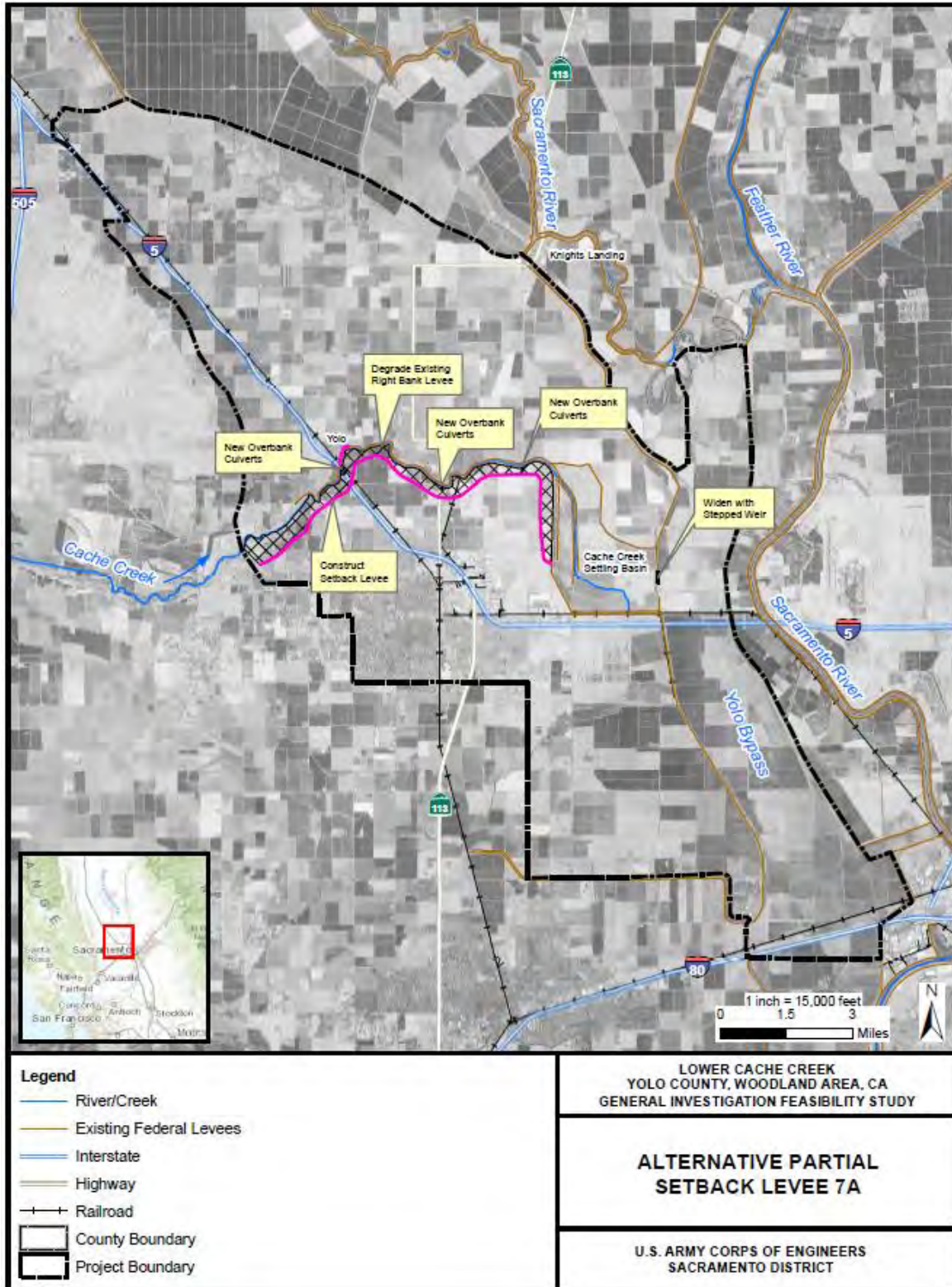


Figure 3-15. Alternative 7A: Partial Setback Levee A⁴

⁴ Focused array alternatives that were screen out early on in the planning process due to cost analysis did not undergo a full hydraulic analysis. This alternative is expected to provide similar benefits as 7B, but was found to have higher costs, and therefore eliminated as described below.

3.4.13 Alternative 7B: Partial Setback Level B

This alternative would involve building levees set back from Cache Creek on the right bank as well as culverts under I-5, UPRR and other utilities, similar to Alternative 7A. However, it also includes a bypass channel to the north of the CCSB. Measures include excavation of material to accommodate flow through the North Channel, flowage easements on inundated lands, and a new inlet weir north of the CCSB to allow flows to enter the Yolo Bypass. A map of this alternative is shown in Figure 3-16.

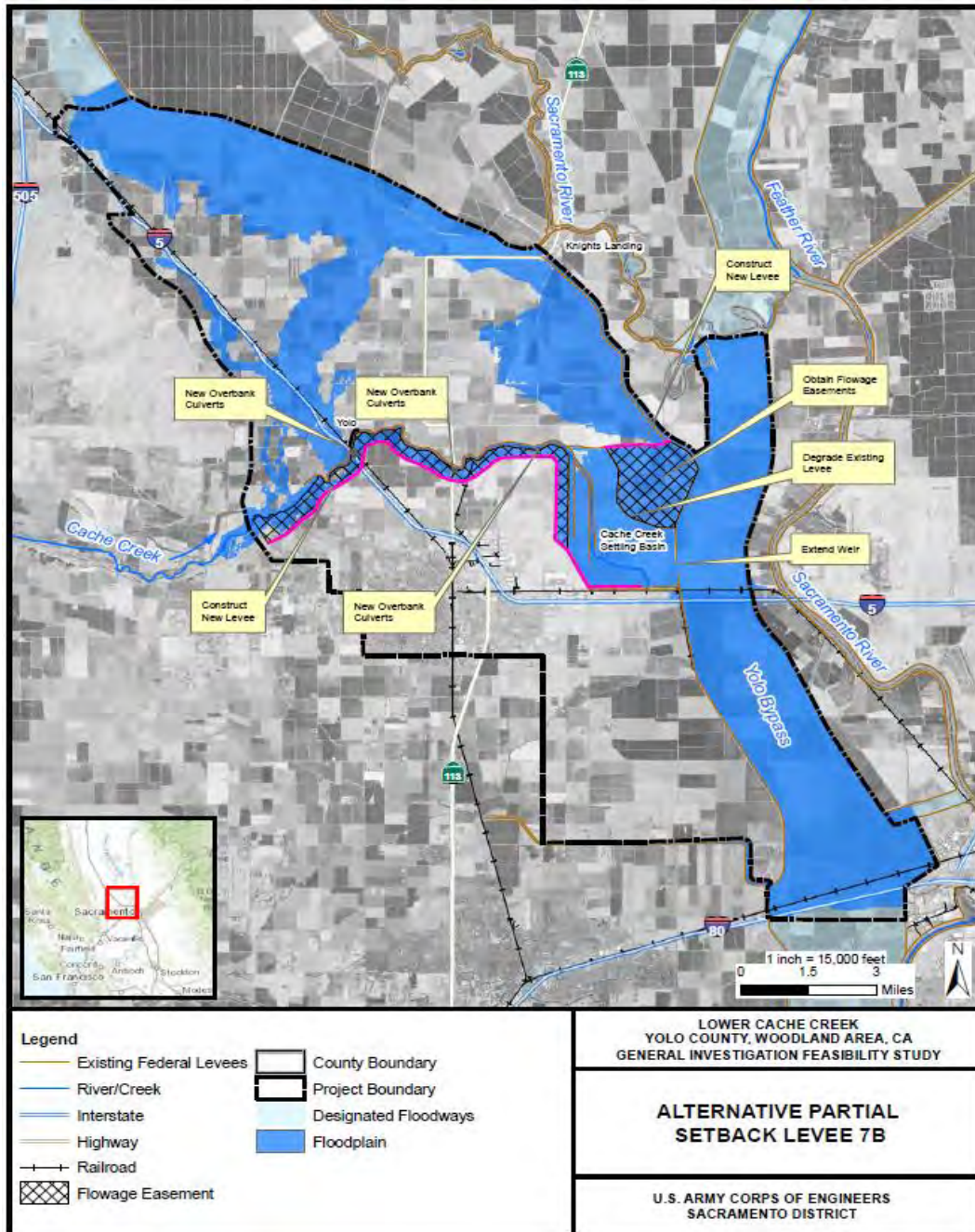


Figure 3-16. Alternative 7B: Partial Setback Level B

Town of Yolo

The PDT considered several configurations of FRM measures to reduce flood risk in the town of Yolo. Alternatives 1A-D, 2D, and 6A-C incorporate various configurations of these measures. The one potentially feasible plan involves strengthening the existing Cache Creek levee adjacent to the town of Yolo and relies on the existing I-5 embankment to prevent overland flood flows from entering the town from the west. There is a high degree of uncertainty related to the performance of the existing embankment that could impact the feasibility of the Yolo approach. The envisioned strengthening of the levee adjacent to the town of Yolo would have no significant impact on depths against the I-5 embankment.

FRM measures for the town of Yolo would constitute a separable element: they are not hydraulically linked to FRM measures for the City of Woodland and one can be implemented independent of the other. The benefits and costs are independent of an intervention in Yolo and the TSP focused on the City of Woodland. The PDT will evaluate the potential plan in greater detail following ADM and consider other USACE authorities that could potentially support design and construction, including the Continuing Authorities Program (CAP). Additionally, Yolo County is preparing a feasibility study independent of this report that proposes FRM measures for the town of Yolo as described in Chapter 1 of this report. This effort will inform future USACE analysis.

3.5 Evaluation and Comparison of Alternatives

The following paragraphs and tables present the evaluation and comparison of alternatives and the analysis process to identify the NED plan.

The PDT evaluated each of the alternatives in the focused array based the following criteria: Flood Risk to Property, Flood Risk to Critical Infrastructure, Life Safety, Wise Use of Floodplains, Environmental Impacts, Climate Change, and Net Economic Benefits. While other factors such as RED OSE have been considered, they were not used in the evaluation of the Focused Array. The following paragraphs describe how each criterion applied to the screening process.

3.5.1 Life Safety

Life safety risk related to flooding was considered but not estimated for each alternative. Given the expected flood warning times, shallow flood depths in developed areas, and small population at risk, the life loss from flooding in this area is fairly small and is not expected to be significantly different between alternatives.

As the Lower Cache Creek study is a FRM study seeking to reduce flood risk along the Lower Cache Creek, the recommended alternative is a structural measure that can potentially induce two types of impacts that may affect life risk: 1) possible increased development that may lead to an increased population subjected to flood risk and 2) transform the current condition of a relatively slow and steady rise of flood risk to a potentially more severe and immediate flood risk associated with a failure of the new levee. It is the study team's determination that the tentatively selected plan will lower the overall life-safety risk for the Lower Cache Creek Study Area as compared to the without project condition. Even though the consequences of with-project failure may be higher as compared to the without project condition, the probability of a with-project failure is very low. To ensure compliance with Planning Bulletin, PB 2019-04, life safety may be considered further in post Agency Decision Milestone (ADM) efforts.

3.5.2 Flood Risk to Property

Flood risk to property represents the risk within the study area after construction of an alternative. The risk to property is a consideration in the development for the residual Expected Annual Damages for the No Action and alternative conditions. Flood risk to property did not vary significantly across action alternatives (with the exception of Alternative 6A, which implies higher residual risk). The estimation of economic benefits below captures the value associated with flood risk to property.

3.5.3 Flood Risk to Critical Infrastructure

Critical infrastructure facilities are assets essential for the functioning of society and the economy. For each alternative, the risk to critical infrastructure was described by comparing the number of critical infrastructure facilities within an economic impact area to the expected AEP within the economic impact area. Critical infrastructure for the Lower Cache Creek study is divided into two categories: life safety and regional economic infrastructure. Most of the critical infrastructure assets are located in Economic Impact Area S8, and regional economic infrastructure is concentrated in Economic Impact Areas S8 and S9 (Figure 3-17.).

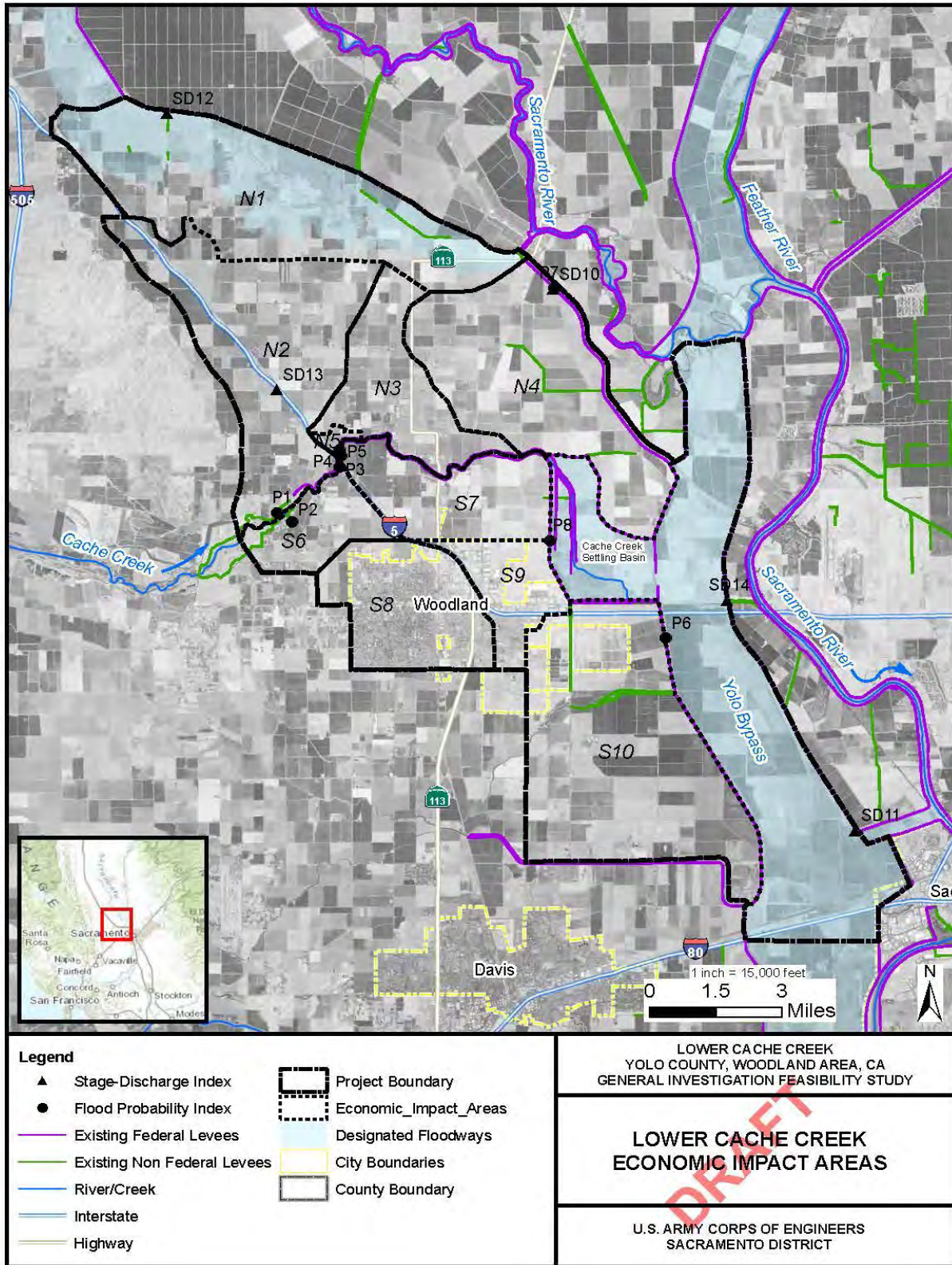


Figure 3-17. Economic Impact Areas Map

3.5.4 Wise Use of Floodplains and EO 11988 Analysis

Compliance with Executive Order 11988 and the wise use of floodplains were considered throughout the plan formulation process but not used as a screening criteria for the focused array. The objective of this Executive Order (EO) is the avoidance, to the extent possible, of long-and short-term adverse effects associated with the occupancy and modification of the base floodplain (1 in 100 annual event) and the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative. Under the Order, USACE is required to provide leadership and take action to:

- a) Avoid development in the base flood plain unless it is the only practicable alternative;
- b) Reduce the hazard and risk associated with floods;
- c) Minimize the impact of floods on human safety, health and welfare; and
- d) Restore and preserve the natural and beneficial values of the base flood plain.

The developable (i.e. not yet built or zoned for residential or industrial use) acres of floodplain for each alternative were included in this evaluation. All alternatives in the focused array comply with the provisions of EO 11988. The criteria and associated eight-step process are described in more detail for the Tentatively Selected Plan (see Chapter 4).

3.5.5 Environmental Impacts

The estimated environmental mitigation costs developed for each alternative provide a comparison of the environmental impacts of each alternative. Higher environmental mitigation costs indicate greater environmental impacts.

3.5.6 Climate Change

Interpretations of observed and projected climate-altered hydrology indicate that future conditions will likely be warmer and possibly wetter in the Sacramento River Watershed of which Cache Creek is a major tributary. This means that the area could be subject to larger flood events because of the increase in moisture content of the storms impacting the region. Additionally, droughts could be more severe and longer lasting and this could increase frequency of large wildfires in the watershed thereby causing additional increases in runoff from burn scars. These factors are anticipated to impact all plans in the focused array to a similar degree, and thus do not impact plan selection. Additional information on climate change is available in Appendix A: Hydrology.

3.5.7 Net Economic Benefits

Net economic benefits were estimated for each alternative to describe the performance relative to the NED objective. The Lower Cache Creek Feasibility Study is a single purpose, FRM study. NED is the scale of a flood damage reduction alternative that reasonably maximizes expected net benefits (expected benefits less expected costs). The net benefits are computed as the annualized flood damage reduction benefits gained minus the annualized cost of construction and Operations Maintenance Repair Rehabilitation and Replacement (OMRR&R). Expected Annual Damages were estimated using the HEC-FDA computer program. Net Benefit computations were evaluated based on October 2019 price levels. The annualized cost was derived using a 50-year period of analysis at a rate of 2.875%.

Table 3-4 provides a summary of the costs, benefits, net benefits (benefits minus costs), and benefit to cost ratios (BCRs) for comparison of alternatives. The preliminary annual net benefits range from -\$44.8 million (that is, costs exceed benefits -\$44.8 million on an annual basis) to \$9.6 million (that is, benefits exceed costs by \$9.6 million on an annual basis). Based on this

comparison, Alternative 2A is shown to be the alternative which maximizes net benefits and is therefore carried forward for further analysis. It is highlighted in green in the table below along with the No Action Plan.

Table 3-4. Benefit-Cost Summary (monetary units in October 2019 \$1,000s)

Alternative	Annual Benefits	Estimated Project First Costs	Annual Costs	Net Benefits	BCR	Carried Forward?	Notes
No Action							
No Action	\$ -	\$ -	\$ -	\$ -	-	Yes	Damages continue to accrue, no benefits area realized.
Alternative 1: North Bypass Sub-Alternatives							
1A	\$19,511	\$560,892	\$21,285	-\$1,774	0.9	No	All increments of the North Bypass were eliminated from further consideration, as the other alternatives reduce risk for a similar amount of property—and thus yield similar benefits—though at a substantially lower cost. All increments imply significant construction costs, and Alternatives 1B and 1C add significant flowage easements.
1B	\$19,511	\$727,497	\$27,607	-\$8,096	0.7	No	
1C	\$19,638	\$751,006	\$28,499	-\$8,861	0.7	No	
1D	Same as 1A	Greater than 1A	Greater than 1A	Less than 1A	Less than 1A	No	
Alternative 2: South Bypass Sub-Alternatives							
2A	\$17,848	\$216,625	\$8,221	\$9,627	2.2	Yes	This alternative reduces risk for a similar value of damageable property as the North Bypass, Strengthen in Place, or Setback Levee Alternatives, but does so with fewer miles of levee and/or a

Alternative	Annual Benefits	Estimated Project First Costs	Annual Costs	Net Benefits	BCR	Carried Forward?	Notes
							reduction in environmental mitigation. It provides a similar level of benefits to other alternatives, but at a lower cost.
2B	Lower than 2C	Similar to 2C	Similar to 2C	Less than 2C	Less than 2C	No	This alternative includes the construction of a bypass to the south of the CCSB. It would entail significant real estate costs and lower benefits (several structures in the highest damage area would be acquired to make way for civil works and thus no benefits would be generated by protected them). Given the high costs and lower benefits, detailed costs and benefits were not estimated. Some measures incorporated into 2C.
2C	\$17,848	\$550,129	\$20,876	-\$3,028	0.9	No	Not economically justified. Benefits very similar to the benefits of Alternative 2A, but at a higher cost.
2D	\$19,031	\$745,910	\$28,306	-\$9,275	0.7	No	Right bank strengthening in place of existing levee not economically justified (costs exceed benefits).
Alternative 6: Strengthen In Place Sub-Alternatives							
6A	\$5,108	\$226,171	\$8,583	-\$3,475	0.6	No	Does not address overtopping and thus generates lower benefits than all other action alternatives.
6B	\$19,511	\$355,428	\$13,488	\$6,023	1.4	No	Includes significant environmental mitigation costs. Delivers slightly higher benefits than Alternative 2A but at nearly double the cost (net

Alternative	Annual Benefits	Estimated Project First Costs	Annual Costs	Net Benefits	BCR	Carried Forward?	Notes
							benefits less than approximately half-of 2A).
6C	\$19,608	\$1,694,650	\$64,309	-\$44,700	0.3	No	Plan would deliver the highest new benefits of those considered, but carried the highest cost. Includes significant environmental mitigation costs. Left bank raise not economically justified. Net benefits are negative (i.e., annualized costs exceed net benefits).
Alternative 7: Setback Levee Sub-Alternatives							
7A	\$19,511	\$1,694,650	\$64,309	-\$44,798	0.3	No	Includes significant costs for TMDL mitigation associated with CCSB and flowage easements between setback levees and Cache Creek. Generates similar benefits to Alternative 2A at markedly higher cost.
7B	\$19,511	\$521,579	\$19,793	-\$282	1.0	No	Includes costs for TMDL mitigation associated with CCSB and extensive flowage easements between setback levees and Cache Creek, and northeast of CCSB. Generates similar benefits to Alternative 2A at higher cost.

¹ Benefits and Costs shown in table are preliminary estimates from early iteration of the planning process. Information provided is used for alternatives comparison purposes only. Relevant information on updated costs and benefits for plans carried forward are shown in the Executive Summary and subsequent chapters.

Table 3-4 shows that most action alternatives, except Alternative 6A, would deliver a similar level of benefits—that is, each alternative is expected to reduce flood damages to a comparable total value of damageable property. Alternative 6A is expected to deliver significantly lower benefits. However, the costs varied significantly across alternatives.

Given that most plans deliver a similar level of benefits, cost became the primary driver in identifying the NED plan. Many plans were screened out as they provided a similar level of benefits but at a higher cost.

Alternative 2A has the highest net benefits of the alternatives in the focused array, with approximately \$9.6 million in annual net benefits and a BCR of 2.2. The PDT conducted an analysis of several smaller, lower cost increments of Alternative 2A, as described in detail in the Appendix F: Economics. This exercise indicated that smaller increments of Alternative 2A yield lower net benefits than the full Alternative 2A. Alternative 2A thus maximizes net benefits.

3.6 The Tentatively Selected Plan

The Tentatively Selected Plan is Alternative 2A. It consists of constructing a new levee that would prevent floodwaters from Lower Cache Creek from entering the built-up areas of the City of Woodland as well as improving existing CCSB levees. This plan would reduce the flood flows that drive the risk of economic damages, as well as decrease the flooding of roadways that creates a hazard for motorists, cuts residents off from essential services, and ultimately generates a risk to human life and safety.

It is unclear at this point in the planning process if Alternative 2A will meet the NFS objective of SB 5 compliance. However, the NFS elected not to pursue a Locally Preferred Plan (LPP) and will continue to work with the USACE and CVFPB if additional local actions are required to meet SB 5 once the project is better defined during PED phase.

Chapter 4 – Tentatively Selected Plan

This chapter describes the TSP as well as procedures and cost sharing required for implementation of the plan if it becomes the plan recommended to, and authorized by, Congress. A schedule and a list of further studies are also included.

4.1 Tentatively Selected Plan

The TSP is Alternative 2A (Figure 4-1). The features of the plan as described below were further refined from the cost and benefit estimation used in the focused array (described in Chapter 3 of this report). It is economically justified, has a benefit to cost ratio of 2.1, and provides annual flood damage reduction benefits of \$20,657,000, as shown in Table 4-1. Estimated Annual Costs and Benefits for the Tentatively Selected Plan Table 4-1. There is a residual risk of flooding north of the City of Woodland that the TSP would not reduce.

Table 4-1. Estimated Annual Costs and Benefits for the Tentatively Selected Plan

Item	Cost (\$1000's) ¹
Investment Costs:	
First Cost ²	258,861
Interest During Construction	7,151
Total Project Investment Cost	266,012
Annual Costs:	
Annualized First Cost	9,853
Annual OMRR&R	180
Total Average Annual Cost	10,033
Average Annual Benefits	20,657
Net Benefits	10,623
Benefit to Cost Ratio	2.1

¹ Costs are October 2019 price levels at 2.75%, for a 50-year period of analysis.

² Does not include cultural resources data recovery.

The TSP is described in detail below, including the specific cost share requirements associated with approved policy. For additional information, refer to the appendices and supporting documentation.

4.2 Features and Accomplishments

Alternative 2A consists, overall, of improving existing levees and constructing a new levee north of the City of Woodland in order to prevent floodwaters emanating from Lower Cache Creek from

reaching the built up portion of the City of Woodland. Proposed project features include levee embankment, seepage berms, drainage channel; cutoff walls; weir, and closure structures across roads and railways. Figure 4-1 shows the proposed project features. Possible design refinements could incorporate sponsor-built recreational features that are compatible with the FRM facilities.

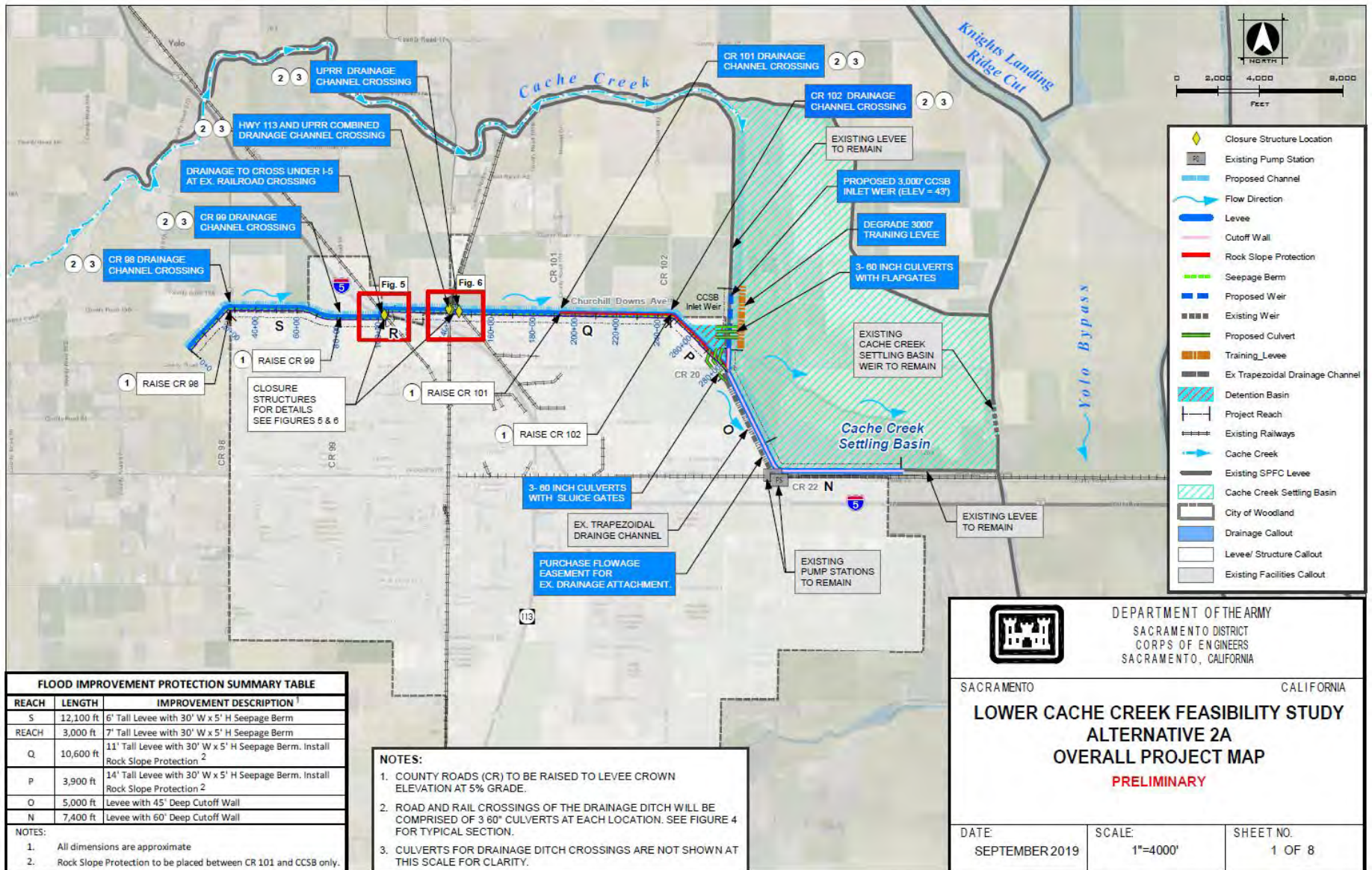


Figure 4-1. Tentatively Selected Plan and Design Features

Alternative 2A would rehabilitate a portion of the southern levee (Reach N) of the CCSB by constructing a 60-foot-deep cutoff wall through the levee (Figure 4-2) and the southwest levee (Reach O) of the CCSB by constructing a 45-foot-deep cutoff wall. Along with this cutoff wall installation, a 3,000-foot-long section of the west levee of the settling basin would be degraded to an elevation of 43 feet to accommodate a reinforced cement concrete (RCC) weir with a height of approximately nine feet above existing adjacent grade (Figure 4-3). The weir would serve to accept floodwater emanating from Cache Creek west of the CCSB and would prevent backflow from the CCSB to the west during smaller, more frequent flood events. Additionally, the southernmost 3,000-foot portion of the CCSB training levee would be degraded in order to improve the distribution of sediment within the basin. The existing outlet weir on the east side of the CCSB would remain unchanged. Please note that all elevations are given in the North American Vertical Datum of 1988 (NAVD 88).

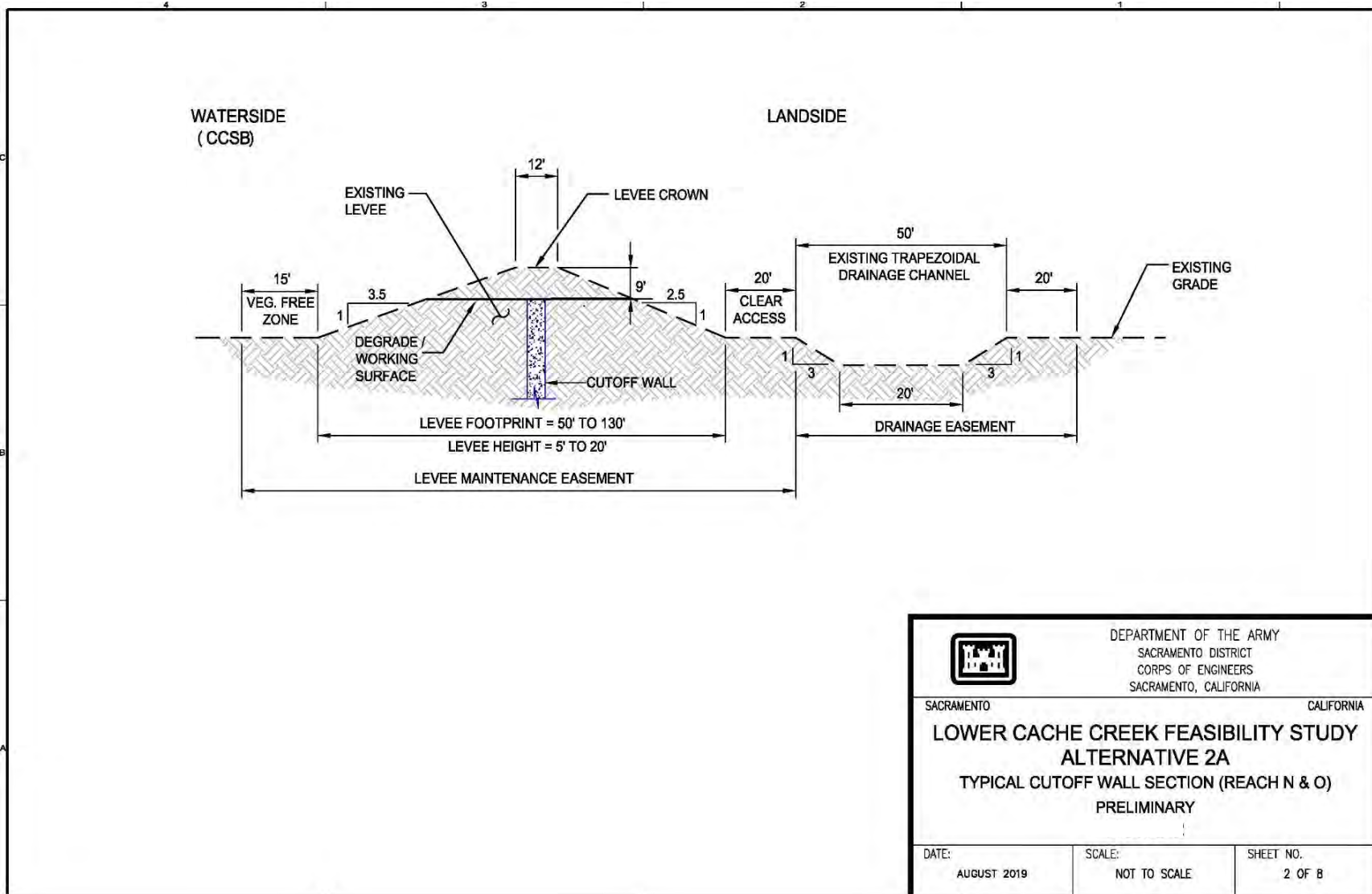


Figure 4-2. Typical Cutoff Wall Section (Reaches N & O)

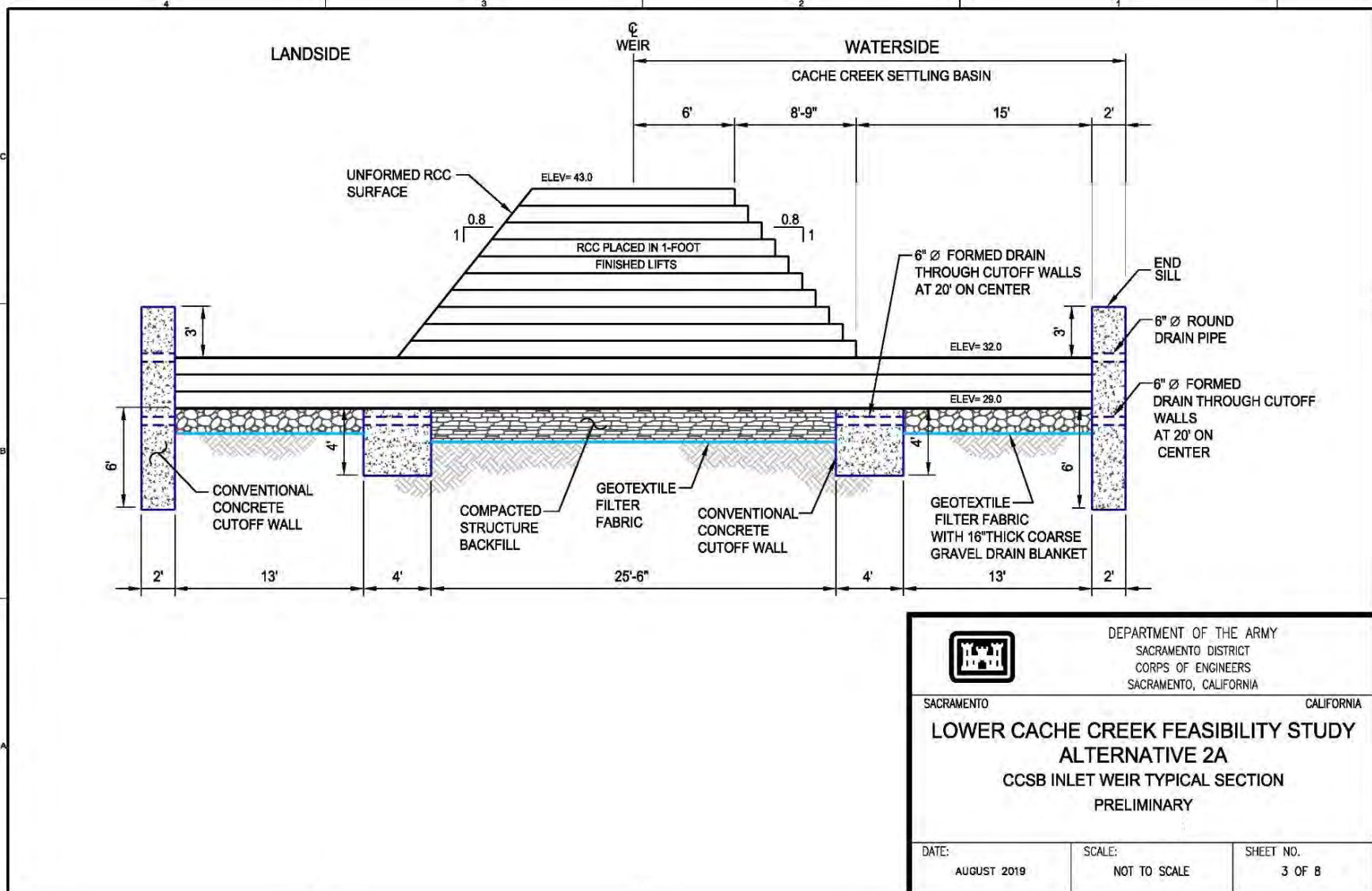


Figure 4-3. CCSB Inlet Weir Typical Section

New Levees and Other Proposed Project Features

A new levee with a 20-foot-wide crest and a 30-foot-wide landside seepage berm would begin near the intersection of County Road 20 and County Road 98 and extend east to the CCSB (Figure 4-4). The alignment of the levee would generally follow the northern city limit line west of State Route 113 (SR 113) and Churchill Downs Avenue east of SR 113. The height of the new levee would vary from six feet near County Road 98 to 14 feet at its intersection with the existing west levee of the CCSB. Rock slope protection is proposed on the waterside slope of the new levee from County Road 101 east to the southern end of the proposed inlet weir near County Road 20.

A trapezoidal drainage channel with a design capacity of approximately 350 cfs would be constructed north (waterward) of the new levee in Reaches P through S in order to capture smaller, more frequent events and discharge them to the CCSB, and also to provide the necessary fill material for the project. This drainage channel may vary in width during subsequent design phases in order to balance earthwork for the project.

A total of four closure structures (gates that are assembled by O&M personnel prior to the flood) would be constructed where the embankment crosses the UPRR tracks near I-5, the UPRR tracks west of SR 113, SR 113, and the UPRR tracks east of SR 113. Due to the limited distance between the closure structures, short sections of floodwall would be constructed to connect the closure structure at the I-5 crossing to the existing roadway embankment and to connect the closure structures at the SR 113 crossing and the adjacent UPRR crossing to the west.

Internal Drainage

Water impounded by the proposed levee and the west levee of the CCSB would be drained via proposed culverts into the CCSB and to the City's interior drainage system. A detention basin would be located at the downstream end of the proposed drainage channel along Reach P. The detention basin would include an east outlet and a south outlet. The east outlet would provide for gravity drainage into the CCSB and consist of three 60-inch diameter culverts fitted with flap gates. This would allow gravity flow from the detention basin into the CCSB after stages subside below the weir elevation, with reverse flow from the CCSB into the detention basin being prevented by the flap gates. The south outlet would consist of a set of three 60-inch diameter culverts fitted with sluice gates. The culverts would discharge to an existing ditch that terminates at a pump station owned and operated by the City. The sluice gates would control the discharge flow to the pump station until capacity was available to discharge the flows to the Yolo Bypass. The design and operation of these systems has not been fully developed yet and will be optimized during later phases of the project.

Roadway Improvements

The new levee would require the raising of County Road 98, County Road 99, County Road 101, and County Road 102. Culverts would be installed at each of these raised crossings as well as under SR 113 and the two UPRR crossings along the alignment. An existing railroad underpass at I-5 would be used to convey flood waters under the interstate. In order to prevent erosion due to high velocities in this area, those portions of the area found to have velocities of over five feet per second (fps) would be lined with concrete. This protection would be installed across the entire project footprint area where flood flows velocities exceed the five fps limit. This area includes the existing slopes of the I-5 roadway embankment, the slopes of the proposed Reach R and Reach S levees, the proposed channel (both bottom and slope), and the existing UPRR railway.

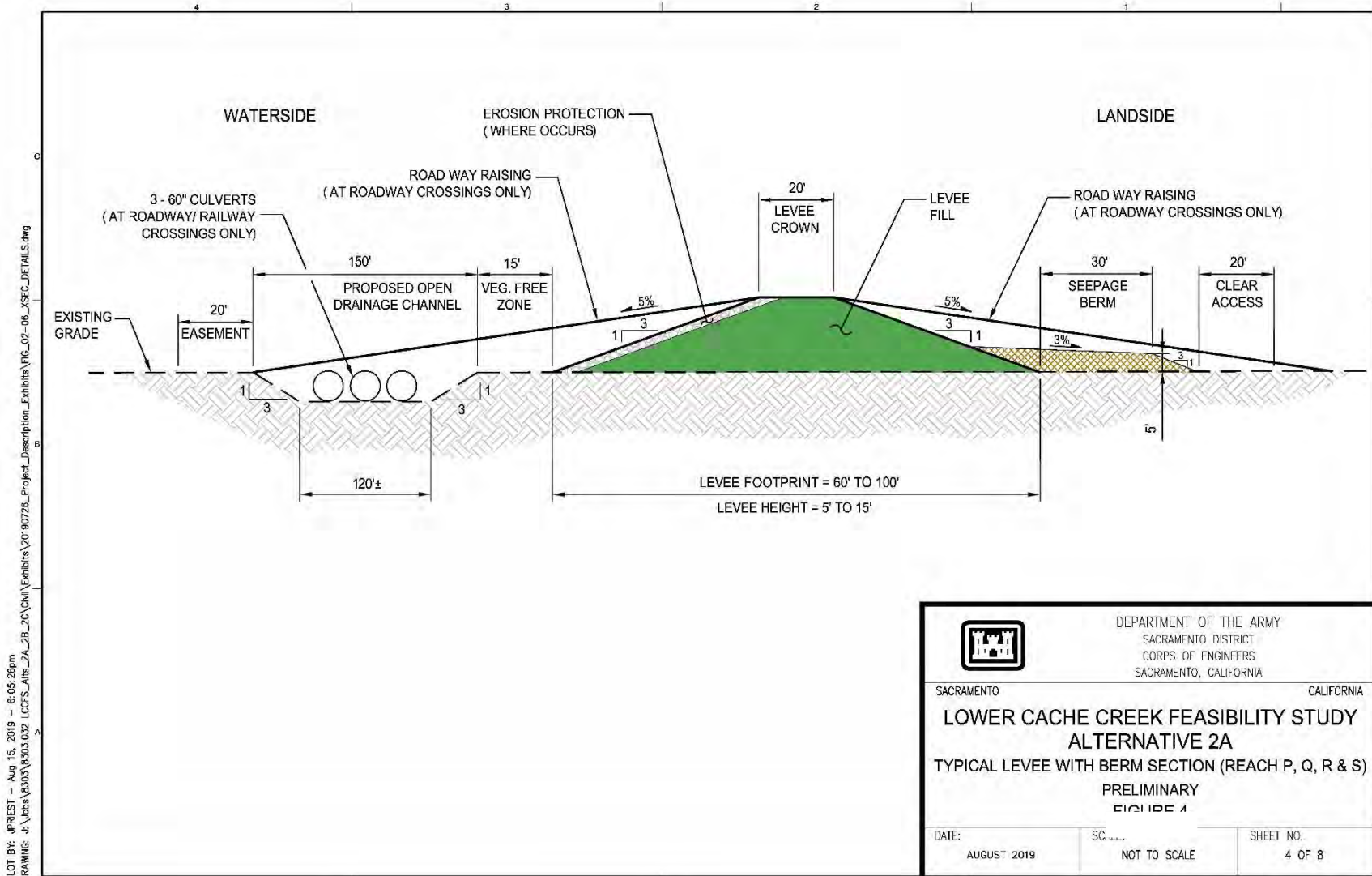


Figure 4-4. Typical Levee with Berm Section (Reach P, Q, R & S)

Summary

Table 4-2 summarizes the features and improvements discussed previously.

Table 4-2. Project Feature Summary

Feature	Improvement Description	Applicable Reaches	Quantity
New Levee	New Levee with Seepage Berm	Q (Partial), R, S	3.9 Miles
New Levee with RSP	New Levee with Seepage Berm and Rock Slope Protection	P, Q (Partial)	1.7 Miles
Improve Existing Levee	Improve existing levee with cutoff wall	N, O	2.3 Miles
Drainage Channel	New drainage channel and culverts. Also serves as borrow source for levee fill.	P, Q, R, S	5.6 Miles
Elevated Roadways	Elevate Roadway over levee at CR98, CR99, CR101, and CR102	P, Q, R, S	4
Gated Roadway Closure Structure	Gate at SR 113	Q, R	1
Gated Railroad Closure Structures	Gate for Railroad at I-5, West of SR 113, East of SR 113	Q, R, S	3
Cache Creek Settling Basin Inlet Weir	Concrete Inlet Weir	CCSB Inlet Weir	3,000 Feet
Degrade Training Levee	Degrade 3,000 feet of Existing Cache Creek Settling Basin Training Levee	Training Levee	3,000 Feet
Detention Basin and Outlets	New Detention Basin and Outlets	P	1
Improve Existing Drainage Ditch	Utilize Existing drainage ditch from Detention Basin to City of Woodland Pump Station.	O	1 Mile

Performance

The plan significantly reduces flood risk to people and property in the City of Woodland and surrounding areas. With the TSP in place, economic impact areas (EIAs) S8 and S9 in northeast Woodland, where damages are concentrated, would see a reduction in the annual chance of flooding which ranges from approximately 5.3% to 7.0%, respectively, to about 0.1% in both EIAs. The EIA S8 and S9 assurance values improve under the with-project condition. For example, in EIA S8, the assurance value for the one-percent AEP event is 8% in the without project condition and improves to 98% with-project. This 98% assurance value indicates that under the with-project condition, there is a 98% chance of safely passing a one percent AEP event in EIA S8. In EIA S9, one percent AEP event assurance improves from 83% without project to 98% with-project. In the with-project condition, I-5 south of Woodland is removed from the floodplain, but I-5 immediately north of the city would remain in the floodplain.

4.3 Environmental Summary

The effects to the natural environment have been considered throughout the planning process, and refinements have been identified to reduce effects to resources within the study area. Since the Levee and Conveyance Alternative does not include features adjacent to the Lower Cache

Creek channel, environmental effects are minimized. Impacts to Federally listed species and vegetation communities that provide habitat, including grassland, orchards, and regulated wetlands, and compensation for the loss of habitat, are shown below in Table 4-3. During the design phase of the project, design refinements that minimize effects to the CCSB, which provides the majority of wildlife habitat in the study area, will be identified.

Mitigation for air quality and cultural resources is also shown below. Additional information on environmental effects is located in Section 3.3, and mitigation is located in Section 4.7 in the accompanying Supplemental Draft EIS.

Table 4-3. Environmental Effects of and Proposed Mitigation for the TSP

Impact Type	Potential Impacts	Duration of Impact	Mitigation	Cost
Environmental				
Palmate-Bracted Bird's Beak	0.15 acres (Indirect)	Permanent	2.25 acres - Education/Habitat Enhancement at Woodland Regional Park	\$50,000
	0.7 acres (Direct)			
Valley Elderberry Longhorn Beetle	4 elderberry shrubs	Permanent	4 VELB credits - \$5,000 per credit	\$20,000
Giant Garter Snake	1.04 acres (Aquatic)	Permanent	30 acres - \$22,500 per acre	\$660,000
	8.78 acres (Upland)			
Oak Woodland	6 acres	Permanent	18 acres - \$55,000 per acre	\$1,015,000
Orchard	8 acres	Permanent	8 acres - \$55,000 per acre	\$450,500
Seasonal Wetland	7 acres	Permanent	7 acres - \$150,000 per acres	\$1,050,000
Grassland	67 acres	Single Construction Season	67 acres Hydroseed with native mix	No additional environmental cost
Air Quality				
NOx (Oxides of Nitrogen)	1 ton per Construction Season	Permanent	2 tons - \$25,000 unit	\$50,000
Cultural				
Historic Properties Treatment Plan				\$58,000
Data Recovery/Mitigation Field Work				\$259,000

Impact Type	Potential Impacts	Duration of Impact	Mitigation	Cost
Laboratory Analyses for Data Recovery Fieldwork				\$151,000
Data Recovery Report				\$110,000
Sub-Total				\$3,873,500
Contingency				\$1,355,725
Total				\$5,229,225

Water and sediment quality were evaluated for the final array, and adverse impacts are not anticipated based on the results of Phase 1 Environmental Site Assessment, a UC Davis sediment trap efficiency study, and consideration of impaired water bodies under the Clean Water Act. Project construction will not cause adverse environmental impacts relative to the future without project conditions.

4.4 Real Estate

A fee title will be obtained for areas beneath the physical project features (i.e. embankment, seepage berm, drainage channel, etc.) and for the area 15 feet beyond the toe of waterside features and 20 feet beyond the toe of landside features. A summary of real estate requirements is included in Table 4-4.

Table 4-4. Estimated Real Estate Requirements

Ownership	Quantity	Acres
Private Ownerships	24	257.8
Public Ownerships	8	45.8
Railroad	1	0.6
Estates	Quantity	Acres
Permanent Easement Estates	40	314.4
Temporary Work Areas	11	32.6
Fee	0	0
Number of PL-91-646	0	0

Existing trees and encroachments will be removed to the extent necessary to facilitate construction of the project and to support long-term operation and maintenance. It may be the case that some trees and other encroachments are not removed from the rights-of-way (ROW). These encroachments will be addressed on a case-by-case basis during final design of the project.

4.5 Plan Economics and Cost Sharing

The project first cost, estimated on the basis of 2019 price levels, amounts to \$259,453,000. Table 4-5 displays each cost by project feature. Estimated average annual costs of approximately \$10,033,000 were based on a 2.75 percent interest rate, a period of analysis of 50 years, and construction ending in 2027. Table 4-6 shows the project first costs. The total average annual flood damage reduction benefits are \$20,657,000 with a benefit to cost ratio of 2.1 to 1.0.

Table 4-5. Estimated Costs of Tentatively Selected Plan (Alternative 2A)

ACCOUNT	DESCRIPTION	Total First Cost (\$1000's)
01	Lands and Damages	\$20,687
02	Relocations	\$45,952
06	Fish And Wildlife Facilities	\$4,567
09	Channels & Canals	\$6,092
11	Levees & Floodwalls	\$128,340
18	Cultural Resource Preservation	\$592
30	Planning, Engineering and Design	\$37,324
31	Construction Management	\$15,899
	<i>Total¹</i>	<i>\$259,453</i>

¹-Does not include cultural resources data collection.

Table 4-6. Summary of Cost Sharing Responsibilities for the TSP

Item	Federal	Non-Federal
Flood Risk Management	\$168,852	\$90,601
Total	\$168,852	\$90,601
Breakdown of Non-Federal		
LERRD		\$20,687
5% Cash Requirement		\$12,943
Remaining Cash		\$56,971
Total		\$90,601

¹Costs (\$1,000s) are October 2019 price levels at 2.75%, for a 50-year period of analysis.

4.6 Risk and Uncertainty

In general, the ability of the plan to provide the expected accomplishments depends on the following: the validity of pertinent assumptions, base data, and analytical techniques used in this study; the successful completion of future studies, designs, and construction; and appropriate OMRR&R after construction.

The uncertainty in the stage-discharge estimates is not expected to change for the focused array of alternatives. The stages are relatively insensitive to discharges and the flow conditions and conveyance are expected to remain similar to the without project conditions. Therefore, it is estimated that uncertainty in stages associated with the proposed focused array will be same as for the existing conditions.

The economic analysis described in this report includes uncertainties in the valuation of residential and non-residential structures and contents along with automobile losses. Uncertainty in the valuation of structures and contents stems from several factors, including uncertainty in the first floor elevation and in the damages associated with specific depths of flooding. Several factors contributed to the uncertainty associated with automobile damages. These factors include the average unit value, the number of vehicles per residence, and the evacuation rate. The Economic and Risk Appendix describes these uncertainties further and how they were incorporated in the model.

4.7 Residual Risk

The TSP greatly reduces the risk of flooding within the urban area of the City of Woodland. Even with the project in place, a slight residual risk of flooding within the city would remain. The TSP

does not propose structural measures on the left bank of Cache Creek and would not change the risk of flooding north of Cache Creek, including in the town of Yolo.

The long-term risk, which indicates the percentage chance of flooding over a given period of time, improves for EIAs S8 and S9 (Figure 3-17.) under the with-project condition. In EIA S8, the 10-year, 30-year, and 50-year chance of flooding improves from 42 percent, 80 percent and 93 percent to 1 percent, 3 percent, and 4 percent, respectively. For EIA S9, the 10-year, 30 year, and 50-year chance of flooding improves under the with-project condition from 51 percent, 89 percent and 97 percent to 1.0 percent, 3 percent, and 4 percent, respectively.

It is expected that the engineering performance of the project will deteriorate over time, especially 50-100 years beyond construction. There are many reasons for this, such as overall area subsidence, climate change, and other uncertain future hydrologic and hydraulic conditions.

4.8 Executive Order 11988

The Water Resources Council Floodplain Management Guidelines for implementation of EO 11988, as referenced in USACE ER 1165-2-26, require an eight-step process that agencies should carry out as part of their decision-making on projects that have potential impacts to or within the floodplain. The eight steps reflect the decision-making process required in Section 2(a) of the EO. The eight steps and project-specific responses to them are summarized below.

1. Determine if a proposed action is in the base floodplain (that area which has a one percent or greater chance of flooding in any given year).

The proposed action is located entirely within the base floodplain.

2. If the action is in the base floodplain, identify and evaluate practicable alternatives to the action or to location of the action in the base floodplain.

Flood storage in the upper watershed was initially considered and screened out due to seismic and environmental concerns. Since the primary objective of the study and the plan is FRM, there are no practicable alternatives completely outside of the base floodplain that would achieve this objective.

3. If the action must be in the floodplain, advise the general public in the affected area and obtain their views and comments.

Because the primary objective of the study and plan is FRM, the action must be in the floodplain. The general public, governmental agencies, organizations and interested stakeholders have been involved in the study process since public outreach on FRM concepts began in 2000 with multiple public meetings, as detailed in Chapter 5, and release of a Draft Environmental Impact Statement (DEIS) and Draft Feasibility Report in March 2003.

Numerous comments were received on the DEIS and Draft Feasibility Report, which have been included and responded to in this updated Supplemental EIS and 2019 Draft Feasibility Report. Public opposition to the tentative plan at that time led to the request by the NFS to stop work and pause the study. The study was restarted in 2011 to account for additional Sponsor-led community engagement.

4. Identify beneficial and adverse impacts due to the action and any expected losses of natural and beneficial floodplain values. Where actions proposed to be located outside the base floodplain but will affect the base floodplain, impacts resulting from these actions should also be identified.

While construction of TSP features would result in mostly minor and temporary adverse impacts to the natural environment, there are no anticipated long term adverse impacts or benefits to floodplain values in association with the construction and OMRRR of the TSP.

5. If the action is likely to induce development in the base floodplain, determine if a practicable non-floodplain alternative for the development exists.

The TSP will not induce development in the floodplain.

6. As part of the planning process under the Principles and Guidelines, determine viable methods to minimize any adverse impacts of the action including any likely induced development for which there is no practicable alternative and methods to restore and preserve the natural and beneficial floodplain values. This should include reevaluation of the “no action” alternative.

The TSP would not induce development in the floodplain.

7. If the final determination is made that no practicable alternative exists to locating the action in the floodplain, advise the general public in the affected area of the findings.

The general public will be provided the opportunity to comment on the draft feasibility report and draft SEIS during the 45-day public comment period. Responses will be prepared to all comments received during that time and will be included in the final feasibility report and SEIS.

8. Recommend the plan most responsive to the planning objectives established by the study and consistent with the requirements of the Executive Order.

The TSP is the most responsive to all of the study objectives, and it is consistent with the requirements of EO 11988.

4.9 Environmental Operating Principles

USACE has reaffirmed its commitment to the environment by formalizing a set of “Environmental Operating Principles” applicable to all of its decision-making and programs. The principles are described in Engineering Circular 1105-2-4040 “Planning Civil Work Projects under the Environmental Operating Principles,” 1 May 2003. The Environmental Operating Principles are:

1. Foster sustainability as a way of life throughout the organization.
2. Proactively consider environmental consequences of all Corps activities and act accordingly.
3. Create mutually supporting economic and environmentally sustainable solutions.
4. Continue to meet our corporate responsibility and accountability under the law for activities undertaken by the Corps, which may impact human and natural environments.
5. Consider the environment in employing a risk management and systems approach throughout the life cycles of projects and programs.
6. Leverage scientific, economic and social knowledge to understand the environmental context and effects of Corps actions in a collaborative manner.
7. Employ an open, transparent process that respects views of individuals and groups interested in Corps activities.

The Environmental Operating Principles are met by the TSP in the following ways:

Environmental balance and sustainability (EOP 1,2,3 &4)

- Project avoids or minimizes environmental impacts while maximizing future safety and economic benefits to the community.
- Monitoring will be used to implement adaptive management measures to meet and sustain the targeted Lower Cache Creek FRM objectives.
- NEPA, Fish and Wildlife Coordination Act (FWCA), and Endangered Species Act (ESA) requirements will be met.

Planning with the environment (EOP 1,2 4, and 5)

- Worked with resource agencies during planning phase to minimize impacts to the environment.
- Minimize impacts on surrounding habitats through adaptive management.

Integrate scientific, economic and social knowledge base (EOP 6)

- Sought advice from experts on the latest principles and science on levee construction.

Seeks public input and comments (EOP 7)

- Held stakeholder meetings and public workshops throughout the process
- Worked with local groups to achieve a balance of project goals and public concerns

4.10 Plan Implementation

This section describes the remaining steps to potential authorization of the project by Congress.

4.10.1 Report Completion

The draft Feasibility Report and draft SEIS will be circulated for public and agency review for 45 days. A public meeting will be held to obtain comments from the public, agencies, and other interested parties. After completion of the public review period, comments will be considered and incorporated into the Feasibility Report and SEIS, as appropriate. Comments received during the public comment period, as well as responses to them, will be presented in an appendix. The final Feasibility Report and SEIS will be provided to any public agency that provides comments on the Draft Report. The NFS is responsible for certifying that the Final EIR has been prepared in compliance with CEQA.

4.10.2 Report Approval

The final Feasibility Report and SEIS will be circulated for 30 days to agencies, organizations, and individuals who have an interest in the proposed project. All comments received will be considered and incorporated into the final Feasibility Report as appropriate. This study is being coordinated with all appropriate Federal, state, and local government agencies. USACE Headquarters coordinates compilation and response to comments from affected Federal and State agencies, and completes its own independent review of the final report.

After its review of the final Feasibility Report and SEIS, including consideration of public comments, USACE Headquarters prepares the Chief of Engineers' Report. This report is then submitted to the Assistant Secretary of the Army for Civil Works ASA(CW), who coordinates with the Office of Management and Budget and submits the report to Congress.

4.10.3 Project Authorization and Construction

Once the final report is approved by the Chief of Engineers and the project is authorized by Congress, construction funds must be appropriated by Congress before a Project Partnership Agreement (PPA) can be signed by USACE and sponsor to begin construction.

4.10.4 Division of Responsibilities

Federal Responsibilities

USACE would conduct the PED studies. Once the project is authorized and funds are appropriated, a PPA would be signed with the non-Federal sponsor. After the sponsor provides the cash contribution, lands, easements, rights-of-way, relocations, and disposal areas, the Federal Government would begin construction of the project.

Non-Federal Responsibilities

Specific items of local cooperation are identified in Chapter 6, *Recommendations*.

Views of Non-Federal Sponsor

The non-Federal sponsors, City of Woodland and the CVFPB, support the TSP. Throughout development of this feasibility report, there has been significant coordination with the City of Woodland, the State of California, and other stakeholders.

Financial Capability of Sponsor

The total estimated non-Federal first cost of the project is \$90,808,591 including LERRDs using 2019 price levels. Actual costs may be slightly greater at the time of construction due to inflation. The total estimated value for the project lands, including LERRDs is \$8,284,000. The non-Federal sponsor(s) will be required to provide self-certification of financial capability for the final report as required by USACE guidance.

Project Cost-Sharing Agreements

A Design Agreement must be executed between USACE and the non-Federal sponsor in order to cost share the development of detailed plans and specifications. Before construction is started, the Federal Government and the non-Federal sponsor would execute a Project Partnership Agreement. This agreement would define responsibilities of the non-Federal sponsor for project construction as well as operation, maintenance, repair, replacement, and rehabilitation and other assurances.

4.11 Schedule

If the project is authorized in 2022, construction could start in 2025. Table 4-7 contains a notional schedule showing the approval and construction phases of the project.

Table 4-7. Notional Project Schedule

Phase	Scheduled Dates
Division Commander's Transmittal to HQUSACE	2021
Chief of Engineers Report	2021
Potential Authorization	2022
USACE and Sponsor Sign Design Agreement	2022
Preconstruction Engineering and Design	2022-2024
USACE and Sponsor Sign Project Partnership Agreement	2024
Initiate Construction	2025
Complete Physical Construction	2027

4.12 Further Studies

During the PED phase, several additional studies would be conducted as part of developing detailed designs for the project. These studies include:

- Additional geotechnical analysis of underlying substrates.
- Additional hydraulic analysis including most current modeling data.
- Topographic and ground surveys for project design.
- Preconstruction surveys to avoid direct impacts to nesting birds and other sensitive species.
- Water quality analysis of construction activities and methods.
- Intensive cultural resources surveys, evaluations, and mitigation as appropriate, in consultation with the State Historic Preservation Officer (SHPO), and Native American Tribes; as specified in the Programmatic Agreement (PA).

As mentioned in Chapter 1, this study would only partially address the Sacramento River Basin Study Authority, and is therefore, called an “Interim Feasibility Report” which indicates that the study is addressing the water resource issues of a specific area within the authority, rather than the entire area authorized for study. Additional studies to address other water resource issues within the Sacramento River Basin could be initiated based on Congressional direction.

Chapter 5 – Public Involvement, Review, and Consultation

5.1 Public Involvement Program

To announce the start of the Lower Cache Creek Feasibility Study, a notice of intent (NOI) to prepare an integrated Feasibility Report/ Draft Supplemental Environmental Impact Statement (FR/SEIS) for the Lower Cache Creek Feasibility Study was posted in the Federal Register (Vol. 80, No. 165) on August 26, 2015. The recipients were invited to comment on the scope of analysis as well as potential alternatives. The notice in 2015 announced a public workshop where the public was given the opportunity to comment.

The meeting location, date, and time were as follows:

- September 3, 2015, Woodland Community Center—2001 East St., Woodland, CA (4-7 pm)

5.2 Public Feedback

There were 18 people who provided comments resulting from the September 3, 2015 scoping meeting. Comments were solicited through the use of court reporters at the meeting. Additional comments could be submitted through mail or electronic mail. Oral and written comments were made through a series of meetings by 6 local, state, and Federal agencies, 3 community organizations, and 9 individuals. The comments and the responses to them are summarized in the Public Involvement Section of the Supplemental Environmental Impact Statement (Appendix J of the EIS).

5.3 Other Public Involvement

To help the community stay informed about current study activities, information is provided in a variety of ways:

- The City of Woodland held a public scoping meeting as part of its CEQA requirements at Woodland City Hall on September 11, 2019.
- SPK website
- Citizens Advisory Committee

5.4 Institutional Involvement

5.4.1 Project Delivery Team

During the study, staff from the City of Woodland, DWR, and the CVFPB participated along with USACE as members of the PDT.

5.4.2 Agency Participation

Coordination with USFWS is being conducted in accordance with the Fish and Wildlife Coordination Act. The project is also coordinating with the CDFW.

5.5 Additional Required Coordination

Additional coordination will be summarized in the final report.

5.6 Public View and Responses

Public views and responses to comments on the draft report will be summarized in the final report.

5.7 Impact on Recommendations

Any impacts on the recommendations due to public views will be summarized in the final report.

Chapter 6 – Recommendations

I recommend that the Tentatively Selected Plan (Alternative 2A) be authorized for implementation, as a Federal project, with such modifications thereof as in the discretion of the Commander, U.S. Army Corps of Engineers, may be advisable. The estimated first cost (2019 price level) of the Tentatively Selected Plan is \$259,453,000 with an estimated Federal cost of \$168,852,000 and an estimated non-Federal cost of \$90,601,000. The estimated annual OMR&R cost is \$180,000 (2019 price levels). Federal implementation of the Tentatively Selected Plan would be subject to the non-Federal sponsor agreeing to comply with applicable Federal laws and policies, including but not limited to:

- a. Provide a minimum of 35 percent, but not to exceed 50 percent, of total project costs as further specified below:
 1. Provide 35 percent of design costs in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;
 2. Provide during the first year of construction, any additional funds necessary to pay the full non-Federal share of design costs;
 3. Provide, during construction, a contribution of funds equal to 5 percent of total project costs;
 4. Provide all lands, easements, and rights-of-way, including those required for relocations, the borrowing of material, and the disposal of dredged or excavated material; perform or ensure the performance of all relocations; and construct all improvements required on lands, easements, and rights-of-way to enable the disposal of dredged or excavated material all as determined by the Government to be required or to be necessary for the construction, operation, and maintenance of the project;
 5. Provide, during construction, any additional funds necessary to make its total contribution equal to at least 35 percent of total project costs;
- b. Shall not use funds from other Federal programs, including any non-Federal contribution required as a matching share therefore, to meet any of the non-Federal obligations for the project unless the Federal agency providing the Federal portion of such funds verifies in writing that expenditure of such funds for such purpose is authorized;
- c. Not less than once each year, inform affected interests of the extent of protection afforded by the project;
- d. Agree to participate in and comply with applicable Federal flood plain management and flood insurance programs;
- e. Comply with Section 402 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 701b-12), which requires a non-Federal interest to prepare a flood plain management plan within one year after the date of signing a project cooperation agreement, and to implement such plan not later than one year after completion of

construction of the project;

- f. Publicize flood plain information in the area concerned and provide this information to zoning and other regulatory agencies for their use in adopting regulations, or taking other actions, to prevent unwise future development and to ensure compatibility with protection levels provided by the project;
- g. Prevent obstructions or encroachments on the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) such as any new developments on project lands, easements, and rights-of-way or the addition of facilities which might reduce the level of protection the project affords, hinder operation and maintenance of the project, or interfere with the project's proper function;
- h. Comply with all applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4601-4655), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way required for construction, operation, and maintenance of the project, including those necessary for relocations, the borrowing of materials, or the disposal of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act;
- i. For so long as the project remains authorized, operate, maintain, repair, rehabilitate, and replace the project, or functional portions of the project, including any mitigation features, at no cost to the Federal Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Federal Government;
- j. Give the Federal Government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating, maintaining, repairing, rehabilitating, or replacing the project;
- k. Hold and save the United States free from all damages arising from the construction, operation, maintenance, repair, rehabilitation, and replacement of the project and any betterments, except for damages due to the fault or negligence of the United States or its contractors;
- l. Keep and maintain books, records, documents, or other evidence pertaining to costs and expenses incurred pursuant to the project, for a minimum of three years after completion of the accounting for which such books, records, documents, or other evidence are required, to the extent and in such detail as will properly reflect total project costs, and in accordance with the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 Code of Federal Regulations (CFR) Section 33.20;
- m. Comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable Federal labor

standards requirements including, but not limited to, 40 U.S.C. 3141- 3148 and 40 U.S.C. 3701 – 3708 (revising, codifying and enacting without substantial change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a et seq.), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 et seq.), and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c et seq.);

- n. Perform, or ensure performance of, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Public Law 96-510, as amended (42 U.S.C. 9601-9675), that may exist in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project. However, for lands that the Federal Government determines to be subject to the navigation servitude, only the Federal Government shall perform such investigations unless the Federal Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;
- o. Assume, as between the Federal Government and the non-Federal sponsor, complete financial responsibility for all necessary cleanup and response costs of any hazardous substances regulated under CERCLA that are located in, on, or under lands, easements, or rights-of-way that the Federal Government determines to be required for construction, operation, and maintenance of the project;
- p. Agree, as between the Federal Government and the non-Federal sponsor, that the non-Federal sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, operate, maintain, repair, rehabilitate, and replace the project in a manner that will not cause liability to arise under CERCLA; and
- q. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended (42 U.S.C. 1962d-5b), and Section 103(j) of the Water Resources Development Act of 1986, Public Law 99-662, as amended (33 U.S.C. 2213(j)), which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until each non-Federal interest has entered into a written agreement to furnish its required cooperation for the project or separable element.

The recommendations contained herein reflect the information available at this time and current Departmental policies governing formulation of individual projects. They do not reflect program and budgeting priorities inherent in the formulation of a national Civil Works construction program nor the perspective of higher review levels within the Executive Branch. Consequently, the recommendations may be modified before they are transmitted to the Congress as proposals for authorization and implementation funding. However, prior to transmittal to the Congress, the sponsor, the States, interested Federal agencies, and other parties will be advised of any modifications and will be afforded an opportunity to comment further.

Date

James J. Handura
Colonel, U.S. Army
Corps of Engineers
District Engineer

Chapter 7 – References

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Appendix 4

**Technical Memorandum: Non-Structural Plan Elements
for Consideration in Conjunction with the
Lower Cache Creek Project, February 14, 2020**

TECHNICAL MEMORANDUM

DATE: February 14, 2020
TO: Tim Busch, P.E.
PREPARED BY: Ric Reinhardt, P.E.
SUBJECT: Non-structural Plan Elements for Consideration in Conjunction with the Lower Cache Creek Project

Background and Purpose

The City of Woodland (City) has partnered with the California Central Valley Flood Protection Board (CVFPB), the U.S. Army Corps of Engineers (USACE), and the California Department of Water Resources (DWR) to complete a federal feasibility study to identify a project that would reduce flood risk from Cache Creek, and to determine if there is federal interest in constructing a project. The USACE study is currently approaching release of the draft Feasibility Study milestone. Alternative 2A (see attached Figure 1) is the Tentatively Selected Plan. Alternative 2A relies on construction of a new levee north of the City, and a drainage canal that will divert flows into the Cache Creek Settling Basin (CCSB) through a degraded reach of the existing CCSB west levee. The plan includes additional improvements to drainage facilities to reduce the duration of flooding north of the levee.

The City of Woodland is working with DWR to develop a non-structural component that would be implemented in conjunction with the USACE's Tentatively Selected Plan (Project) to benefit the properties north of the City. The resulting non-structural plan would not be a part of, but would work in tandem with, the USACE Project and would rely on local, state, and Federal Emergency Management Agency (FEMA) funding programs. The purpose of this technical memorandum is to outline the potential features of a City/State non-structural plan.

Existing Flood Risk

Under existing conditions, Cache Creek overtops its banks at approximately a 10-year flood event. This condition was reinforced during the highwater events in February 2019. Once the south bank is overtopped, flood waters flow overland in a southwesterly direction. Existing topographic features, such as roads and rail lines, lead to localized increases in flood depths and impeded drainage of the flood waters. The flood waters eventually flow through the City and pond against the Yolo Bypass west levee. Figure 2 depicts the 100-year floodplain under existing conditions.

Overall Drainage Improvements included in USACE Project

To improve the swift discharge of overland flood flows into the CCSB, Alternative 2A includes construction of drainage improvements at three locations that will help reduce the extent and duration of flooding north of the USACE project.

- CA Northern Railroad crossing under Interstate 5 – The freeway underpass and rail embankment will be armored to facilitate flow.
- County Road 113 – Installation of box culverts to pass flow.
- Improve gravity drainage and interconnection to the City Pump Station and into the Cache Creek Settling Basin both located near the southwest corner of the Cache Creek Settling Basin.

Collectively, these improvements will reduce the duration and extent of flooding immediately north of the proposed new levee and will help reduce residual flood risk. Figure 3 illustrates the floodplain that would result from implementation of the USACE Project with these features. Figure 4 shows how the duration of flooding for portions of the area north of the City would be reduced.

Benefits of Non-structural Measures

Non-structural flood management measures are proven methods and techniques for reducing flood damages and losses incurred during flood events. Thousands of buildings across the nation benefit from reduced risk and damages through implementation of non-structural measures. These measures are very effective for both short- and long-term flood damage reduction, and non-structural measures can be cost-effective when compared to larger structural features in reducing residual flood risk, especially in rural areas.

The proposed suite of non-structural measures utilize techniques common in reducing flood risk and the damages associated with flooding. These measures include a variety of actions, such as physically protecting individual structures in the floodplain; sharing flood insurance costs for structures that are permanently located within the floodplain; purchase of flowage easements; and expanding existing flood warning capabilities. The specific measures proposed for a given property varies depending on the nature of the flooding characteristics and the type of structures involved. To facilitate the implementation of the suite of non-structural measures, the City proposes the plan elements be coordinated and implemented through the Yolo County Office of Emergency Services (OES) with budgetary support from the City, State, and FEMA over a set period of time, not to exceed 10-years after the beginning of construction of Alternative 2A.

Floodproofing of Individual Structures

This non-structural technique generally consists of directly protecting an individual structure. This can be done to residential homes as well as commercial, industrial, and agricultural structures. This measure achieves flood damage reduction by either preventing flood water from entering into a structure (dry flood proofing), or designing the structures to not be damaged during flooding (wet floodproofing), both of which are effective in areas of shallow, overland flooding, similar to the conditions affecting the area north of the City. Flood protection can be

achieved by modifying the structure itself or by creating a berm or flood wall around the structure or small group of structures.

There are approximately 19 properties with residential structures and two properties with commercial structures located in the floodplain directly north of the proposed new levee. Additional studies will be conducted to document each of the structures by type and location, and the studies will evaluate the potential options for floodproofing of each structure. Of the total properties with residential structures north of the new levee, ten (10) are in areas of a possible increase in flood depth for a 100-year flood. The other structures have little or no change in flood depth from the existing condition.

Yolo County OES has expressed a willingness to work with the City and State to prepare a request for Disaster Relief Grant funding through the State Office of Emergency Services. Funding from such a grant would help defray the cost to floodproof individual structures north of the USACE Project, and the City and State are proposing to provide financial support for structures in the residual floodplain. The exact amount and eligible time frame for inclusion in this Non-structural Plan is discussed in further detail below.

National Flood Insurance Program

A significant area south of Cache Creek and north of the City is currently mapped in the FEMA 100-year floodplain. Flood insurance is currently mandatory for structures with a federally backed mortgage in these areas. In addition, all new construction must be built above the 100-year floodplain. These requirements are not altered by construction of the proposed USACE Project.

For structures that experience an increased flood risk, and where floodproofing is not a practical alternative, financial assistance with paying the annual cost of flood insurance is an option. In cases where floodproofing may be expensive, but feasible, the best course of action will be determined in consultation with the individual property owner.

For most of the area north of the USACE Project and west of State Highway 16, there is no measurable increase in flood risk. For these areas, the City and State proposes subsidizing a portion of the flood insurance costs for structures that would not be protected by the USACE Project. The exact amount and eligible time frame for inclusion in this Non-structural Plan is discussed in further detail below.

Flowage Easements

There are approximately 12 large agricultural parcels west of the CCSB that experience an increase in flood depth greater than one foot with construction of the USACE Project. Given the existing topography near the CCSB, the existing pre-Project flood depths can be significant in this area. The frequency of flooding is not changed by the project.

These parcels do not have structures within the floodplain and are generally located east of County Road 101. In addition, six of these parcels are owned by the University of California, Davis (UC Davis). The need for flowage easements across the UC Davis owned parcels will be further investigated by the City and DWR.

For the remaining private parcels in this area, it is proposed that flowage easements be purchased from willing sellers as compensation for the incremental increase in flood depth associated with implementation of the USACE Project. It is of value to note that there are no structures in this area of increased depth that are proposed for flowage easements.

Flood Warning System and Flood Preparedness

Flood Warning Systems relies on a network of stream gages, rain gages, and hydrologic data to forecast the potential extent of flooding for areas of potential flood risk. A flood warning system, when properly implemented, helps to notify residents and identify the amount of time available to implement emergency measures to secure property and take protective actions during significant flood events.

In conjunction with the USACE Project, the City proposes to work with Yolo County OES to confirm the adequacy of the existing flood warning system and to determine whether upgrades would be of value to reduce the risk of loss of life to the rural residents in the floodplain north of the City. The improved flood-notification efforts will further improve the effectiveness of other existing and proposed non-structural measures.

Funding Levels and Duration

Figure 5 illustrates the changes in residual flood depth that result from the USACE Project. The change in flood depth can range from “little to no change” to over two feet in depth, just west of the CCSB.

Given the broad range of potential change in flood depth associated with the USACE Project, it is reasonable to consider that the degree of financial support from the Non-structural Plan may vary depending on the change in potential flood risk within the affected area.

The table below depicts a possible breakdown of level of financial support by the Non-structural Plan based on increased depth of flooding. In all cases, it is assumed that the offer for financial support be limited in time to up to 10-years following initiation of construction of the USACE Project.

<i>Incremental Change in Flood Depth</i>	<i>Floodproofing via Disaster Relief Grant</i>	<i>Flood Insurance Cost-Share</i>	<i>Flow Easement</i>
<i>Little of No Change</i>		10% of Premium ¹	
<i>0.2 ft to 1.0 ft</i>	75% of local share ²	50% of Premium ³	
<i>Over 1.0 ft</i>			Permanent Easement ²

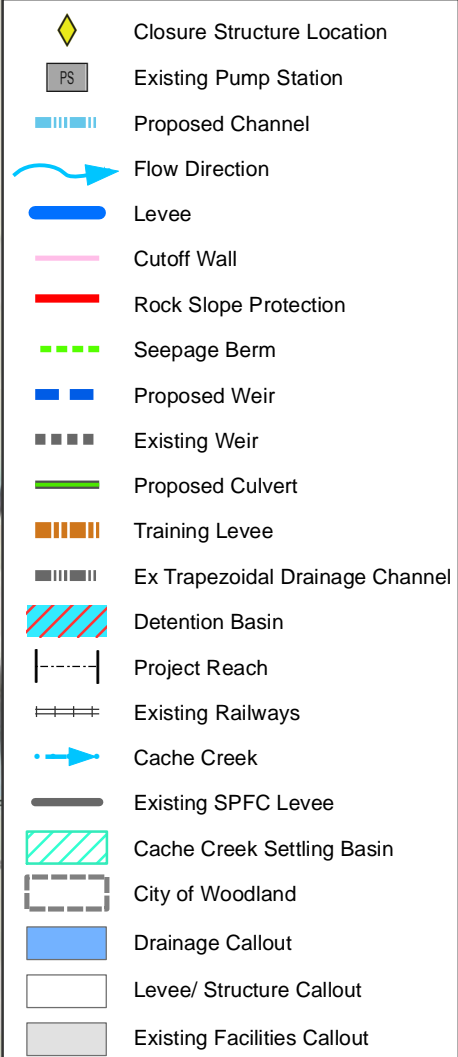
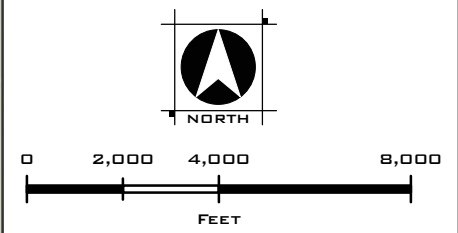
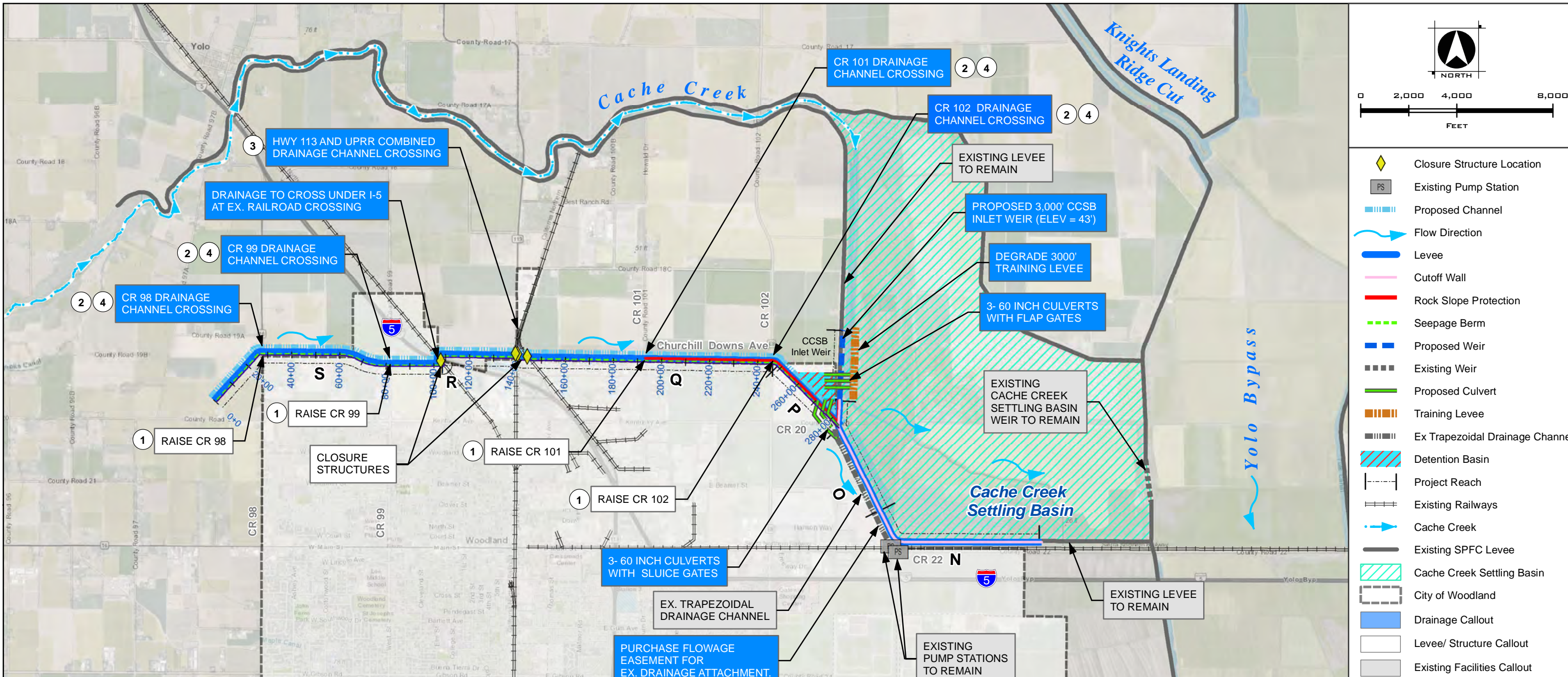
¹ Cost-Sharing of Flood Insurance Premiums for 10 years following completion of USACE Project.

² Land Owner must agree to established terms within 10 years after initiation of construction of USACE Project.

³ Cost-Sharing of Flood Insurance Premiums for 20 years following completion of USACE Project.

Next Steps

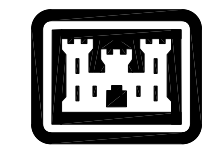
Once the duration and level of support are established for the various plan elements, an overall estimate of cost for the Non-structural Plan can be determined.



FLOOD IMPROVEMENT PROTECTION SUMMARY TABLE		
REACH	LENGTH	IMPROVEMENT DESCRIPTION ¹
S	12,100 ft	6' Tall Levee with 30' W x 5' H Seepage Berm
R	3,000 ft	7' Tall Levee with 30' W x 5' H Seepage Berm
Q	10,600 ft	11' Tall Levee with 30' W x 5' H Seepage Berm. Install Rock Slope Protection ²
P	3,900 ft	14' Tall Levee with 30' W x 5' H Seepage Berm. Install Rock Slope Protection ²
O	5,000 ft	Levee with 45' Deep Cutoff Wall
N	7,400 ft	Levee with 60' Deep Cutoff Wall

- NOTES:**
- COUNTY ROADS (CR) TO BE RAISED TO LEVEE CROWN ELEVATION AT 5% GRADE.
 - ROAD CROSSINGS OF THE DRAINAGE DITCH WILL BE COMPRISED OF 3 60-INCH CULVERTS AT EACH LOCATION.
 - CROSSING OF THE DRAINAGE DITCH WILL BE APPROX. 1000 FEET NORTH OF LEVEE AND COMPRISED OF 12 5'x12' BOX CULVERTS.
 - CULVERTS FOR DRAINAGE DITCH CROSSINGS ARE NOT SHOWN AT THIS SCALE FOR CLARITY.

- NOTES:**
- All dimensions are approximate
 - Rock Slope Protection to be placed between CR 101 and CCSB only.



DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT
CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

SACRAMENTO CALIFORNIA

LOWER CACHE CREEK FEASIBILITY STUDY
REFINED HYDRAULIC ANALYSIS of ALTERNATIVE 2A
Alternative 2A Overall Project Map

PRELIMINARY
FIGURE 1

DATE: January, 2020	SCALE: 1"=4000'	SHEET NO. 1 OF 1
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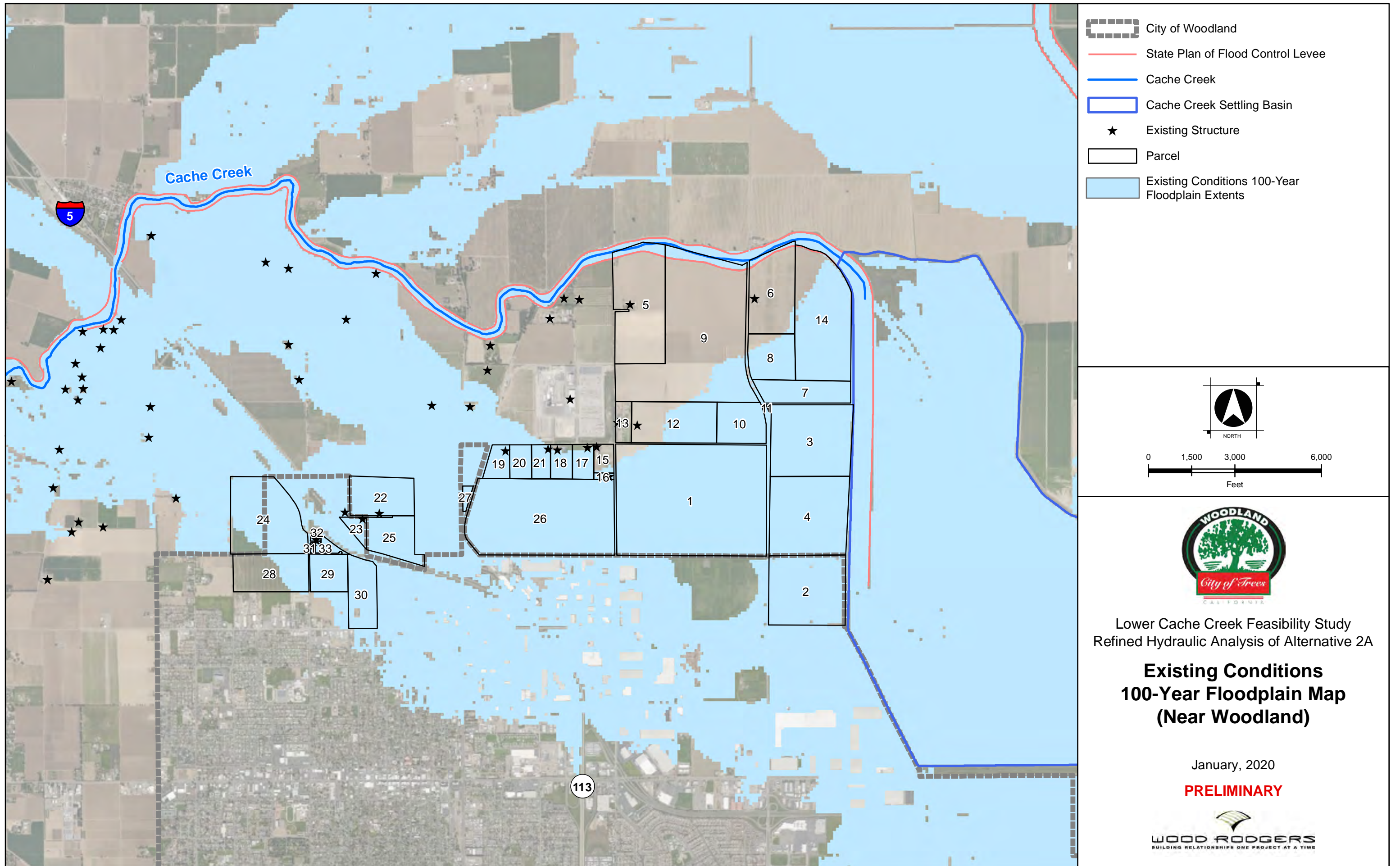


FIGURE 2

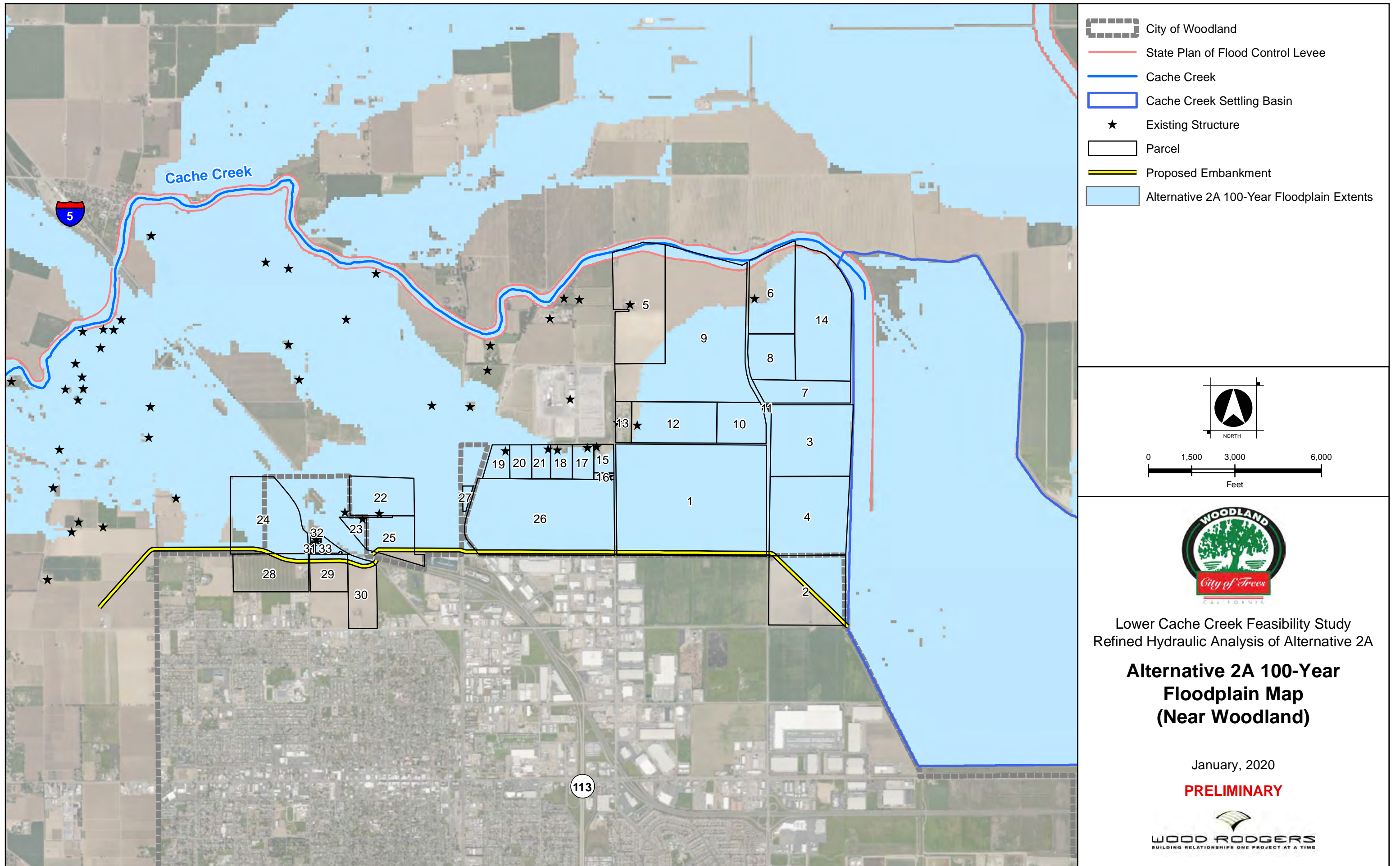
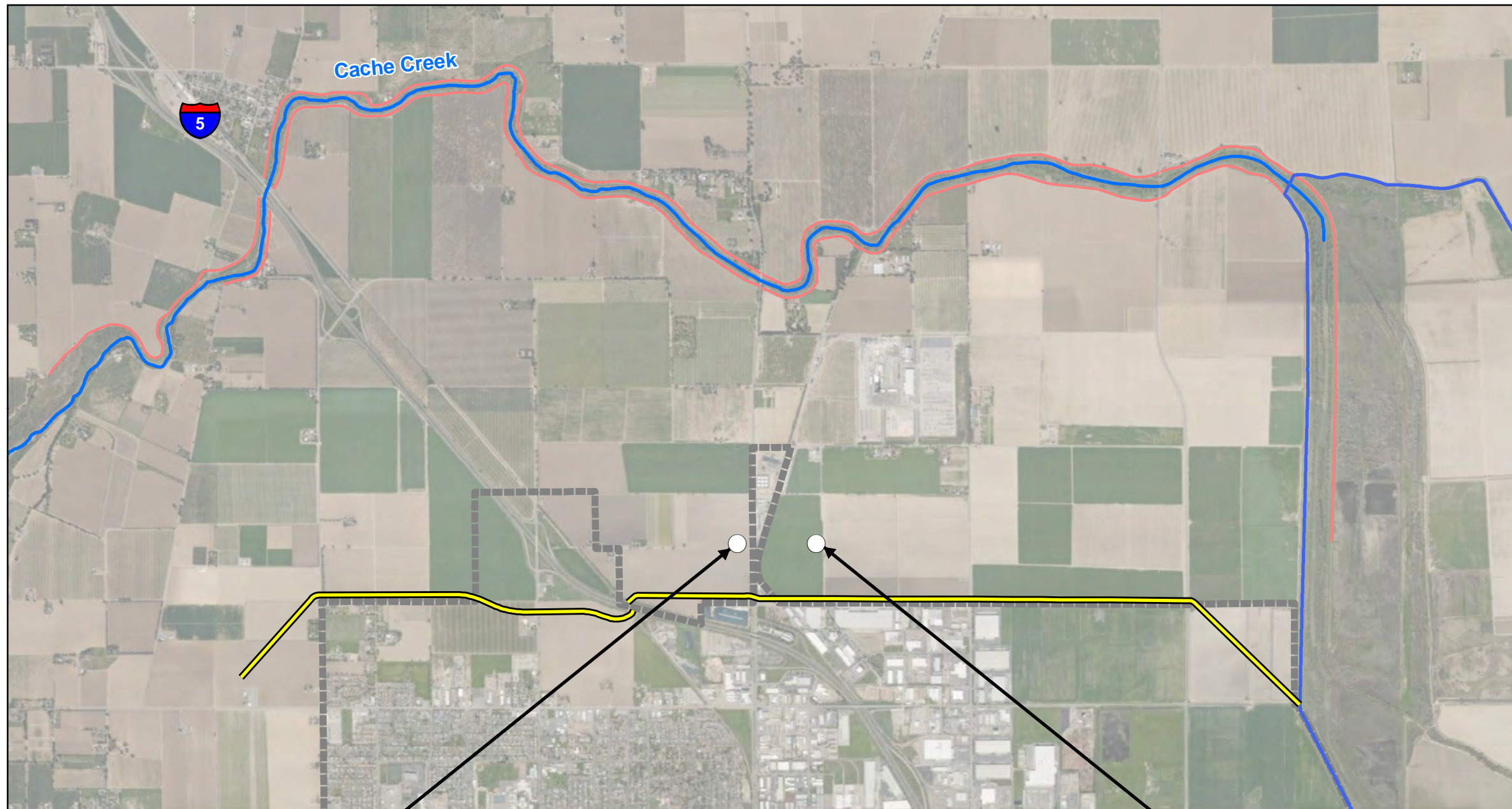
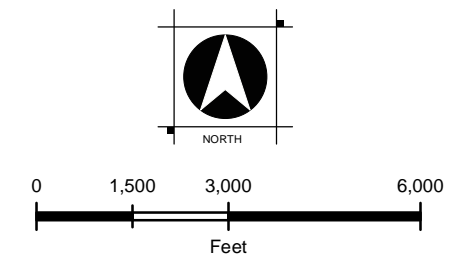


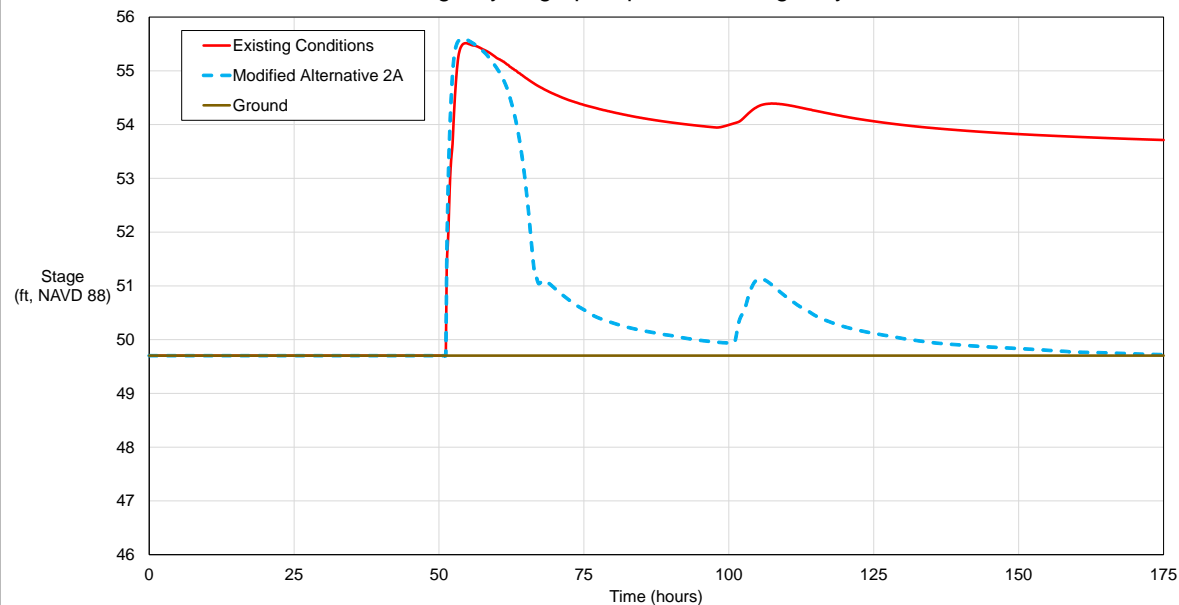
FIGURE 3



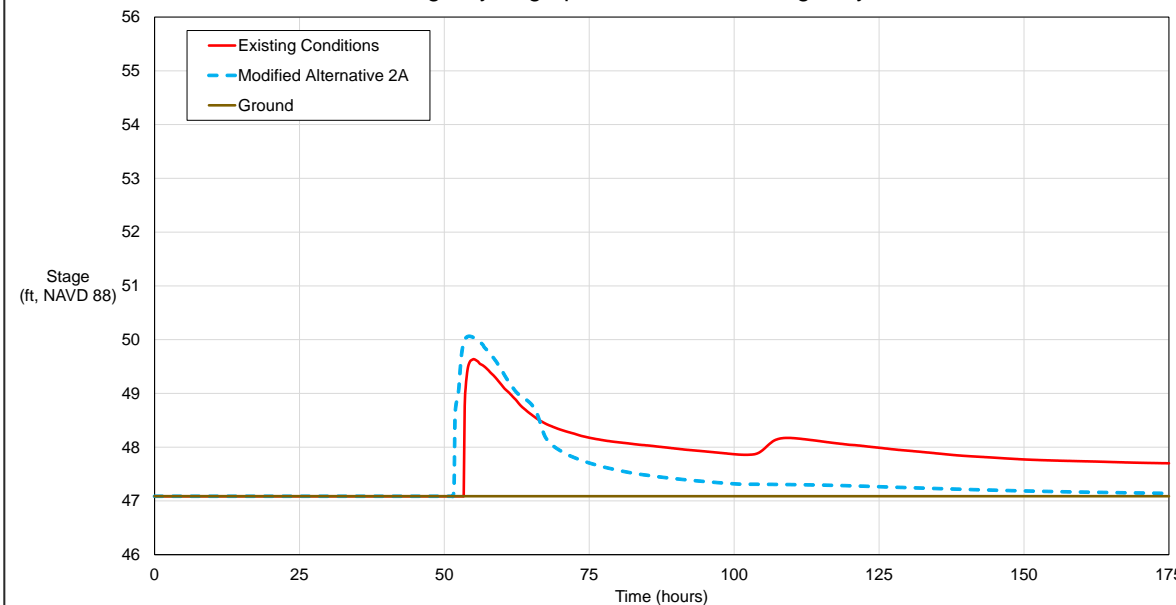
- City of Woodland
- State Plan of Flood Control Levee
- Cache Creek
- Cache Creek Settling Basin
- Proposed Embankment



100-Year Stage Hydrograph Upstream of Highway 113



100-Year Stage Hydrograph Downstream of Highway 113



Lower Cache Creek Feasibility Study
Refined Hydraulic Analysis of Alternative 2A

100-Year Duration of Flooding Map

January, 2020

PRELIMINARY



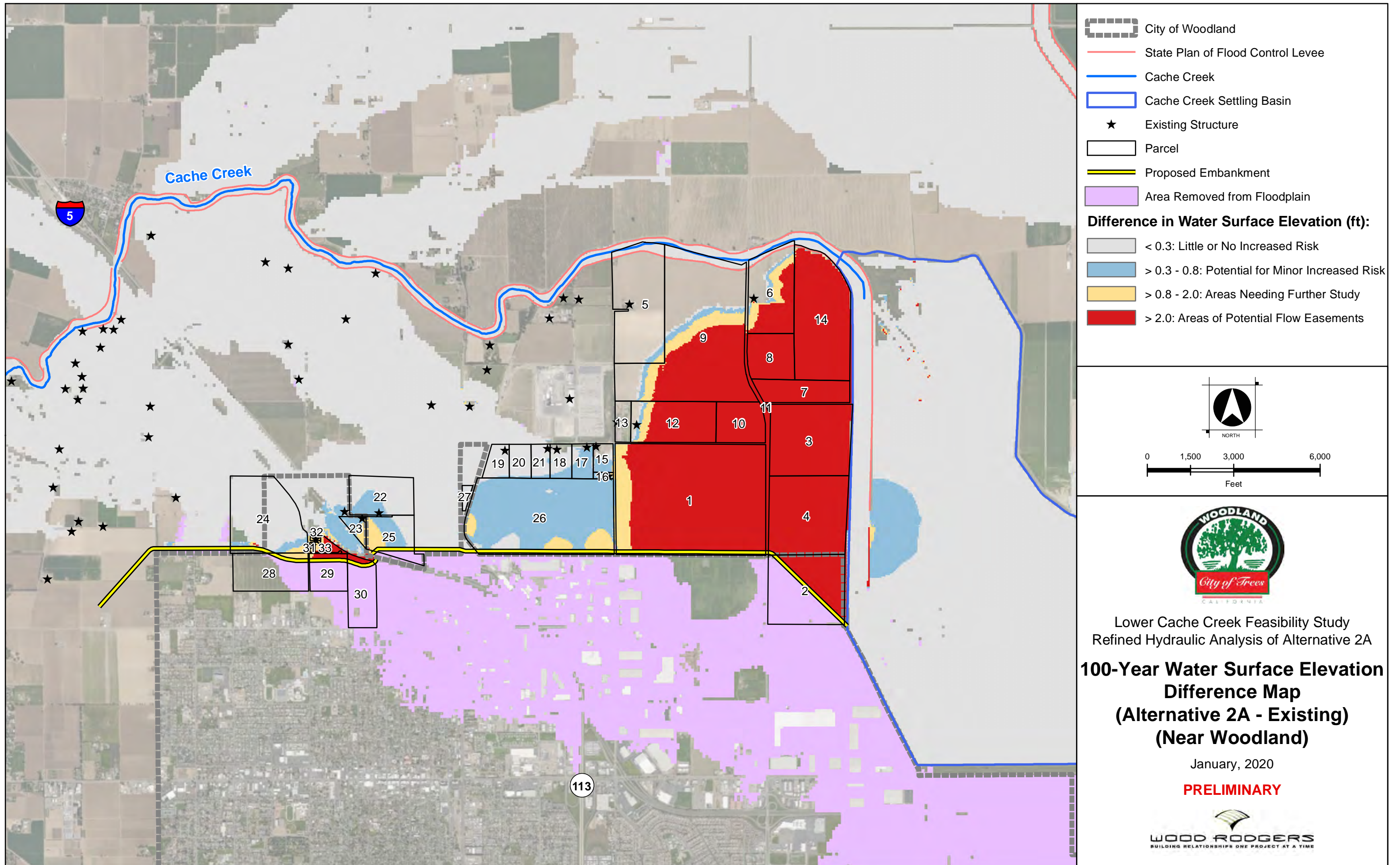


FIGURE 5