

Appendix H1. Yolo Bypass Vegetation Communities

Vegetation communities within the Yolo Bypass (operations study area) are shown in Figures H1-1 through H1-8.

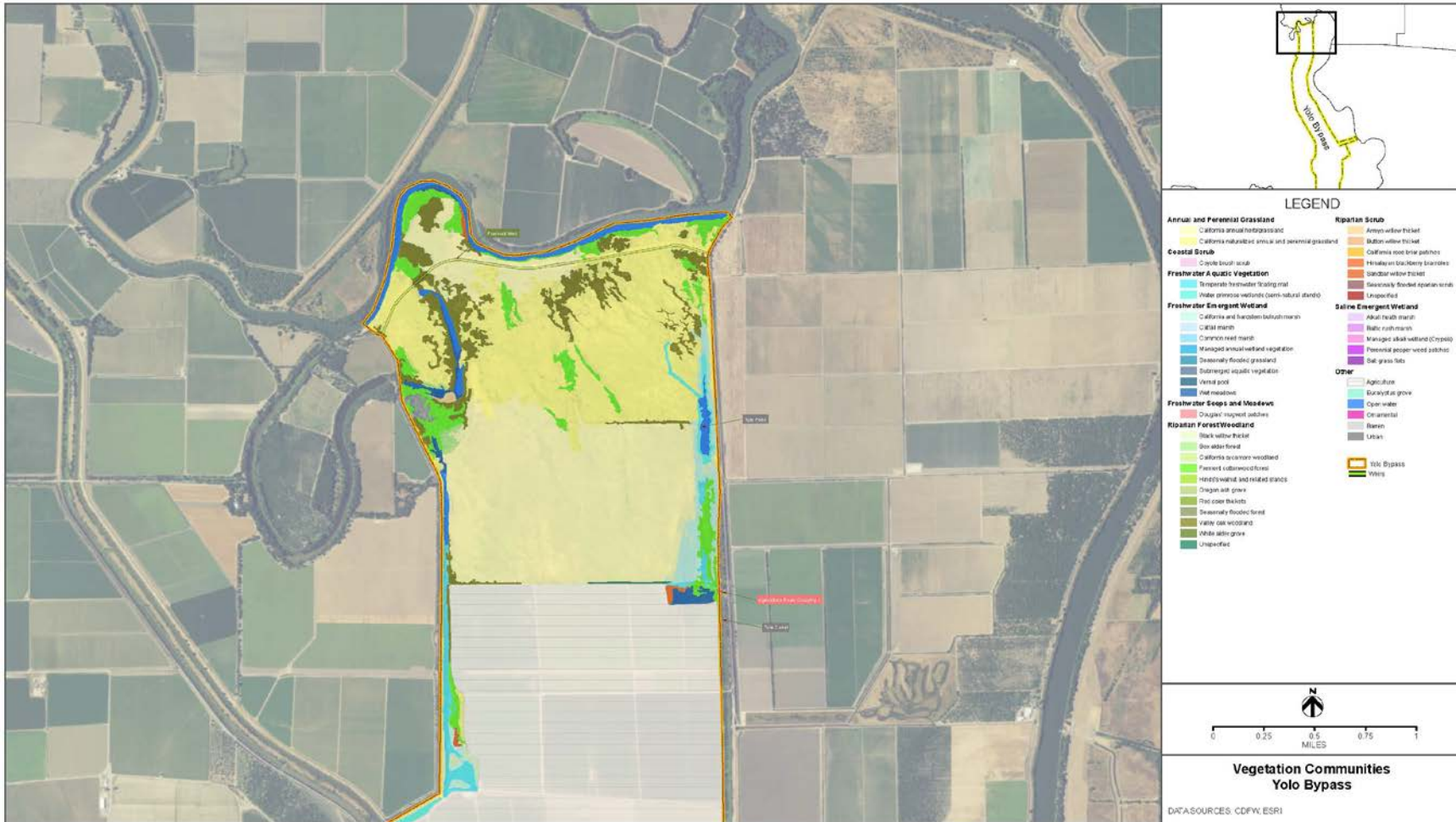


Figure H1-1.
Vegetation Communities in the Yolo Bypass (Operations Study Area)

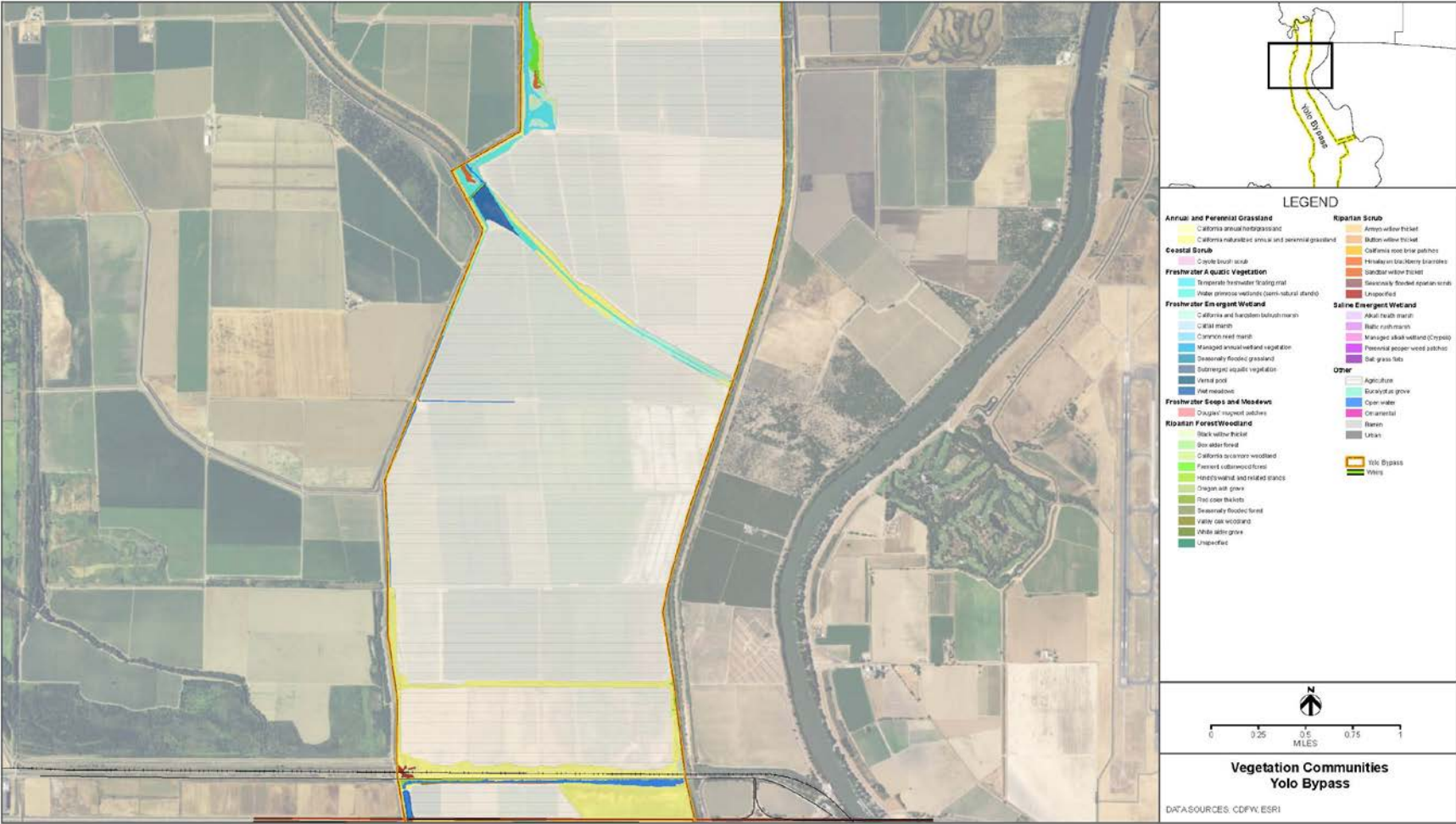


Figure H1-2. Vegetation Communities in the Yolo Bypass (Operations Study Area)

Appendix H1. Yolo Bypass Vegetation Communities



Figure H1-3.
Vegetation Communities in the Yolo Bypass (Operations Study Area)

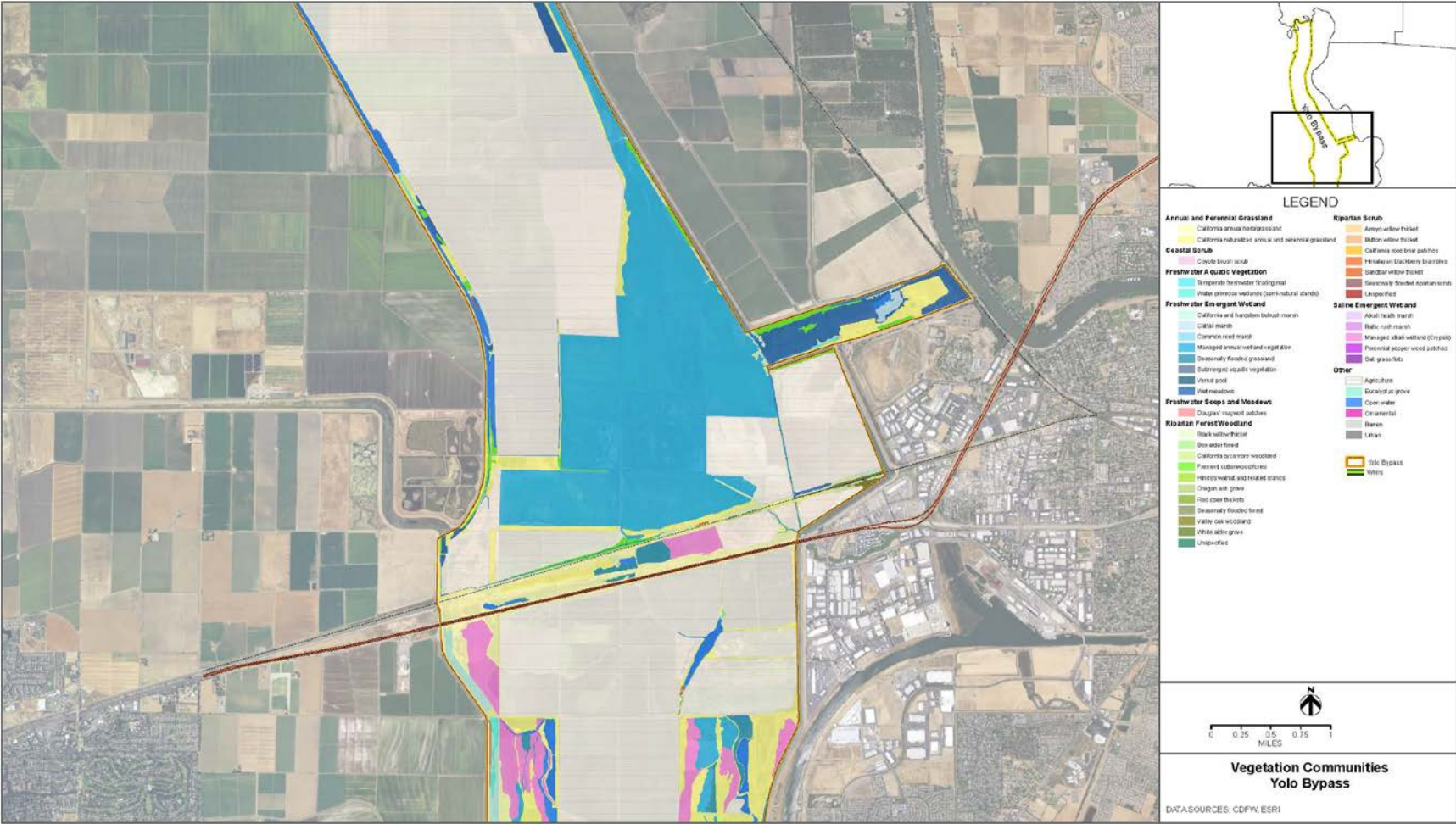


Figure H1-4. Vegetation Communities in the Yolo Bypass (Operations Study Area)

Appendix H1. Yolo Bypass Vegetation Communities

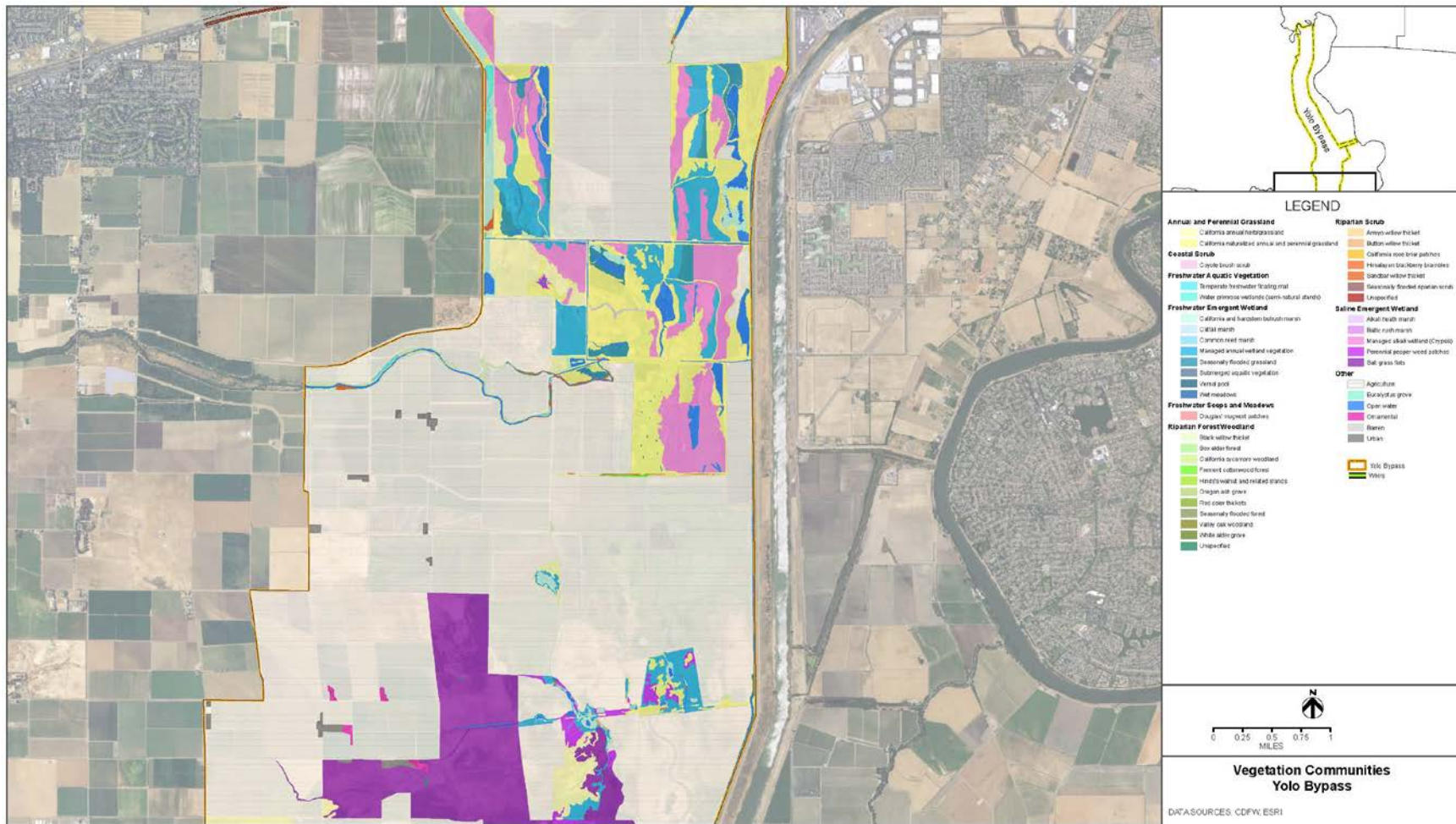


Figure H1-5. Vegetation Communities in the Yolo Bypass (Operations Study Area)

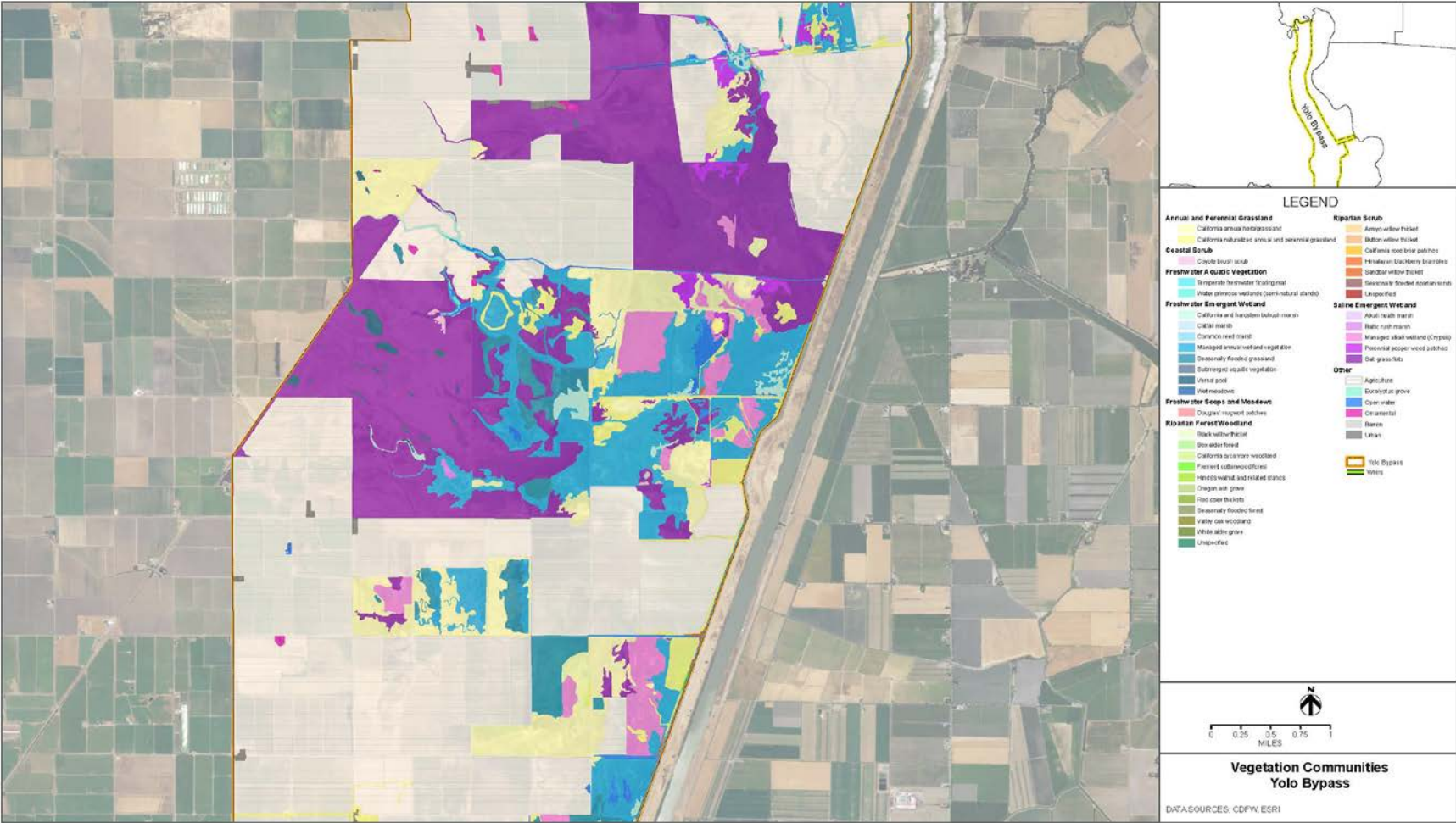


Figure H1-6. Vegetation Communities in the Yolo Bypass (Operations Study Area)

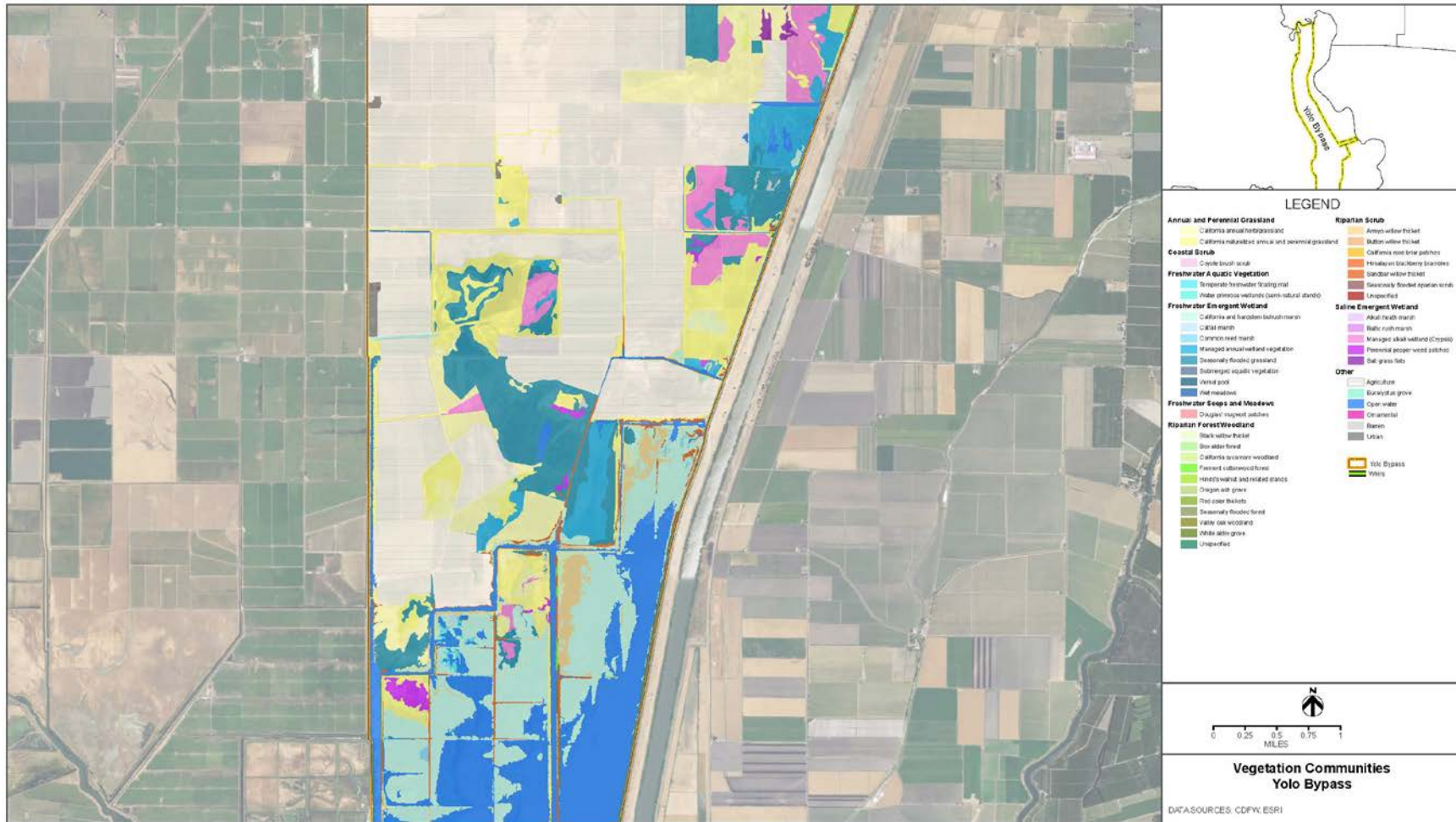


Figure H1-7.
Vegetation Communities in the Yolo Bypass (Operations Study Area)

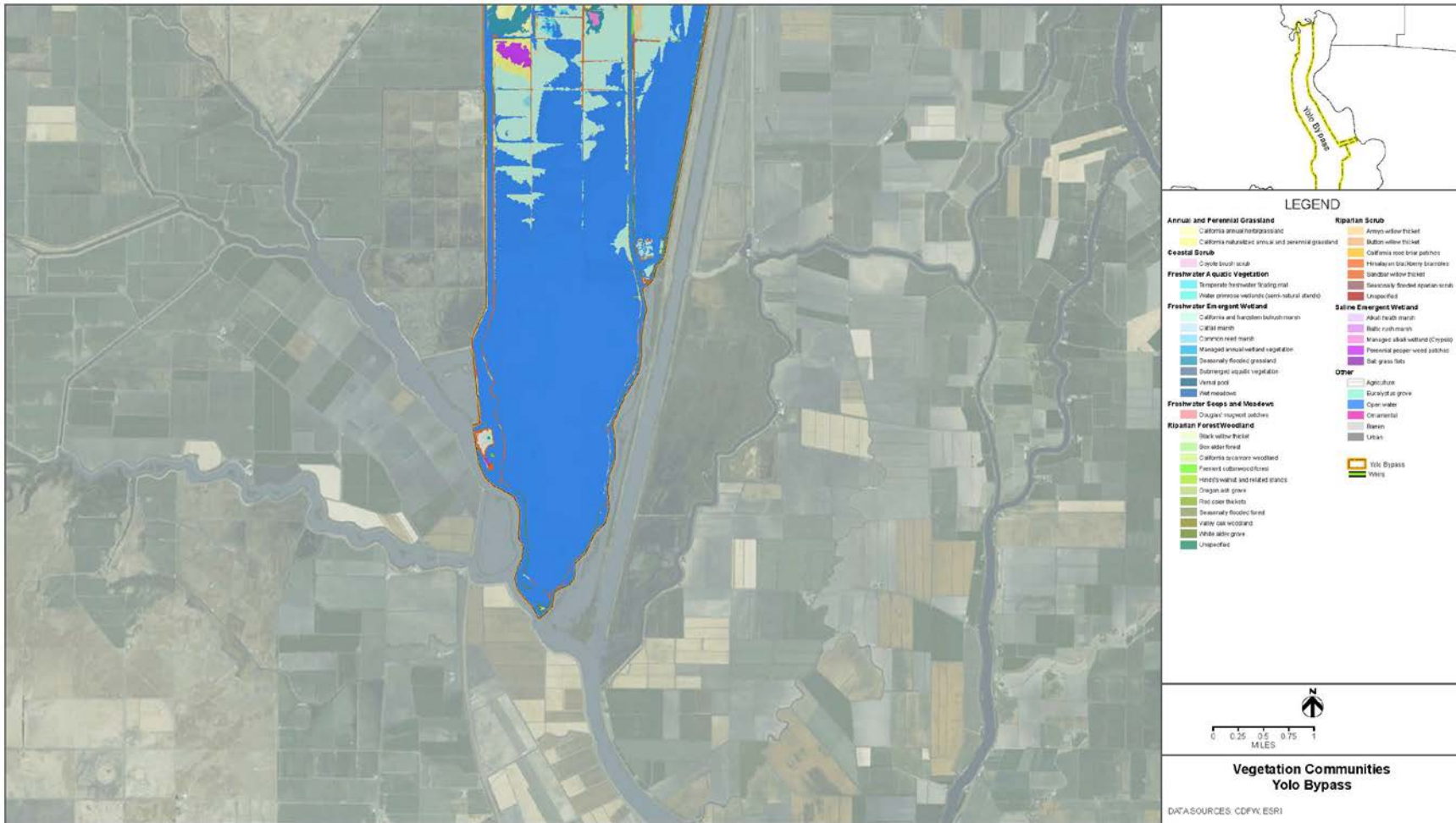


Figure H1-8.
Vegetation Communities in the Yolo Bypass (Operations Study Area)

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Appendix H2
IPaC CNDDDB CNPS Search Results

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

September 10, 2018

Consultation Code: 08ESMF00-2018-SLI-3161

Event Code: 08ESMF00-2018-E-09506

Project Name: Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

San Francisco Bay-Delta Fish And Wildlife

650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
(916) 930-5603

Project Summary

Consultation Code: 08ESMF00-2018-SLI-3161

Event Code: 08ESMF00-2018-E-09506

Project Name: Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: The main objective of the project is to enhance floodplain rearing habitat and fish passage in the Yolo Bypass by creating a better hydraulic connection between the Sacramento River and the Yolo Bypass. The project would consist of five key facilities, including an intake channel, a headworks structure, a transport (outlet channel, downstream channel improvements, and a supplemental fish passage facility.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.504029446436576N121.62408589120602W>



Counties: Solano, CA | Sutter, CA | Yolo, CA

Endangered Species Act Species

There is a total of 13 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Colusa Grass <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5690	Threatened
Palmate-bracted Bird's Beak <i>Cordylanthus palmatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1616	Endangered
Solano Grass <i>Tuctoria mucronata</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8302	Endangered

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> https://ecos.fws.gov/ecp/species/321#crithab	Final



United States Department of the Interior



FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish And Wildlife
650 Capitol Mall
Suite 8-300
Sacramento, CA 95814
Phone: (916) 930-5603 Fax: (916) 930-5654
[http://kim_squires@fws.gov](mailto:kim_squires@fws.gov)

In Reply Refer To:

September 10, 2018

Consultation Code: 08FBDT00-2018-SLI-0357

Event Code: 08FBDT00-2018-E-00670

Project Name: Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
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Official Species List

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This species list is provided by:

San Francisco Bay-Delta Fish And Wildlife

650 Capitol Mall

Suite 8-300

Sacramento, CA 95814

(916) 930-5603

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08FBDT00-2018-SLI-0357

Event Code: 08FBDT00-2018-E-00670

Project Name: Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: The main objective of the project is to enhance floodplain rearing habitat and fish passage in the Yolo Bypass by creating a better hydraulic connection between the Sacramento River and the Yolo Bypass. The project would consist of five key facilities, including an intake channel, a headworks structure, a transport (outlet channel, downstream channel improvements, and a supplemental fish passage facility.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.504029446436576N121.62408589120602W>



Counties: Solano, CA | Sutter, CA | Yolo, CA

Endangered Species Act Species

There is a total of 17 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Delta Green Ground Beetle <i>Elaphrus viridis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2319	Threatened
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Colusa Grass <i>Neostapfia colusana</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5690	Threatened
Palmate-bracted Bird's Beak <i>Cordylanthus palmatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1616	Endangered
Solano Grass <i>Tuctoria mucronata</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8302	Endangered

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> https://ecos.fws.gov/ecp/species/321#crithab	Final



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Sacramento West (3812155) OR Clarksburg (3812145) OR Davis (3812156) OR Grays Bend (3812166) OR Knights Landing (3812176) OR Liberty Island (3812136) OR Rio Vista (3812126) OR Saxon (3812146) OR Taylor Monument (3812165) OR Verona (3812175) OR Sutter Causeway (3812186) OR Nicolaus (3812185))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Candidate Endangered	BLM S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	10 50	951 S:26	2	0	0	0	15	9	19	7	11	10	5
<i>Ammodramus savannarum</i> grasshopper sparrow	GS S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	25 240	25 S:2	0	1	1	0	0	0	0	2	2	0	0
<i>Anthicus antiochensis</i> Antioch Dunes anthicid beetle	G1 S1	None None		20 20	6 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Anthicus sacramento</i> Sacramento anthicid beetle	G1 S1	None None	IUCN_EN-Endangered	15 30	13 S:4	0	0	0	0	0	4	3	1	4	0	0
<i>Antrozous pallidus</i> pallid bat	GS S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	50 50	415 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Archoplites interruptus</i> Sacramento perch	G2G3 S1	None None	AFS TH-Threatened CDFV_SSC-Species of Special Concern	10 10	5 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Ardea alba</i> great egret	GS S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	15 25	43 S:2	2	0	0	0	0	0	1	1	2	0	0
<i>Ardea herodias</i> great blue heron	GS S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	25 25	155 S:1	1	0	0	0	0	0	0	1	1	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Astragalus tener</i> var. <i>ferrisiae</i> Ferris' milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive	15 15	18 S:4	1	0	0	0	0	3	3	1	4	0	0
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	G2T2 S2	None None	Rare Plant Rank - 1B.2	15 50	65 S:10	1	4	0	0	5	0	5	5	5	4	1
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	10 100	1971 S:68	2	13	26	6	4	17	27	41	64	2	2
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	35 35	66 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Atriplex depressa</i> brittlescale	G2 S2	None None	Rare Plant Rank - 1B.2	30 37	61 S:5	0	1	0	1	0	3	4	1	5	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None None		50 50	234 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus occidentalis</i> western bumble bee	G2G3 S1	None None	USFS_S-Sensitive XERCES_IM-Imperiled	25 50	282 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	15 15	43 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	5 25	766 S:11	0	2	5	0	0	4	0	11	11	0	0
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	G2 S2S3	None None		15 15	128 S:2	0	1	1	0	0	0	0	2	2	0	0
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	0 60	2460 S:363	45	76	27	5	2	208	43	320	361	2	0
<i>Carex comosa</i> bristly sedge	G5 S2	None None	Rare Plant Rank - 2B.1	5 5	29 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Centromadia parryi</i> ssp. <i>parryi</i> pappose tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	5 20	39 S:2	0	0	0	0	1	1	1	1	1	0	1



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	G3T3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	40 55	138 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Charadrius montanus</i> mountain plover	G3 S2S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	35 40	90 S:4	0	2	1	0	1	0	2	2	3	1	0
<i>Chloropyron palmatum</i> palmate-bracted bird's-beak	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	30 40	25 S:3	0	1	0	0	1	1	2	1	2	0	1
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	G5TH SH	None None		2 50	6 S:5	0	0	0	0	5	0	5	0	0	0	5
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	G3 S2.1	None None		35 35	60 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	5 35	155 S:7	1	0	0	0	2	4	6	1	5	0	2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	G3T2 S2	Threatened None		13 55	271 S:15	1	0	2	0	0	12	9	6	15	0	0
<i>Egretta thula</i> snowy egret	G5 S4	None None	IUCN_LC-Least Concern	15 15	20 S:1	1	0	0	0	0	0	1	0	1	0	0
<i>Elanus leucurus</i> white-tailed kite	G5 S3S4	None None	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	25 40	176 S:5	0	3	0	1	1	0	3	2	4	1	0
<i>Elderberry Savanna</i> Elderberry Savanna	G2 S2.1	None None		30 30	4 S:1	0	0	1	0	0	0	1	0	1	0	0



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	22 50	1344 S:4	0	3	0	0	0	1	1	3	4	0	0
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	G2 S2	None None	Rare Plant Rank - 1B.2	10 20	19 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Extriplex joaquinana</i> San Joaquin spearscale	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	5 40	124 S:10	0	1	4	1	0	4	5	5	10	0	0
<i>Falco columbarius</i> merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	40 40	36 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Falco peregrinus anatum</i> American peregrine falcon	G4T4 S3S4	Delisted Delisted	CDF_S-Sensitive CDFW_FP-Fully Protected USFWS_BCC-Birds of Conservation Concern	10 10	57 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	G2 S2.1	None None		15 15	56 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Great Valley Mixed Riparian Forest</i> Great Valley Mixed Riparian Forest	G2 S2.2	None None		25 33	68 S:4	1	1	1	0	0	1	4	0	4	0	0
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	G5T3 S3	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden	0 40	173 S:13	0	2	7	1	0	3	4	9	13	0	0
<i>Hypomesus transpacificus</i> Delta smelt	G1 S1	Threatened Endangered	AFS_TH-Threatened IUCN_EN-Endangered	0 0	27 S:2	0	0	0	1	0	1	0	2	2	0	0
<i>Juglans hindsii</i> Northern California black walnut	G1 S1	None None	Rare Plant Rank - 1B.1 SB_USDA-US Dept of Agriculture	0 0	5 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Lasionycteris noctivagans</i> silver-haired bat	G5 S3S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		139 S:1	0	0	0	0	0	1	1	0	1	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lasiurus blossevillii</i> western red bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	20 30	128 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Lasiurus cinereus</i> hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	20 30	238 S:4	0	0	0	0	0	4	2	2	4	0	0
<i>Laterallus jamaicensis coturniculus</i> California black rail	G3G4T1 S1	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	15 15	303 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Lathyrus jepsonii var. jepsonii</i> Delta tule pea	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_BerrySB-Berry Seed Bank SB_RSABG-Rancho Santa Ana Botanic Garden	0 5	131 S:5	0	1	0	0	0	4	3	2	5	0	0
<i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	G4T1 S1	None None	Rare Plant Rank - 1B.2	5 35	14 S:7	2	3	0	0	0	2	2	5	7	0	0
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	10 50	324 S:12	2	3	2	0	0	5	6	6	12	0	0
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	G2 S2	None Rare	Rare Plant Rank - 1B.1	0 13	197 S:16	0	7	4	0	0	5	4	12	16	0	0
<i>Limosella australis</i> Delta mudwort	G4G5 S2	None None	Rare Plant Rank - 2B.1	0 5	59 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Linderiella occidentalis</i> California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	5 80	435 S:13	0	2	2	3	0	6	1	12	13	0	0
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	G5 S3?	None None	CDFW_SSC-Species of Special Concern	0 20	92 S:15	0	0	0	0	0	15	2	13	15	0	0



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California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Myrmosula pacifica</i> Antioch multilid wasp	GH	None		50	3	0	0	0	0	0	1	1	0	0	1	0
	SH	None		50	S:1											
<i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia	G4T2	None	Rare Plant Rank - 1B.1	15	58	1	0	0	0	0	1	0	2	2	0	0
	S2	None	BLM_S-Sensitive	20	S:2											
<i>Neostapfia colusana</i> Colusa grass	G1	Threatened	Rare Plant Rank - 1B.1	25	62	0	1	1	1	0	0	0	3	3	0	0
	S1	Endangered		25	S:3											
<i>Nycticorax nycticorax</i> black-crowned night heron	G5	None	IUCN_LC-Least Concern	15	37	2	0	0	0	0	0	2	0	2	0	0
	S4	None		20	S:2											
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	G5T2Q	Threatened	AFS_TH-Threatened	20	31	0	0	0	0	0	6	0	6	6	0	0
	S2	None		20	S:6											
<i>Oncorhynchus tshawytscha pop. 6</i> chinook salmon - Central Valley spring-run ESU	G5	Threatened	AFS_TH-Threatened	20	13	0	0	0	1	0	1	0	2	2	0	0
	S1	Threatened		120	S:2											
<i>Oncorhynchus tshawytscha pop. 7</i> chinook salmon - Sacramento River winter-run ESU	G5	Endangered	AFS_EN-Endangered	20	2	0	0	0	1	0	0	0	1	1	0	0
	S1	Endangered		20	S:1											
<i>Plagiobothrys hystriculus</i> bearded popcornflower	G2	None	Rare Plant Rank - 1B.1	16	14	0	0	0	0	0	1	0	1	1	0	0
	S2	None		16	S:1											
<i>Plegadis chihi</i> white-faced ibis	G5	None	CDFW_WL-Watch List	30	20	0	1	0	0	0	0	1	0	1	0	0
	S3S4	None	IUCN_LC-Least Concern	30	S:1											
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	GNR	None	AFS_VU-Vulnerable	20	15	0	1	0	0	0	0	1	0	1	0	0
	S3	None	CDFW_SSC-Species of Special Concern IUCN_EN-Endangered	20	S:1											
<i>Progne subis</i> purple martin	G5	None	CDFW_SSC-Species of Special Concern	24	71	0	0	0	0	0	1	0	1	1	0	0
	S3	None	IUCN_LC-Least Concern	24	S:1											
<i>Puccinellia simplex</i> California alkali grass	G3	None	Rare Plant Rank - 1B.2	25	71	0	0	0	0	4	4	7	1	4	3	1
	S2	None		40	S:8											
<i>Riparia riparia</i> bank swallow	G5	None	BLM_S-Sensitive	12	297	0	4	0	0	0	15	8	11	19	0	0
	S2	Threatened	IUCN_LC-Least Concern	42	S:19											



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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	0 5	126 S:7	0	4	0	0	0	3	1	6	7	0	0
<i>Spirinchus thaleichthys</i> longfin smelt	G5 S1	Candidate Threatened	CDFW_SSC-Species of Special Concern	0 30	46 S:7	0	0	0	0	0	7	1	6	7	0	0
<i>Symphotrichum lentum</i> Suisun Marsh aster	G2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	0 10	173 S:24	0	6	8	1	0	9	1	23	24	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	5 45	559 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Thaleichthys pacificus</i> eulachon	G5 S3	Threatened None			10 S:1	0	0	0	0	0	1	0	1	1	0	0
<i>Thamnophis gigas</i> giant gartersnake	G2 S2	Threatened Threatened	IUCN_VU-Vulnerable	1 40	366 S:144	8	73	22	5	9	27	32	112	135	9	0
<i>Trifolium hydrophilum</i> saline clover	G2 S2	None None	Rare Plant Rank - 1B.2	10 38	49 S:4	0	1	1	0	0	2	1	3	4	0	0
<i>Tuctoria mucronata</i> Crampton's tuctoria or Solano grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	25 25	4 S:2	0	1	1	0	0	0	0	2	2	0	0
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	15 15	483 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	5 5	13 S:1	0	0	0	0	0	1	1	0	1	0	0



Plant List

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	Federal Listing Status	State Listing Status	CA Rare Plant Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May			1B.1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun			1B.2
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	Apr-Oct			1B.2
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb	Apr-Oct			1B.2
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep			2B.1
Chloropyron palmatum	palmate-bracted bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct	FE	CE	1B.1
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May			2B.2
Eryngium jepsonii	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug			1B.2
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct			1B.2
Hibiscus lasiocarpus var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep			1B.2
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May			1B.1
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)			1B.2
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May			1B.2
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov		CR	1B.1
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug			2B.1
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	Mar-Jun			3.1
Navarretia leucocephala ssp.	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul			1B.1

bakeri

<u>Neostapfia colusana</u>	Colusa grass	Poaceae	annual herb	May-Aug	FT	CE	1B.1
<u>Plagiobothrys hystriculus</u>	bearded popcornflower	Boraginaceae	annual herb	Apr-May			1B.1
<u>Puccinellia simplex</u>	California alkali grass	Poaceae	annual herb	Mar-May			1B.2
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May- Oct(Nov)			1B.2
<u>Symphotrichum lentum</u>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May- Nov			1B.2
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	Apr-Jun			1B.2
<u>Tuctoria mucronata</u>	Crampton's tuctoria or Solano grass	Poaceae	annual herb	Apr-Aug	FE	CE	1B.1

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Appendix H3
CNDDB Figures

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Appendix H3. CNDDDB Figures

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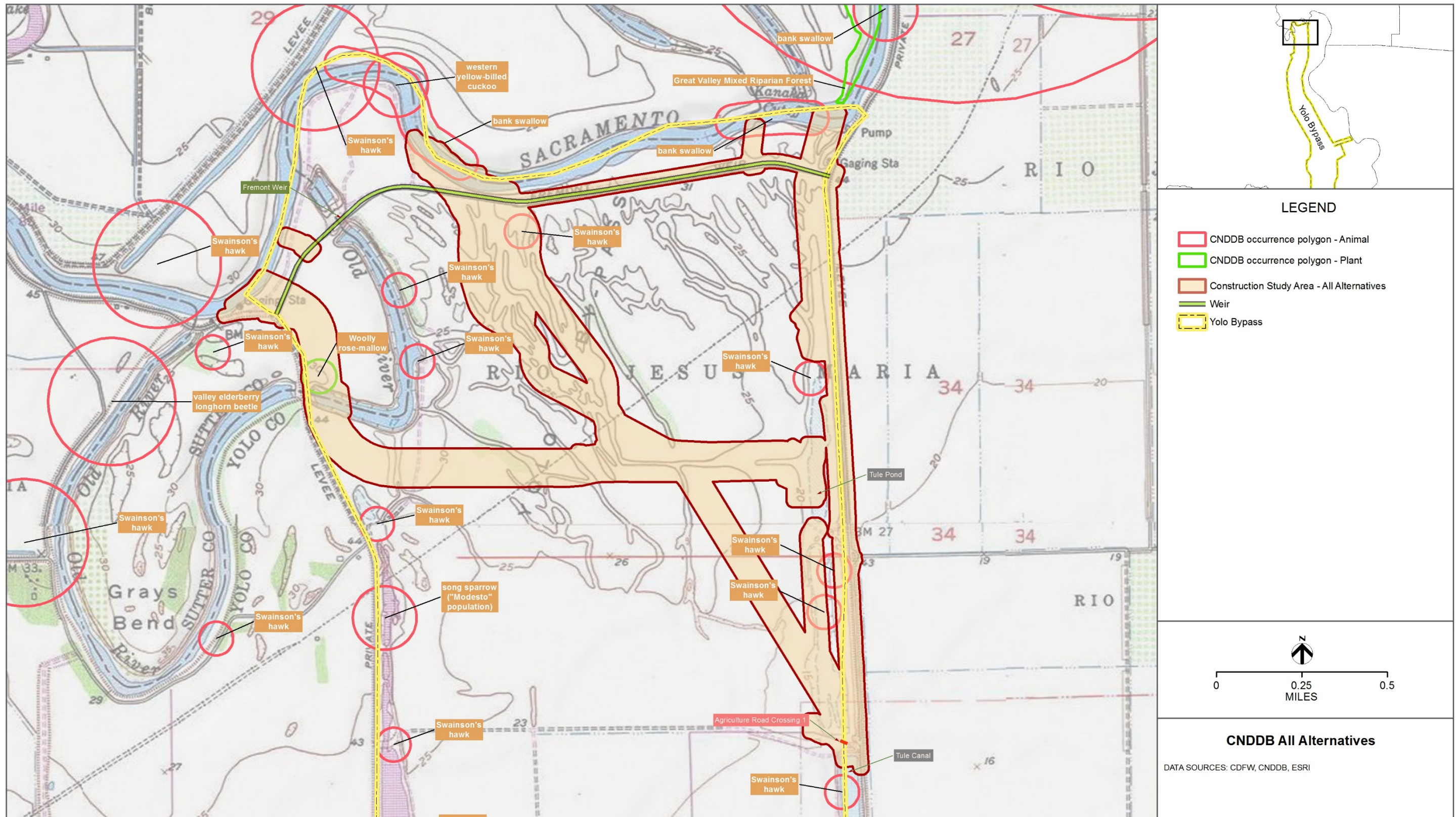


Figure H3-1.
CNDDB Occurrences within the Project Vicinity

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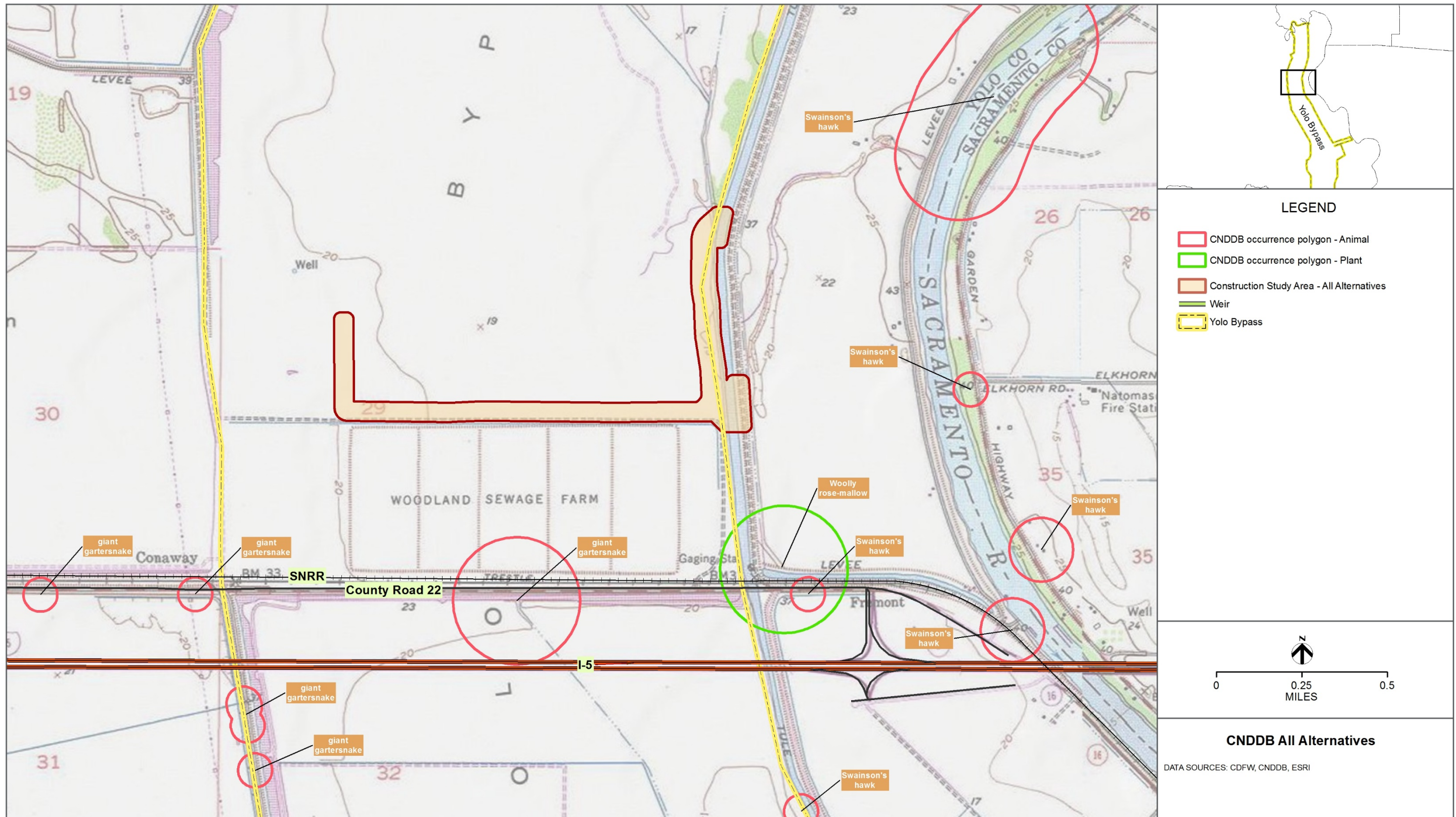


Figure H3-2.
CNDDB Occurrences within the Project Vicinity

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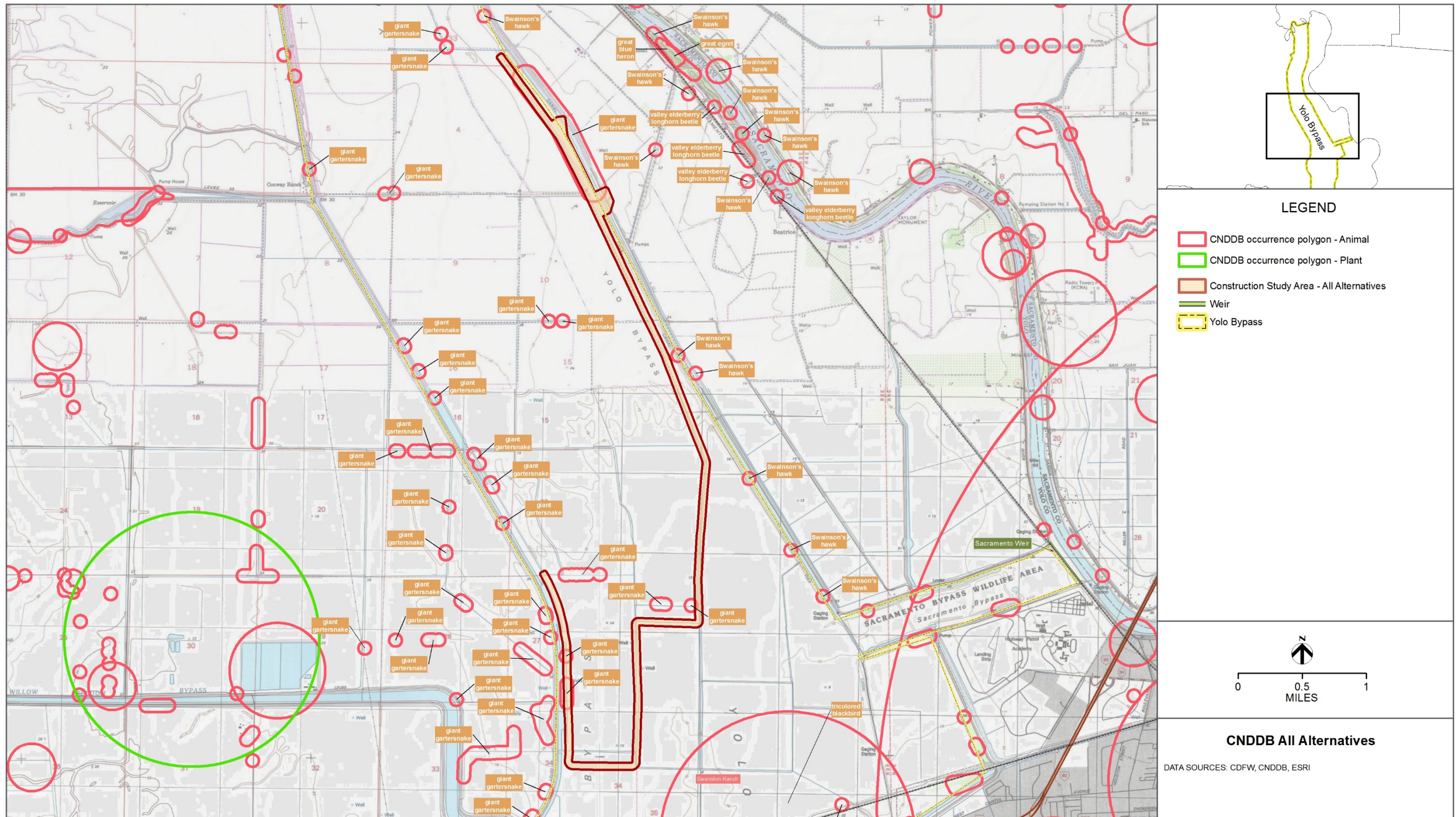


Figure H3-3.
CNDDB Occurrences within the Project Vicinity

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REFERENCES

California Department of Fish and Wildlife. 2018. California Natural Diversity Database (CNDDDB). Available from: www.map.dfg.ca.gov/rarefind. Accessed on: September 1, 2018.

Appendix H4. Special-Status Species Tables

Table H4-1. Special-Status Plant Species and their Potential for Occurrence in the Construction Study Area¹

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<i>Astragalus pauperculus</i> Depauperate milkvetch	-/-/4.3	Annual herb. Vernal mesic (wet) and volcanic soils in chaparral, cismontane woodland, and valley and foothill grassland from 200 to 4,000 feet (60 to 1,215 meters) above mean sea level (amsl). Blooms March through June.	Not Expected. Annual nonnative grassland may provide suitable habitat, but the study area is located below the species' known elevation range.

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<p><i>Astragalus tener</i> var. <i>ferrisiae</i> Ferris' milkvetch</p>	<p>-/-1B.1</p>	<p>Annual herb. Vernal mesic meadows and seeps, and subalkaline flats in valley and foothill grassland from 7 to 245 feet (2 to 75 meters) amsl. Known from only six sites in the Sacramento Valley, one of which is the Tule Ranch in the YBWA (CDFG 2008). Blooms April through May.</p>	<p>Not Expected. Seasonally wet areas with alkaline soils are not present in the study area. This species was not observed during botanical surveys.</p>

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<i>Astragalus tener</i> var. <i>tener</i> Alkali milkvetch	--/1B.2	Annual herb. Alkaline soils in playas, vernal pools, and adobe clay valley and foothill grasslands from 3 to 200 feet (1 to 60 meters) amsl. Blooms March through June.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. This species is known from the Tule Ranch Unit of the YBWA.

Scientific Name Common Name	Status Federal/State/ CRPR ²	General Habitat Description	Potential for Occurrence ³
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	-/-/1B.2	Annual herb. Saline or alkaline soils in chenopod scrub, meadows and seeps, and sandy areas of valley and foothill grassland below 1,837 feet (560 meters) amsl. Blooms April through October.	Potential. Sandy, alkaline soils in grassland provide suitable habitat in the study area for Alternatives 2 through 6. This species was not observed during botanical surveys. However, such surveys did not cover the area with suitable soils and habitat.
<i>Atriplex depressa</i> Brittlescale	-/-/1B.2	Annual herb. Alkaline clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools from 3 to 1,050 feet (1 to 320 meters) amsl. This plant has similar habitat requirements as heartscale and San Joaquin spearscale and is frequently found growing in association with these species. Blooms April through October.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys.
<i>Atriplex persistens</i> Vernal pool smallscale	-/-/1B.2	Annual herb. Drying bottoms of large, alkaline vernal pools from 33 to 377 feet (10 to 115 meters) amsl. Blooms June through October.	Not Expected. Vernal pools are not present in the study area, which is below the known elevation range for this species. The nearest suitable habitat for this species is at the Tule Ranch Unit of the YBWA (CDFG 2008).

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR ²	General Habitat Description	Potential for Occurrence ³
<i>Carex comosa</i> Bristly sedge	--/2B.1	Perennial rhizomatous herb. Coastal prairie, marshes and swamps (lake margins), and valley and foothill grassland below 2,050 feet (625 meters) amsl. Blooms May through September.	Potential. Marshes and grasslands provide suitable habitat in the study area for all alternatives. This species was not observed during botanical surveys.
<i>Centromadia parryi</i> ssp. <i>rudis</i> Parry's rough tarplant	--/4.2	Annual herb. Alkaline, vernal mesic soils, seeps, and sometimes roadsides in valley and foothill grasslands and vernal pools below 328 feet (100 meters) amsl. Blooms May through October.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. Suitable habitat is present at the Tule Ranch Unit of the YBWA.
<i>Chloropyron palmatum</i> Palmate salty bird's-beak	FE/SE/1B.1	Hemiparasitic annual herb. Saline-alkaline soils in seasonally flooded wetlands in chenopod scrub and valley and foothill grasslands from 16 to 508 feet (5 to 155 meters) amsl. This species grows in scattered localities in the Sacramento and San Joaquin Valleys and at Livermore in the Bay Area. Locally, it is frequently found growing on Pescadero saline-alkaline silty clay soils in association with salt grass, tarplant (<i>Hemizonia</i> spp.), Parish's glasswort (<i>Arthrocnemum subterminale</i>), and alkali heath (<i>Frankenia salina</i>) near Woodland, California. Blooms May through October.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. The nearest CNDDDB occurrence was observed in 2012 approximately 2.1 miles west of the Yolo Bypass, just outside of the City of Woodland.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> Peruvian dodder	--/2B.2	Parasitic annual vine. Freshwater marshes from 50 to 920 feet (15 to 280 meters) amsl. Blooms July through October.	Potential. Freshwater marshes provide suitable habitat in the study area. This species was not observed during botanical surveys.
<i>Downingia pusilla</i> Dwarf downingia	--/2B.2	Annual herb. Vernal pools or other seasonal wetlands in annual grasslands from 3 to 1,500 feet (1 to 445 meters) amsl. Blooms March through May.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. However, the entirety of the grasslands in the study area was not surveyed. Suitable habitat is present at the Tule Ranch Unit of the YBWA.
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	--/1B.2	Perennial herb. Clay soils in valley and foothill grassland and vernal pools from 10 to 985 feet (3 to 300 meters) amsl. Blooms April through August.	Not Expected. Suitable combination of habitat and soils is not present in the study area. This species was not observed during botanical surveys. This species is known from the Tule Ranch Unit of the YBWA.

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<i>Extriplex joaquinana</i> San Joaquin spearscale	--/1B.2	Annual herb. Alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland from 3 to 2,740 feet (1 to 835 meters) amsl. Blooms April through October.	Potential. Alkaline soils in grasslands and seeps provide suitable habitat in the study area. This species was not observed during botanical surveys. There are two CNDDDB occurrences of this species within the Yolo Bypass, south of I-80.
<i>Fritillaria agrestis</i> Stinkbells	-/4.2	Perennial bulbiferous herb. Clay, sometimes serpentine soils in chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland from 33 to 5,100 feet (10 to 1,555 meters) amsl. Blooms March through June.	Not Expected. Suitable combination of soils and habitat is not present in the study area, which occurs below the known elevation range for this species.
<i>Fritillaria liliacea</i> Fragrant fritillary	-/1B.2	Perennial bulbiferous herb. Often on serpentine soils in coastal scrub, coastal prairie, cismontane woodland, and clay soils in valley and foothill grassland from 1 to 1,345 feet (3 to 410 meters) amsl. Locally, this species is usually found growing on the tops of mima-mounds or other upland areas within vernal pool grasslands. Blooms February through April.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys.
<i>Gratiola heterosepala</i> Boggs Lake hedge- hyssop	-/SE/1B.2	Annual herb. Clay soils in margins of lakes, marshes, or swamps and deeper vernal pools from 33 to 7,800 feet (10 to 2,375 meters) amsl. Found at scattered locations in the Central Valley, northern Coast Ranges, central Sierra Foothills, and Modoc Plateau. Blooms April through August.	Not Expected. Clay soils are not present in the margins of marshes in the study area. This species was not observed during botanical surveys. Suitable habitat is present at the Tule Ranch Unit of the YBWA.
<i>Hesperevax caulescens</i> Hogwallow starfish	-/4.2	Annual herb. Found in mesic, clay soils in valley and foothill grassland and shallow vernal pools below 1,660 feet (505 meters) amsl. Blooms March through June.	Not Expected. Suitable combination of habitat and soils is not present in the study area. This species was not observed during botanical surveys. This species is known from the Tule Ranch Unit of the YBWA.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> Woolly rose-mallow	--/1B.2	Perennial rhizomatous herb. Often in riprap on sides of levees, margins of freshwater marshes, wet riverbanks, and on low, peat islands below 400 feet (120 meters) amsl. Blooms June through September.	Known. The banks of the Sacramento River provide potential habitat for this species. This species was observed during botanical surveys of the FWWA – three individuals were found along the old river oxbow, a fourth plant was found south of Fremont Weir near a scour pond, and a fifth plant was found by Agricultural Road Crossing 1 (DWR 2014a, 2015a) (See Figure 9-1 for locations). Suitable habitat for this species is present in the study area for all alternatives. There is also a CNDDDB occurrence outside of the construction study area near the north water control structure (See Appendix H2).
<i>Juglans hindsii</i> Northern California black walnut	--/1B.1	Perennial deciduous tree. Streams and disturbed slopes in the San Francisco Bay Area, inner North Coast ranges, and the Sacramento and San Joaquin valleys below 1,445 feet (440 meters) amsl. This species was formerly found throughout riparian areas in northern California and has served as rootstock for cultivated English walnuts. Northern California black walnut readily hybridizes with other walnuts, including other rootstock and English walnut; this propensity has reduced the genetic purity of extant native walnut stands and contributed to the increasing rarity of genetically pure individuals. Blooms April through May.	Known. There is suitable habitat for this species in the study area for all alternatives. One black walnut was documented within the FWWA in 2013 (Calflora 2016).
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	--/1B.2	Perennial herb. Freshwater and brackish marshes, usually on marsh/slough edges, generally restricted to the Sacramento-San Joaquin Delta below 16 feet (5 meters) amsl. This species is found only in the Sacramento-San Joaquin Delta where it grows within and above the upper tidal zone, frequently mixed among shrubby vegetation such as California rose, Himalayan blackberry, or sandbar willow (<i>Salix exigua</i>). Blooms May through September.	Potential. Freshwater marshes provide suitable habitat in the study area for all alternatives. This species was not observed during botanical surveys. This species is known from the YBWA, south of I-80.

Scientific Name Common Name	Status Federal/State/ CRPR ²	General Habitat Description	Potential for Occurrence ³
<i>Legenere limosa</i> Legenere	-/-/1B.1	Annual herb. Vernal pools from 3 to 2,890 feet (1 to 880 meters) amsl. This species grows in the bottoms of larger vernal pools, frequently with species such as pale spikerush (<i>Eleocharis macrostachya</i>) and rayless goldfields (<i>Lasthenia glaberrima</i>). It may also be found with the related dwarf downingia. Blooms April through June.	Not Expected. Vernal pools are not present in the study area. This species is known from the Tule Ranch Unit of the YBWA.
<i>Lepidium latipes</i> Heckard's pepper grass	-/-/1B.2	Annual herb. Alkaline flats in annual grasslands and edges of vernal pools from 6 to 660 feet (2 to 200 meters) amsl. This species typically co-occurs with plants such as rye grass, dwarf pepperweed (<i>Lepidium latipes</i>), smooth goldfields (<i>Lasthenia glabrata</i> ssp. <i>glabrata</i>), and annual hairgrass (<i>Deschampsia danthonioides</i>). Blooms March through May.	Potential. Grasslands with alkaline soils provide suitable habitat in the study area for Alternatives 2 through 6. This species was not observed during botanical surveys, although surveys were not conducted during this species' blooming period. This species has been documented at the Tule Ranch Unit of the YBWA.
<i>Lessingia hololeuca</i> Woolly-headed lessingia	-/-/3	Annual herb. Sometimes restricted to clay or serpentine soils in broadleafed upland forest, coastal scrub, lower montane coniferous forest, and valley and foothill grassland (sometimes roadsides) from 50 to 1,000 feet (15 to 305 meters) amsl. Blooms June through October.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys.
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	-/SR/1B.1	Perennial rhizomatous herb. Flooded tidal zones on mud banks and flats along erosional creek banks, sloughs, and rivers with freshwater marsh, brackish marsh, or riparian scrub influenced by saline water below 33 feet (10 meters) amsl. Blooms April through November.	Not Expected. Tidally influenced habitat is not present in the study area. This species was not observed during botanical surveys.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR²	General Habitat Description	Potential for Occurrence³
<i>Limosella australis</i> Delta mudwort	-/-/2B.1	Perennial stoloniferous herb. Usually found on mud banks of both freshwater and brackish marshes and riparian scrub areas below 10 feet (3 meters) amsl. Similar to Masons' lilaepsis, this plant is frequently found in microhabitats where bank sloughing and other similar disturbances have created localized areas of saturated fine sediment (clay and silty clay) deposition below the average high tide level (CDFG 2008). Blooms May through August.	Not Expected. Suitable microhabitat (saturated fine sediment in mud banks of marshes and riparian scrub) is not present in the study area. This species was not observed during botanical surveys. The nearest known CNDDDB occurrences are south of Sacramento.
<i>Myosurus minimus</i> Little mousetail	-/-/3.1	Annual herb. Valley and foothill grasslands and alkaline vernal pools from 66 to 2,100 feet (20 to 640 meters) amsl. Central Valley populations are thought to be hybrids of <i>M. minimus</i> and <i>M. sessilis</i> . Blooms March through June.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. Known from the Tule Ranch Unit of the YBWA.
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i> Baker's navarretia	-/-/1B.1	Annual herb. Mesic, alkaline clay soils in vernal pools and swales in cismontane woodlands, lower montane coniferous forest, meadows and seeps, and valley and foothill grasslands from 16 to 5,710 feet (5 to 1,740 meters) amsl. Blooms April through July.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. The closest CNDDDB occurrence of this species is at the Tule Ranch Unit of the YBWA.
<i>Neostapfia colusana</i> Colusa grass	FT/SE/1B.1	Annual herb. Found in large adobe vernal pools, usually in alkaline basins as well as acidic soils from 16 to 656 feet (5 to 200 meters) amsl. This species tends to be found in larger, deeper vernal pools where it grows on the drying pool bottoms, frequently later into the summer than many other vernal pool plants. It is widely distributed throughout suitable habitats within the Central Valley, although it is uncommon wherever found. Blooms May through August.	Not Expected. Vernal pools are not present in the study area. This species was not observed during botanical surveys. Suitable habitat for this species may be present at the Tule Ranch Unit of the YBWA.
<i>Plagiobothrys hystriculus</i> Bearded popcornflower	-/-/1B.1	Annual herb. Found in vernal swales, vernal pool margins, and mesic valley and foothill grasslands below 900 feet (274 meters) amsl. Blooms April through May.	Not Expected. Suitable combination of soils and habitat is not present in the study area. Known from the Tule Ranch Unit of the YBWA and locations further south in Solano County.

Scientific Name Common Name	Status Federal/State/ CRPR ²	General Habitat Description	Potential for Occurrence ³
<i>Puccinellia simplex</i> California alkali grass	-/-/1B.2	Annual herb. Alkaline flats in valley and foothill grasslands from 6 to 3,050 feet (2 to 930 meters) amsl. Blooms March through May.	Potential. Alkaline grasslands provide suitable habitat in the study area for Alternatives 2 through 6. This species was not observed during botanical surveys, although surveys were not conducted during this species' blooming period. Suitable habitat for this species may also be present at the Tule Ranch Unit of the YBWA.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	-/-/1B.2	Perennial rhizomatous herb. Found in shallow freshwater marshes and swamps below 2,130 feet (650 meters) amsl. Blooms May through November.	Potential. Freshwater marshes provide suitable habitat in the study area for all alternatives. This species was not observed during botanical surveys.
<i>Symphyotrichum lentum</i> Suisun Marsh aster	-/-/1B.2	Perennial rhizomatous herb. Found in brackish and freshwater marshes along the banks of sloughs and other waterways below 985 feet (300 meters) amsl. This species grows in marshes along tidal streams in the Sacramento-San Joaquin Delta, frequently at or very near the water line mixed with tules, cattails, and other emergent vegetation. Blooms April through November.	Potential. Freshwater marsh provides suitable habitat in the study area for all alternatives. This species was not observed during botanical surveys. There are two CNDDDB occurrences of this species within the Yolo Bypass south of I-80.
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	-/-/2B.1	Annual herb. Alkaline soils in meadows and seeps, marshes and swamps, riparian forests, and vernal pools from 16 to 1,430 feet (5 to 435 meters) amsl. Blooms May through September.	Not Expected. Suitable combination of soils and habitat is not present in the study area. This species was not observed during botanical surveys. Suitable habitat for this species may be present at the Tule Ranch Unit of the YBWA.
<i>Trifolium hydrophilum</i> Saline clover	-/-/1B.2	Annual herb. Salt marshes and alkaline soils in moist valley and foothill grasslands and vernal pools below 1,050 feet (320 meters) amsl. Blooms April through June.	Potential. Alkaline grasslands provide suitable habitat in the study area for Alternatives 2 through 6. This species was not observed during botanical surveys, although surveys were not conducted during the blooming period for this species.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ CRPR ²	General Habitat Description	Potential for Occurrence ³
<i>Tuctoria mucronata</i> Solano grass [also called Crampton's tuctoria]	FE/SE/1B.1	Annual herb. Found in valley and foothill mesic grassland and in vernal pools from 16 to 32 feet (5 to 10 meters) amsl. This species tends to be found in larger, deeper vernal pools where it grows on the drying pool bottoms, frequently later into the summer than many other vernal pool plants. It is widely distributed throughout suitable habitats within the Central Valley, although it is uncommon wherever found. Blooms April through August.	Not Expected. Vernal pools and appropriate seasonal wetland conditions suitable for this species are not present in the study area. This species was not observed during botanical surveys. This species is known from the vicinity of the Yolo Bypass and it could occur in suitable habitat at the Tule Ranch unit (CDFG 2008) of the YBWA.

Sources: CDFG 2008, CDFW 2018; USFWS 2018, DWR 2014a, DWR 2015a

¹ For the purposes of this analysis, the study area includes the construction footprint plus a 100-foot buffer. If operations impacts are expected on any species potentially occurring within the Yolo Bypass, those are discussed separately in Chapter 9 of the EIS/EIR.

² Status:

- FE Federally Endangered
- FT Federally Threatened
- FC Federal Candidate for Listing
- SE Endangered in California
- ST Threatened in California
- SR Rare in California

*CNPS Rare Plant Ranks (California Rare Plant Ranks are assigned by a committee of government agency and non-governmental botanical experts and are not official State designations of rarity status):

- 1A Presumed extinct in CA
- 1B Rare, threatened, or endangered in CA and elsewhere
- 2B Rare, threatened, or endangered in CA but more common elsewhere
- 3 Plants about which more information is needed - A Review List
- 4 Plants of limited distribution - A Watch List

Threat Ranks

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

³ Life history information included when necessary to determine the potential for occurrence within the study area or to support the associated impact analysis.

Not Expected: Not expected to occur: Species is unlikely to be present in the study area due to poor habitat quality, lack of suitable habitat features (vegetation communities and/or soils), or restricted current distribution of the species.

Potential: A suitable combination of soils and habitat is present in the study area. This species may also be known from the project vicinity, but not within the study area.

Known: The species, or evidence of its presence, was observed in the study area during reconnaissance surveys, or was reported by others.

Table H4-2. Special-Status Wildlife Species and their Potential for Occurrence in the Construction Study Area¹

Scientific Name Common Name	Status Federal/State/ Other²	General Habitat Description	Potential for Occurrence³
INVERTEBRATES			
<i>Anthicus antiochensis</i> <i>Antioch Dunes anthicid beetle</i>	--/--/--	Found along rivers in interior sand dunes and sand bars, and in dredge spoil heaps.	Suitable soils and habitat area not present in the study area. Known from south of the Yolo Bypass.
<i>Anthicus sacramento</i> <i>Sacramento anthicid beetle</i>	--/--/--	Found along rivers in interior sand dunes and sand bars, and in dredge spoil heaps.	Suitable soils and habitat area not present in the study area. Known from south of the Yolo Bypass.
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	FE/--/--	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large turbid vernal pools. Large pools are filled by winter and spring rains and usually last into June.	Not Expected. Vernal pools and suitable grasslands are not present in the study area. Nearest known occurrence of this species is in vernal pools at the Tule Ranch Unit of the YBWA.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT/--/--	Vernal pools and other seasonal wetlands in valley and foothill grasslands.	Not Expected. Vernal pools and suitable seasonal wetlands are not present in the study area. Nearest known occurrence of this species is in vernal pools at the Tule Ranch Unit of the YBWA.
<i>Branchinecta mesovallensis</i> Midvalley fairy shrimp	--/--/--	Small vernal pools and seasonal wetlands less than 202 m ² in area (average area 67 m ²), with average depth of 10 cm (range 5-15 cm).	Not Expected. Vernal pools and suitable seasonal wetlands are not present in the study area. Nearest known occurrence of this species is in vernal pools at the Tule Ranch Unit of the YBWA.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT/--/--	Elderberry shrubs (<i>Sambucus</i> spp.) below 3,000 feet in elevation, typically in riparian habitats.	Known. Assumed present because elderberry shrubs, its host plant, occur in the study area for Alternatives 3, 4, and 6. Twenty-two elderberry shrubs have been mapped within the FWWA, 2 along the old river oxbow and 20 at the north end of the survey area adjacent to the Sacramento River. Only 3 of these plants are located within the study area for Alternatives 3, 4, and 6 (See Figure 9-1 for locations). There are CNDDB occurrences of this species just outside of the FWWA, along the old river oxbow, and along the Sacramento River east of the south water control structure (See Appendix H2). Known from the Yolo Bypass.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ Other²	General Habitat Description	Potential for Occurrence³
<i>Elaphrus viridis</i> Delta green ground beetle	FT/--/--	Lives in areas of grassland interspersed with vernal pools including several larger vernal pools.	Not Expected. Suitable grassland habitat interspersed with vernal pools is not present in the study area. This species has only been found in the greater Jepson Prairie in south-central Solano County.
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE/--/--	Vernal pools and other seasonal wetlands in valley and foothill grasslands.	Not Expected. Vernal pools and suitable seasonal wetlands are not present in the study area. Nearest known occurrence of this species is in vernal pools at the Tule Ranch Unit of the YBWA.
<i>Linderiella occidentalis</i> California linderiella	--/--/--	Vernal pools and seasonal wetlands from 1 to 52,500 m ² in area (average area 1,283 m ²), with average depth of 19 cm (range 3–151 cm).	Not Expected. Vernal pools and suitable seasonal wetlands are not present in the study area. Nearest known occurrence of this species is in vernal pools at the Tule Ranch Unit of the YBWA.
AMPHIBIANS			
<i>Ambystoma californiense</i> California tiger salamander	FT/ST/SSC	Grassland habitats of the valleys and foothills. Vernal pools and seasonal wetlands with a minimum 10-week inundation period and surrounding uplands. Requires burrows for aestivation and standing water until late spring for larvae to metamorphose. Most of the habitat for this species has been eliminated from the Central Valley lowlands, and remaining localities are largely clustered in a ring around the Central Valley foothills.	Not Expected. Suitable vernal pool and seasonal wetland habitat is not present in the study area. Nearest known location of suitable habitat for this species is in vernal pools at the Tule Ranch Unit of the YBWA.
<i>Rana draytonii</i> California red-legged frog	FT/--/SSC	Aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds, and lagoons.	Not Expected. The study area is outside the known geographic range for this species.
<i>Spea hammondii</i> Western spadefoot toad	--/--/SSC	In winter, breeds in vernal pools and seasonal wetlands with a minimum 3-week inundation period. In summer, aestivates in grassland habitat, soil crevices, and rodent burrows.	Not Expected. Suitable vernal pool and seasonal wetland habitat is not present in the study area. The Tule Ranch Unit of the YBWA provides suitable habitat.

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
REPTILES			
<i>Emys marmorata</i> Western pond turtle	--/--/SSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation, and either rocky or muddy bottoms in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking.	Known. Assumed present in agricultural ditches and slow-moving watercourses in the study area for all alternatives. Adjacent upland areas provide suitable basking habitat. Based on surveys, habitat quality within the study area is high. This species was observed near Wallace Weir during surveys.
<i>Thamnophis gigas</i> Giant garter snake	FT/ST/--	This species is endemic to California Central Valley wetlands. Requires sufficient water during the active summer season; emergent, herbaceous aquatic vegetation accompanied by vegetated banks to provide basking and foraging habitat; bankside burrows, holes, and crevices; and high ground or upland habitat above the annual high water mark to provide cover and refugia from floodwaters.	Known. Assumed present in agricultural ditches and slow-moving watercourses in the study area for all alternatives. Giant garter snakes are known to occur in the project vicinity. Based on surveys, habitat quality within the study area ranges from moderate to good. A garter snake not identified to species was observed during surveys. There are CNDDDB occurrences of this species outside the north water control structure, along the Sacramento River levee toe drains, along the south water control structure in the agricultural fields, along the levee, and in the Tule Canal (See Appendix H2).
BIRDS			
<i>Accipiter striatus</i> Sharp-shinned hawk	--/--/SSC	Winter visitor to the Central Valley floor. Forages primarily in riparian woodlands and other wooded habitats, where it preys primarily on small birds.	Potential. Suitable foraging habitat is present in woodland habitats in the study area for all alternatives. This species is known to forage in riparian habitat along Putah Creek and Sacramento River levee toe drains; these areas provide suitable winter foraging habitat.
<i>Accipiter cooperii</i> Cooper's hawk	--/--/SSC	Nests and forages primarily in riparian woodlands and other wooded habitats, where it preys primarily on birds and, to a lesser extent, small mammals.	Known. Riparian woodlands provide suitable nesting and foraging habitat in the study area for all alternatives. One Cooper's hawk pair was observed foraging and exhibiting courtship behavior (and was presumed nesting) within the FWWA during surveys. This species is known to forage in riparian habitat throughout the Yolo Bypass during fall and winter.

Appendix H4. Special-Status Species Tables

<p>Scientific Name Common Name</p>	<p>Status Federal/State/ Other²</p>	<p>General Habitat Description</p>	<p>Potential for Occurrence³</p>
<p><i>Agelaius tricolor</i> Tricolored blackbird</p>	<p>UR/--/SSC</p>	<p>Breeds in freshwater marshes with tall emergent vegetation, in upland habitats, and in silage fields. Forages in agricultural areas, particularly where livestock is present. Typically nests from mid-April to late July.</p>	<p>Known. Agricultural fields provide suitable foraging habitat and freshwater emergent wetlands provide suitable nesting habitat in the study area for all alternatives. This species was observed during surveys, but no nests or nesting behavior were documented. The nearest CNDDDB occurrence of this species is north of I-80.</p>
<p><i>Ammodramus savannarum</i> Grasshopper sparrow (nesting)</p>	<p>--/--/SSC</p>	<p>Grasshopper sparrows prefer open grasslands with bare ground for foraging and habitat with shrub cover and heavy vegetation for nesting. This species typically nests from early April to mid-July, with a peak in May and June.</p>	<p>Potential. Grasslands and scrub habitats provide suitable foraging and nesting habitat in the study area for all alternatives. This species was not observed during surveys. It is known to breed in the YBWA.</p>
<p><i>Antigone canadensis tabida</i> Greater sandhill crane</p>	<p>--/ST/FP</p>	<p>Winter visitor to the Central Valley. Forages primarily in moist croplands with rice or corn stubble; also frequents grasslands and emergent wetlands. In winter, this species is most densely concentrated in counties south of Yolo County, in agricultural regions and large preserves that support vast fields of suitable habitat.</p>	<p>Potential. Agricultural fields, grasslands, and wetlands provide suitable winter foraging habitat in the study area for all alternatives. This species was not observed during surveys. Water levels in the agricultural fields and wetlands in the northern management units of the YBWA are managed to provide high-quality foraging habitat for cranes and similar species.</p>
<p><i>Aquila chrysaetos</i> Golden eagle</p>	<p>--/--/FP</p>	<p>Nests and forages in a variety of open habitats, including grassland and cropland, but most common in foothill and shrub-steppe habitats, where it preys on jackrabbits, other mid-sized mammals, and upland game birds. Rare breeder in the Central Valley foothills; breeds in cliffs, rock outcrops, and large trees.</p>	<p>Potential. Grasslands and agricultural fields in the study area for all alternatives provide suitable foraging habitat, but the study area is not suitable for nesting. This species was not observed during surveys, but is known to occasionally forage in upland habitats throughout the Yolo Bypass during winter.</p>
<p><i>Ardea alba</i> Great egret</p>	<p>--/--/--</p>	<p>Nests colonially in tall trees. Forages in fresh and saline marshes, shallow open water, and occasionally cropland or low, open upland habitats.</p>	<p>Known. Known to forage in wetlands, uplands, and agricultural fields in the study area for all alternatives. Breeding colonies were documented adjacent to the FWVA during surveys. There is a CNDDDB occurrence that was observed in 2016 along the Sacramento River, south of I-80.</p>

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
<i>Ardea herodias</i> Great blue heron	--/--/--	Nests colonially in tall trees. Forages in fresh and saline marshes, shallow open water, and occasionally cropland or low, open, upland habitats.	Known. Known to forage in wetlands, uplands, and agricultural fields in the study area for all alternatives; suitable nesting habitat is also present in the study area for all alternatives. Breeding colonies were documented adjacent to the FWWA during surveys. Known to breed and forage in the Yolo Bypass, with CNDDDB occurrences along the Sacramento River east of the south water control structure (See Appendix H2).
<i>Asio flammeus</i> Short-eared owl	--/--/SSC	Winter visitor to and rare nesting species in Yolo County. Forages in open habitats, including emergent wetlands, grasslands, shrublands, and agricultural fields. Typically nests on the ground in prairies and agricultural areas from early March through July.	Potential. Grasslands, emergent wetlands, and agricultural fields provide suitable foraging and nesting habitat in the study area for all alternatives. This species was not observed during surveys, but is known to occur in the Yolo Bypass (Brice 2016).
<i>Athene cunicularia</i> Burrowing owl	--/--/SSC	Prefers open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. In agricultural environments, burrowing owls nest along roadsides and water conveyance structures surrounded by crops. Nests and roost burrows are commonly dug by ground squirrels. Nests from February through August, with peak nesting occurring in April and May.	Potential. Grasslands and agricultural fields provide suitable habitat, although the tall vegetation and regular flooding within the study area for all alternatives is not optimal. This species was not observed during surveys and very few suitable burrows were observed. There are 13 CNDDDB occurrences of this species in the Yolo Bypass south of I-80.
<i>Aythya americana</i> Redhead	--/--/SSC	Nests in freshwater emergent wetlands where dense stands of cattails and tules are interspersed with areas of deep, open water. In winter and during migration, forages and rests on large, deep bodies of water and feeds on submergent aquatic plants and insects.	Potential. Freshwater emergent wetlands provide suitable nesting and foraging habitat in the study area for all alternatives. This species was not observed during surveys, but is known to occur in the Yolo Bypass (Brice 2016).
<i>Buteo regalis</i> Ferruginous hawk	--/--/SSC	Winter visitor to the Central Valley. Forages most commonly in grasslands and shrub-steppe; also forages in agricultural fields. Preys primarily on rabbits as well as other small mammals and birds.	Potential. Grasslands and agricultural fields provide suitable winter foraging habitat in the study area for all alternatives when not flooded.

Appendix H4. Special-Status Species Tables

<p>Scientific Name Common Name</p>	<p>Status Federal/State/ Other²</p>	<p>General Habitat Description</p>	<p>Potential for Occurrence³</p>
<p><i>Buteo swainsoni</i> Swainson's hawk</p>	<p>--/ST/--</p>	<p>Forages in grasslands with scattered trees, juniper sage flats, riparian areas, savannahs, and agricultural or ranch habitats. Nests from late March through late August, with peak nesting activity occurring late May through July.</p>	<p>Known. Trees in riparian forest and riparian scrub provide suitable nesting habitat in the study area for all alternatives. Grasslands and agricultural fields in the study area for all alternatives provide suitable foraging habitat. At least eight pairs were observed foraging and nesting within the FWWA during surveys. This species was also observed at Agricultural Road Crossing 1, but no nests were found there. There are numerous CNDDDB occurrences of this species within and adjacent to the FWWA, outside the north water control structure along the Sacramento River and levee toe drains, and along Tule Canal near the south water control structure (See Appendix H2).</p>
<p><i>Charadrius alexandrinus nivosus</i> Western snowy plover</p>	<p>FT/--/SSC</p>	<p>A small shorebird, this species inhabits beaches, dry mud or salt flats, and sandy shores of rivers, lakes, and ponds. Nests on the ground on broad, open beaches or salt or dry mud flats, where vegetation is sparse or absent (small clumps of vegetation are used for cover by chicks).</p>	<p>Not Expected. Salt and dry mud flats do not occur in the study area.</p>
<p><i>Charadrius montanus</i> Mountain plover</p>	<p>--/--/SSC</p>	<p>Nests exclusively in flat, arid, sparsely vegetated areas, permitting a full view of its surroundings. Short-grass prairies are preferred. Where grasses are taller, plovers stick to areas that have been heavily grazed or recently burned. Winters in short-grass plains and fields, plowed fields, and sandy deserts. This species only overwinters in California, typically from September to mid-March.</p>	<p>Potential. Grasslands and agricultural fields provide suitable wintering habitat in the study area for all alternatives. Sparsely vegetated areas provide potential nesting habitat. This species was not observed during surveys.</p>
<p><i>Chlidonias niger</i> Black tern</p>	<p>--/--/SSC</p>	<p>Nests in freshwater marsh and rice habitats, forages for fish and insects in open water, rice, and marsh. Inhabits inland California and the Delta during summer, and forages primarily in marine habitats in winter. This species is present in Yolo County primarily during migration.</p>	<p>Potential. Freshwater marsh and open water habitats provide suitable habitat in the study area for all alternatives during spring migration. This species was not observed during surveys.</p>

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
<p><i>Circus cyaneus</i> Northern harrier</p>	<p>--/--/SSC</p>	<p>Nests and forages in open habitats including marshes, grasslands, shrublands, and agricultural fields. Nests from April to September, with peak activity from June through July.</p>	<p>Known. Open grassland habitats and marshes provide suitable nesting and foraging habitat in the study area for all alternatives. This species was observed at Agricultural Road Crossing 1 during surveys, although no nests were found. The nearest CNDDDB occurrence was observed in 2015 approximately 5.7 miles northwest of the project area, north of Davis.</p>
<p><i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo</p>	<p>FC/SE/--</p>	<p>Breeding habitat primarily consists of large blocks or contiguous areas of riparian habitat, particularly cottonwood-willow riparian woodlands. Prefers dense riparian thickets with dense, low-level foliage near slow-moving water sources. This species nests from mid-June through August, with most eggs laid from mid-June through mid-July.</p>	<p>Known. Dense riparian areas in the northwestern part of the study area for all alternatives provide suitable nesting and foraging habitat, although the quality of the habitat is not high due to a lack of preferred mid-successional forest structure. This species was not observed and did not respond to recorded calls during surveys. Two records of this species from within the FWWA are from June and July 2006; these individuals were presumed to be migrants based on the timing and lack of subsequent observations (Brice 2016). There are CNDDDB occurrences of this species outside of the FWWA along the Sacramento River (See Appendix H2).</p>
<p><i>Dendroica petechia brewsteri</i> California yellow warbler</p>	<p>--/--/SSC</p>	<p>Nests in riparian woodland and riparian scrub habitat, where it gleans insects from foliage. Forages in a variety of wooded and shrubland habitats during migration. This species is currently present in Yolo County only during migration. Yellow warbler has declined dramatically in California's Central Valley with the loss of riparian habitat, and this species has not been known to breed in Yolo County since 1974 (Gaines 1974).</p>	<p>Potential. Riparian woodland and scrub provide suitable nesting and foraging habitat in the study area for all alternatives. This species is known to forage in low numbers in riparian habitats along Putah Creek and the Sacramento River levee toe drains; these areas provide suitable foraging habitat during migration.</p>

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ Other²	General Habitat Description	Potential for Occurrence³
<i>Egretta thula</i> Snowy egret	--/--/--	Nests colonially in tall trees. Forages in fresh and saline marshes, shallow open water, and occasionally irrigated cropland or wet upland habitats.	Known. Marshes in the study area for all alternatives provide suitable foraging habitat. No breeding colonies are present onsite, but suitable nesting habitat is present. This species was observed at the FWWA and Agricultural Road Crossing 1 during surveys, but no nests or nesting behavior were evident.
<i>Elanus leucurus</i> White-tailed kite	--/--/FP	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees. Nests from February to October, with peak nesting activity from May to August.	Known. Trees in riparian forest and scrub provide suitable nesting and foraging habitat in the study area. This species was observed at the FWWA during surveys, but no nests were found.
<i>Empidonax traillii brewsteri</i> Little willow flycatcher	--/SE/--	Migrates through the Central Valley during spring and fall. Forages in riparian willow scrub and nests in montane riparian willows.	Potential. Riparian willow scrub provides suitable foraging habitat in the study area for all alternatives. This species was not observed during surveys. It is known to forage in low numbers in riparian habitats along Putah Creek and the Sacramento River levee toe drains; these areas provide suitable foraging habitat during migration.
<i>Eremophila alpestris actia</i> California horned lark	--/--/SSC	Nests and forages in open habitats with short vegetation (often less than four inches high) or bare ground, including grasslands and fallow agricultural fields.	Potential. Grasslands provide suitable foraging habitat, although the availability of short vegetation and bare ground is limited in the study area for all alternatives. This species was not observed during surveys, but is known to be a year-round resident in the Yolo Bypass.
<i>Falco columbarius</i> Merlin	--/--/SSC	Winter visitor to California. Forages in a wide variety of habitats, but in the Central Valley it is most commonly found around agricultural fields and in grasslands. Feeds primarily on small shorebirds and passerines.	Potential. Grasslands and agricultural fields provide suitable foraging habitat in the study area for all alternatives during winter when they are not flooded.
<i>Falco mexicanus</i> Prairie falcon	--/--/SSC	Currently presumed to be a non-breeding winter visitor to Yolo County. Forages most commonly in grasslands and shrub-steppe; also forages in agricultural fields. Preys on small mammals and less frequently on birds.	Potential. Grasslands and agricultural fields provide suitable foraging habitat in the study area for all alternatives. This species was not observed during surveys.

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
<i>Falco peregrinus anatum</i> American peregrine falcon	--/SE/FP	Nonbreeding visitor to the Central Valley. Forages in a wide variety of habitats, but is most common in mudflats near water, where shorebirds and waterfowl are abundant.	Potential. Open areas provide suitable foraging habitat in the study area for all alternatives. This species was not observed during surveys. It is known to hunt abundant shorebirds and waterfowl present from mid-summer to late winter in the YBWA and has become more common in that area since the initiation of shorebird management activities in 2002.
<i>Grus canadensis tabida</i> Greater sandhill crane	--/ST/FP	Winter visitor to the Central Valley. Forages primarily in moist croplands with rice or corn stubble; also frequents grasslands and emergent wetlands. In winter, this species is most densely concentrated in counties south of Yolo County, in agricultural regions and large preserves that support vast fields of suitable habitat.	Potential. Agricultural fields, grasslands, and wetlands provide suitable winter foraging habitat in the study area for all alternatives. This species was not observed during surveys. Water levels in the agricultural fields and wetlands in the northern management units of the YBWA are managed to provide high-quality foraging habitat for cranes and similar species.
<i>Haliaeetus leucocephalus</i> Bald eagle	FD/SE/BCC, FP	Winter visitor to the Central Valley floor. Forages primarily in fish-bearing waters, but also in open terrestrial habitats.	Potential. Open areas provide suitable winter foraging habitat in the study area for all alternatives.
<i>Icteria virens</i> Yellow-breasted chat	--/--/SSC	Breeds in areas of dense shrubs, including abandoned farm fields, forest edges and openings, swamps, and edges of rivers, streams, and ponds. Its habitat often includes blackberry bushes. During migration, stays in low, dense vegetation. Nests from early May through early August, with peak breeding activity in June.	Potential. Riparian scrub provides suitable nesting habitat in the study area for all alternatives. This species was not observed during surveys, but is known to occur in the Yolo Bypass (Brice 2016).
<i>Ixobrychus exilis</i> Least bittern	--/--/SSC	Suitable breeding habitat includes freshwater and brackish marshes with tall, dense emergent vegetation and clumps of woody plants over deep water. Primarily forages from emergent vegetation on prey such as catfish, minnows, eels, sunfish, killifish, perch, amphibians, small snakes, and mammals. Based on limited data, this species arrives on California nesting grounds around late March to May, and lays eggs from mid-April through early July.	Potential. Freshwater marshes and emergent wetlands provide suitable breeding and foraging in the study area for all alternatives. This species was not observed during surveys. It is known to breed in the YBWA (Brice 2016).

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ Other²	General Habitat Description	Potential for Occurrence³
<i>Lanius ludovicianus</i> Loggerhead shrike	--/--/SSC	Nests and forages in grasslands, agricultural fields, open woodlands, and shrublands. Northern and central California provide year-round habitat for this species. In California, this bird lays eggs from March to May, and young become independent in July or August.	Known. Grasslands, woodlands, scrub, and agricultural fields provide suitable nesting and foraging habitat in the study area for all alternatives. This species was observed in the FWWA during surveys, but no nests were found. It is known to nest and forage at the Tule Ranch Unit of the YBWA.
<i>Larus californicus</i> California gull	--/--/SSC	Forages in open water, wetland, and cropland habitats, as well as landfills. Although individuals may be present year-round, this species does not breed in the Central Valley.	Potential. Open water, wetlands, and agricultural fields provide suitable foraging habitat in the study area for all alternatives, especially during winter flooding. This species was not observed during surveys. It is known to forage in the Yolo Bypass year-round and especially during winter floods.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--/ST/FP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Not Expected. There is one CNDDDB occurrence of this species in a salt marsh east of the Yolo Bypass and west of the Yolo Bypass at the CDFW Calhoun Cut Ecological Reserve.
<i>Melospiza melodia</i> Song sparrow (Modesto population)	--/--/SSC	Affinity for emergent freshwater marshes dominated by tules and cattails as well as riparian willow (<i>Salix</i> spp.) thickets. These song sparrows also nest in riparian forests of valley oak with a sufficient understory of blackberry, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites. Nesting usually begins in April.	Known. Valley oak woodlands along Sacramento River levees provide potential nesting habitat. In addition, freshwater emergent wetland, riparian forest, and riparian scrub provide suitable foraging and nesting habitat in the study area for all alternatives. This species was observed exhibiting territorial behavior in the FWWA and at Agricultural Road Crossing 1 during surveys, but nests were not found. There are CNDDDB occurrences adjacent to the FWWA (See Appendix H2).
<i>Nemenius americanus</i> Long-billed curlew	--/--/SSC	Forages in cropland, grassland, wetland, and mudflat habitats. Although individuals may be present throughout the year, this species does not breed on the Central Valley floor.	Potential. Agricultural fields, grasslands, and wetlands provide suitable foraging habitat in the study area for all alternatives. This species was not observed during surveys.

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
<i>Nycticorax nycticorax</i> Black-crowned night-heron	--/--/--	Nests colonially in dense marshes, groves of low willow trees, and dense shrubs. Forages in fresh and saline marshes, including cattail marshes, and in shallow open water at the edges of marsh vegetation.	Known. Wetlands and marshes provide suitable nesting and foraging habitat in the study area for all alternatives. This species was observed during surveys, but no nests or nesting behavior were evident.
<i>Pandion haliaetus</i> Osprey	--/--/SSC	Forages exclusively in fish-bearing waters.	Known. Known to forage in the study area for all alternatives during winter floods, which provide suitable foraging habitat. Osprey are unlikely to nest in the study area because foraging habitat is marginal during the dry summer breeding season. This species was observed during surveys.
<i>Pelecanus erythrorhynchos</i> American white pelican	--/--/SSC	Forages in open water. Although individuals may be present year-round, this species does not breed in the Central Valley.	Known. Known to forage in the study area for all alternatives throughout the year, especially in mid-summer when birds from distant breeding colonies and non-breeding birds arrive in the Central Valley, occasionally in numbers significant to the nationwide population. This species was observed during surveys.
<i>Plegadis chihi</i> White-faced ibis	--/--/SSC	Forages in wetlands and irrigated or flooded croplands and pastures. Breeds colonially in dense, freshwater marsh.	Known. Wetlands, agricultural fields, and marshes provide suitable foraging and nesting habitat in the study area for all alternatives, especially in cattail marshes during summer months. No known breeding colonies are present in the study area. This species was observed in the FWWA and at Agricultural Road Crossing 1 during surveys, but no nests or nesting behavior were evident.
<i>Phalacrocorax auritus</i> Double-crested cormorant	--/--/SSC	Forages for fish in open water. Breeds colonially in rock ledges or groves of trees.	Known. Open water provides suitable foraging habitat in the study area for all alternatives. More limited fish resources during the summer make the study area unlikely to support a breeding colony. This species was observed in the FWWA and Agricultural Road Crossing 1 during surveys, but nests and nesting behavior were not evident.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ Other²	General Habitat Description	Potential for Occurrence³
<i>Progne subis</i> Purple martin	--/--/SSC	Habitat is widely but locally distributed in forested and woodland areas at low to intermediate elevations throughout California. Nests in buildings and riparian habitats and has persisted by nesting in hollow-box bridges.	Potential. Riparian areas provide potential foraging and nesting habitat in the study area for all alternatives. This species was not observed during surveys.
<i>Riparia riparia</i> Bank swallow	--/ST/--	Breeding habitat in California is extremely consistent with regard to the microsite. Nesting colonies only occur in vertical banks or bluffs of friable soils suitable for burrowing by these small birds. Nests from early May through July, with peak activity from mid-April through mid-May. Most juveniles fledge by mid-July (CDFW 2018).	Known. Vertical banks and bluffs that provide suitable nesting habitat occur near Fremont Weir along Sacramento River adjacent to the study area for all alternatives. During surveys, a bank swallow colony was observed on the bank of the Sacramento River, opposite Fremont Weir, approximately 0.5 mile west of the existing fish ladder. Approximately 50 individuals and 75 burrows, several with chicks, were observed at this colony (DWR 2015d). There are CNDDDB occurrences of this species along the Sacramento River (See Appendix H2).
<i>Rallus longirostris obsoletus</i> California clapper rail	FE/SE/FP	Glasswort (<i>Salicornia pacifica</i>) and California cord grass (<i>Spartina foliosa</i>) needed during winter flood tides. Nests in marshlands (cord grass, glasswort, gum-plant, salt grass) near tidal ponds, arranging plants or drift material over the nest as a canopy.	Not Expected. Glasswort and cord grass do not occur in the study area.
<i>Vireo bellii pusillus</i> Least Bell's vireo	FE/SE/--	Structurally diverse woodlands along watercourses, including cottonwood-willow forests, oak woodlands, and mule fat scrub.	Potential. Structurally diverse woodlands along watercourses provide suitable habitat in the study area for all alternatives. However, the study area is outside of this species' current known breeding geographic range. This species was not observed during surveys. The closest location for this species is along the South Fork of Putah Creek.
<i>Xanthocephalus xanthocephalus</i> Yellow-headed blackbird	--/--/SSC	During the breeding season, nests in freshwater emergent wetlands with dense vegetation. Nests from mid-April through late July.	Potential. Agricultural ditches and emergent wetlands provide suitable nesting and foraging habitat in the study area for all alternatives. This species was not observed during surveys.

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
Mammals			
<i>Antrozous pallidus</i> Pallid bat	--/--/SSC	Roosts alone, in small groups (2 to 20 bats), or gregariously (100s of individuals). Day roosts in caves, crevices, mines, and occasionally in hollow trees and buildings. Roosts must protect bats from high temperatures. Bats move deeper into cover if temperatures rise. Night roosts may be in more open sites, such as porches and open buildings. Maternity colonies are typically active May through October.	Potential. Riparian areas along Sacramento River provide suitable day roost habitat in the study area for all alternatives. Open grasslands, snags, and trees provide suitable roosting and maternity colony habitat in the study area for all alternatives. This species was not observed during daytime surveys; however, highly suitable features for roosting and foraging were identified during surveys.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/--/SSC	Typically roosts in caves; however, colonies of <100 individuals occasionally roost in buildings. Forages in all but alpine and subalpine habitats, but prefers mesic forests.	Not Expected. Unlikely to breed in the study area due to marginal habitat quality, but may forage on site.
<i>Lasionycteris noctivagans</i> Silver-haired bat	--/--/--	Habitat is primarily forested (frequently coniferous) areas adjacent to lakes, ponds, or streams, including areas that have been altered by humans. Prefers to roost in tree hollows and snags. During migration, these bats sometimes occur in xeric (dry) areas.	Potential. Riparian forest and open water provide suitable roosting and foraging habitat in the study area for all alternatives. This species was not observed during daytime surveys; however, highly suitable features for roosting and foraging were identified during surveys.
<i>Lasiurus blossevillii</i> Western red bat	--/--/SSC	Roosts primarily in trees (especially mature cottonwoods and sycamores), less often in shrubs. Roost sites often are in edge habitats adjacent to streams, fields, or urban areas. Preferred roost sites are protected from above, open below, and located above dark ground cover. Mates in August and September; young are typically born in late May and are able to fly by September.	Potential. Riparian areas along Sacramento River provide suitable day roosting and foraging habitat in the study area for all alternatives. This species was not observed during daytime surveys; however, highly suitable features for roosting and foraging were identified during surveys.

Appendix H4. Special-Status Species Tables

Scientific Name Common Name	Status Federal/State/ Other ²	General Habitat Description	Potential for Occurrence ³
<i>Lasiurus cinereus</i> Hoary bat	--/--/--	Habitat includes primarily deciduous and coniferous forests and woodlands, including areas altered by humans. Foraging habitat includes various open areas, including spaces over water and along riparian corridors. Roost sites are usually in foliage of large deciduous or coniferous trees near the ends of branches from 10 to 62 feet (3 to 19 meters) above ground, with dense foliage above and open flying room below, often at the edge of a clearing and commonly in hedgerow trees. Feeds primarily on moths, although it eats a variety of flying insects. Populations in the Central Valley are most likely migratory, not reproductive.	Potential. Open areas and riparian corridors provide suitable foraging habitat in the study area for all alternatives. Large deciduous trees provide suitable roosting habitat in the study area for all alternatives. This species was not observed during daytime surveys; however, highly suitable features for roosting and foraging were identified.
<i>Taxidea taxus</i> American badger	--/--/SSC	Primarily found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Mates in summer and early fall, and young are born in March and April.	Potential. Dry, open areas provide suitable burrowing and foraging habitat in the study area for all alternatives. This species was not observed during surveys.

Sources: CDFG 2008; CDFW 2018; USFWS 2018, DWR 2014b and c, DWR 2015b, c, and d.

¹ For the purposes of this analysis, the study area includes the construction footprint plus a 500-foot buffer. If operations impacts are expected on any species potentially occurring within the Yolo Bypass, those are discussed separately in Chapter 9 of the EIS/EIR.

² Status:

Federal: FE = listed as Endangered under the federal Endangered Species Act, FT = listed as Threatened under the federal Endangered Species Act, FD = federally delisted, FC = Candidate Species under the federal Endangered Species Act, BCC = Federal Bird of Conservation Concern (BCC), UR = Under Review for listing

State: SE = listed as Endangered under the California Endangered Species Act, ST = listed as threatened under the California Endangered Species Act, FP = Listed as Fully Protected under the California Fish and Game Code, SSC = Listed as Species of Special Concern by CDFW

³ Life history information included when necessary to determine the potential for occurrence within the study area or to support the associated impact analysis.

Not Expected: Not expected to occur: Species is unlikely to be present in the study area due to poor habitat quality, lack of suitable habitat features (vegetation communities, vegetation structure, presence of burrows, etc.), or restricted current distribution of the species.

Potential: Suitable habitat is present in the study area. This species may also be known from the project vicinity, but not within the study area.

Known: The species, or evidence of its presence, was observed in the study area during reconnaissance surveys, or was reported by others.

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Appendix H5
Inundation Analysis for EIS/EIR Alternatives

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Technical Memorandum

**Inundation Analysis for
EIS/EIR Alternatives**

**Yolo Bypass Salmonid
Habitat Restoration &
Fish Passage Project –
Ten Percent Design**

Yolo County, CA
February 2019



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YOLO BYPASS SALMONID HABITAT RESTORATION & FISH PASSAGE PROJECT – TEN PERCENT DESIGN

Inundation Analysis for EIS/EIR Alternatives

MAY 9, 2017

1. PURPOSE AND BACKGROUND

All six of the Environmental Impact Statement/Environmental Impact Report (EIS/EIR) alternatives involve creating a channel to connect the Sacramento River to the Yolo Bypass, which will pass through or around the Fremont Weir. A multiple bay, gated structure will provide the ability to control flows through the transport channel. A previously developed TUFLOW model was updated to represent the EIS/EIR alternatives (Department of Water Resources [DWR] 2017). Model simulations extended from October 2nd through at least May 30th to capture daily inundation footprints for 16 water years from 1997-2012. The TUFLOW results are used as inputs for a number of other analyses including agricultural economic impacts, mercury modeling, and others to assess the range of project impacts.

This report describes the hydrodynamic modeling of EIR/EIS alternatives in TUFLOW, the model results, and post-processing performed to extract and format the results for use by other analyses. The results of these analyses will be used to help assess the impacts of the alternatives selected by the Bureau of Reclamation (Reclamation) and DWR, herein referred to as the Lead Agencies.

The six project alternatives that were selected through the plan formulation process are listed below. The associated key project components are summarized in Table 1 and the location of the components used in the alternatives are presented in Figure 1.

Six project alternatives have been developed:

- Alternative 1 – East Side Small Gated Notch, 6,000 cubic feet per second (cfs) Design Flow
- Alternative 2 – Central Small Gated Notch, 6,000 cfs Design Flow
- Alternative 3 – West Side Small Gated Notch, 6,000 cfs Design Flow
- Alternative 4 – West Side Small Gated Notch – Managed Flow, 3,000 cfs Design Flow and Managed Floodplain
- Alternative 5 – Central Multiple Gated Notches, 3,400 cfs Design Flow and Managed Floodplain
- Alternative 6 – West Side Large Gated Notch, 12,000 cfs Design Flow and Managed Floodplain

All of the elevations presented in this memorandum are reported in the North American Vertical Datum of 1988 (NAVD 88).

Table 1. Alternative Components

Components	Alt 1 East	Alt 2 Center	Alt 3 West	Alt 4 West	Alt 5 Multiple	Alt 6 West
Peak Design Flow (cfs)	6,000	6,000	6,000	3,000	3,400	12,000
East Channel (Intake Channel, Headworks, & Outlet Channel)	X					
Central Channel (Intake Channel, Headworks, & Outlet Channel)		X			X	
West Channel (Intake Channel, Headworks, & Outlet Channel)			X	X		X
Excavated Fremont Weir Floodplain (Wildlife Area)					X	
Supplemental Fish Passage West	X	X			X	
Supplemental Fish Passage East			X	X		X
Downstream Channel	X	X	X	X		X
Ag Crossing #1	X	X	X	X	X	X
Knaggs Area Improvements				X		
Conaway Area Improvements				X		
Swanston Area Improvements					X	

1.1 TUFLOW MODEL

This section includes a brief description of the TUFLOW model used to evaluate the EIS/EIR alternatives. The report “Yolo Bypass Salmonid Habitat Restoration and Fish Passage Hydrodynamic Modeling Report” contains detailed descriptions of the model development; boundary conditions, calibration, alternatives modeled, results, and post-processing performed (DWR 2017).

Figure 2 shows the TUFLOW model domain and boundary condition locations. The model domain includes the Yolo Bypass, the southern portion of the Sutter Bypass, the Sacramento River from Rio Vista to near the Tisdale Weir, a portion of the Feather River, the portion of the American River through Sacramento, as well as a number of sloughs and creeks in or near the Yolo or Sutter Bypasses. Some of the sloughs and creeks represented include Putah Creek, Cache Creek, Cache Slough, and Sutter Slough. The model contains a combination of one-dimensional (1D) channels and two-dimensional (2D) grids (with square cells). The 1D channels are more computationally efficient and are used for streams outside and inside the bypass. The 2D grids model areas where flow is not 1D including the floodplain areas and the confluence of the Sutter Bypass, Sacramento River, and Feather Rivers. The cells sizes for the three 2D grids comprising the model are 100 feet, 200 feet, and 400 feet and their respective locations are highlighted in Figure 2.

The elevation data used in the model came from a variety of sources including LiDAR, single-beam bathymetry surveys, multi-beam bathymetry surveys, and other models. Cross-sections for the 1D channels within the Yolo and Sutter Bypasses were extracted from this data. Cross-sections outside of the Yolo Bypass were trimmed versions of cross-sections obtained from a draft Central Valley Floodplain Evaluation and Delineation (CVFED) HEC-RAS model (CVFED 2013). Extensive use of breaklines and other elevation modifications ensure that the modeled grid matched the terrain.

Individual simulations modeled from October 2nd through May 30th, and sometimes longer to capture late season flooding, for each water year from 1997 through 2012. The inflow boundaries used average daily discharges based upon the best available data. The downstream boundary used stages from the gage at Rio Vista collected on a 15-minute timestep in order to capture tidal effects.

The model contains several hydraulic structures within the bypass including the Fremont Weir, the Sacramento Weir, the Lisbon Weir, agriculture crossings and culverts along Willow Slough.

Detailed medium scale vegetation mapping (scale of 1:2000) provided the basis for Manning’s Roughness Coefficients. The modeling team adjusted the coefficients within reasonable ranges for each category to improve calibration.

The model was calibrated to three separate time intervals to capture specific types of conditions:

1. High flow condition – Calibrated to the 1997 event using gaged data, including both Water Surface Elevation (WSE) and discharge measurements and high water marks
2. Low flow condition – Calibrated to a period in February 2010 focusing on the Tule Canal/Toe Drain channel during low flow conditions based on direct measurements collected by cbec

3. Flood recession – Calibrated to a receding flood event during March and April 2011 using gage data, a series of aerial photos, high water marks, and limited flow measurements

2. MODEL DEVELOPMENT

Alternatives 1, 4, 5, and 6 were modeled in TUFLOW. Alternatives 2 and 3 were not modeled because they are similar to Alternative 1. Each of the alternatives includes an intake gate structure and downstream transport channels connecting the Sacramento River to the Tule Canal. The TUFLOW model represents the proposed channels and gates as 1D features. Alternative 5 includes additional grading to increase the inundated area north of Agricultural Crossing #1.

Each of the alternatives included the same modifications to the four agricultural crossings. The changes at Agricultural Crossing #1 are being designed as part of the proposed project. The changes at crossings #2 and #3 are being constructed as part of the Fremont Weir Adult Fish Passage Modification Project. The changes at Agricultural Crossing #4 will be implemented as a separate project.

The modeled operational timeframe for each water year extends from November 1 to March 15. The gates are closed before and after the operational timeframe. An alternative end date of March 7 was also evaluated for Alternative 4.

2.1 AGRICULTURAL CROSSING CHANGES (COMMON TO ALL ALTERNATIVES)

The proposed alternatives include changes to increase conveyance at four agricultural crossings. The changes to Agricultural Crossing #1 are being designed as part of the project and can be found in the Description of Alternatives – Draft Technical Memorandum presented in Volume I, 10% Design Appendices. DWR provided design information for modeling purposes for the other agricultural crossings which will be implemented as parts of separate projects. The locations of the agricultural crossings are shown in Figure 1. The proposed changes include replacing Agricultural Crossing #1 with a bridge, replacing crossings #2 and #4 with box culverts, and completely removing crossing #3. Table 2 identifies the setup of the agricultural crossings in the existing conditions and proposed alternative models.

Table 2 Agricultural crossing definitions for existing condition model and proposed models

Components	Existing Conditions	Proposed Conditions
Ag Crossing #1	Variable height weir elevations: 20.2+ feet	Rail car bridge width: 60 feet (48 feet effective) invert: 12.4 feet Variable height weir elevations: 20.0+ feet
Ag Crossing #2	Circular culvert diameter: 2.7 feet invert: 12 feet Variable height weir elevations: 17.2+ feet	Rectangular culverts number: 6 width: 24 feet (each) height: 7.2 feet invert: 12 feet Variable height weir elevations: 21.5+ feet
Ag Crossing #3	Circular culverts number: 3 diameter: 2 feet invert: 11.7 feet Variable height weir elevations: 16.5+ feet	Completely removed Uses interpolated cross-section based on upstream and downstream cross-sections
Ag Crossing #4	Variable height weir elevations: 8.3+ feet	Rectangular culverts Number: 7 width: 12 feet height: 10 feet invert: 3 feet Variable height weir elevations: 14+ feet

2.2 ALTERNATIVE 1

Alternative 1 (presented in Description of Alternatives – Draft Technical Memorandum, Volume I – 10% Design Appendices) includes a channel with three gates along the eastern alignment to bring in a target flow of 6,000 cfs into the Bypass to the north of Tule Pond as shown in Figure 3. One of the proposed gates is 34 feet wide and the other two are each 27 feet wide. The larger gate has an invert elevation of 14.0 feet (NAVD 88) and the smaller gates have an invert elevation of 18.0 feet (NAVD 88). The smaller gates are actively opened and closed as needed to limit the discharge to the 6,000 cfs target when the

weir is not overtopping. After the weir overtops, the larger gate is kept open to maintain connectivity. The channel downstream from the gates connects to the north end of the Tule Pond.

2.2.1 Operations

All gates are opened once the upstream water surface elevation is one foot above the lowest gate invert (14.0 + 1.0 = 15.0 feet). Once the design flow of 6,000 cfs is reached, which occurs at an upstream river stage of approximately 27.5 feet, the two smaller gates would be programmed to start closing such that 6,000 cfs isn't exceeded. Gate closures are controlled so that there isn't a sudden reduction in flow. Gate 1, the larger gate, would remain fully open throughout operations. Once Fremont Weir begins to overtop, gates 2 and 3 would remain in their last position prior to the weir overtopping (generally both are closed at this point). After the overtopping event is over, gates 2 and 3 open and close as needed to keep the discharge below but as close as possible to 6,000 cfs. If the upstream river stage drops below the gate lowest gate invert (14.0 feet) or the end of the operational period (generally March 15th) is reached all of the gates are closed.

2.3 ALTERNATIVE 4

Alternative 4 (presented in Description of Alternatives – Draft Technical Memorandum, Volume I – 10% Design Appendices) includes a channel with three gates along the western alignment to bring a target flow of 3,000 cfs into the Bypass along with managed floodplain modifications as shown in Figure 4. One of the proposed gates is 40 feet wide and each of the others are 27 feet wide. The 40-foot wide gate and one of the 27-foot long gates are actively opened and closed to limit the discharge to the 3,000 cfs target when the weir is not overtopping. One of the 27-foot wide gates is kept open during overtopping events to maintain connectivity. The channel flows into the Tule Pond from the west.

The managed floodplains unique to Alternative 4 use water control structures and berms to increase inundation in specific areas at lower discharges than the other alternatives. The lower discharges decrease the flooding in areas outside of the managed floodplains. The berms are designed to help maintain a target WSE in each floodplain area, but not significantly impede large flood events.

The Knaggs managed floodplain north of Interstate 5 (see Figure 5) attempts to maintain a WSE of 21.5. A proposed berm on the south and east sides of the area detain water on the floodplain. Notches in the berm at 21.5 feet allow water to move through the floodplain while maintaining the target WSE. The proposed inflatable dam in the Tule Canal is raised to back water up in the canal and onto the floodplain but is lowered if the floodplain WSE exceeds the target which would happen during flood events. The discharge in the bypass channel (for salmon and sturgeon passage) is around 300 cfs at the target WSE. A proposed drainage channel prevents large amounts of water from being trapped in the floodplain.

The Conaway managed floodplain south of Interstate 5 (see Figure 6) attempts to maintain a WSE of 17.5 feet. The proposed berm, inflatable dam, bypass channel, and drainage channel function like those in the Knaggs managed floodplain. The Conaway area also includes an additional outflow weir that helps to drain the much larger floodplain area to meet the target WSE or at the end of the inundation period.

2.3.1 Operations

All gates are opened once the upstream water surface elevation is one foot above the lowest gate invert ($16.1 + 1.0 = 17.1$ feet). Once the design flow of 3,000 cfs is reached, which occurs at an upstream river stage of approximately 26.6 feet, the two smaller gates would be programmed to start closing such that 3,000 cfs isn't exceeded. Gate closures are controlled so that there isn't a sudden reduction in flow. Gate 1, the larger gate, would remain fully open throughout operations. Once Fremont Weir begins to overtop, gates 2 and 3 would remain in their last position prior to the weir overtopping (generally both are closed at this point). After the overtopping event is over, gates 2 and 3 open and close as needed to keep the discharge below but as close as possible to 3,000 cfs. If the upstream river stage drops below the gate lowest gate invert (16.1 feet) or the end of the operational period (generally March 15th) is reached all of the gates are closed.

2.4 ALTERNATIVE 5

Alternative 5 (presented in Description of Alternatives – Draft Technical Memorandum, Volume I – 10% Design Appendices) has three separate gated channels and a target discharge of 3,400 cfs. It includes additional grading around existing and proposed channels to increase the frequently inundated area. Figure 7 shows the Alternative 5 components. Three gated channels convey Sacramento River water into the Bypass. Each channel has a different slope and gates with different invert elevations. During a flood event the gates are opened and closed to regulate the discharges in each of the channels based upon the Sacramento River WSE to help maintain target fish passage criteria. Some of the gates are kept open throughout a flood event to maintain connectivity. The design includes 17 proposed gates 10 feet wide at invert elevations between 14 and 23 feet (NAVD88). The wide floodplain channel merges with the Tule Canal near the south end of Tule Pond. The design for Alternative #5 changed after the TUFLOW modeling was completed. The reader is referred to the above-mentioned TM for a detailed rationale regarding the reasons that the modeling conclusions would not change as a result of the design modifications.

2.5 ALTERNATIVE 6

Alternative 6 (presented in Description of Alternatives – Draft Technical Memorandum, Volume I – 10% Design Appendices) includes a channel with five gates along the western alignment to bring a target flow of 12,000 cfs into the Bypass as shown in Figure 8. Each gate is 40 feet wide and has an invert elevation of 16.1 feet (NAVD88). Up to four of the gates are actively opened and closed to limit the discharge to the 12,000 cfs target when the weir is not overtopping. One gate remains open to maintain connectivity. The channel downstream from the gates crosses the Yolo Bypass and flows into the west side of the Tule Pond.

2.5.1 Operations

All gates are opened once the upstream water surface elevation is one foot above the lowest gate invert ($16.1 + 1.0 = 17.1$ feet). Once the design flow of 12,000 cfs is reached, which occurs at an upstream river stage of approximately 29.8 feet, three of the gates are programmed to start closing such that 12,000 cfs isn't exceeded. Gate closures are controlled so that there isn't a sudden reduction in flow. Two of the gates would remain fully open throughout operations. Once Fremont Weir begins to overtop, the three

gates being operated would remain in their last position prior to the weir overtopping (generally all are closed at this point). After the overtopping event is over, the three operating gates open and close as needed to keep the discharge below but as close as possible to 12,000 cfs. If the upstream river stage drops below the gate lowest gate invert (16.1 feet) or the end of the operational period (generally March 15th) is reached all of the gates are closed.

3. RESULTS AND POST-PROCESSING

A number of follow-on analyses use the TUFLOW results. Scripts were used to extract, process, and format the raw results as needed to meet the needs of the technical teams using the results.

3.1 BYPASS DISCHARGES AND WET AREA THROUGH TIME

Figures 9 through 24 plot discharges into the Yolo Bypass and wet area through time for existing conditions and the alternatives by water year. The Fremont Weir discharge is based upon existing conditions. During high flow events in the alternative models, the Fremont Weir discharge is reduced because of the discharge through the proposed channels. During large events, the total discharge into the Bypass for the alternatives (including gate discharges) is only slightly higher than existing conditions, but the relative difference is much lower than the discharge through the proposed gates.

Alternative 6 has the highest target discharge and generally has the largest wetted area through time. During some periods, the managed floodplains in Alternative 4 create more inundated area for longer over the managed floodplains than the other alternatives.

3.2 CHANGE IN INUNDATION ANALYSIS

To understand and quantify the increased inundation provided by each alternative, expected annual inundation was computed directly from the wetted-area time-series following the recently published methods by Matella & Jagt (2013). To streamline the analysis, the wetted- area time-series outputs for the 16 water years were used directly in the analysis. The wetted area time-series were imported into HEC-EFM and statistical queries were generated for the period of November 1 to May 30 to populate area-duration-frequency (ADF) curves for durations of 2, 3, 7, 14, 21, 28, and 60 days. The wetted-area time-series considers all wet areas within the previously defined Yolo Bypass extents, and were not further screened for suitable depths or velocities for a specific fish species nor refined for shorter periods of time corresponding to specific fish life history needs; otherwise this may have been stated as expected annual habitat, but this determination is outside the scope of this modeling effort.

The ADF curves were then used in two ways. First, the curves were used to identify inundation acreages at flow frequencies of 1 in 3 years (33 percent exceedance), 1 in 2 years (50 percent exceedance), and 2 in 3 years (67 percent exceedance). Table 3, Table 4, and Table 5 presents the inundation acreages for 33 percent, 50 percent, and 67 percent exceedances, respectively. These tables generally demonstrate that: 1) longer duration events (i.e., > 4 weeks) are inundated longer in 1 out of 3 years; 2) medium duration events (i.e., 2 to 4 weeks) are inundated longer in 1 out of 2 years; and 3) shorter duration events (i.e., < 3 weeks) are inundated longer in 2 out of 3 years. The Alternative 6 provides the greatest inundation increase ranging from 9,000 acres in 2 out of 3 years to 10,000 acres in 1 out of 2 years. Additionally, Table 5 results demonstrate that the alternatives are exceeding the inundation objective of >17,000 acres for 14 consecutive days in 2 out of 3 years.

Second, the area under the ADF curves were integrated to compute expected annual inundation based on the 16 years of model outputs (see Table 6 and Figure 25). Expected annual inundation relative to existing conditions predicted to be 2,700 ±600 acres for Alternative 1, 3,200 ±500 acres for Alternative 4, 3,000 ±500 acres for Alt04_Mar7, 2,300 ±500 acres for Alternative 5, and 3,900 ±700 acres for Alternative 6. As shown by Figure 25, expected annual inundation benefits generally increase with increasing notch inflow whereby a 12,000 cfs notch (Alternative 6) yields greater inundated acres than a 6,000 cfs notch (Alternative 1), and similarly, a 6,000 cfs notch yields greater inundated acres than a 3,400 cfs notch (Alternative 5). However, a 3,000 cfs notch coupled with managed floodplain (Alternative 4) yields greater inundated acres than a 6,000 cfs notch for events greater than 1 week in duration and a 12,000 cfs notch for events greater than 3 weeks in duration. It is noted that the ADF curves and expected annual inundation results are based on an annual maxima approach per Matella & Jagt (2013) for a relatively short 16-year period. Given that there can be multiple discrete inundation events in the Bypass, a partial duration series approach could be considered, and would likely better capture the benefits of managed floodplain in Alternative 4.

Table 3 Inundated area in 33% of years between November 1 and May 30

Duration (Days)		Expected	Annual Inundation (acres)				Expected	Annual Benefit (acres)			
	Existing	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06
2	47535	47572	47471	47470	47365	47508	37	-64	-65	-170	-26
3	47185	47228	47115	47114	47012	47156	43	-70	-70	-173	-29
7	45947	45998	45891	45890	45807	45930	51	-56	-57	-140	-18
14	44530	44611	44497	44472	44275	44492	81	-32	-58	-254	-37
21	35365	35438	35376	35347	35318	35500	73	11	-19	-47	134
28	28137	30000	29732	29718	29591	31068	1863	1595	1581	1454	2932
60	2001	7585	8645	8481	7592	8367	5584	6644	6480	5591	6366

Table 4 Inundated area in 50% of years between November 1 and May 30

Duration (Days)		Expected	Annual Inundation (acres)				Expected	Annual Benefit (acres)			
	Existing	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06
2	35381	35763	35461	35445	35429	36108	382	80	64	48	727
3	33325	35367	34882	34874	33894	36101	2042	1557	1549	569	2776
7	26483	30743	29503	29482	29000	32937	4260	3020	2999	2517	6454
14	18958	25541	24218	24198	23725	28440	6583	5260	5240	4767	9482

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Duration (Days)		Expected	Annual Inundation (acres)				Expected	Annual Benefit (acres)			
	Existing	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06
21	15464	22798	22072	22052	22236	25663	7334	6608	6588	6772	10199
28	15205	18469	19355	17323	18076	19329	3264	4150	2118	2871	4124
60	1439	3738	6712	6591	3815	5251	2299	5273	5152	2376	3812

Table 5 Inundated area in 67% of years between November 1 and May 30

Duration (Days)		Expected	Annual Inundation (acres)				Expected	Annual Benefit (acres)			
	Existing	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06
2	25113	30140	28416	28396	28397	31987	5028	3304	3284	3284	6874
3	23545	28167	26819	26799	26804	29717	4622	3274	3254	3259	6172
7	19046	25811	24547	24528	24341	27835	6766	5501	5482	5296	8790
14	15883	21725	21818	21798	21708	24028	5842	5935	5915	5826	8145
21	8937	14096	15867	15850	14954	17618	5159	6930	6912	6017	8681
28	5959	8069	10547	10529	8581	10627	2110	4588	4570	2623	4668
60	1372	1527	6201	6172	1645	2015	155	4829	4800	273	643

Table 6 Expected annual inundation

Duration (Days)		Expected	Annual Inundation (acres)				Expected	Annual Benefit (acres)			
	Existing	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06	Alt01	Alt04	Alt04 Mar7	Alt05	Alt06
2	34079	37104	36814	36574	36465	38207	3025	2736	2495	2387	4128
3	33425	36409	36108	35879	35822	37698	2985	2683	2454	2397	4273
7	30144	33625	33384	33050	33091	35000	3481	3240	2906	2946	4856
14	26906	29719	30232	30125	29552	31122	2813	3327	3219	2646	4217
21	22727	25059	26052	25628	24992	26587	2332	3325	2901	2265	3860
28	18578	20079	21732	21290	19984	21140	1501	3154	2713	1406	2563
60	6414	8917	10690	10407	8564	9974	2502	4276	3992	2149	3560

3.3 LAST DAY WET FOR AGRICULTURE ECONOMICS ANALYSIS

A GIS script processed the TUFLOW results to determine the Last Day Wet (LDW) for individual field units within the Bypass for use in the Yolo Bypass Agricultural Impact Analysis. Yolo County performed landowner outreach to gather additional information to use in the Yolo Bypass Agricultural Impact Analysis. During those discussions with landowners, the agriculture economics team learned that farmers are likely to begin planting their fields when at least 70 percent of their fields were dry (or conversely, the last day when more than 30 percent of the area is wet). Based on this information and discussions with the lead modeler of the Yolo Bypass Agricultural Impact Analysis, it was agreed upon to use this assumption as the ratio for last day wet (LDW) calculations. The agriculture economics team provided the field units used in this analysis.

The script analyzes the raster results for each day to determine LDW. To capture features smaller than the TUFLOW grid cells (100-400 foot cell size) the script subtracts the 25-foot base DEM from the TUFLOW water surface elevation outputs to create 25-foot depth rasters. The percent dry for each field unit is computed by dividing the number of dry raster cells by the total number of raster cells. The last day in the simulation where less than 70 percent of the raster cells are dry is assigned to the LDW attribute. Figures 26 through 105 show the LDW for existing conditions, for the proposed conditions, and the difference between the two for each alternative and water year combination. The final determination of the impact on LDW will be evaluated by the agriculture economics team but some observations can be made from looking at the LDW results. The change to LDW varied considerably year to year but was quite similar between alternatives. The change to LDW was small most years with few fields showing a difference greater than a couple weeks. Occasionally the LDW for the alternative solution was earlier than existing conditions. This is likely due to faster drain times because of the changes to the agricultural crossings.

3.4 DISCHARGE VS DISCHARGE RATING CURVES FOR WATER RIGHTS ANALYSIS

The CALSIM modeling group requested flow vs flow rating curves at the Fremont Weir. The rating curves provide an estimate of the discharge into the Yolo Bypass (over the Fremont Weir or through any proposed intake structures) based upon the total discharge between the Sutter Bypass, Feather River and Sacramento River for existing conditions and each of the alternatives. This rating curve is used by the CALSIM model to partition flows between the Yolo Bypass and the Sacramento River past Verona. Figure 106 shows scatterplots of the discharge into the Yolo Bypass (including any proposed gate/channels) vs the discharge in the Sacramento at Verona for existing conditions and each of the alternatives. Figure 107 is a zoomed in view of the same data. The CALSIM group converted the scatterplots into a rating curve formatted as required for their analysis.

3.5 DATA FOR FISHERIES ANALYSIS

The fisheries team requested depth and velocity magnitude raster datasets for the bypass as well as time-series of discharges at specific locations based on the 1D and 2D model results. The raster datasets were provided in NetCDF format. The time-series discharge data was averaged on a daily basis and provided in csv format as requested.

3.6 MERCURY MODELING TEAM DATA REQUESTED

The TUFLOW results provide the input hydraulics for a model that predicts concentrations and mass balances of inorganic and methylmercury in the Yolo Bypass. The mercury model uses a much coarser grid than the TUFLOW model using 40 cells to simulate the entire bypass as shown in Figure 108.

The mercury model requires flow data between cells as well as spatial data on a sub-grid (relative to mercury grid cells) level that includes mercury cell, sub-cell id, area, wet area, Manning Roughness Coefficient (mean), mean depth, max depth, mean velocity, mean WSE, and water volume. The TUFLOW model does not directly output the required mercury model inputs. A series of scripts extracted, computed, and aggregated the TUFLOW results to get the input data required for the mercury model. The scripts handled the 1D and 2D results differently because the information available differs.

All of the files provided to the mercury modeling team were in comma delimited ASCII files for ease of use and readability.

3.6.1 Discharge extraction

Discharges passed from the TUFLOW model to the mercury model describe the flows to and from individual cells. For 1D, discharges are extracted at the channel crossing the mercury model grid's cell boundary. For 2D, the TUFLOW model provides discharges at polylines that were created along mercury model grid cell boundaries. Multiple polylines were created along mercury cell boundaries allowing discharges across different portions of the boundary to record flows in opposite directions. For the same timestep, there may be a discharge from cell 1 to cell 2 and a separate discharge from cell 2 to cell 1. The mercury model uses both discharges to compute the effects of mixing between the two cells.

3.6.2 Spatial data 2D

For the 2D areas, the scripts aggregated data to 500 foot by 500 foot mercury sub-grid cells. The native TUFLOW outputs have a native resolution of 50 feet by 50 feet giving 100 TUFLOW cells per mercury sub-grid cell. Because the sub-grid cells are Cartesian cells and the mercury cells are polygons, one sub-grid cell can include multiple mercury grid cells. When this occurs the sub-grid cell has an entry for each of the spanned mercury cells in the output files.

The scripts aggregated spatial data in the 2D portions including model elevations, Manning N inputs, depths and velocities. The model elevation data is not dependent upon the results and was extracted separately. For the result-dependent data, sub-grid cells with an average depth of less than 0.1 feet were considered dry and no values are reported for that timestep.

3.6.3 Spatial data 1D

The 1D channel geometry is based upon cross-sections associated with the channel. Cross-sections provide higher resolution in the direction of the cross-section but are often spaced further apart than 2D cells. Some of the information needed is directly available and is computed by the scripts. Data is reported for each TUFLOW channel within a mercury cell.

3.6.4 Reconciling discharge and volume data

Based upon the initial extracted data, the discharges in and out of individual cells do not correlate with the volumes reported in the 1D and 2D spatial results. There are several potential reasons for the

discrepancy: the precision of the model results, errors related to the extraction process (particularly the 1D spatial data), discharges represent snapshots rather than average over a time, infiltration impacts the spatial data but is not accounted for in the discharge data, and mass errors within the TUFLOW model. A reconciliation algorithm adjusts the discharges to match the spatial data because the mercury model requires consistent results.

The reconciliation algorithm is an iterative approach adjusting the discharge data to match the extracted spatial data. For each iteration, the algorithm processes each cell:

1. Sum the discharges in and out of the cell for each timestep to get the “Net Flow.”
2. Compute the “Expected Net Flow” based on the change in volume of water in the cell based upon the spatial data (combined 1D and 2D).
3. Compute the “Cell Flow Adjustment” by subtracting “Net Flow” from the “Expected Net Flow” which represents how much the discharges have to change to make the results consistent.
4. Adjust each of the flows in and out of the cell proportional to its magnitude relative to the total absolute flow in and out of the cell to make the percent change of discharge across each face equal.

Adjusting a cell forces the discharge data and spatial data to reconcile but will also change the discharges for neighboring cells invalidating any previous reconciliation for the neighbor cell. The process is repeated for 200 iterations which provides a good fit between the spatial and discharge data for all of the cells.

4. CONCLUSIONS

The TUFLOW model previously developed for the Yolo Bypass (DWR 2017) was modified to represent the EIS/EIR alternatives. Model simulations were executed for 16 water years from 1997 through 2012. The model results suggest each of the alternatives would provide an increase in inundated area over existing conditions. The relative increase in inundated acres generally corresponds to the target structure discharge. However, the managed floodplains in Alternative 4 provide more inundated acres for longer periods using a smaller discharge. The model results were post-processed and formatted for use in other analyses including Agriculture Economics, Fisheries, CALSIM, and Mercury modeling.

5. REFERENCES

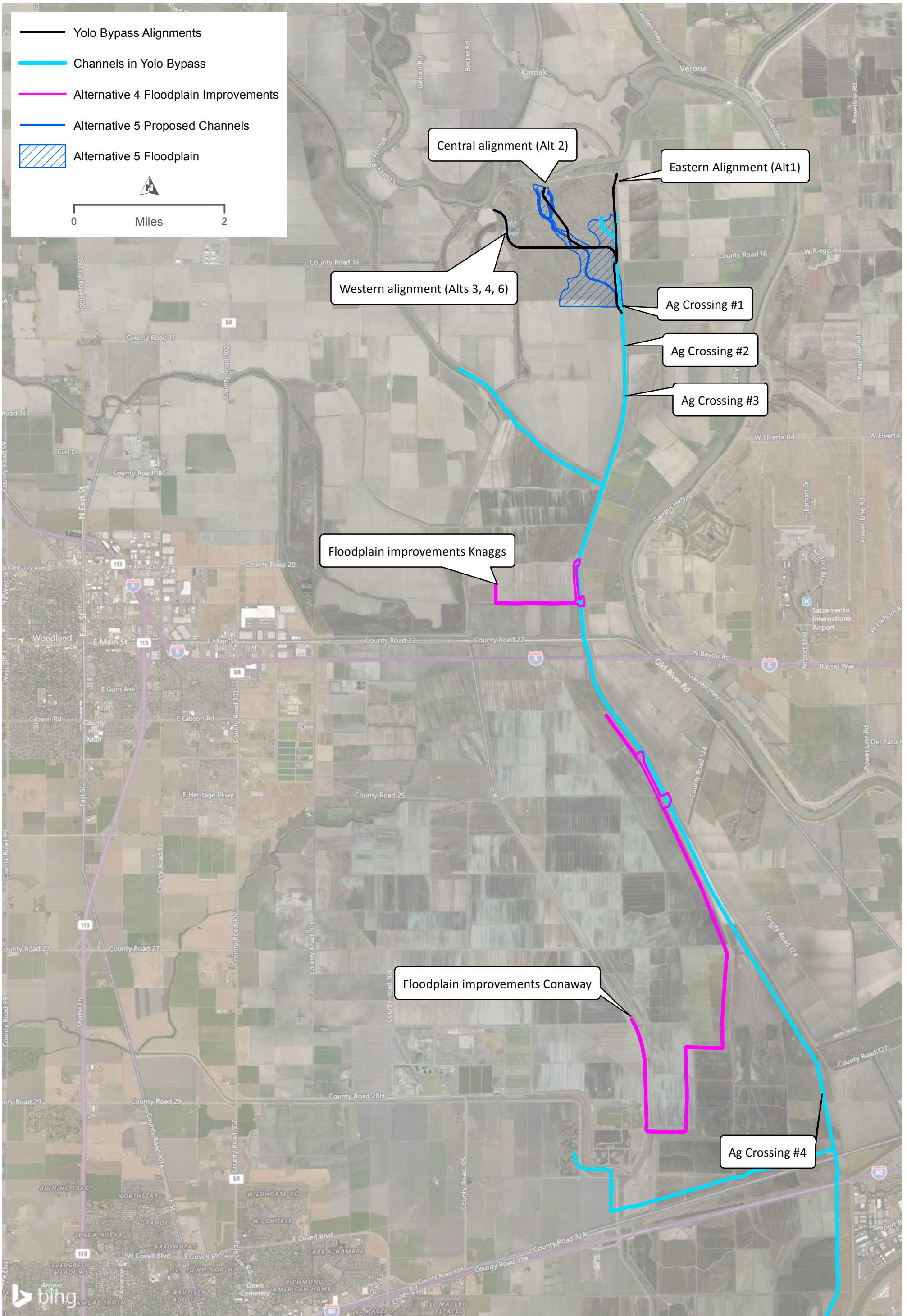
California Department of Water Resources (DWR). 2017. *Yolo Bypass Salmonid Habitat Restoration and Fish Passage Hydrodynamic Modeling Draft Report*. June. Prepared by HDR and cbec.

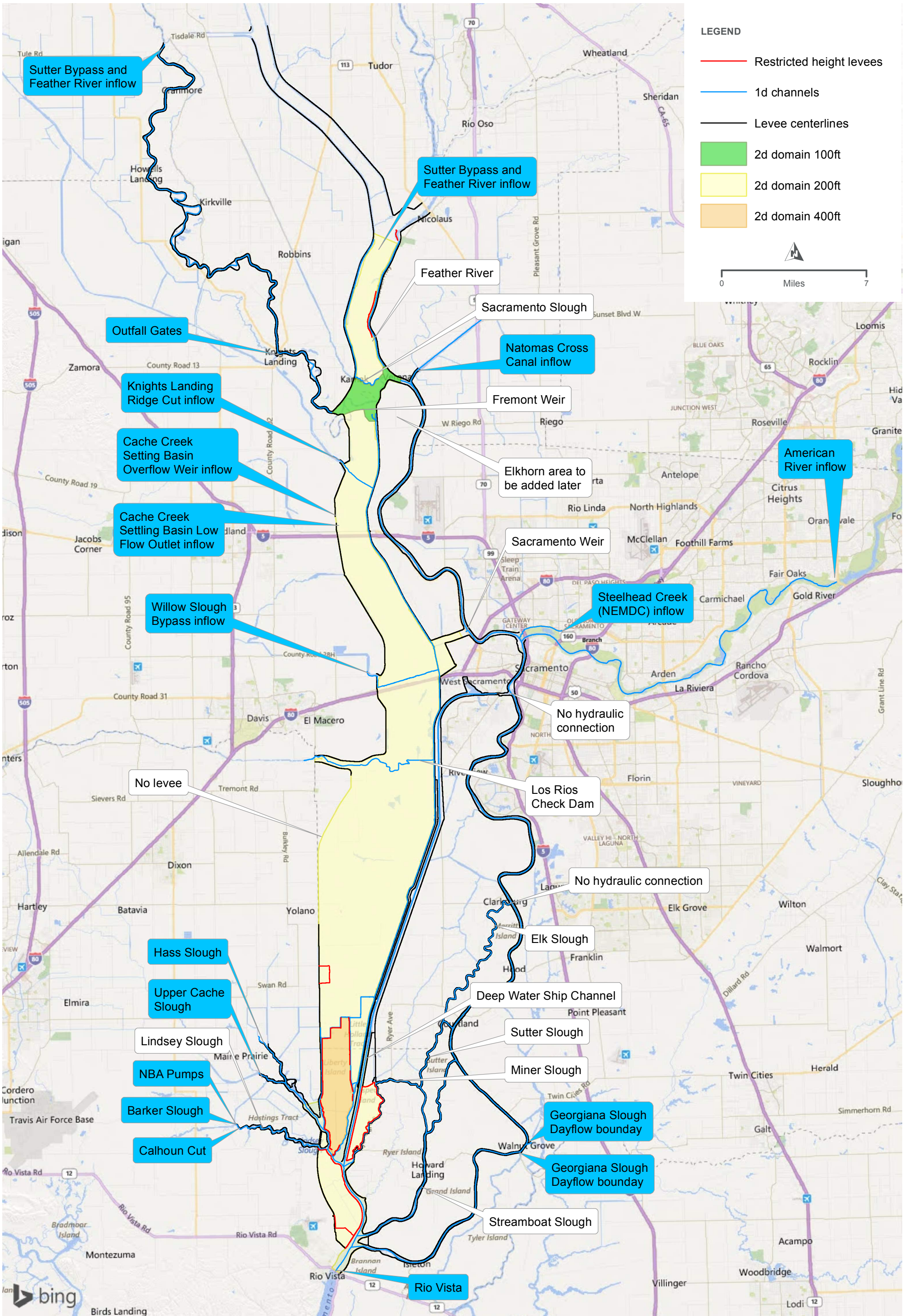
CVFED. 2013. Central Valley Floodplain Evaluation and Delineation Program. HEC-RAS models for 1997 and 2006 Events. HEC-RAS simulation files.

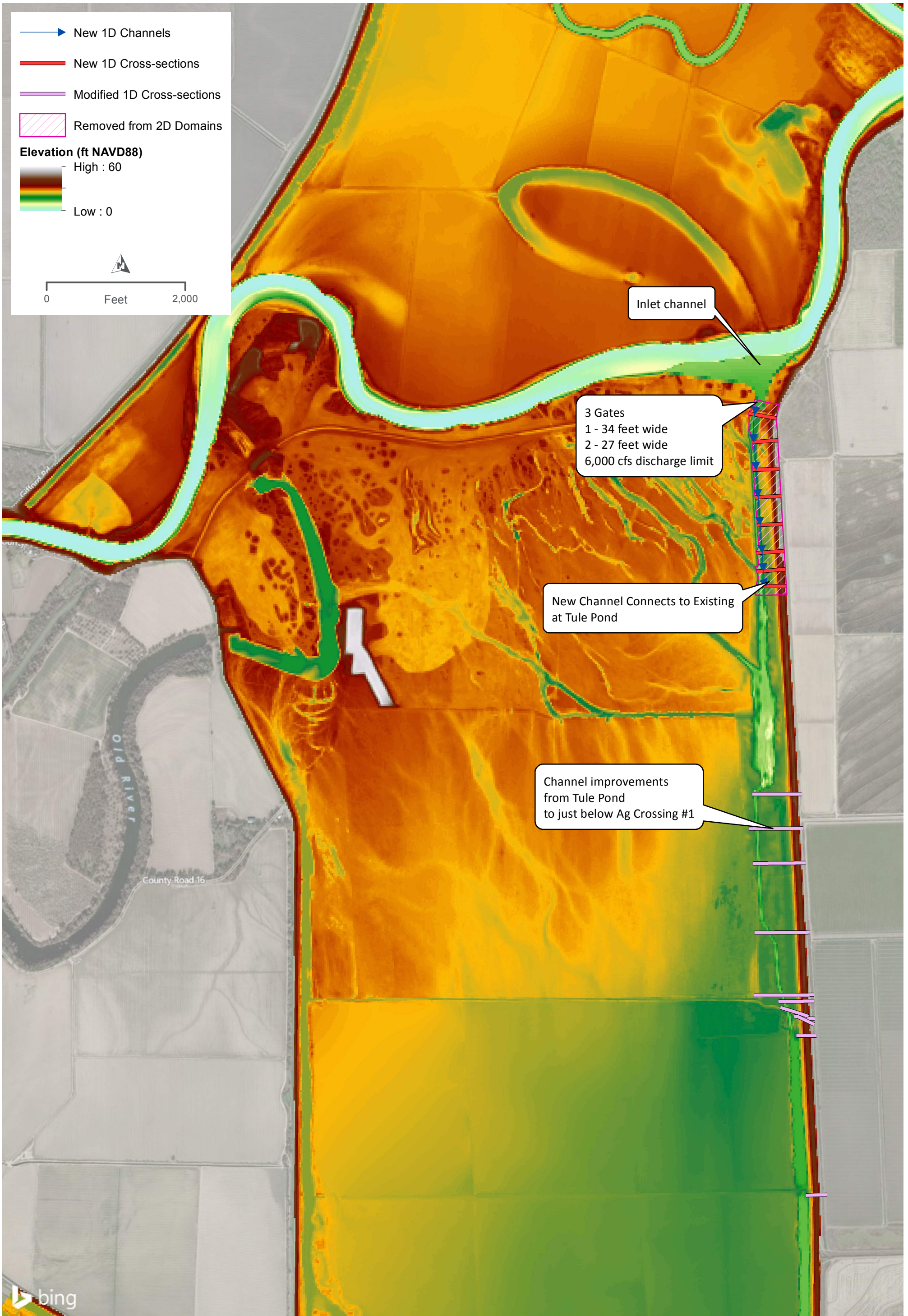
Matella & Jagt. 2013. Integrative method for quantifying floodplain habitat. *Journal of Water Resources Planning Management*. Technical Notes.

6. FIGURES

Figure 1	Alternatives Overview
Figure 2	TUFLOW Model Overview
Figure 3	Alternative 1 Model Features
Figure 4	Alternative 4 Model Features
Figure 5	Floodplain Improvements at Knaggs
Figure 6	Floodplain Improvements at Conaway
Figure 7	Alternative 5 Model Features
Figure 8	Alternative 6 Model Features
Figures 9 – 24	Discharges and wet area
Figure 25	Expected annual inundation
Figures 26-105	Last Day Wet by alternative and year
Figure 106	CALSIM rating curve
Figure 107	CALSIM rating curve (zoom)
Figure 108	Mercury modeling grid







Inlet channel

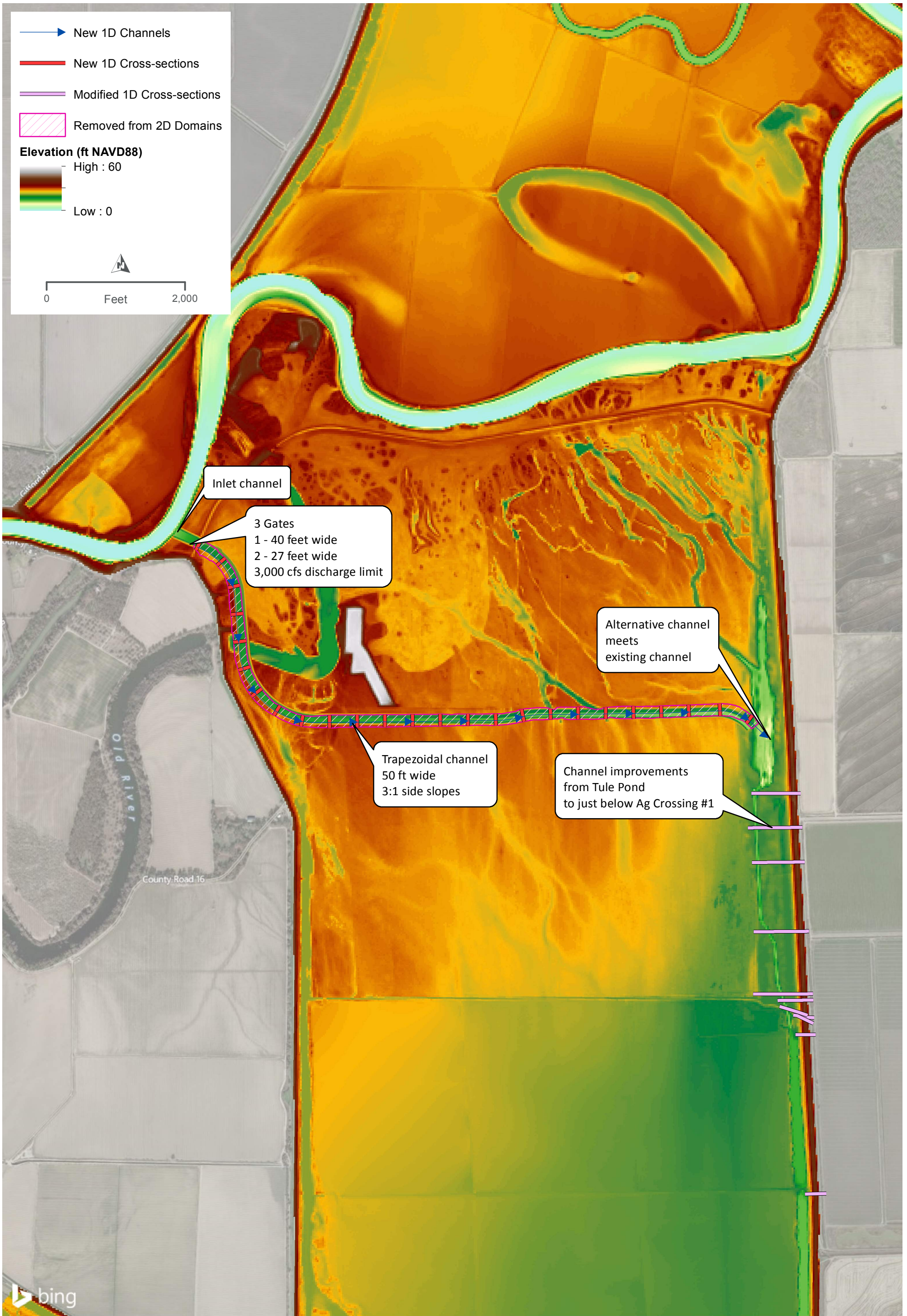
3 Gates
 1 - 34 feet wide
 2 - 27 feet wide
 6,000 cfs discharge limit

New Channel Connects to Existing
 at Tule Pond

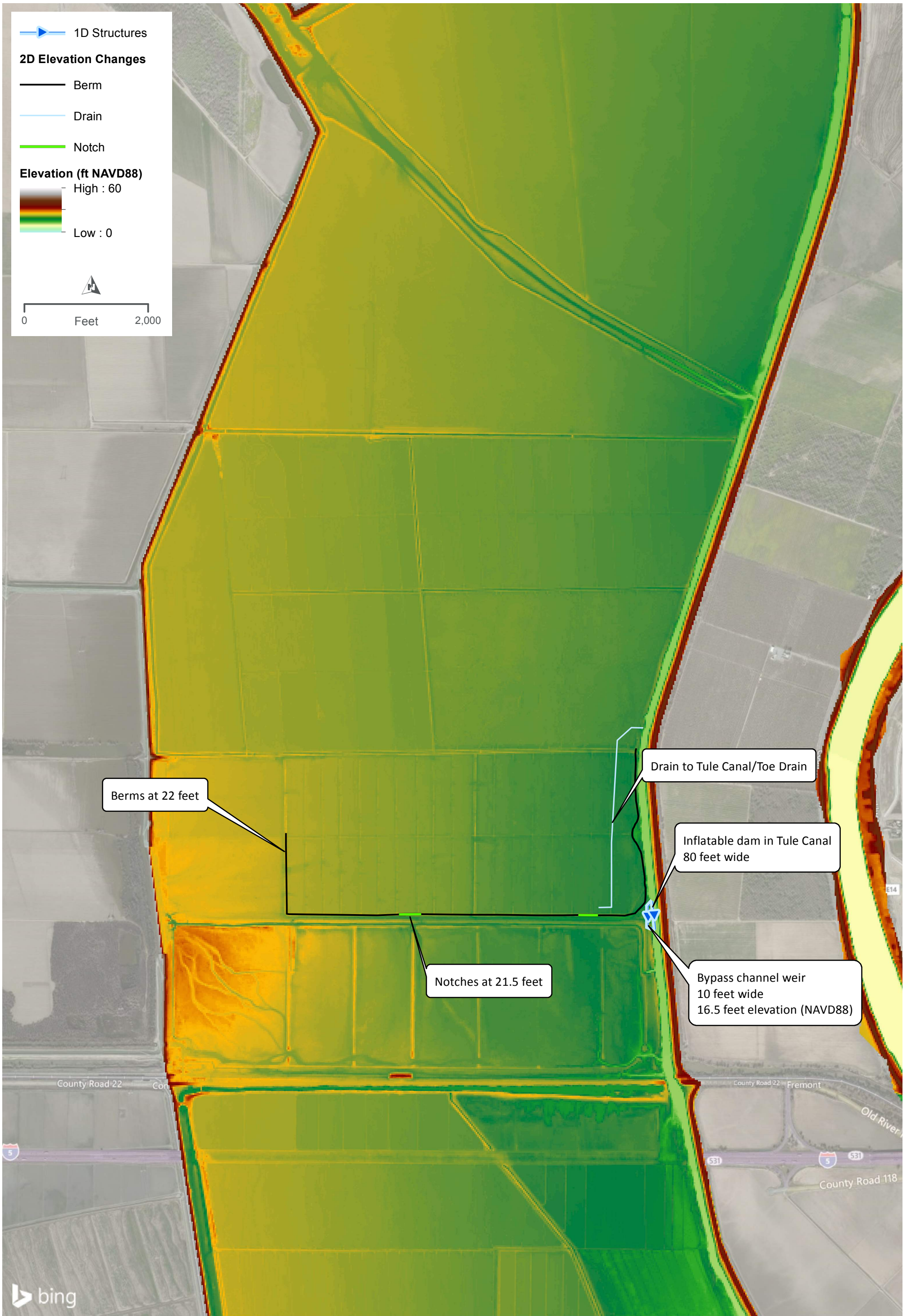
Channel improvements
 from Tule Pond
 to just below Ag Crossing #1

ALTERNATIVE #1 MODEL FEATURES
6,000 CFS CHANNEL AT EASTERN ALIGNMENT
FIGURE 3



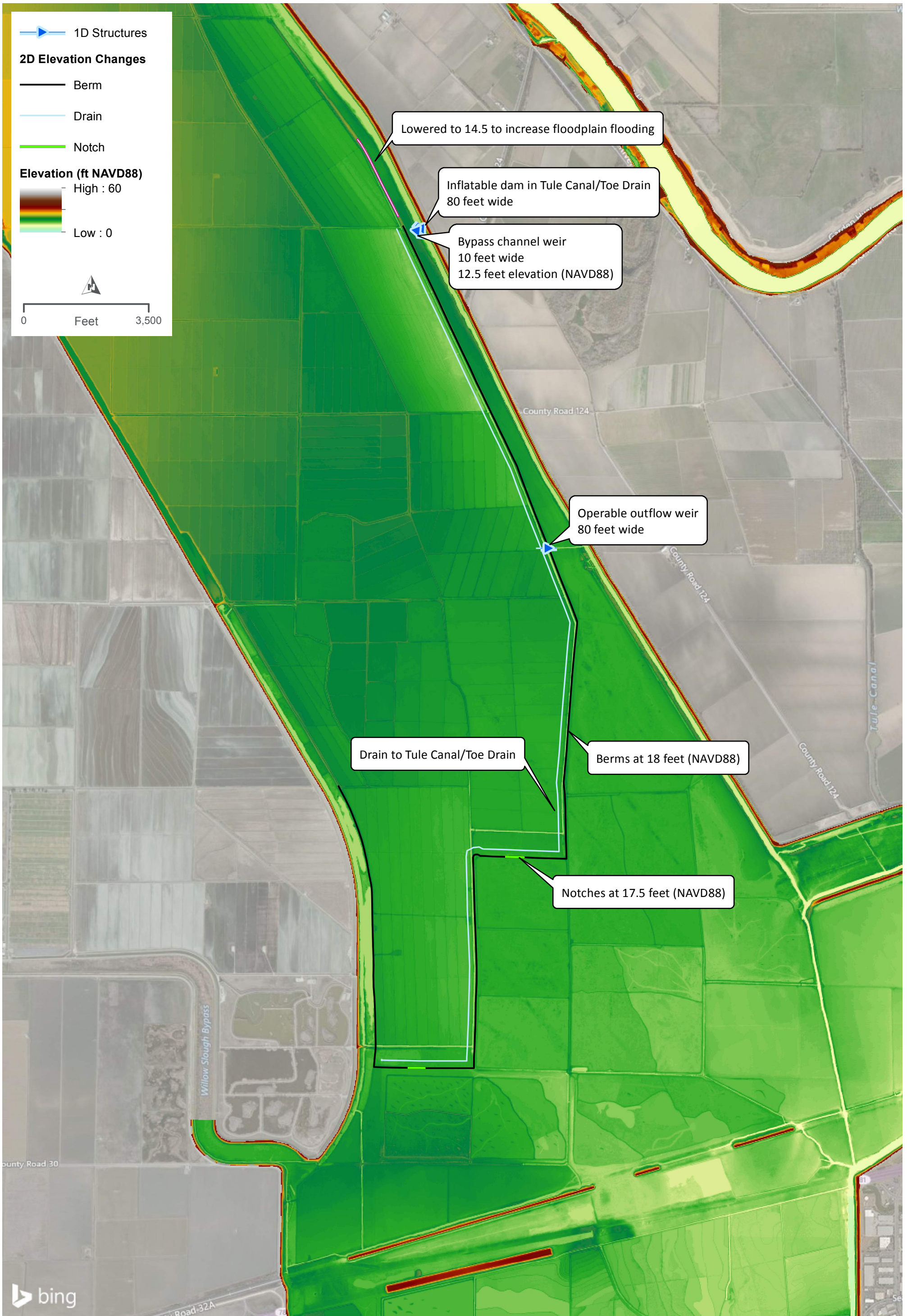


ALTERNATIVE #4 MODEL FEATURES



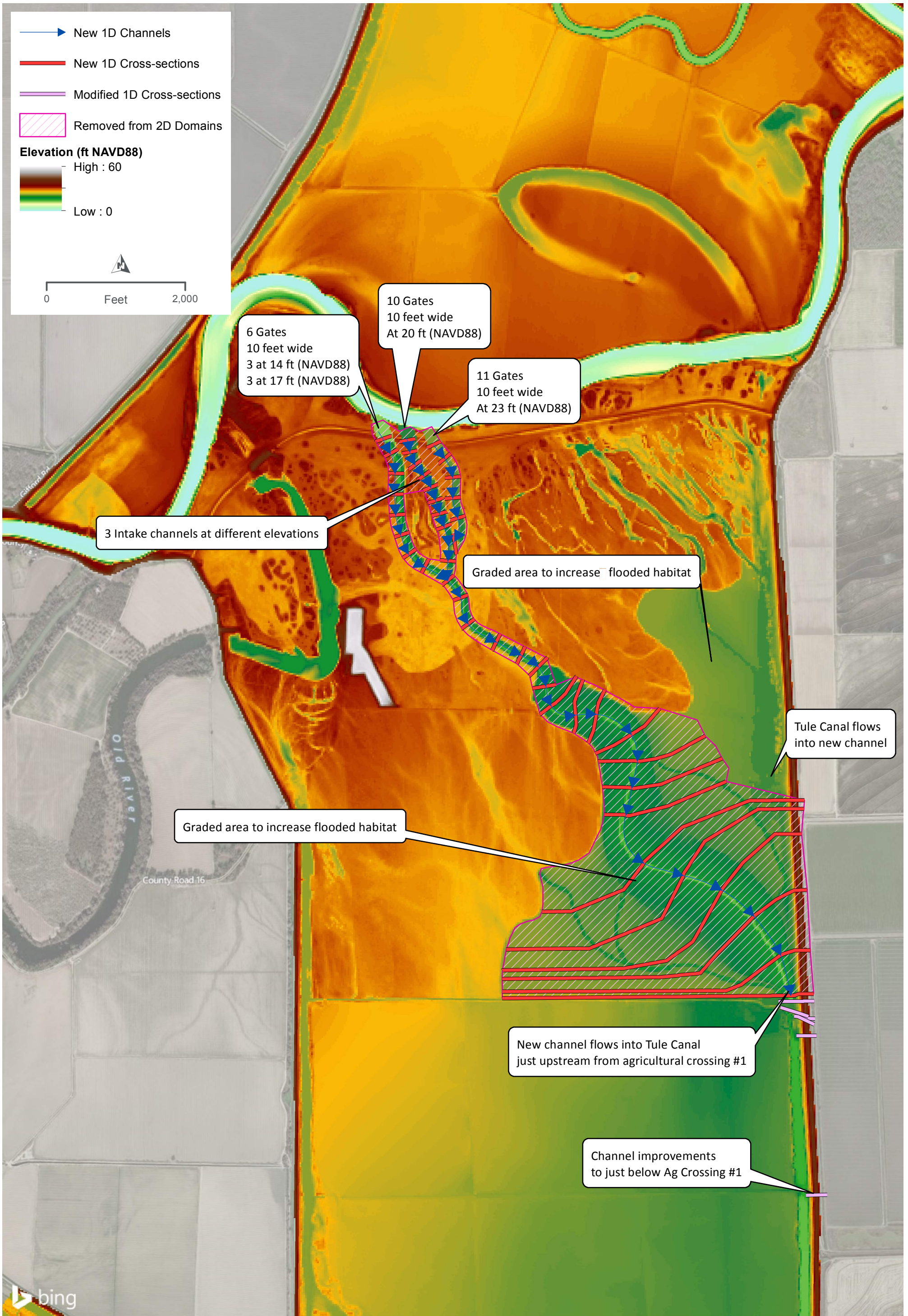
ALTERNATIVE #4 FLOODPLAIN IMPROVEMENTS AT KNAGGS
 MANAGED FLOODPLAIN COMPONENTS TARGET INUNDATION TO SPECIFIC AREAS

FIGURE 5



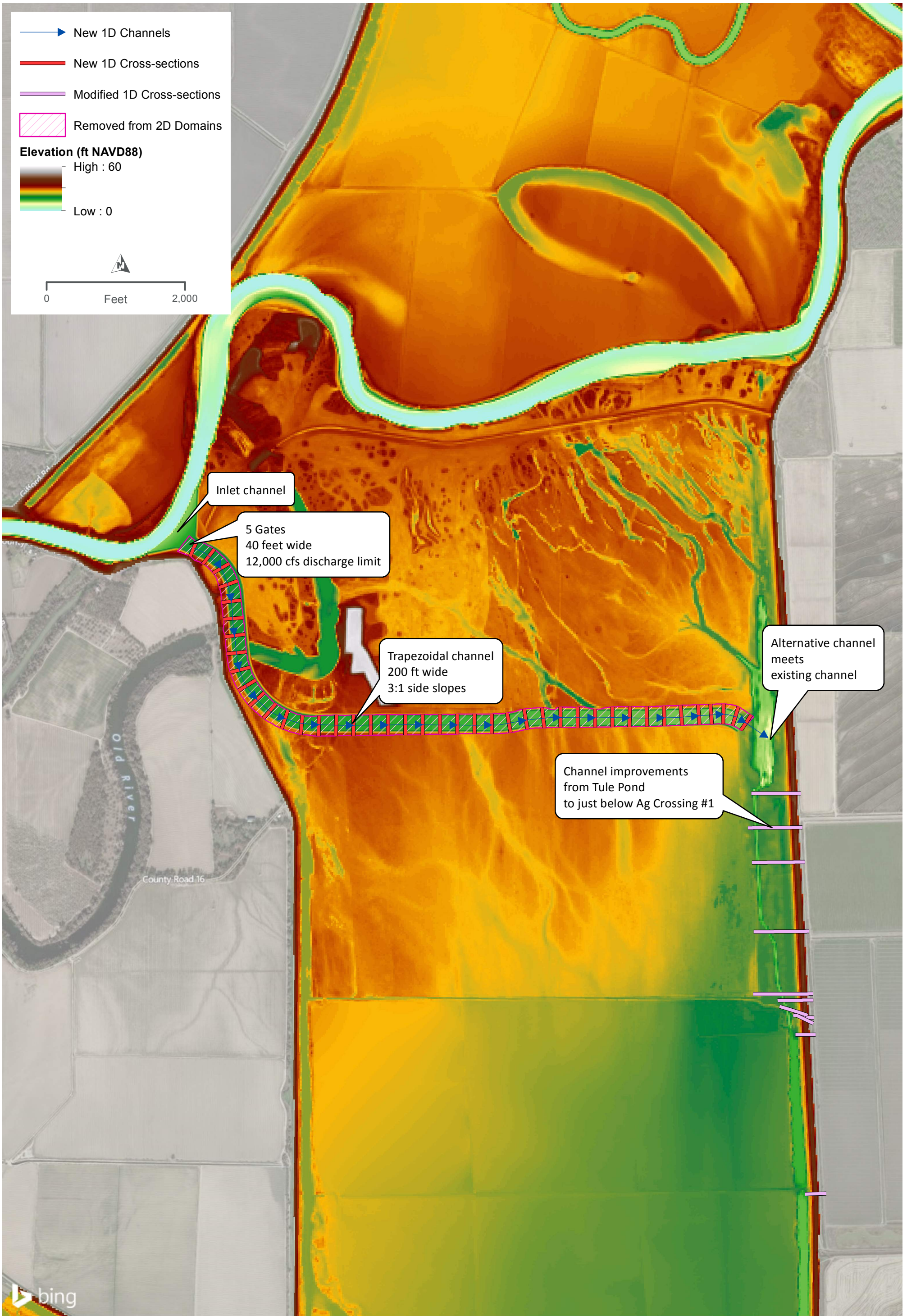
ALTERNATIVE #4 FLOODPLAIN IMPROVEMENTS AT CONAWAY
MANAGED FLOODPLAIN COMPONENTS TARGET INUNDATION TO SPECIFIC AREAS

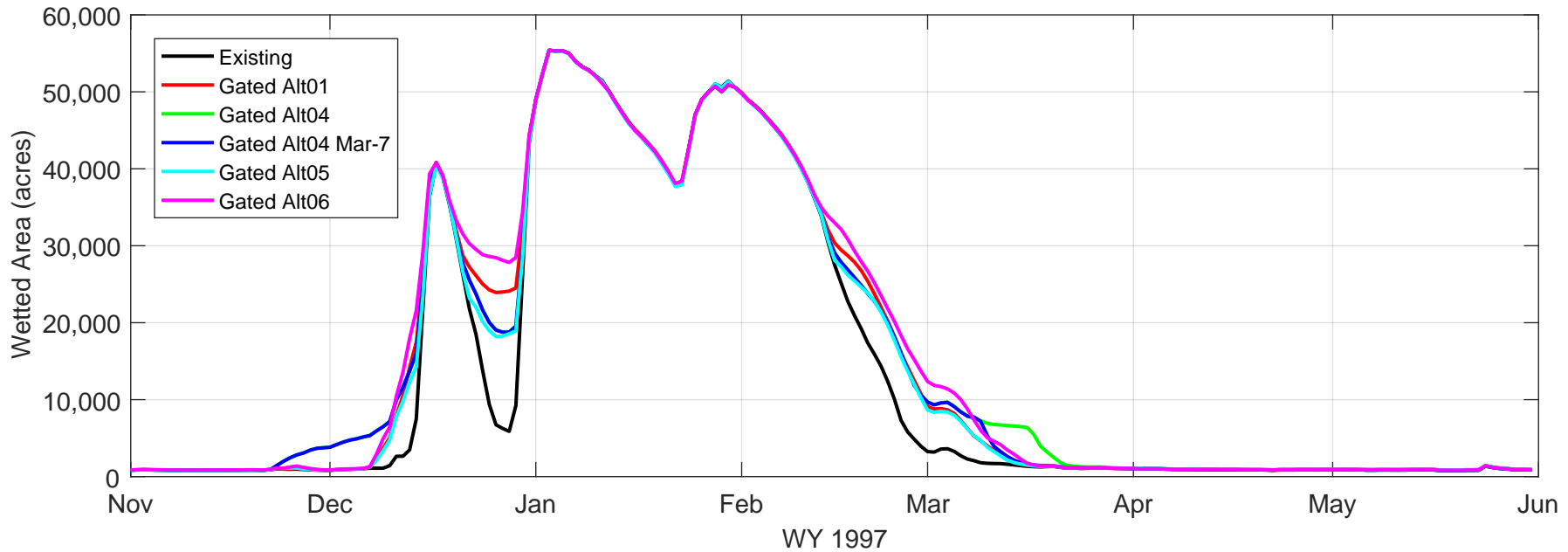
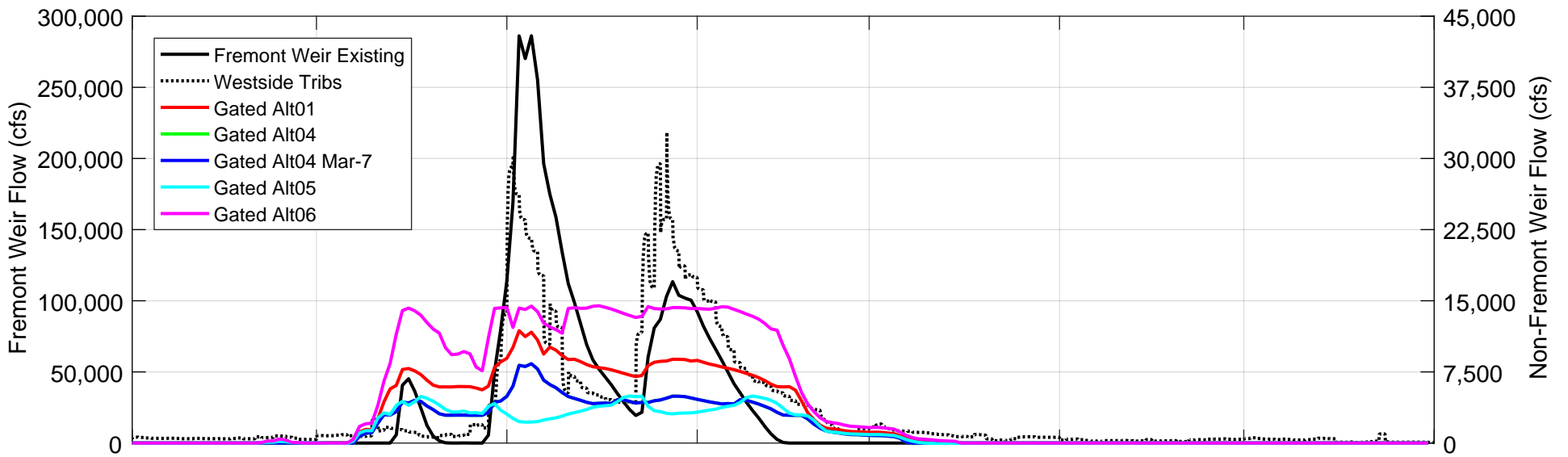
FIGURE 6



ALTERNATIVE #5 MODEL FEATURES
3,000 CFS THROUGH MULTIPLE CHANNELS AND WIDENED FLOODPLAIN
FIGURE 7



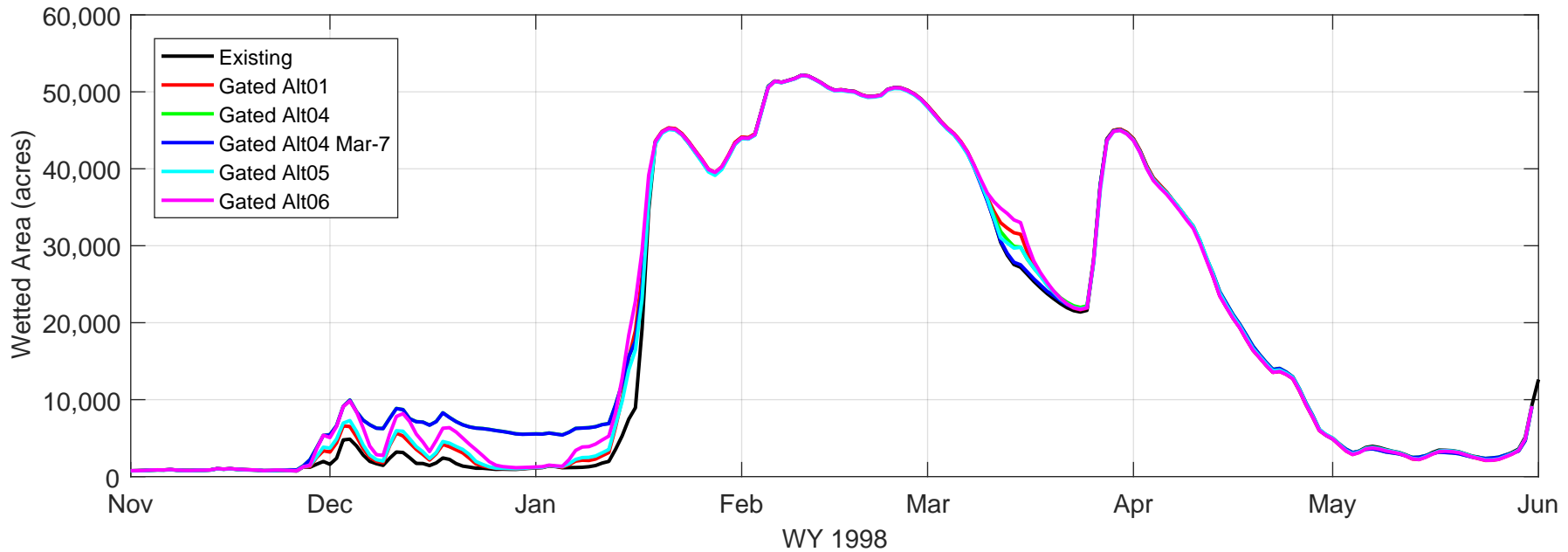
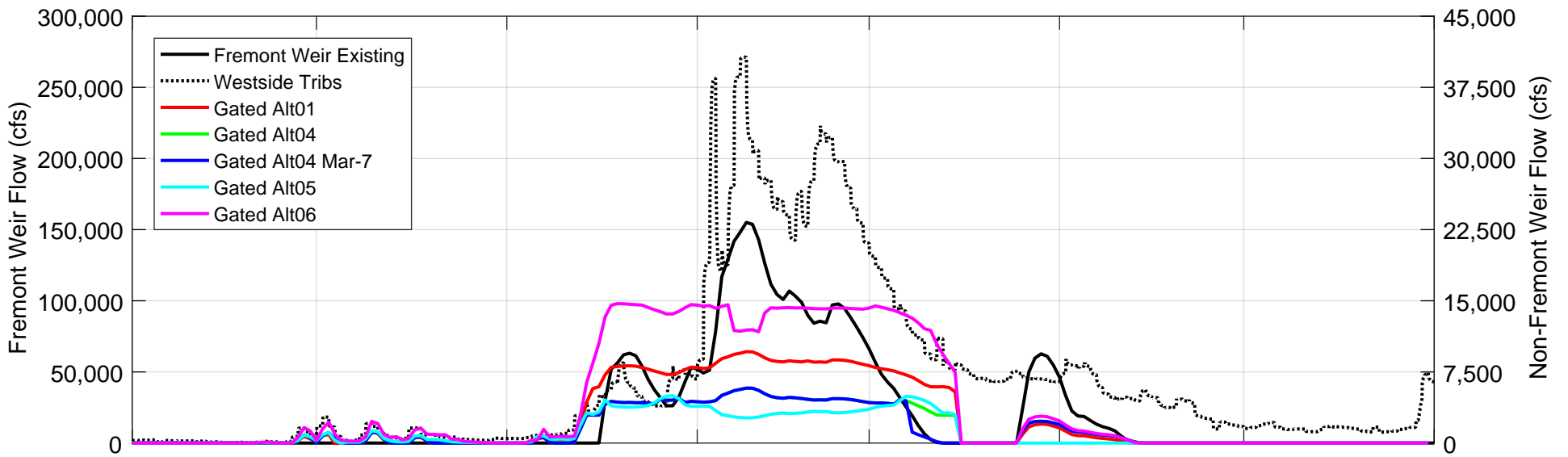




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 1997**

FIGURE 9

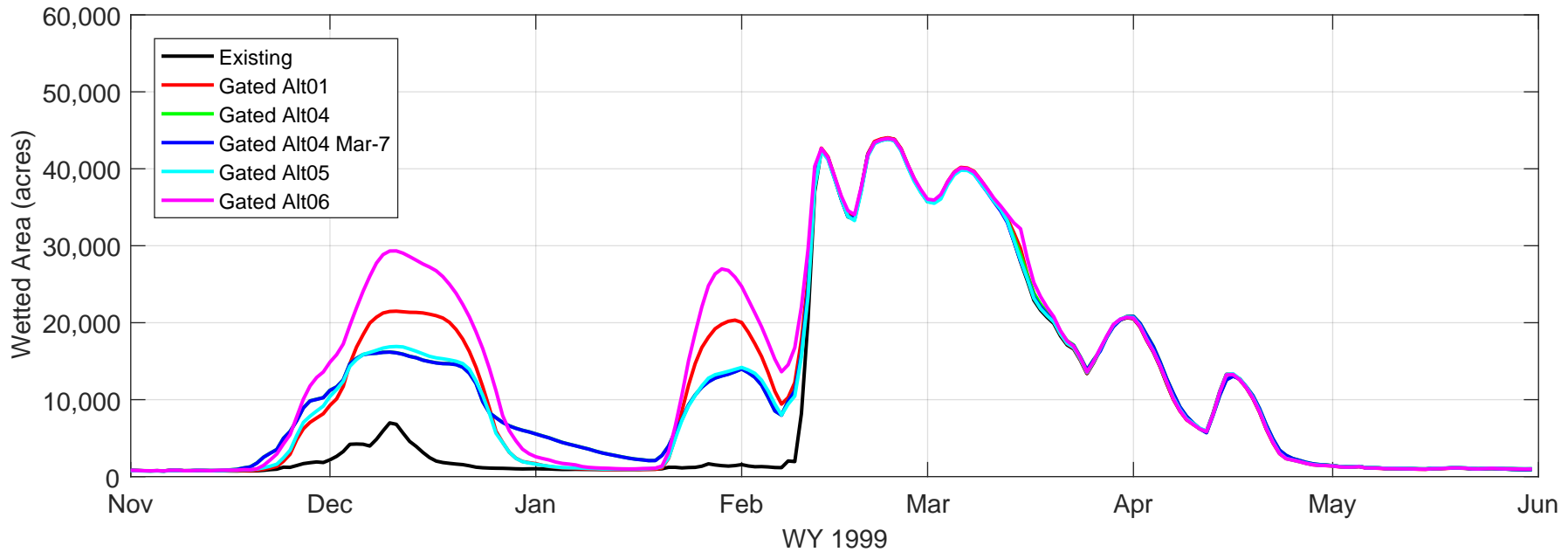
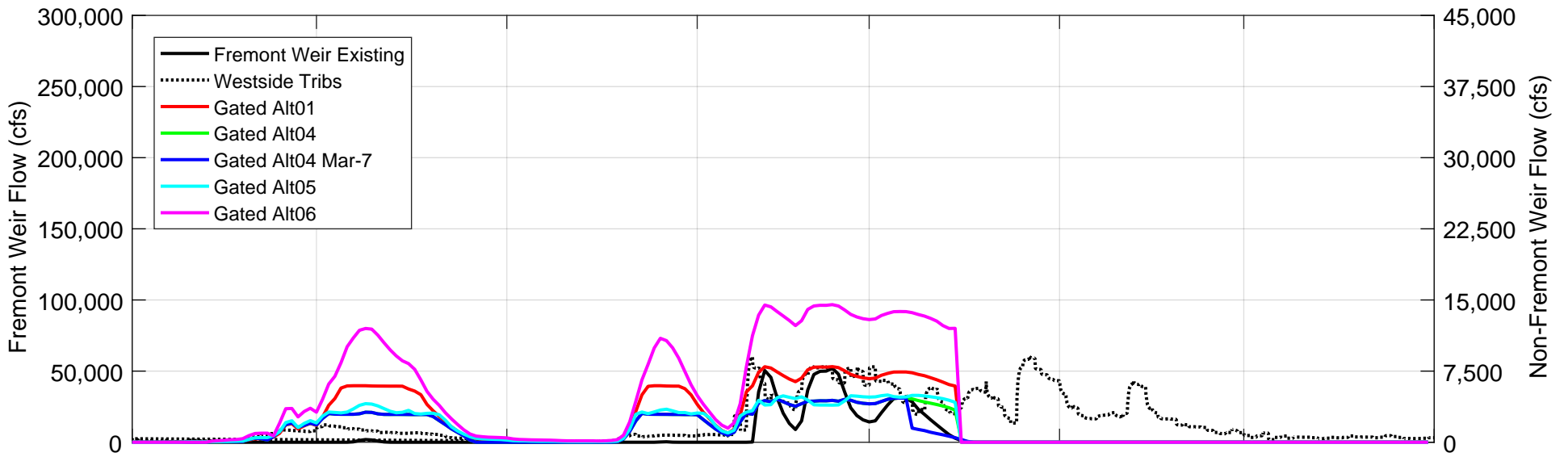




YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 1998

FIGURE 10

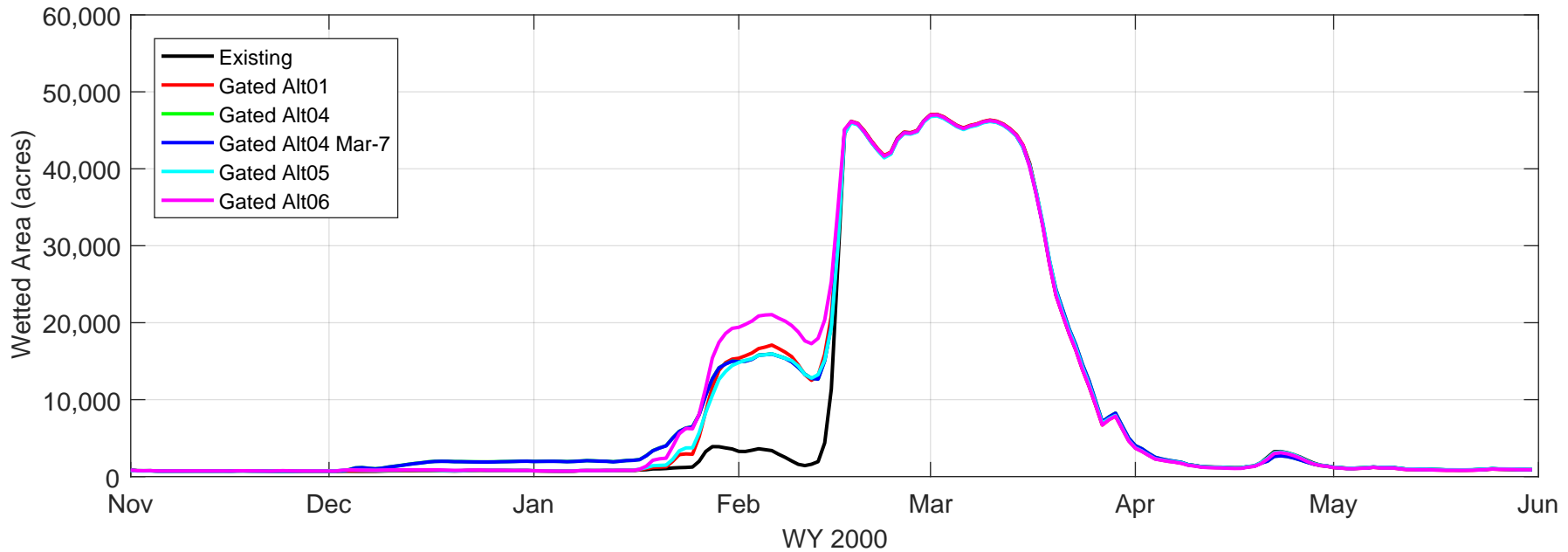
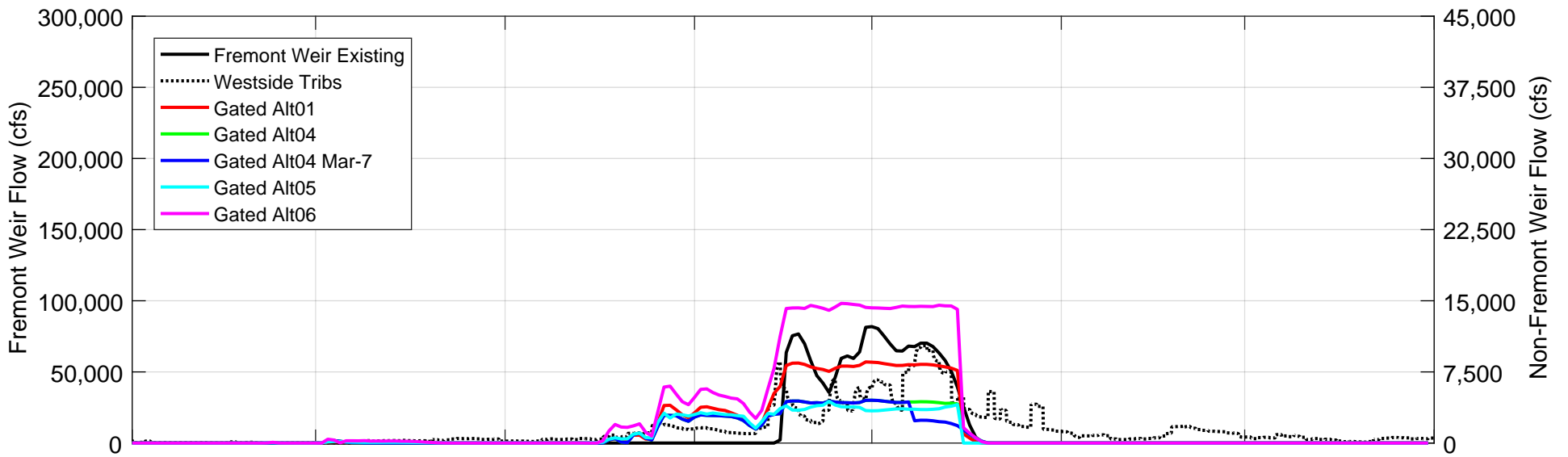




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 1999**

FIGURE 11

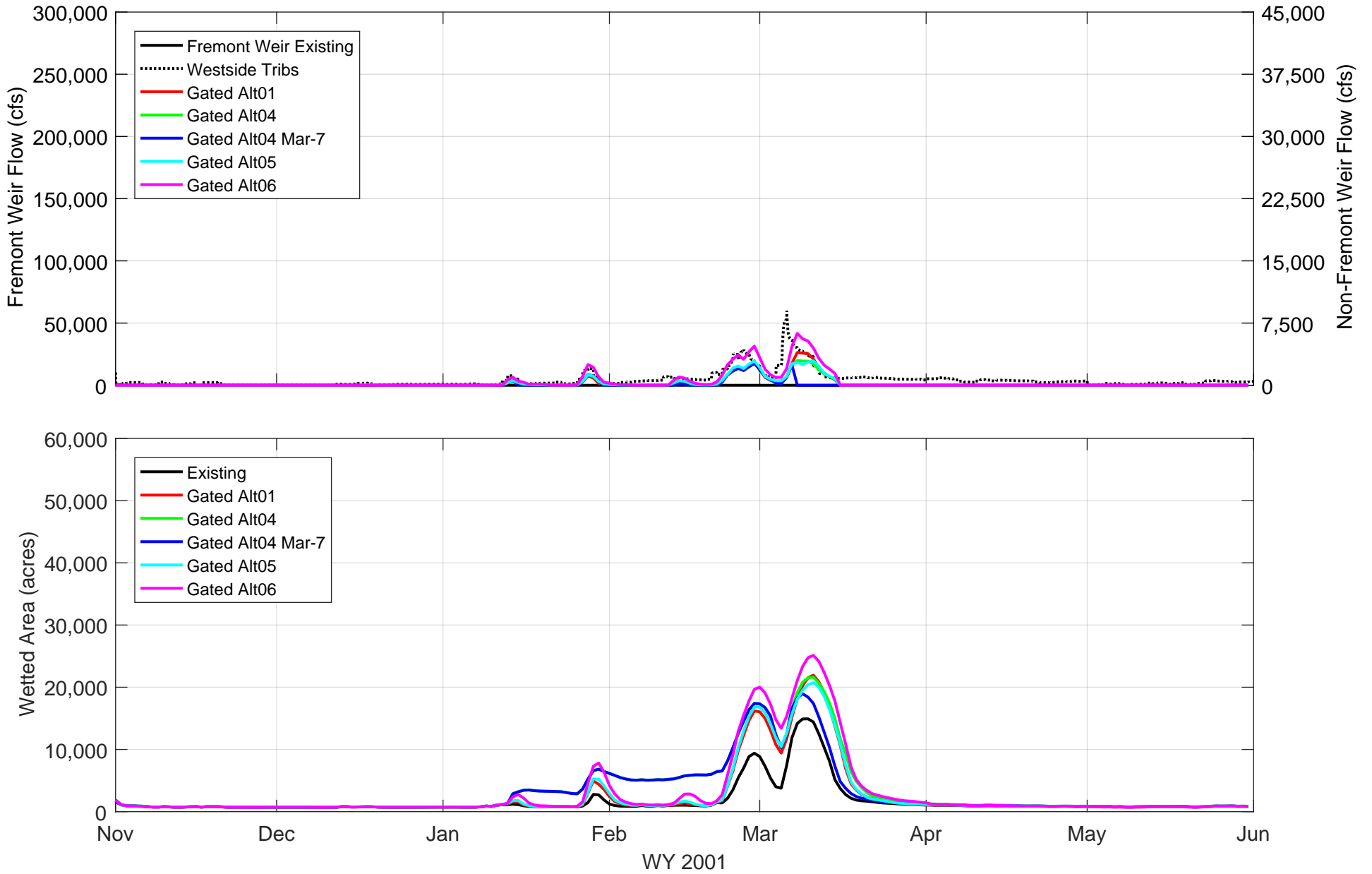




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2000**

FIGURE 12

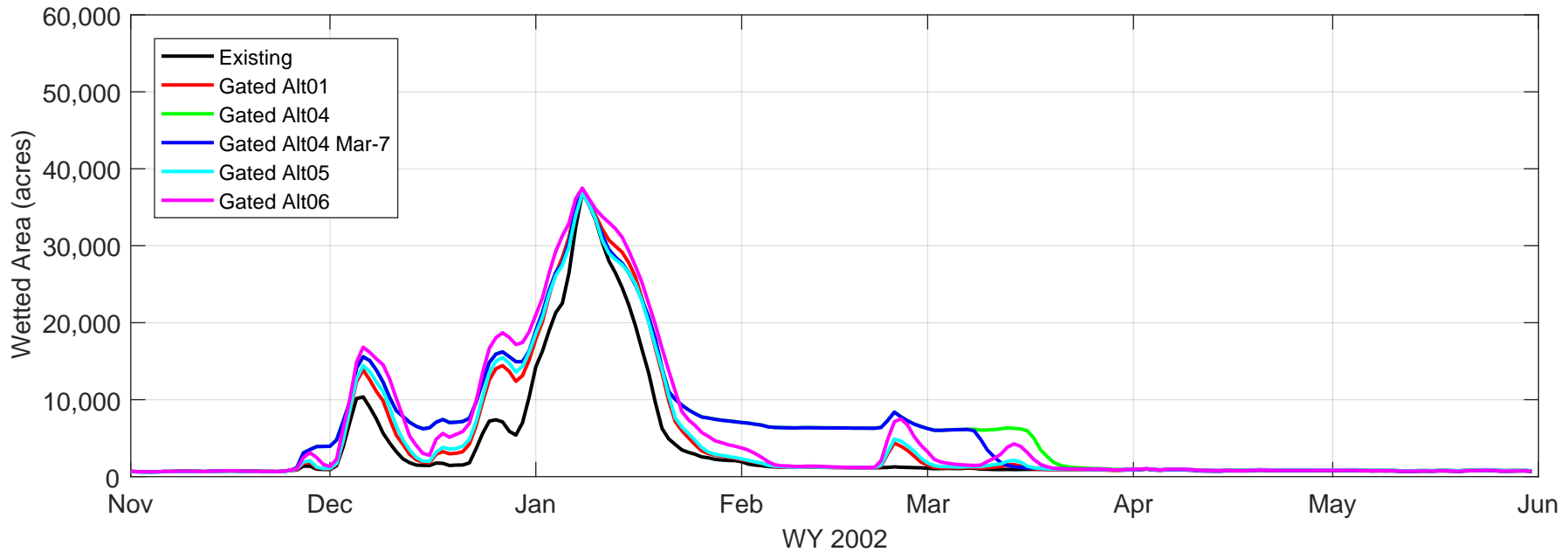
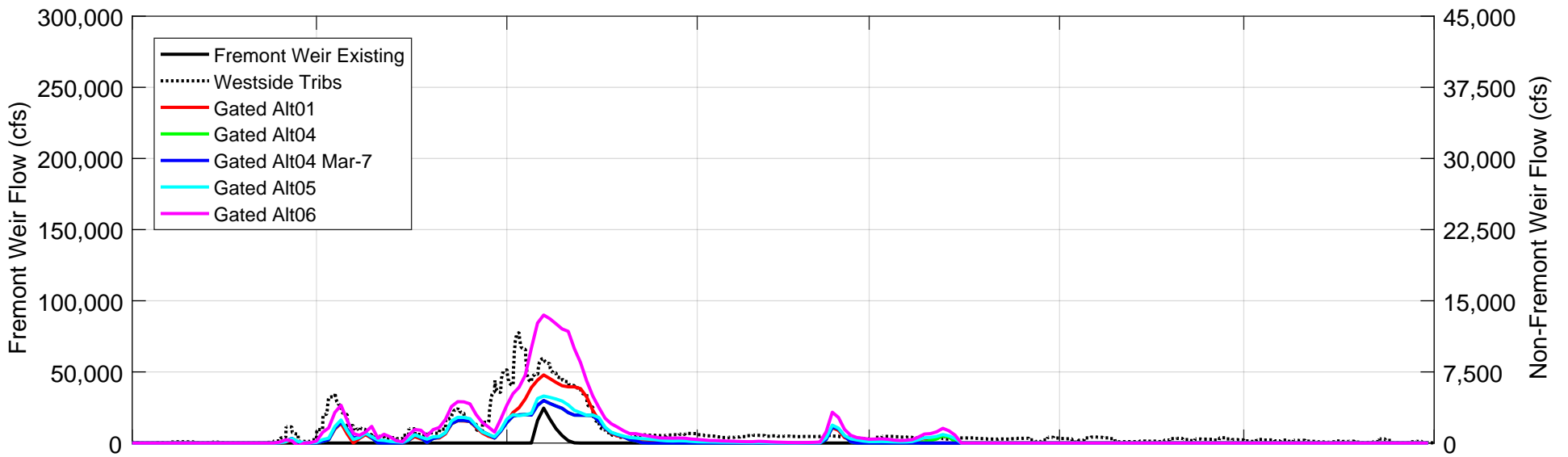




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
 WATER YEAR 2001**

FIGURE 13

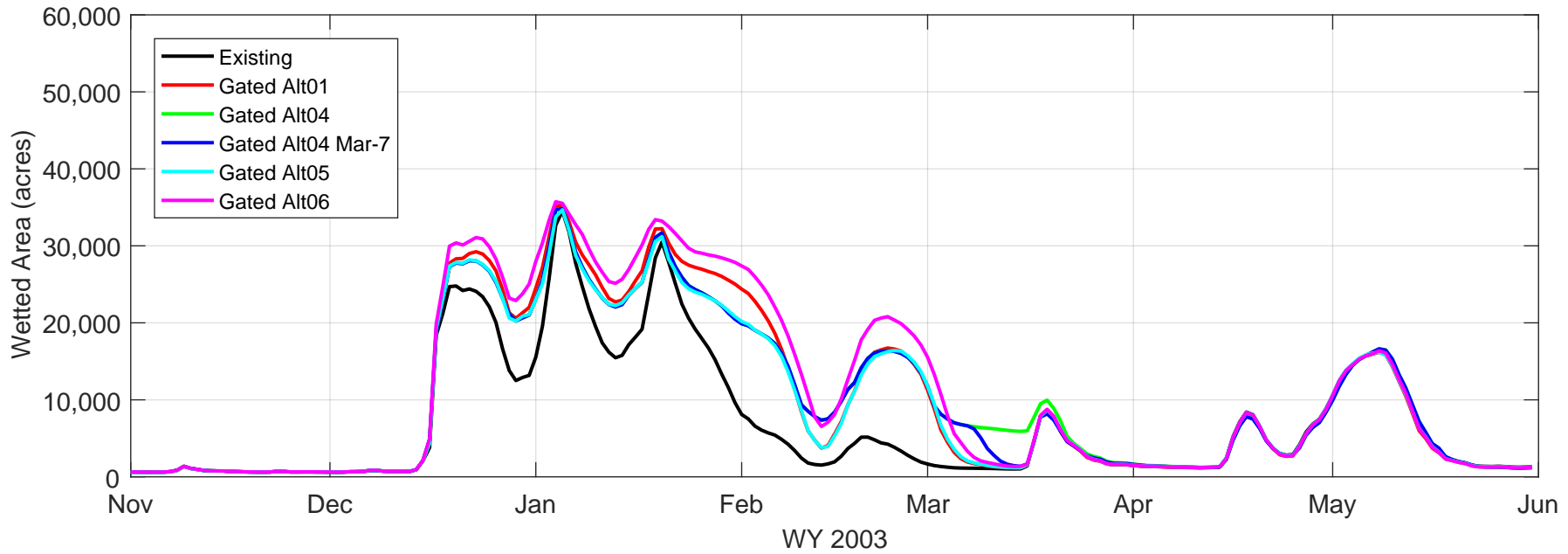
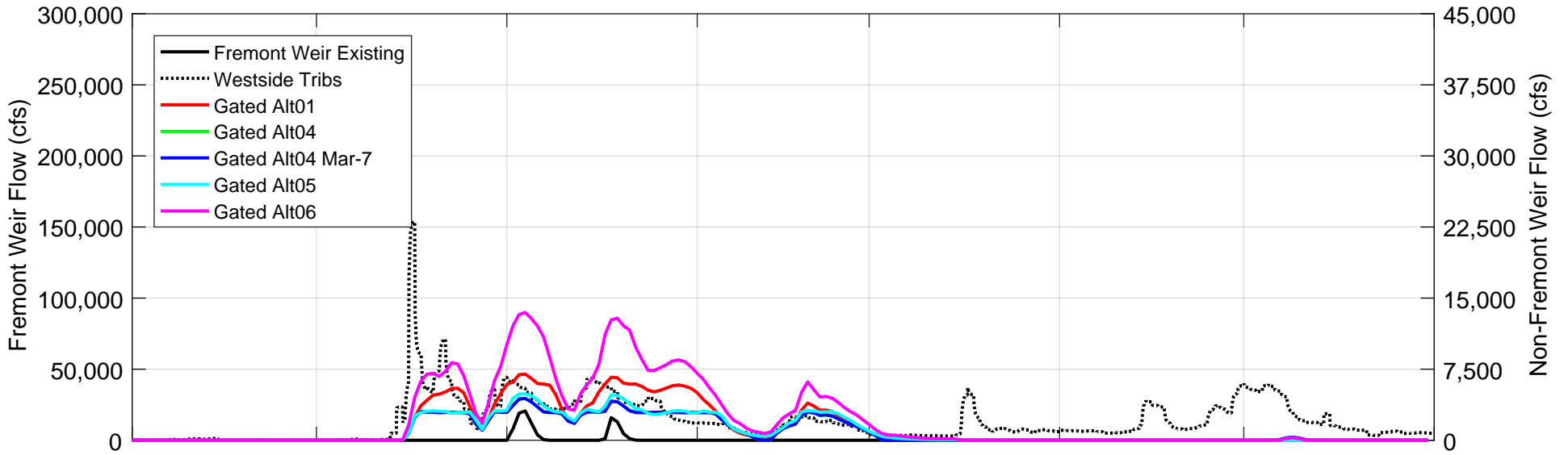




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2002**

FIGURE 14

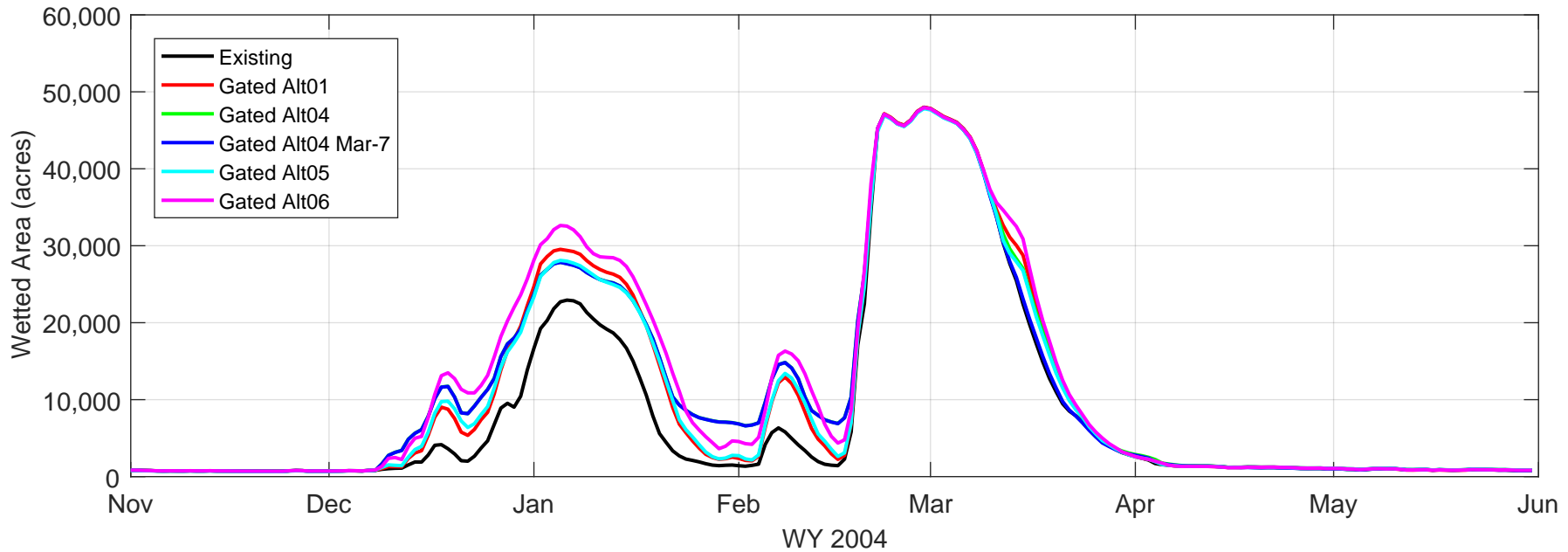
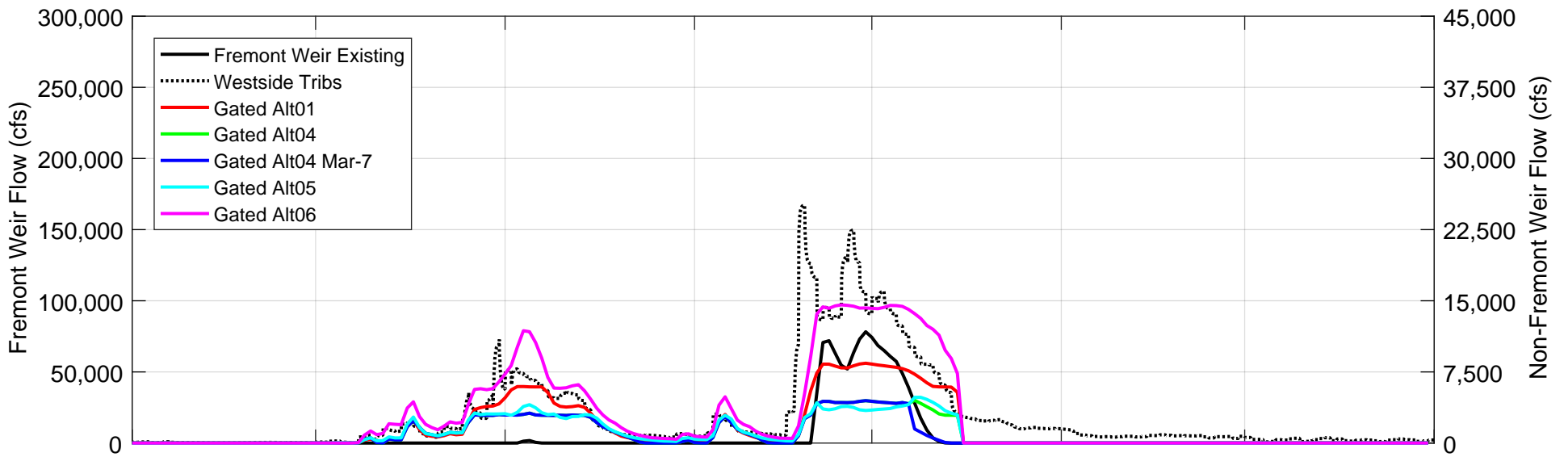




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2003**

FIGURE 15

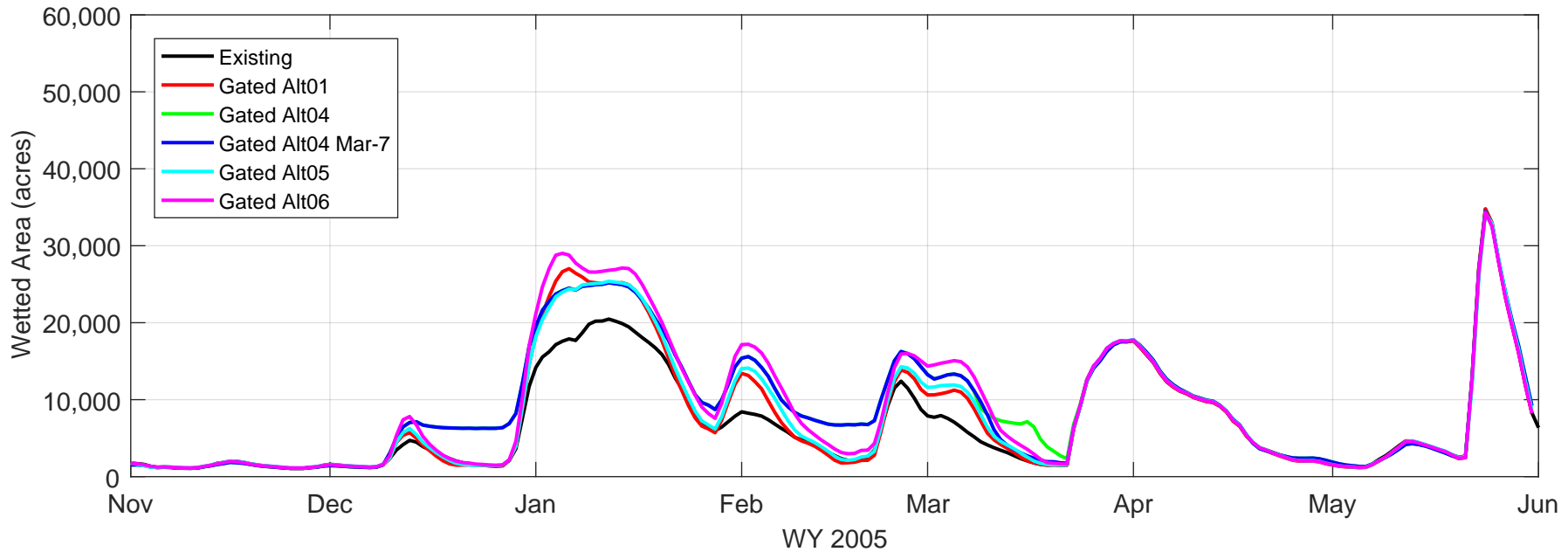
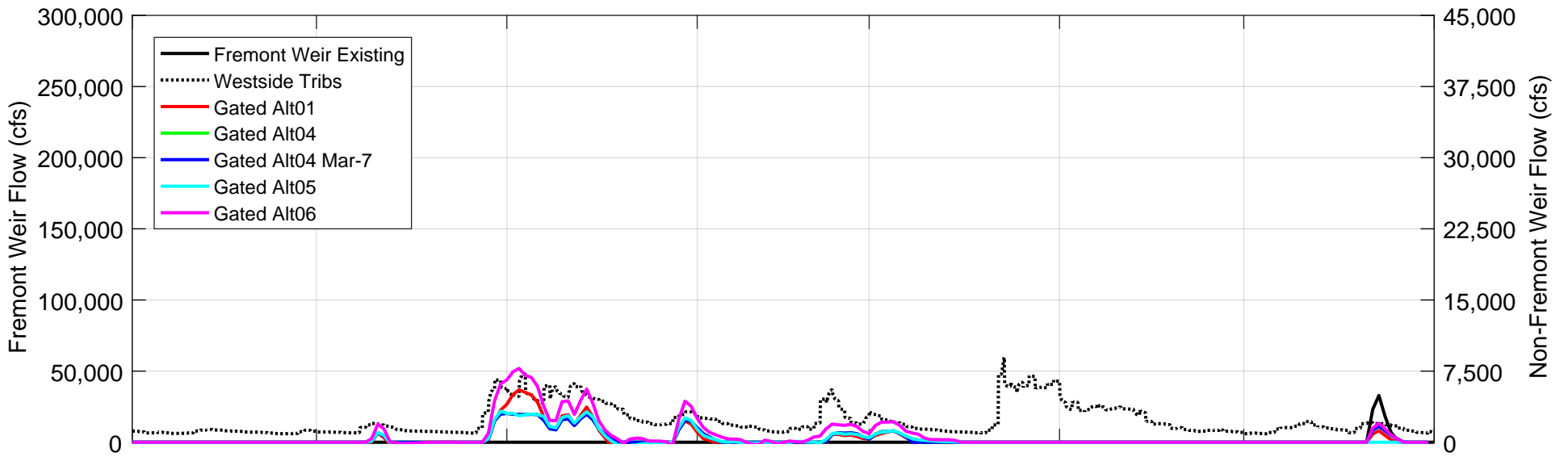




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2004**

FIGURE 16

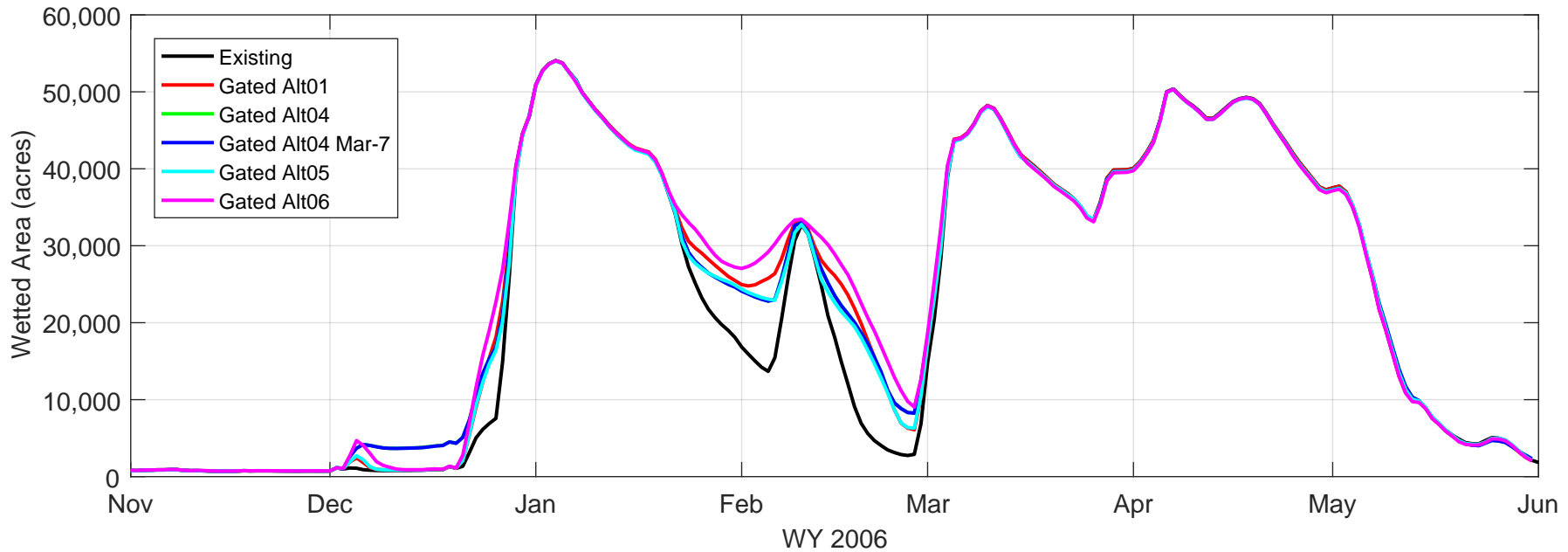
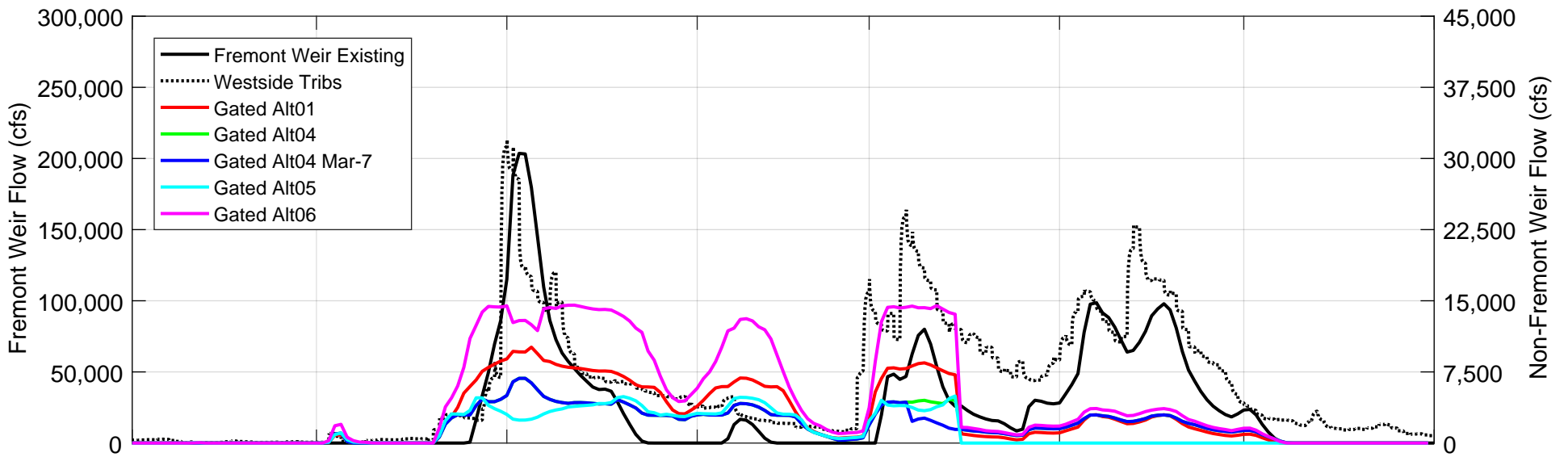




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2005**

FIGURE 17

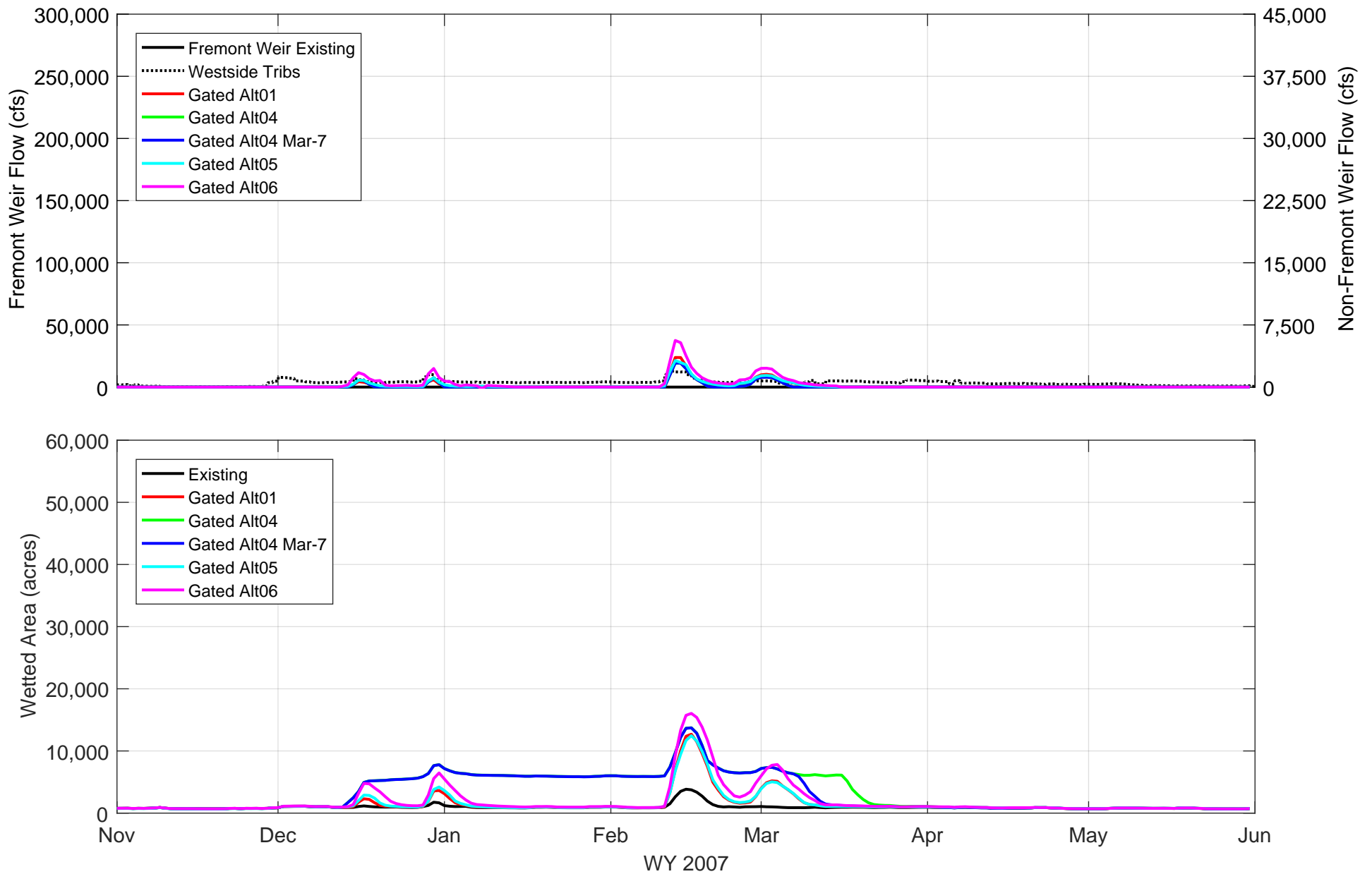




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2006**

FIGURE 18

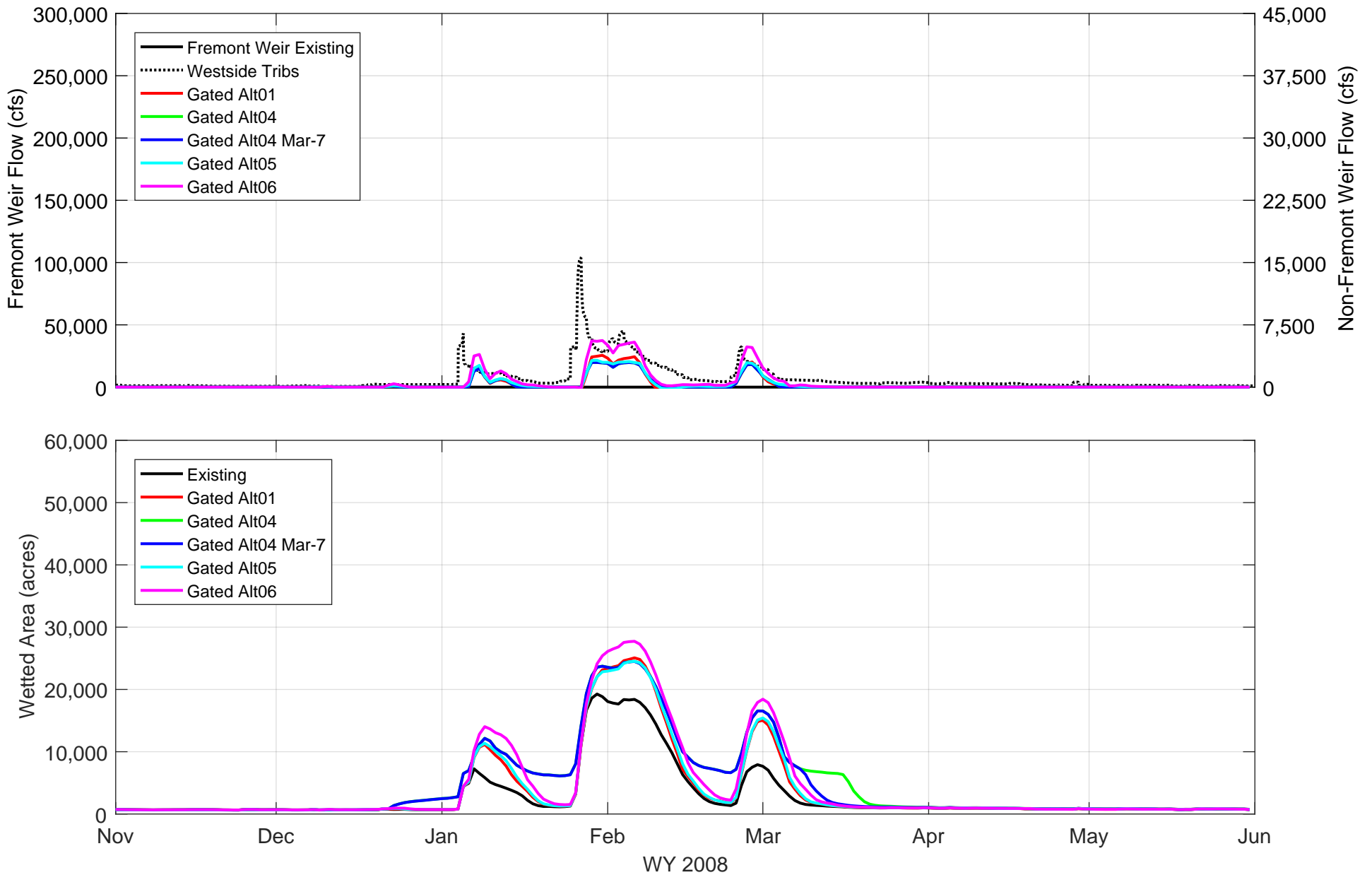




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2007**

FIGURE 19

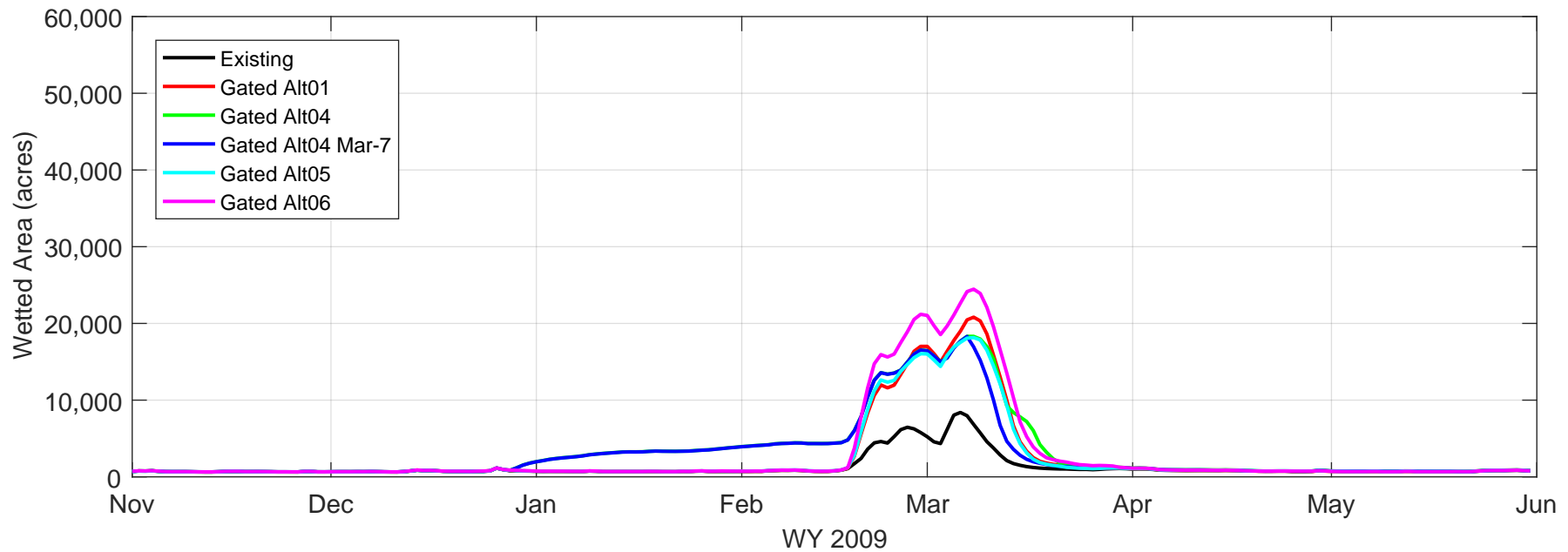
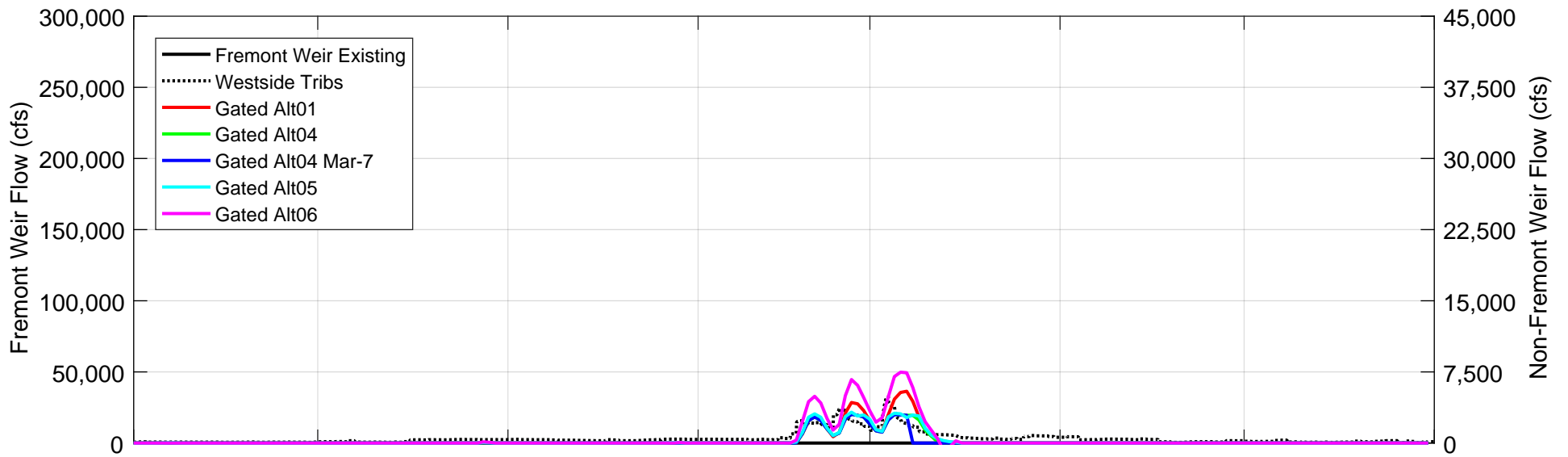




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2008**

FIGURE 20

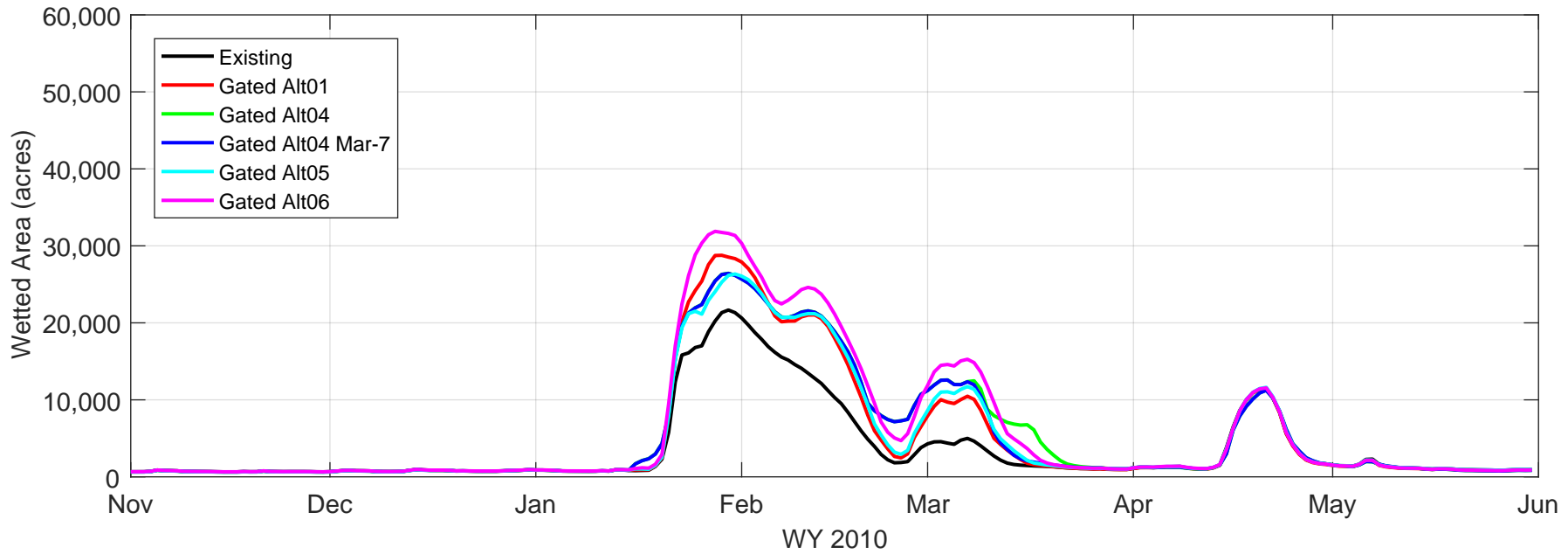
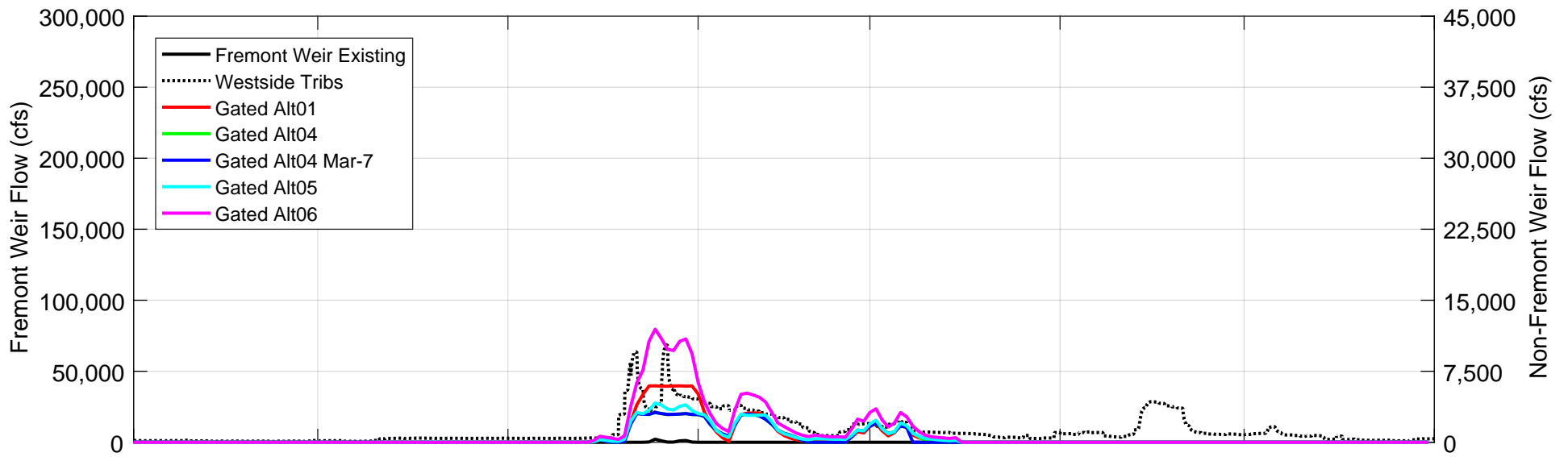




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2009**

FIGURE 21

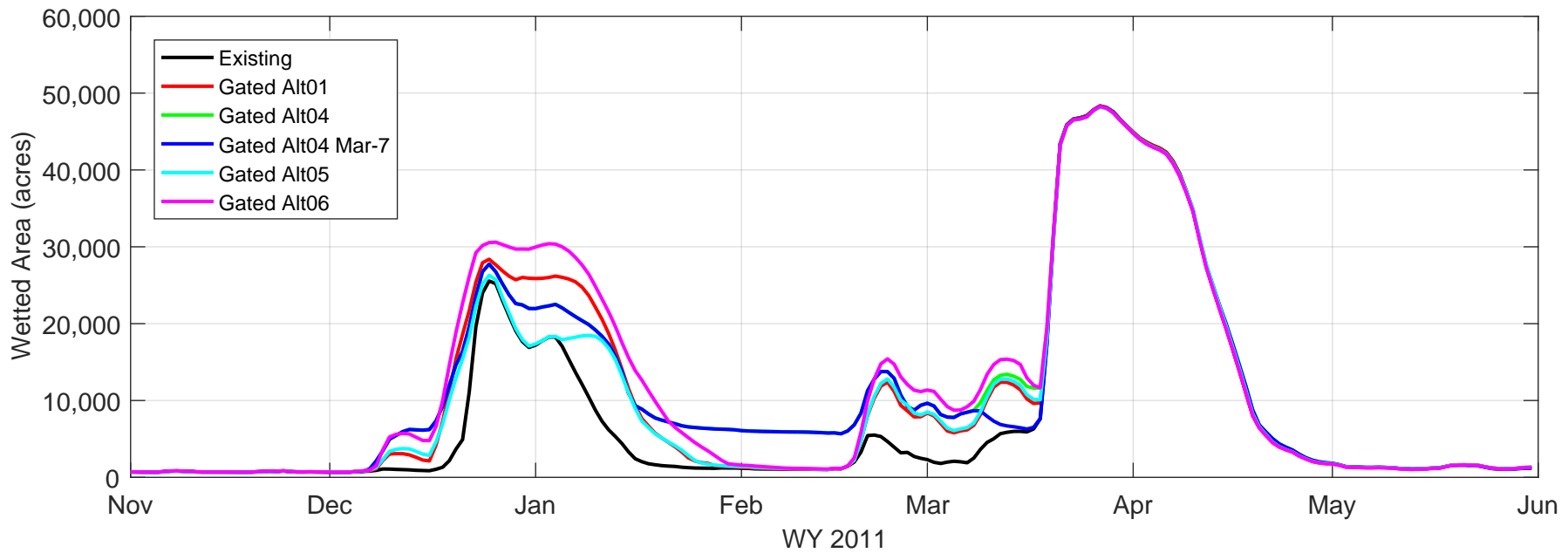
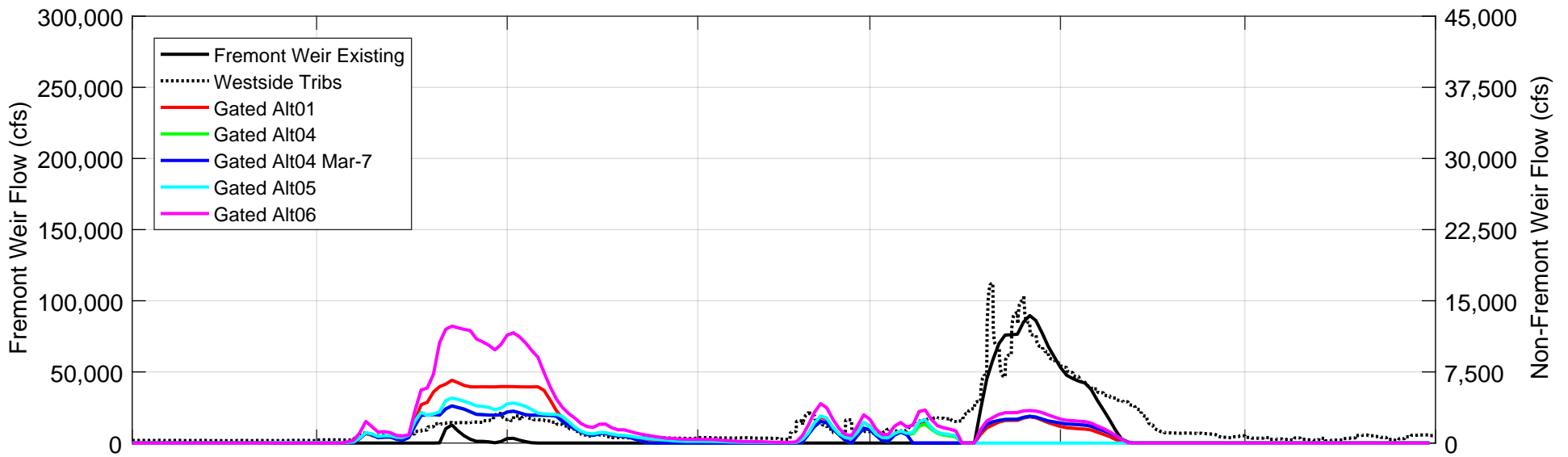




YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2010

FIGURE 22

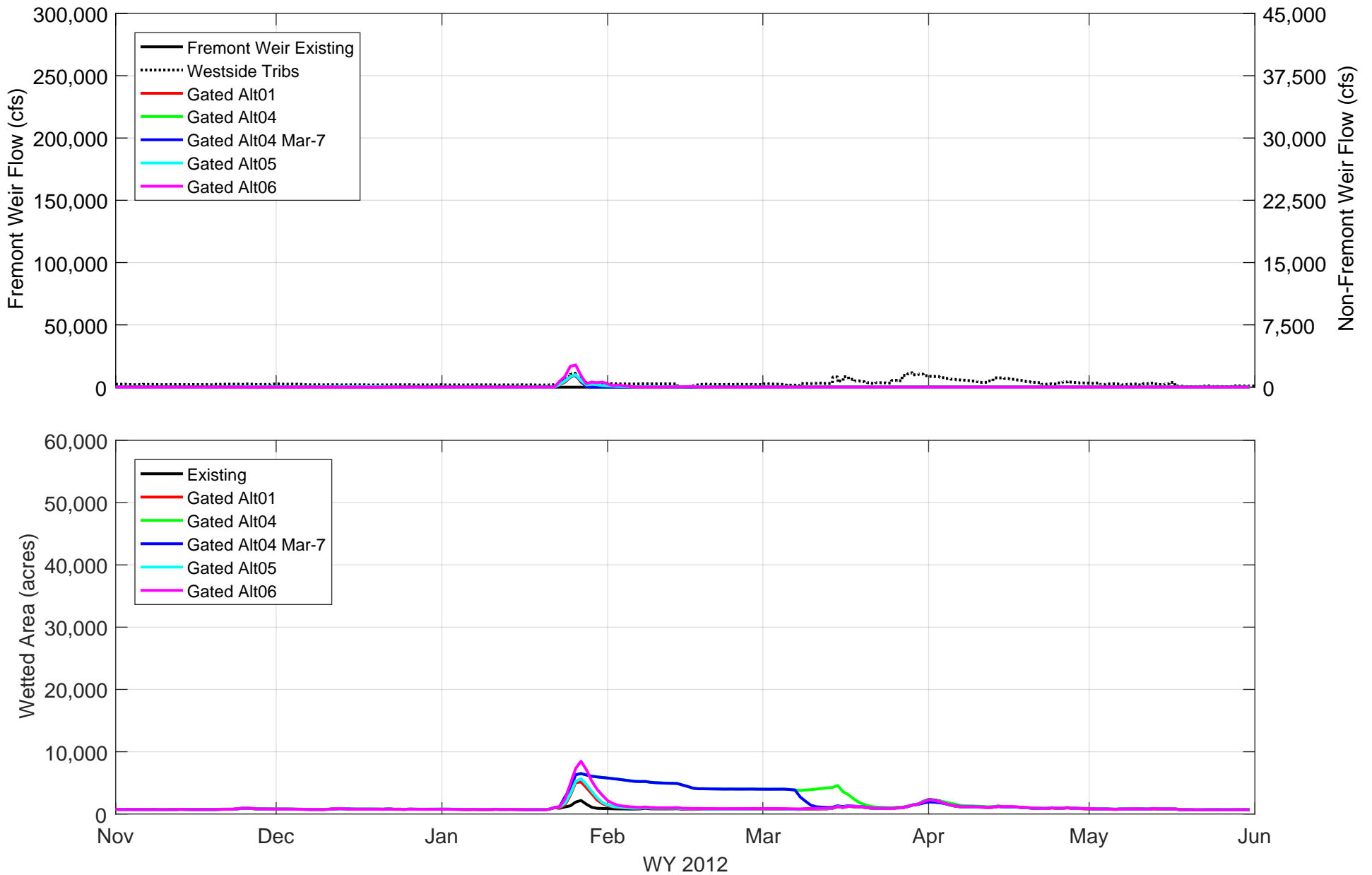




YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2011

FIGURE 23

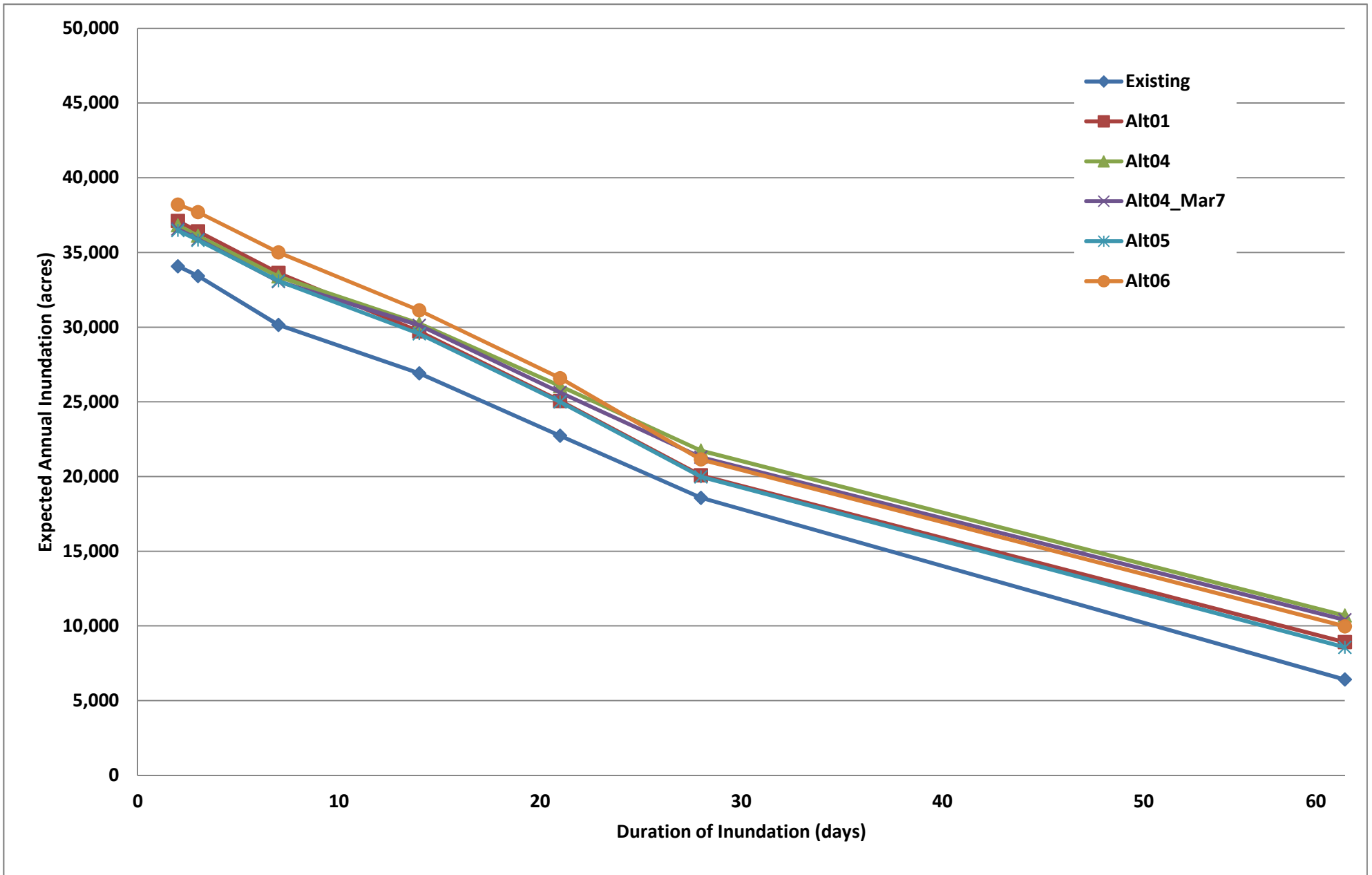




**YOLO BYPASS DISCHARGES AND WET AREA BY ALTERNATIVE
WATER YEAR 2012**

FIGURE 24

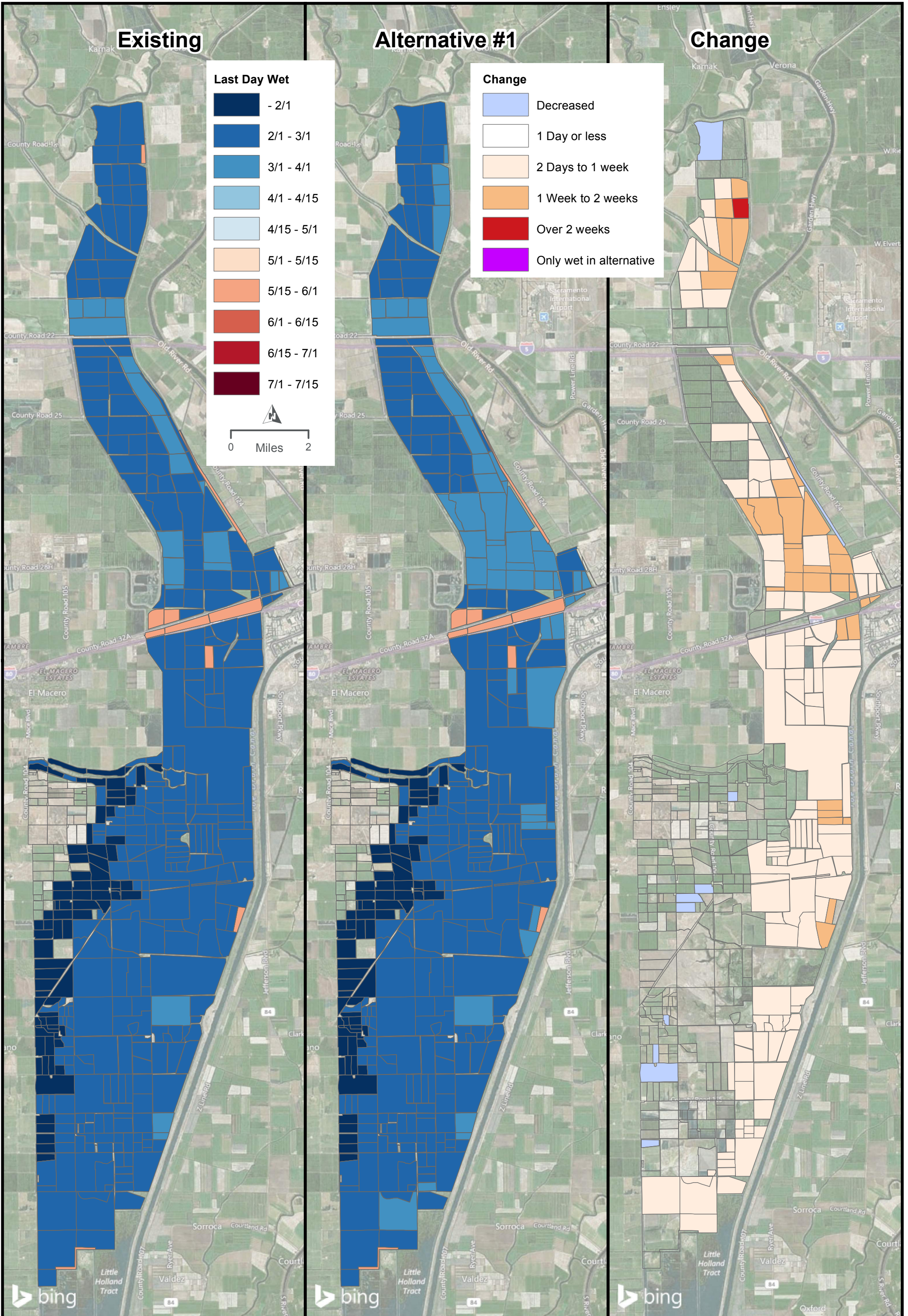




EXPECTED ANNUAL INUNDATION

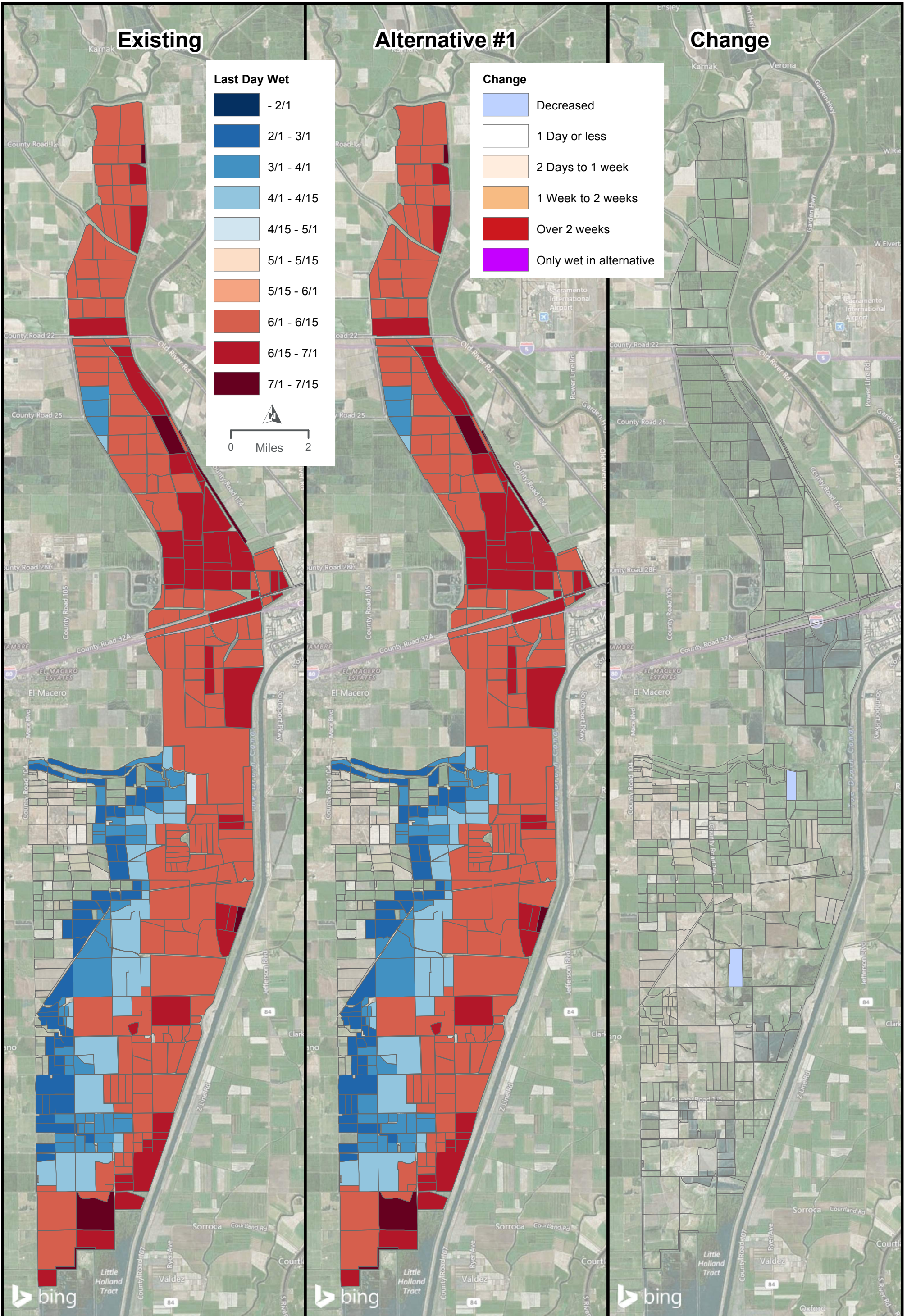


FIGURE 25



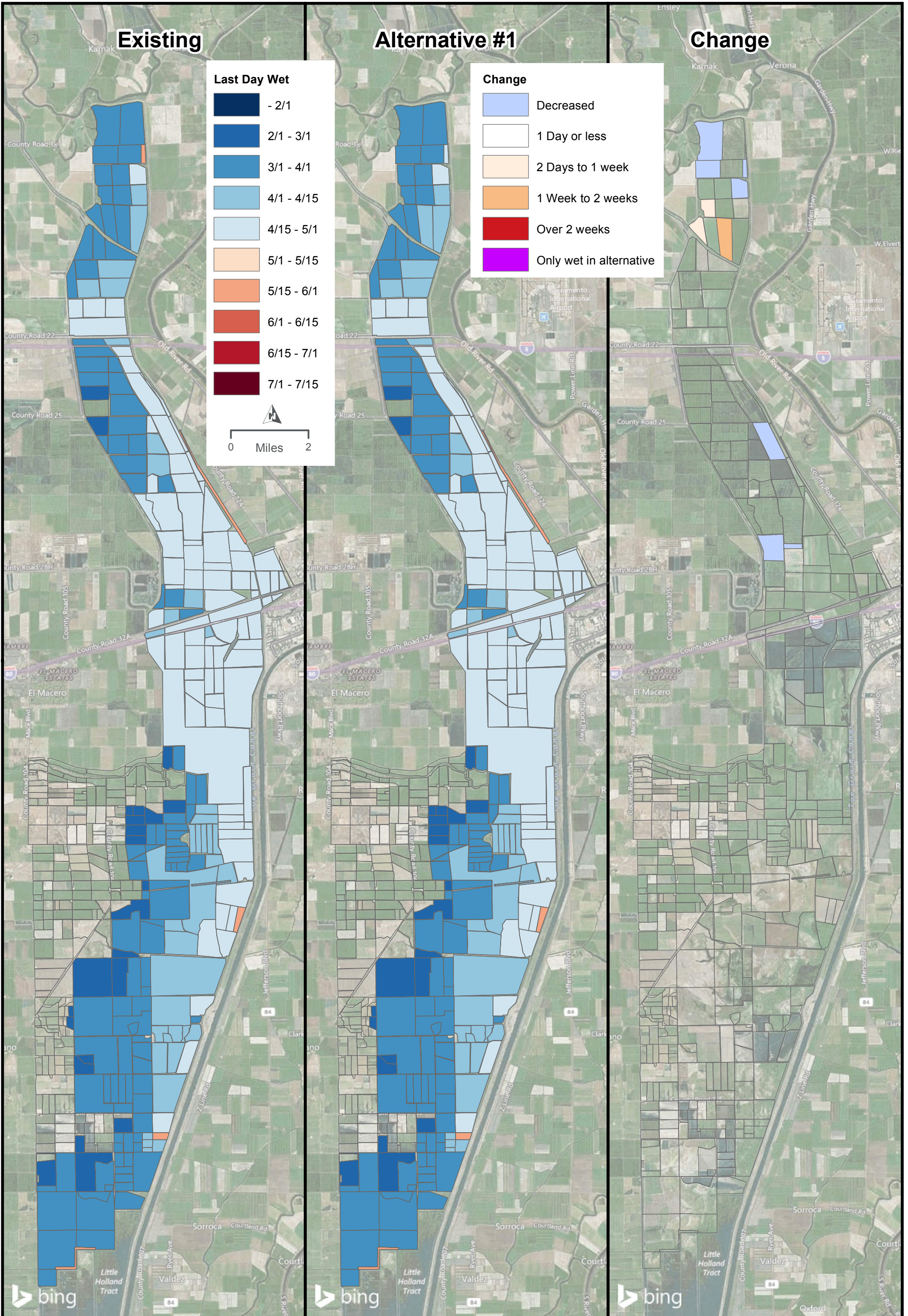
LAST DAY WET (LDW) FOR ALTERNATIVE #1 1997
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 26



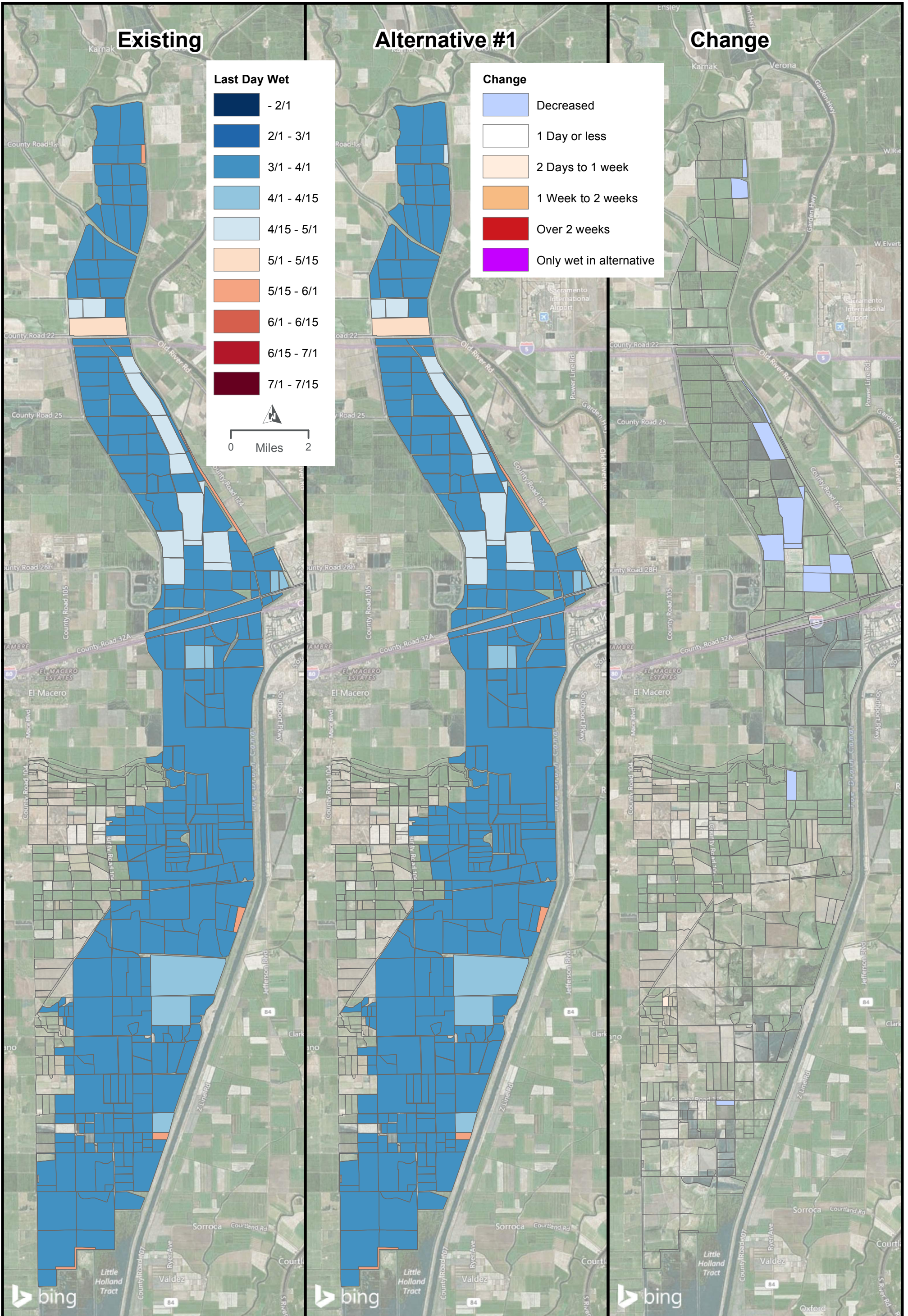
LAST DAY WET (LDW) FOR ALTERNATIVE #1 1998
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 27



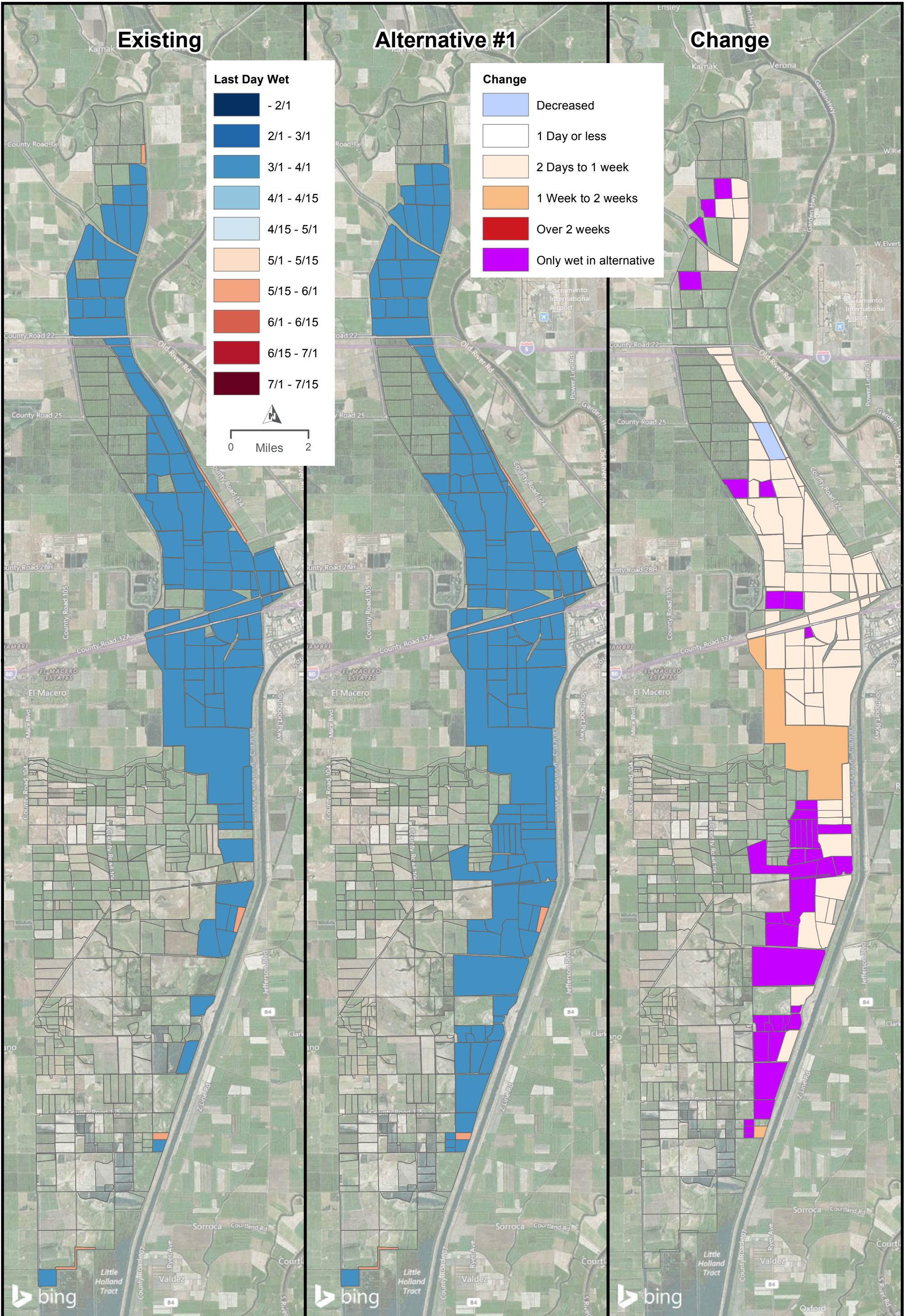
LAST DAY WET (LDW) FOR ALTERNATIVE #1 1999
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 28



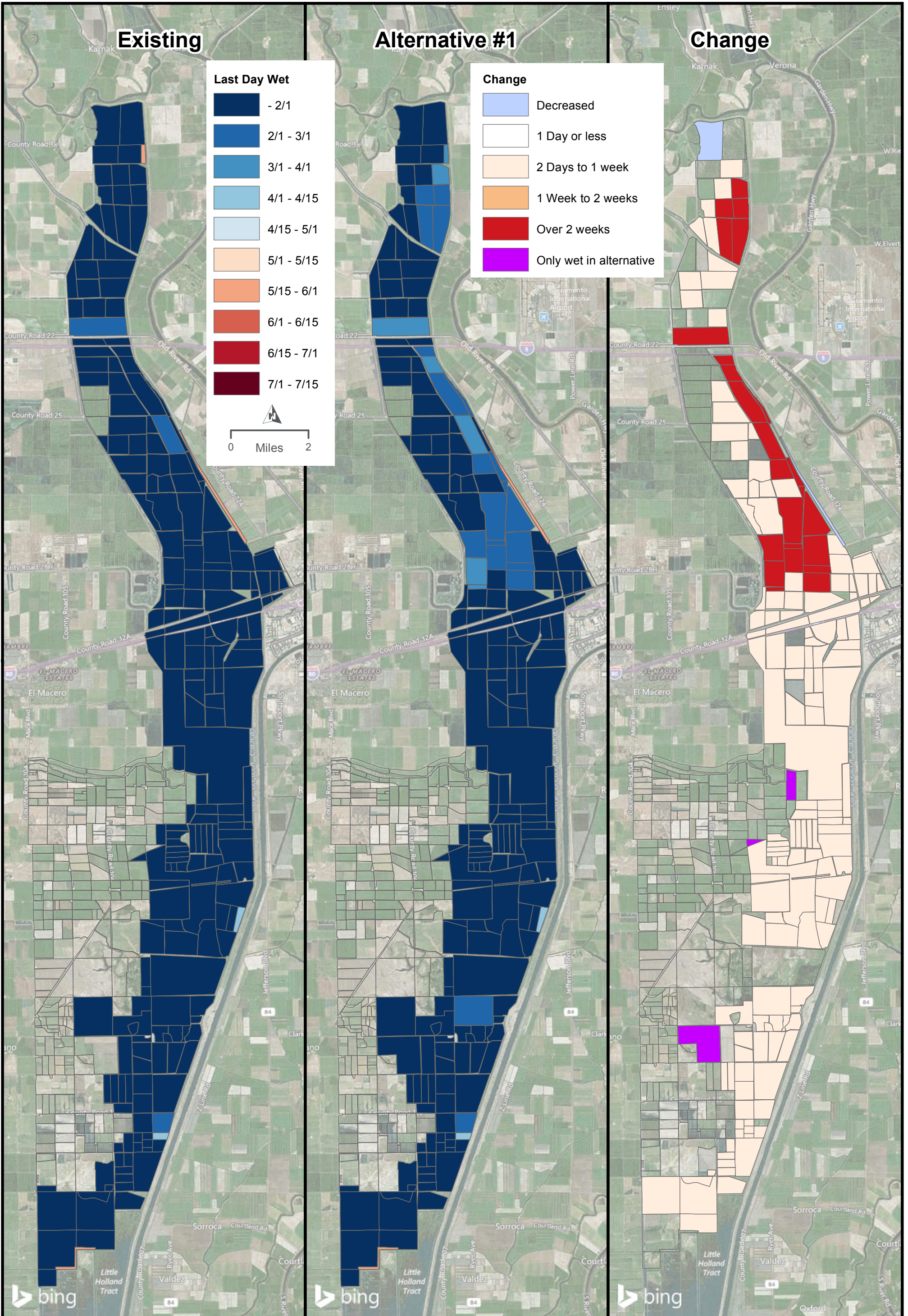
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2000
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 29



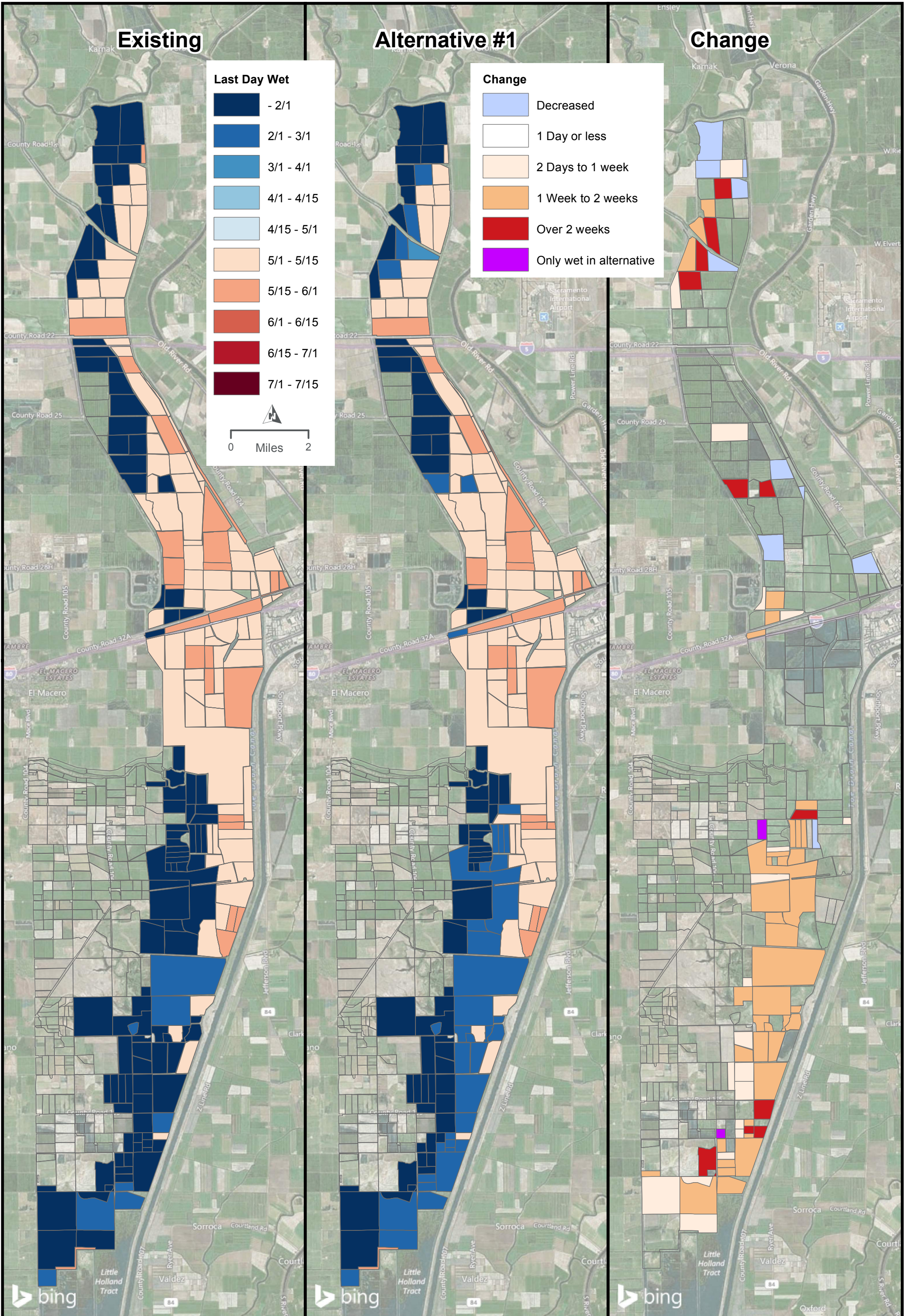
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2001
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 30



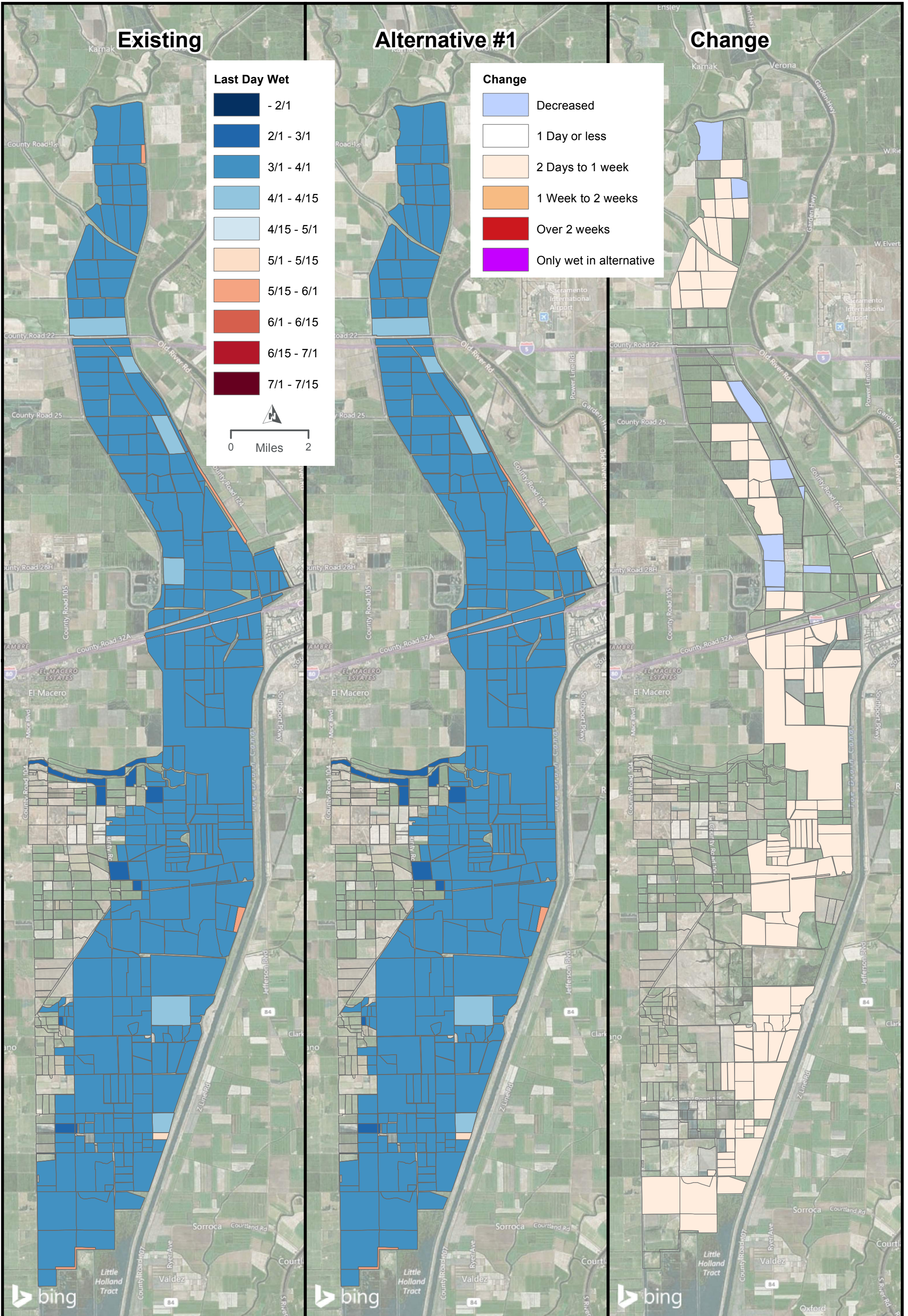
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2002
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 31



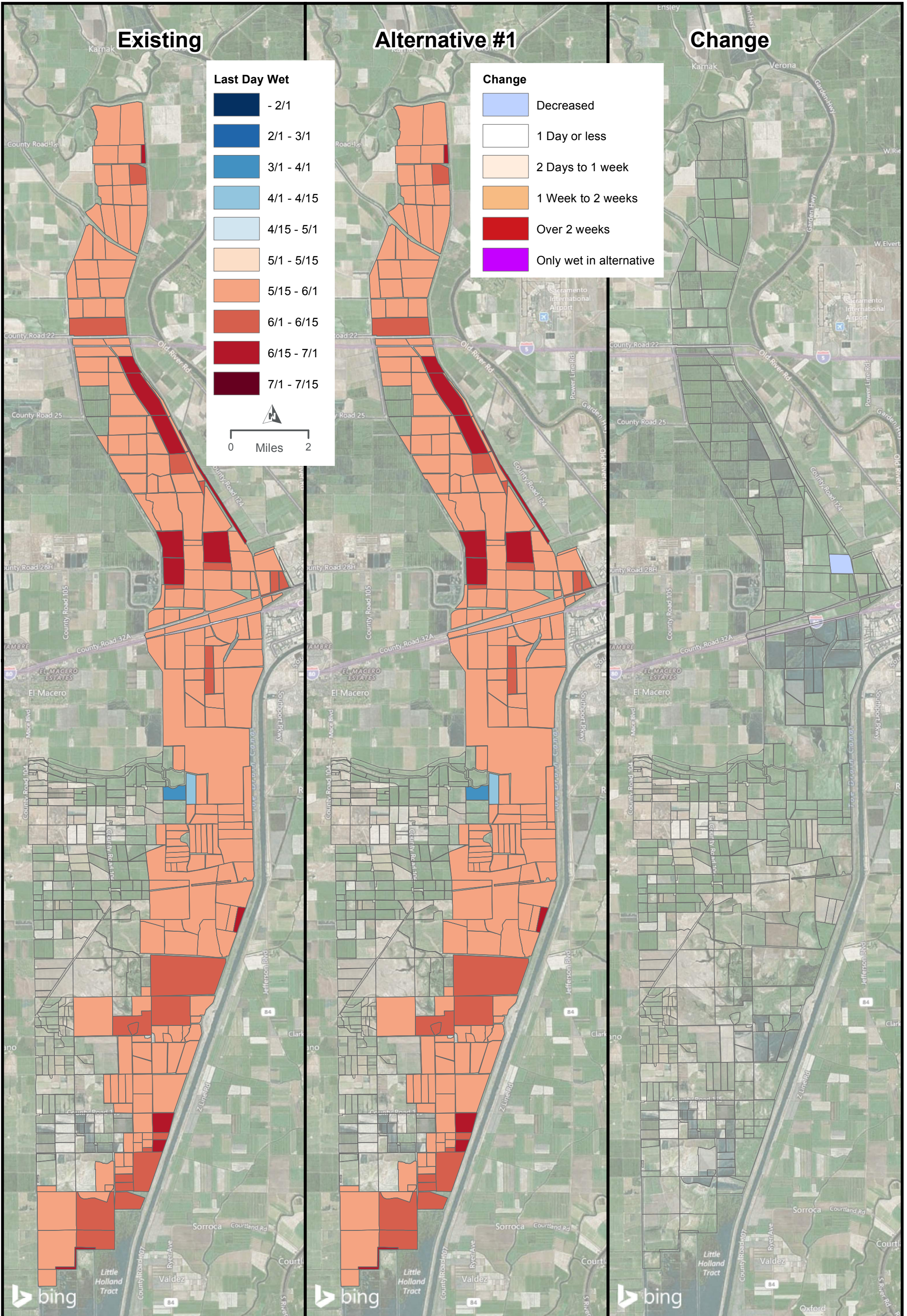
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2003
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 32



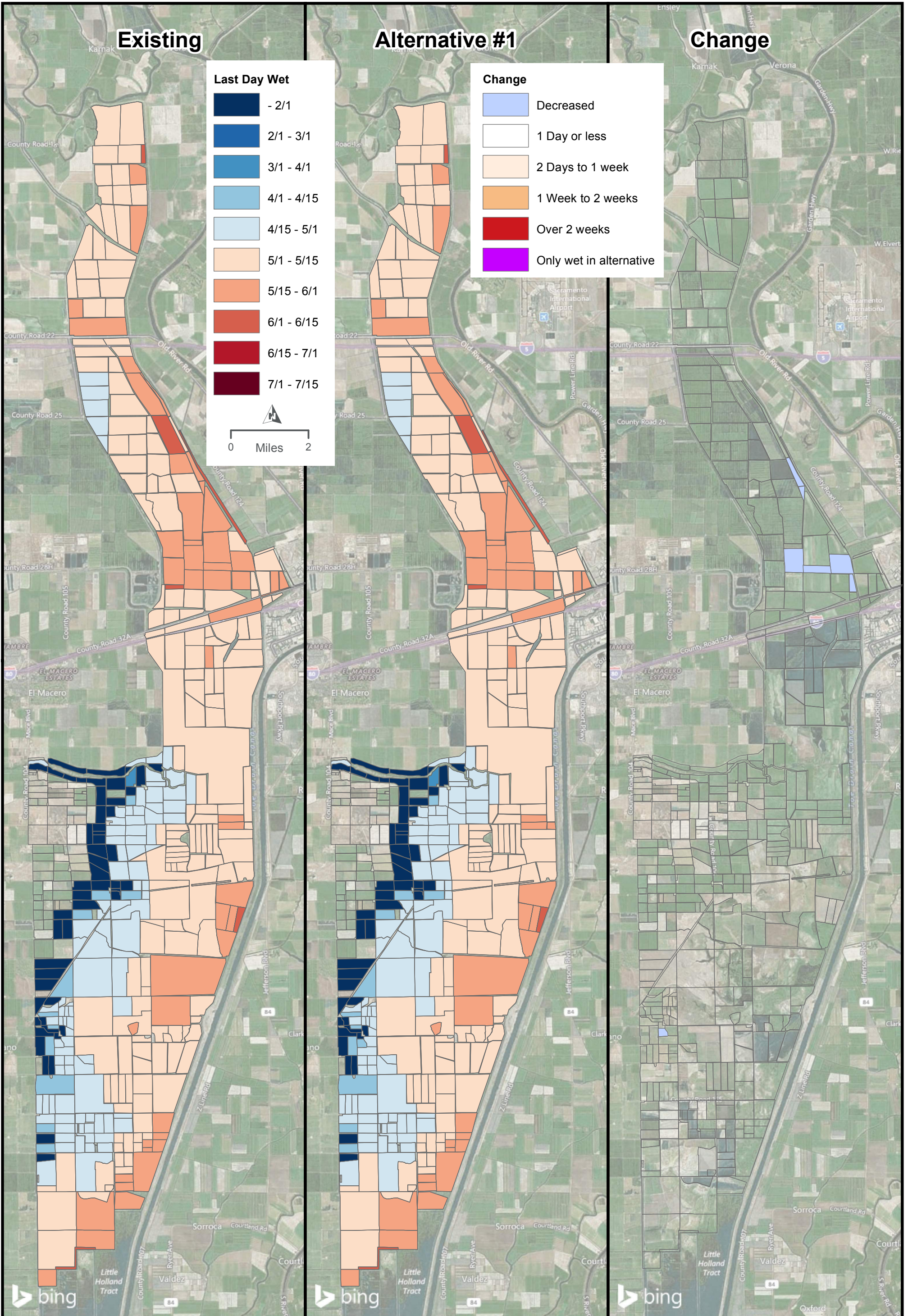
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2004
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 33



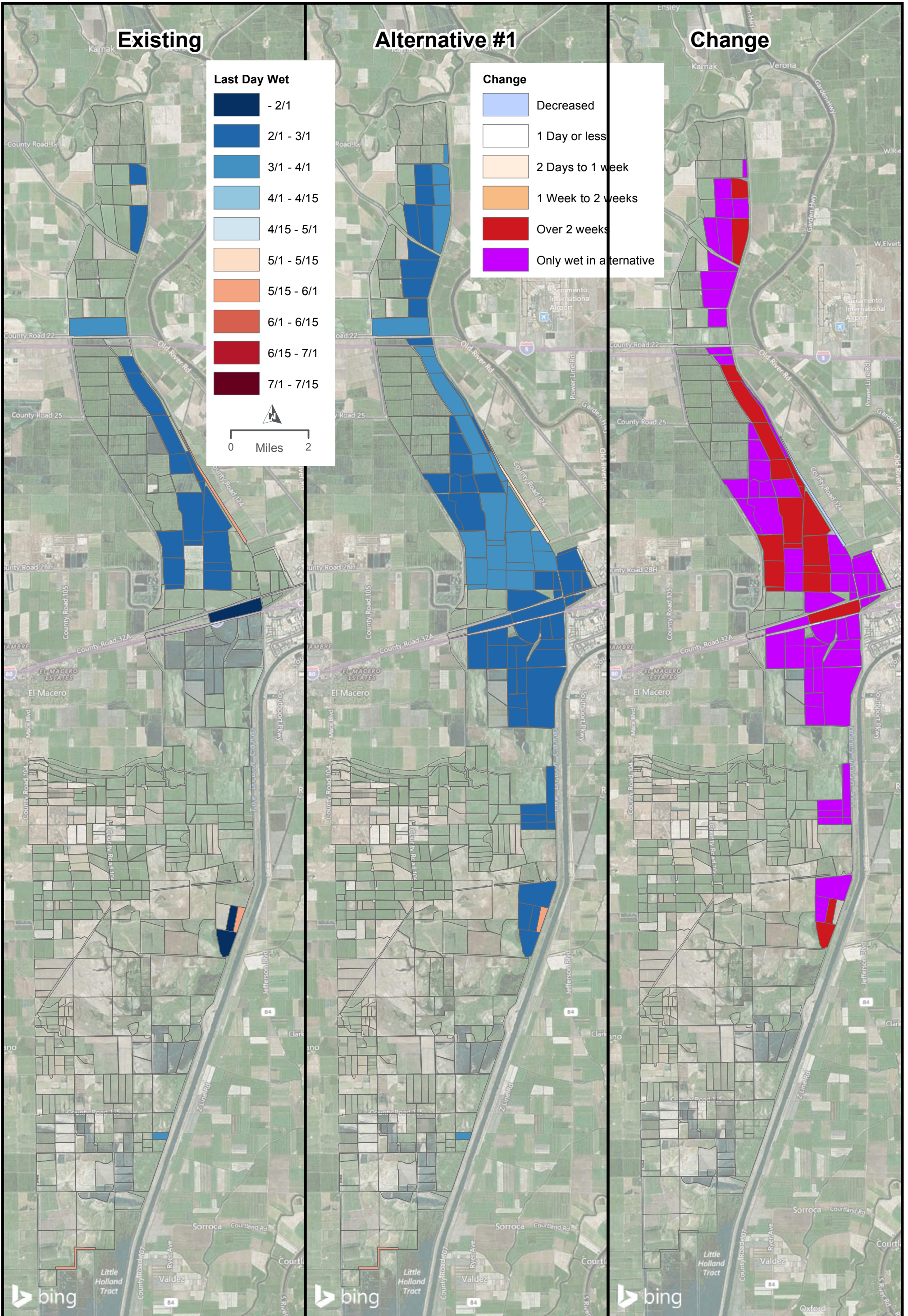
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2005
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 34



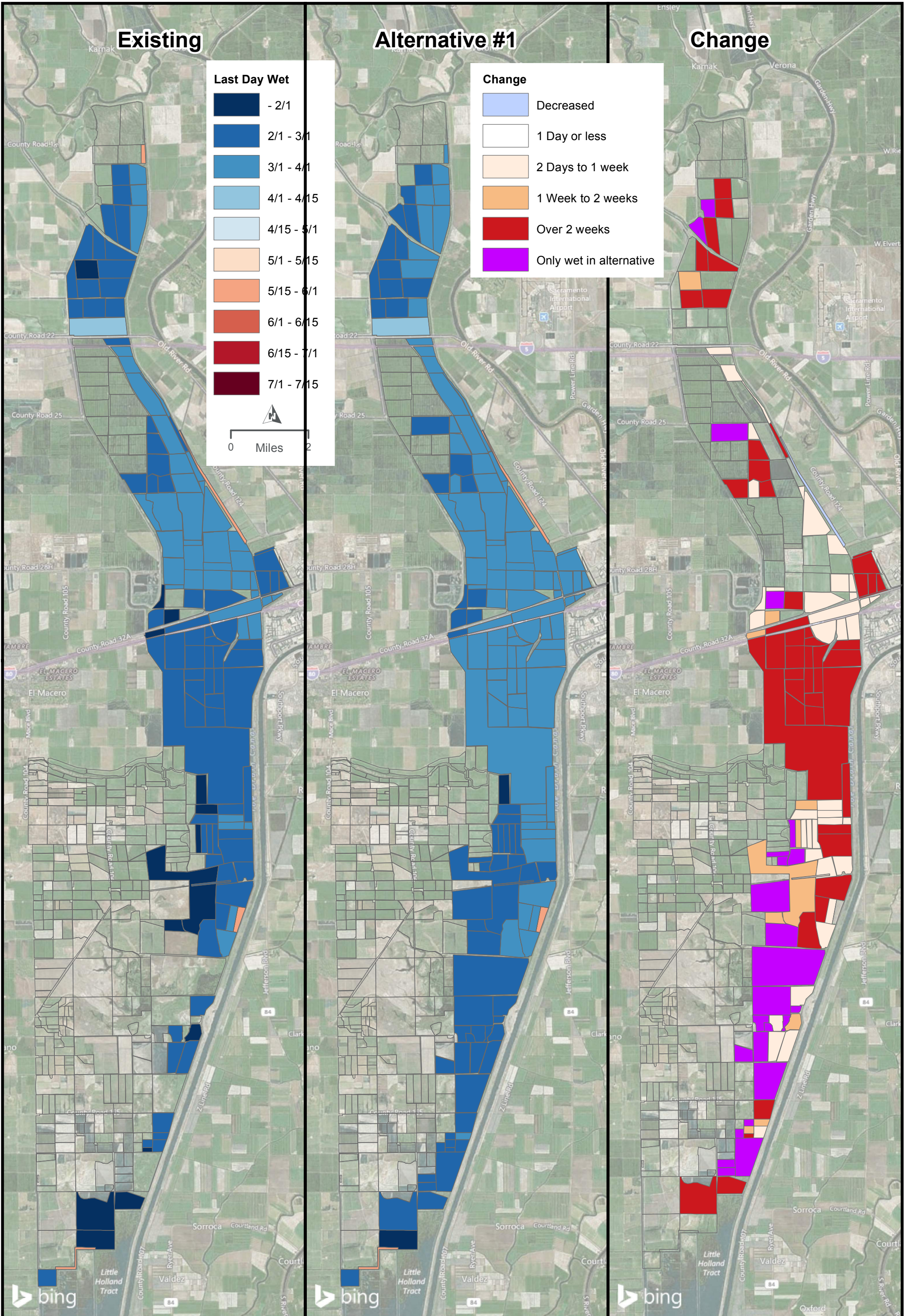
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2006
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 35



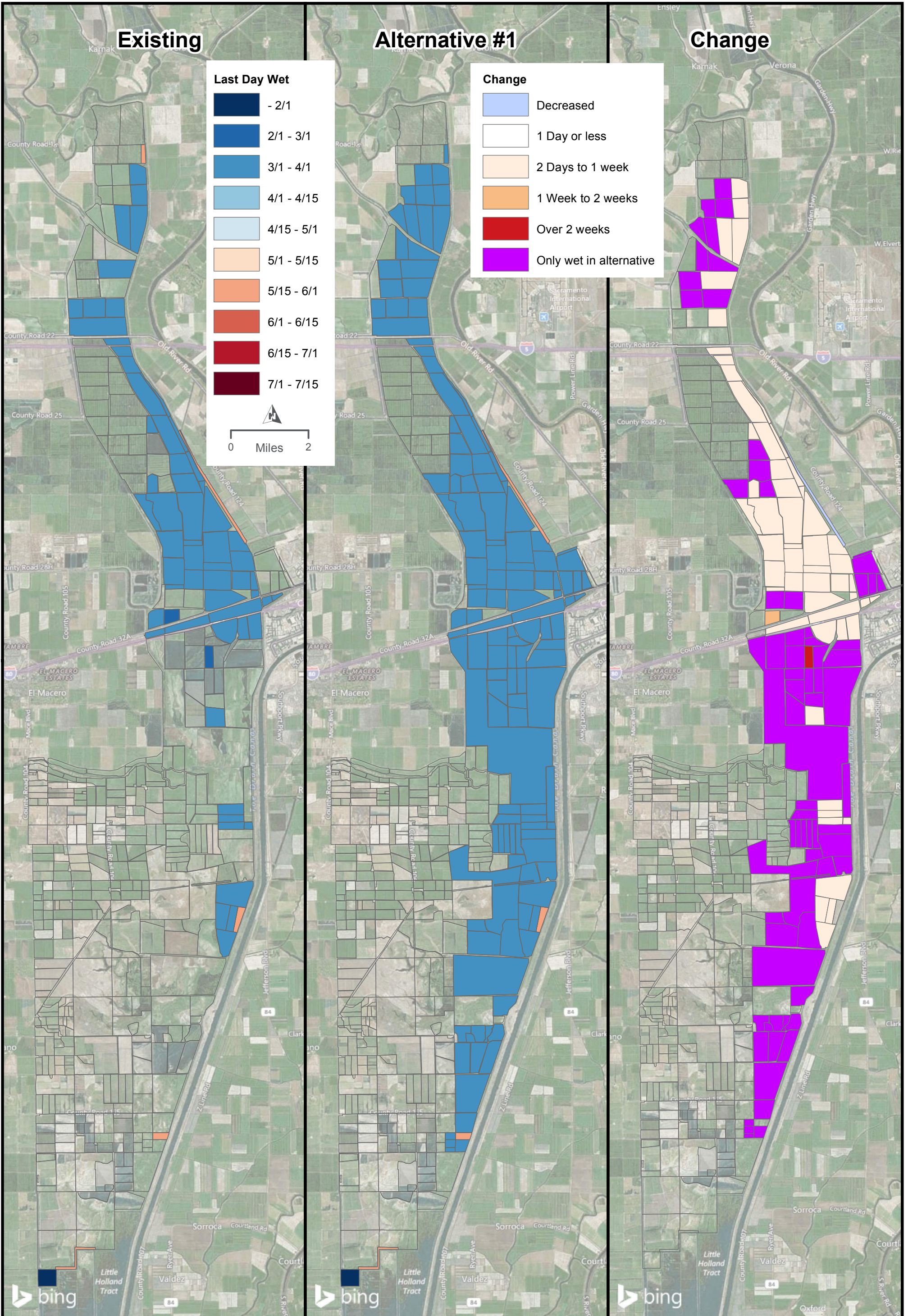
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2007
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 36



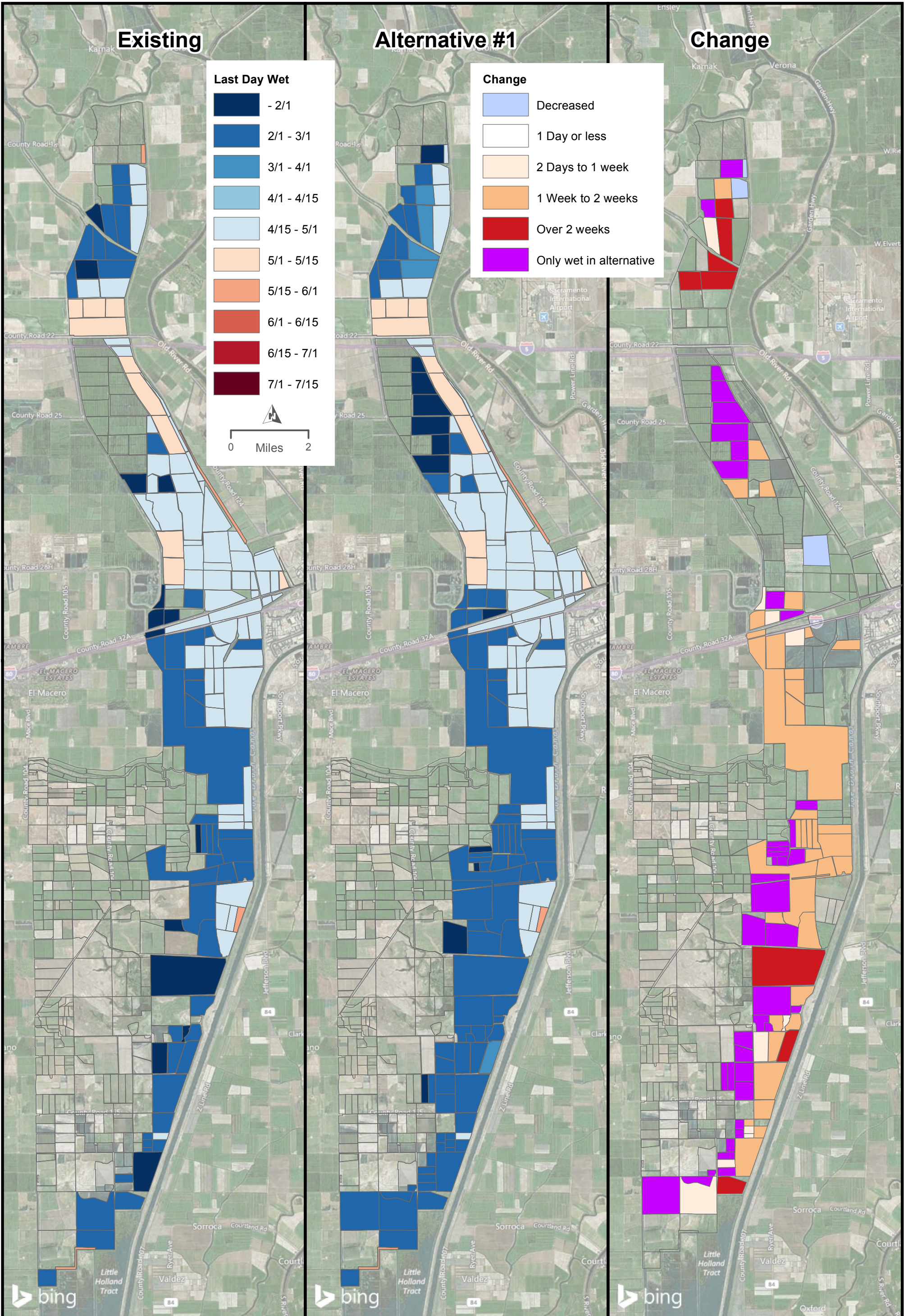
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2008
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 37



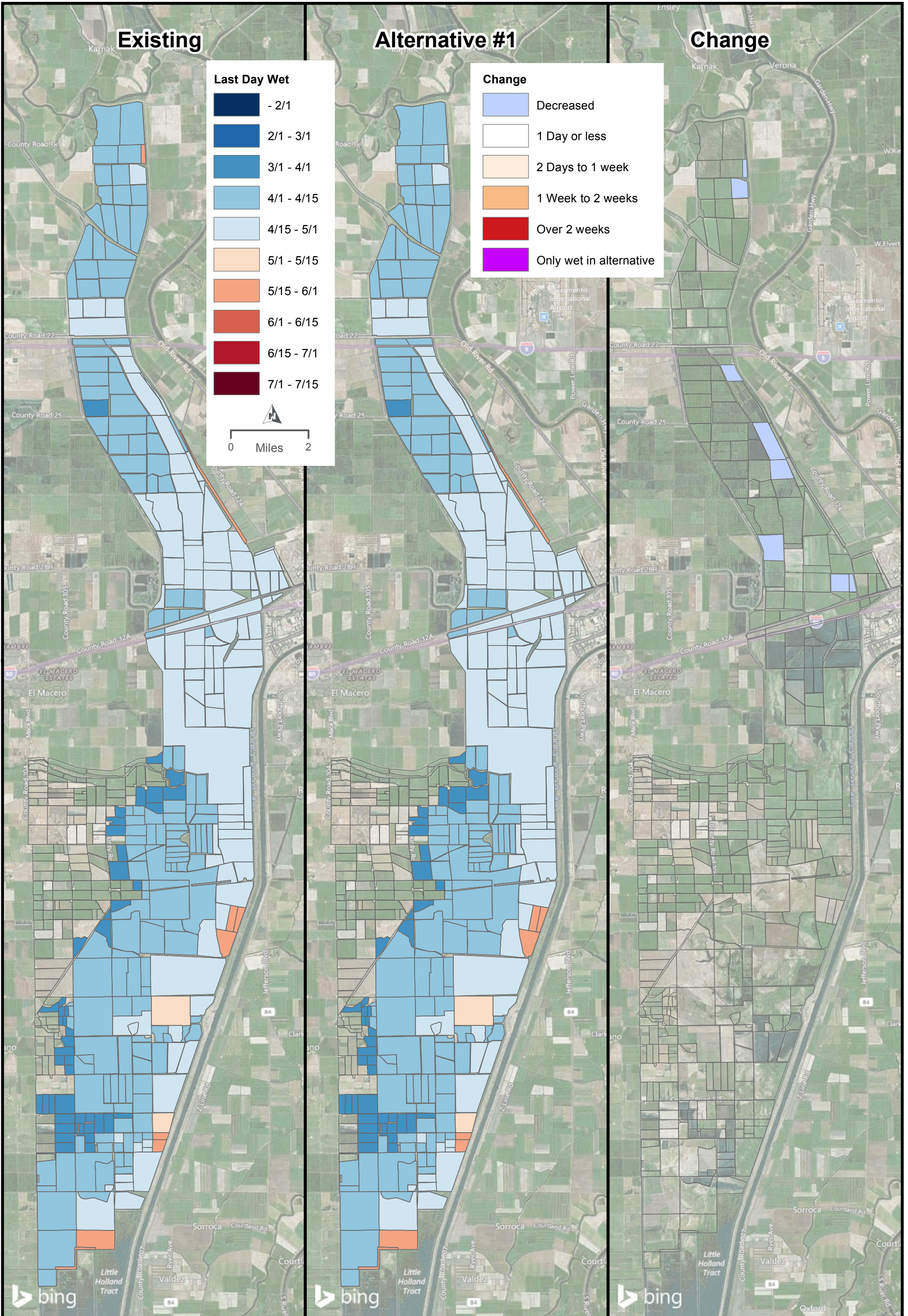
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2009
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 38



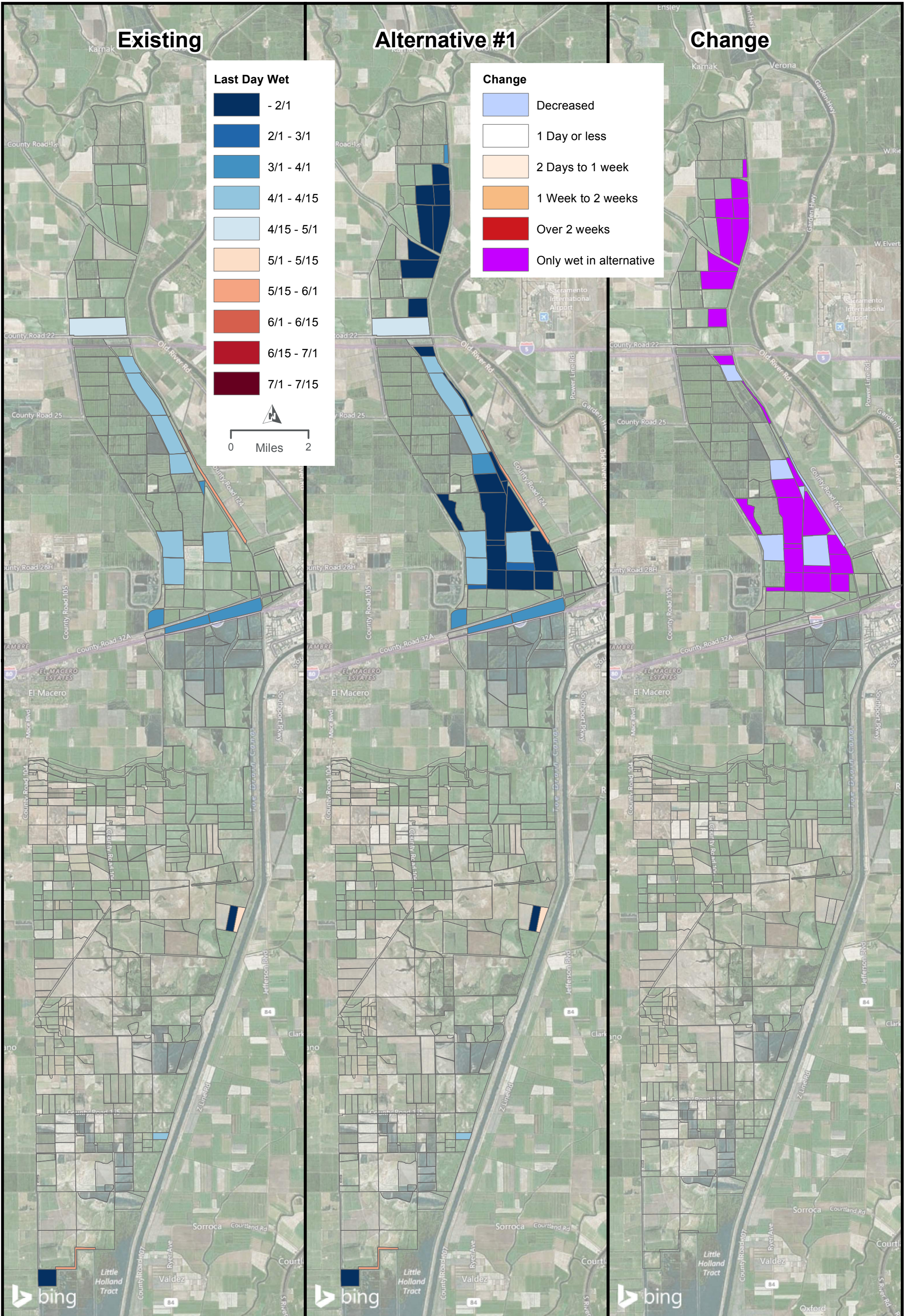
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2010
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 39



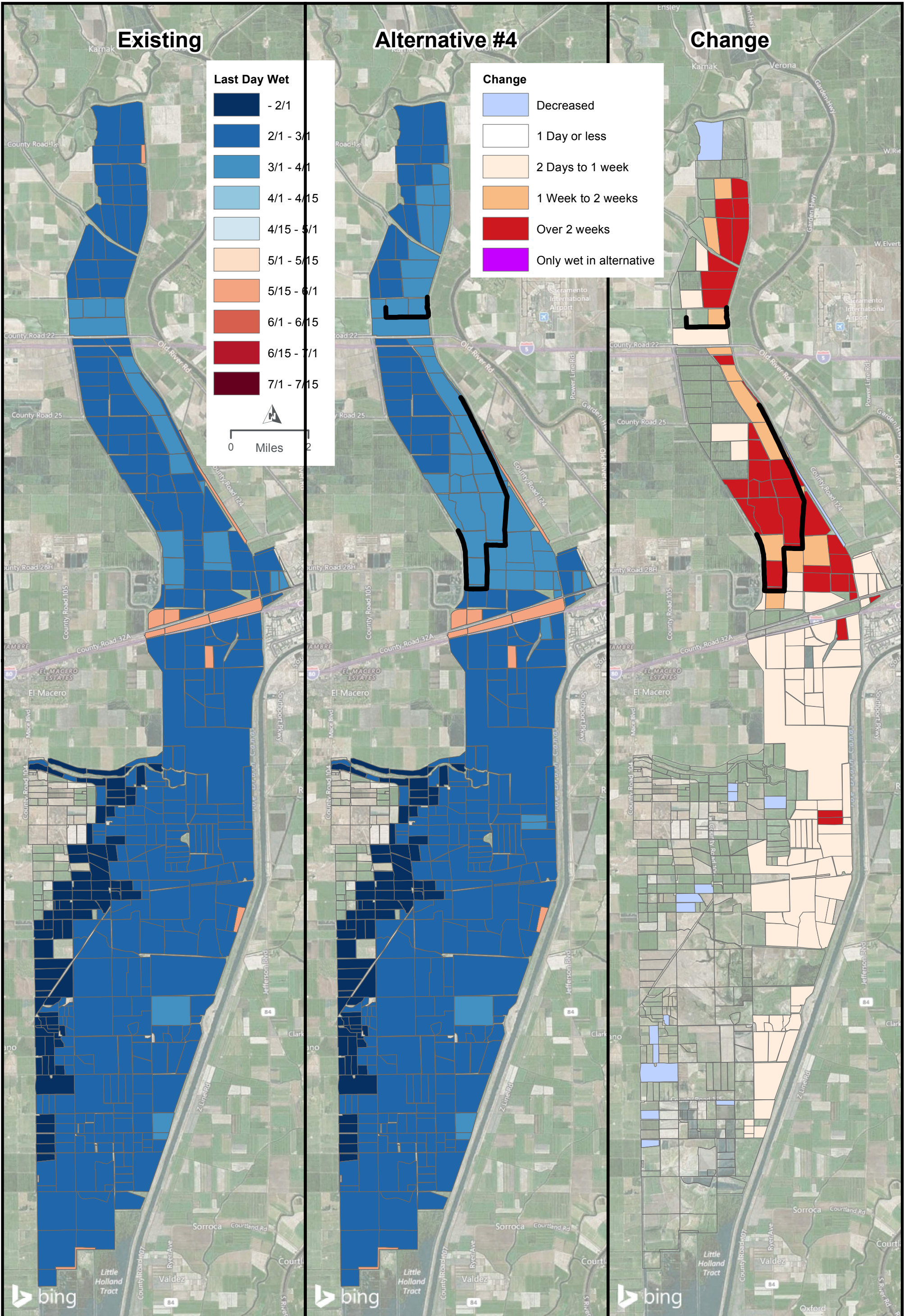
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2011
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 40



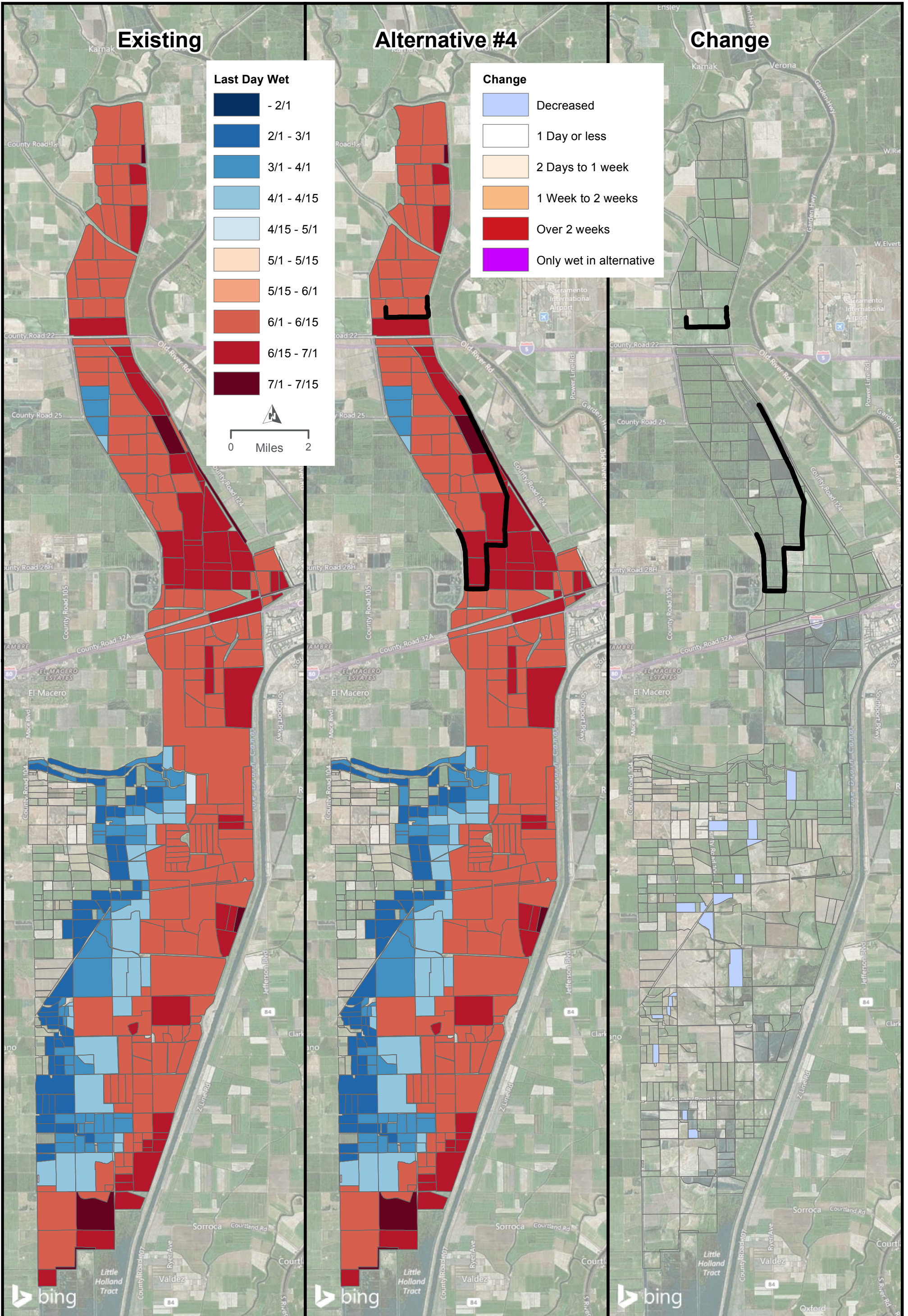
LAST DAY WET (LDW) FOR ALTERNATIVE #1 2012
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 41



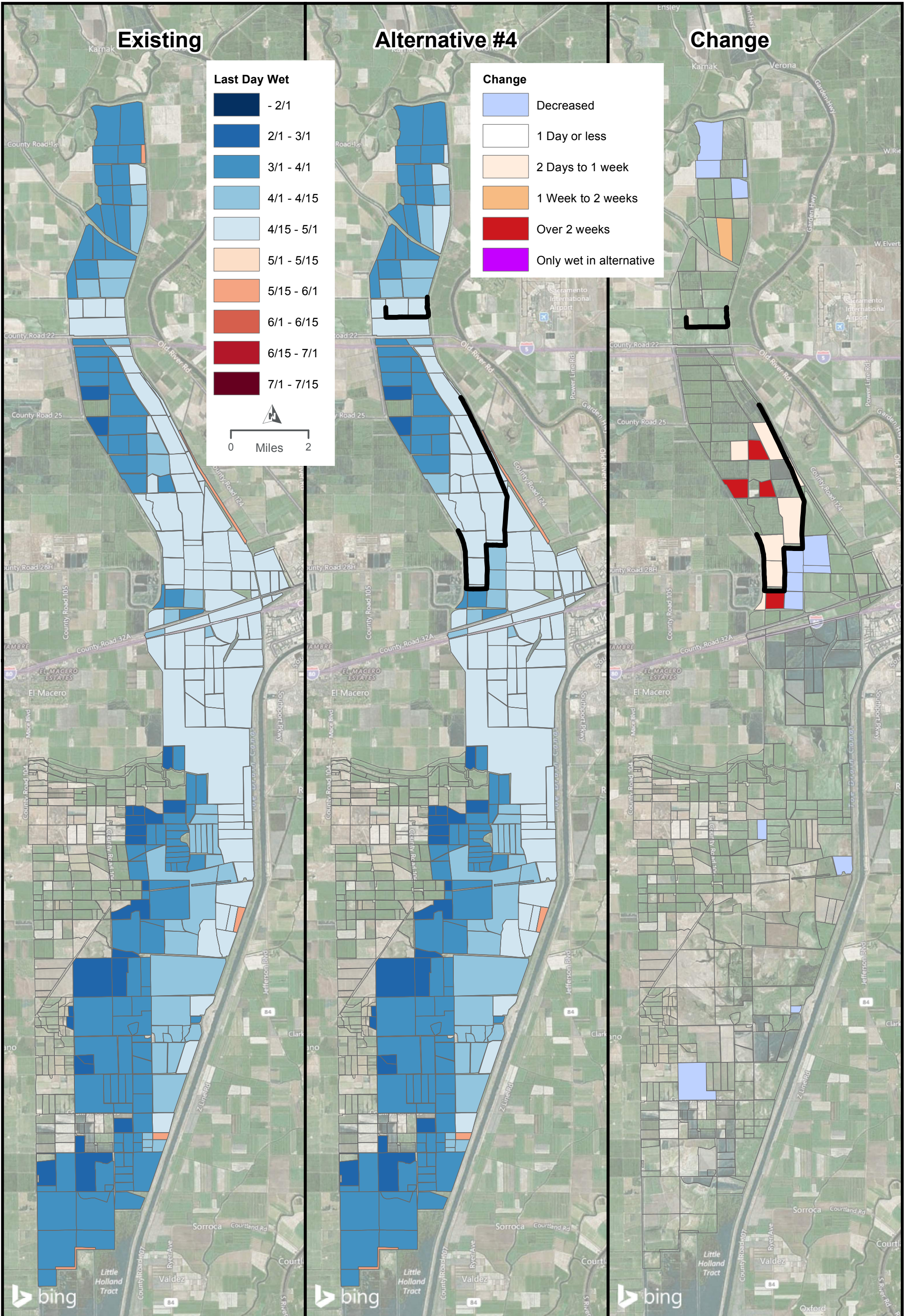
LAST DAY WET (LDW) FOR ALTERNATIVE #4 1997
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 42



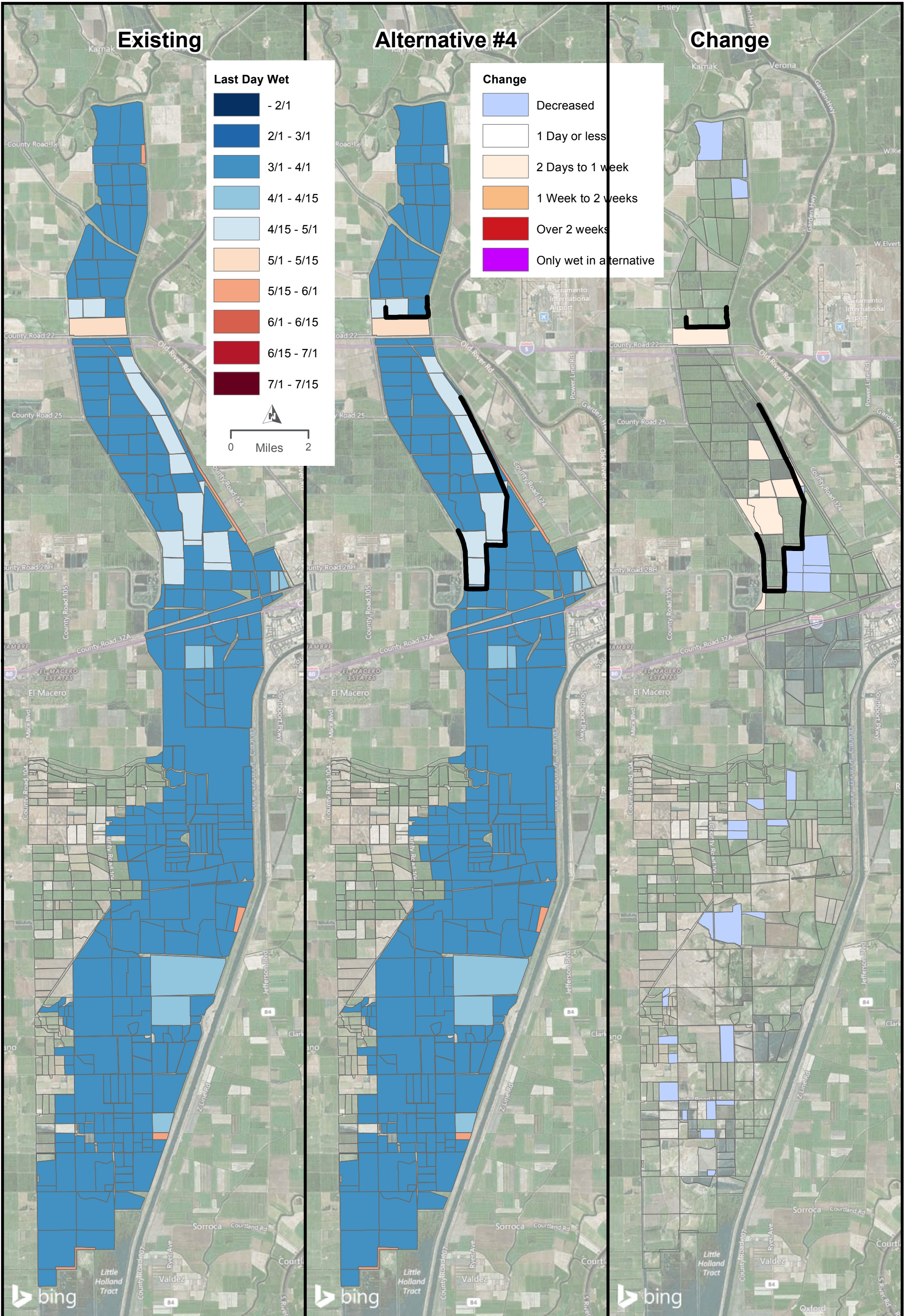
LAST DAY WET (LDW) FOR ALTERNATIVE #4 1998
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 43



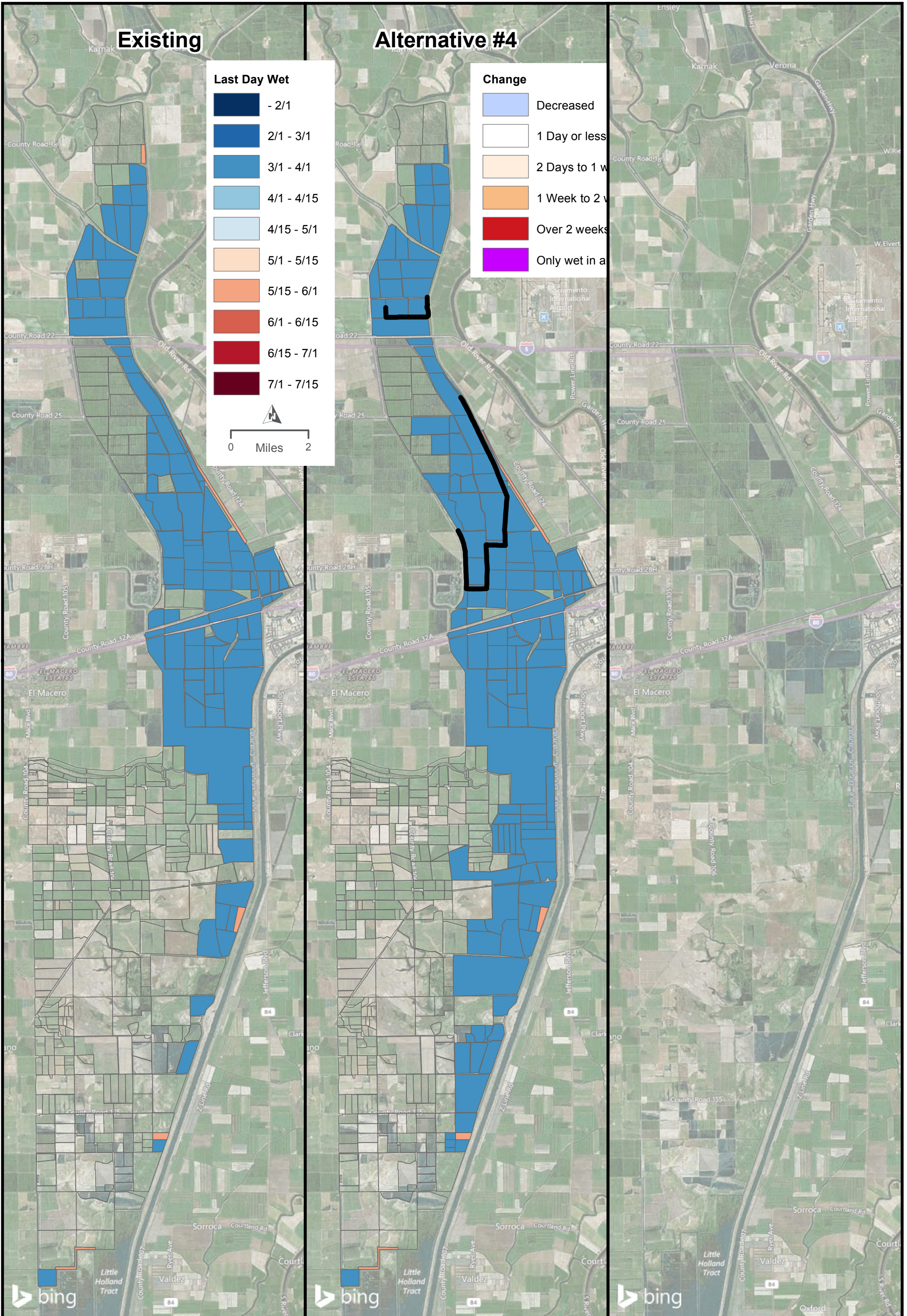
LAST DAY WET (LDW) FOR ALTERNATIVE #4 1999
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 44



LAST DAY WET (LDW) FOR ALTERNATIVE #4 2000
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

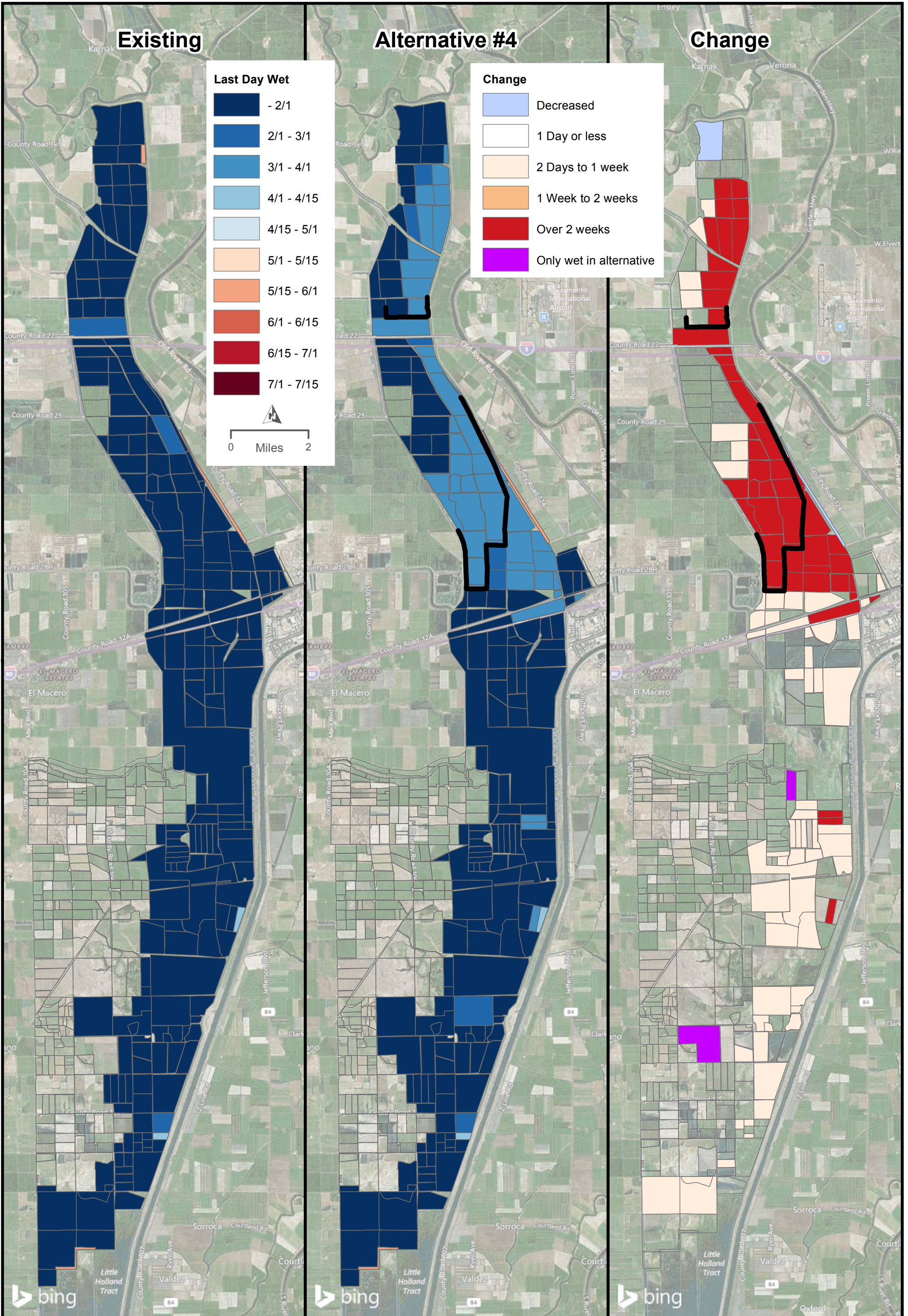
FIGURE 45



LAST DAY WET (LDW) FOR ALTERNATIVE #4 2001
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES

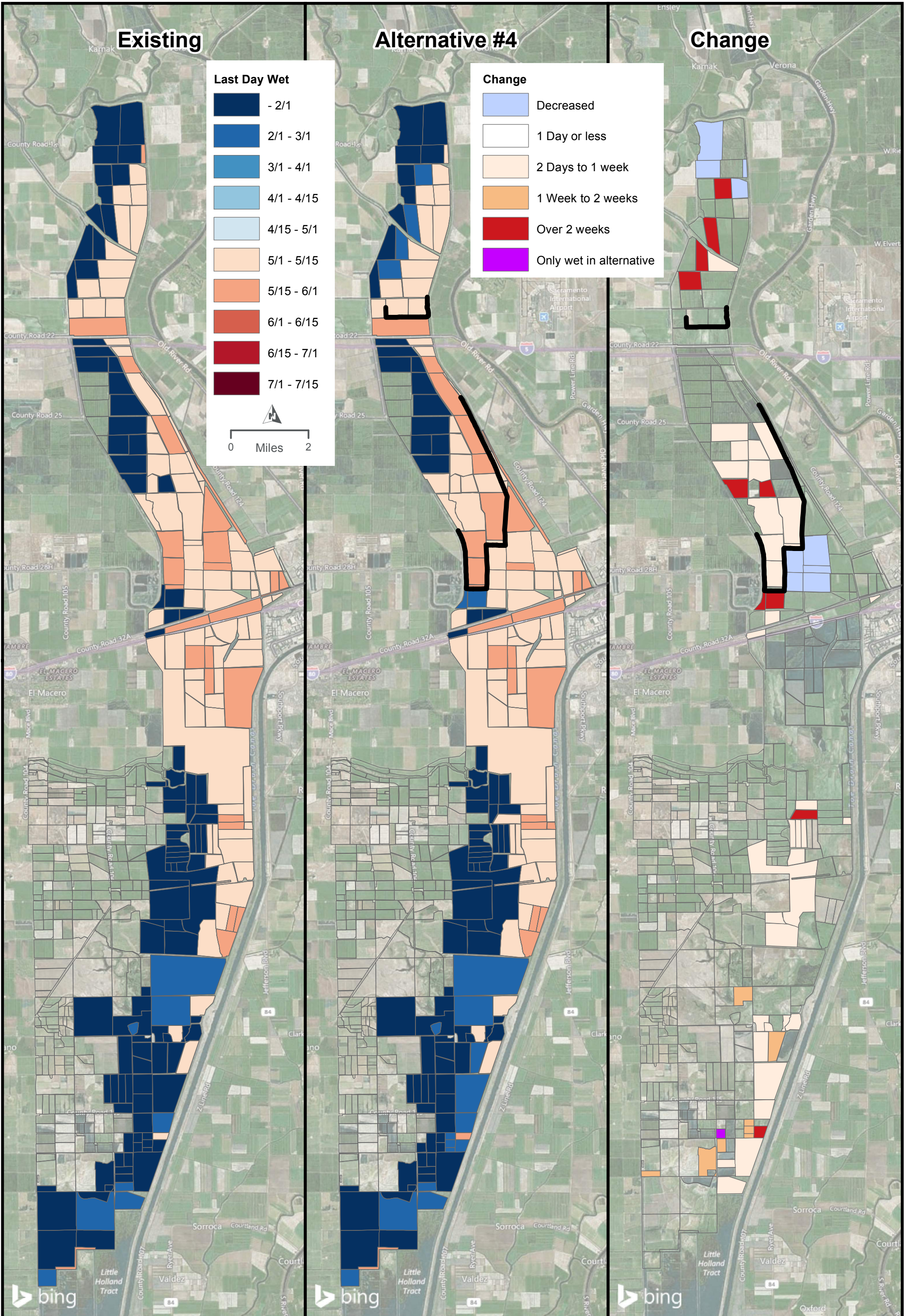
FIGURE 46





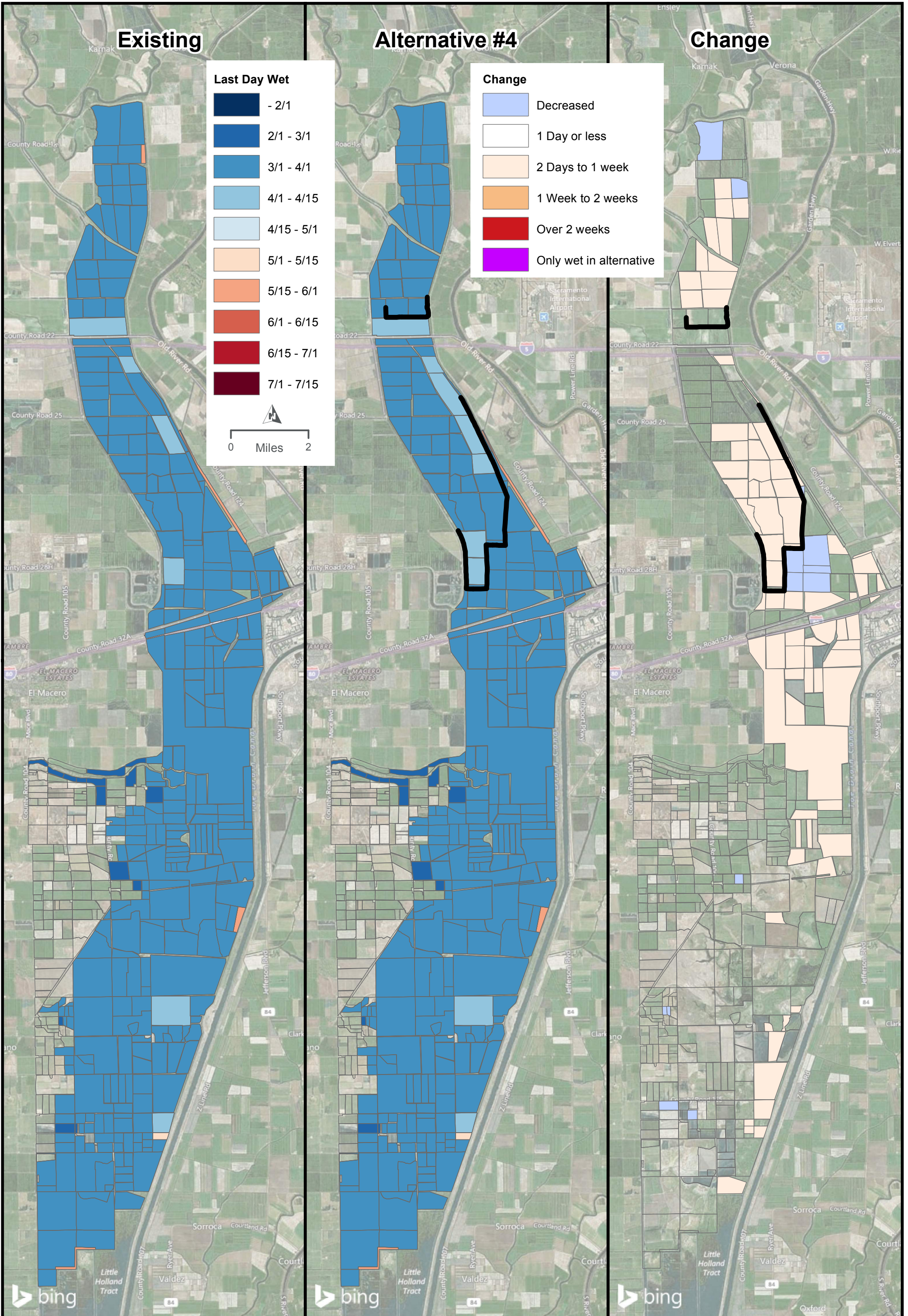
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2002
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 47



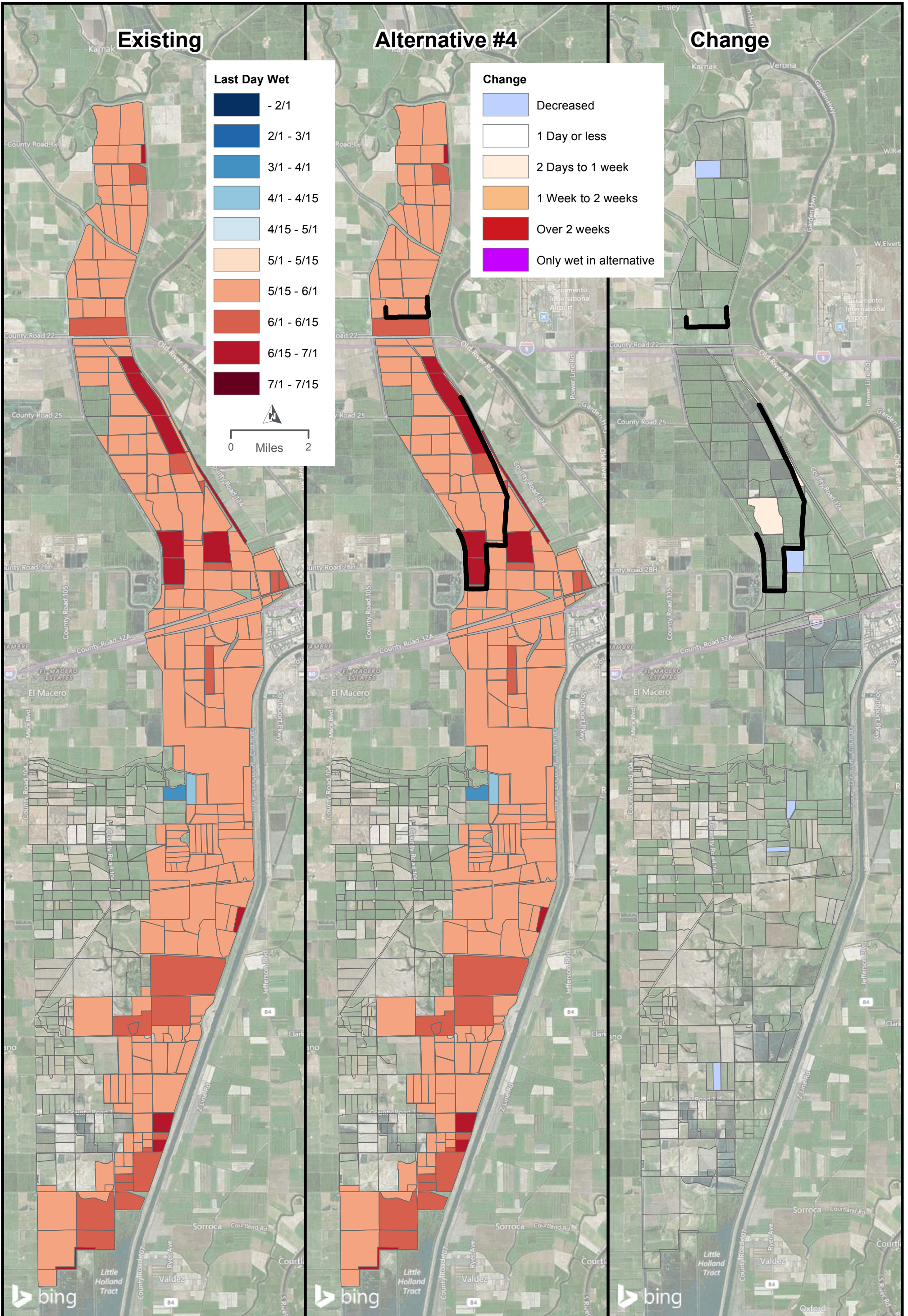
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2003
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 48



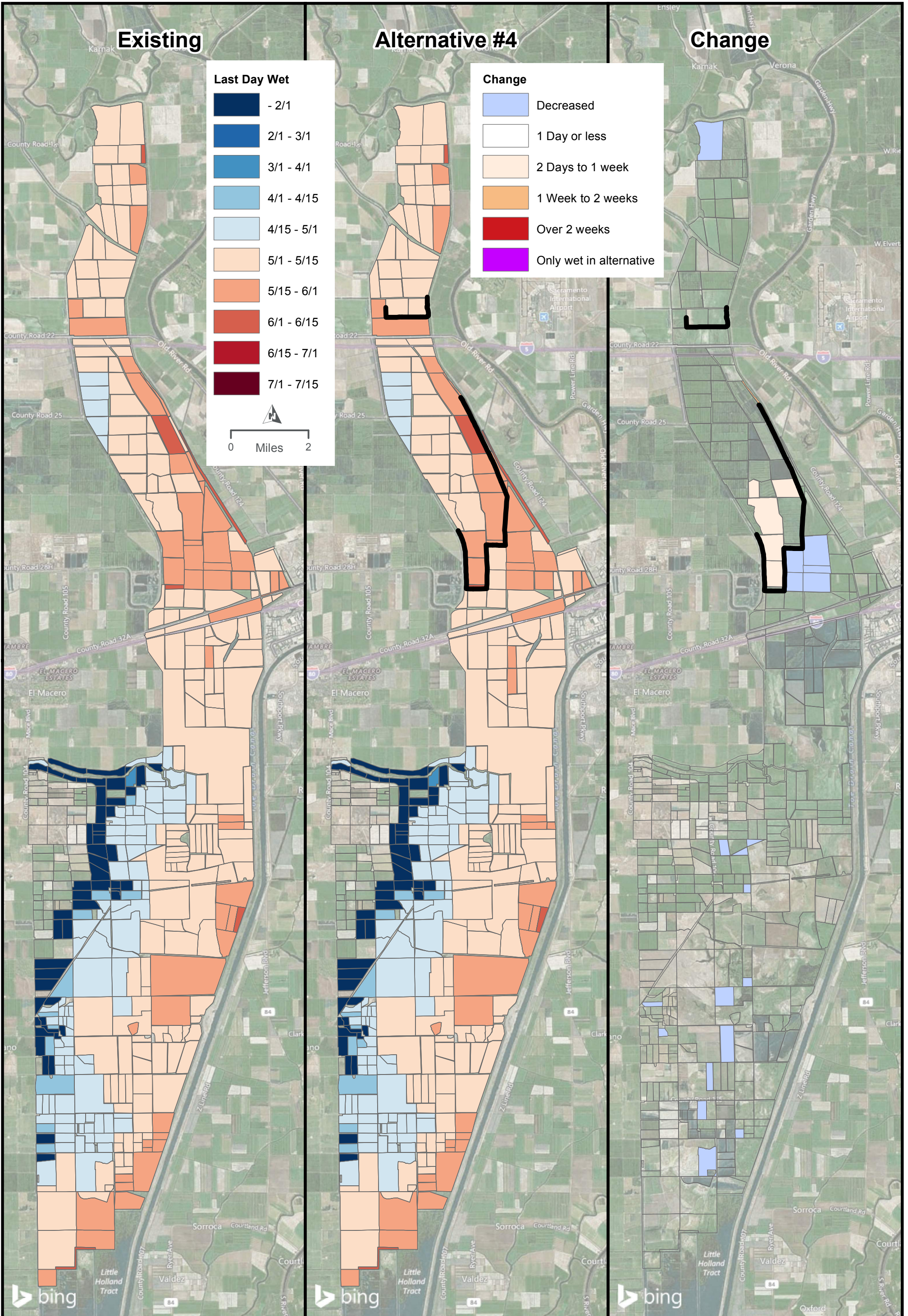
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2004
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 49



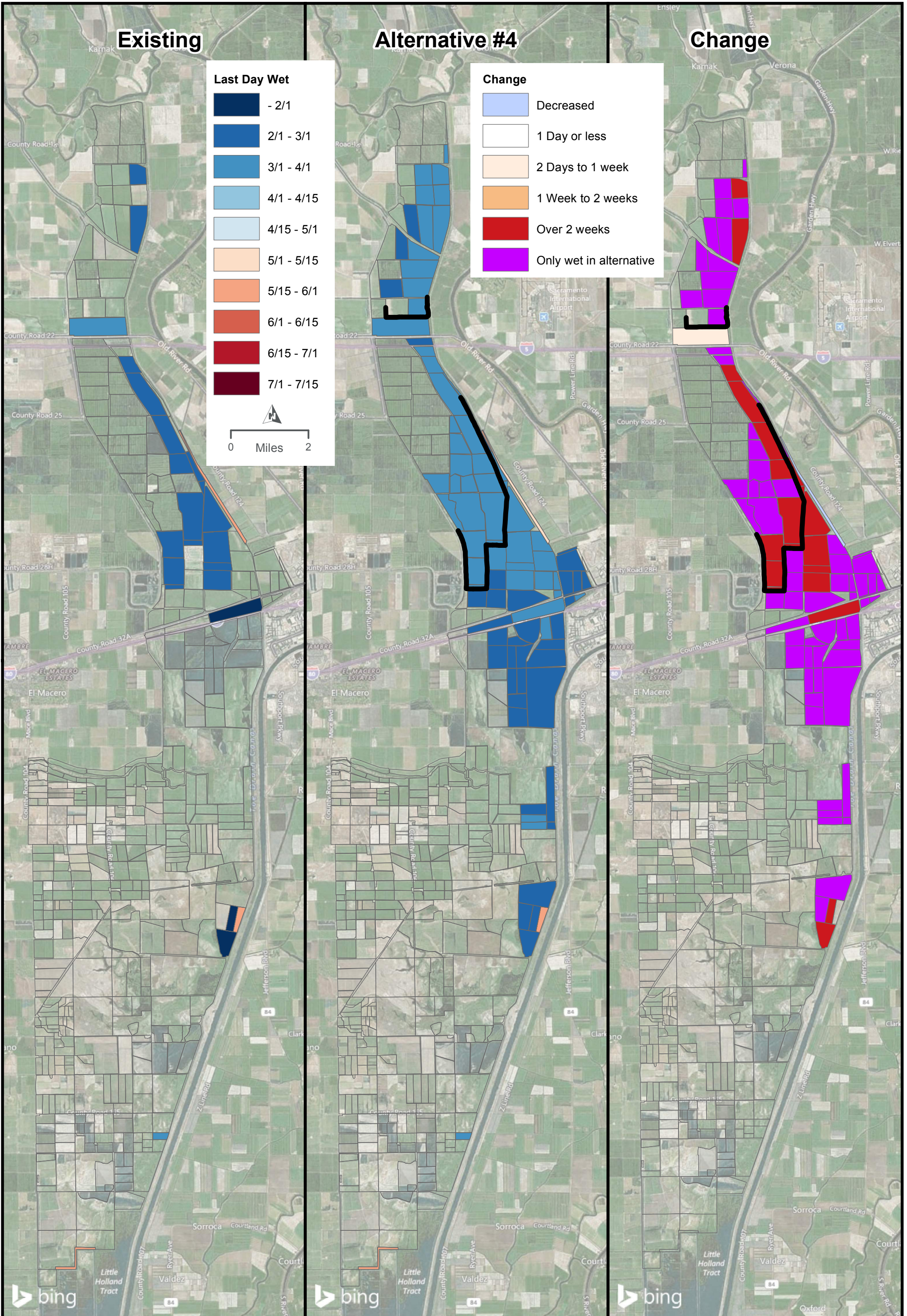
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2005
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 50



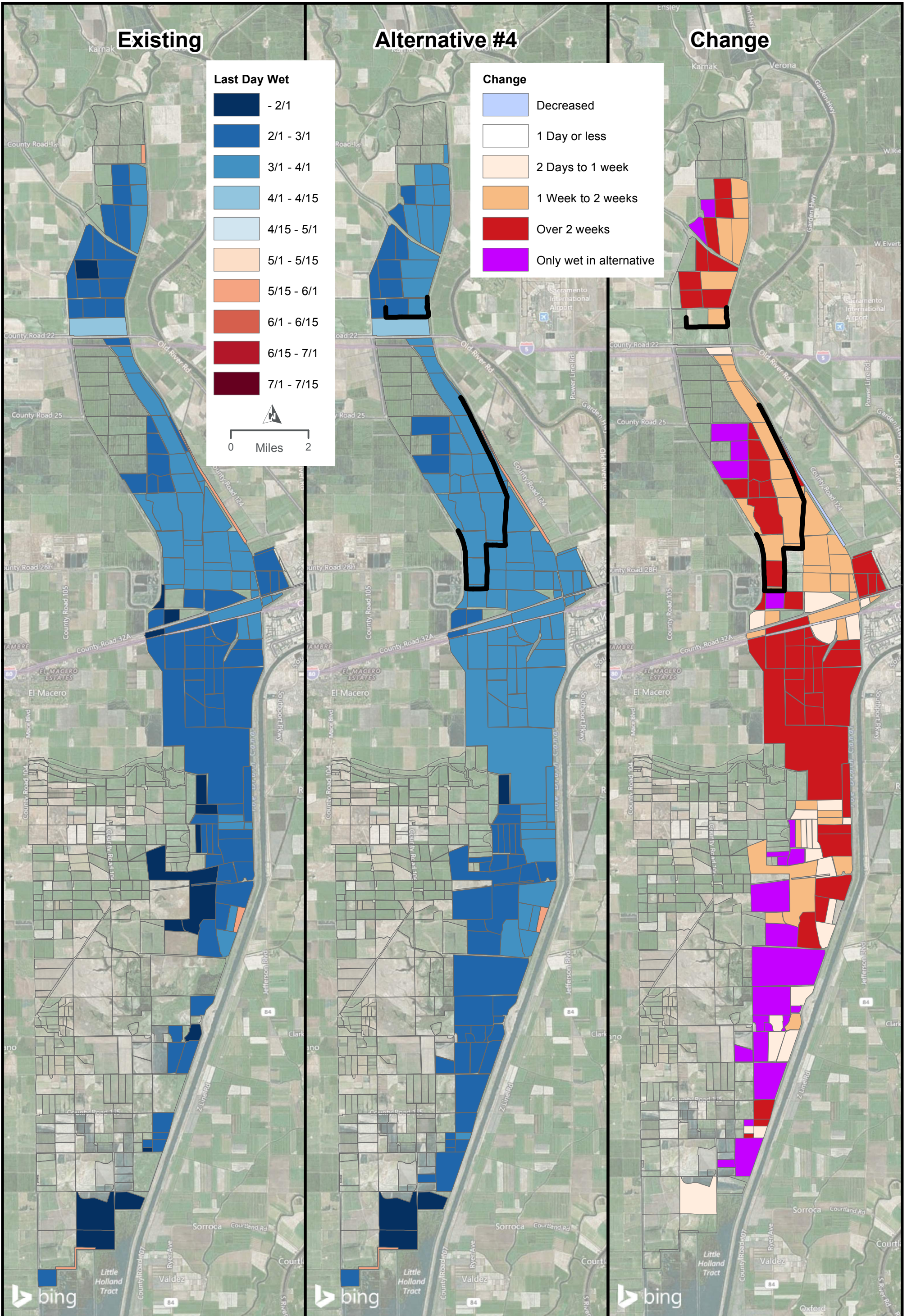
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2006
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 51



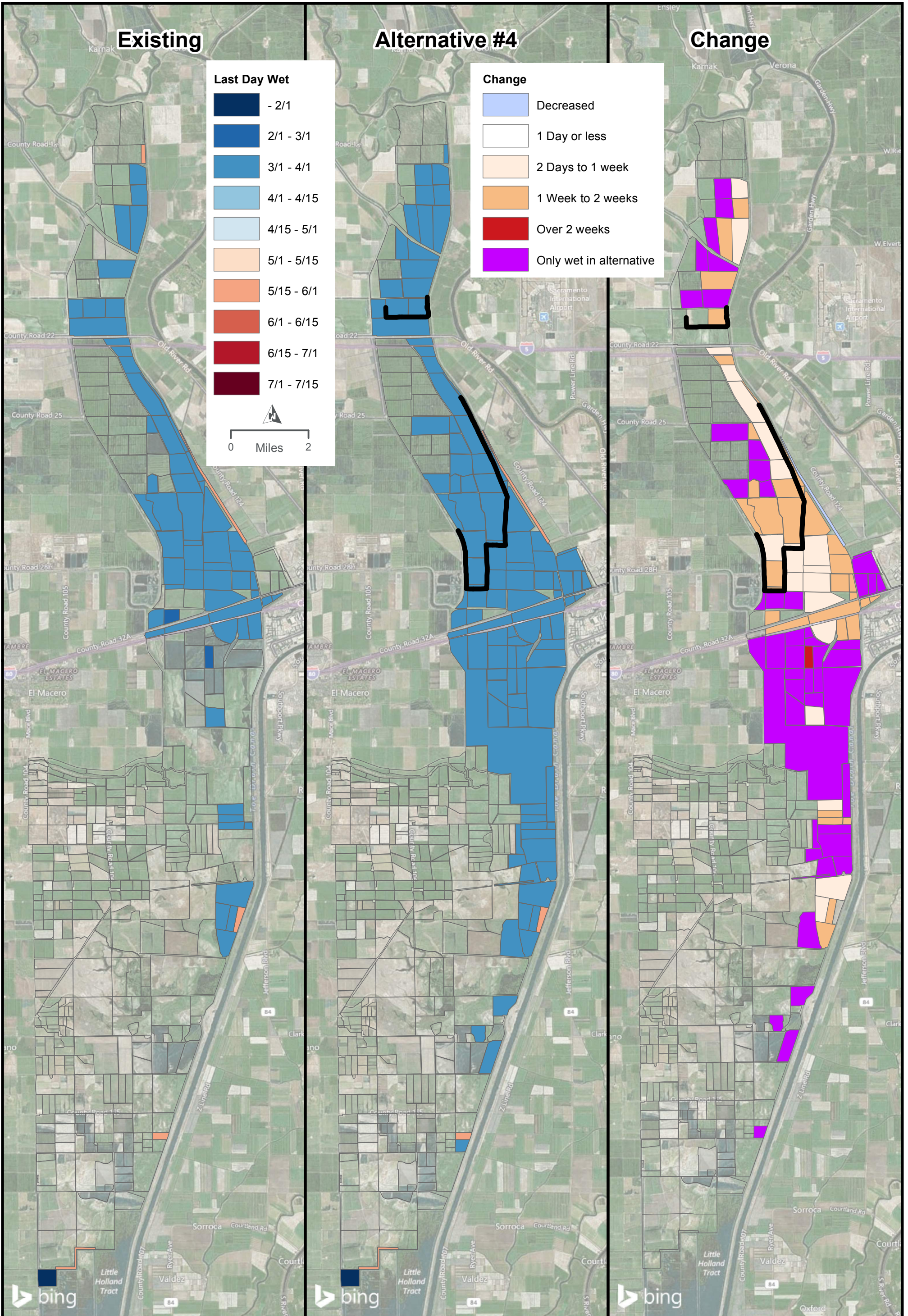
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2007
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 52



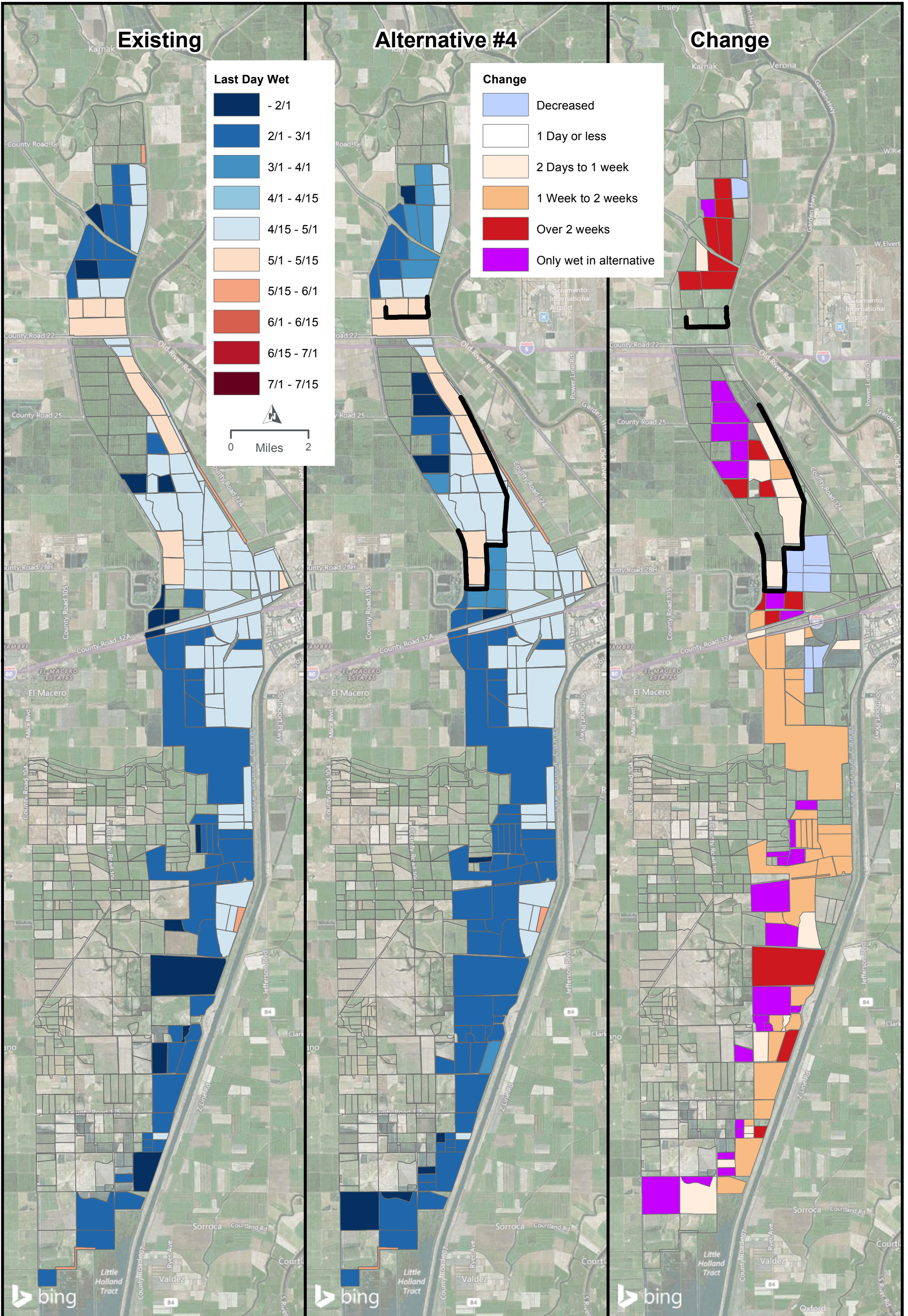
LAST DAY WET (LDW) FOR ALTERNATIVE #4 2008
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 53



LAST DAY WET (LDW) FOR ALTERNATIVE #4 2009
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

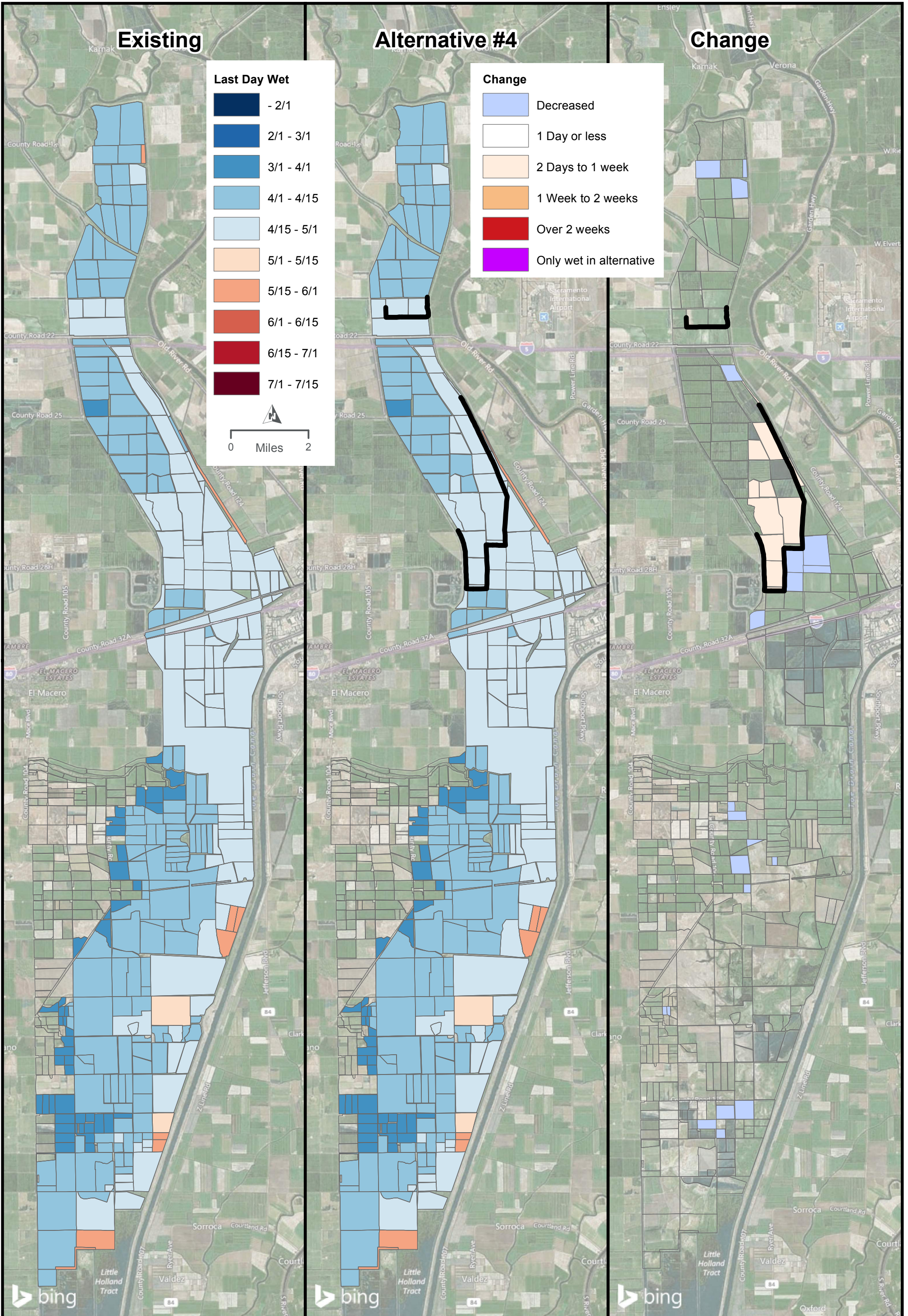
FIGURE 54



LAST DAY WET (LDW) FOR ALTERNATIVE #4 2010
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES

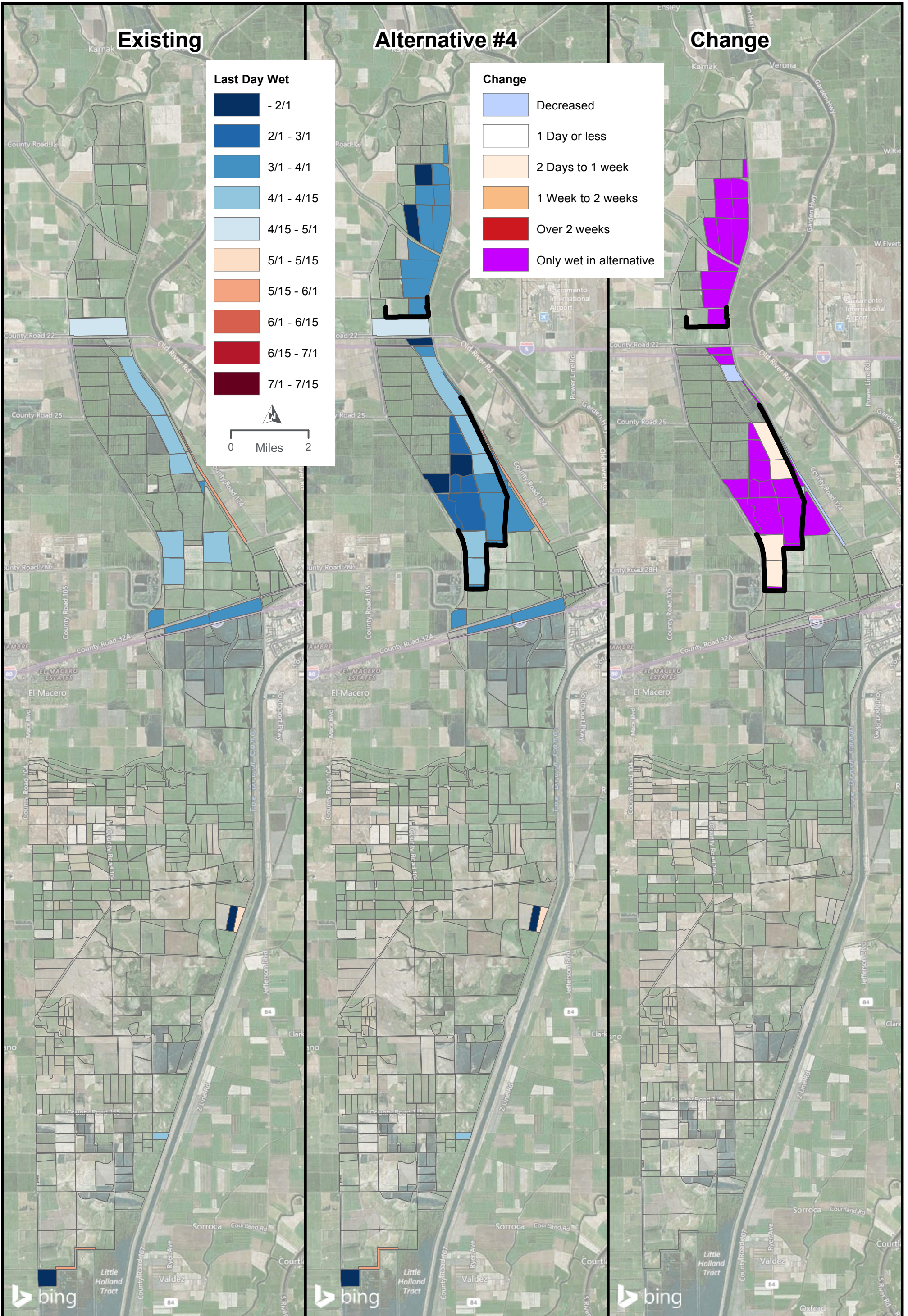
FIGURE 55



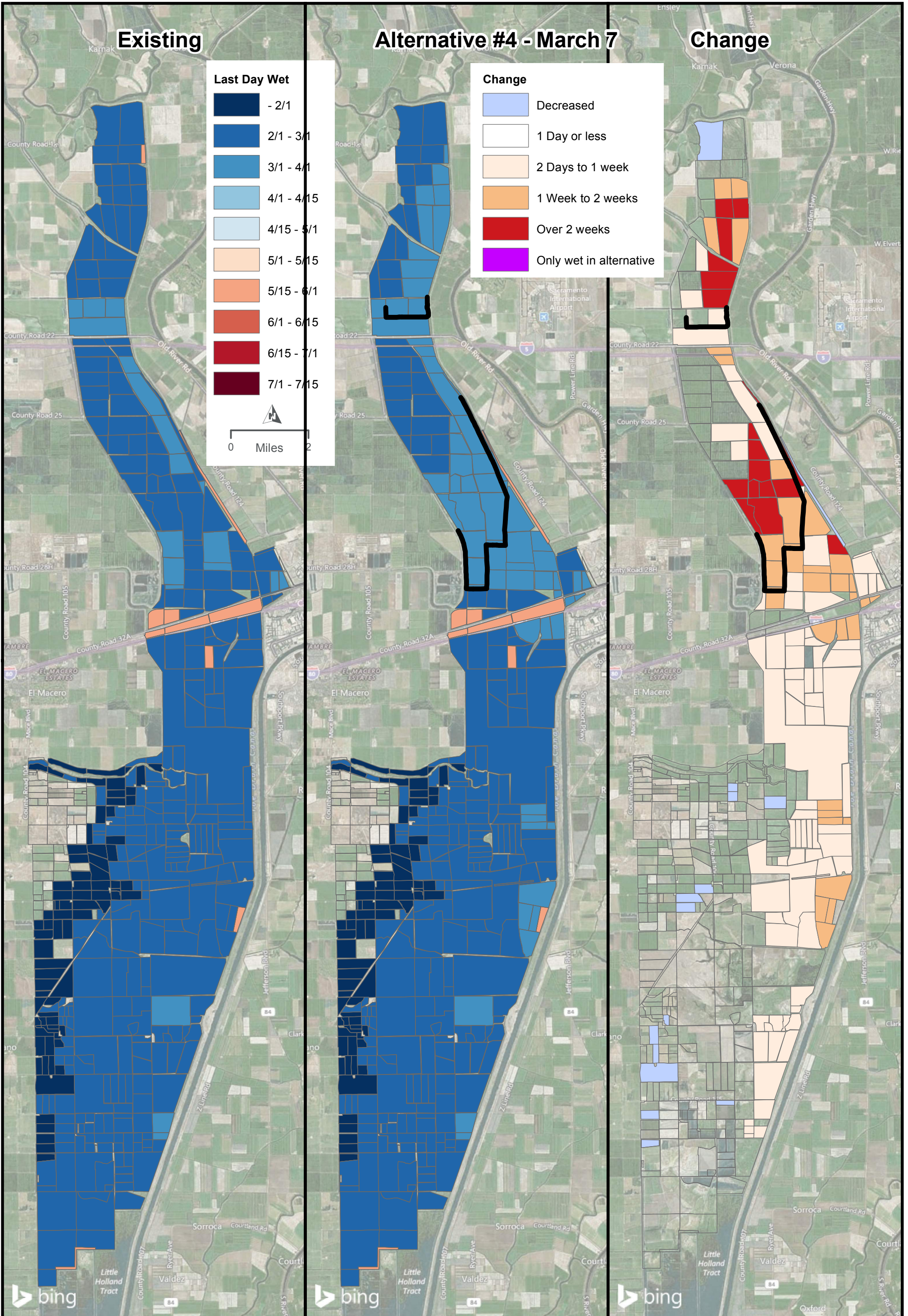


LAST DAY WET (LDW) FOR ALTERNATIVE #4 2011
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 56

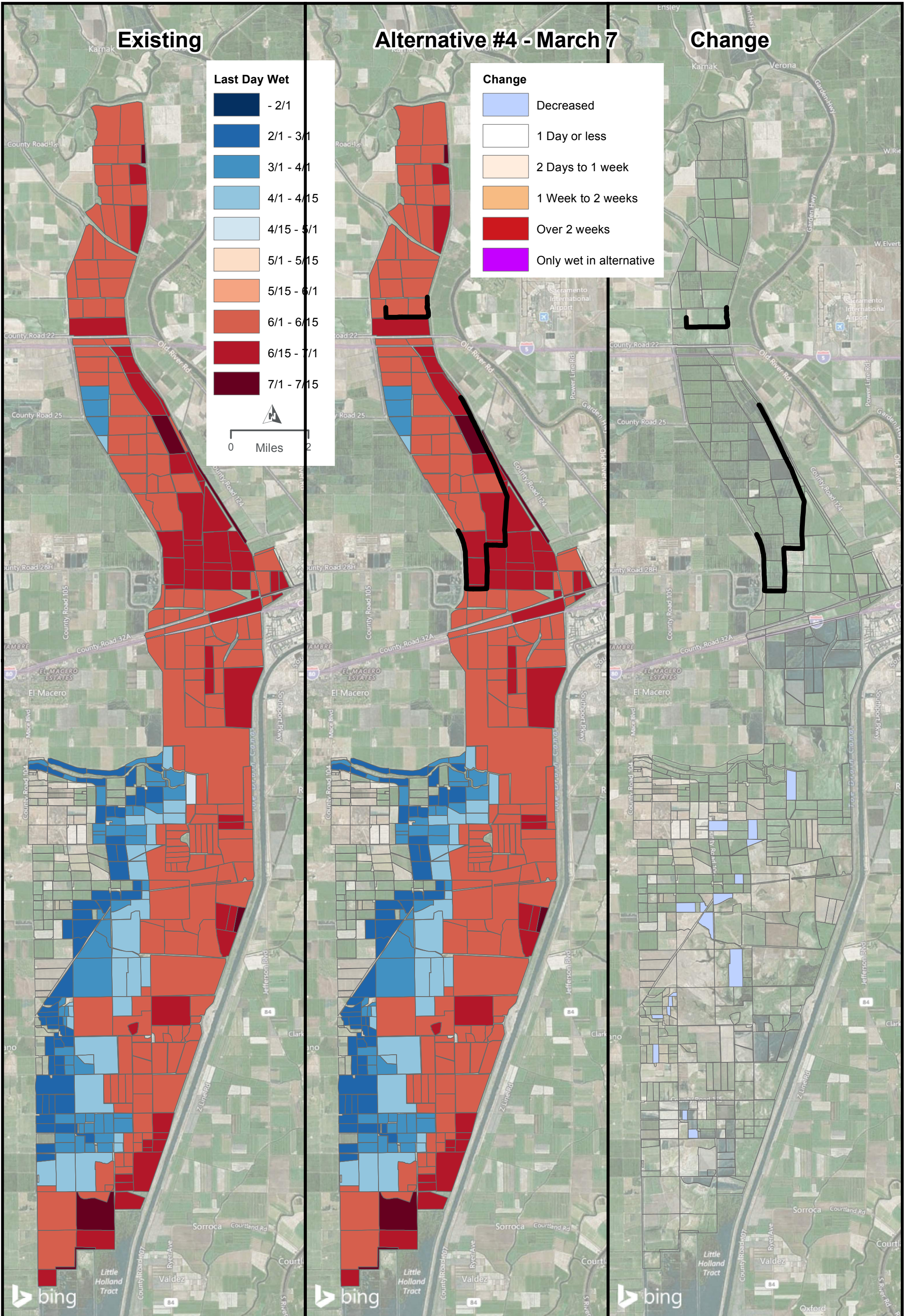


LAST DAY WET (LDW) FOR ALTERNATIVE #4 2012
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES
 FIGURE 57



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 1997
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

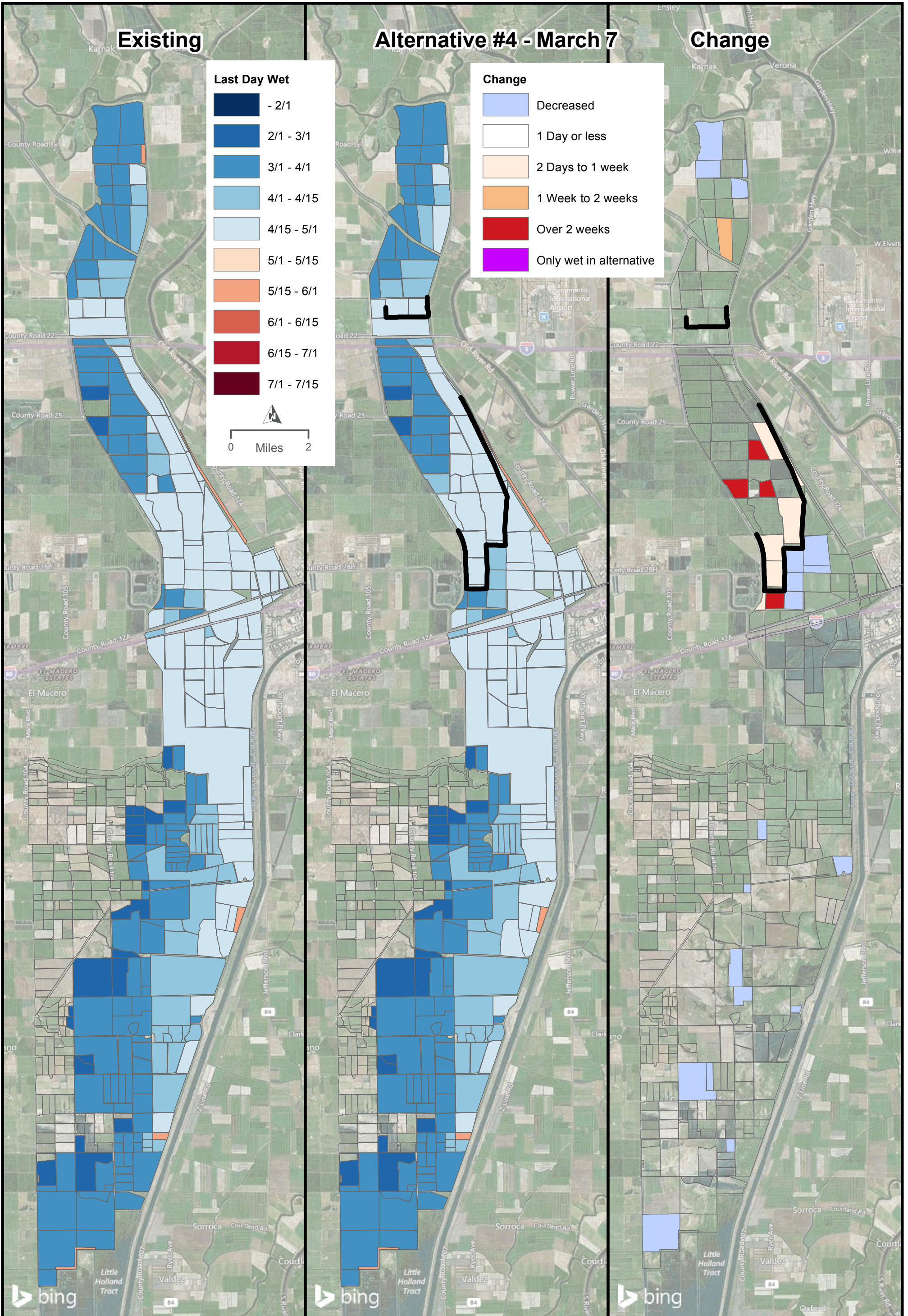
FIGURE 58



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 1998

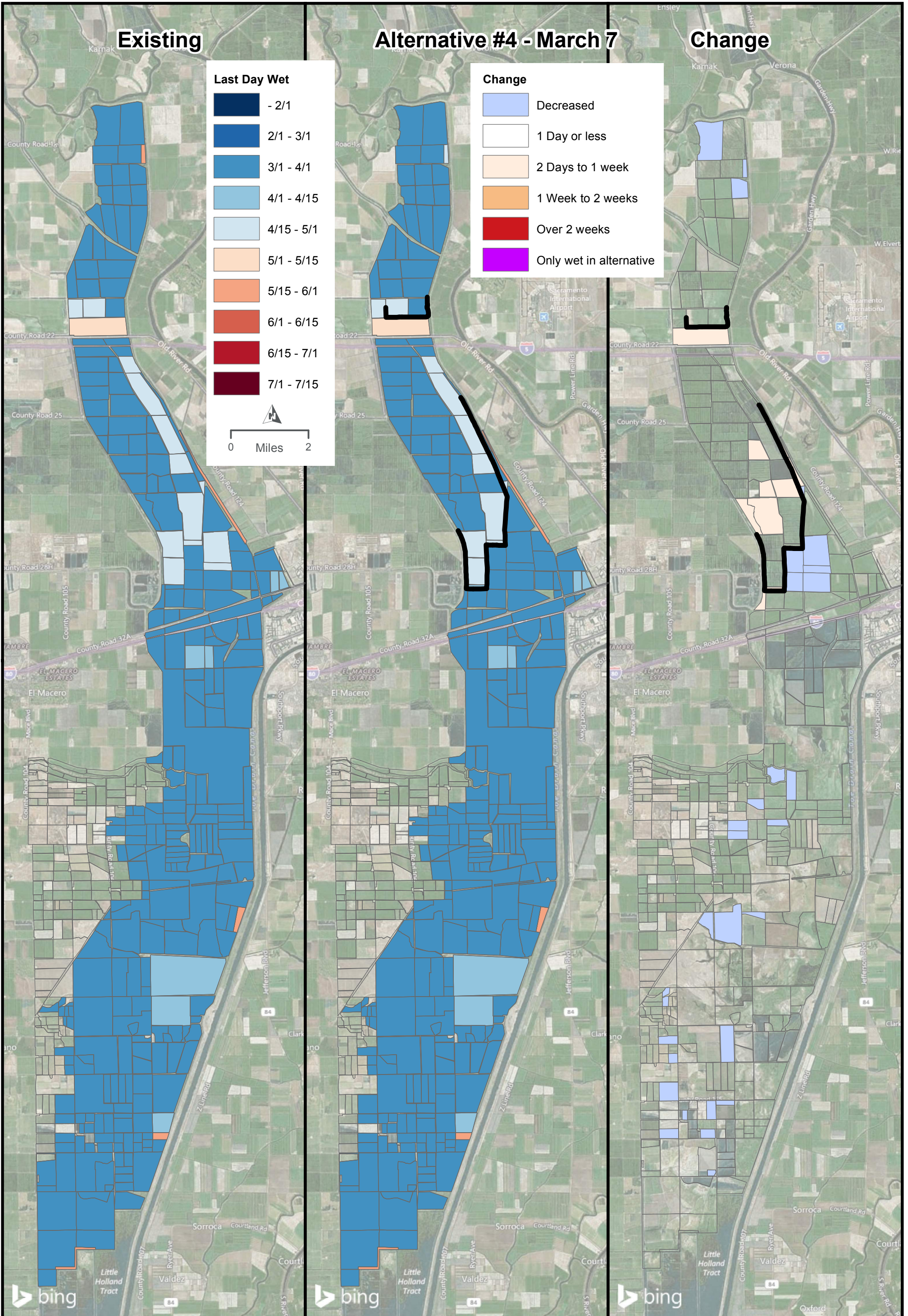
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 59



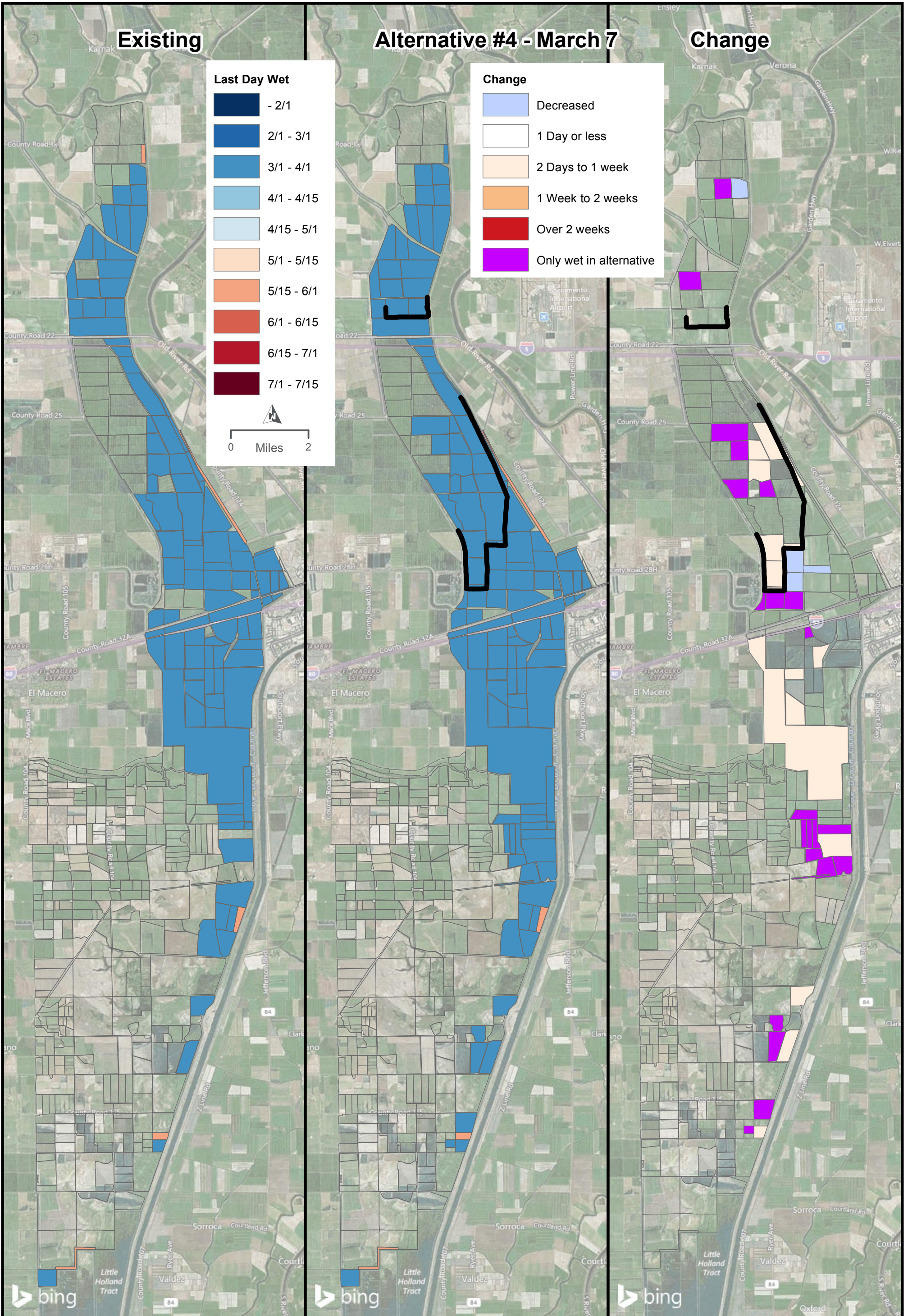
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 1999
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 60



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2000
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

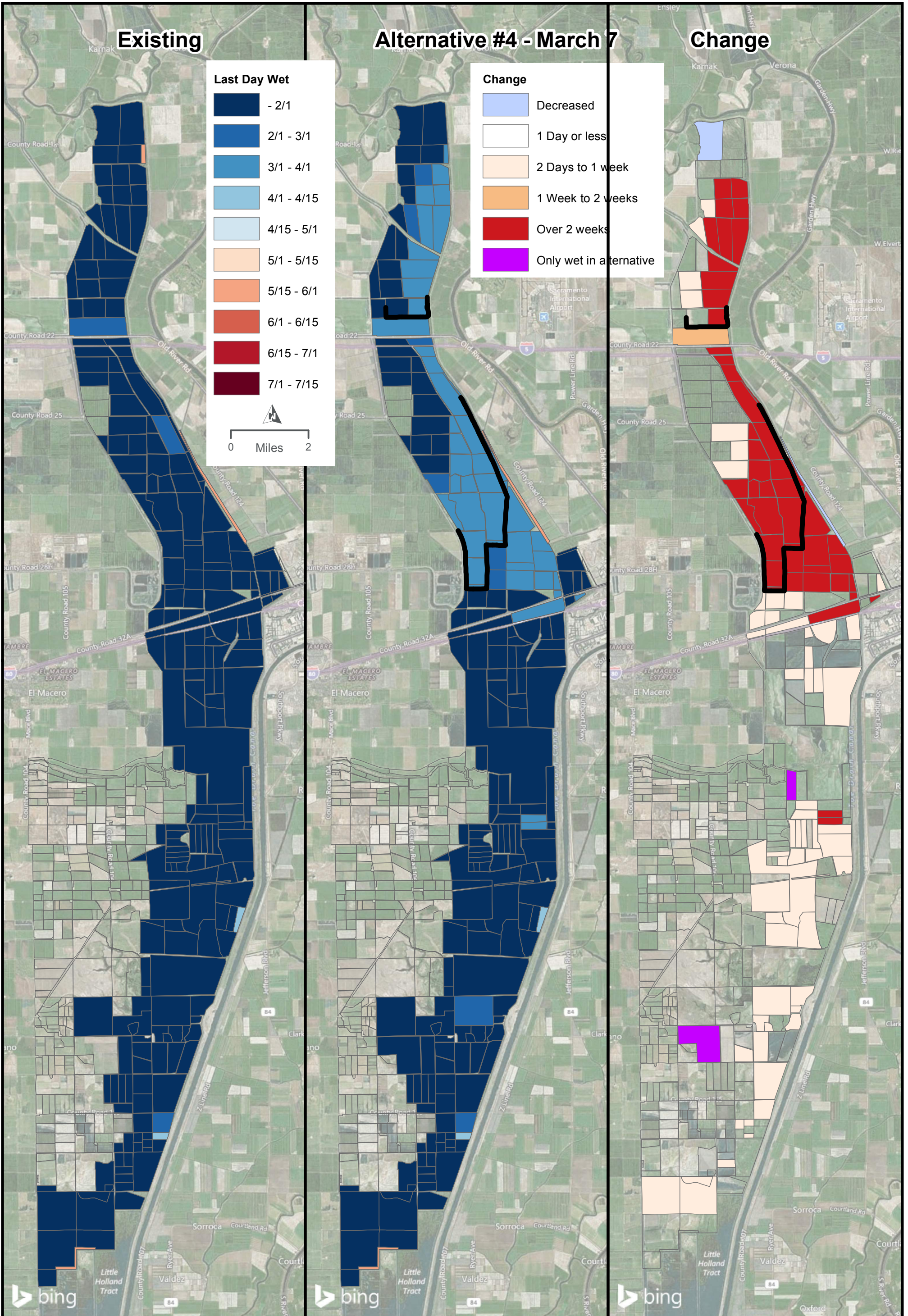
FIGURE 61



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2001

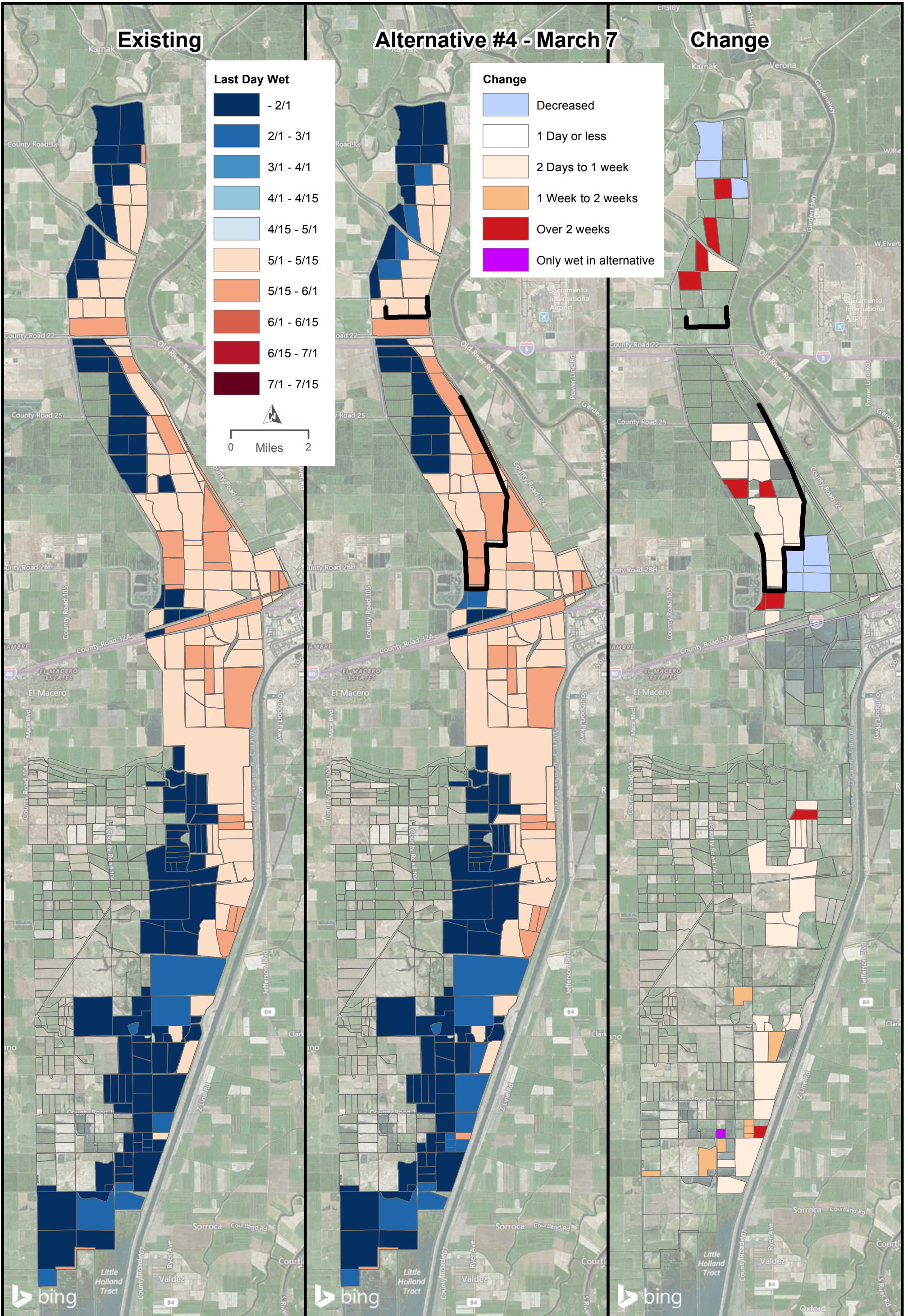
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 62



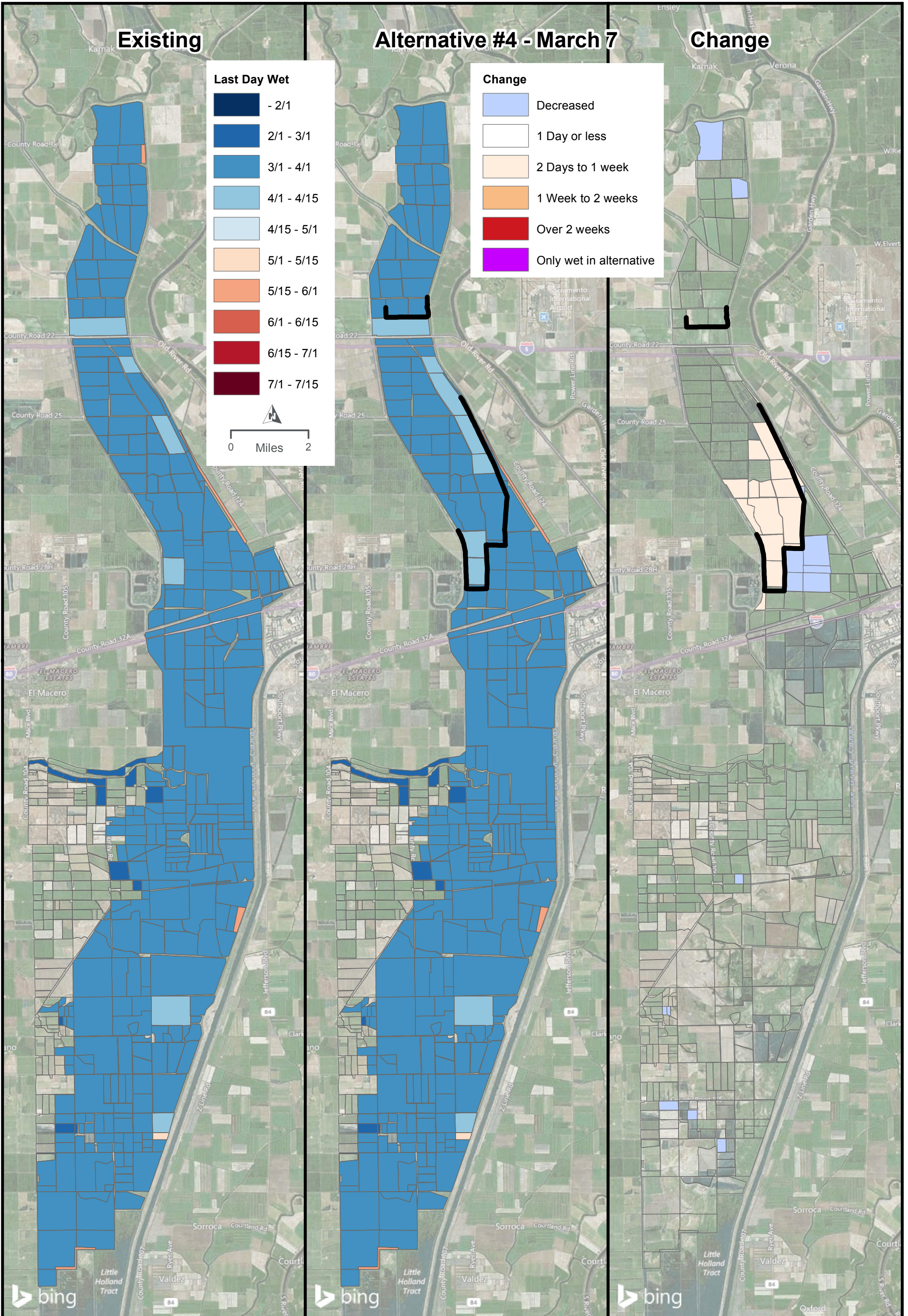
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2002
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 63



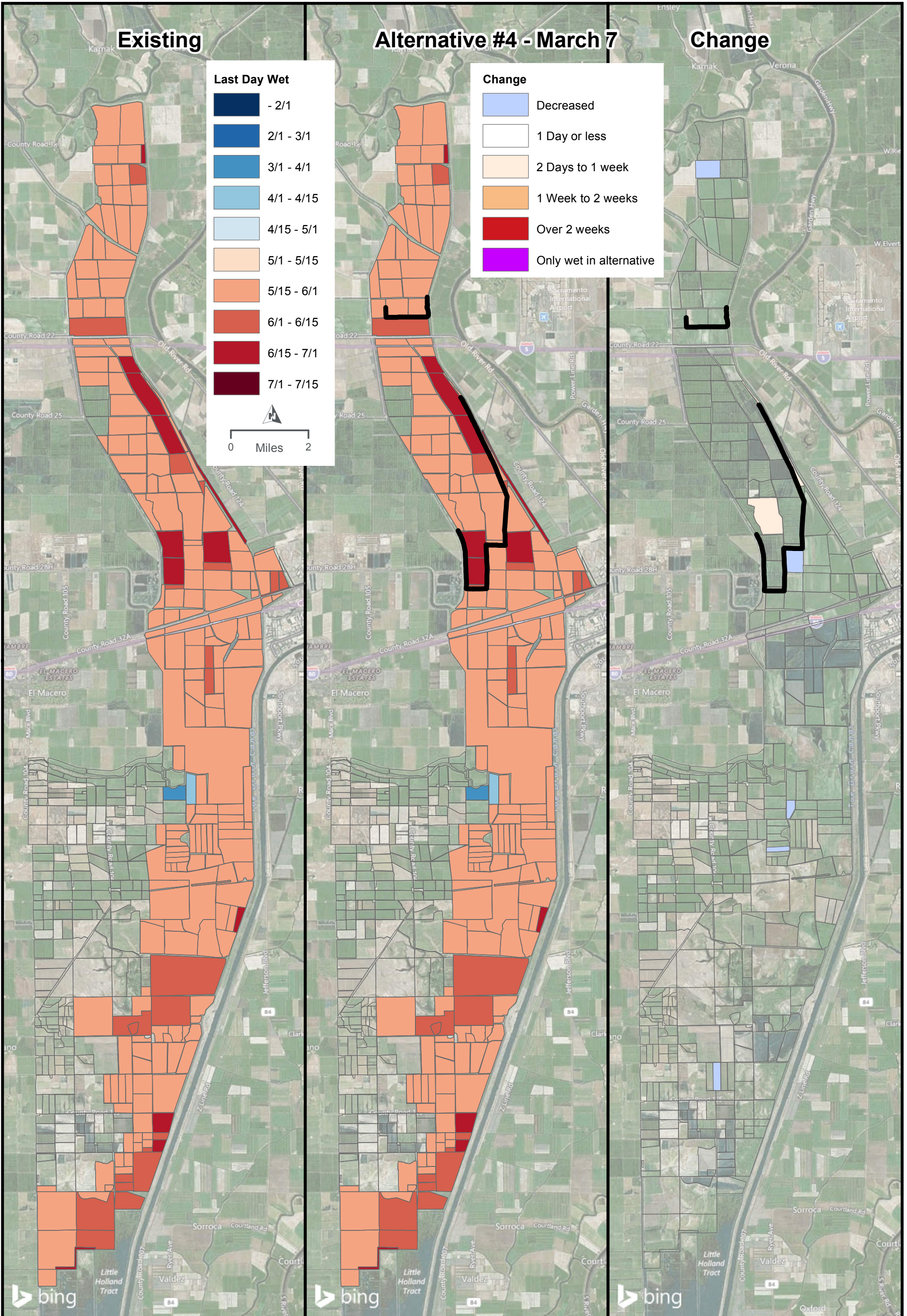
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2003
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 64



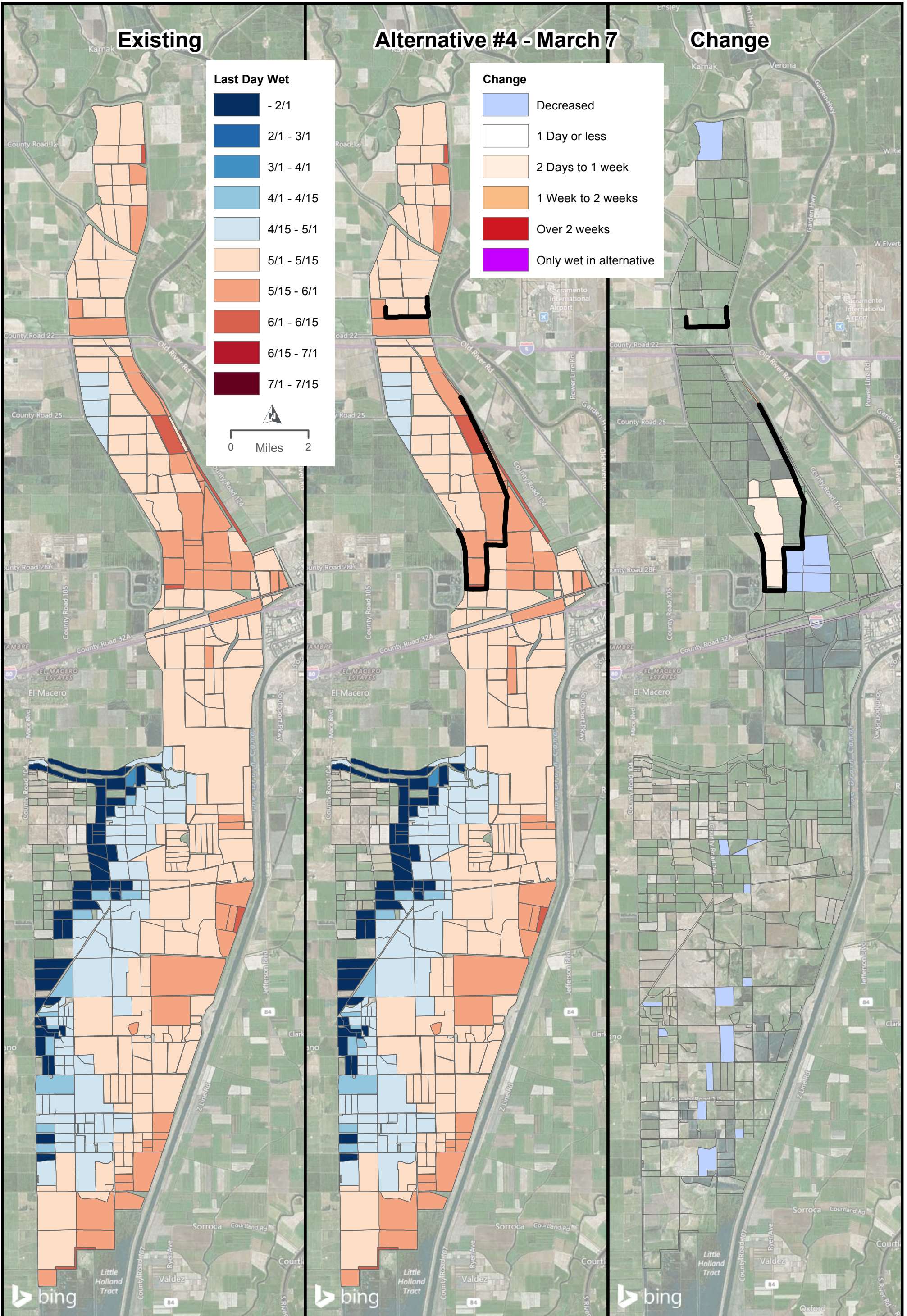
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2004
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 65



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2005
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

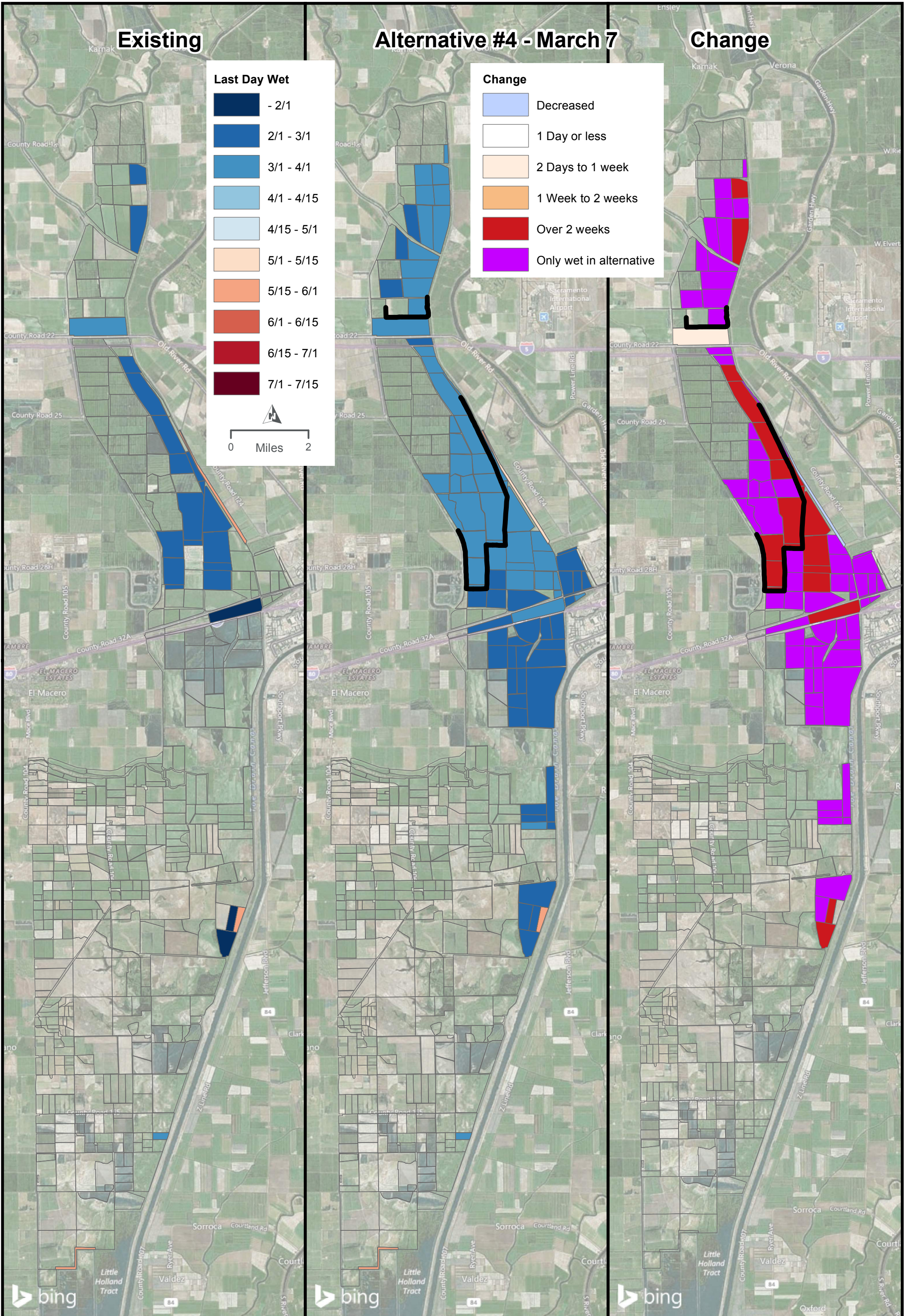
FIGURE 66



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2006

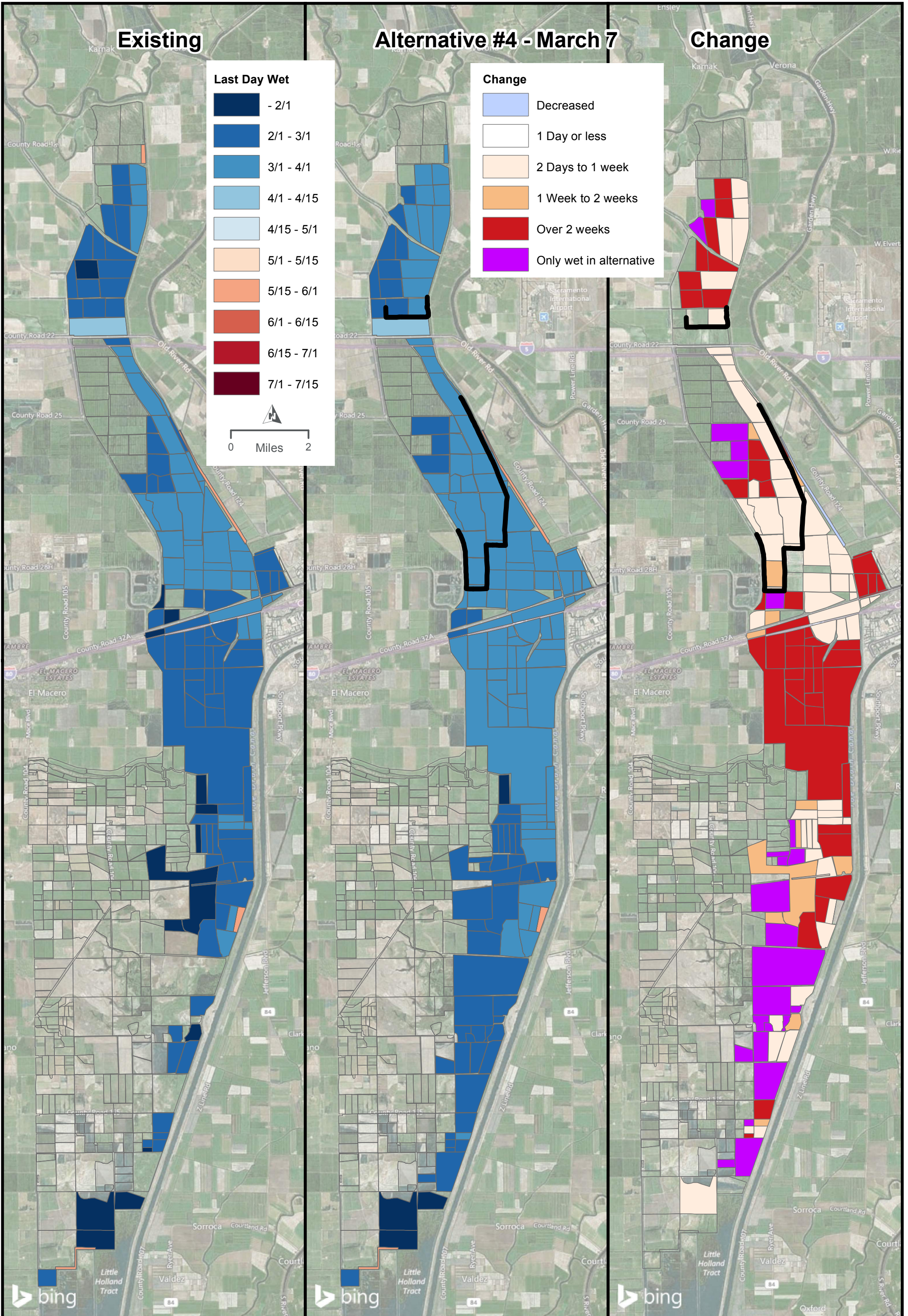
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 67



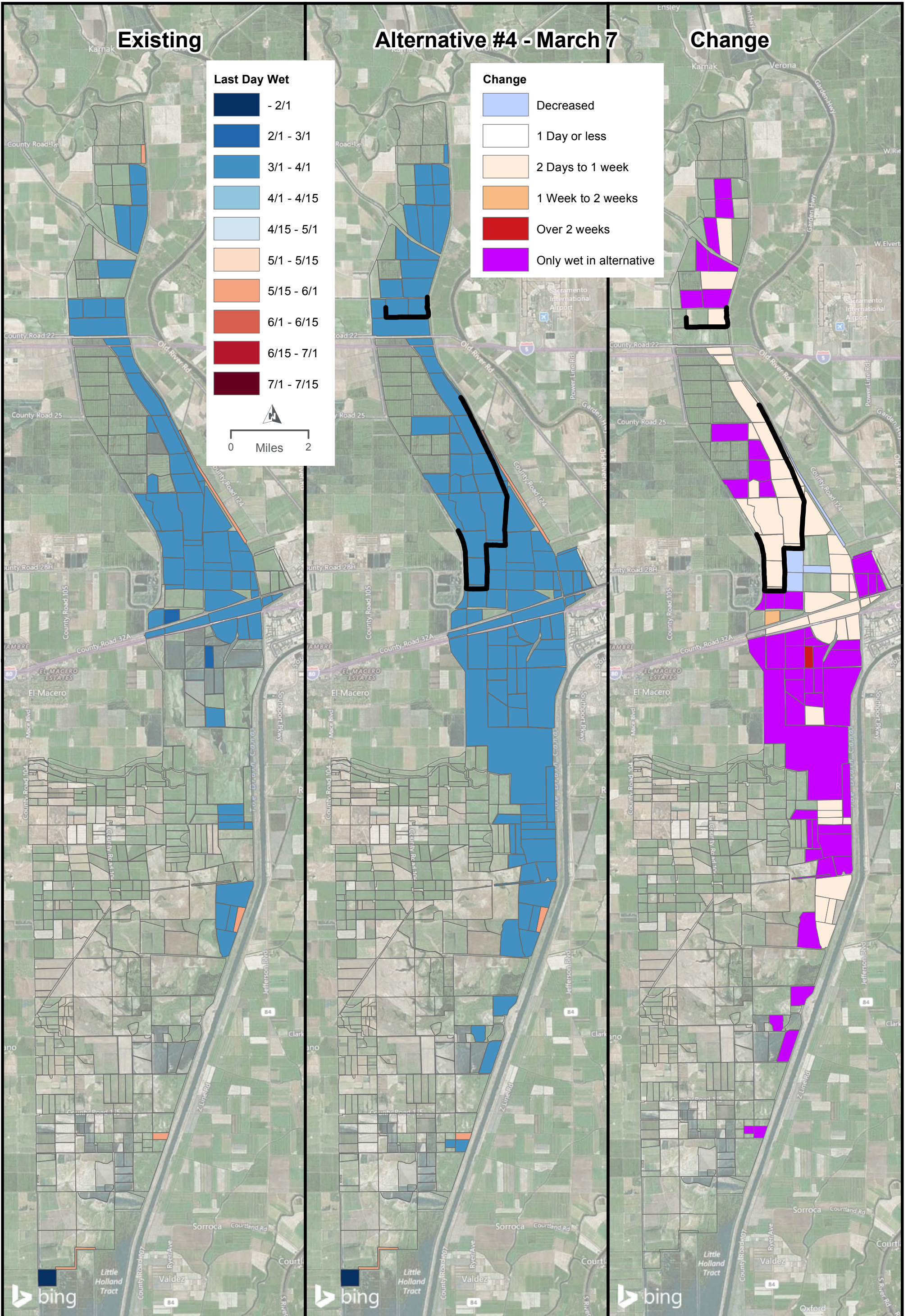
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2007
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 68



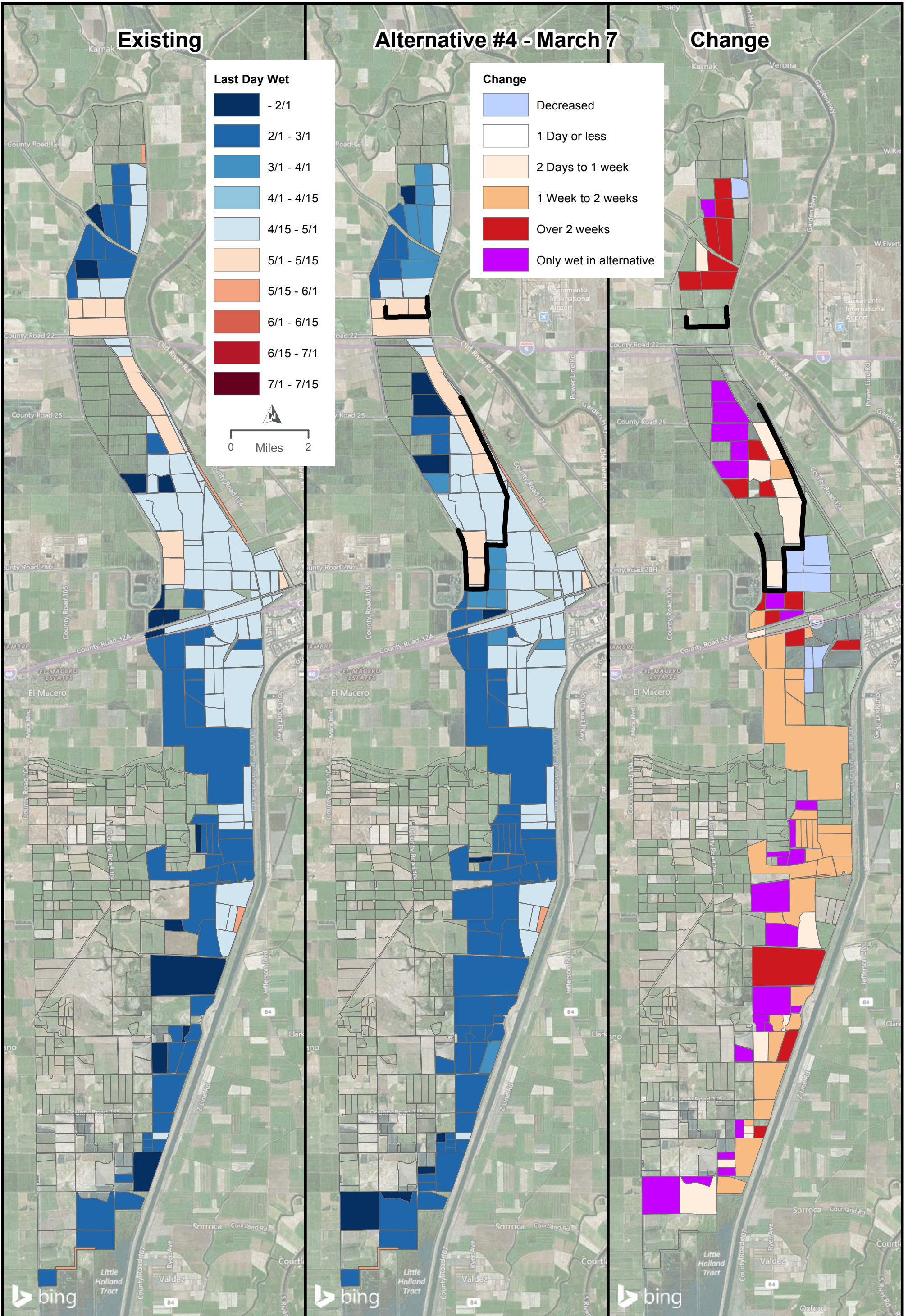
LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2008
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 69



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2009
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

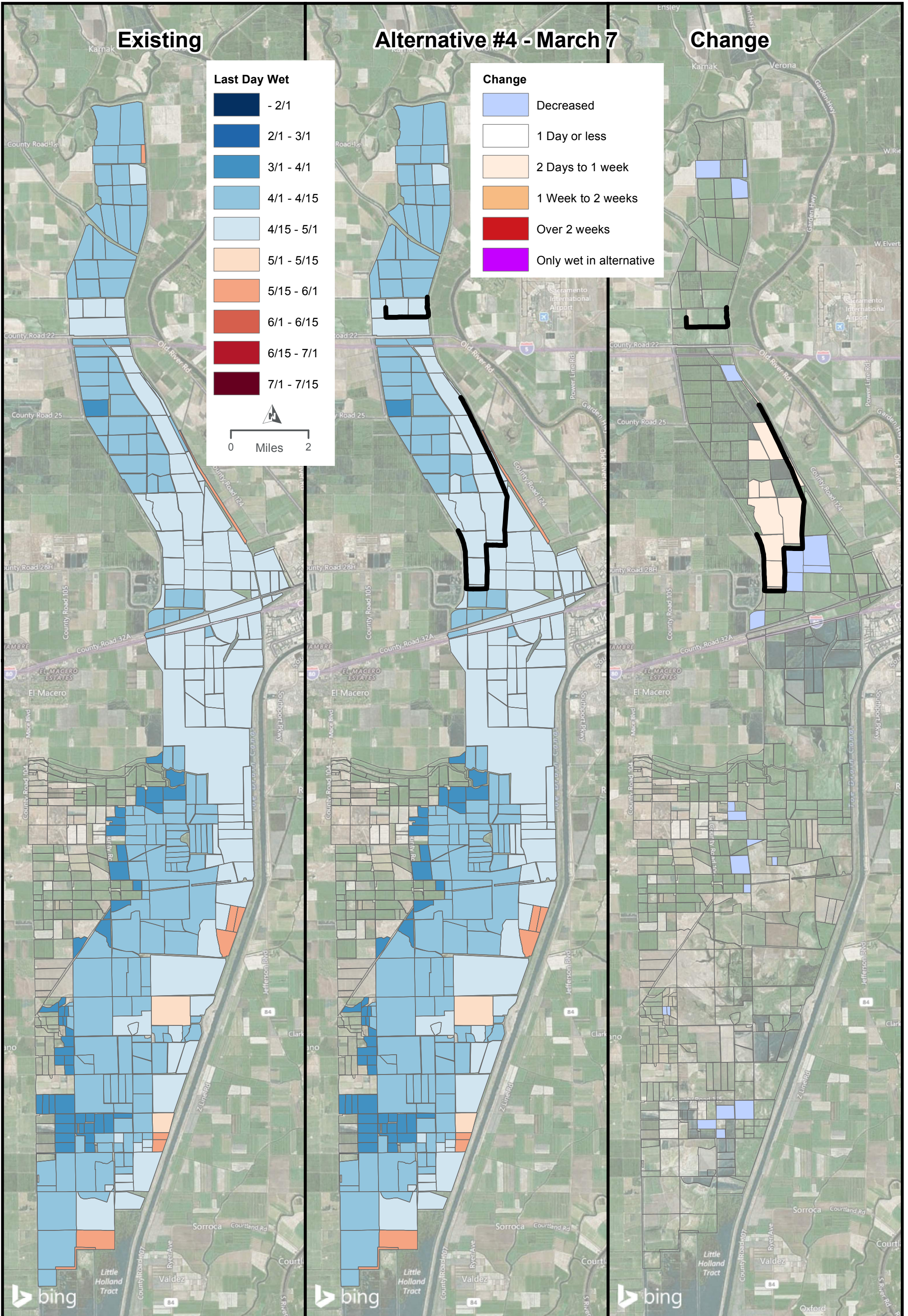
FIGURE 70



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2010

EXISTING, ALTERNATIVE, AND COMPARISON VALUES

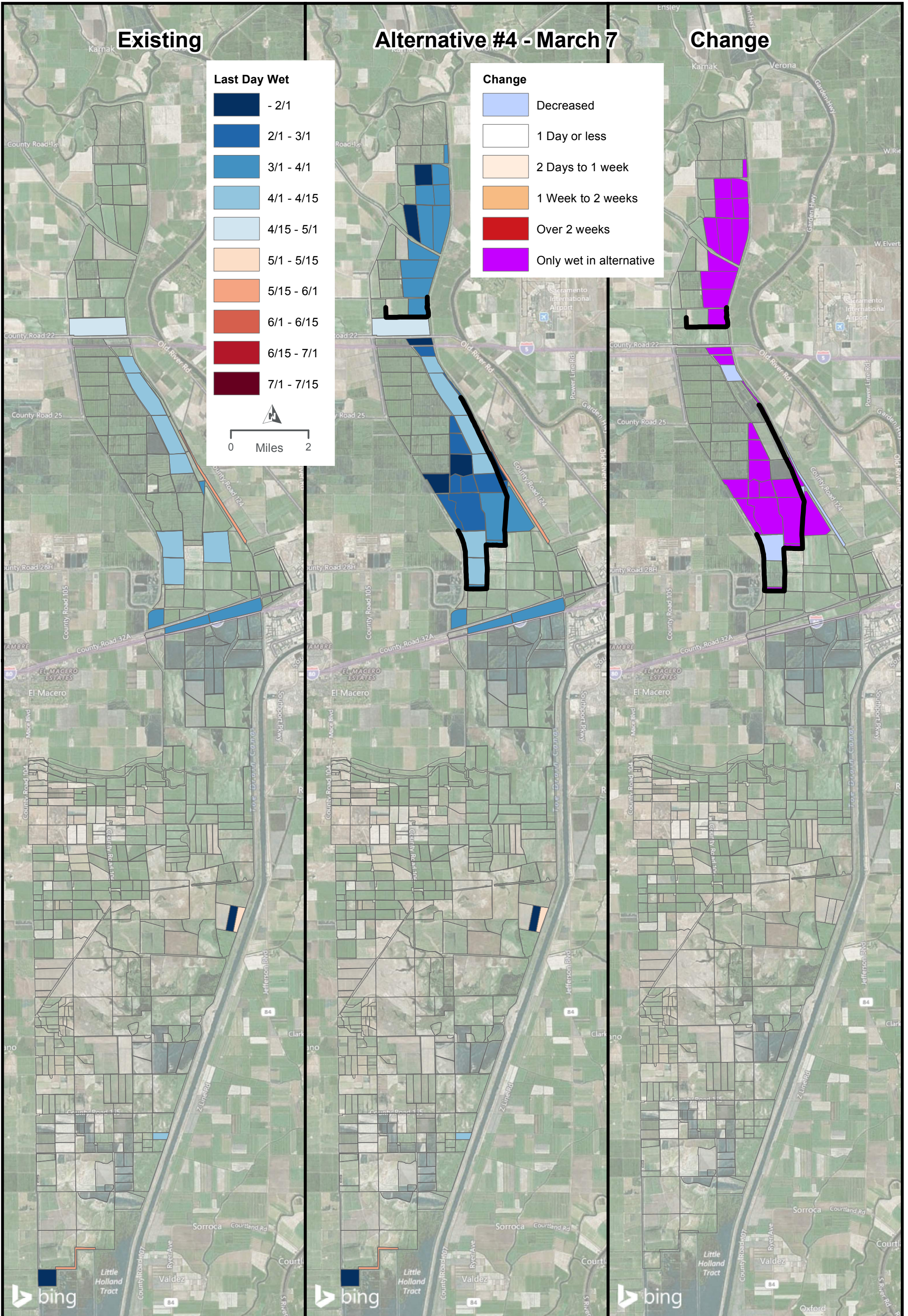
FIGURE 71



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2011

EXISTING, ALTERNATIVE, AND COMPARISON VALUES

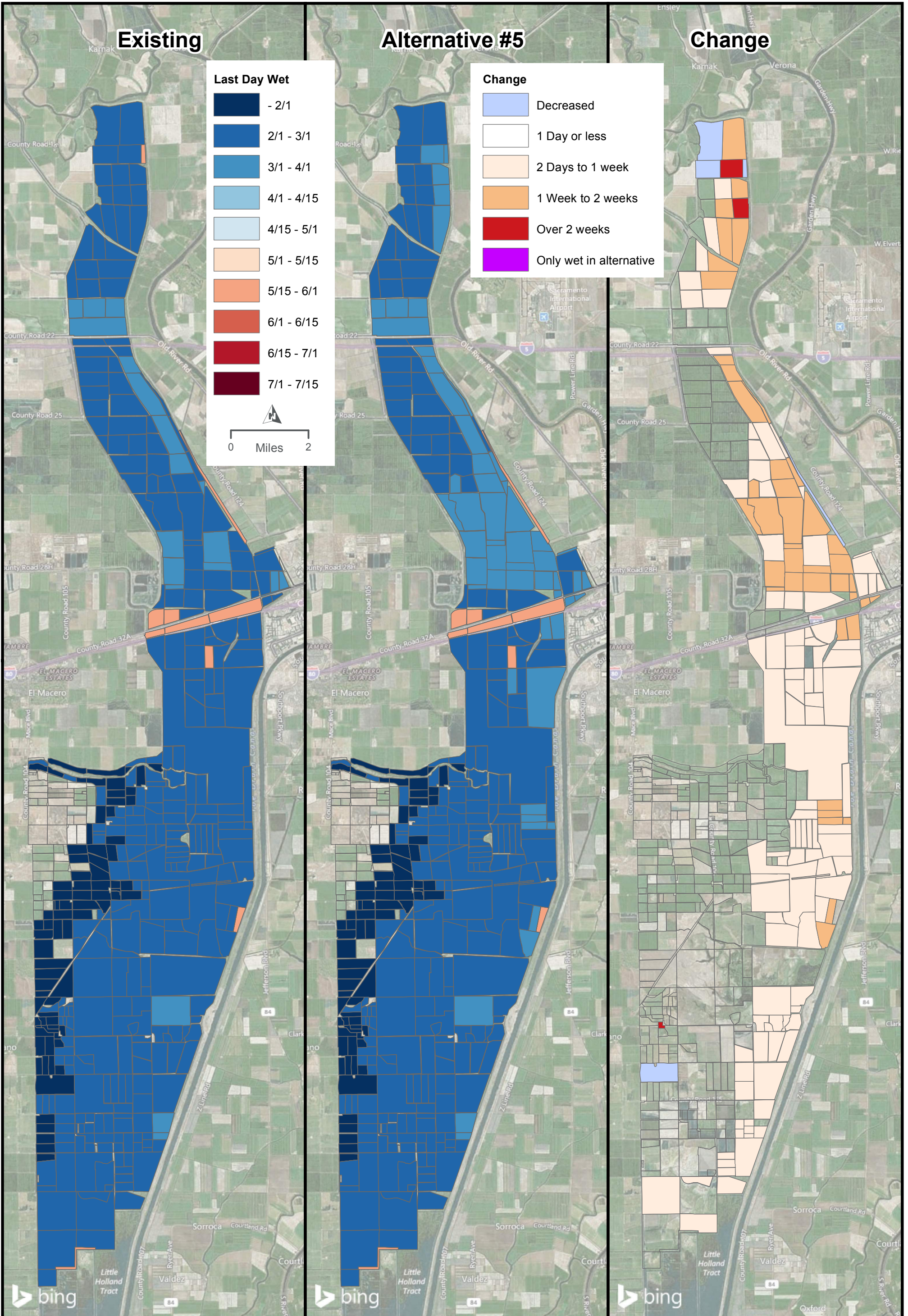
FIGURE 72



LAST DAY WET (LDW) FOR ALTERNATIVE #4 MARCH 7TH CLOSURE 2012

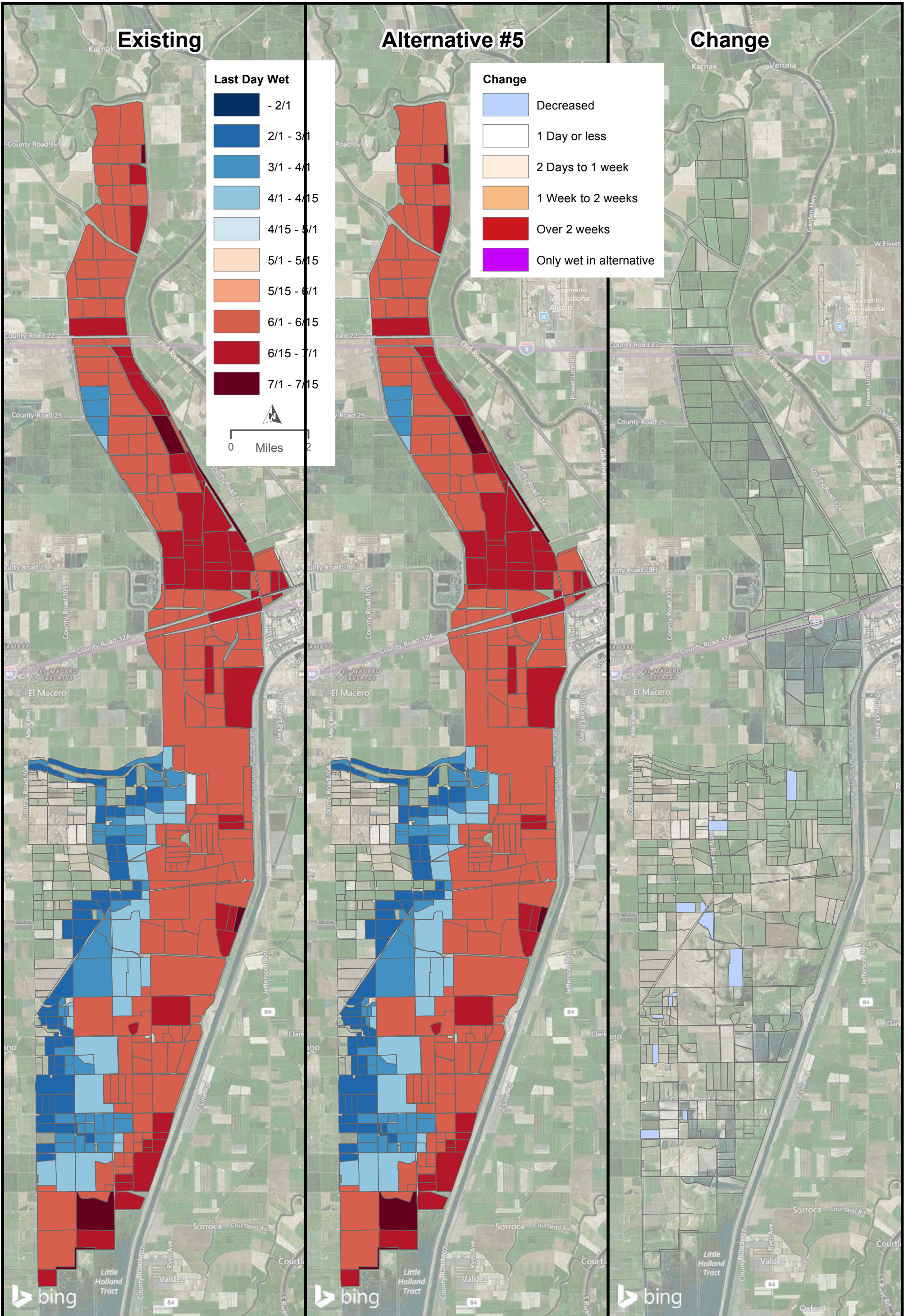
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 73



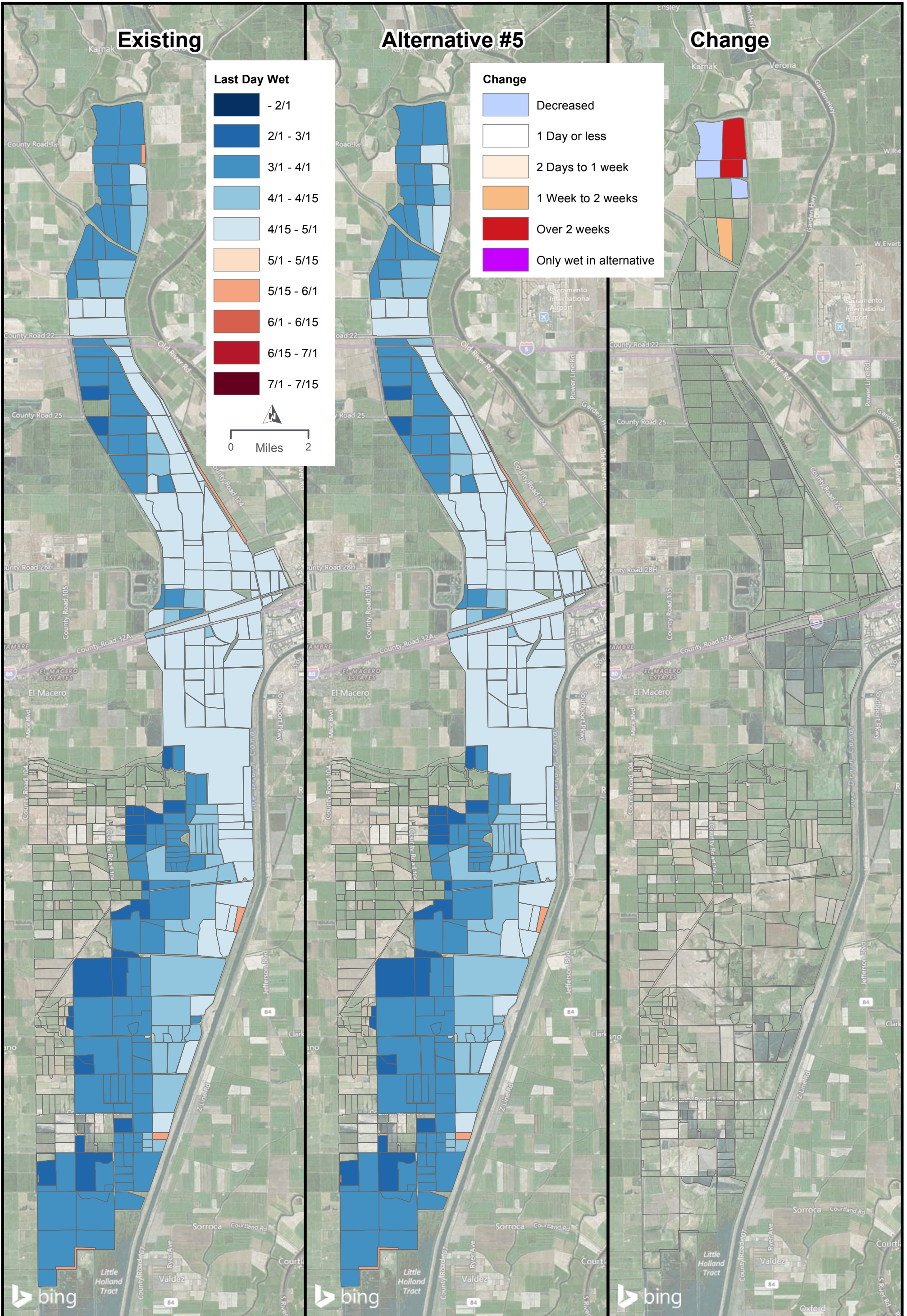
LAST DAY WET (LDW) FOR ALTERNATIVE #5 1997
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 74



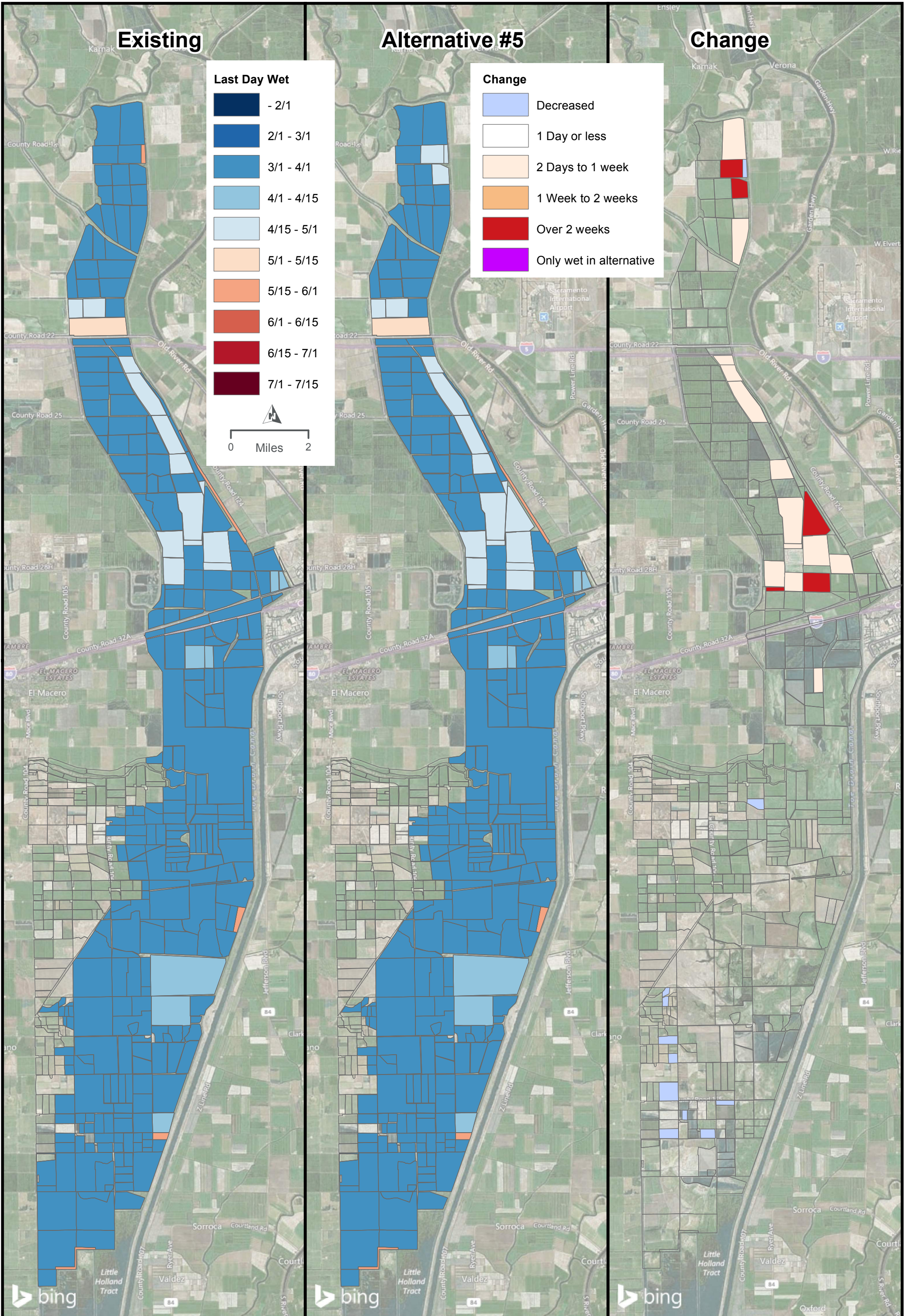
LAST DAY WET (LDW) FOR ALTERNATIVE #5 1998
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 75

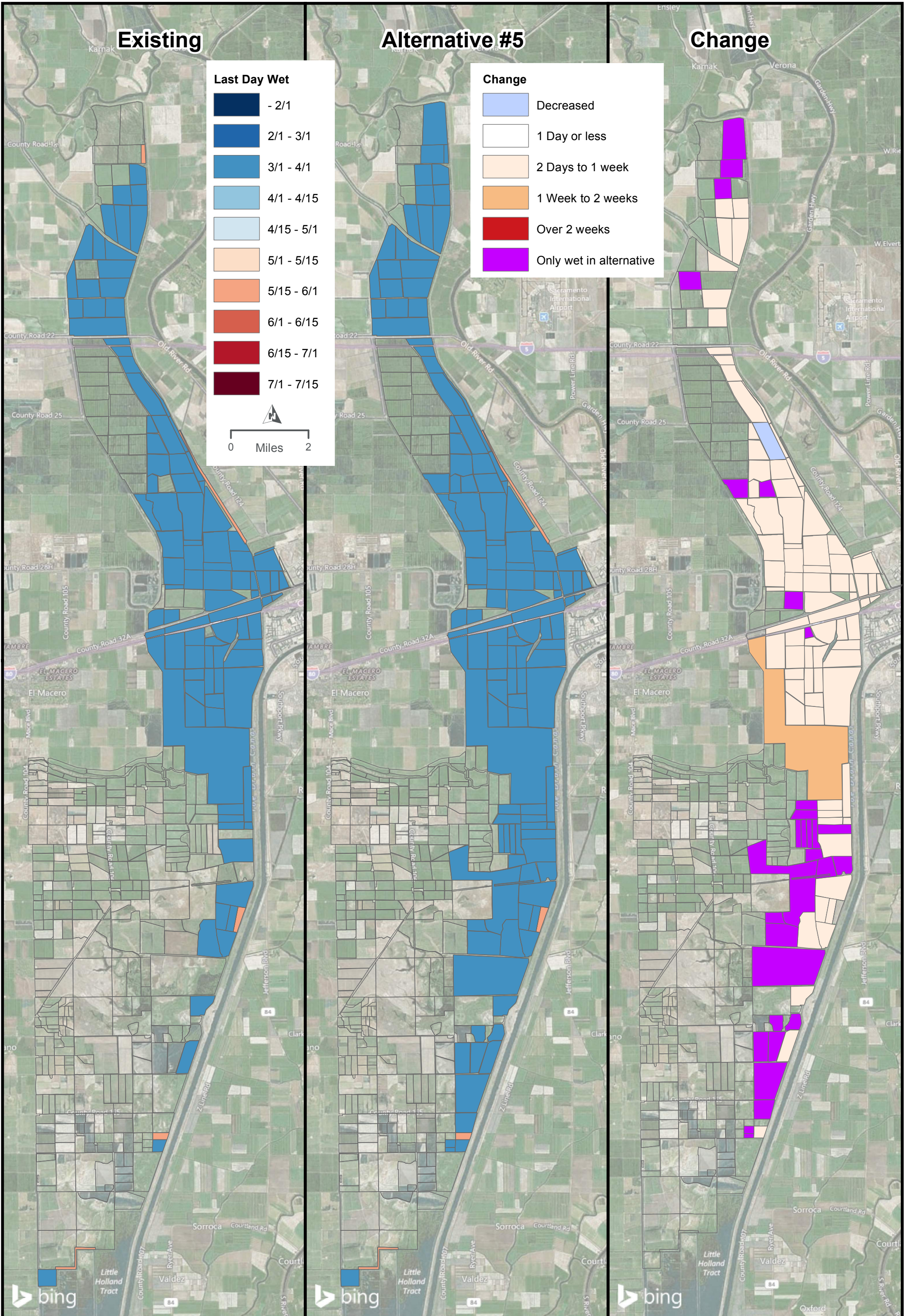


LAST DAY WET (LDW) FOR ALTERNATIVE #5 1999
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 76

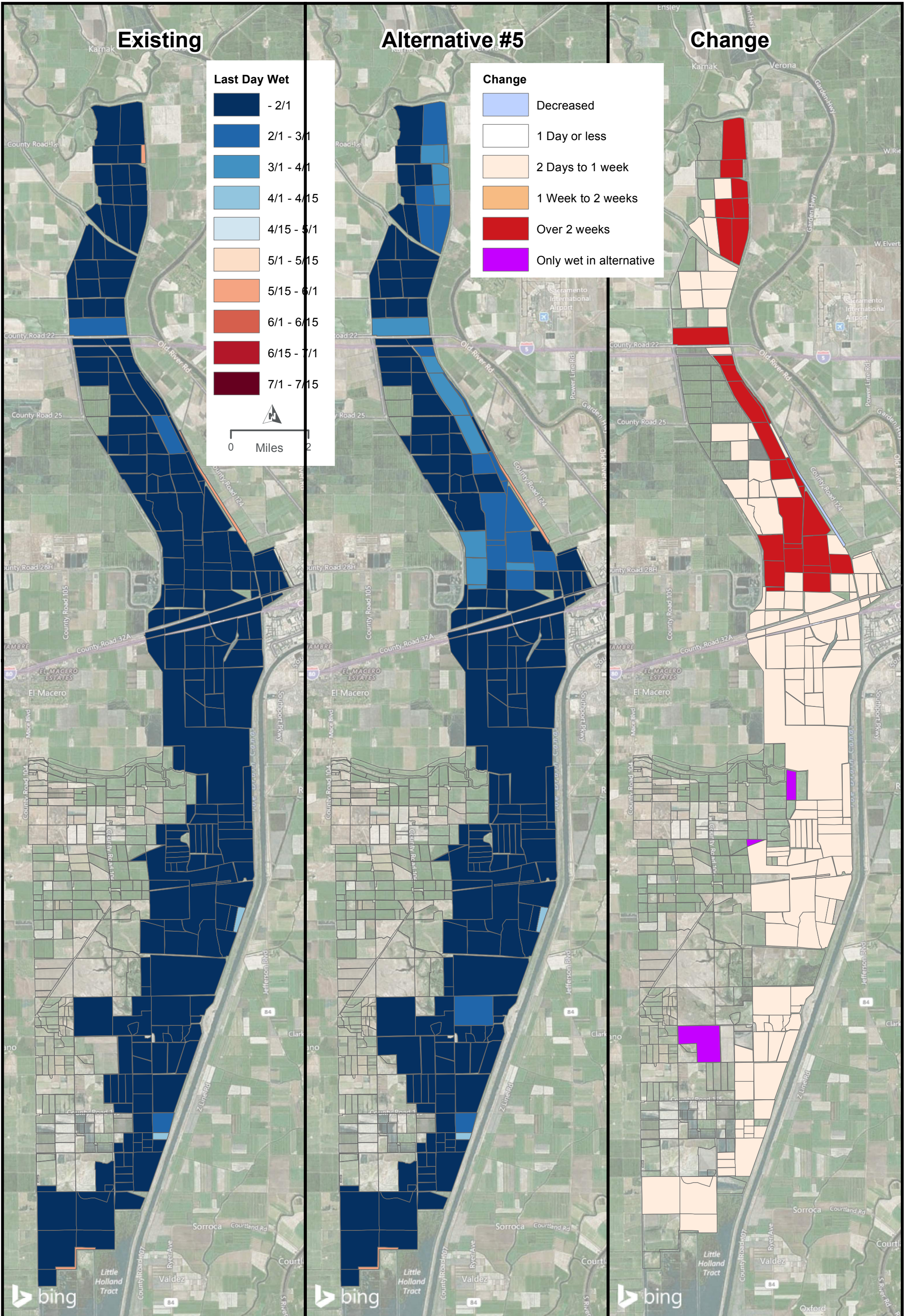


LAST DAY WET (LDW) FOR ALTERNATIVE #5 2000
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES
 FIGURE 77



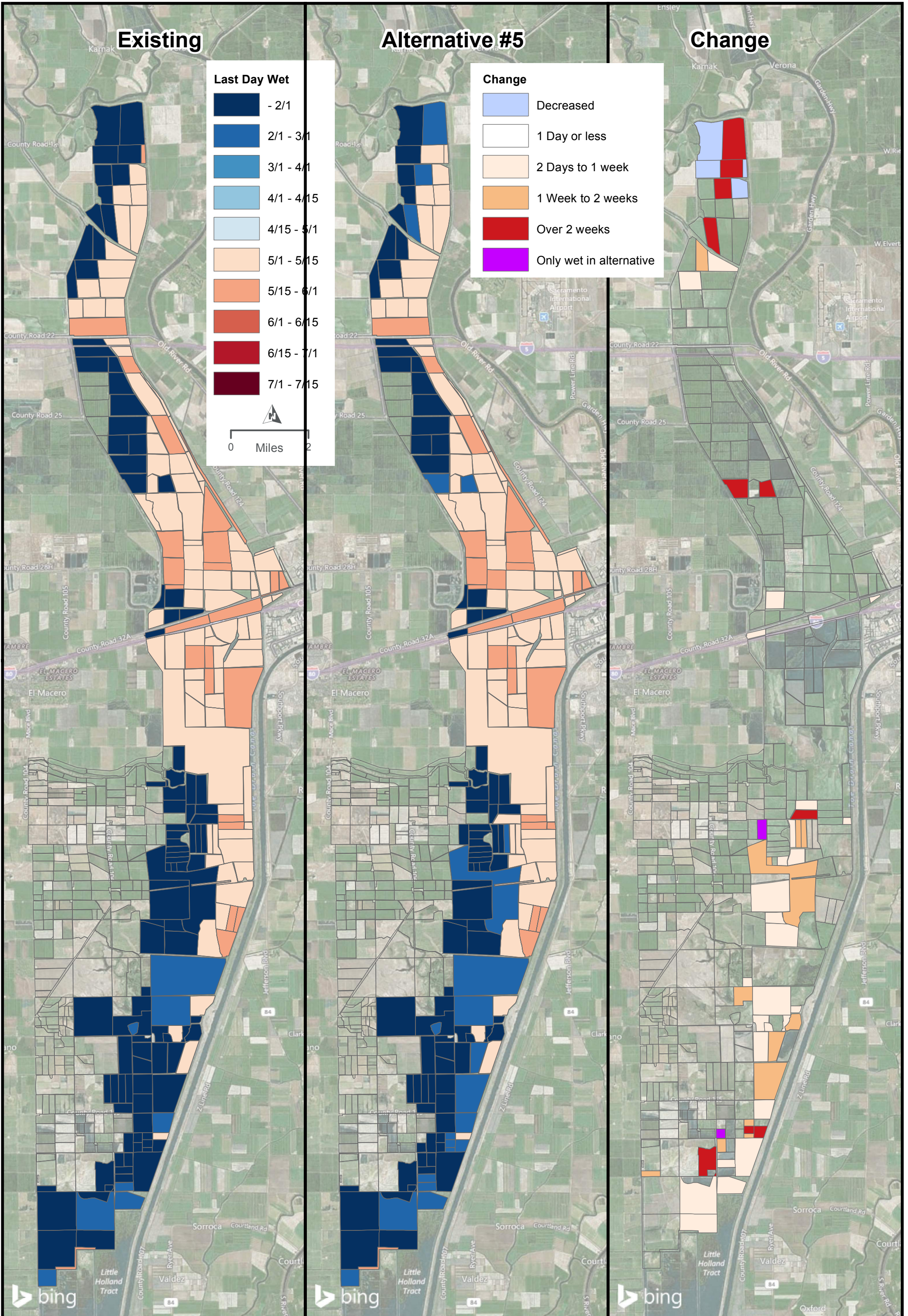
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2001
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 78



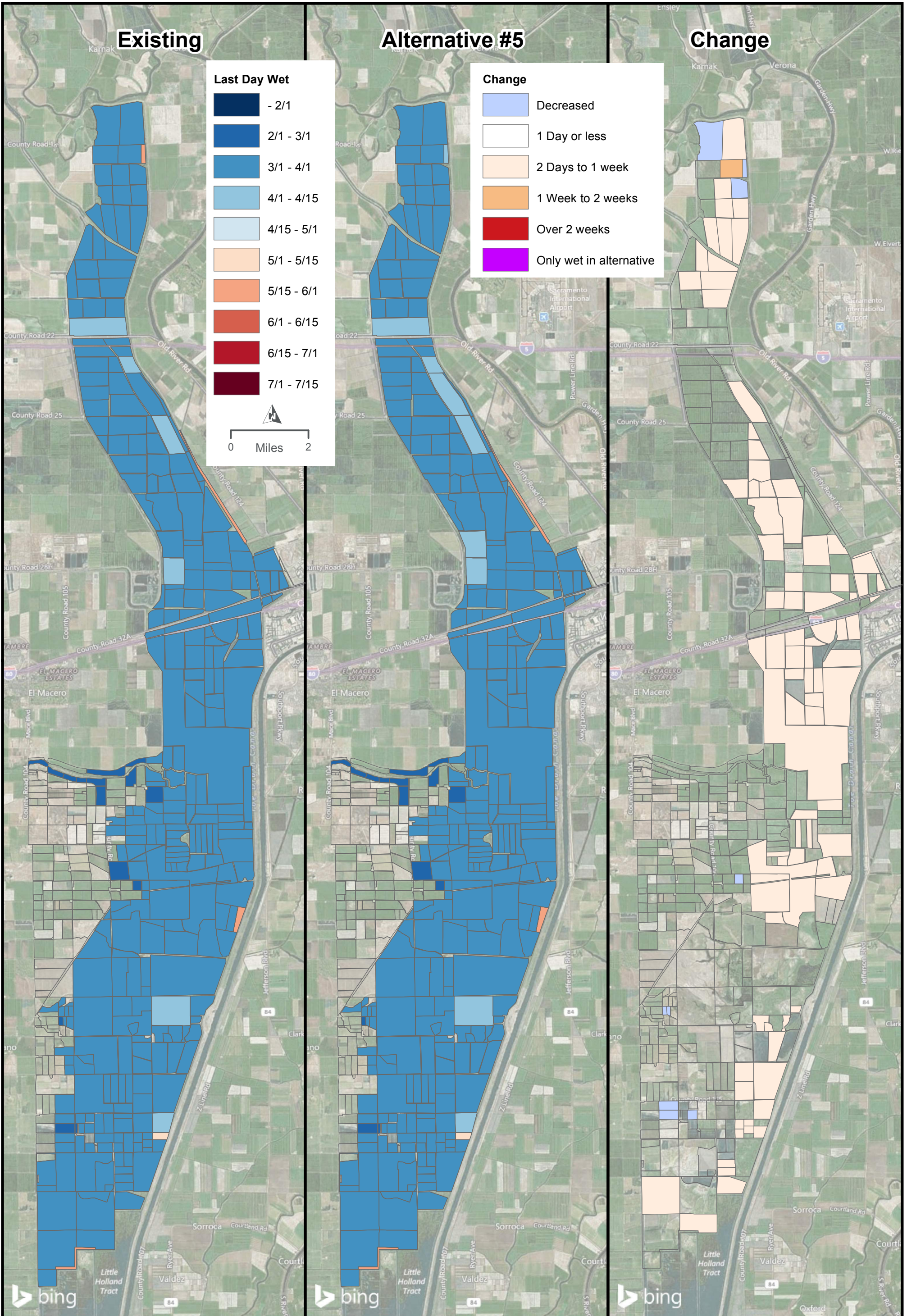
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2002
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 79



LAST DAY WET (LDW) FOR ALTERNATIVE #5 2003
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

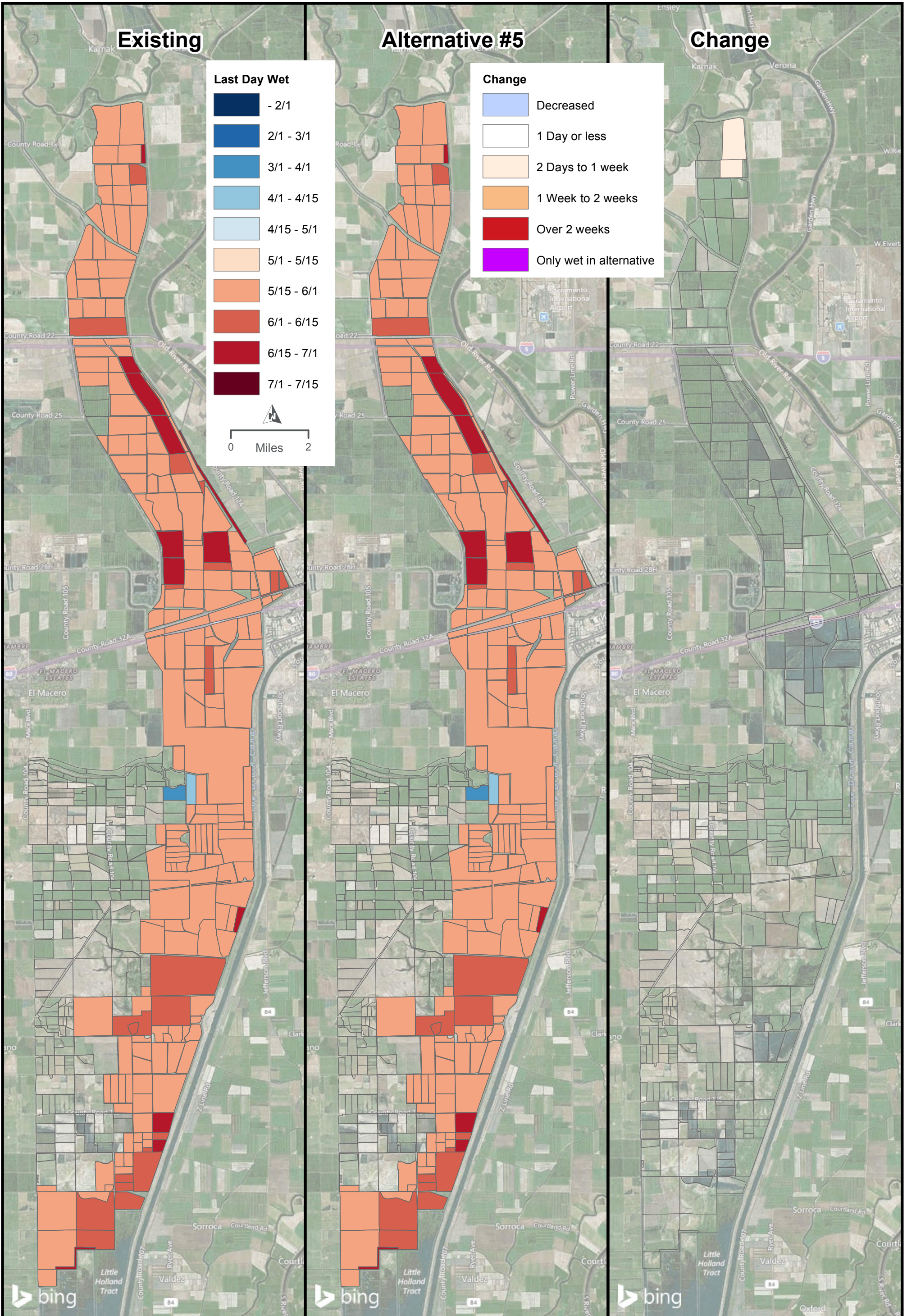
FIGURE 80



LAST DAY WET (LDW) FOR ALTERNATIVE #5 2004
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES

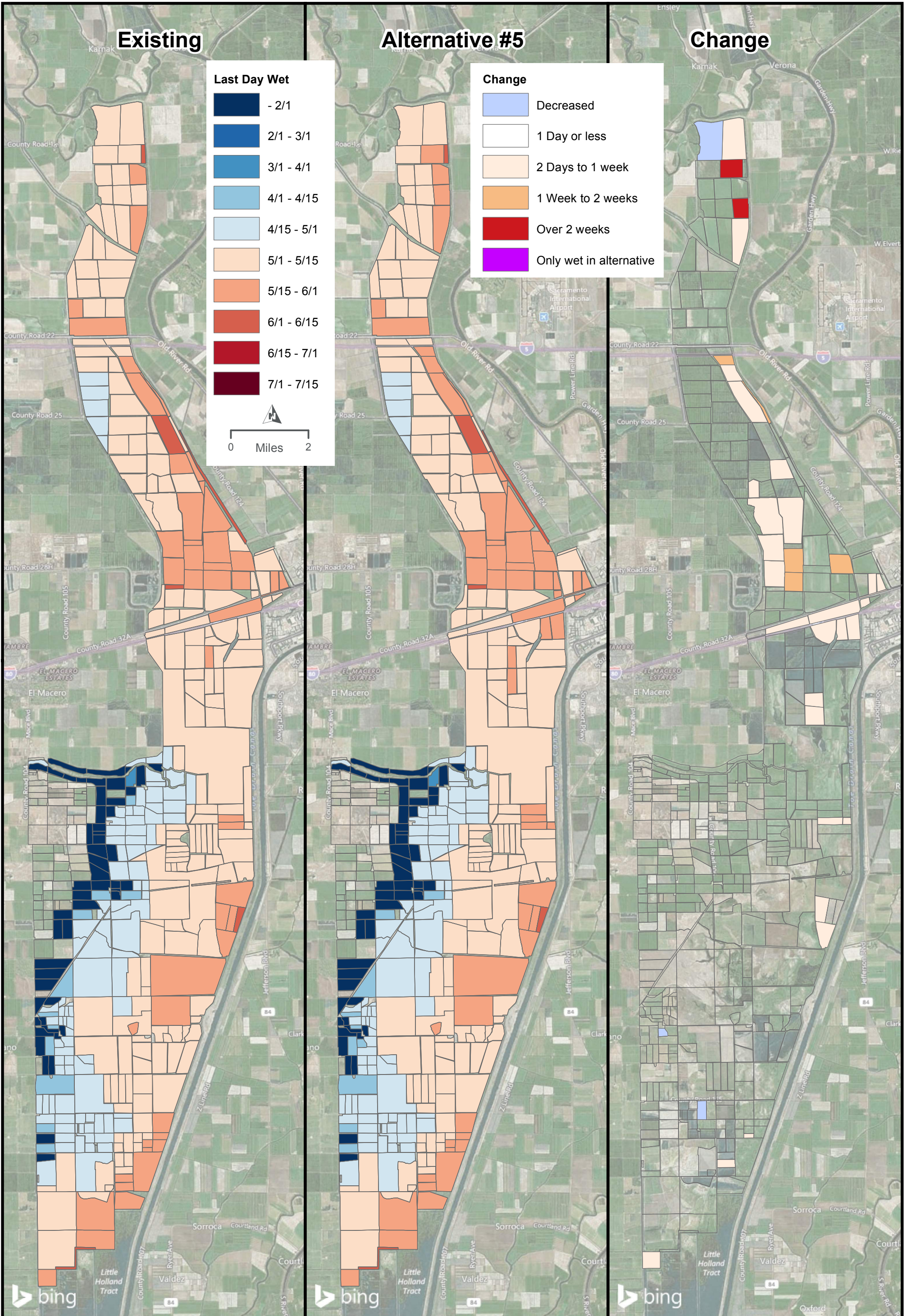
FIGURE 81





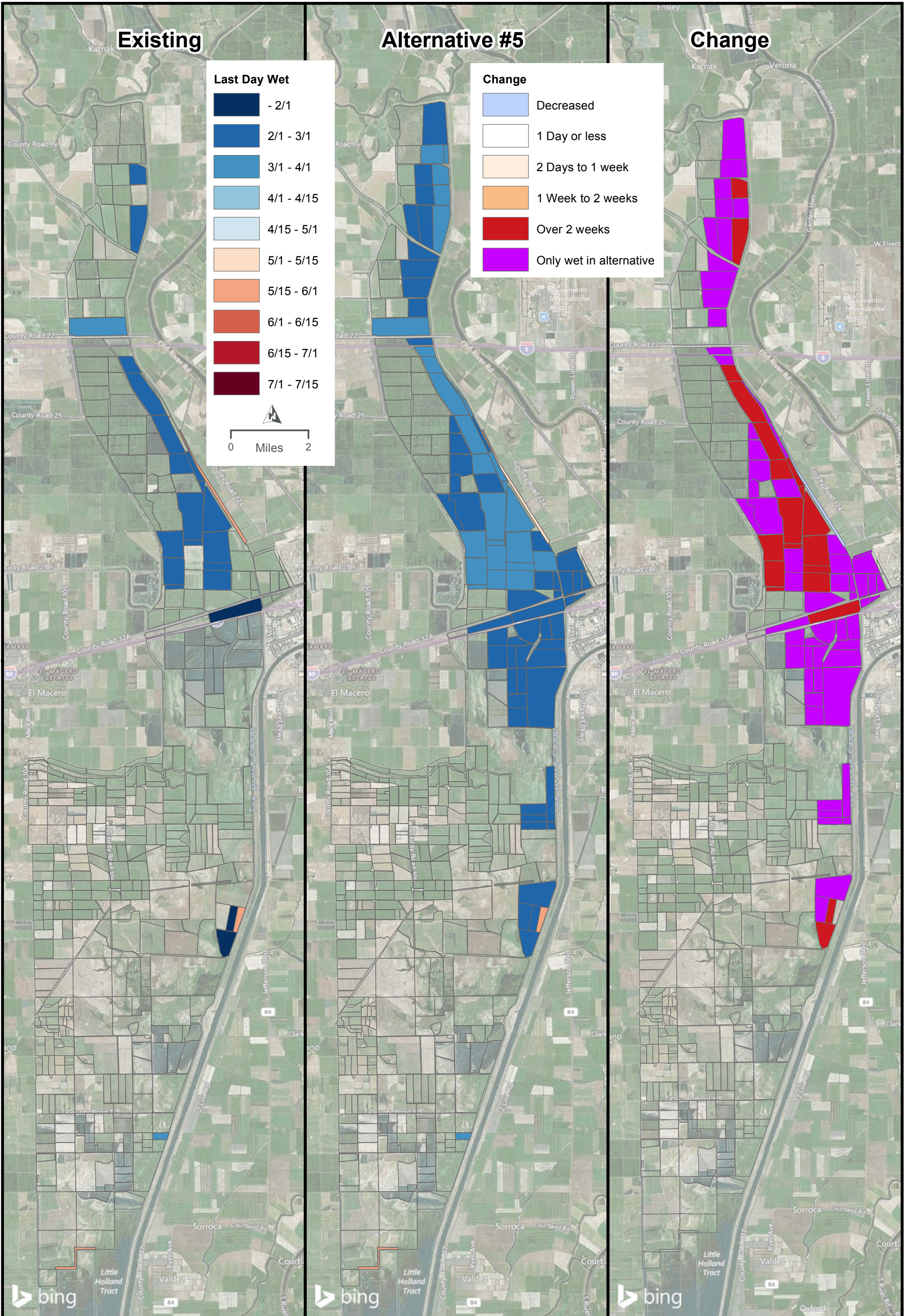
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2005
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 82



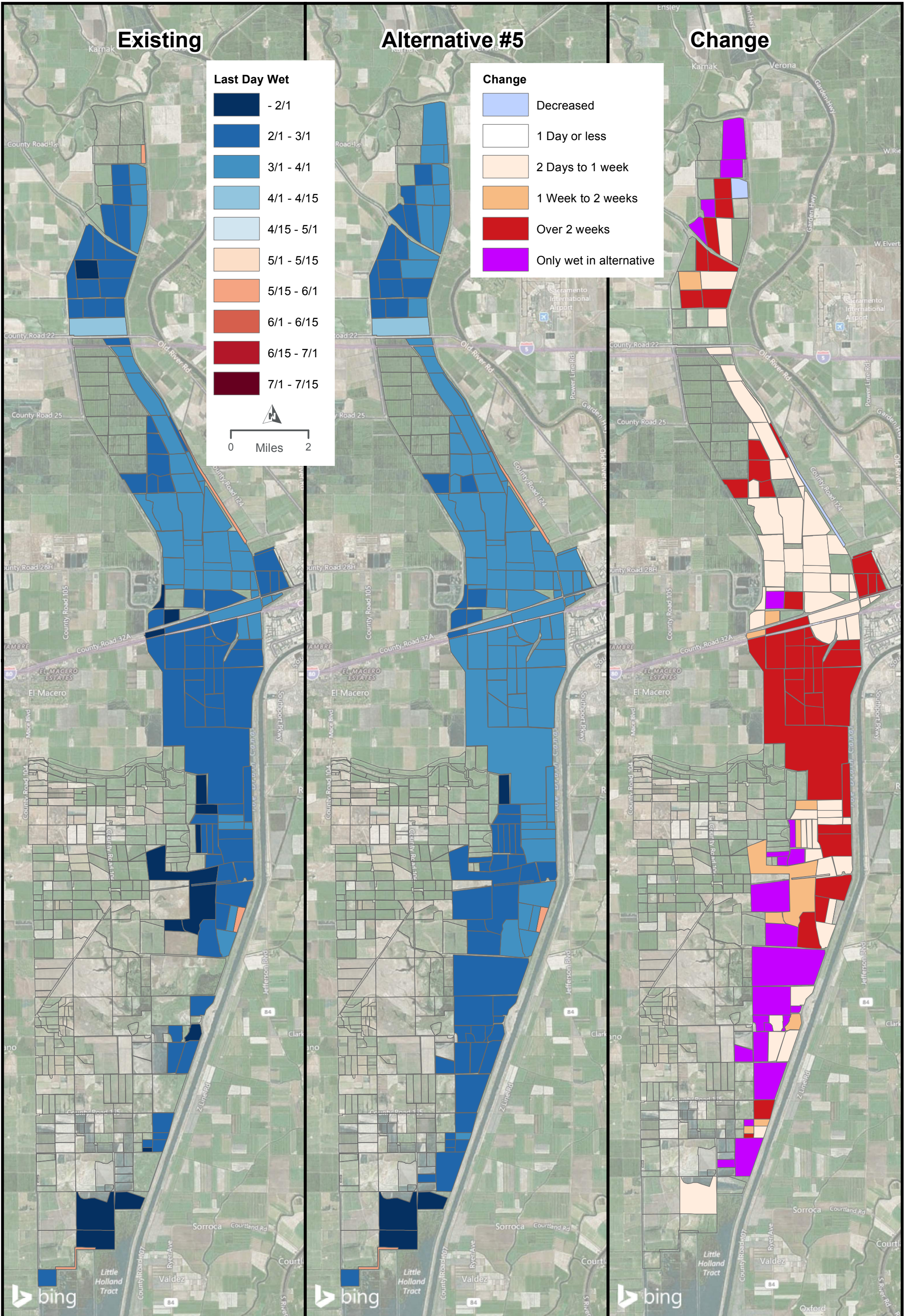
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2006
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 83



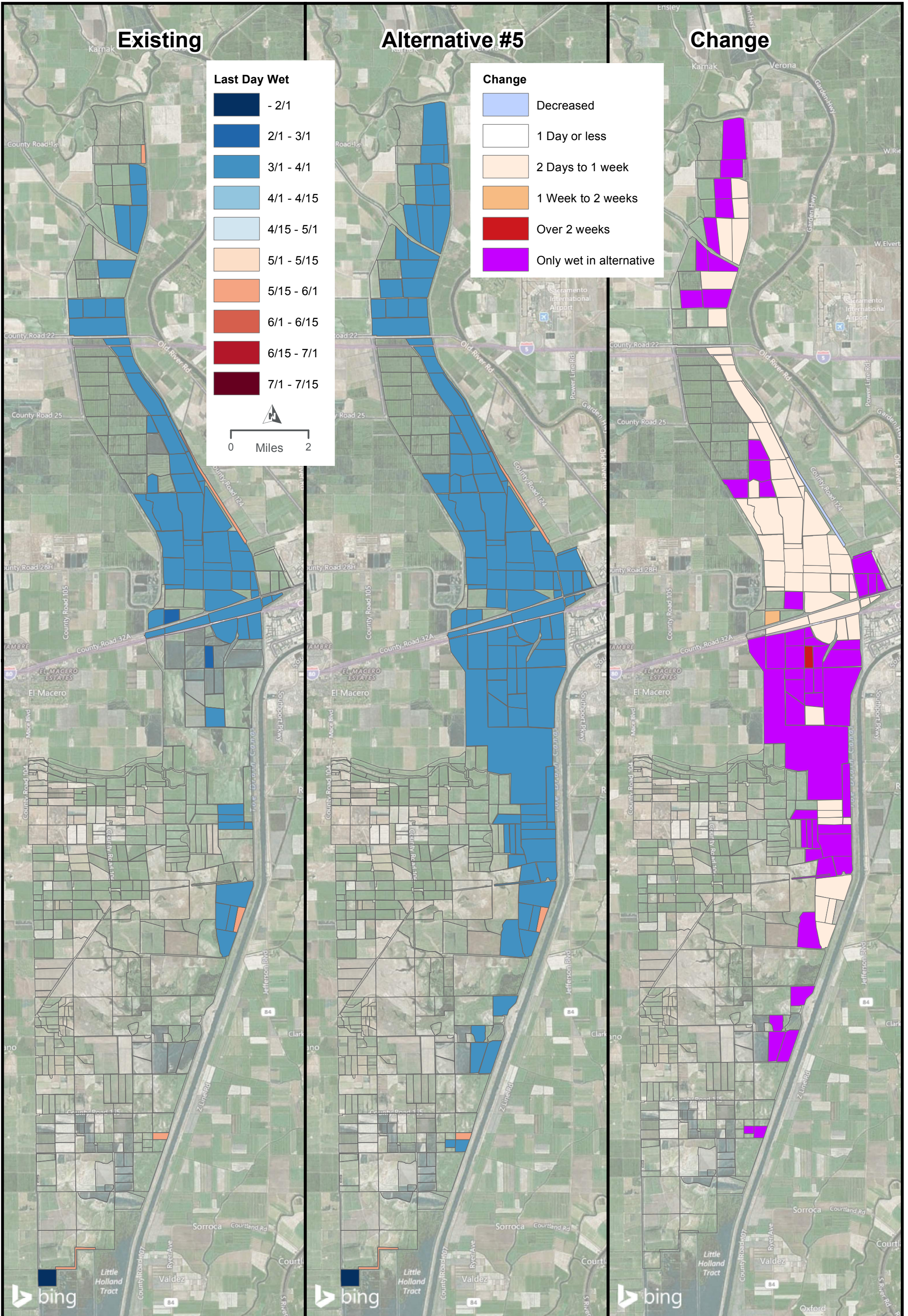
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2007
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 84



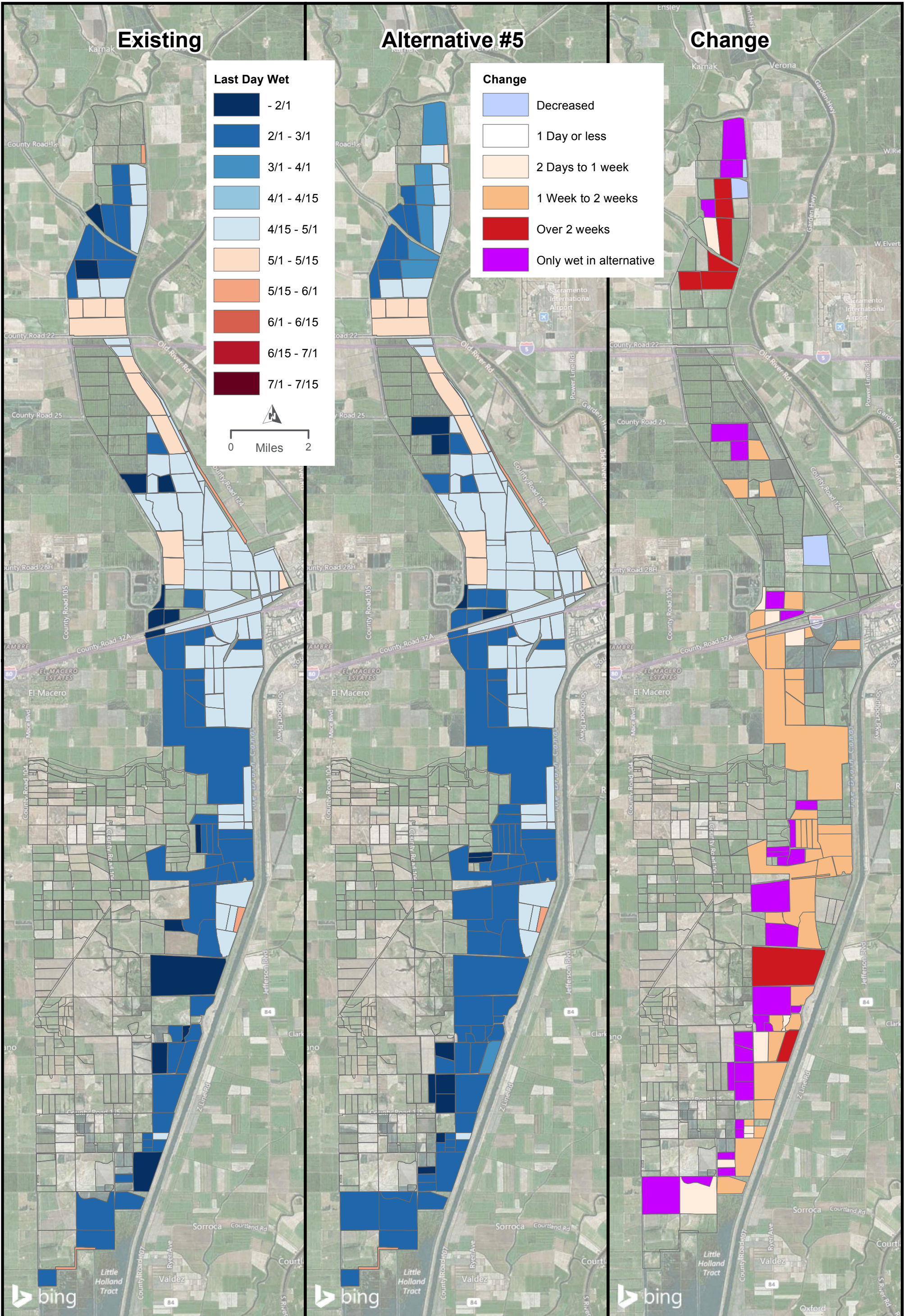
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2008
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 85



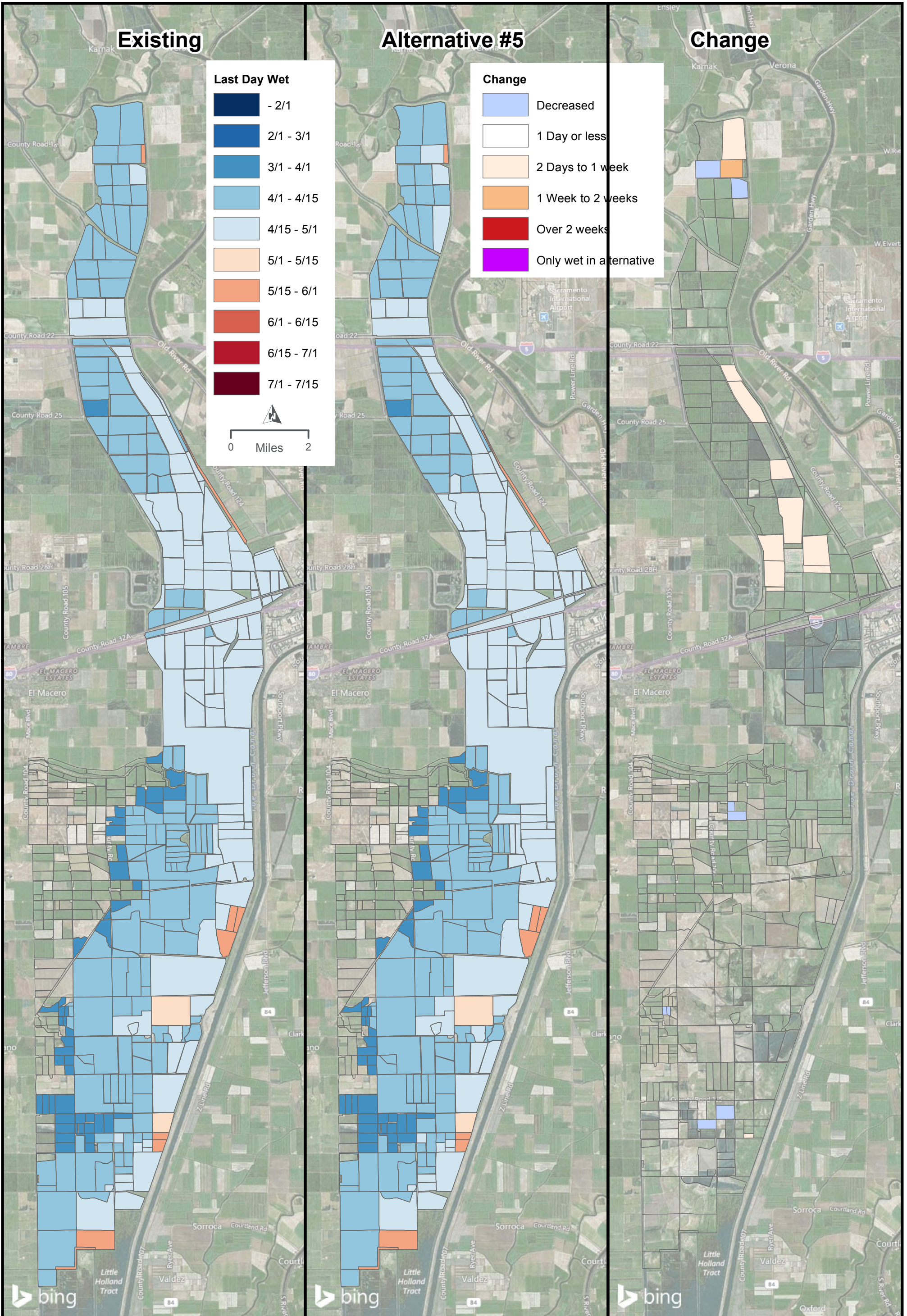
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2009
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 86



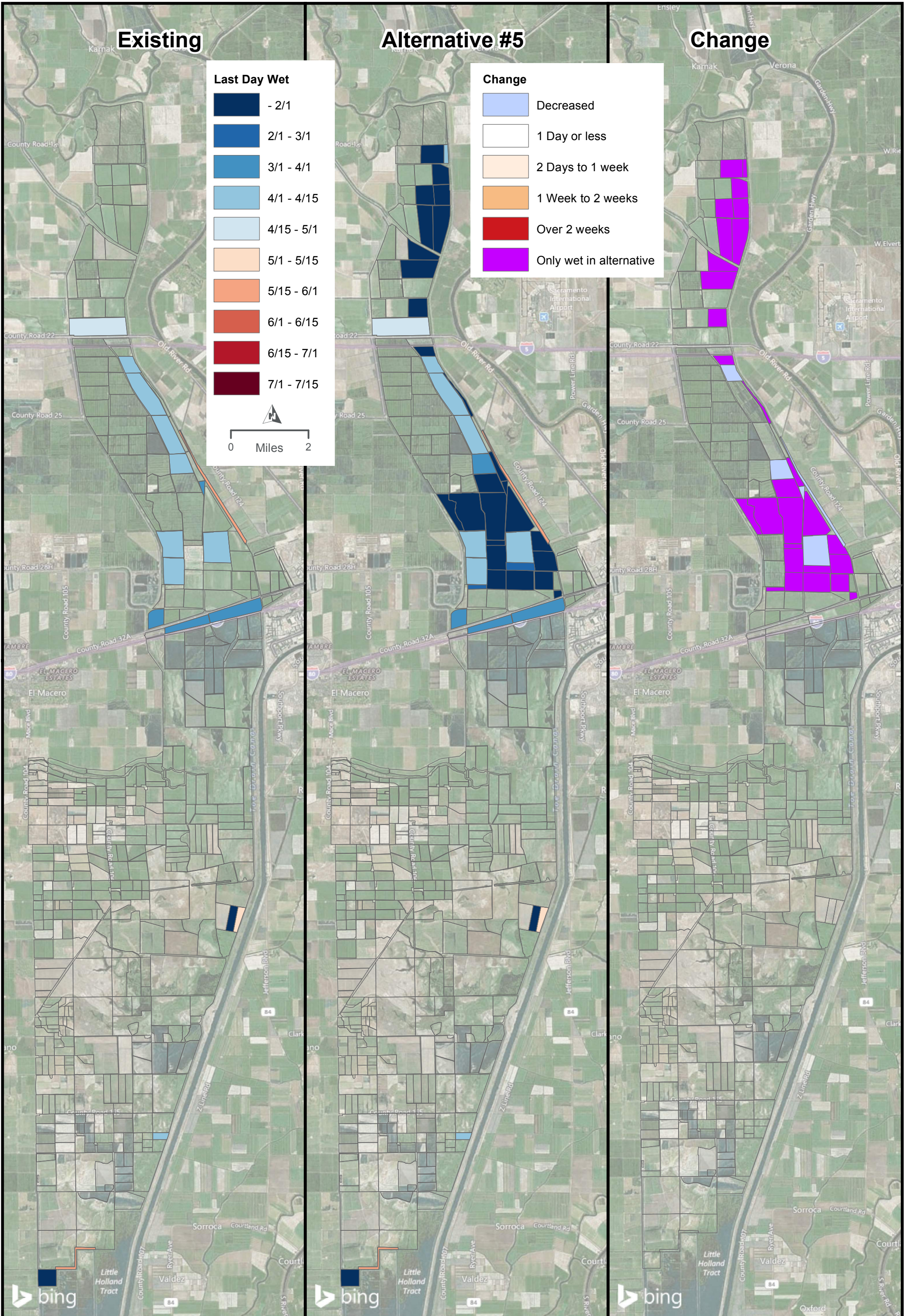
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2010
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 87



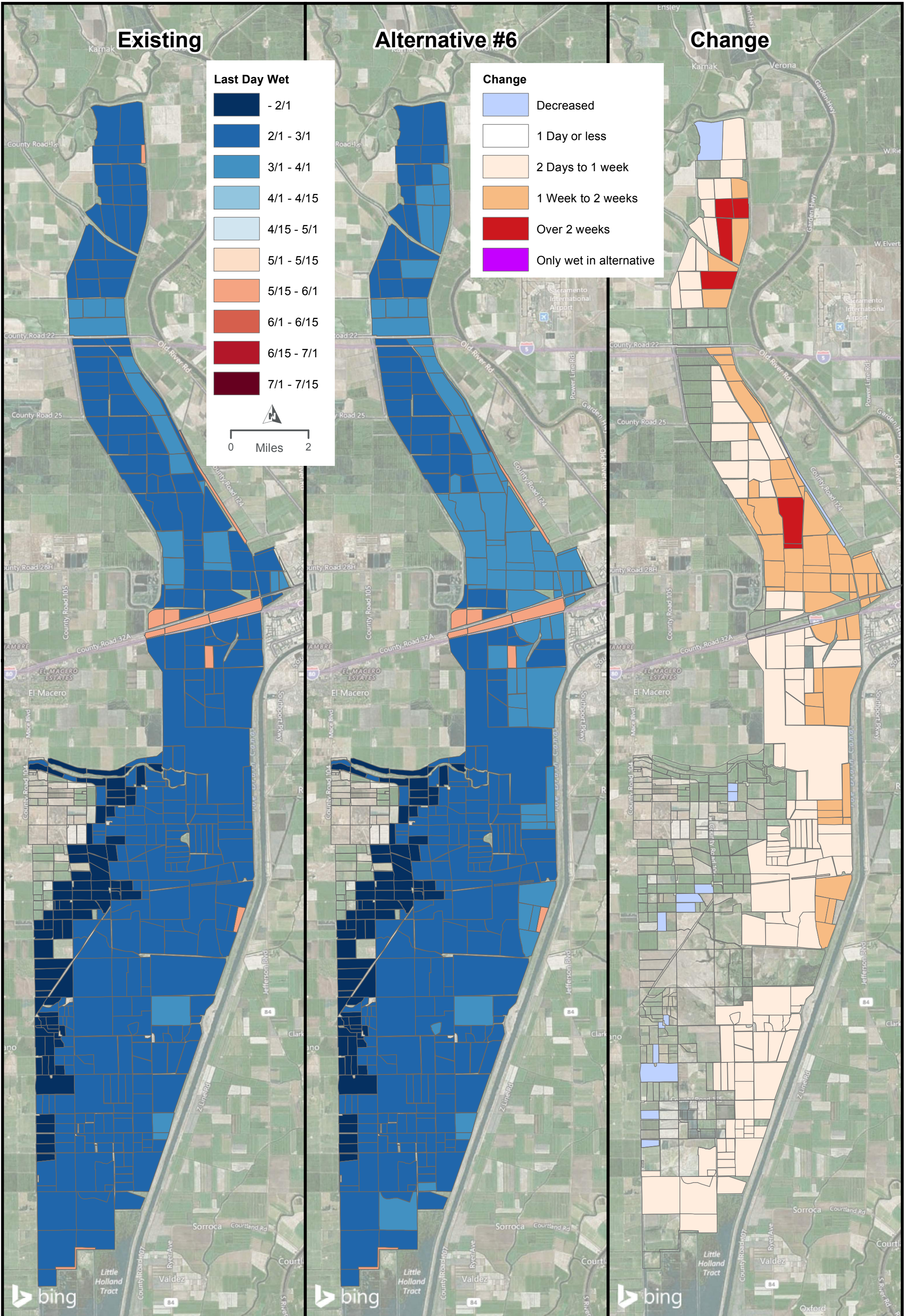
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2011
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 88



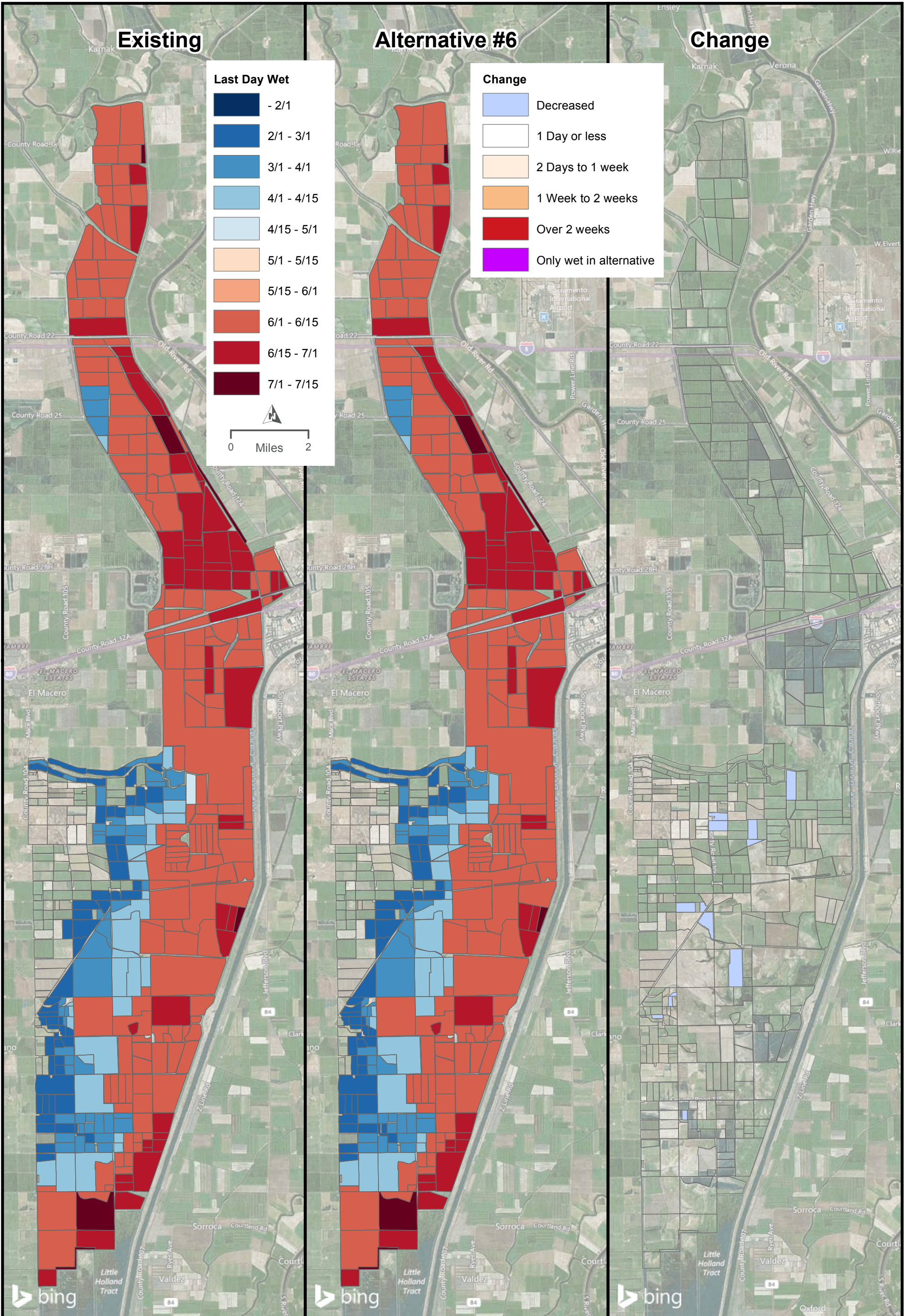
LAST DAY WET (LDW) FOR ALTERNATIVE #5 2012
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 89



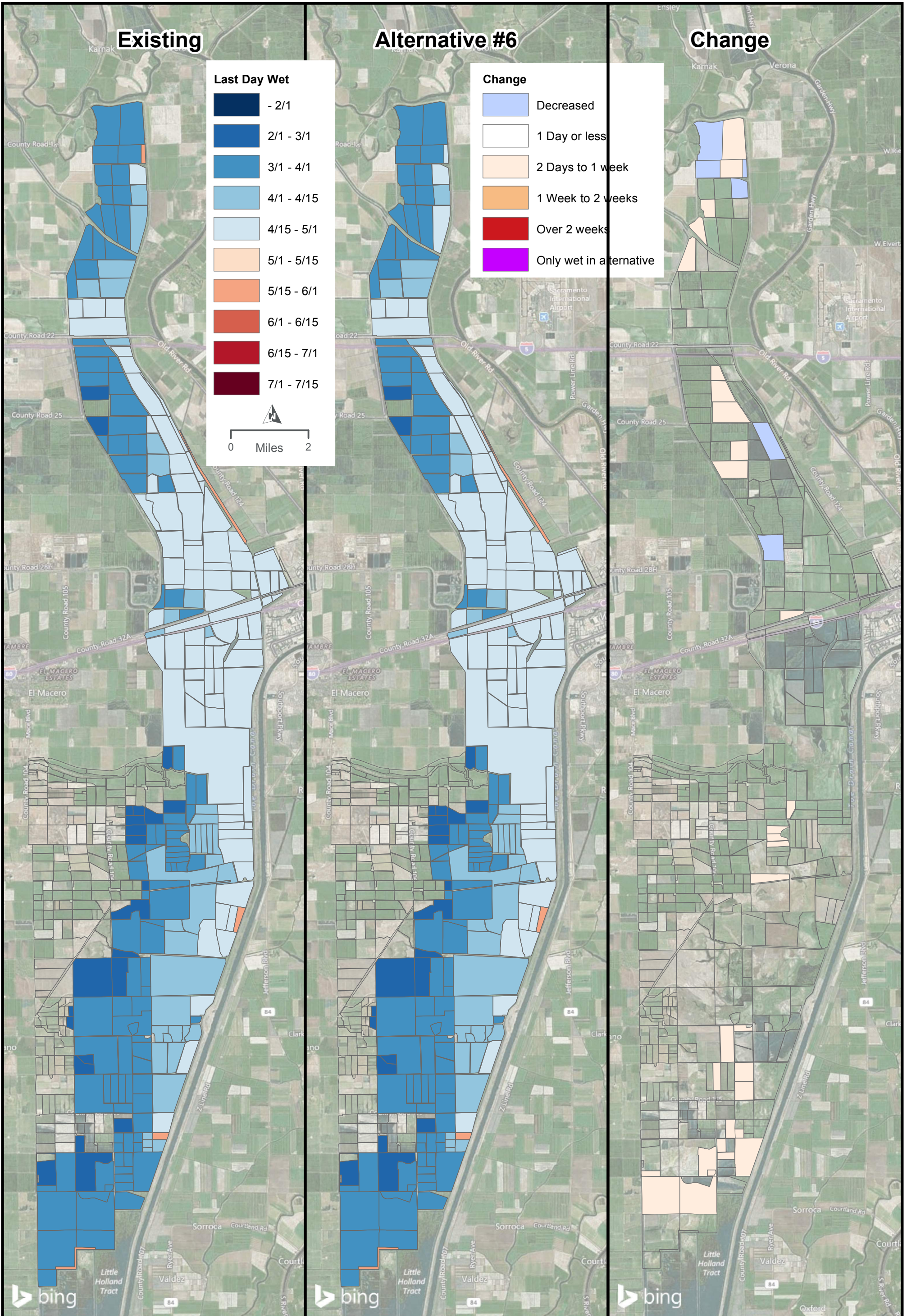
LAST DAY WET (LDW) FOR ALTERNATIVE #6 1997
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 90



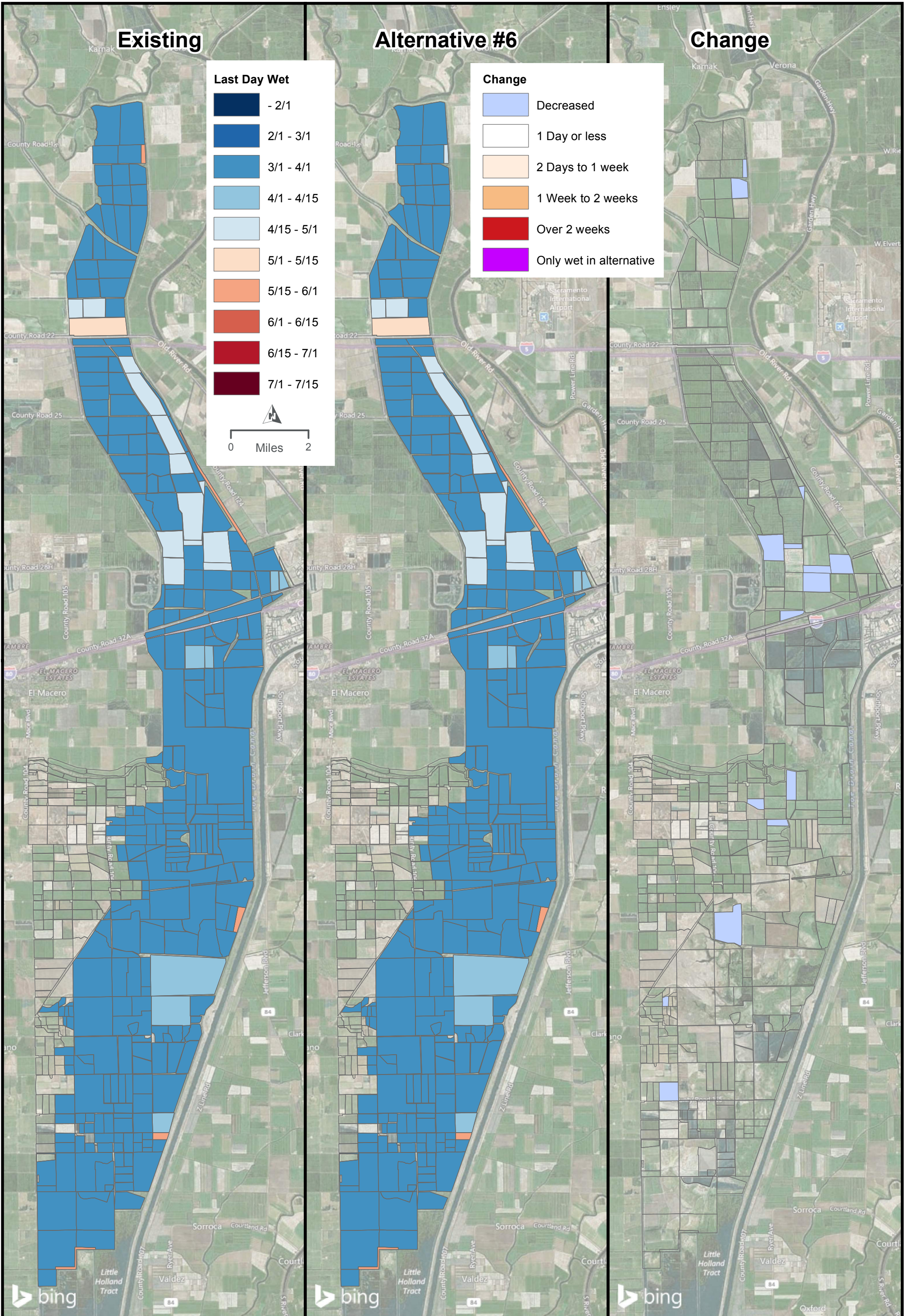
LAST DAY WET (LDW) FOR ALTERNATIVE #6 1998
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 91



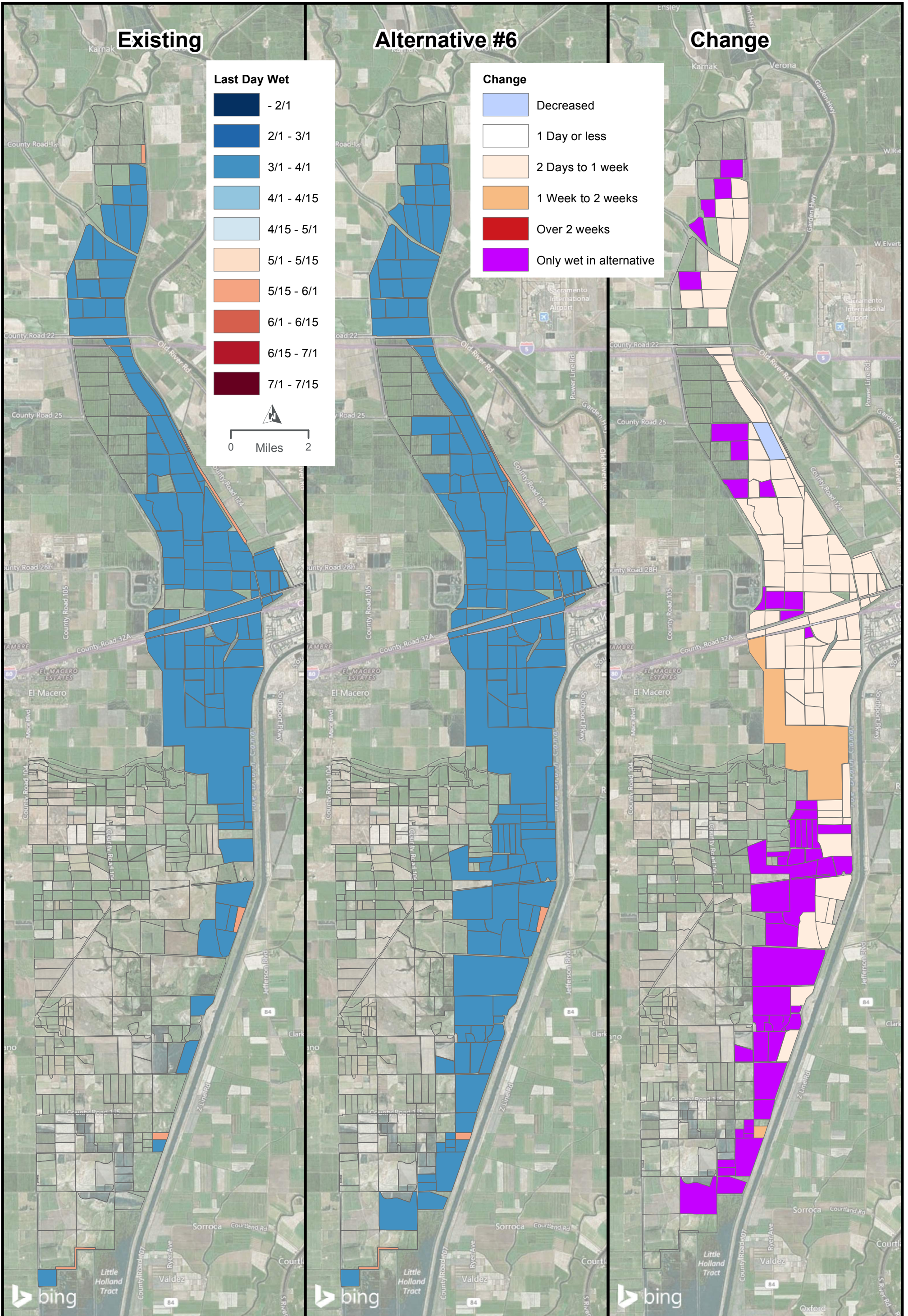
LAST DAY WET (LDW) FOR ALTERNATIVE #6 1999
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 92



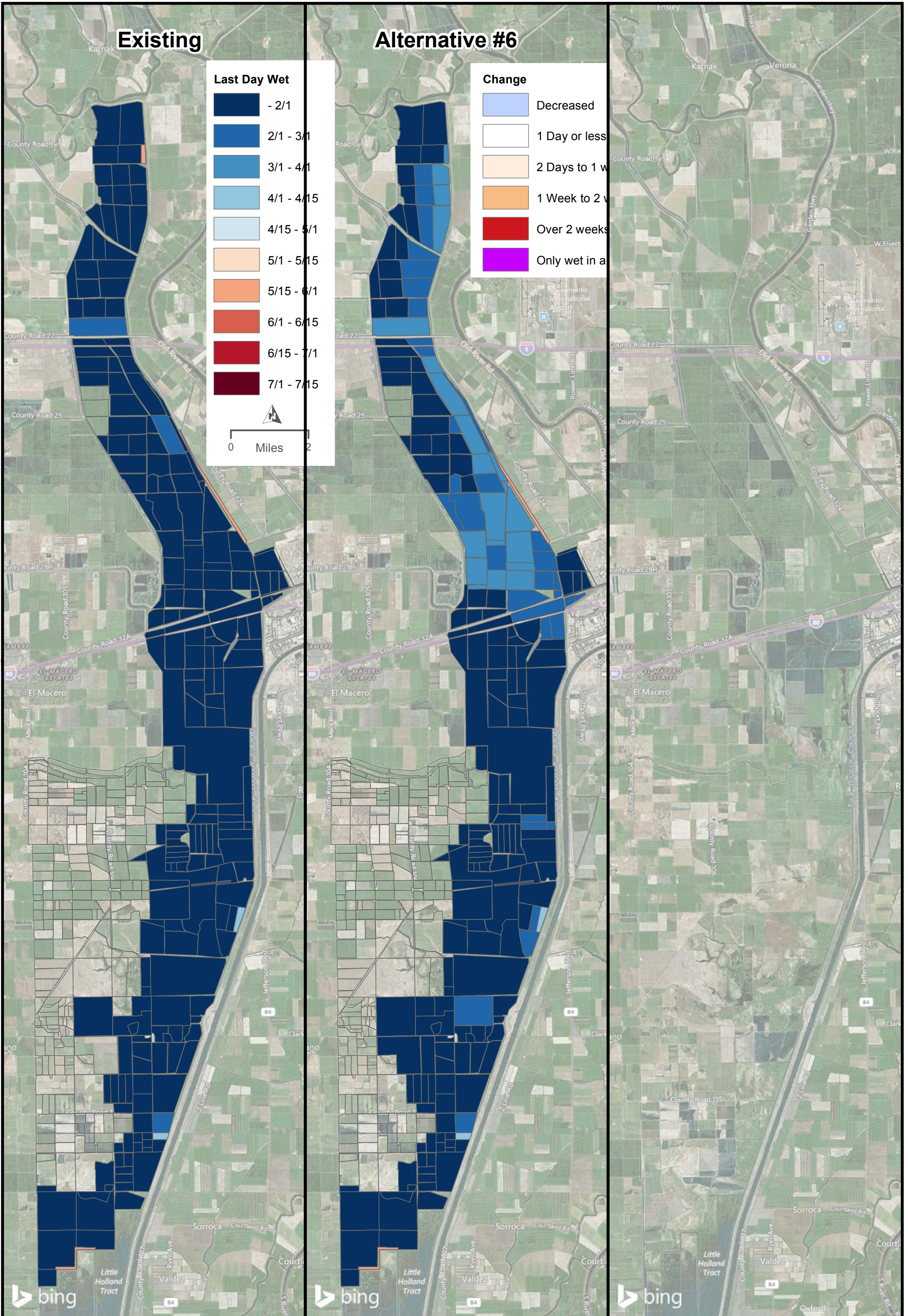
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2000
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 93



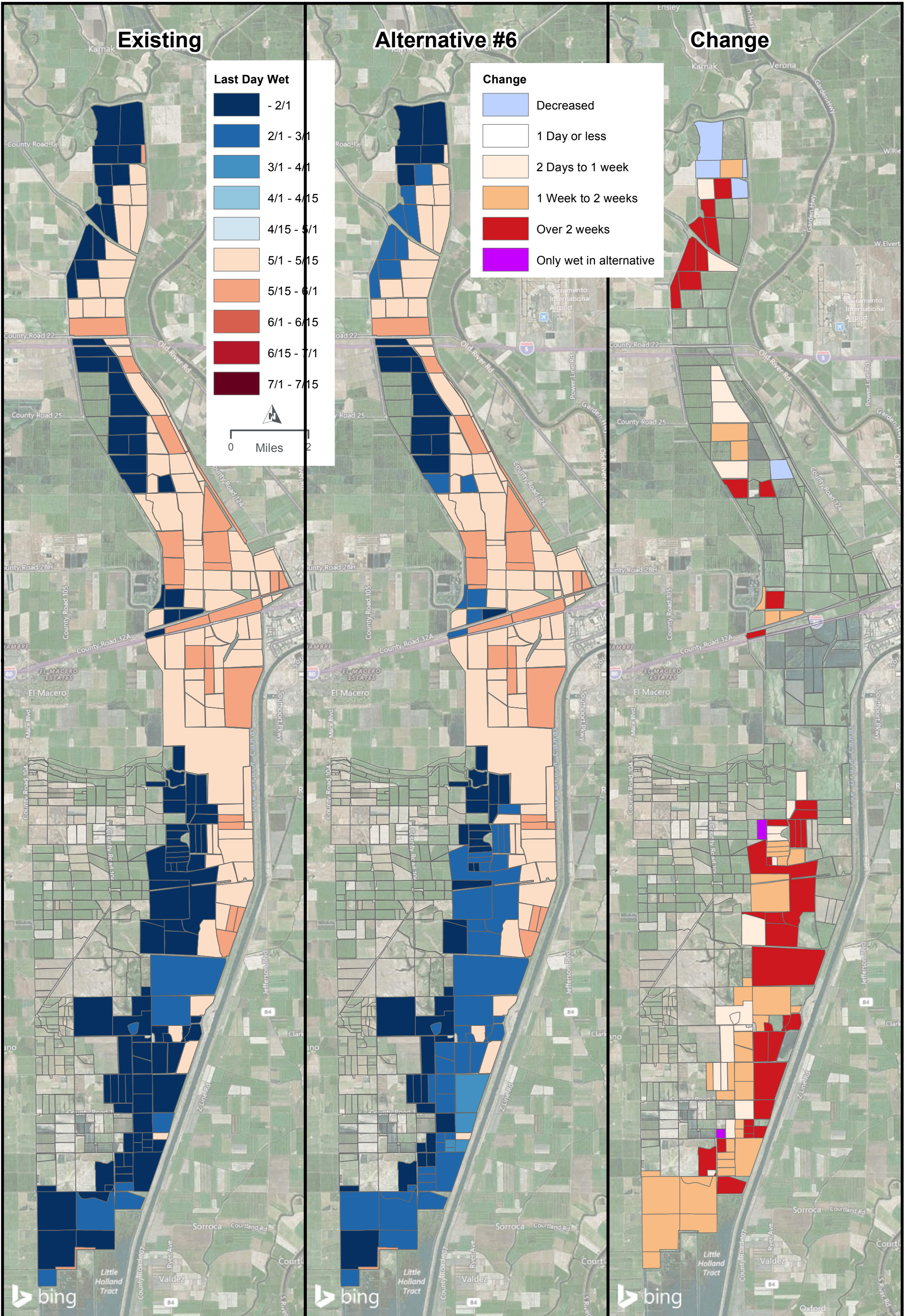
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2001
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 94



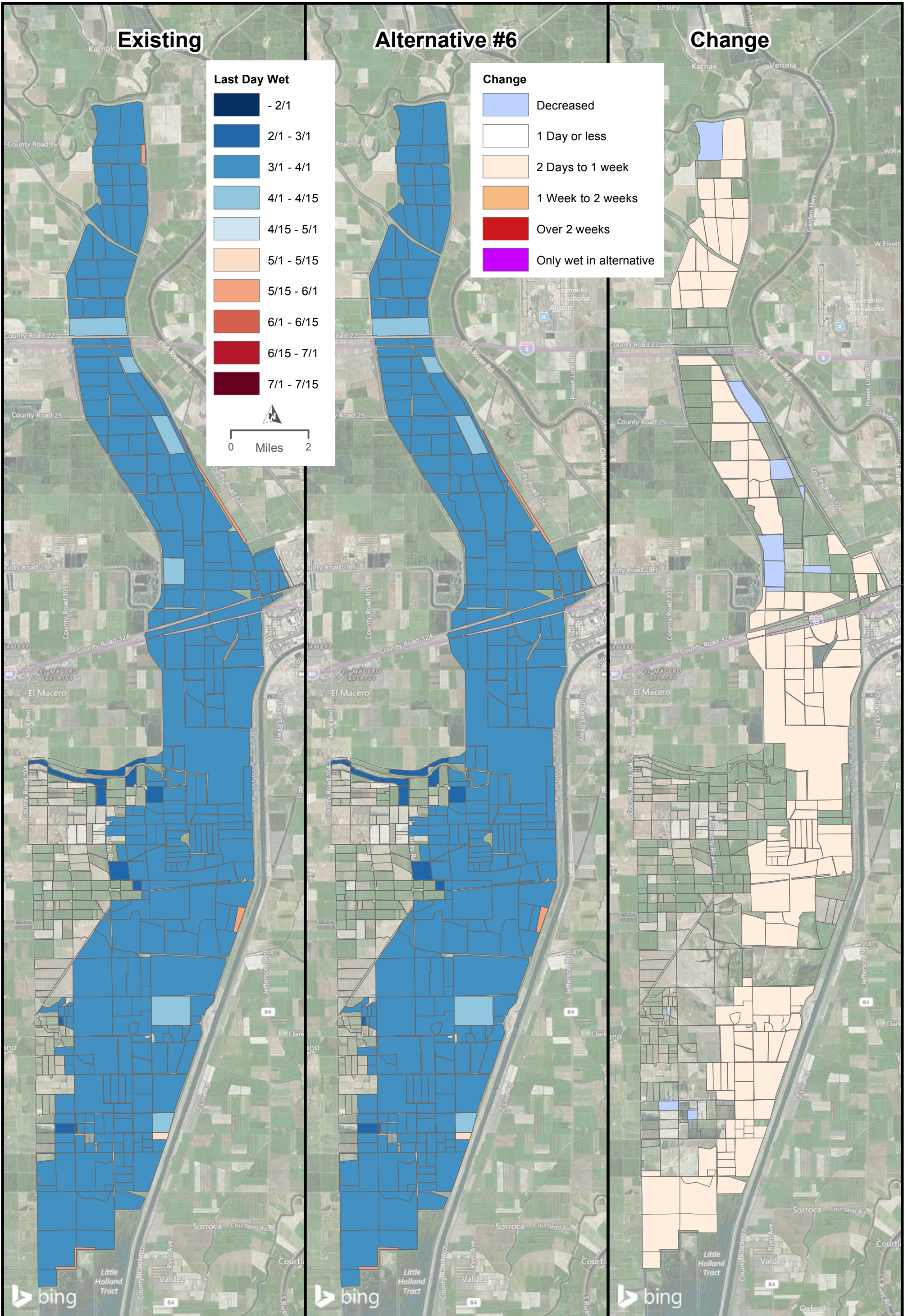
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2002
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 95



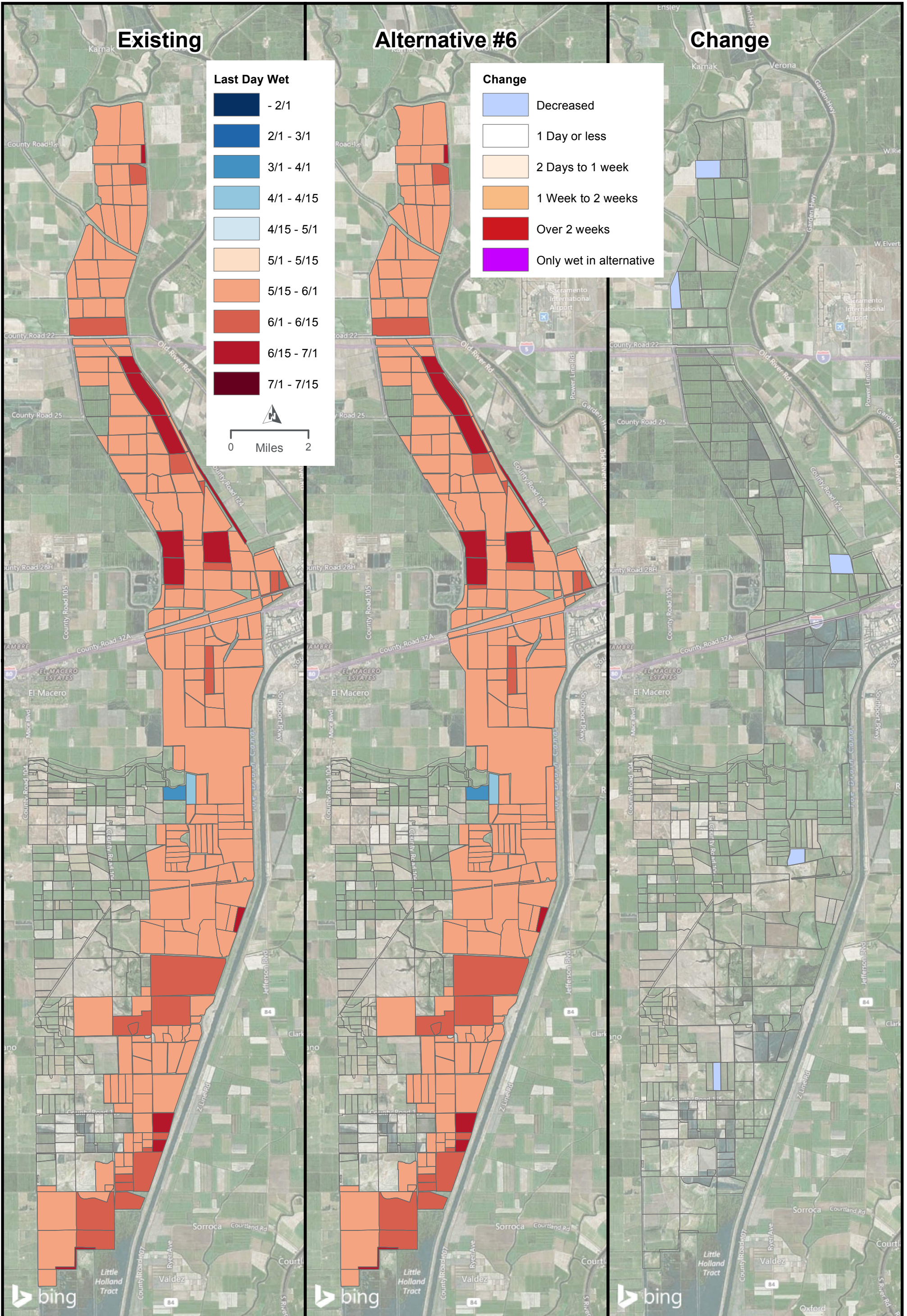
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2003
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 96



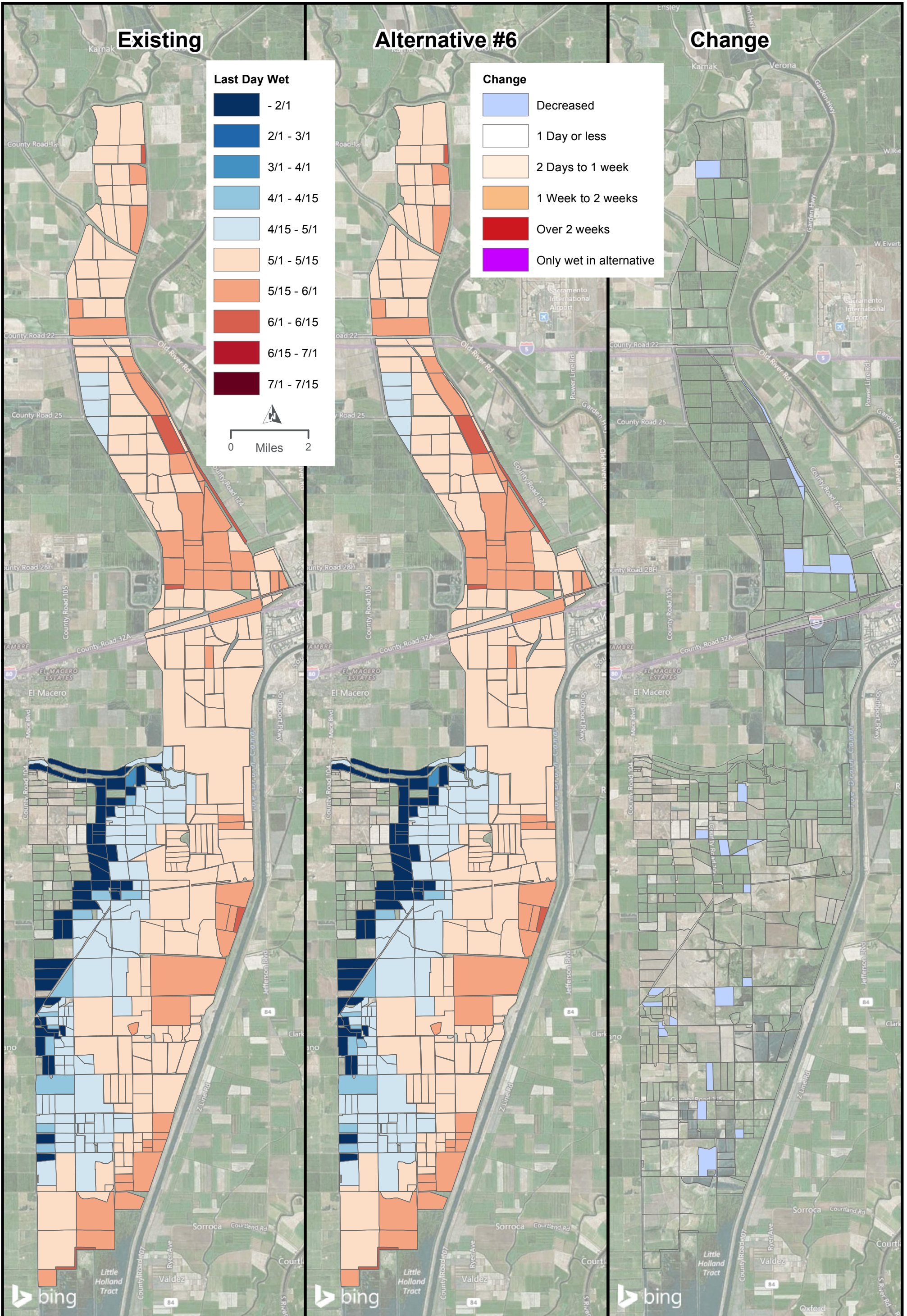
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2004
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 97



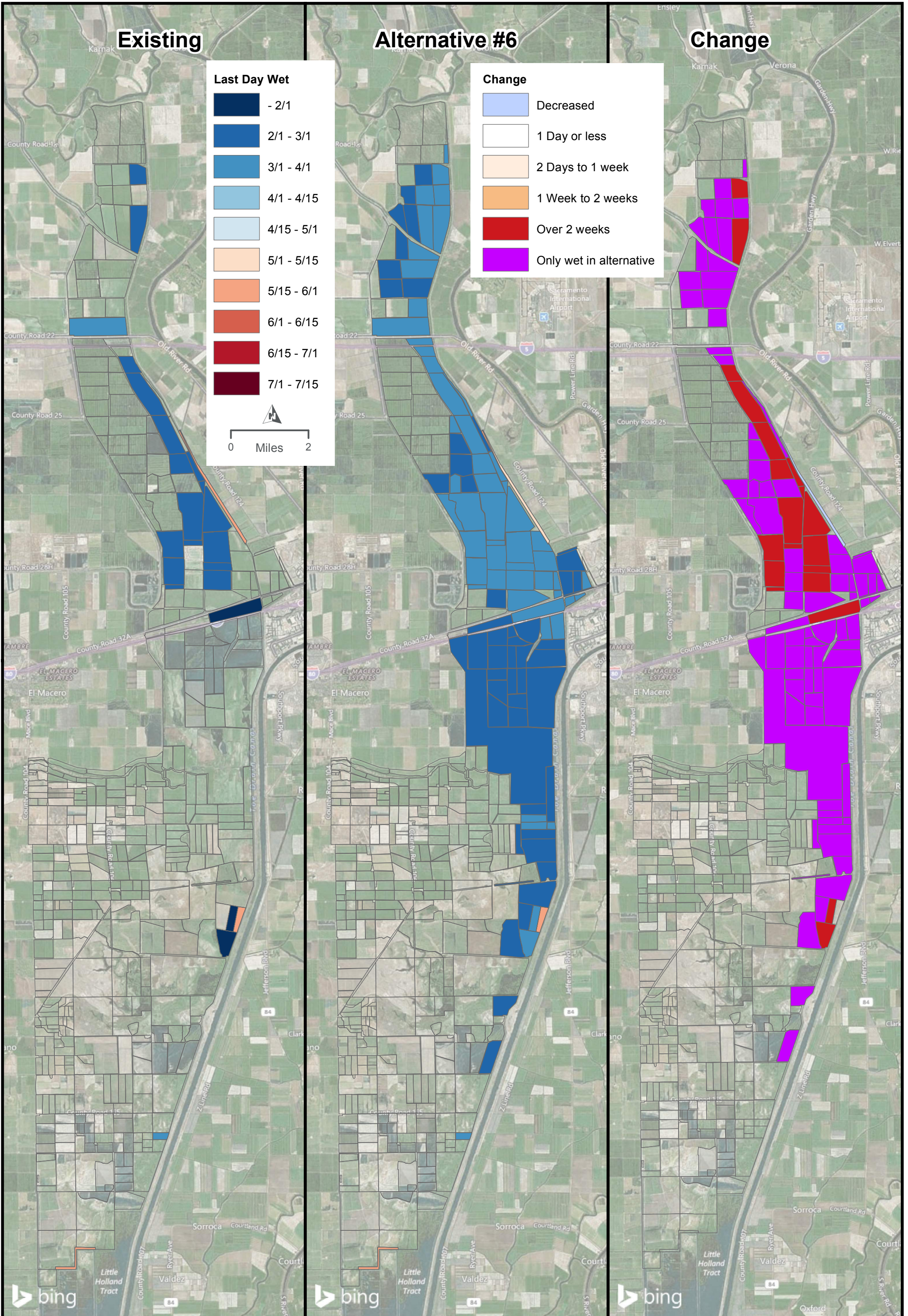
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2005
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 98



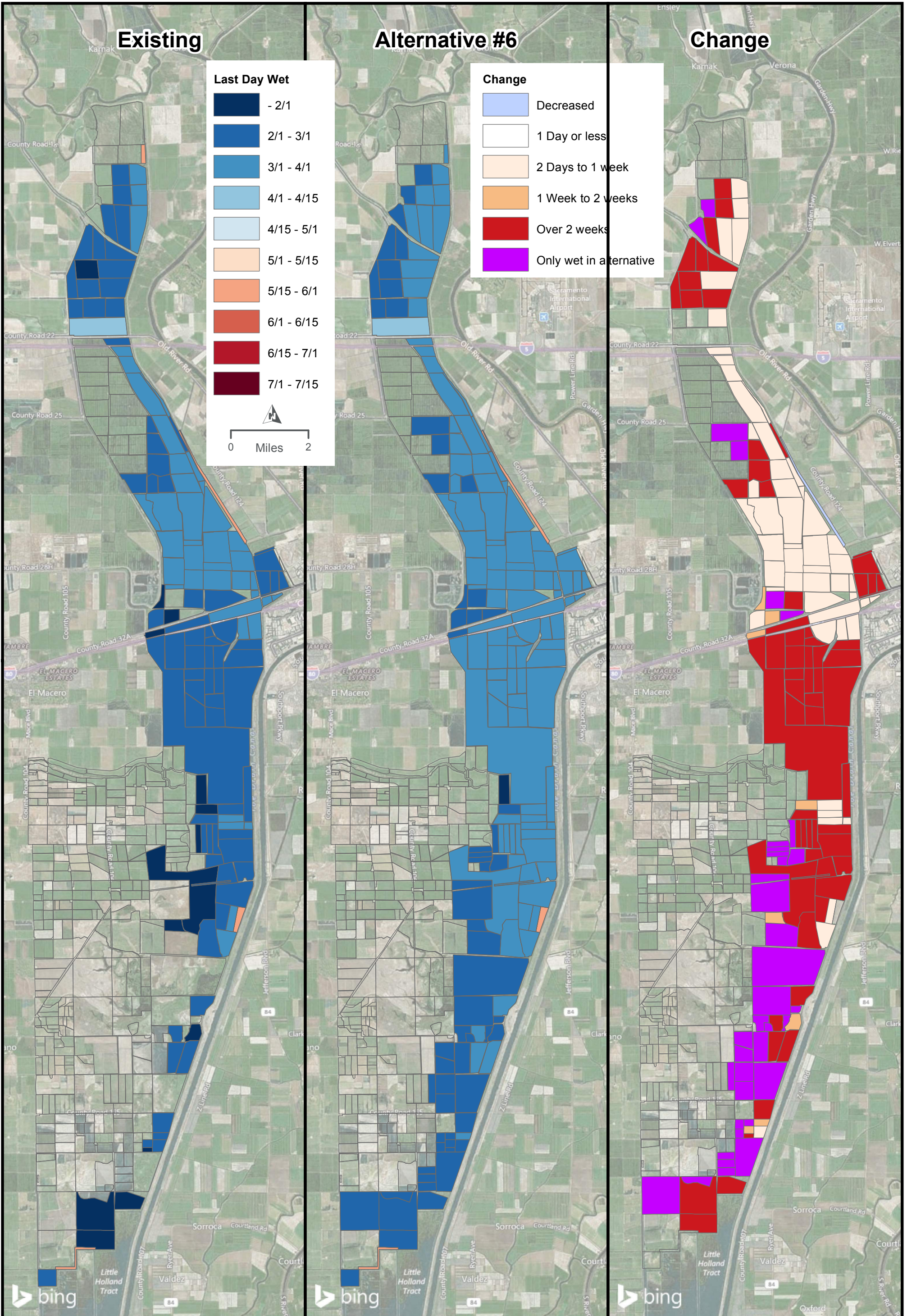
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2006
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 99



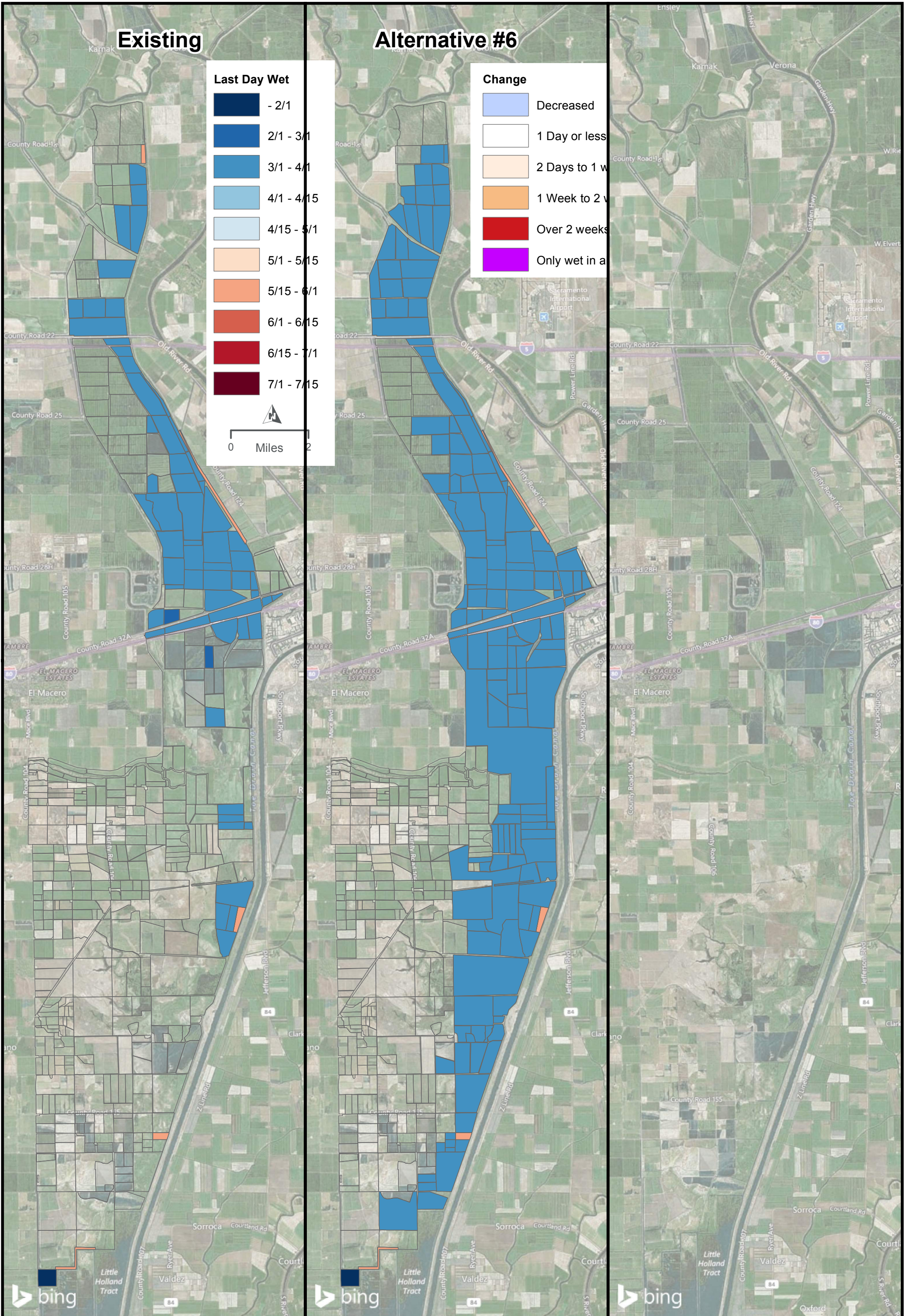
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2007
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 100



LAST DAY WET (LDW) FOR ALTERNATIVE #6 2008
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

FIGURE 101



Existing

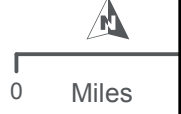
Alternative #6

Last Day Wet

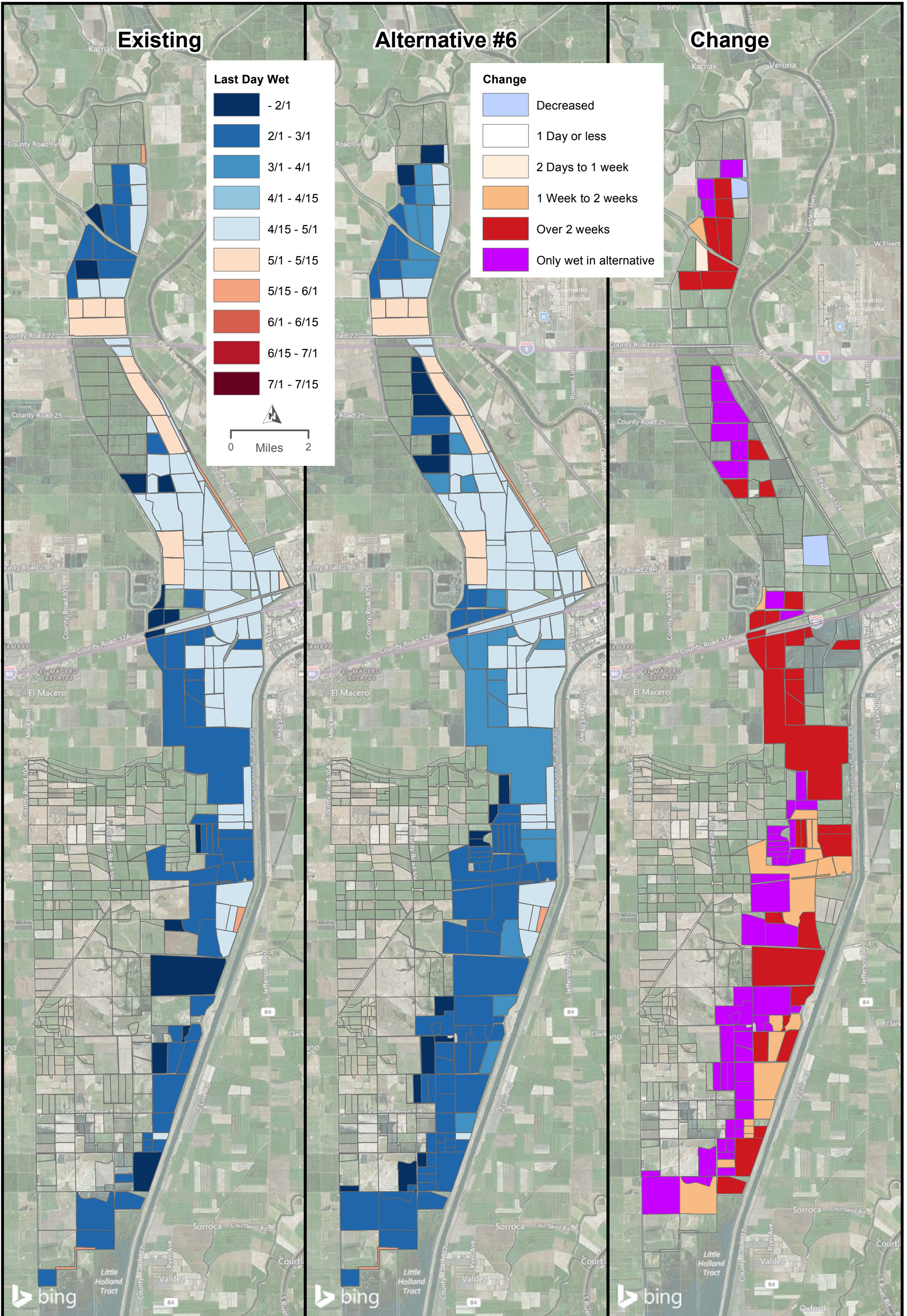
Dark Blue	- 2/1
Blue	2/1 - 3/1
Light Blue	3/1 - 4/1
Very Light Blue	4/1 - 4/15
Lightest Blue	4/15 - 5/1
Light Orange	5/1 - 5/15
Orange	5/15 - 6/1
Red-Orange	6/1 - 6/15
Red	6/15 - 7/1
Dark Red	7/1 - 7/15

Change

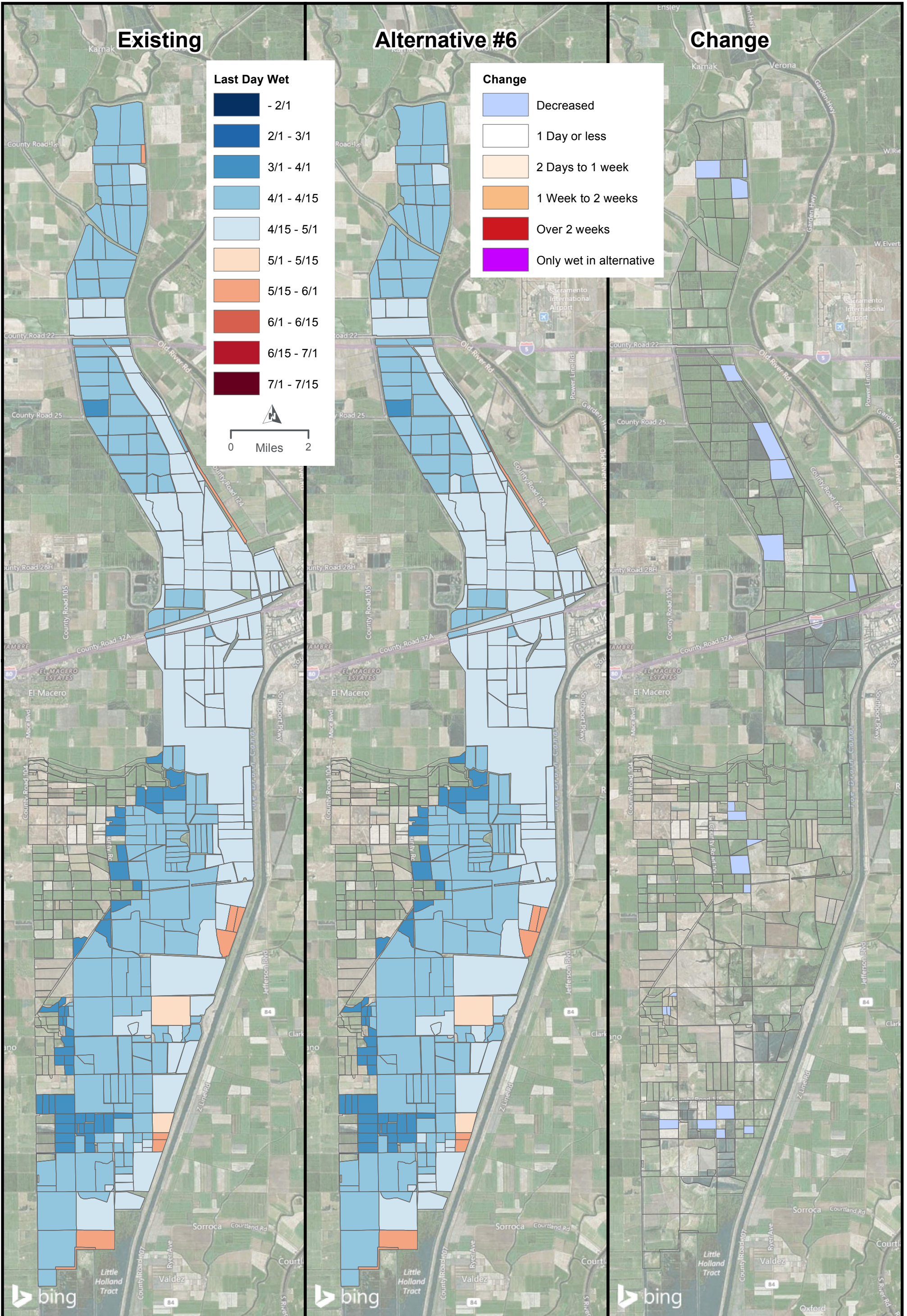
Light Blue	Decreased
White	1 Day or less
Light Orange	2 Days to 1 week
Orange	1 Week to 2 weeks
Red	Over 2 weeks
Purple	Only wet in a year



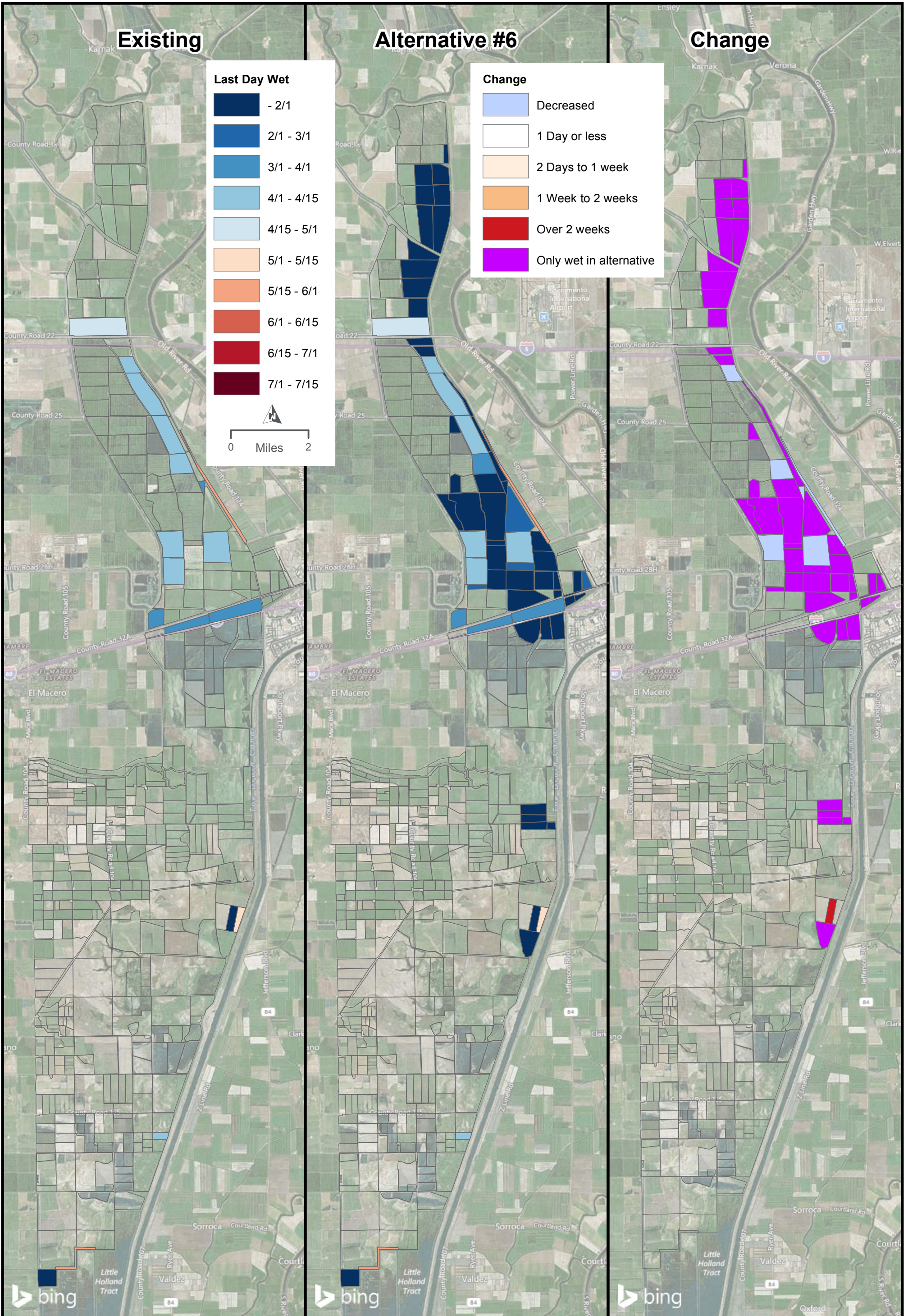
LAST DAY WET (LDW) FOR ALTERNATIVE #6 2009
EXISTING, ALTERNATIVE, AND COMPARISON VALUES
FIGURE 102



LAST DAY WET (LDW) FOR ALTERNATIVE #6 2010
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES
 FIGURE 103

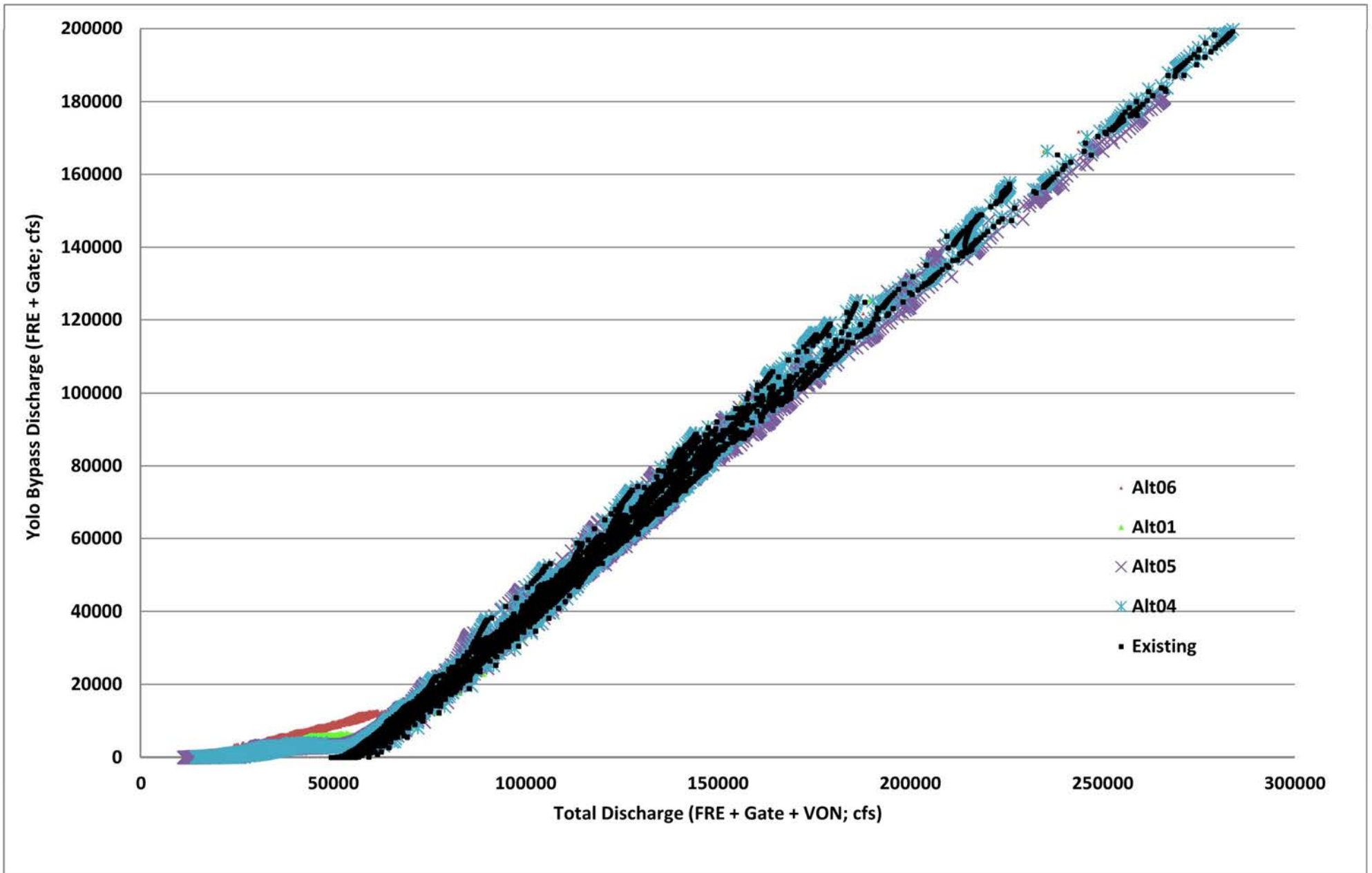


LAST DAY WET (LDW) FOR ALTERNATIVE #6 2011
 EXISTING, ALTERNATIVE, AND COMPARISON VALUES
 FIGURE 104



LAST DAY WET (LDW) FOR ALTERNATIVE #6 2012
EXISTING, ALTERNATIVE, AND COMPARISON VALUES

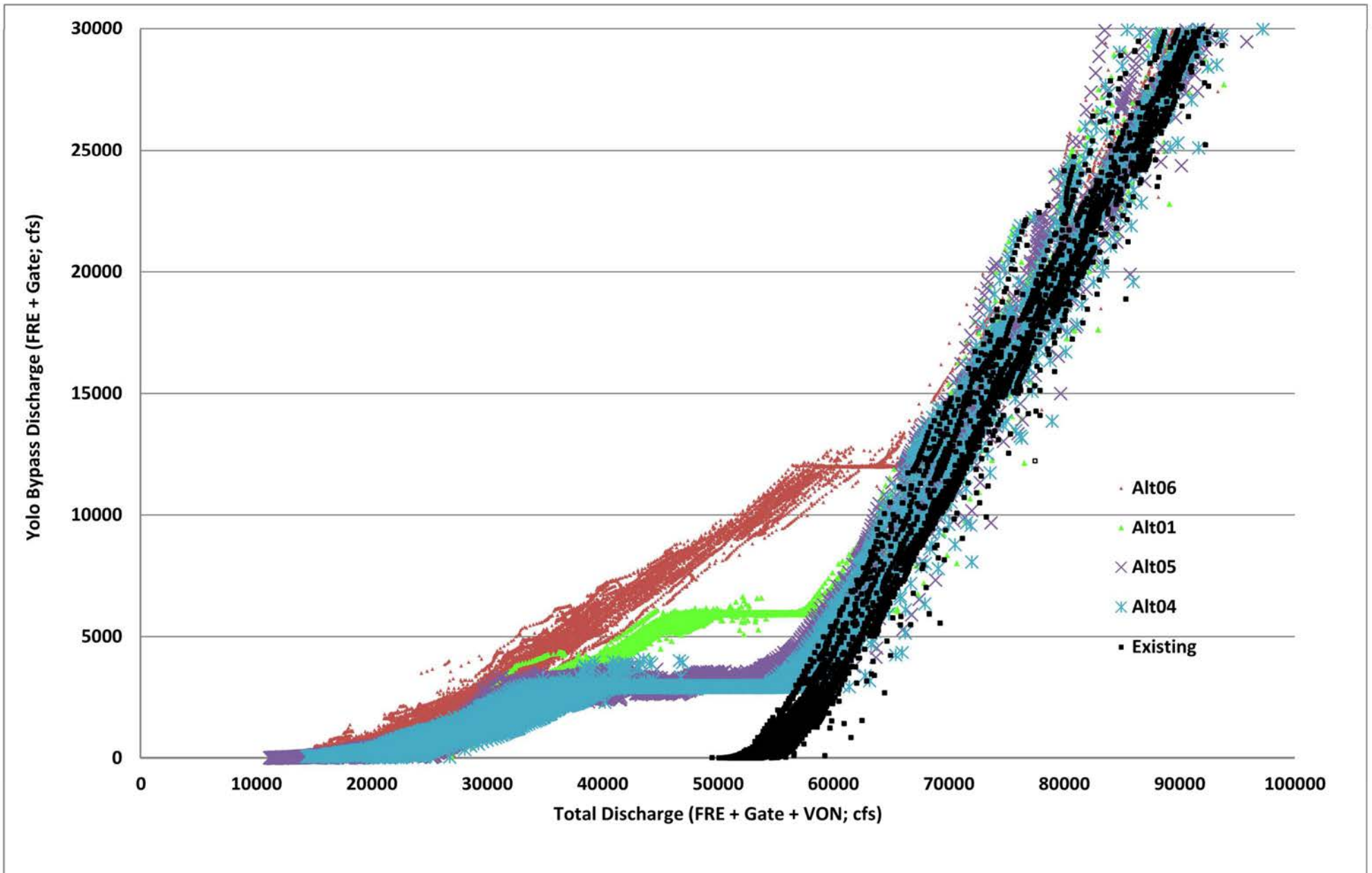
FIGURE 105



FREMONT RATING CURVES FOR CALSIM MODELERS
DISCHARGE INTO THE BYPASS VS DISCHARGE TOTAL

FIGURE 106

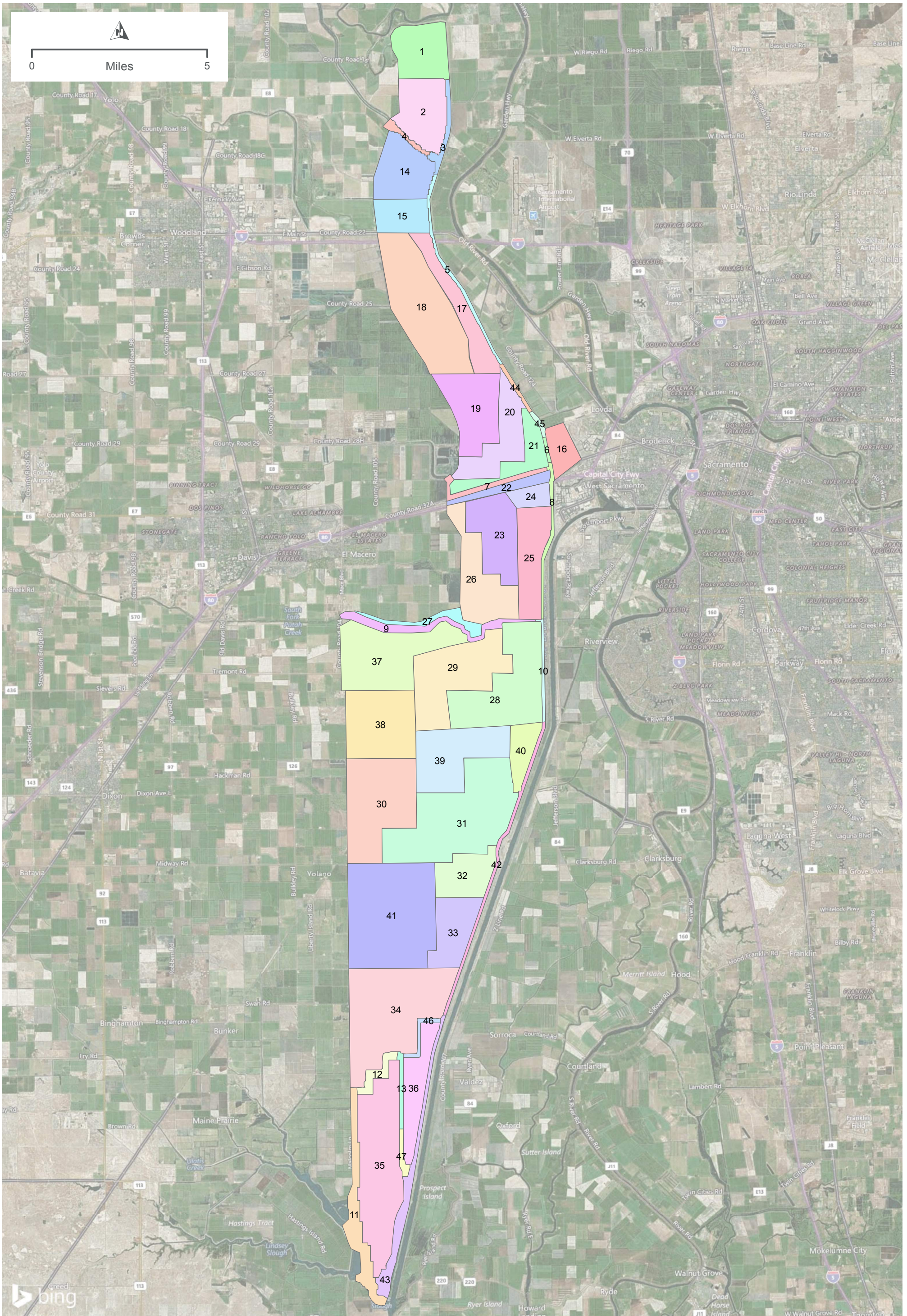




FREMONT RATING CURVES FOR CALSIM MODELERS (ZOOM)
DISCHARGE INTO THE BYPASS VS DISCHARGE TOTAL

FIGURE 107





MERCURY MODELING GRID

TUFLOW PROVIDES SPATIAL DATA FOR CELLS AND DISCHARGES BETWEEN CELLS

FIGURE 108



Appendix H6. Soils

The study area for all six alternatives includes 20 soils types (Figures H6.1 through H6.3). These soils were identified using United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS 2016) soil mapping data. Descriptions of these soil types are provided below and in Table H6.1. All of these soil types are listed as hydric soils (USDA NRCS 2015).

The soil series within the study area include:

- **Clear Lake soils, flooded** – This series consists of very deep, poorly drained clay soils formed in fine textured alluvium derived from sandstone and shale. They are found on 0 to 2 percent slopes in basins and swales of drainageways at an elevation of 25 to 2,000 feet above mean sea level (amsl). These neutral to moderately alkaline soils form large cracks when drying and have negligible to high runoff. They are typically used for growing row crops or irrigated and dry farmed pasture, or support native grasses and forbs. Within the study area, this series is found along the proposed engineered embankments improvements and the proposed water control structure and fish passage channel in the southern water control structure and along the proposed engineered embankment improvements in the northern water control structure for Alternative 4.
- **Holillipah loamy sand, channeled, 0 to 2 percent slopes** – This series consists of stratified, very deep and somewhat excessively drained soils that formed in alluvium from mixed sources. They are found on 0 to 2 percent slopes on floodplains and alluvial fans at an elevation of 20 to 150 feet amsl. These slightly acidic to neutral soils have very slow runoff and moderately rapid permeability, and are typically flooded unless protected by levees. They are used for irrigated orchards and row crops, and support native oaks and cottonwoods next to rivers. Within the study area, this series is found at the supplemental fish passage for Alternatives 1, 2, and 5, and along the western channel control line for Alternatives 3, 4, and 6 between the Sacramento River and the old river oxbow.
- **Lang sandy loam** – This series consists of very deep, poorly to somewhat poorly drained soils formed in material weathered from mixed rock sources. They are found on alluvial fans with slopes of less than 1 percent at an elevation of 15 to 30 feet amsl. These acidic soils have very slow surface runoff and rapid permeability, and are subject to frequent overflow where they are not protected by levees. They are used for cropland and support native oaks, cottonwoods, willows, and annual grasses and forbs. Within the study area, this series is found along the proposed engineered embankment improvements in the northern water control structure for Alternative 4.
- **Laugenour very fine sandy loam, deep, flooded** – This series consists of very deep, poorly drained soils formed in material derived from coarse, loamy sedimentary alluvium. They are found on 0 to 2 percent slopes on alluvial fans at an elevation of 10 to 300 feet amsl. These moderately alkaline soils have slow runoff and moderate permeability, and are subject to frequent flooding during the winter and spring where not protected by levees. They are used for cropland with intensive cultivation. Within the study area, this series is found along the proposed engineered embankment improvements in the northern water control structure for Alternative 4.

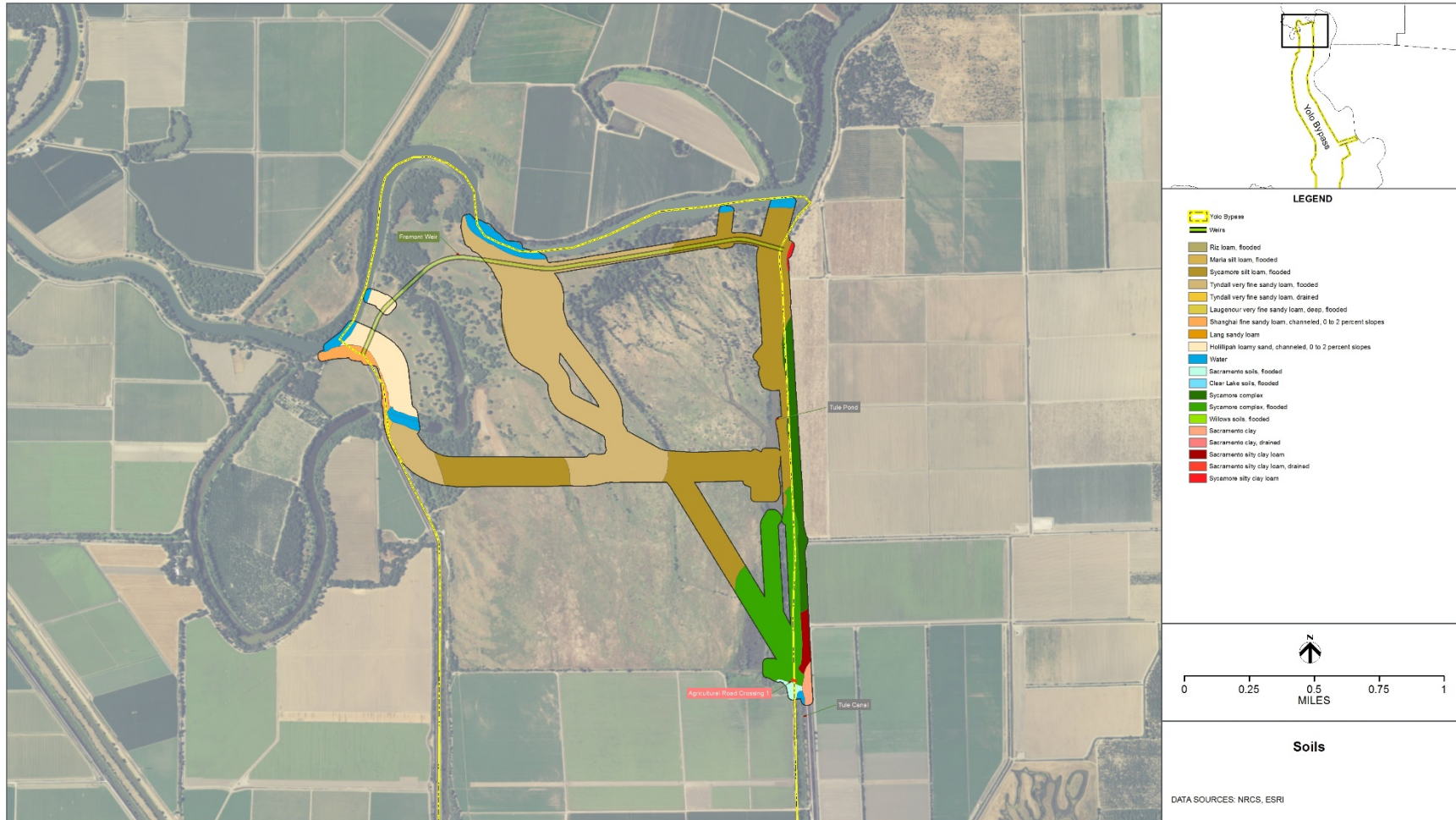


Figure H6-1. Soils in the Study Area



Figure H6-2. Soils in the Study Area

Appendix H6. Soils

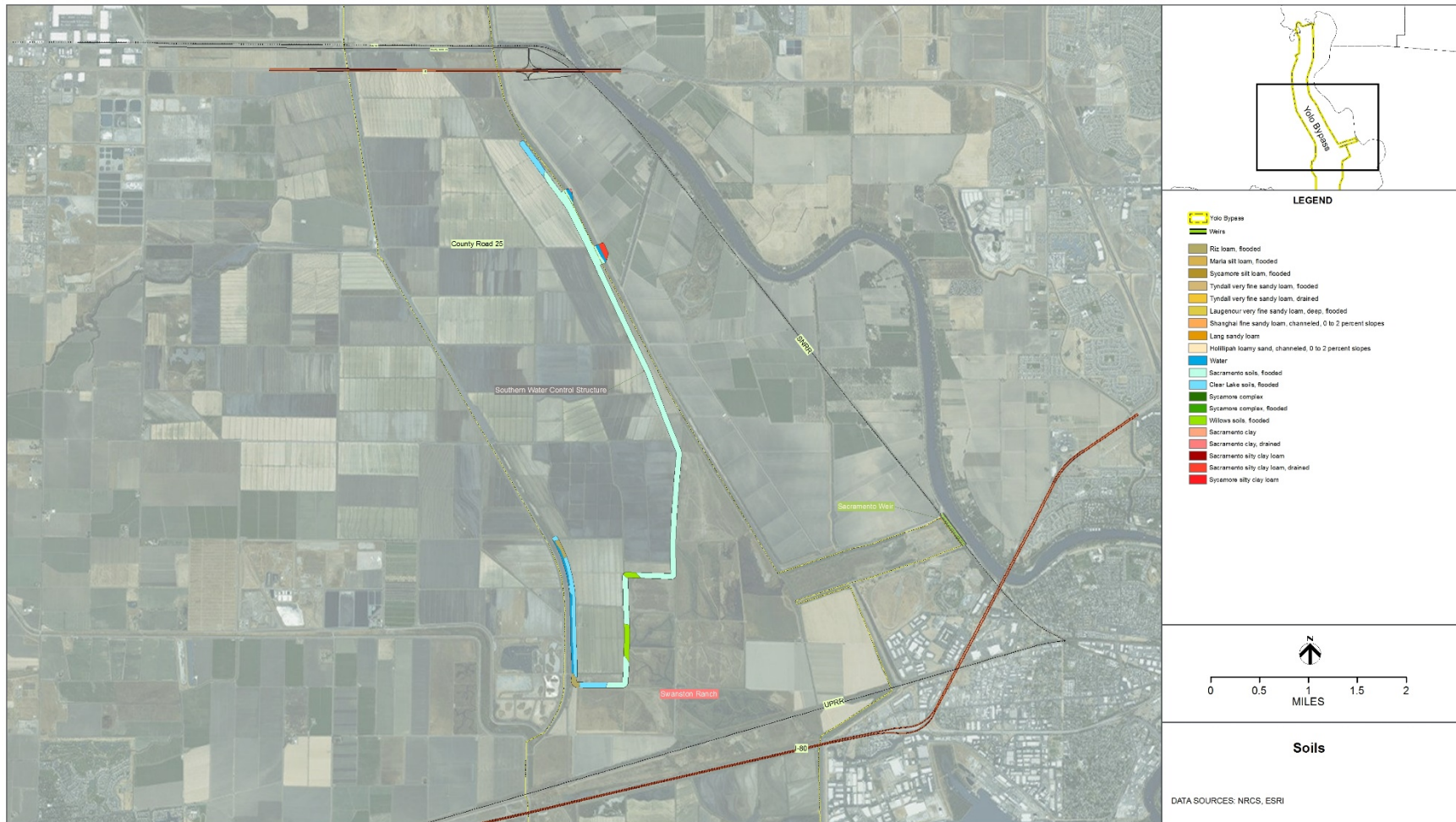


Figure H6-3. Soils in the Study Area

Table H6-1. Soil Series within the Study Area

Soil Series	Soil Unit	Hydric Soil (Criterion #) ^a	Alternative(s)
Clear Lake	Flooded	Yes (2, 3)	4 (northern and southern water control structures)
Holillipah	Loamy sand, channeled, 0 to 2 percent slopes	Yes (4)	All
Lang	Sandy loam	Yes (2)	4 (northern water control structure)
Laugenour	Very fine sandy loam, deep, flooded	Yes (2, 4)	4 (northern water control structure)
Maria	Silt loam, flooded	Yes (2, 4)	4 (northern water control structure)
Riz	Loam, flooded	Yes (2, 4)	4 (southern water control structure)
Sacramento	Clay	Yes (2, 3)	All
Sacramento	Clay, drained	Yes (2)	4 (southern water control structure)
Sacramento	Silty clay loam	Yes (2, 3)	All
Sacramento	Silty clay loam, drained	Yes (2)	4 (southern water control structure)
Sacramento soils	Flooded	Yes (2, 4)	All
Shanghai	Fine sandy loam, channeled, 0 to 2 percent slopes	Yes (4)	3, 4, 6
Sycamore complex	--	Yes (2)	All
Sycamore complex	Flooded	Yes (2, 4)	All
Sycamore	Silt loam, flooded	Yes (2, 4)	All
Sycamore	Silty clay loam	Yes (2)	1, 2
Tyndall	Very fine sandy loam, flooded	Yes (2, 4)	2, 3, 4, 5, 6
Tyndall	Very fine sandy loam, drained	Yes (2)	3, 4, 6
Water	--	--	All
Willows soils	Flooded	Yes (2, 4)	4 (southern water control structure)

Source: USDA NRCS 2015 List of Hydric Soils

^a Criteria:

1. All Histels except Folistels and Histosols except Folistis; or
2. Map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that:
 - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - b. Show evidence that the soil meets the definition of a hydric soil;
3. Map unit components that are frequently ponded for long duration or very long duration during the growing season that:
 - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - b. Show evidence that the soil meets the definition of a hydric soil; or
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
 - a. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
 - b. Show evidence that the soils meet the definition of a hydric soil.

- **Maria silt loam, flooded** – This series consists of poorly drained, fine-silty, mixed (calcareous) soils formed in sedimentary alluvium. They are found on nearly level alluvial fans at an elevation of 15 to 18 feet amsl. These moderately alkaline soils have very slow surface runoff and moderate to moderately slow permeability. They are used for intensive cultivation. Within the study area, this series is found along the proposed engineered embankment improvements in the northern water control structure for Alternative 4.
- **Riz loam, flooded** – This series consists of somewhat poorly to poorly drained soils formed in strongly calcareous, silty sediments. They are found on nearly level, lower edges of old alluvial fans that extend into alkali basins at an elevation of 10 to 400 feet amsl. These neutral to strongly alkaline soils have slow to very slow runoff and slow to very slow permeability. They are typically used for dry farmed grain and pasture, or for rice and irrigated pasture. Within the study area, this series is found along the proposed engineered embankments improvements in the southern water control structure for Alternative 4.
- **Sacramento clay** – This series consists of poorly to very poorly drained soils formed in fine textured alluvium of mixed origin. They are found in nearly level basins at an elevation of 0 to 60 feet amsl. These acidic to neutral soils have very slow to slow surface runoff, slow permeability, and are subject to frequent overflow where not protected by levees. They are used for row crops and orchards, and support native willows, cottonwoods, oaks, tules, grasses, and forbs. Within the study area, this series is found within the downstream channel control line common to all alternatives.
- **Sacramento clay, drained** – This series occurs in areas of Sacramento clays where drainage is improved where protected by levees. Within the study area, this series is found along the proposed water control structure and fish passage channel in the southern water control structure for Alternative 4.
- **Sacramento silty clay loam** – This series consists of poorly drained soils that occur on 0 to 2 percent slopes on basin floors and alluvial fans. Within the study area, this series is found within the downstream channel control line common to all alternatives.
- **Sacramento silty clay loam, drained** – This series occurs in areas of Sacramento clay loams where drainage is improved by the presence of levees. Within the study area, this series is found along the proposed water control structure and fish passage channel in the southern water control structure for Alternative 4.
- **Sacramento soils, flooded** – This series consists of poorly drained soils of the Sacramento series that occur on basin floors and alluvial fans and that are subject to frequent flooding. Within the study area, this series is found within the downstream channel control line common to all alternatives, and along the proposed engineered embankments improvements and the proposed water control structure and fish passage channel in the southern water control structure for Alternative 4.
- **Shanghai fine sandy loam, channeled, 0 to 2 percent slopes** – This series consists of very deep, somewhat poorly drained soils that formed in alluvium from mixed sources. They are found on 0 to 2 percent slopes in floodplains at an elevation of 20 to 150 feet amsl. These neutral soils have very slow runoff and moderate permeability, and are subject to flooding unless protected. They are used for irrigated orchards, grains, and row crops. Within the

study area, this series is found along the western channel control line for Alternatives 3, 4, and 6 between the Sacramento River and the old river oxbow.

- **Sycamore complex** – This series consists of fine-silty, poorly drained soils formed in mixed sedimentary alluvium. They are found on nearly level floodplains at an elevation of 10 to 100 feet amsl. These slightly acidic to moderately alkaline soils have slow to very slow surface runoff and moderate to moderately slow permeability. They are used for orchards and other crops, and support native oaks and annual grasses. Within the study area, this series is found along the eastern channel control line for Alternative 1 and within the downstream channel control line common to all alternatives.
- **Sycamore complex, flooded** – This series consists of somewhat poorly drained soils of the Sycamore complex that occur on alluvial fans and basin floors. These soils are subject to frequent flooding. Within the study area, this series is found within the floodplain for Alternative 5 and within the downstream channel control line common to all alternatives.
- **Sycamore silt loam, flooded** – This series consists of somewhat poorly drained silt loam soils that occur on alluvial fans in areas that are subject to frequent flooding. Within the study area, this series is found along the eastern channel control line for Alternative 1, along the central channel control line for Alternative 2, along the western channel control line and supplemental fish passage for Alternatives 3, 4, and 6, within the floodplain for Alternative 5, and within the downstream channel control line common to all alternatives.
- **Sycamore silty clay loam** – This series consists of somewhat poorly drained silty clay loam soils that occur on alluvial fans. Within the study area, this series is found along the eastern channel control line for Alternative 1 and along the eastern portion of the existing Fremont Weir control line for Alternative 2.
- **Tyndall very fine sandy loam, flooded** – This series consists of somewhat poorly to poorly drained, calcareous soils that formed in sedimentary alluvium low in clay. They are found on nearly level alluvial fans at an elevation below 70 feet amsl. These moderately to strongly alkaline soils have slow runoff and moderately rapid permeability. They are used for intensive row, field, and orchard crops. Within the study area, this series is found along the central channel control line for Alternative 2, along the western channel control line for Alternatives 3, 4, and 6, and within the floodplain for Alternative 5.
- **Tyndall very fine sandy loam, drained** – This series consists of somewhat poorly drained soils that are found on nearly level alluvial fans. Within the study area, this series is found along the western channel control line for Alternatives 3, 4, and 6 by the old river oxbow.
- **Water** – These areas are characterized by the presence of water. Within the study area, water is found associated with the Sacramento River, the old river oxbow, along the Tule Canal, and along the proposed engineered embankments improvements in the southern water control structure for Alternative 4.
- **Willows soils, flooded** – This series consists of very deep, poorly to very poorly drained, saline clay to silty clay soils that formed in fine-textured alluvium from mixed rock sources. They are found on 0 to 2 percent slopes in basins in intermountain valleys at an elevation of 20 to 1,700 feet amsl. These neutral to strongly alkaline soils form cracks upon drying have slow runoff and very slow permeability. They are used for growing rice and other crops, and

support native vegetation that is tolerant of saline soil conditions. Within the study area, this series is found along the proposed engineered embankments improvements in the southern water control structure for Alternative 4.

References

- U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS).
2015. List of Hydric Soils. Accessed electronically via
<https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/> on October 20, 2016
- _____. 2016. Soil Survey. Accessed electronically via
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Appendix I

Lisbon Weir Water Elevation Data

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RECLAMATION

Managing Water in the West

Yolo Bypass Salmonid Habitat and Fish Restoration Project

Lisbon Weir Water Elevation Data

Table I-1. Summary of days the Lisbon Weir elevation exceeds 12 feet (indicating the Yolo Bypass Wildlife Area would be closed) under Existing Conditions and each action alternative, including difference in days from Existing Conditions

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
1997	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	9	10	9	9	17	1	0	0	8
	Jan	31	31	31	31	31	0	0	0	0
	Feb	15	19	17	18	20	4	2	3	5
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	55	60	57	58	68	5	2	3	13
	1998	Oct	0	0	0	0	0	0	0	0
Nov		0	0	0	0	0	0	0	0	0
Dec		0	0	0	0	0	0	0	0	0
Jan		14	15	15	15	15	1	1	1	1
Feb		28	28	28	28	28	0	0	0	0
Mar		22	24	24	24	24	2	2	2	2
Apr		13	13	13	13	13	0	0	0	0
May		0	0	0	0	0	0	0	0	0
Total		77	80	80	80	80	3	3	3	3

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
1999	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	12	0	0	0	12
	Jan	0	0	0	0	5	0	0	0	5
	Feb	18	18	18	18	18	0	0	0	0
	Mar	16	16	16	16	17	0	0	0	1
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	34	34	34	34	52	0	0	0	18
2000	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	14	14	14	14	15	0	0	0	1
	Mar	19	19	19	19	19	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	33	33	33	33	34	0	0	0	1
2001	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	0	0	0	0	2	0	0	0	2
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	2	0	0	0	2
2002	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	7	12	11	12	14	5	4	5	7
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	7	12	11	12	14	5	4	5	7
2003	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	8	7	7	10	7	6	6	9
	Jan	8	22	11	12	28	14	3	4	20
	Feb	0	0	0	0	3	0	0	0	3
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	9	30	18	19	41	21	9	10	32

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2004	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	1	0	0	0	1
	Jan	0	14	9	8	16	14	9	8	16
	Feb	10	10	10	10	10	0	0	0	0
	Mar	14	16	15	15	16	2	1	1	2
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	24	40	34	33	43	16	10	9	19
2005	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	4	0	0	14	4	0	0	14
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	4	4	4	4	4	0	0	0	0
	Total	4	8	4	4	18	4	0	0	14
2006	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	4	4	4	4	5	0	0	0	1
	Jan	24	29	26	27	31	5	2	3	7
	Feb	6	11	7	7	17	5	1	1	11

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	29	30	30	29	30	1	1	0	1
	Apr	30	30	30	30	30	0	0	0	0
	May	7	7	7	7	7	0	0	0	0
	Total	100	111	104	104	120	11	4	4	20
2007	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
2008	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	2	0	0	0	2
	Feb	0	2	0	0	8	2	0	0	8
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	2	0	0	10	2	0	0	10

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2009	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	2	0	0	0	2
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	2	0	0	0	2
2010	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	7	2	4	8	7	2	4	8
	Feb	0	3	0	0	3	3	0	0	3
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	10	2	4	11	10	2	4	11
2011	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	5	3	3	10	4	2	2	9
	Jan	0	3	0	0	9	3	0	0	9
	Feb	0	0	0	0	0	0	0	0	0

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	12	12	12	12	12	0	0	0	0
	Apr	12	12	12	12	12	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	25	32	27	27	43	7	2	2	18
2012	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Total	Oct	0	0	0	0	0	0	0	0	0
(All 16	Nov	0	0	0	0	0	0	0	0	0
Years)	Dec	15	27	23	23	55	12	8	8	40
	Jan	84	137	105	109	173	53	21	25	89
	Feb	91	105	94	95	122	14	3	4	31
	Mar	112	117	116	115	122	5	4	3	10
	Apr	55	55	55	55	55	0	0	0	0
	May	11	11	11	11	11	0	0	0	0
	Total	368	452	404	408	538	84	36	40	170

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
Average	Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(1997-2012)	Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dec	0.9	1.7	1.4	1.4	3.4	0.7	0.5	0.5	2.5
	Jan	5.3	8.6	6.6	6.8	10.8	3.3	1.3	1.6	5.6
	Feb	5.7	6.6	5.9	5.9	7.6	0.9	0.2	0.3	1.9
	Mar	7.0	7.3	7.3	7.2	7.6	0.3	0.3	0.2	0.6
	Apr	3.4	3.4	3.4	3.4	3.4	0.0	0.0	0.0	0.0
	May	0.7	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0
	Total	23.0	28.2	25.3	25.5	33.6	5.2	2.3	2.5	10.6
Minimum	Oct	0	0	0	0	0	0	0	0	0
(1997-2012)	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Maximum	Oct	0	0	0	0	0	0	0	0	0
(1997-2012)	Nov	0	0	0	0	0	0	0	0	0
	Dec	9	10	9	9	17	1	0	0	8
	Jan	31	31	31	31	31	0	0	0	0
	Feb	28	28	28	28	28	0	0	0	0

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	29	30	30	29	30	1	1	0	1
	Apr	30	30	30	30	30	0	0	0	0
	May	7	7	7	7	7	0	0	0	0
	Total	100	111	104	104	120	11	4	4	20

Table I-2. Summary of days the Lisbon Weir elevation is between 10 and 12 feet (indicating CDFW’s Yolo Bypass Wildlife Area would be partially closed) under Existing Conditions and each action alternative, including difference in days from Existing Conditions

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
1997	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	2	7	4	8	1	5	2	6	-1
	Jan	0	0	0	0	0	0	0	0	0
	Feb	5	5	6	6	5	0	1	1	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	7	12	10	14	6	5	3	7	-1
1998	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	1	1	0	0	2	0	-1	-1	1
	Feb	0	0	0	0	0	0	0	0	0
	Mar	9	7	7	7	7	-2	-2	-2	-2
	Apr	6	6	7	9	6	0	1	3	0
	May	0	0	0	0	0	0	0	0	0
	Total	16	14	14	16	15	-2	-2	0	-1
1999	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	17	0	5	8	17	0	5	8
	Jan	0	6	0	0	2	6	0	0	2

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Feb	0	3	0	0	6	3	0	0	6
	Mar	12	12	12	12	11	0	0	0	-1
	Apr	5	5	5	5	5	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	17	43	17	22	32	26	0	5	15
2000	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	3	0	0	0	3
	Feb	0	6	1	1	14	6	1	1	14
	Mar	4	4	4	4	4	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	4	10	5	5	21	6	1	1	17
2001	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	2	0	0	0	2
	Mar	0	9	8	9	11	9	8	9	11
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	9	8	9	13	9	8	9	13

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2002	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	8	0	0	0	8
	Jan	8	7	7	7	5	-1	-1	-1	-3
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	8	7	7	7	13	-1	-1	-1	5
2003	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	9	7	7	8	5	-2	-2	-1	-4
	Jan	9	9	20	19	3	0	11	10	-6
	Feb	0	12	4	10	14	12	4	10	14
	Mar	0	0	0	0	1	0	0	0	1
	Apr	0	0	0	0	0	0	0	0	0
	May	7	7	7	8	7	0	0	1	0
	Total	25	35	38	45	30	10	13	20	5
2004	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	3	3	3	3	3	3	3	3
	Jan	14	5	9	11	4	-9	-5	-3	-10
	Feb	0	1	1	1	3	1	1	1	3

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	3	3	4	4	3	0	1	1	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	17	12	17	19	13	-5	0	2	-4
2005	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	14	16	20	20	7	2	6	6	-7
	Feb	0	0	0	0	5	0	0	0	5
	Mar	5	5	5	5	5	0	0	0	0
	Apr	5	5	5	5	5	0	0	0	0
	May	3	3	3	3	3	0	0	0	0
	Total	27	29	33	33	25	2	6	6	-2
2006	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	2	1	1	2	2	1	1	2
	Jan	7	2	5	4	0	-5	-2	-3	-7
	Feb	4	9	12	13	5	5	8	9	1
	Mar	1	0	1	1	1	-1	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	3	3	3	3	3	0	0	0	0
	Total	15	16	22	22	11	1	7	7	-4

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2007	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	2	0	0	0	2
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	2	0	0	0	2
2008	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	4	4	4	4	2	0	0	0	-2
	Feb	8	9	11	11	5	1	3	3	-3
	Mar	0	0	0	0	3	0	0	0	3
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	12	13	15	15	10	1	3	3	-2
2009	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	1	0	0	6	1	0	0	6

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	0	10	4	5	10	10	4	5	10
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	11	4	5	16	11	4	5	16
2010	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	5	2	7	5	1	-3	2	0	-4
	Feb	4	13	15	16	14	9	11	12	10
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	9	15	22	21	15	6	13	12	6
2011	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	6	6	6	6	2	0	0	0	-4
	Jan	2	9	11	12	5	7	9	10	3
	Feb	0	0	0	0	0	0	0	0	0
	Mar	1	1	1	1	1	0	0	0	0
	Apr	3	3	4	4	3	0	1	1	0
	May	0	0	0	0	0	0	0	0	0
	Total	12	19	22	23	11	7	10	11	-1

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2012	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Total (All 16 Years)	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	17	42	21	31	29	25	4	14	12
	Jan	64	61	83	82	34	-3	19	18	-30
	Feb	21	59	50	58	81	38	29	37	60
	Mar	35	51	46	48	57	16	11	13	22
	Apr	19	19	21	23	19	0	2	4	0
	May	13	13	13	14	13	0	0	1	0
	Total	169	245	234	256	233	76	65	87	64
Average (1997-2012)	Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dec	1.1	2.6	1.3	1.9	1.8	1.6	0.3	0.9	0.7
	Jan	4.0	3.8	5.2	5.1	2.1	-0.2	1.2	1.1	-1.9
	Feb	1.3	3.7	3.1	3.6	5.1	2.4	1.8	2.3	3.8

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	2.2	3.2	2.9	3.0	3.6	1.0	0.7	0.8	1.4
	Apr	1.2	1.2	1.3	1.4	1.2	0.0	0.1	0.3	0.0
	May	0.8	0.8	0.8	0.9	0.8	0.0	0.0	0.1	0.0
	Total	10.6	15.3	14.6	16.0	14.6	4.8	4.1	5.4	4.0
Minimum (1997-2012)	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Maximum (1997-2012)	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	9	17	7	8	8	8	-2	-1	-1
	Jan	14	16	20	20	7	2	6	6	-7
	Feb	8	13	15	16	14	5	7	8	6
	Mar	12	12	12	12	11	0	0	0	-1
	Apr	6	6	7	9	6	0	1	3	0
	May	7	7	7	8	7	0	0	1	0
	Total	27	43	38	45	32	16	11	18	5

Table I-3. Summary of days the Lisbon Weir elevation is between 8.5 and 10 feet (indicating the Yolo Bypass Wildlife Area would experience low level flooding) under Existing Conditions and each action alternative, including difference in days from Existing Conditions

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
1997	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	3	7	2	2	2	6	1	1
	Jan	0	0	0	0	0	0	0	0	0
	Feb	3	3	2	3	3	0	-1	0	0
	Mar	0	0	0	0	6	0	0	0	6
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	4	6	9	5	11	2	5	1	7
1998	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	2	0	0	0	2
	Jan	0	1	3	2	1	1	3	2	1
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	8	8	7	6	8	0	-1	-2	0
	May	0	0	0	0	0	0	0	0	0
	Total	8	9	10	8	11	1	2	0	3

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
1999	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	3	0	0	0	3
	Dec	0	5	21	19	6	5	21	19	6
	Jan	0	2	6	7	1	2	6	7	1
	Feb	0	5	5	7	4	5	5	7	4
	Mar	3	3	3	3	3	0	0	0	0
	Apr	10	10	12	13	10	0	2	3	0
	May	0	0	0	0	0	0	0	0	0
	Total	13	25	47	49	27	12	34	36	14
2000	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	4	4	3	2	4	4	3	2
	Feb	1	9	14	14	0	8	13	13	-1
	Mar	3	3	4	6	3	0	1	3	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	4	16	22	23	5	12	18	19	1
2001	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	3	4	3	2	3	4	3	2

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	7	7	6	7	4	0	-1	0	-3
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	7	10	10	10	6	3	3	3	-1
2002	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	12	12	12	7	11	11	11	6
	Jan	3	1	1	1	2	-2	-2	-2	-1
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	4	13	13	13	9	9	9	9	5
2003	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	5	1	1	0	1	-4	-4	-5	-4
	Jan	13	0	0	0	0	-13	-13	-13	-13
	Feb	0	8	15	10	5	8	15	10	5
	Mar	0	1	2	2	2	1	2	2	2
	Apr	1	1	0	1	1	0	-1	0	0
	May	6	6	7	5	6	0	1	-1	0
	Total	25	17	25	18	15	-8	0	-7	-10

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2004	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	2	2	5	4	10	0	3	2	8
	Jan	4	2	2	2	2	-2	-2	-2	-2
	Feb	1	4	6	5	5	3	5	4	4
	Mar	3	2	2	3	3	-1	-1	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	10	10	15	14	20	0	5	4	10
2005	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	1	2	1	1	0	1	0	0
	Jan	10	4	4	4	5	-6	-6	-6	-5
	Feb	5	10	11	11	9	5	6	6	4
	Mar	4	12	11	12	14	8	7	8	10
	Apr	11	11	11	11	11	0	0	0	0
	May	2	2	2	2	2	0	0	0	0
	Total	33	40	41	41	42	7	8	8	9
2006	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	1	2	3	3	2	1	2	2	1
	Jan	0	0	0	0	0	0	0	0	0
	Feb	8	4	4	4	4	-4	-4	-4	-4

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	1	1	0	1	0	0	-1	0	-1
	Apr	0	0	0	0	0	0	0	0	0
	May	2	2	2	5	2	0	0	3	0
	Total	12	9	9	13	8	-3	-3	1	-4
2007	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	4	4	4	4	4	4	4	4
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	4	4	4	4	4	4	4	4
2008	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	1	4	2	5	9	3	1	4	8
	Feb	4	4	5	4	4	0	1	0	0
	Mar	0	4	3	4	2	4	3	4	2
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	5	12	10	13	15	7	5	8	10

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
2009	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	7	8	8	3	7	8	8	3
	Mar	0	3	7	8	1	3	7	8	1
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	10	15	16	4	10	15	16	4
2010	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	6	2	2	2	2	-4	-4	-4	-4
	Feb	11	3	3	3	3	-8	-8	-8	-8
	Mar	0	7	7	7	11	7	7	7	11
	Apr	5	5	6	5	5	0	1	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	22	17	18	17	21	-5	-4	-5	-1
2011	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	2	2	4	4	1	0	2	2	-1
	Jan	6	3	3	3	3	-3	-3	-3	-3
	Feb	0	5	5	5	8	5	5	5	8

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	0	8	8	8	13	8	8	8	13
	Apr	2	2	2	2	2	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	10	20	22	22	27	10	12	12	17
2012	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Total	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	3	0	0	0	3
	Dec	13	28	55	45	32	15	42	32	19
	Jan	43	23	27	29	27	-20	-16	-14	-16
	Feb	33	69	86	81	54	36	53	48	21
	Mar	21	51	53	61	62	30	32	40	41
	Apr	37	37	38	38	37	0	1	1	0
	May	10	10	11	12	10	0	1	2	0
	Total	157	218	270	266	225	61	113	109	68

Appendix I Lisbon Weir Water Elevation Data

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
Average (1997-2012)	Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Nov	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
	Dec	0.8	1.8	3.4	2.8	2.0	0.9	2.6	2.0	1.2
	Jan	2.7	1.4	1.7	1.8	1.7	-1.3	-1.0	-0.9	-1.0
	Feb	2.1	4.3	5.4	5.1	3.4	2.3	3.3	3.0	1.3
	Mar	1.3	3.2	3.3	3.8	3.9	1.9	2.0	2.5	2.6
	Apr	2.3	2.3	2.4	2.4	2.3	0.0	0.1	0.1	0.0
	May	0.6	0.6	0.7	0.8	0.6	0.0	0.1	0.1	0.0
	Total	9.8	13.6	16.9	16.6	14.1	3.8	7.1	6.8	4.2
Minimum (1997-2012)	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	0	0	0	0	0
	Dec	0	0	0	0	0	0	0	0	0
	Jan	0	0	0	0	0	0	0	0	0
	Feb	0	0	0	0	0	0	0	0	0
	Mar	0	0	0	0	0	0	0	0	0
	Apr	0	0	0	0	0	0	0	0	0
	May	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0
Maximum (1997-2012)	Oct	0	0	0	0	0	0	0	0	0
	Nov	0	0	0	0	3	0	0	0	3
	Dec	5	12	21	19	10	7	16	14	5
	Jan	13	4	6	7	9	-9	-7	-6	-4
	Feb	11	10	15	14	9	-1	4	3	-2

Water Year	Month	Existing Condition Days Closed	Alternative 1 Days Closed	Alternative 4 Days Closed	Alternative 5 Days Closed	Alternative 6 Days Closed	Alternative 1 Days Closed Difference from Existing	Alternative 4 Days Closed Difference from Existing	Alternative 5 Days Closed Difference from Existing	Alternative 6 Days Closed Difference from Existing
	Mar	7	12	11	12	14	5	4	5	7
	Apr	11	11	12	13	11	0	1	2	0
	May	6	6	7	5	6	0	1	-1	0
	Total	33	40	47	49	42	7	14	16	9

Appendix J
Hazardous Materials Database Search

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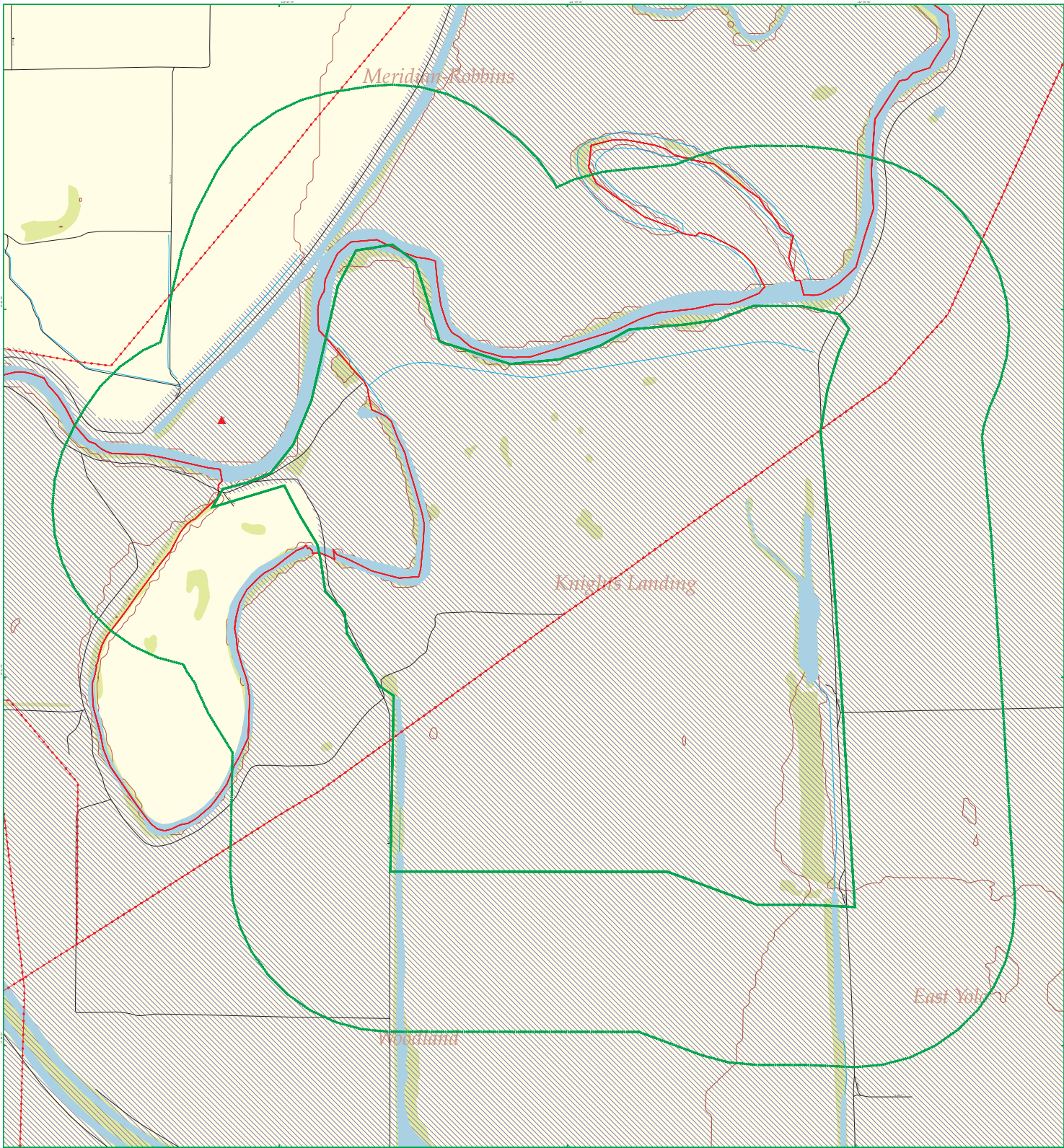
Yolo Bypass Fish Passage
Woodland, CA 95776

Inquiry Number: 4766866.5s
October 31, 2016

EDR DataMap™ Area Study



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com



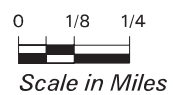
EDR DataMap® - Area Study

Yolo Bypass Fish Passage



Woodland, CA

- | | | | |
|--|---------------|-------------------|----------------------------|
| Listed Sites | Major Roads | Powerlines | Indian Reservations BIA |
| Earthquake Epicenters (Richter 5 or greater) | Waterways | Fault Lines | 100-Yr Flood Zones |
| Search Boundary | Railroads | Water | National Wetland Inventory |
| Roads | Contour Lines | Superfund Sites | |
| | Pipelines | Federal DOD Sites | |



Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

WOODLAND, CA 95776
WOODLAND, CA 95776

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
Delisted NPL.....	National Priority List Deletions
NPL LIENS.....	Federal Superfund Liens
SEMS.....	Superfund Enterprise Management System
SEMS-ARCHIVE.....	Superfund Enterprise Management System Archive
LIENS 2.....	CERCLA Lien Information
CORRACTS.....	Corrective Action Report
RCRA-TSDF.....	RCRA - Treatment, Storage and Disposal
RCRA-LQG.....	RCRA - Large Quantity Generators
RCRA-SQG.....	RCRA - Small Quantity Generators
RCRA-CESQG.....	RCRA - Conditionally Exempt Small Quantity Generator
RCRA NonGen / NLR.....	RCRA - Non Generators / No Longer Regulated
US ENG CONTROLS.....	Engineering Controls Sites List
US INST CONTROL.....	Sites with Institutional Controls
ERNS.....	Emergency Response Notification System
HMIRS.....	Hazardous Materials Information Reporting System
DOT OPS.....	Incident and Accident Data
US CDL.....	National Clandestine Laboratory Register
US BROWNFIELDS.....	A Listing of Brownfields Sites
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
LUCIS.....	Land Use Control Information System
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
ODI.....	Open Dump Inventory
US MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
COAL ASH DOE.....	Steam-Electric Plant Operation Data
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
ECHO.....	Enforcement & Compliance History Information
FEMA UST.....	Underground Storage Tank Listing
FEDERAL FACILITY.....	Federal Facility Site Information listing
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties
ABANDONED MINES.....	Abandoned Mines
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US HIST CDL.....	Delisted National Clandestine Laboratory Register
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
PCB TRANSFORMER.....	PCB Transformer Registration Database

STATE AND LOCAL RECORDS

HIST Cal-Sites.....	Historical Calsites Database
CA BOND EXP. PLAN.....	Bond Expenditure Plan
SCH.....	School Property Evaluation Program
Toxic Pits.....	Toxic Pits Cleanup Act Sites
SWF/LF.....	Solid Waste Information System
NPDES.....	NPDES Permits Listing
WDS.....	Waste Discharge System
UIC.....	UIC Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE.....	Hazardous Waste & Substance Site List
SWRCY.....	Recycler Database
LUST.....	Geotracker's Leaking Underground Fuel Tank Report
CA FID UST.....	Facility Inventory Database
SLIC.....	Statewide SLIC Cases
UST.....	Active UST Facilities
HIST UST.....	Hazardous Substance Storage Container Database
LIENS.....	Environmental Liens Listing
CUPA Listings.....	CUPA Resources List
SWEEPS UST.....	SWEEPS UST Listing
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
AST.....	Aboveground Petroleum Storage Tank Facilities
Notify 65.....	Proposition 65 Records
DEED.....	Deed Restriction Listing
VCP.....	Voluntary Cleanup Program Properties

EXECUTIVE SUMMARY

DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
ENF.....	Enforcement Action Listing
CDL.....	Clandestine Drug Labs
RESPONSE.....	State Response Sites
HAZNET.....	Facility and Manifest Data
EML.....	Emissions Inventory Data
HAULERS.....	Registered Waste Tire Haulers Listing
ENVIROSTOR.....	EnviroStor Database
HWT.....	Registered Hazardous Waste Transporter Database
WMUDS/SWAT.....	Waste Management Unit Database
WASTEWATER PITS.....	Oil Wastewater Pits Listing
BROWNFIELDS.....	Considered Brownfields Sites Listing
MWMP.....	Medical Waste Management Program Listing
PROC.....	Certified Processors Database
HWP.....	EnviroStor Permitted Facilities Listing
ICE.....	ICE
PEST LIC.....	Pesticide Regulation Licenses Listing

TRIBAL RECORDS

INDIAN RESERV.....	Indian Reservations
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
INDIAN VCP.....	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner.....	EDR Exclusive Historic Dry Cleaners
RGA LF.....	Recovered Government Archive Solid Waste Facilities List
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STATE AND LOCAL RECORDS

MINES: A listing of mine site locations from the Office of Mine Reclamation.

A review of the MINES list, as provided by EDR, and dated 09/12/2016 has revealed that there is 1 MINES site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
SHRINERS-SAC RIVER M	3310 EL CAMINO AVENU	1	4

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
<u>FEDERAL RECORDS</u>	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
SEMS	0
SEMS-ARCHIVE	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	0
RCRA NonGen / NLR	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
DEBRIS REGION 9	0
ODI	0
US MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	0
RAATS	0
RMP	0
COAL ASH DOE	0
FUSRAP	0
UXO	0
DOCKET HWC	0
FUELS PROGRAM	0
ECHO	0
FEMA UST	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
FEDERAL FACILITY	0
LEAD SMELTERS	0
US AIRS	0
COAL ASH EPA	0
2020 COR ACTION	0
PRP	0
ABANDONED MINES	0
SCRD DRYCLEANERS	0
US HIST CDL	0
EPA WATCH LIST	0
US FIN ASSUR	0
PCB TRANSFORMER	0

STATE AND LOCAL RECORDS

HIST Cal-Sites	0
CA BOND EXP. PLAN	0
SCH	0
Toxic Pits	0
SWF/LF	0
NPDES	0
WDS	0
UIC	0
Cortese	0
HIST CORTESE	0
SWRCY	0
LUST	0
CA FID UST	0
SLIC	0
UST	0
HIST UST	0
LIENS	0
CUPA Listings	0
SWEEPS UST	0
CHMIRS	0
LDS	0
MCS	0
AST	0
Notify 65	0
DEED	0
VCP	0
DRYCLEANERS	0
WIP	0
ENF	0
CDL	0
RESPONSE	0
HAZNET	0
EMI	0
HAULERS	0
ENVIROSTOR	0
HWT	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
WMUDS/SWAT	0
WASTEWATER PITS	0
BROWNFIELDS	0
MWMP	0
PROC	0
HWP	0
MINES	1
ICE	0
PEST LIC	0
 <u>TRIBAL RECORDS</u>	
INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0
 <u>EDR PROPRIETARY RECORDS</u>	
EDR MGP	0
EDR Hist Auto	0
EDR Hist Cleaner	0
RGA LF	0
RGA LUST	0

NOTES:

Sites may be listed in more than one database

MAP FINDINGS

Map ID			EDR ID Number
Direction			
Distance			
Distance (ft.)	Site	Database(s)	EPA ID Number

1	SHRINERS-SAC RIVER MID VALLEY PHASE III-DWR 3310 EL CAMINO AVENUE, SUITE 140 , CA	MINES	S117662611 N/A
----------	--	--------------	---------------------------

MINES:

Latitude:	38.761667
Longitude:	-121.67
Lead Agency identification code:	51
Lead Agency name:	County of Sutter
Year of the operator supplied annual report:	2015
Type of report submitted by operator:	2
Number of acres disturbed by the mine:	40
Status of mining operation:	IDLE
Status of mine reclamation:	RECLAMATION NOT STARTED
Mine operator:	DWR DEPT OF WATER RESOURCES
Operator Address:	3310 EL CAMINO AVENUE
Operator City, State, Zip:	SACRAMENTO, CA 95821
Operator County:	Not reported
Mine owner:	DWR FLOOD MANAGEMENT
Owner Address:	3310 EL CAMINO AVENUE, SUITE 140
Owner City, State, Zip:	SACRAMENTO, CA 95821
Owner County:	Not reported
Reclamation plan identification number:	Not reported
Primary product produced by the mine:	SAND AND GRAVEL
Other products produced by the mine:	Not reported
Type of mining utilized by mine:	QUARRY
Conditional use permit identification number:	BLANK
Number of acres permitted for mining disturbance:	70
Total amount of funds posted by the mine for reclamation:	\$0.00
Financial Assurance Cost Estimate for reclamation:	\$0.00

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CUYAMA	S105938218	E&B NATURAL RESOURCES	6 MI N. OF CUYAMA, HWY 166	95691	EMI
KNIGHTS LANDING	S118409288	DETLING FARMS	RD 102 AND HWY 113	95645	HIST UST
KNIGHTS LANDING	S101482677	BOBS FLYING SERVICE	HWY 113 BETWEEN BYINGTON & LEISER RD	95645	ENVIROSTOR
KNIGHTS LANDING	S118409289	DETLING RICE DRYER	HWY 113 AND BUCHINIS DRYER	95645	HIST UST
KNIGHTS LANDING	S114405605	AT&T COMMUNICATION LINE INSTALL PROJECT NO 9063820	HWY 113	95645	NPDES
KNIGHTS LANDING	1003878378	BOBS FLYING SERVICE	HWY 113 BET BYINTON&LEISER RDS	95645	SEMS-ARCHIVE
KNIGHTS LANDING	1000418035	ONSTOTT DUSTERS INC (2)	HIGHWAY 113, 1.5 MI N OF KNIGHTS LANDING	95645	ENVIROSTOR
KNIGHTS LANDING	U004003702	GUNTHER BROTHERS INC	HWY 113/LOCUST ST	95645	UST
KNIGHTS LANDING	1003879343	ONSTOTT DUSTERS INC	HIGHWAY 133 2 MI N	95645	SEMS-ARCHIVE
KNIGHTS LANDING	S106838322	RIVER GARDEN FARMS CO.	HWY. 45 & CR. 97	95645	EMI
KNIGHTS LANDING	S106838321	RIVER GARDEN FARMS CO.	HWY 45 & CR. 97	95645	EMI
KNIGHTS LANDING	S117649929	RAFAEL MURILLO	41681 COUNTY RD 111	95645	PEST LIC
KNIGHTS LANDING	S118413556	OAKLAND BEAN CLEANING AND STORAG	COUNTY ROAD 116 AND RAILROAD STR	95645	HIST UST
KNIGHTS LANDING	A100421256	JOE MULLER & SONS FARM # 3	N OF 14, 3/4 MILE N OF 13, W HWY 113, E 98	95645	AST
KNIGHTS LANDING	S118589524	BULLOCK BEND MITIGATION BANK	ROAD 97	95645	NPDES
KNIGHTS LANDING	S112933025	PACIFIC GAS & ELECTRIC	8419 ROAD 112	95645	HAZNET
KNIGHTS LANDING	U001613166	ALONSO FARM	STAR RT	95645	HIST UST
SAC	U001614199	H ISHIMOTO FARMS	2645 HWY 16	95691	HIST UST
SACRAMENTO	S101628062	H. ISHIMOTO FARMS	2645 HIGHWAY 16	95691	CA FID UST, SWEEPS UST
SACRAMENTO	S118598811	LINDEN SHORES	LINDEN ROAD/ S. RIVER ROAD	95691	NPDES
W SACRAMENTO	S112935444	CALTRANS DIST 3/CONSTR/EA03-368504/YOLO 84 JEFFERSON WIDENIN	PM 18.1 TO R21.7	95691	HAZNET
W SACRAMENTO	S112982058	CALTRANS D-3/CONSTR/EA03-3M3504	HWY 50 EB/WB PM 2.1-21.5	95691	HAZNET
W SACRAMENTO	1003877965	CAMPBELL CONSTRUCTION CO	S RIVER RD & RISKE LN	95691	SEMS-ARCHIVE
WEST SACRAMENTO	S118413163	MR AND MRS LLOYD APPLGATE	RT 1 BOX 6698	95691	HIST UST
WEST SACRAMENTO	S118407179	A AND S SANDBLASTING	RT 1 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S118411709	JOEL MCCRAY	RT 1 BOX 85 S RIVER RD	95691	HIST UST
WEST SACRAMENTO	S118414998	SACRAMENTO PLANT	15TH AND SOUTH RIVER ROAD	95691	HIST UST
WEST SACRAMENTO	U001614191	FRANK L LANG	HWY 16 BOX 2630	95691	HIST UST
WEST SACRAMENTO	S112979499	CALTRANS D-3/CONSTR/EA03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S113459945	CALTRANS D-3/CONSTR/03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S112976600	CALTRANS D-3/CONSTR/EA03-1E0414	RTE 50/80 PM 0.0-5.4 & 3.2-9.1	95691	HAZNET
WEST SACRAMENTO	S118408738	CLARENCE MATTOS	BOX 2535-HWY 16	95691	HIST UST
WEST SACRAMENTO	S118171681	RECLAMATION DISTRICT 537	COUNTY ROAD 127 & TULE JAKE ROAD	95691	EMI
WEST SACRAMENTO	S112242022	SACRAMENTO RIVER RANCH WETLANDS	COUNTY ROAD 16 AND 117	95691	NPDES
WEST SACRAMENTO	S112964350	WINN COMMUNITIES CORP	1341 COUNTY ROAD 124	95691	HAZNET
WEST SACRAMENTO	S112933934	WILSON RANCH PARTNERS	18908 COUNTY RD 119	95691	HAZNET
WEST SACRAMENTO	S118409275	DESERET FARMS	COUNTY ROAD 117 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S118605982	SACRAMENTO WEIR SACRAMENTO BYPASS	HALF MILE N OF I 80 ON RIVER RD	95691	NPDES
WEST SACRAMENTO	S110503188	RECLAMATION DISTRICT NO. 900	LAKE ROAD AT TOE DRAIN AND I-80	95691	EMI
WEST SACRAMENTO	S112881398	TOUCHTONE LAKE ASSOC.	LINDEN ROAD (TOUCHTONE LAKE)	95691	HAZNET
WEST SACRAMENTO	S110732187	BRIDGE DISTRICT	N OF HWY 50 BTWN S RIVER RD & RISKE LN S OF BALLPARK DR	95691	NPDES

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WEST SACRAMENTO	S103679671	BRUSCO TUG & BARGE INC	PORT OF SACRAMENTO	95691	NPDES, WDS, CHMIRS
WEST SACRAMENTO	S111291293	CHP ACADEMY SACRAMENTO BYPASS	CO RD 127	95691	NPDES
WEST SACRAMENTO	S114406110	PIONEER BLUFF BRIDGE PROJECT	SOUTH RIVER ROAD AT THE YOLO BARGE CANAL	95691	NPDES
WEST SACRAMENTO	1016347554	RIVER WALK PROPERTY	SOUTH RIVER ROAD & THIRD STREET	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S109604148	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	30030 SOUTH RIVER ROAD	95691	EMI
WEST SACRAMENTO	1016347053	WEYERHAEUSER PROPERTY	50 SOUTH RIVER ROAD	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S112857334	WEYERHAEUSER PAPER CO	50 SOUTH RIVER ROAD	95691	HAZNET
WEST SACRAMENTO	U004003744	J R MCCRAY PLASTERING INC	S RIVER RD RT 85	95691	UST
WEST SACRAMENTO	S112979849	WEST SACRAMENTO INVESTMENTS LLC	21796 ROAD 124	95691	HAZNET
WINTERS	S118417102	WILLIAM LIDER	ROUTE 1 BOX 153A	95691	HIST UST
WOODLAND	S106230588	AGRIFORM SUPPLY COMPANY	HIGHWAY 113 & ROAD 18C		SLIC
WOODLAND	U003790390	PACIFIC INTERNATIONAL	17465 HIGHWAY 113		UST
WOODLAND	S117712608	THE OAKS AT WILD WINGS	SR 16 CITY RD 94B WATTS WOODLAND		NPDES
WOODLAND	S118613313	WILD WINGS GOLF COURSE CMNTY	SR 16 CITY RD 94B WATTS WOODLA		NPDES
WOODLAND	S106840591	TEICHERT DAVIS READYMIX PLTS	40060 CR 29 CR 29 & HWY 113	95776	EMI
WOODLAND	S105939912	TEICHERT AGGREGATES	CR 29/HWY 113		EMI
WOODLAND	S114730318	MERRILL L. DUBACH PIT	INTERSTATE 5, 1900 FEET EAST OF ROAD 98		RGA LF
WOODLAND	S114599455	CHEVRON STATION #9-2597	INTERSTATE 5/ROAD 102		RGA LUST
WOODLAND	S114730984	OLD CITY OF WOODLAND LANDFILL (CLOSED)	SE CORNER OF COUNTY ROADS 102 & 25		RGA LF
WOODLAND	S118601986	NUEVA VISTA SUBDIVISION	NW CORNER OF BEAMER ST & N EAST ST	95776	NPDES
WOODLAND	S116497544	DAVIS WOODLAND WATER SUPPLY PROJECT	855 COUNTY ROAD 102	95776	NPDES
WOODLAND	1012053550	TRICAL, INC	39985 COUNTY RD 14	95776	SSTS
WOODLAND	S117348339	SOLARA RANCH	COUNTY ROAD 101 SOUTH OF COUNTY ROAD 25	95776	NPDES
WOODLAND	S117624448	DAVIS WOODLAND WATER SUPPLY RAW AND FINISHED WATER PIPELINES	COUNTY RD 22 WOODLAND TO COUNTY RD 102 DAVIS	95776	NPDES
WOODLAND	S114596257	CHEVRON #9-2597	18430 COUNTY ROAD 102 (I-5 & CO RD 102)		RGA LUST
WOODLAND	S118119920	YCCL SOIL BORROW SITE	COUNTY ROAD 28H AND COUNTY ROAD 104	95776	NPDES
WOODLAND	S113179426	SPRECKELS SUGAR COMPANY, INC	COUNTY ROAD 18C	95776	HAZNET
WOODLAND	S114694894	SPRECKLES SUGAR	COUNTY ROAD 101		RGA LUST
WOODLAND	S105027468	SEWAGE TRT FACILITY	COUNTY RD 24		HIST CORTESE
WOODLAND	S117640042	GROWERS AIR SERVICE	41167 COUNTY ROAD # 27	95776	PEST LIC
WOODLAND	S114731878	REIFF FARMS	COUNTY ROAD 19		RGA LF
WOODLAND	S105030858	SERVICE CLEANERS	1296 #C EAST GIBSON	95776	DRYCLEANERS
WOODLAND	S117711060	SLSP OFF SITE SEWER PIPELINE CONVEYANCE SYS	FUTURE FAMER ROAD AND ROAD 102	95776	NPDES
WOODLAND	S113089418	YOLO COUNTY SHERIFF CORONER	41793 GIBSON RD	95776	HAZNET
WOODLAND	S113880995	HERITAGE VIL 4A 4C AND 7	HERITAGE PARKWAY AND COUNTY ROAD 102	95776	NPDES
WOODLAND	S112850388	ALAMO OIL CO	INTERSECTION OF ROAD 95 AND	95776	HAZNET
WOODLAND	S114678985	ROY E LAY TRUCKING	1218 KENTUCKY EAST AVE		RGA LUST
WOODLAND	S118587504	AMERICAS TIRE CO	EAST MAIN AT WOODLAND HARVEST SQUARE		NPDES
WOODLAND	S117348216	PHASE 1 HERITAGE REMAINDER AREA AND HERITAGE PARK UNIT 2 SUB	MARSTON ROAD AND MIEKLE AVENUE	95776	NPDES
WOODLAND	S109603864	JACK WALLACE	1/2 MILES NORTH OF COUNTY ROAD 100B	0	EMI
WOODLAND	S114733034	SPRECKLES WOODLAND LANDFILL	1/4 MI N OF COUNTY RD 20, OFF KENTUCKY RD		RGA LF
WOODLAND	S118603794	PLANFIELD TAP 60 KV LINE	NE OF INTER COUNTY RD 98 AND COUNTY RD 27	95776	NPDES
WOODLAND	S118397780	CAL WEST	SW OF HARRY LORENZO AVE AND FARM RD	95776	NPDES

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WOODLAND	S118611381	TURN OF THE CENTURY EAST	NW OF ROAD 102 & 25	95776	NPDES
WOODLAND	S117347998	HEIDRICK RANCH UNITS 2 AND 3	EAST OF COUNTY ROAD 101	95776	NPDES
WOODLAND	1014202327	CACHE CREEK SETTLING BASIN	EAST OF CITY OF WOODLAND	95776	SEMS
WOODLAND	S106230599	YOLO COUNTY INTERNATIONAL AIRPORT (WOODLAND AIRPORT)	ROAD 24, 510 ACRES		SLIC
WOODLAND	S113052492	YOLO COUNTY CENTRAL LANDFILL	44090 ROAD 28H	95776	HAZNET
WOODLAND	S105937945	GRAYMONT	CO. ROAD 18A & CA NO. RAILROAD		EMI
WOODLAND	S106840592	TEICHRT AGGREGATES-REIFF ROCK	ROAD 19A, 1MI E OF ROAD 87		EMI
WOODLAND	S112840334	CACHE CREEK RANCH COMPANY	ROAD 17 B	95776	HAZNET
WOODLAND	S108431800	ENTRAVISION RADIO	19245 ROAD 102		EMI
WOODLAND	S118399431	ERNEST A RONCORONI	201 EAST ST	95776	PEST LIC
WOODLAND	S117640429	AGRIFORM DIV OF TREMONT GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S117640495	THE LYMAN GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	1016187956	B & F AUTOMOTIVE	303 EAST ST	95776	FINDS, ECHO
WOODLAND	S117640428	AGRIFORM DIV OF TREMONT GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S114651181	MIKE ADAMS CASE #2 (FORMER ADAMS GRAIN)	1020 EAST ST (FORMER COUNTY ROAD 102)		RGA LUST
WOODLAND	S117640459	GROWERS AG SERVICE A DIVISION OF THE TREMONT GRP	201 EAST ST	95776	PEST LIC
WOODLAND	S114651180	MIKE ADAMS CASE #2 (FORMER ADAMS GRAIN)	1020 EAST ST (FORMER COUNTY ROAD 102)		RGA LUST
WOODLAND	S114723016	WOODLAND COOP RICE GROWERS	211/215 EAST ST N		RGA LUST
WOODLAND	S117640256	THE TREMONT GROUP INC./TSI DIV	201 EAST ST	95776	PEST LIC
WOODLAND	S114723014	WOODLAND COOP RICE GROWERS	211-215 EAST ST N		RGA LUST
WOODLAND	S114723018	WOODLAND COOP RICE GROWERS	215-211 EAST ST N		RGA LUST
WOODLAND	S117640431	AGRIFORM DIV OF TREMONT GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S117642879	THE LYMAN GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S118399504	ERNEST A RONCORONI	201 EAST ST	95776	PEST LIC
WOODLAND	S117643176	AGRIFORM DIV OF TREMONT GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S114723019	WOODLAND COOP RICE GROWERS	215/211 EAST ST N		RGA LUST
WOODLAND	S117640430	AGRIFORM DIV OF TREMONT GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S114723013	WOODLAND COOP RICE GROWERS	0 EAST ST N		RGA LUST
WOODLAND	S117640493	THE LYMAN GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S117640494	THE LYMAN GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S117641489	THE LYMAN GROUP INC.	201 EAST ST	95776	PEST LIC
WOODLAND	S114667806	PEART/CHEVRON	613 EAST ST, P1+P2		RGA LUST
WOODLAND	S114622593	FORMER HAYS TRUCKING	613 EAST ST, P3+P4		RGA LUST
WOODLAND	S117699192	DUMARS BLDG	201-203 EAST STR		NPDES
WOODLAND	S117652395	LESLIE F LYMAN	201 EAST STREET	95776	PEST LIC
WOODLAND	S117644729	LESLIE F LYMAN	201 EAST STREET	95776	PEST LIC
WOODLAND	S114723017	WOODLAND COOP RICE GROWERS	211/215 EAST STREET		RGA LUST
WOODLAND	U003850835	DUMARS, INC.	203 EAST STREET	95776	EMI
WOODLAND	1006826086	FORMER WOODLAND RICE GROWERS	215 EAST STREET	95776	EMI
WOODLAND	S118172226	METRO METALS, LLC	VARIOUS LOCATIONS, INCLUDING 19389 COUNTY ROAD 102	95776	EMI
WOODLAND	S106841986	VALLEY BY-PRODUCTS, INC.	YOLO COUNTY LANDFILL		EMI
YOLO COUNTY	S117697718	CNTY RD 32 E O I 505	COUNTY ROAD 32 E O I 505		NPDES
YOLO COUNTY	S112832375	HARBOR BOULEVARD BRIDGE WIDENING	HARBOR BLVD/HWY 50		NPDES
YOLO COUNTY	S107538895		I-5, NO OF DUNNIGAN AT COUNTY LINE RD		CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 10/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 10/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Quarterly

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 10/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 10/20/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Quarterly

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 10/20/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 10/28/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/27/2016	Source: EPA
Date Data Arrived at EDR: 06/30/2016	Telephone: 800-424-9346
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/28/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/30/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/28/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/30/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/28/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/30/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/28/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/21/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/30/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/28/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/30/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/28/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/09/2016
Date Data Arrived at EDR: 06/01/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 93

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/27/2016
Date Data Arrived at EDR: 06/28/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 87

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/27/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/21/2016
Date Data Arrived at EDR: 06/22/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/21/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 09/09/2016
Number of Days to Update: 74	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 09/09/2016
Number of Days to Update: 146	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 10/24/2016
Number of Days to Update: 137	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/01/2016	Telephone: 303-231-5959
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 09/01/2016
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 09/02/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 09/02/2016
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 11/24/2015	Telephone: 202-566-0250
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 08/26/2016
Number of Days to Update: 133	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012	Source: EPA
Date Data Arrived at EDR: 01/15/2015	Telephone: 202-260-5521
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 09/23/2016
Number of Days to Update: 14	Next Scheduled EDR Contact: 01/02/2017
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/17/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/17/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/27/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/11/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/05/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/03/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/05/2016	Telephone: 202-343-9775
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 10/05/2016
Number of Days to Update: 16	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015	Source: EPA
Date Data Arrived at EDR: 09/09/2015	Telephone: (415) 947-8000
Date Made Active in Reports: 11/03/2015	Last EDR Contact: 09/07/2016
Number of Days to Update: 55	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/01/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/26/2016	Telephone: 202-564-8600
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 07/25/2016
Number of Days to Update: 99	Next Scheduled EDR Contact: 11/07/2016
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/26/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Biennially

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/09/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 06/30/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 88

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Annually

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 07/12/2016
Date Data Arrived at EDR: 08/17/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 08/08/2016
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Quarterly

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 09/06/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 10/11/2016
Number of Days to Update: 55	Next Scheduled EDR Contact: 01/23/2017
	Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 10/20/2016
Number of Days to Update: 54	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 08/31/2016	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 09/06/2016	Telephone: 202-307-1000
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 08/31/2016
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/10/2016
	Data Release Frequency: No Update Planned

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015	Source: Department of Defense
Date Data Arrived at EDR: 01/29/2016	Telephone: 571-373-0407
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 10/17/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 08/12/2016
Number of Days to Update: 3	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Quarterly

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/07/2016	Telephone: 703-603-8787
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 10/20/2016
Number of Days to Update: 148	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 09/06/2016
Number of Days to Update: 6	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/03/2016	Telephone: 202-564-0527
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 08/24/2016
Number of Days to Update: 91	Next Scheduled EDR Contact: 12/12/2016
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016	Source: Department of Interior
Date Data Arrived at EDR: 06/13/2016	Telephone: 202-208-2609
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 09/12/2016
Number of Days to Update: 81	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/20/2016	Telephone: 202-564-2280
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 09/20/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 01/02/2017
	Data Release Frequency: Quarterly

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016	Source: Department of Energy
Date Data Arrived at EDR: 07/26/2016	Telephone: 202-586-3559
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 07/26/2016
Number of Days to Update: 59	Next Scheduled EDR Contact: 11/21/2016
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 10/28/2016
Number of Days to Update: 83	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2016	Source: EPA
Date Data Arrived at EDR: 08/23/2016	Telephone: 800-385-6164
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 08/23/2016
Number of Days to Update: 59	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 02/23/2009
Number of Days to Update: 21	Next Scheduled EDR Contact: 05/25/2009
	Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/01/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/02/2016	Telephone: 916-323-3400
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 08/02/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 11/14/2016
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 01/26/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/27/2009
	Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/15/2016	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 08/16/2016	Telephone: 916-341-6320
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 08/16/2016
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 08/17/2016
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016	Source: Department of Conservation
Date Data Arrived at EDR: 09/14/2016	Telephone: 916-445-2408
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 09/14/2016
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/16/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 05/18/2016	Telephone: 916-445-9379
Date Made Active in Reports: 06/23/2016	Last EDR Contact: 08/16/2016
Number of Days to Update: 36	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/27/2016	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 06/28/2016	Telephone: 916-323-3400
Date Made Active in Reports: 08/18/2016	Last EDR Contact: 09/27/2016
Number of Days to Update: 51	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/12/2016	Source: Department of Conservation
Date Data Arrived at EDR: 09/14/2016	Telephone: 916-323-3836
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 09/14/2016
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 09/12/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/13/2016	Telephone: see region list
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 09/13/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/13/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/22/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 10/20/2016
Number of Days to Update: 23

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/03/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/26/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/13/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/13/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/13/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/06/2016	Source: DTSC and SWRCB
Date Data Arrived at EDR: 09/07/2016	Telephone: 916-323-3400
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 09/07/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/01/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/02/2016	Telephone: 916-323-3400
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 08/02/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 11/14/2016
	Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/02/2016	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-4498
Date Made Active in Reports: 08/18/2016	Last EDR Contact: 09/02/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 12/19/2016
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 09/23/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/22/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/24/2016	Telephone: 916-445-9379
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 10/24/2016
Number of Days to Update: 42	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/10/2016	Telephone: 916-255-6504
Date Made Active in Reports: 06/17/2016	Last EDR Contact: 10/24/2016
Number of Days to Update: 38	Next Scheduled EDR Contact: 01/23/2017
	Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/01/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/02/2016	Telephone: 916-323-3400
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 08/02/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 11/14/2016
	Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/14/2015	Telephone: 916-255-1136
Date Made Active in Reports: 12/11/2015	Last EDR Contact: 10/12/2016
Number of Days to Update: 58	Next Scheduled EDR Contact: 01/23/2017
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014	Source: California Air Resources Board
Date Data Arrived at EDR: 09/23/2016	Telephone: 916-322-2990
Date Made Active in Reports: 10/24/2016	Last EDR Contact: 09/23/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 01/02/2017
	Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 08/26/2016	Telephone: 916-341-6422
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 08/10/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/02/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/02/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Quarterly

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/07/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/11/2016
Date Data Arrived at EDR: 07/13/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: No Update Planned

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/23/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 43

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/23/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Quarterly

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board's review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/05/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/28/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015	Source: EPA Region 7
Date Data Arrived at EDR: 02/12/2016	Telephone: 913-551-7003
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 112	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-9424
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 52	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 120	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 10/28/2016
Number of Days to Update: 65	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 119	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 10/28/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 09/26/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 01/09/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGALF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 37

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/07/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 27

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/07/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 18

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 07/20/2016
Date Data Arrived at EDR: 07/25/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 60

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 09/06/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/22/2016
Date Data Arrived at EDR: 08/24/2016
Date Made Active in Reports: 10/10/2016
Number of Days to Update: 47

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/01/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 04/08/2016
Date Data Arrived at EDR: 05/03/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 50

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/24/2016
Date Data Arrived at EDR: 05/26/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 75

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

FRESNO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/19/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 21

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/08/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 41

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 10/13/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 08/04/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 71

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/25/2016	Source: Kings County Department of Public Health
Date Data Arrived at EDR: 05/27/2016	Telephone: 559-584-1411
Date Made Active in Reports: 06/22/2016	Last EDR Contact: 09/29/2016
Number of Days to Update: 26	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 09/08/2016	Source: Lake County Environmental Health
Date Data Arrived at EDR: 09/09/2016	Telephone: 707-263-1164
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 10/17/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009	Source: EPA Region 9
Date Data Arrived at EDR: 03/31/2009	Telephone: 415-972-3178
Date Made Active in Reports: 10/23/2009	Last EDR Contact: 09/19/2016
Number of Days to Update: 206	Next Scheduled EDR Contact: 01/02/2017
	Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/05/2016	Source: Department of Public Works
Date Data Arrived at EDR: 07/12/2016	Telephone: 626-458-3517
Date Made Active in Reports: 08/18/2016	Last EDR Contact: 10/24/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 01/23/2017
	Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/15/2016	Source: La County Department of Public Works
Date Data Arrived at EDR: 07/19/2016	Telephone: 818-458-5185
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 10/18/2016
Number of Days to Update: 78	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016	Source: Engineering & Construction Division
Date Data Arrived at EDR: 01/26/2016	Telephone: 213-473-7869
Date Made Active in Reports: 03/22/2016	Last EDR Contact: 10/17/2016
Number of Days to Update: 56	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016	Source: Community Health Services
Date Data Arrived at EDR: 04/06/2016	Telephone: 323-890-7806
Date Made Active in Reports: 06/13/2016	Last EDR Contact: 10/17/2016
Number of Days to Update: 68	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/02/2015	Telephone: 310-524-2236
Date Made Active in Reports: 04/13/2015	Last EDR Contact: 10/17/2016
Number of Days to Update: 11	Next Scheduled EDR Contact: 01/30/2017
	Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 11/13/2015	Telephone: 562-570-2563
Date Made Active in Reports: 12/17/2015	Last EDR Contact: 10/24/2016
Number of Days to Update: 34	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/23/2016	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 07/12/2016	Telephone: 310-618-2973
Date Made Active in Reports: 08/09/2016	Last EDR Contact: 10/07/2016
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/23/2017
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/18/2016	Source: Madera County Environmental Health
Date Data Arrived at EDR: 08/22/2016	Telephone: 559-675-7823
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 08/17/2016
Number of Days to Update: 32	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 04/26/2016	Telephone: 415-499-6647
Date Made Active in Reports: 06/01/2016	Last EDR Contact: 09/29/2016
Number of Days to Update: 36	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 32

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 08/29/2016
Date Data Arrived at EDR: 08/31/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 44

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/25/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/27/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/05/2016
Number of Days to Update: 51

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/15/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 53

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/09/2016
Date Made Active in Reports: 10/11/2016
Number of Days to Update: 63

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/09/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 81

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/13/2016
Date Data Arrived at EDR: 07/18/2016
Date Made Active in Reports: 08/08/2016
Number of Days to Update: 21

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/02/2016
Date Data Arrived at EDR: 07/06/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 43

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/04/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/19/2016
Number of Days to Update: 42

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/08/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/21/2016
Date Data Arrived at EDR: 09/22/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 26

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/19/2016
Next Scheduled EDR Contact: 01/02/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 08/18/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/24/2016
Next Scheduled EDR Contact: 12/12/2016
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/03/2016
Date Data Arrived at EDR: 08/08/2016
Date Made Active in Reports: 10/07/2016
Number of Days to Update: 60

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/21/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 08/17/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 43

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/17/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/15/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/22/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/10/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 28

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2016
Date Data Arrived at EDR: 07/05/2016
Date Made Active in Reports: 08/18/2016
Number of Days to Update: 44

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/26/2016
Next Scheduled EDR Contact: 01/09/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 16

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/02/2016
Next Scheduled EDR Contact: 12/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 08/12/2016
Date Data Arrived at EDR: 08/16/2016
Date Made Active in Reports: 10/04/2016
Number of Days to Update: 49

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 06/28/2016
Date Data Arrived at EDR: 08/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 53

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/24/2016
Next Scheduled EDR Contact: 02/06/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/29/2016
Next Scheduled EDR Contact: 01/16/2017
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 08/10/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/28/2016
	Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 06/28/2016	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 08/01/2016	Telephone: 805-654-2813
Date Made Active in Reports: 10/07/2016	Last EDR Contact: 10/24/2016
Number of Days to Update: 67	Next Scheduled EDR Contact: 02/06/2017
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/29/2016	Source: Environmental Health Division
Date Data Arrived at EDR: 09/14/2016	Telephone: 805-654-2813
Date Made Active in Reports: 10/11/2016	Last EDR Contact: 09/14/2016
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/30/2016	Source: Yolo County Department of Health
Date Data Arrived at EDR: 08/24/2016	Telephone: 530-666-8646
Date Made Active in Reports: 10/11/2016	Last EDR Contact: 10/17/2016
Number of Days to Update: 48	Next Scheduled EDR Contact: 01/16/2017
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 08/03/2016	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 08/05/2016	Telephone: 530-749-7523
Date Made Active in Reports: 10/05/2016	Last EDR Contact: 07/27/2016
Number of Days to Update: 61	Next Scheduled EDR Contact: 11/14/2016
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2016
Next Scheduled EDR Contact: 11/28/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/12/2016
Next Scheduled EDR Contact: 01/23/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/03/2016
Date Made Active in Reports: 09/09/2016
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/03/2016
Next Scheduled EDR Contact: 11/14/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/14/2016
Next Scheduled EDR Contact: 01/30/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 09/20/2016
Next Scheduled EDR Contact: 12/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/12/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game
Telephone: 916-445-0411

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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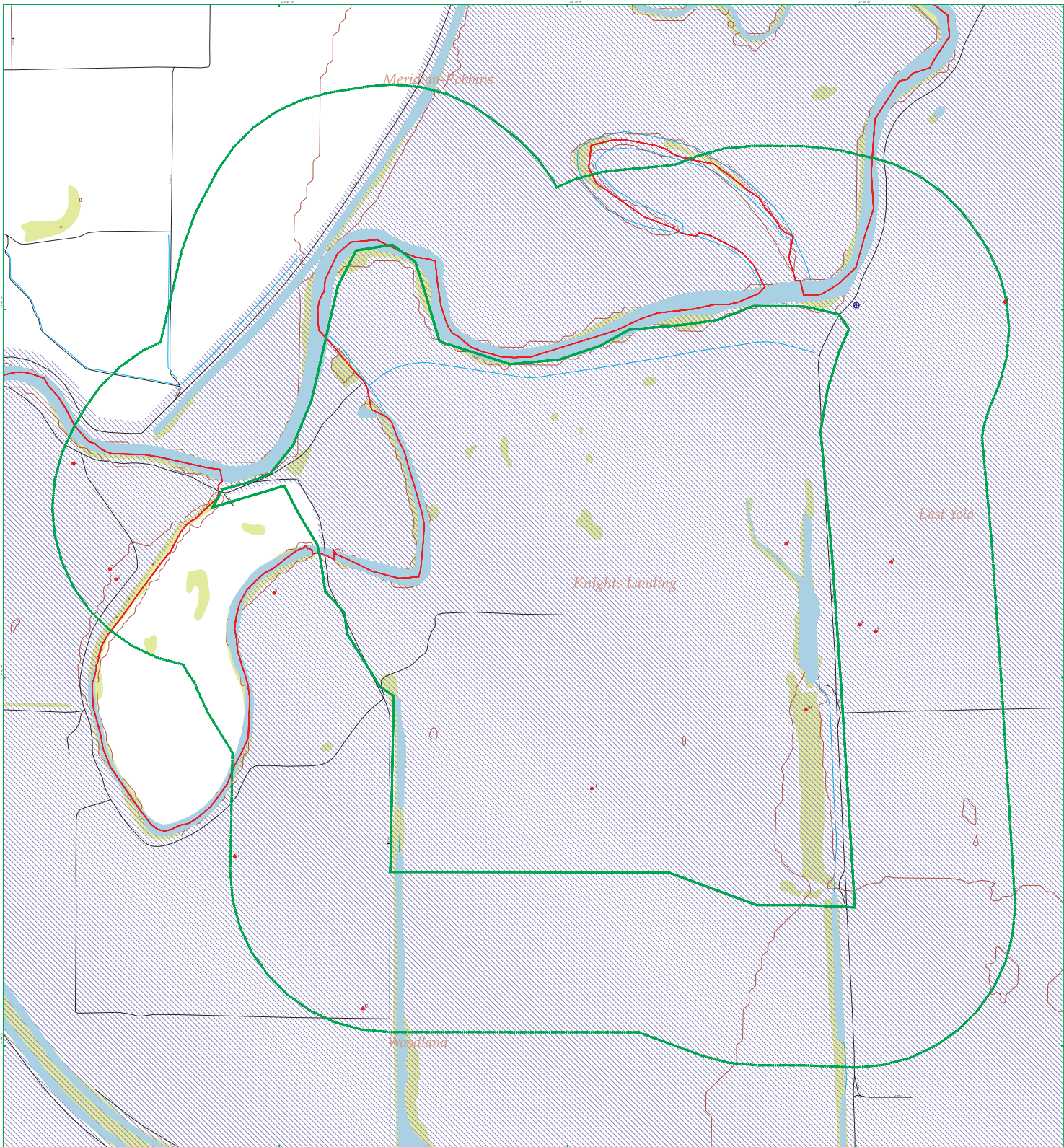
Yolo Bypass Fish Passage
Woodland, CA 95776

Inquiry Number: 4766866.5w
October 31, 2016

EDR DataMap™ Well Search Report



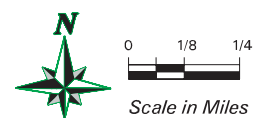
6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com



EDR DataMap[®] - Well Search
Yolo Bypass Fish Passage



- | | | |
|--------------------|---------------|--------------------|
| Listed Water Wells | Waterways | Superfund Sites |
| Oil & Gas Wells | Railroads | 100-Yr Flood Zones |
| Study Boundary | Contour Lines | Wetlands |
| Roads | Fault Lines | |
| Major Roads | Water | |



Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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GEOCHECK VERSION 2.1 SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID _____	WELL ID _____
1	USGS40000190139

STATE WATER WELL INFORMATION

MAP ID _____	WELL ID _____
NO WELLS FOUND	

STATE OIL/GAS WELL INFORMATION

MAP ID _____	WELL ID _____
1	CAOG11000241249
2	CAOG11000241532
3	CAOG11000241743
4	CAOG11000242154
5	CAOG11000241530
6	CAOG11000241644
7	CAOG11000241668
8	CAOG11000241327
9	CAOG11000241193
10	CAOG11000241188
11	CAOG11000240987
12	CAOG11000241152
13	CAOG11000241567

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

USGS TOPOGRAPHIC MAP(S)

38121-F5 TAYLOR MONUMENT, CA
 38121-F6 GRAYS BEND, CA
 38121-G5 VERONA, CA
 38121-G6 KNIGHTS LANDING, CA

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 95691

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for SUTTER County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

GEOCHECK VERSION 2.1 SUMMARY

AREA RADON INFORMATION

Federal Area Radon Information for SUTTER COUNTY, CA

Number of sites tested: 15

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	1.107 pCi/L	93%	7%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for YOLO County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for YOLO COUNTY, CA

Number of sites tested: 13

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	1.508 pCi/L	92%	8%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.200 pCi/L	100%	0%	0%

GEOCHECK VERSION 2.1

STATE DATABASE WELL INFORMATION

Water Well Information:

Map ID:	1	Site ID:	USGS40000190139
Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-384601121375601		
Monloc name:	011N003E27M001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18020109	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.7668464
Longitude:	-121.6332938	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	25.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19770412	Welldepth:	455
Welldepth units:	ft	Wellholedepth:	465
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-07-16	23.22		1977-04-12	22.00	

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Oil/Gas Well Information:

Map ID:	1	Api number:	11320209
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	B. Pete Jackson		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	27
Township:	11N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Deseret Farms	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	10-SEP-73
Welldeptha:	4005		
Redrillfoo:	0		
Abandonedd:	13-SEP-73	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241249		

Map ID:	2	Api number:	11320576
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Graham Royalty Ltd.		
County name:	Yolo	Fieldname:	Knights Landing Gas
Area name:	Grays Bend (ABD)	Section:	31
Township:	11N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 025		
Leasename:	Hershey A	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-APR-80
Welldeptha:	5700		
Redrillfoo:	0		
Abandonedd:	19-APR-91	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDG
Site id:	CAOG11000241532		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	3	Api number:	11320802
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Natural Gas Corp. of Calif.		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	33
Township:	11N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Reclamation Board	Wellnumber:	1-33
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	25-JUL-84
Welldeptha:	2895		
Redrillfoo:	0		
Abandonedd:	28-JUL-84	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241743		

Map ID:	4	Api number:	11321135
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Lario Oil & Gas Co.		
County name:	Yolo	Fieldname:	Rio Jesus Gas (ABD)
Area name:	Any Area	Section:	34
Township:	11N	Range:	03E
Base meridian:	MD	Elevation:	38
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/28/1999, Status Code 024		
Leasename:	Napoleans	Wellnumber:	1-34
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	27-AUG-99
Welldeptha:	3274		
Redrillfoo:	0		
Abandonedd:	08-FEB-02	Completion:	09-SEP-99
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000242154		

Map ID:	5	Api number:	11320574
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Graham Royalty Ltd.		
County name:	Yolo	Fieldname:	Knights Landing Gas
Area name:	Grays Bend (ABD)	Section:	31
Township:	11N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments:	Status Code 025	Wellnumber:	1
Leasename:	Hershey A	Hydraulica:	N
Epawell:	N	Spuddate:	19-DEC-79
Confidenti:	N		
Welldeptha:	5100		
Redrillfoo:	0		
Abandonedd:	19-NOV-86	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDG
Site id:	CAOG11000241530		

Map ID:	6	Api number:	11320695
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Resources Engineering	Fieldname:	Knights Landing Gas
County name:	Yolo	Section:	31
Area name:	Grays Bend (ABD)	Range:	03E
Township:	11N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 05/29/1997, Status Code 025		
Leasename:	Edson	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	09-JUN-82
Welldeptha:	5105		
Redrillfoo:	0		
Abandonedd:	13-JUL-01	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDG
Site id:	CAOG11000241644		

Map ID:	7	Api number:	11320722
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Hilliard Oil & Gas, Inc.	Fieldname:	Any Field
County name:	Yolo	Section:	32
Area name:	Any Area	Range:	03E
Township:	11N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Hershey A	Wellnumber:	6
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	27-SEP-82
Welldeptha:	4800		
Redrillfoo:	0		
Abandonedd:	02-OCT-82	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241668		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	8	Api number:	11320279
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.	Fieldname:	Rio Jesus Gas (ABD)
County name:	Yolo	Section:	34
Area name:	Any Area	Range:	03E
Township:	11N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	Deseret Farms	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	18-SEP-74
Welldeptha:	2700		
Redrillfoo:	0		
Abandonedd:	26-JUN-92	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241327		

Map ID:	9	Api number:	11320152
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Robert A. Cohan	Fieldname:	Rio Jesus Gas (ABD)
County name:	Yolo	Section:	34
Area name:	Any Area	Range:	03E
Township:	11N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	Knaggs	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	16-AUG-72
Welldeptha:	4000		
Redrillfoo:	0		
Abandonedd:	09-OCT-96	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241193		

Map ID:	10	Api number:	11320147
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.	Fieldname:	Rio Jesus Gas (ABD)
County name:	Yolo	Section:	4
Area name:	Any Area	Range:	03E
Township:	10N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 024	Wellnumber:	1
Leasename:	Jesus-Maria	Hydraulica:	N
Epawell:	N	Spuddate:	22-JUN-72
Confidenti:	N		
Welldeptha:	4504		
Redrillfoo:	0		
Abandonedd:	12-AUG-94	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241188		

Map ID:	11	Api number:	11300283
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Chevron U.S.A. Inc.	Fieldname:	Any Field
County name:	Yolo	Section:	4
Area name:	Any Area	Range:	03E
Township:	10N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	S.S.J.D.D.	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	04-AUG-61
Welldeptha:	9888		
Redrillfoo:	0		
Abandonedd:	23-AUG-61	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000240987		

Map ID:	12	Api number:	11320428
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	The Dow Chemical Company	Fieldname:	Any Field
County name:	Yolo	Section:	5
Area name:	Any Area	Range:	03E
Township:	10N	Elevation:	39
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Thomas-Hershey	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-DEC-76
Welldeptha:	5500		
Redrillfoo:	0		
Abandonedd:	26-DEC-76	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241152		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	13	Api number:	11320611
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Hilliard Oil & Gas, Inc.	Fieldname:	Any Field
County name:	Yolo	Section:	5
Area name:	Any Area	Range:	03E
Township:	10N	Elevation:	37
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Hershey A	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	04-OCT-80
Welldeptha:	5000		
Redrillfoo:	0		
Abandonedd:	08-OCT-80	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241567		

CALIFORNIA GOVERNMENT WELL RECORDS SEARCHED

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

Water Well Database

Source: Department of Public Health

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

STREET AND ADDRESS INFORMATION

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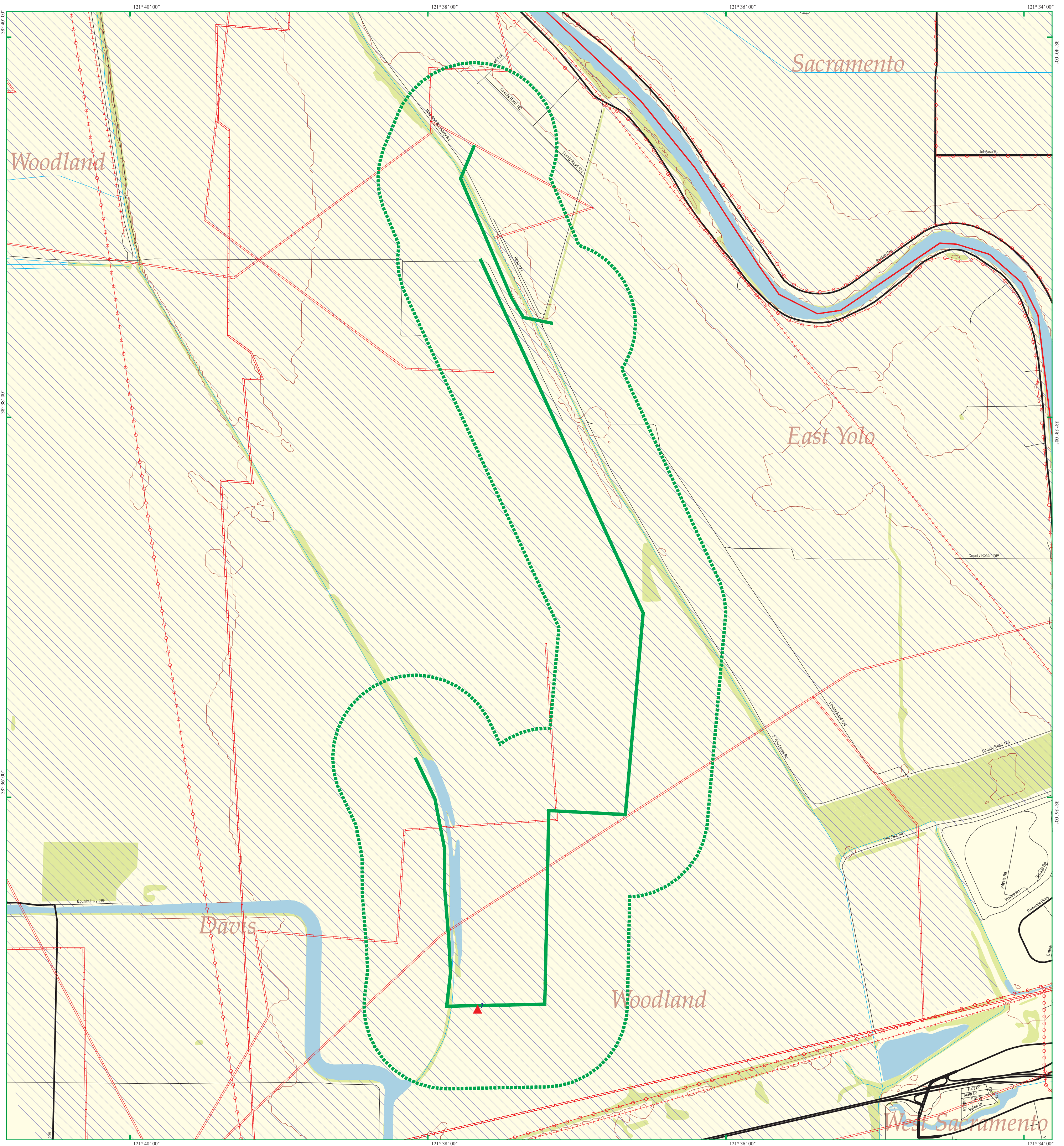
Yolo Bypass Fish Passage S Water Conto Structure
West Sacramento, CA 95776

Inquiry Number: 4849433.5s
February 10, 2017

EDR DataMap™ Corridor Study

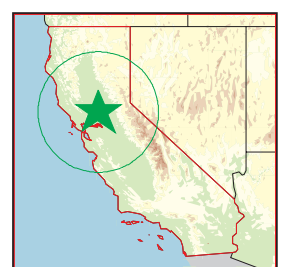


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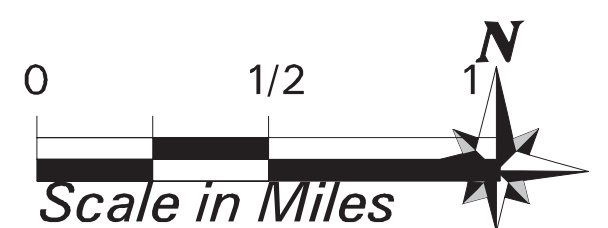
EDR DataMap® - Corridor Study

Yolo Bypass Fish Passage S Water Conto Structure



West Sacramento, CA

- | | | | | |
|--|-------------|---------------|-------------------------|----------------------------|
| Listed Sites | Roads | Contour Lines | Water | 100-Yr Flood Zones |
| Earthquake Epicenters (Richter 5 or greater) | Major Roads | Pipelines | Superfund Sites | National Wetland Inventory |
| Search Boundary | Waterways | Powerlines | Federal DOD Sites | |
| | Railroads | Fault Lines | Indian Reservations BIA | |



Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

WEST SACRAMENTO, CA 95776
WEST SACRAMENTO, CA 95776

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
SEMS	Superfund Enterprise Management System
SEMS-ARCHIVE	Superfund Enterprise Management System Archive
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	National Clandestine Laboratory Register
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
ABANDONED MINES.....	Abandoned Mines
LEAD SMELTERS.....	Lead Smelter Sites
FEDERAL FACILITY.....	Federal Facility Site Information listing
FEMA UST.....	Underground Storage Tank Listing
ECHO.....	Enforcement & Compliance History Information
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
COAL ASH DOE.....	Steam-Electric Plant Operation Data
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
PCB TRANSFORMER.....	PCB Transformer Registration Database
US HIST CDL.....	Delisted National Clandestine Laboratory Register
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
IHS OPEN DUMPS.....	Open Dumps on Indian Land
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem

STATE AND LOCAL RECORDS

HIST Cal-Sites.....	Historical Calsites Database
CA BOND EXP. PLAN.....	Bond Expenditure Plan
SCH.....	School Property Evaluation Program
Toxic Pits.....	Toxic Pits Cleanup Act Sites
SWF/LF.....	Solid Waste Information System
UIC.....	UIC Listing
WDS.....	Waste Discharge System
NPDES.....	NPDES Permits Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE.....	Hazardous Waste & Substance Site List
SWRCY.....	Recycler Database
LUST.....	Geotracker's Leaking Underground Fuel Tank Report
CA FID UST.....	Facility Inventory Database
SLIC.....	Statewide SLIC Cases
UST.....	Active UST Facilities
HIST UST.....	Hazardous Substance Storage Container Database
LIENS.....	Environmental Liens Listing
CUPA Listings.....	CUPA Resources List
SWEEPS UST.....	SWEEPS UST Listing
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
AST.....	Aboveground Petroleum Storage Tank Facilities
Notify 65.....	Proposition 65 Records
DEED.....	Deed Restriction Listing

EXECUTIVE SUMMARY

VCP.....	Voluntary Cleanup Program Properties
DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
ENF.....	Enforcement Action Listing
CDL.....	Clandestine Drug Labs
RESPONSE.....	State Response Sites
HAZNET.....	Facility and Manifest Data
EML.....	Emissions Inventory Data
HAULERS.....	Registered Waste Tire Haulers Listing
ENVIROSTOR.....	EnviroStor Database
ICE.....	ICE
PROC.....	Certified Processors Database
HWP.....	EnviroStor Permitted Facilities Listing
BROWNFIELDS.....	Considered Brownfields Sites Listing
MWMP.....	Medical Waste Management Program Listing
WMUDS/SWAT.....	Waste Management Unit Database
HWT.....	Registered Hazardous Waste Transporter Database
WASTEWATER PITS.....	Oil Wastewater Pits Listing
PEST LIC.....	Pesticide Regulation Licenses Listing

TRIBAL RECORDS

INDIAN RESERV.....	Indian Reservations
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
INDIAN VCP.....	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner.....	EDR Exclusive Historic Dry Cleaners
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank
RGA LF.....	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STATE AND LOCAL RECORDS

MINES: A listing of mine site locations from the Office of Mine Reclamation.

A review of the MINES list, as provided by EDR, and dated 09/12/2016 has revealed that there is 1 MINES site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
DWR/CONOWAY RANCH-SO		1	4

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
<u>FEDERAL RECORDS</u>	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
SEMS	0
SEMS-ARCHIVE	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	0
RCRA NonGen / NLR	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
DEBRIS REGION 9	0
ODI	0
US MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	0
RAATS	0
RMP	0
COAL ASH EPA	0
ABANDONED MINES	0
LEAD SMELTERS	0
FEDERAL FACILITY	0
FEMA UST	0
ECHO	0
FUELS PROGRAM	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
DOCKET HWC	0
UXO	0
FUSRAP	0
COAL ASH DOE	0
2020 COR ACTION	0
PRP	0
EPA WATCH LIST	0
US FIN ASSUR	0
PCB TRANSFORMER	0
US HIST CDL	0
SCRD DRYCLEANERS	0
IHS OPEN DUMPS	0
US AIRS	0

STATE AND LOCAL RECORDS

HIST Cal-Sites	0
CA BOND EXP. PLAN	0
SCH	0
Toxic Pits	0
SWF/LF	0
UIC	0
WDS	0
NPDES	0
Cortese	0
HIST CORTESE	0
SWRCY	0
LUST	0
CA FID UST	0
SLIC	0
UST	0
HIST UST	0
LIENS	0
CUPA Listings	0
SWEEPS UST	0
CHMIRS	0
LDS	0
MCS	0
AST	0
Notify 65	0
DEED	0
VCP	0
DRYCLEANERS	0
WIP	0
ENF	0
CDL	0
RESPONSE	0
HAZNET	0
EMI	0
HAULERS	0
ENVIROSTOR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
ICE	0
PROC	0
HWP	0
BROWNFIELDS	0
MWMP	0
WMUDS/SWAT	0
HWT	0
WASTEWATER PITS	0
PEST LIC	0
MINES	1
 <u>TRIBAL RECORDS</u>	
INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0
 <u>EDR PROPRIETARY RECORDS</u>	
EDR MGP	0
EDR Hist Auto	0
EDR Hist Cleaner	0
RGA LUST	0
RGA LF	0

NOTES:

Sites may be listed in more than one database

MAP FINDINGS

Map ID			EDR ID Number
Direction			
Distance			
Distance (ft.)Site		Database(s)	EPA ID Number

1	DWR/CONOWAY RANCH-SOUTH	MINES	S117661474
	, CA		N/A

MINES:

Latitude:	38.581389
Longitude:	-121.627778
Lead Agency identification code:	60
Lead Agency name:	California Department of Water Resources
Year of the operator supplied annual report:	2001
Type of report submitted by operator:	2
Number of acres disturbed by the mine:	0
Status of mining operation:	CLOSED NO INTENT TO RESUME
Status of mine reclamation:	RECLAMATION CERTIFIED COMPLETE BY LEAD AGENCY
Mine operator:	CALIFORNIA DEPARTMENT OF WATER RESOURCES
Operator Address:	1416 9TH STREET
Operator City, State, Zip:	SACRAMENTO, CA 95814
Operator County:	Not reported
Mine owner:	CONOWAY CONSERVANCY GROUP/JIM
Owner Address:	3251 S STREET
Owner City, State, Zip:	SACRAMENTO, CA 95816
Owner County:	Not reported
Reclamation plan identification number:	Not reported
Primary product produced by the mine:	CLAY
Other products produced by the mine:	Not reported
Type of mining utilized by mine:	UNDETERMINED
Conditional use permit identification number:	Not reported
Number of acres permitted for mining disturbance:	Not reported
Total amount of funds posted by the mine for reclamation:	\$0.00
Financial Assurance Cost Estimate for reclamation:	\$0.00

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CUYAMA	S105938218	E&B NATURAL RESOURCES	6 MI N. OF CUYAMA, HWY 166	95691	EMI
SAC	U001614199	H ISHIMOTO FARMS	2645 HWY 16	95691	HIST UST
SACRAMENTO	S101628062	H. ISHIMOTO FARMS	2645 HIGHWAY 16	95691	CA FID UST, SWEEPS UST
SACRAMENTO	S118598811	LINDEN SHORES	LINDEN ROAD/ S. RIVER ROAD	95691	NPDES
W SACRAMENTO	S112935444	CALTRANS DIST 3/CONSTR/EA03-368504/YOLO 84 JEFFERSON WIDENIN	PM 18.1 TO R21.7	95691	HAZNET
W SACRAMENTO	S112982058	CALTRANS D-3/CONSTR/EA03-3M3504	HWY 50 EB/WB PM 2.1-21.5	95691	HAZNET
W SACRAMENTO	1003877965	CAMPBELL CONSTRUCTION CO	S RIVER RD & RISKE LN	95691	SEMS-ARCHIVE
WEST SACRAMENTO	S118407179	A AND S SANDBLASTING	RT 1 BOX 2518	95691	HIST UST
WEST SACRAMENTO	U001614155	A & S SANDBLASTING	RR 1 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S118413163	MR AND MRS LLOYD APPLGATE	RT 1 BOX 6698	95691	HIST UST
WEST SACRAMENTO	S118411709	JOEL MCCRAY	RT 1 BOX 85 S RIVER RD	95691	HIST UST
WEST SACRAMENTO	S114725570	BRYTE LANDFILL /WEST SACRAMENTO	50035 CR 126 / CR 126 & ROAD 124		RGA LF
WEST SACRAMENTO	U001614191	FRANK L LANG	HWY 16 BOX 2630	95691	HIST UST
WEST SACRAMENTO	S114723852	YOLO CO PUBLIC WORKS	4TH ST/B ST		RGA LUST
WEST SACRAMENTO	S114723849	YOLO CO PUBLIC WORKS	0 4TH ST & B ST		RGA LUST
WEST SACRAMENTO	S114723860	YOLO COUNTY PUBLIC WORKS	4TH ST/B ST		RGA LUST
WEST SACRAMENTO	S112979499	CALTRANS D-3/CONSTR/EA03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S113459945	CALTRANS D-3/CONSTR/03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S112976600	CALTRANS D-3/CONSTR/EA03-1E0414	RTE 50/80 PM 0.0-5.4 & 3.2-9.1	95691	HAZNET
WEST SACRAMENTO	S117697433	CHUCK S USED TRUCKS INC	PO BOX 302		NPDES
WEST SACRAMENTO	U001614174	CLARENCE MATTOS	PO BOX 2535-HWY 16	95691	HIST UST
WEST SACRAMENTO	S118408738	CLARENCE MATTOS	BOX 2535-HWY 16	95691	HIST UST
WEST SACRAMENTO	S118171681	RECLAMATION DISTRICT 537	COUNTY ROAD 127 & TULE JAKE ROAD	95691	EMI
WEST SACRAMENTO	U001614181	DESERET FARMS	2518 COUNTY ROAD 117	95691	HIST UST
WEST SACRAMENTO	S112242022	SACRAMENTO RIVER RANCH WETLANDS	COUNTY ROAD 16 AND 117	95691	NPDES
WEST SACRAMENTO	S112964350	WINN COMMUNITIES CORP	1341 COUNTY ROAD 124	95691	HAZNET
WEST SACRAMENTO	S112933934	WILSON RANCH PARTNERS	18908 COUNTY RD 119	95691	HAZNET
WEST SACRAMENTO	S118409275	DESERET FARMS	COUNTY ROAD 117 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S114734278	WEST SACRAMENTO BRYTE LANDFILL	COUNTY ROAD 126 & ROAD 124		RGA LF
WEST SACRAMENTO	S118605982	SACRAMENTO WEIR SACRAMENTO BYPASS	HALF MILE N OF I 80 ON RIVER RD	95691	NPDES
WEST SACRAMENTO	S118613062	WEST SACRAMENTO LEVEE RECONSTRUCTION PROJECT CONTRACT C	INDUSTRIAL BLVD S OF E YOLO CAUSEWAY	95691	NPDES
WEST SACRAMENTO	S110503188	RECLAMATION DISTRICT NO. 900	LAKE ROAD AT TOE DRAIN AND I-80	95691	EMI
WEST SACRAMENTO	S112881398	TOUCHTONE LAKE ASSOC.	LINDEN ROAD (TOUCHTONE LAKE)	95691	HAZNET
WEST SACRAMENTO	S110732187	BRIDGE DISTRICT	N OF HWY 50 BTWN S RIVER RD & RISKE LN S OF BALLPARK DR	95691	NPDES
WEST SACRAMENTO	1017785743	PG&E PSEP - 1509 S. RIVER RD, WEST SACRAMENTO	PG&E PSEP - T-282-13 WEST SACRAME1	95691	RCRA-LQG, ECHO
WEST SACRAMENTO	1017802877	PG&E PSEP - 1509 S. RIVER RD, WEST SACRAMENTO	PG&E PSEP - T-282-13 WEST SACRAME1	95691	FINDS
WEST SACRAMENTO	S103679671	BRUSCO TUG & BARGE INC	PORT OF SACRAMENTO	95691	NPDES, WDS, CHMIRS
WEST SACRAMENTO	S111291293	CHP ACADEMY SACRAMENTO BYPASS	CO RD 127	95691	NPDES
WEST SACRAMENTO	A100424046	S RIVER SEWAGE PUMPING STATION	30030 S RIVER RD	95691	AST

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WEST SACRAMENTO	1016714814	S RIVER SEWAGE PUMPING STATION	30030 S RIVER RD	95691	FINDS
WEST SACRAMENTO	S114406110	PIONEER BLUFF BRIDGE PROJECT	SOUTH RIVER ROAD AT THE YOLO BARGE CANAL	95691	NPDES
WEST SACRAMENTO	1016347554	RIVER WALK PROPERTY	SOUTH RIVER ROAD & THIRD STREET	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S109604148	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	30030 SOUTH RIVER ROAD	95691	EMI
WEST SACRAMENTO	1016347053	WEYERHAEUSER PROPERTY	50 SOUTH RIVER ROAD	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S112857334	WEYERHAEUSER PAPER CO	50 SOUTH RIVER ROAD	95691	HAZNET
WEST SACRAMENTO	U004003744	J R MCCRAY PLASTERING INC	S RIVER RD RT 85	95691	UST
WEST SACRAMENTO	S112979849	WEST SACRAMENTO INVESTMENTS LLC	21796 ROAD 124	95691	HAZNET
WEST SACRAMENTO	S118612587	W SAC PROJ DRAIN DITCH & LEV	SAC BYPASS AND YOLO BYPASS		NPDES
WEST SACRAMENTO	S113066823	CARGILL, INC.	SACRAMENTO/YOLO PORT DISTRICT	95691	HAZNET
WEST SACRAMENTO	S112844421	P G & E/DEEP WATER SUB STATION	THORPE RD 1 MI WEST OF JEFFERSON BLVD	95691	HAZNET
WEST SACRAMENTO	S106230605	KINDER MORGAN ENERGY PARTNERS, EAST YOLO BYPASS SPILL (2000)	UPRR MILE POST MARKER 85.2, MARTINEZ SUBDIVISION		SLIC
WEST SACRAMENTO	S118613736	YOLO FORCE MAIN	YOLO FORCE MAIN		NPDES
WEST SACRAMENTO	S112942205	CITY OF WEST SACRAMENTO DEPT PUBLIC WORKS	YOLO BARGE CANAL BRIDGE ON	95691	HAZNET
WEST SACRAMENTO	S118592320	DAVIS	YOLO BYPASS S OF I 80		NPDES
WINTERS	S118417102	WILLIAM LIDER	ROUTE 1 BOX 153A	95691	HIST UST
WOODLAND	S106840591	TEICHERT DAVIS READYMIX PLTS	40060 CR 29 CR 29 & HWY 113	95776	EMI
WOODLAND	S117624448	DAVIS WOODLAND WATER SUPPLY RAW AND FINISHED WATER PIPELINES	COUNTY RD 22 WOODLAND TO COUNTY RD 102 DAVIS	95776	NPDES
WOODLAND	S116497544	DAVIS WOODLAND WATER SUPPLY PROJECT	855 COUNTY ROAD 102	95776	NPDES
WOODLAND	1012053550	TRICAL, INC	39985 COUNTY RD 14	95776	SSTS
WOODLAND	S117348339	SOLARA RANCH	COUNTY ROAD 101 SOUTH OF COUNTY ROAD 25	95776	NPDES
WOODLAND	S118119920	YCCL SOIL BORROW SITE	COUNTY ROAD 28H AND COUNTY ROAD 104	95776	NPDES
WOODLAND	S113179426	DBA HOLLY SUGAR	COUNTY ROAD 18C	95776	HAZNET
WOODLAND	S117640042	GROWERS AIR SERVICE	41167 COUNTY ROAD # 27	95776	PEST LIC
WOODLAND	S117711060	SLSP OFF SITE SEWER PIPELINE CONVEYANCE SYS	FUTURE FAMER ROAD AND ROAD 102	95776	NPDES
WOODLAND	S113089418	YOLO COUNTY SHERIFF CORONER	41793 GIBSON RD	95776	HAZNET
WOODLAND	S113880995	HERITAGE VIL 4A 4C AND 7	HERITAGE PARKWAY AND COUNTY ROAD 102	95776	NPDES
WOODLAND	S112850388	ALAMO OIL CO	INTERSECTION OF ROAD 95 AND	95776	HAZNET
WOODLAND	S118596928	INDUSTRIAL PARK RECYCLED WATER PROJECT	E KENTUCKY AVE TO CTY RD 24 WPCF	95776	NPDES
WOODLAND	S117348216	PHASE 1 HERITAGE REMAINDER AREA AND HERITAGE PARK UNIT 2 SUB	MARSTON ROAD AND MIEKLE AVENUE	95776	NPDES
WOODLAND	S118603794	PLANFIELD TAP 60 KV LINE	NE OF INTER COUNTY RD 98 AND COUNTY RD 27	95776	NPDES
WOODLAND	S118611381	TURN OF THE CENTURY EAST	NW OF ROAD 102 & 25	95776	NPDES
WOODLAND	S117347998	HEIDRICK RANCH UNITS 2 AND 3	EAST OF COUNTY ROAD 101	95776	NPDES
WOODLAND	1014202327	CACHE CREEK SETTLING BASIN	EAST OF CITY OF WOODLAND	95776	SEMS
WOODLAND	S113052492	YOLO COUNTY CENTRAL LANDFILL	44090 ROAD 28H	95776	HAZNET
WOODLAND	S112840334	CACHE CREEK RANCH COMPANY	ROAD 17 B	95776	HAZNET
WOODLAND	S118172226	METRO METALS, LLC	VARIOUS LOCATIONS, INCLUDING 19389 COUNTY ROAD 102	95776	EMI
YOLO COUNTY	S117697718	CNTY RD 32 E O I 505	COUNTY ROAD 32 E O I 505		NPDES
YOLO COUNTY	S112832375	HARBOR BOULEVARD BRIDGE WIDENING	HARBOR BLVD/HWY 50		NPDES
YOLO COUNTY	S107538895		I-5, NO OF DUNNIGAN AT COUNTY LINE RD		CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 01/05/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 01/05/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 01/05/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 01/06/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 01/06/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 01/24/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/12/2016	Source: EPA
Date Data Arrived at EDR: 09/28/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 12/28/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/20/2016
Date Data Arrived at EDR: 09/21/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 51

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/08/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/18/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 12/06/2016
Number of Days to Update: 74	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 09/09/2016
Number of Days to Update: 146	Next Scheduled EDR Contact: 12/05/2016
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 01/23/2017
Number of Days to Update: 137	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 12/02/2016
Number of Days to Update: 97	Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/01/2016	Telephone: 303-231-5959
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 12/01/2016
Number of Days to Update: 22	Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 12/12/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Varies

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 11/24/2015	Telephone: 202-566-0250
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 11/22/2016
Number of Days to Update: 133	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012	Source: EPA
Date Data Arrived at EDR: 01/15/2015	Telephone: 202-260-5521
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/23/2016
Number of Days to Update: 14	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 11/17/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 11/17/2016
Number of Days to Update: 25	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/27/2016
Date Data Arrived at EDR: 08/05/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/03/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/05/2016	Telephone: 202-343-9775
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 01/06/2017
Number of Days to Update: 16	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016	Source: EPA
Date Data Arrived at EDR: 09/07/2016	Telephone: (415) 947-8000
Date Made Active in Reports: 11/11/2016	Last EDR Contact: 12/06/2016
Number of Days to Update: 65	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/22/2016	Telephone: 202-564-8600
Date Made Active in Reports: 11/11/2016	Last EDR Contact: 01/23/2017
Number of Days to Update: 81	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/23/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Biennially

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/07/2016
Next Scheduled EDR Contact: 02/20/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 01/20/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 17

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/29/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/06/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/04/2016	Telephone: 703-603-8704
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 12/06/2016
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 12/22/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 12/22/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/11/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/16/2016	Telephone: 202-566-1917
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 11/16/2016
Number of Days to Update: 79	Next Scheduled EDR Contact: 02/27/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/03/2017
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 03/07/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/07/2016	Telephone: 703-603-8787
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 148	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 11/11/2016
Number of Days to Update: 6	Next Scheduled EDR Contact: 02/20/2017
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/03/2016	Telephone: 202-564-0527
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 11/28/2016
Number of Days to Update: 91	Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016
Date Data Arrived at EDR: 09/20/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016
Date Data Arrived at EDR: 07/26/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 59

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 66

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/16/2016
Date Data Arrived at EDR: 05/18/2016
Date Made Active in Reports: 06/23/2016
Number of Days to Update: 36

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/15/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 52

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016	Source: Office of Emergency Services
Date Data Arrived at EDR: 10/26/2016	Telephone: 916-845-8400
Date Made Active in Reports: 01/17/2017	Last EDR Contact: 01/25/2017
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016	Source: State Water Quality Control Board
Date Data Arrived at EDR: 12/14/2016	Telephone: 866-480-1028
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 12/14/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 03/27/2017
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/14/2016	Telephone: 866-480-1028
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 12/14/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 03/27/2017
	Data Release Frequency: Quarterly

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/12/2016	Telephone: 916-327-5092
Date Made Active in Reports: 09/19/2016	Last EDR Contact: 12/22/2016
Number of Days to Update: 69	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/19/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/20/2016	Telephone: 916-445-3846
Date Made Active in Reports: 12/16/2016	Last EDR Contact: 12/16/2016
Number of Days to Update: 87	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/06/2016	Source: DTSC and SWRCB
Date Data Arrived at EDR: 12/06/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 12/06/2016
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/02/2016	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 09/27/2016	Telephone: 916-327-4498
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 12/02/2016
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 12/22/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/18/2016	Telephone: 916-255-6504
Date Made Active in Reports: 12/22/2016	Last EDR Contact: 01/09/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/06/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/09/2016	Telephone: 916-445-9379
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/12/2016	Telephone: 916-255-1136
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 01/09/2017
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014	Source: California Air Resources Board
Date Data Arrived at EDR: 09/23/2016	Telephone: 916-322-2990
Date Made Active in Reports: 10/24/2016	Last EDR Contact: 12/23/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: Varies

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 11/22/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: No Update Planned

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/06/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 37

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 09/06/2016	Source: Department of Pesticide Regulation
Date Data Arrived at EDR: 09/07/2016	Telephone: 916-445-4038
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 12/06/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/12/2016	Source: Department of Conservation
Date Data Arrived at EDR: 09/14/2016	Telephone: 916-323-3836
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 12/14/2016
Number of Days to Update: 30	Next Scheduled EDR Contact: 12/26/2016
	Data Release Frequency: Quarterly

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 03/07/2016	Telephone: 916-323-7905
Date Made Active in Reports: 05/04/2016	Last EDR Contact: 01/04/2017
Number of Days to Update: 58	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/22/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/23/2017	Last EDR Contact: 11/22/2016
Number of Days to Update: 62	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Quarterly

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board's review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 04/15/2015	Source: RWQCB, Central Valley Region
Date Data Arrived at EDR: 04/17/2015	Telephone: 559-445-5577
Date Made Active in Reports: 06/23/2015	Last EDR Contact: 01/13/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 01/13/2017
Number of Days to Update: 546	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-8677
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/24/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015	Source: EPA Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 10/29/2015	Telephone: 617-918-1313
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016	Source: EPA Region 4
Date Data Arrived at EDR: 04/29/2016	Telephone: 404-562-9424
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/24/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 119	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2017
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 120	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015	Source: EPA Region 5
Date Data Arrived at EDR: 11/13/2015	Telephone: 312-886-6136
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/27/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

RGALUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/30/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 182	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FRESNO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/11/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 10/25/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 10/24/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 22

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/14/2016	Source: Kings County Department of Public Health
Date Data Arrived at EDR: 12/16/2016	Telephone: 559-584-1411
Date Made Active in Reports: 12/22/2016	Last EDR Contact: 11/16/2016
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 09/08/2016	Source: Lake County Environmental Health
Date Data Arrived at EDR: 09/09/2016	Telephone: 707-263-1164
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 01/17/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009	Source: EPA Region 9
Date Data Arrived at EDR: 03/31/2009	Telephone: 415-972-3178
Date Made Active in Reports: 10/23/2009	Last EDR Contact: 12/15/2016
Number of Days to Update: 206	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016	Source: Department of Public Works
Date Data Arrived at EDR: 11/18/2016	Telephone: 626-458-3517
Date Made Active in Reports: 01/23/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 66	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016	Source: La County Department of Public Works
Date Data Arrived at EDR: 10/18/2016	Telephone: 818-458-5185
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 01/18/2017
Number of Days to Update: 58	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016	Source: Engineering & Construction Division
Date Data Arrived at EDR: 01/26/2016	Telephone: 213-473-7869
Date Made Active in Reports: 03/22/2016	Last EDR Contact: 01/17/2017
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016	Source: Community Health Services
Date Data Arrived at EDR: 04/06/2016	Telephone: 323-890-7806
Date Made Active in Reports: 06/13/2016	Last EDR Contact: 01/17/2017
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015	Source: City of El Segundo Fire Department
Date Data Arrived at EDR: 04/02/2015	Telephone: 310-524-2236
Date Made Active in Reports: 04/13/2015	Last EDR Contact: 01/17/2017
Number of Days to Update: 11	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015	Source: City of Long Beach Fire Department
Date Data Arrived at EDR: 11/13/2015	Telephone: 562-570-2563
Date Made Active in Reports: 12/17/2015	Last EDR Contact: 01/23/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016	Source: City of Torrance Fire Department
Date Data Arrived at EDR: 10/11/2016	Telephone: 310-618-2973
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/09/2017
Number of Days to Update: 93	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/05/2016	Source: Madera County Environmental Health
Date Data Arrived at EDR: 12/09/2016	Telephone: 559-675-7823
Date Made Active in Reports: 01/19/2017	Last EDR Contact: 11/16/2016
Number of Days to Update: 41	Next Scheduled EDR Contact: 03/06/2017
	Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016	Source: Public Works Department Waste Management
Date Data Arrived at EDR: 10/25/2016	Telephone: 415-499-6647
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/17/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Semi-Annually

MERCED COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 51

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016	Source: Department of Environmental Health
Date Data Arrived at EDR: 10/25/2016	Telephone: 951-358-5055
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 12/19/2016
Number of Days to Update: 77	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/22/2016	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 10/04/2016	Telephone: 916-875-8406
Date Made Active in Reports: 11/18/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 45	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/22/2016	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 10/04/2016	Telephone: 916-875-8406
Date Made Active in Reports: 12/16/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 73	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/06/2016	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 09/07/2016	Telephone: 909-387-3041
Date Made Active in Reports: 10/19/2016	Last EDR Contact: 02/06/2017
Number of Days to Update: 42	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 09/24/2013	Telephone: 619-338-2268
Date Made Active in Reports: 10/17/2013	Last EDR Contact: 12/06/2016
Number of Days to Update: 23	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 52

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/21/2016
Date Data Arrived at EDR: 09/22/2016
Date Made Active in Reports: 10/18/2016
Number of Days to Update: 26

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 57

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/28/2016
Next Scheduled EDR Contact: 03/13/2017
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/16/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/15/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 29

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/27/2016
Date Data Arrived at EDR: 09/28/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 55

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/06/2016
Date Made Active in Reports: 12/16/2016
Number of Days to Update: 71

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 10/27/2016
Date Data Arrived at EDR: 10/28/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 74

Source: Division of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 11/14/2016
Number of Days to Update: 37	Next Scheduled EDR Contact: 02/27/2017
	Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 10/27/2016	Telephone: 805-654-2813
Date Made Active in Reports: 01/24/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 89	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016	Source: Environmental Health Division
Date Data Arrived at EDR: 12/14/2016	Telephone: 805-654-2813
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 12/14/2016
Number of Days to Update: 29	Next Scheduled EDR Contact: 03/27/2017
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016	Source: Yolo County Department of Health
Date Data Arrived at EDR: 11/18/2016	Telephone: 530-666-8646
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/03/2017
Number of Days to Update: 55	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 11/03/2016	Telephone: 530-749-7523
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 01/30/2017
Number of Days to Update: 42	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/01/2016
Date Data Arrived at EDR: 11/02/2016
Date Made Active in Reports: 01/04/2017
Number of Days to Update: 63

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/21/2016
Next Scheduled EDR Contact: 03/06/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Northern Water Control Structure

Woodland, CA 95776

Inquiry Number: 4862790.5s

March 06, 2017

EDR DataMap™ Area Study



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com



INVOICE

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 6 Armstrong Road, 4th floor
 Shelton, CT 06484
 Phone: 855.337.5126
 Fax: 888.322.4793
 paymybill.edrnet.com

Invoice #: **INV00546962**

Account #: 1411257 **CDM Smith Inc.**

Bill To:

100 Pringle Avenue Suite 300
 Walnut Creek, CA 94596-0000

Ship To:

Suzanne Wilkins
 100 Pringle Avenue Suite 300
 Walnut Creek, CA 94596

Order Date: 2/24/2017

Invoice Date: 3/6/2017

Order #: 4862790

Property Info	Project #	PO #	Package	Item	Tax	Fee
Northern Water Control Structure, Conaway Ranch, West Sacramento, CA, Woodland, CA 95776	94556	NA	Ala Carte			
				EDR Corridor/Area Study	N	\$495.00
				Custom Report	N	\$247.50

Sales Tax: \$0.00

Payable Upon Receipt

Total Amount: \$742.50

Remit Payment To :
 EDR
 PO Box 414176
 Boston, MA 02241-4176

Pay By Credit Card:
 paymybill.edrnet.com

ACH / Wire Transfers:
 Bank of America
 Routing #: 111000012
 Account #: 3756450736
 Please contact Accounts Receivable prior to wiring funds.


















Federal Tax ID# : 06-1501757

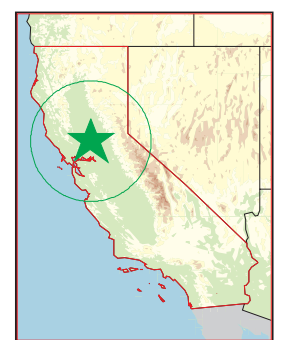
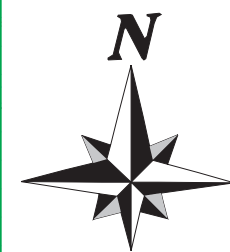
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EDR DataMap® Area Study

Northern Water Control Structure

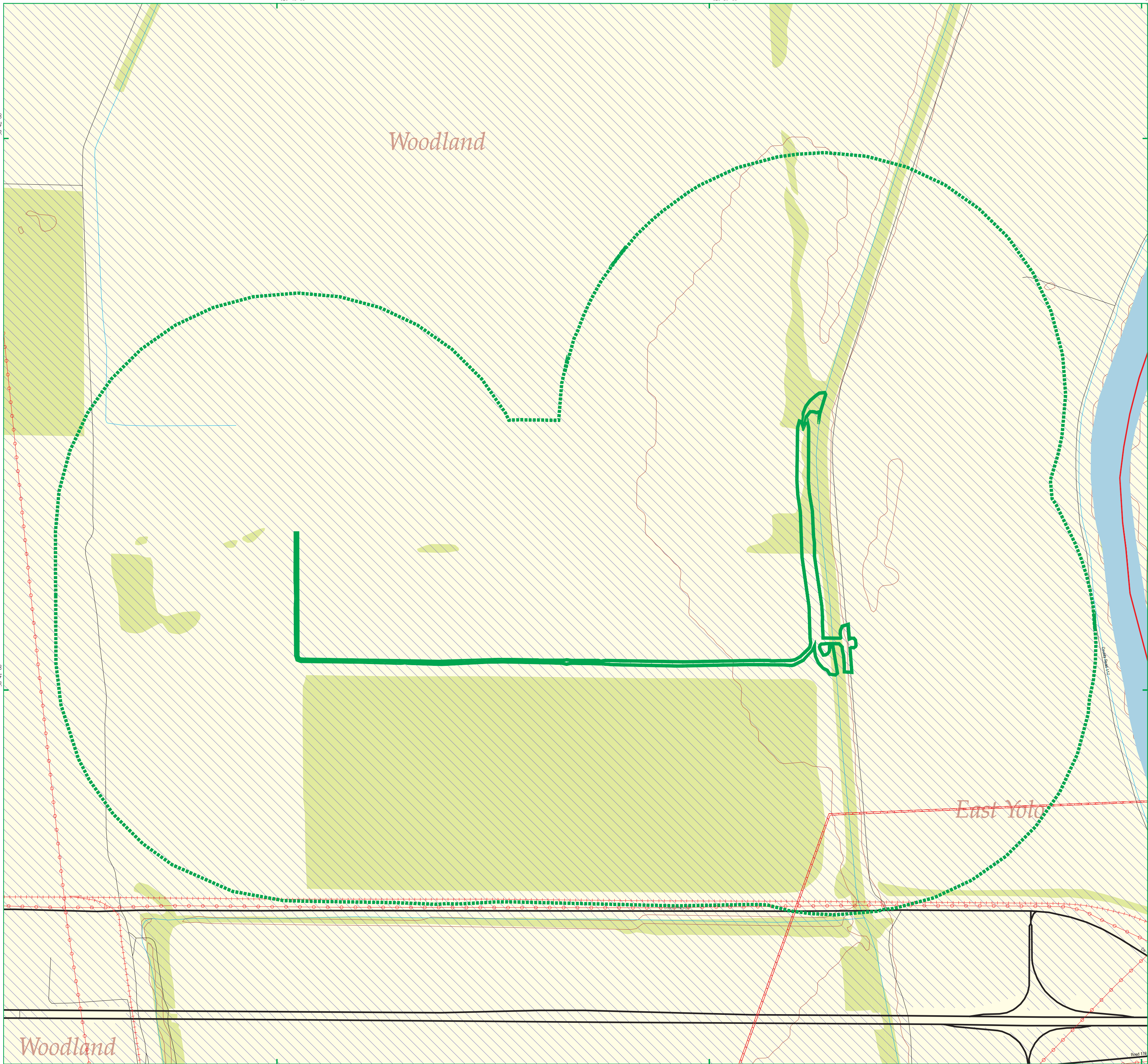
-  Listed Sites
-  Earthquake Epicenters (Richter 5 or greater)
-  Search Boundary
-  Roads
-  Major Roads
-  Waterways
-  Railroads
-  Contour Lines
-  Pipelines
-  Powerlines
-  Fault Lines
-  Water
-  Superfund Sites
-  Federal DOD Sites
-  Indian Reservations BIA
-  100-Yr Flood Zones
-  National Wetland Inventory



Woodland, CA



Scale in Miles



Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

WOODLAND, CA 95776
WOODLAND, CA 95776

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
SEMS	Superfund Enterprise Management System
SEMS-ARCHIVE	Superfund Enterprise Management System Archive
LIENS 2	CERCLA Lien Information
CORRACTS	Corrective Action Report
RCRA-TSDF	RCRA - Treatment, Storage and Disposal
RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator
RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
DOT OPS	Incident and Accident Data
US CDL	National Clandestine Laboratory Register
US BROWNFIELDS	A Listing of Brownfields Sites
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
LUCIS	Land Use Control Information System
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems

EXECUTIVE SUMMARY

ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
ABANDONED MINES.....	Abandoned Mines
LEAD SMELTERS.....	Lead Smelter Sites
FEDERAL FACILITY.....	Federal Facility Site Information listing
FEMA UST.....	Underground Storage Tank Listing
ECHO.....	Enforcement & Compliance History Information
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
UXO.....	Unexploded Ordnance Sites
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
COAL ASH DOE.....	Steam-Electric Plant Operation Data
2020 COR ACTION.....	2020 Corrective Action Program List
PRP.....	Potentially Responsible Parties
EPA WATCH LIST.....	EPA WATCH LIST
US FIN ASSUR.....	Financial Assurance Information
PCB TRANSFORMER.....	PCB Transformer Registration Database
US HIST CDL.....	Delisted National Clandestine Laboratory Register
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
IHS OPEN DUMPS.....	Open Dumps on Indian Land
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem

STATE AND LOCAL RECORDS

HIST Cal-Sites.....	Historical Calsites Database
CA BOND EXP. PLAN.....	Bond Expenditure Plan
SCH.....	School Property Evaluation Program
Toxic Pits.....	Toxic Pits Cleanup Act Sites
SWF/LF.....	Solid Waste Information System
WDS.....	Waste Discharge System
UIC.....	UIC Listing
NPDES.....	NPDES Permits Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
HIST CORTESE.....	Hazardous Waste & Substance Site List
SWRCY.....	Recycler Database
LUST.....	Geotracker's Leaking Underground Fuel Tank Report
CA FID UST.....	Facility Inventory Database
SLIC.....	Statewide SLIC Cases
UST.....	Active UST Facilities
HIST UST.....	Hazardous Substance Storage Container Database
LIENS.....	Environmental Liens Listing
CUPA Listings.....	CUPA Resources List
SWEEPS UST.....	SWEEPS UST Listing
CHMIRS.....	California Hazardous Material Incident Report System
LDS.....	Land Disposal Sites Listing
MCS.....	Military Cleanup Sites Listing
AST.....	Aboveground Petroleum Storage Tank Facilities
Notify 65.....	Proposition 65 Records
DEED.....	Deed Restriction Listing

EXECUTIVE SUMMARY

VCP.....	Voluntary Cleanup Program Properties
DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
ENF.....	Enforcement Action Listing
CDL.....	Clandestine Drug Labs
RESPONSE.....	State Response Sites
HAZNET.....	Facility and Manifest Data
EML.....	Emissions Inventory Data
HAULERS.....	Registered Waste Tire Haulers Listing
ENVIROSTOR.....	EnviroStor Database
HWT.....	Registered Hazardous Waste Transporter Database
ICE.....	ICE
WMUDS/SWAT.....	Waste Management Unit Database
WASTEWATER PITS.....	Oil Wastewater Pits Listing
MWMP.....	Medical Waste Management Program Listing
MINES.....	Mines Site Location Listing
PROC.....	Certified Processors Database
BROWNFIELDS.....	Considered Brownfields Sites Listing
HWP.....	EnviroStor Permitted Facilities Listing
PEST LIC.....	Pesticide Regulation Licenses Listing

TRIBAL RECORDS

INDIAN RESERV.....	Indian Reservations
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
INDIAN VCP.....	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner.....	EDR Exclusive Historic Dry Cleaners
RGA LUST.....	Recovered Government Archive Leaking Underground Storage Tank
RGA LF.....	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
<u>FEDERAL RECORDS</u>	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
SEMS	0
SEMS-ARCHIVE	0
LIENS 2	0
CORRACTS	0
RCRA-TSDF	0
RCRA-LQG	0
RCRA-SQG	0
RCRA-CESQG	0
RCRA NonGen / NLR	0
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	0
HMIRS	0
DOT OPS	0
US CDL	0
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
DEBRIS REGION 9	0
ODI	0
US MINES	0
TRIS	0
TSCA	0
FTTS	0
HIST FTTS	0
SSTS	0
ICIS	0
PADS	0
MLTS	0
RADINFO	0
FINDS	0
RAATS	0
RMP	0
COAL ASH EPA	0
ABANDONED MINES	0
LEAD SMELTERS	0
FEDERAL FACILITY	0
FEMA UST	0
ECHO	0
FUELS PROGRAM	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
DOCKET HWC	0
UXO	0
FUSRAP	0
COAL ASH DOE	0
2020 COR ACTION	0
PRP	0
EPA WATCH LIST	0
US FIN ASSUR	0
PCB TRANSFORMER	0
US HIST CDL	0
SCRD DRYCLEANERS	0
IHS OPEN DUMPS	0
US AIRS	0

STATE AND LOCAL RECORDS

HIST Cal-Sites	0
CA BOND EXP. PLAN	0
SCH	0
Toxic Pits	0
SWF/LF	0
WDS	0
UIC	0
NPDES	0
Cortese	0
HIST CORTESE	0
SWRCY	0
LUST	0
CA FID UST	0
SLIC	0
UST	0
HIST UST	0
LIENS	0
CUPA Listings	0
SWEEPS UST	0
CHMIRS	0
LDS	0
MCS	0
AST	0
Notify 65	0
DEED	0
VCP	0
DRYCLEANERS	0
WIP	0
ENF	0
CDL	0
RESPONSE	0
HAZNET	0
EMI	0
HAULERS	0
ENVIROSTOR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Total Plotted</u>
HWT	0
ICE	0
WMUDS/SWAT	0
WASTEWATER PITS	0
MWMP	0
MINES	0
PROC	0
BROWNFIELDS	0
HWP	0
PEST LIC	0
<u>TRIBAL RECORDS</u>	
INDIAN RESERV	0
INDIAN ODI	0
INDIAN LUST	0
INDIAN UST	0
INDIAN VCP	0
<u>EDR PROPRIETARY RECORDS</u>	
EDR MGP	0
EDR Hist Auto	0
EDR Hist Cleaner	0
RGA LUST	0
RGA LF	0

NOTES:

Sites may be listed in more than one database

MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)Site

EDR ID Number

Database(s) EPA ID Number

NO SITES FOUND

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CUYAMA	S105938218	E&B NATURAL RESOURCES	6 MI N. OF CUYAMA, HWY 166	95691	EMI
SAC	U001614199	H ISHIMOTO FARMS	2645 HWY 16	95691	HIST UST
SACRAMENTO	S101628062	H. ISHIMOTO FARMS	2645 HIGHWAY 16	95691	CA FID UST, SWEEPS UST
W SACRAMENTO	S112982058	CALTRANS D-3/CONSTR/EA03-3M3504	HWY 50 EB/WB PM 2.1-21.5	95691	HAZNET
W SACRAMENTO	1003877965	CAMPBELL CONSTRUCTION CO	S RIVER RD & RISKE LN	95691	SEMS-ARCHIVE
WEST SACRAMENTO	S118413163	MR AND MRS LLOYD APPEGATE	RT 1 BOX 6698	95691	HIST UST
WEST SACRAMENTO	S118407179	A AND S SANDBLASTING	RT 1 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S118411709	JOEL MCCRAY	RT 1 BOX 85 S RIVER RD	95691	HIST UST
WEST SACRAMENTO	U001614191	FRANK L LANG	HWY 16 BOX 2630	95691	HIST UST
WEST SACRAMENTO	S112979499	CALTRANS D-3/CONSTR/EA03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S113459945	CALTRANS D-3/CONSTR/03-388004	RTE 50 EB/WB PM 0.6-2.0	95691	HAZNET
WEST SACRAMENTO	S112976600	CALTRANS D-3/CONSTR/EA03-1E0414	RTE 50/80 PM 0.0-5.4 & 3.2-9.1	95691	HAZNET
WEST SACRAMENTO	U001614174	CLARENCE MATTOS	PO BOX 2535-HWY 16	95691	HIST UST
WEST SACRAMENTO	S118408738	CLARENCE MATTOS	BOX 2535-HWY 16	95691	HIST UST
WEST SACRAMENTO	S118171681	RECLAMATION DISTRICT 537	COUNTY ROAD 127 & TULE JAKE ROAD	95691	EMI
WEST SACRAMENTO	U001614181	DESERET FARMS	2518 COUNTY ROAD 117	95691	HIST UST
WEST SACRAMENTO	S112242022	SACRAMENTO RIVER RANCH WETLANDS	COUNTY ROAD 16 AND 117	95691	NPDES
WEST SACRAMENTO	S112964350	WINN COMMUNITIES CORP	1341 COUNTY ROAD 124	95691	HAZNET
WEST SACRAMENTO	S112933934	WILSON RANCH PARTNERS	18908 COUNTY RD 119	95691	HAZNET
WEST SACRAMENTO	S118409275	DESERET FARMS	COUNTY ROAD 117 BOX 2518	95691	HIST UST
WEST SACRAMENTO	S110503188	RECLAMATION DISTRICT NO. 900	LAKE ROAD AT TOE DRAIN AND I-80	95691	EMI
WEST SACRAMENTO	S112881398	TOUCHTONE LAKE ASSOC.	LINDEN ROAD (TOUCHTONE LAKE)	95691	HAZNET
WEST SACRAMENTO	S110732187	BRIDGE DISTRICT	N OF HWY 50 BTWN S RIVER RD & RISKE LN S OF BALLPARK DR	95691	NPDES
WEST SACRAMENTO	S103679671	BRUSCO TUG & BARGE INC	PORT OF SACRAMENTO	95691	WDS, NPDES, CHMIRS
WEST SACRAMENTO	S113458118	DEPARTMENT OF TOXIC SUBSTANCES CONTROL	801 RISKE LANE	95691	HAZNET
WEST SACRAMENTO	S114406110	PIONEER BLUFF BRIDGE PROJECT	SOUTH RIVER ROAD AT THE YOLO BARGE CANAL	95691	NPDES
WEST SACRAMENTO	1016347554	RIVER WALK PROPERTY	SOUTH RIVER ROAD & THIRD STREET	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S109604148	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	30030 SOUTH RIVER ROAD	95691	EMI
WEST SACRAMENTO	1016347053	WEYERHAEUSER PROPERTY	50 SOUTH RIVER ROAD	95691	US BROWNFIELDS, FINDS
WEST SACRAMENTO	S112857334	WEYERHAEUSER PAPER CO	50 SOUTH RIVER ROAD	95691	HAZNET
WEST SACRAMENTO	U004003744	J R MCCRAY PLASTERING INC	S RIVER RD RT 85	95691	UST
WEST SACRAMENTO	S112979849	WEST SACRAMENTO INVESTMENTS LLC	21796 ROAD 124	95691	HAZNET
WEST SACRAMENTO	S112844421	P G & E/DEEP WATER SUB STATION	THORPE RD 1 MI WEST OF JEFFERSON BLVD	95691	HAZNET
WEST SACRAMENTO	S110503195	REGIS HOMES OF NORTHERN CALIFORNIA	TOWER BRIDGE GATEWAY	95691	EMI
WINTERS	S118417102	WILLIAM LIDER	ROUTE 1 BOX 153A	95691	HIST UST
WOODLAND	S106230588	AGRIFORM SUPPLY COMPANY	HIGHWAY 113 & ROAD 18C		SLIC
WOODLAND	U003790390	PACIFIC INTERNATIONAL	17465 HIGHWAY 113		UST
WOODLAND	S117712608	THE OAKS AT WILD WINGS	SR 16 CITY RD 94B WATTS WOODLAND		NPDES
WOODLAND	S106840591	TEICHERT DAVIS READYMIX PLTS	40060 CR 29 CR 29 & HWY 113	95776	EMI
WOODLAND	S105939912	TEICHERT AGGREGATES	CR 29/HWY 113		EMI
WOODLAND	S114730318	MERRILL L. DUBACH PIT	INTERSTATE 5, 1900 FEET EAST OF ROAD 98		RGA LF
WOODLAND	S114599455	CHEVRON STATION #9-2597	INTERSTATE 5/ROAD 102		RGA LUST

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WOODLAND	1016265318	CALIFORNIA NORTHERN RAILROAD	CFNR STATION OF WOODLAND	95776	FINDS, ECHO
WOODLAND	1001111595	CALIFORNIA NORTHERN RAILROAD	CFNR STATION OF WOODLAND	95776	RCRA NonGen / NLR
WOODLAND	S114730984	OLD CITY OF WOODLAND LANDFILL (CLOSED)	SE CORNER OF COUNTY ROADS 102 & 25		RGA LF
WOODLAND	S117624448	DAVIS WOODLAND WATER SUPPLY RAW AND FINISHED WATER PIPELINES	COUNTY RD 22 WOODLAND TO COUNTY RD 102 DAVIS	95776	NPDES
WOODLAND	S116497544	DAVIS WOODLAND WATER SUPPLY PROJECT	855 COUNTY ROAD 102	95776	NPDES
WOODLAND	1012053550	TRICAL, INC	39985 COUNTY RD 14	95776	SSTS
WOODLAND	S117348339	SOLARA RANCH	COUNTY ROAD 101 SOUTH OF COUNTY ROAD 25	95776	NPDES
WOODLAND	S114596257	CHEVRON #9-2597	18430 COUNTY ROAD 102 (I-5 & CO RD 102)		RGA LUST
WOODLAND	S118119920	YCCL SOIL BORROW SITE	COUNTY ROAD 28H AND COUNTY ROAD 104	95776	NPDES
WOODLAND	S113179426	DBA HOLLY SUGAR	COUNTY ROAD 18C	95776	HAZNET
WOODLAND	S114694894	SPRECKLES SUGAR	COUNTY ROAD 101		RGA LUST
WOODLAND	S105027468	SEWAGE TRT FACILITY	COUNTY RD 24		HIST CORTESE
WOODLAND	S117640042	GROWERS AIR SERVICE	41167 COUNTY ROAD # 27	95776	PEST LIC
WOODLAND	S114731878	REIFF FARMS	COUNTY ROAD 19		RGA LF
WOODLAND	S117711060	SLSP OFF SITE SEWER PIPELINE CONVEYANCE SYS	FUTURE FAMER ROAD AND ROAD 102	95776	NPDES
WOODLAND	S113880995	HERITAGE VIL 4A 4C AND 7	HERITAGE PARKWAY AND COUNTY ROAD 102	95776	NPDES
WOODLAND	S112850388	ALAMO OIL CO	INTERSECTION OF ROAD 95 AND	95776	HAZNET
WOODLAND	S118596928	INDUSTRIAL PARK RECYCLED WATER PROJECT	E KENTUCKY AVE TO CTY RD 24 WPCF	95776	NPDES
WOODLAND	S117348216	PHASE 1 HERITAGE REMAINDER AREA AND HERITAGE PARK UNIT 2 SUB	MARSTON ROAD AND MIEKLE AVENUE	95776	NPDES
WOODLAND	S109603864	JACK WALLACE	1/2 MILES NORTH OF COUNTY ROAD 100B	0	EMI
WOODLAND	S114733034	SPRECKLES WOODLAND LANDFILL	1/4 MI N OF COUNTY RD 20,OFF KENTUCKY RD		RGA LF
WOODLAND	S119085442	HERITAGE REMAINDER	NW OF FUTURE COUNTY RD 25A AND COUNTY RD 102	95776	NPDES
WOODLAND	S117347998	HEIDRICK RANCH UNITS 2 AND 3	EAST OF COUNTY ROAD 101	95776	NPDES
WOODLAND	1014202327	CACHE CREEK SETTLING BASIN	EAST OF CITY OF WOODLAND	95776	SEMS
WOODLAND	S105937945	GRAYMONT	CO. ROAD 18A & CA NO. RAILROAD		EMI
WOODLAND	S106840592	TEICHRT AGGREGATES-REIFF ROCK	ROAD 19A, 1MI E OF ROAD 87		EMI
WOODLAND	S113052492	YOLO COUNTY CENTRAL LANDFILL	44090 ROAD 28H	95776	HAZNET
WOODLAND	S112840334	CACHE CREEK RANCH COMPANY	ROAD 17 B	95776	HAZNET
WOODLAND	S106230599	YOLO COUNTY INTERNATIONAL AIRPORT (WOODLAND AIRPORT)	ROAD 24, 510 ACRES		SLIC
WOODLAND	S108431800	ENTRAVISION RADIO	19245 ROAD 102		EMI
WOODLAND	S114651181	MIKE ADAMS CASE #2 (FORMER ADAMS GRAIN)	1020 EAST ST (FORMER COUNTY ROAD 102)		RGA LUST
WOODLAND	S114651180	MIKE ADAMS CASE #2 (FORMER ADAMS GRAIN)	1020 EAST ST (FORMER COUNTY ROAD 102)		RGA LUST
WOODLAND	S118172226	METRO METALS, LLC	VARIOUS LOCATIONS, INCLUDING 19389 COUNTY ROAD 102	95776	EMI
WOODLAND	S106841986	VALLEY BY-PRODUCTS, INC.	YOLO COUNTY LANDFILL		EMI
YOLO COUNTY	S117697718	CNTY RD 32 E O I 505	COUNTY ROAD 32 E O I 505		NPDES
YOLO COUNTY	S107538895		I-5, NO OF DUNNIGAN AT COUNTY LINE RD		CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016	Source: EPA
Date Data Arrived at EDR: 01/05/2017	Telephone: N/A
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016	Source: EPA
Date Data Arrived at EDR: 10/20/2016	Telephone: 800-424-9346
Date Made Active in Reports: 01/06/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 01/24/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016	Source: EPA
Date Data Arrived at EDR: 12/28/2016	Telephone: 800-424-9346
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/28/2016	Telephone: (415) 495-8895
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 44	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 67

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 12/06/2016
Number of Days to Update: 74	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 02/21/2017
Number of Days to Update: 146	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 01/23/2017
Number of Days to Update: 137	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 03/03/2017
Number of Days to Update: 97	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/01/2016	Telephone: 303-231-5959
Date Made Active in Reports: 09/23/2016	Last EDR Contact: 02/28/2017
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 03/03/2017
Number of Days to Update: 49	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Varies

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014	Source: EPA
Date Data Arrived at EDR: 11/24/2015	Telephone: 202-566-0250
Date Made Active in Reports: 04/05/2016	Last EDR Contact: 02/24/2017
Number of Days to Update: 133	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012	Source: EPA
Date Data Arrived at EDR: 01/15/2015	Telephone: 202-260-5521
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/23/2016
Number of Days to Update: 14	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/17/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/17/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2017	Telephone: 202-343-9775
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2017
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016	Source: EPA
Date Data Arrived at EDR: 09/07/2016	Telephone: (415) 947-8000
Date Made Active in Reports: 11/11/2016	Last EDR Contact: 02/22/2017
Number of Days to Update: 65	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/22/2016	Telephone: 202-564-8600
Date Made Active in Reports: 11/11/2016	Last EDR Contact: 01/23/2017
Number of Days to Update: 81	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Biennially

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 01/20/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/06/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/04/2016	Telephone: 703-603-8704
Date Made Active in Reports: 10/21/2016	Last EDR Contact: 01/05/2017
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 12/06/2016
Number of Days to Update: 76	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 12/22/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 12/22/2016
Number of Days to Update: 100	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/11/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/16/2016	Telephone: 202-566-1917
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 02/15/2017
Number of Days to Update: 79	Next Scheduled EDR Contact: 05/29/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/03/2017
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/05/2017	Telephone: 703-603-8787
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 03/02/2017
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 02/10/2017
Number of Days to Update: 6	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/03/2016	Telephone: 202-564-0527
Date Made Active in Reports: 09/02/2016	Last EDR Contact: 02/24/2017
Number of Days to Update: 91	Next Scheduled EDR Contact: 06/12/2017
	Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/11/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 66

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/14/2016	Telephone: 866-480-1028
Date Made Active in Reports: 01/23/2017	Last EDR Contact: 12/14/2016
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/27/2017
	Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003	Source: California Regional Water Quality Control Board, North Coast Region (1)
Date Data Arrived at EDR: 04/07/2003	Telephone: 707-576-2220
Date Made Active in Reports: 04/25/2003	Last EDR Contact: 08/01/2011
Number of Days to Update: 18	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004	Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-286-0457
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/27/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 83

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/25/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/16/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/06/2016	Source: DTSC and SWRCB
Date Data Arrived at EDR: 12/06/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/20/2017	Last EDR Contact: 12/06/2016
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/02/2016	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 09/27/2016	Telephone: 916-327-4498
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 12/02/2016
Number of Days to Update: 79	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 12/22/2016
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/18/2016	Telephone: 916-255-6504
Date Made Active in Reports: 12/22/2016	Last EDR Contact: 01/09/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/06/2016	Source: State Water Resources Control Board
Date Data Arrived at EDR: 12/09/2016	Telephone: 916-445-9379
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 40	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/31/2016	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 11/01/2016	Telephone: 916-323-3400
Date Made Active in Reports: 01/18/2017	Last EDR Contact: 01/31/2017
Number of Days to Update: 78	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/12/2016	Telephone: 916-255-1136
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 01/09/2017
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014	Source: California Air Resources Board
Date Data Arrived at EDR: 09/23/2016	Telephone: 916-322-2990
Date Made Active in Reports: 10/24/2016	Last EDR Contact: 12/23/2016
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Varies

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 08/26/2016	Telephone: 916-341-6422
Date Made Active in Reports: 10/14/2016	Last EDR Contact: 02/13/2017
Number of Days to Update: 49	Next Scheduled EDR Contact: 05/29/2017
	Data Release Frequency: Varies

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 877-786-9427
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board's review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Varies

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

BROWNFIELDS: Considered Brownfields Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 01/04/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 87

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: No Update Planned

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015	Source: EPA Region 8
Date Data Arrived at EDR: 10/23/2015	Telephone: 303-312-6271
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 118	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/19/2016	Telephone: 214-665-6597
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 105	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016	Source: EPA Region 9
Date Data Arrived at EDR: 04/27/2016	Telephone: 415-972-3368
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016	Source: EPA Region 8
Date Data Arrived at EDR: 02/05/2016	Telephone: 303-312-6137
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 119	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2017
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016	Source: EPA Region 10
Date Data Arrived at EDR: 01/08/2016	Telephone: 206-553-2857
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 41	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility list.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/10/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 51

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/14/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 6

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list

Date of Government Version: 01/18/2017
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 41

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 66

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 10/18/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 58

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/18/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/11/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 93

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 41

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 79

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 33

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/02/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 77

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/08/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/09/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 80

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/05/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/06/2016
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 06/15/2010	Telephone: 619-338-2371
Date Made Active in Reports: 07/09/2010	Last EDR Contact: 12/02/2016
Number of Days to Update: 24	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 09/29/2008	Last EDR Contact: 02/03/2017
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016	Source: Department of Public Health
Date Data Arrived at EDR: 11/21/2016	Telephone: 415-252-3920
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 02/21/2017
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/21/2016	Source: Environmental Health Department
Date Data Arrived at EDR: 12/27/2016	Telephone: N/A
Date Made Active in Reports: 02/14/2017	Last EDR Contact: 12/15/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/03/2017
	Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 11/17/2016	Source: San Luis Obispo County Public Health Department
Date Data Arrived at EDR: 11/21/2016	Telephone: 805-781-5596
Date Made Active in Reports: 01/19/2017	Last EDR Contact: 02/21/2017
Number of Days to Update: 59	Next Scheduled EDR Contact: 06/05/2017
	Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 03/20/2017
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/13/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/09/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/22/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 65

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017	Source: Department of Health Services
Date Data Arrived at EDR: 01/06/2017	Telephone: 707-565-6565
Date Made Active in Reports: 03/02/2017	Last EDR Contact: 12/22/2016
Number of Days to Update: 55	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 12/06/2016	Telephone: 530-822-7500
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 12/02/2016
Number of Days to Update: 35	Next Scheduled EDR Contact: 03/20/2017
	Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/25/2017	Source: Division of Environmental Health
Date Data Arrived at EDR: 01/27/2017	Telephone: 209-533-5633
Date Made Active in Reports: 03/02/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2016	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 10/27/2016	Telephone: 805-654-2813
Date Made Active in Reports: 01/17/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 82	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 12/30/2016
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 02/13/2017
Number of Days to Update: 37	Next Scheduled EDR Contact: 05/29/2017
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 10/27/2016	Telephone: 805-654-2813
Date Made Active in Reports: 01/24/2017	Last EDR Contact: 01/23/2017
Number of Days to Update: 89	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016	Source: Environmental Health Division
Date Data Arrived at EDR: 12/14/2016	Telephone: 805-654-2813
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 12/14/2016
Number of Days to Update: 29	Next Scheduled EDR Contact: 03/27/2017
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016	Source: Yolo County Department of Health
Date Data Arrived at EDR: 11/18/2016	Telephone: 530-666-8646
Date Made Active in Reports: 01/12/2017	Last EDR Contact: 01/03/2017
Number of Days to Update: 55	Next Scheduled EDR Contact: 04/17/2017
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 11/03/2016	Telephone: 530-749-7523
Date Made Active in Reports: 12/15/2016	Last EDR Contact: 01/30/2017
Number of Days to Update: 42	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 11/11/2016
Number of Days to Update: 45	Next Scheduled EDR Contact: 02/27/2017
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/12/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers for Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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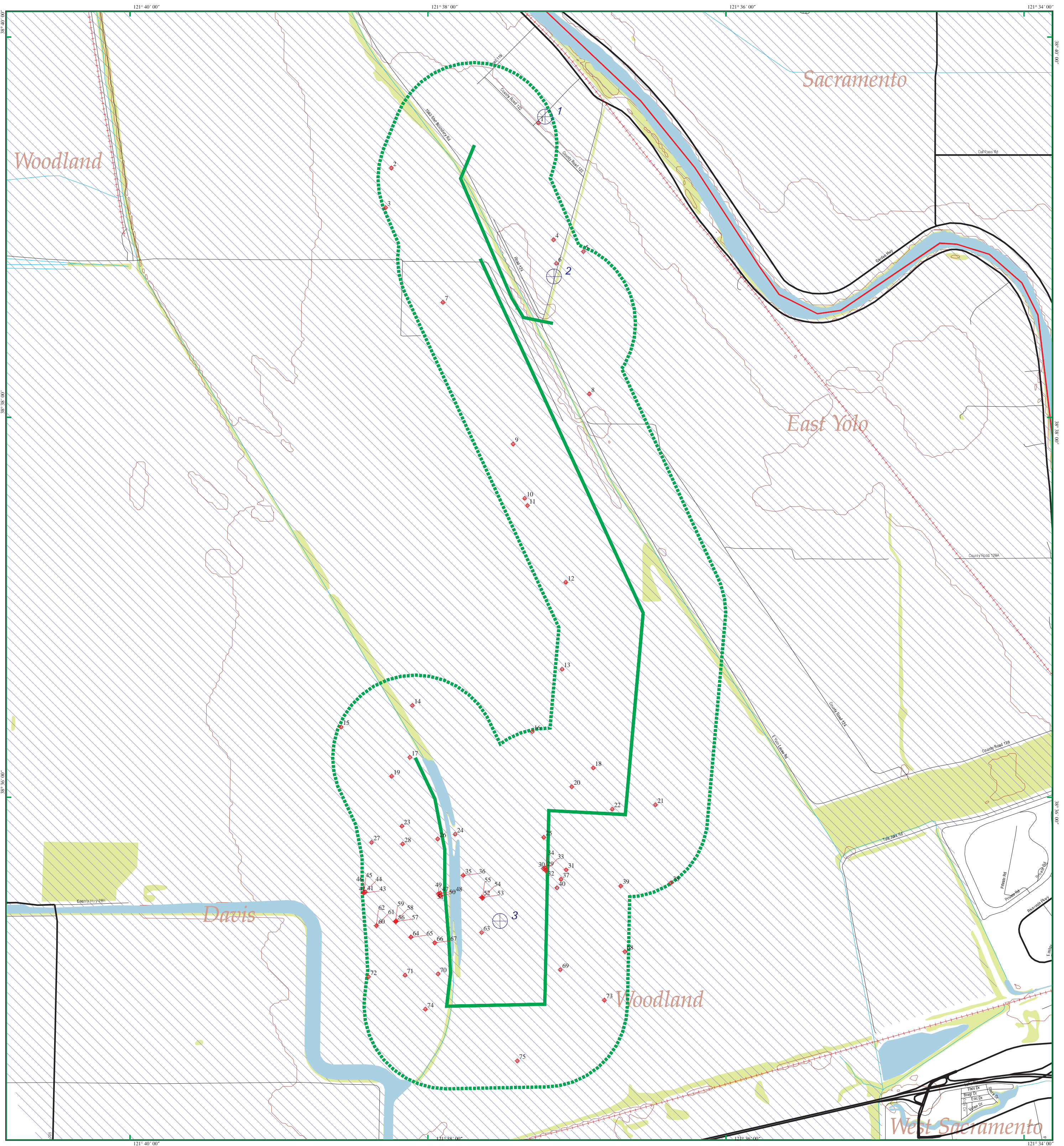
Yolo Bypass Fish Passage S water Control Structure
West Sacramento, CA 95776

Inquiry Number: 4849433.5w
February 10, 2017

EDR DataMap™ Well Search Report



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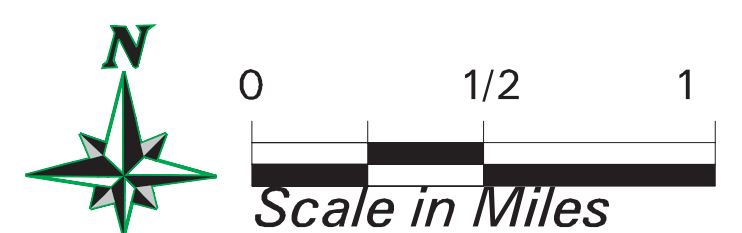


Yolo Bypass Fish Passage S water Control Structure



West Sacramento, CA

- | | | | | | | | |
|--|--------------------|--|---------------|--|--------------------|--|----------|
| | Listed Water Wells | | Major Roads | | Fault Lines | | Wetlands |
| | Oil & Gas Wells | | Waterways | | Water | | |
| | Study Boundary | | Railroads | | Superfund Sites | | |
| | Roads | | Contour Lines | | 100-Yr Flood Zones | | |



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with any questions or comments.

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GEOCHECK VERSION 2.1 SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID	WELL ID
1	USGS40000189728
2	USGS40000189669
2	USGS40000189666

STATE WATER WELL INFORMATION

MAP ID	WELL ID
3	5710003

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID
1	CAOG11000241356
2	CAOG11000242144
3	CAOG11000241321
4	CAOG11000240477
5	CAOG11000241266
6	CAOG11000241195
7	CAOG11000241205
8	CAOG11000241342
9	CAOG11000242111
10	CAOG11000241305
11	CAOG11000241260
12	CAOG11000240960
13	CAOG11000241018
14	CAOG11000241377
15	CAOG11000241162
16	CAOG11000241114
17	CAOG11000242199
18	CAOG11000241360
19	CAOG11000240962
20	CAOG11000241102
21	CAOG11000240555
22	CAOG11000241866
23	CAOG11000241326
24	CAOG11000241041
25	CAOG11000241116
26	CAOG11000242217
27	CAOG11000241924
28	CAOG11000242218
29	CAOG11000242179
30	CAOG11000242183
31	CAOG11000241335
32	CAOG11000241138
33	CAOG11000241139
34	CAOG11000241140
35	CAOG11000241054
36	CAOG11000241055
37	CAOG11000241057
38	CAOG11000240827

GEOCHECK VERSION 2.1 SUMMARY

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>
39	CAOG11000241334
40	CAOG11000241785
41	CAOG11000241907
42	CAOG11000241312
43	CAOG11000241311
44	CAOG11000241313
45	CAOG11000241315
46	CAOG11000241314
47	CAOG11000239859
48	CAOG11000239860
49	CAOG11000241101
50	CAOG11000242157
51	CAOG11000242158
52	CAOG11000242165
53	CAOG11000242166
54	CAOG11000241135
55	CAOG11000241136
56	CAOG11000242209
57	CAOG11000242210
58	CAOG11000242167
59	CAOG11000242168
60	CAOG11000241357
61	CAOG11000241358
62	CAOG11000241359
63	CAOG11000241129
64	CAOG11000241048
65	CAOG11000241049
66	CAOG11000241496
67	CAOG11000241497
68	CAOG11000241333
69	CAOG11000241089
70	CAOG11000241394
71	CAOG11000241399
72	CAOG11000241031
73	CAOG11000241118
74	CAOG11000241115
75	CAOG11000241349

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

USGS TOPOGRAPHIC MAP(S)

38121-E5 SACRAMENTO WEST, CA
38121-E6 DAVIS, CA
38121-F5 TAYLOR MONUMENT, CA
38121-F6 GRAYS BEND, CA

AREA RADON INFORMATION

GEOCHECK VERSION 2.1 SUMMARY

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 95691

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for YOLO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for YOLO COUNTY, CA

Number of sites tested: 13

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.508 pCi/L	92%	8%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.200 pCi/L	100%	0%	0%

Water Well Information:

Map ID: 1
Org. Identifier: USGS-CA Site ID: USGS40000189728
Formal name: USGS California Water Science Center
Monloc Identifier: USGS-383935121370901
Monloc name: 009N003E03A001M
Monloc type: Well
Monloc desc: Not Reported
Huc code: 18020109 Drainagearea value: Not Reported
Drainagearea Units: Not Reported Contrib drainagearea: Not Reported
Contrib drainagearea units: Not Reported Latitude: 38.6596263
Longitude: -121.6202369 Sourcemap scale: 24000
Horiz Acc measure: 1 Horiz Acc measure units: seconds
Horiz Collection method: Interpolated from map
Horiz coord refsys: NAD83 Vert measure val: 17.00
Vert measure units: feet Vertacc measure val: 2.5
Vert accmeasure units: feet
Vertcollection method: Altimeter
Vert coord refsys: NGVD29 Countrycode: US
Aquifername: Central Valley aquifer system
Formation type: Not Reported
Aquifer type: Not Reported
Construction date: 19681021 Welldepth: 160
Welldepth units: ft Wellholeddepth: 165
Wellholeddepth units: ft

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
----- 1968-10-21	10.00	

Map ID: 2
Org. Identifier: USGS-CA Site ID: USGS40000189669
Formal name: USGS California Water Science Center
Monloc Identifier: USGS-383845121370501
Monloc name: 009N003E11D002M
Monloc type: Well
Monloc desc: Not Reported
Huc code: 18020109 Drainagearea value: Not Reported
Drainagearea Units: Not Reported Contrib drainagearea: Not Reported
Contrib drainagearea units: Not Reported Latitude: 38.6457377
Longitude: -121.6191256 Sourcemap scale: 24000
Horiz Acc measure: 1 Horiz Acc measure units: seconds
Horiz Collection method: Interpolated from map
Horiz coord refsys: NAD83 Vert measure val: 15.00
Vert measure units: feet Vertacc measure val: 2.5
Vert accmeasure units: feet
Vertcollection method: Interpolated from topographic map
Vert coord refsys: NGVD29 Countrycode: US
Aquifername: Central Valley aquifer system
Formation type: River Channel Deposits

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Aquifer type:	Not Reported	Welldepth:	Not Reported
Construction date:	19550101	Wellholeddepth:	Not Reported
Welldepth units:	Not Reported		
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

Map ID:	2	Site ID:	USGS40000189666
Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-383844121370601		
Monloc name:	009N003E11D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18020109	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	38.6454599
Longitude:	-121.6194034	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	15.00
Vert measure units:	feet	Vertacc measure val:	2.5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Central Valley aquifer system		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19681026	Welldepth:	48
Welldepth units:	ft	Wellholeddepth:	48
Wellholeddepth units:	ft		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel

1968-10-26	12.00	

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Water Wells:

Water System Information:

Map ID:	3	User ID:	TEN
Prime Station Code:	09N/04E-34A01 M	County:	Yolo
FRDS Number:	5710003003	Station Type:	WELL/AMBNT/MUN/INTAKE
District Number:	09	Well Status:	Abandoned
Water Type:	Well/Groundwater	Precision:	1,000 Feet (10 Seconds)
Source Lat/Long:	383521.0 1213727.5		
Source Name:	WELL 01 - ABANDONED		
System Number:	5710003		
System Name:	West Sacramento, City of		
Organization That Operates System:	1951 S. RIVER RD. WEST SACRAMENTO, CA 95691		
Pop Served:	45000	Connections:	7655
Area Served:	WEST SACRAMENTO		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Oil/Gas Well Information:

Map ID:	1	Api number:	11320309
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Atlantic Oil Company		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	3
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	Mattos	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	27-NOV-74
Welldeptha:	4250		
Redrillfoo:	0		
Abandonedd:	10-DEC-74	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000241356		

Map ID:	2	Api number:	11321126
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	Vintage Production California LLC		
County name:	Yolo	Fieldname:	Conway Ranch Gas
Area name:	Any Area	Section:	4
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	26
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 07/12/2000, Status Code 017		
Leasename:	Conway Ranch	Wellnumber:	4-2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-OCT-98
Welldeptha:	4170		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242144		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Map ID:	3	Api number:	11320272
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Geo Investment Inc.	Fieldname:	Conway Ranch Gas
County name:	Yolo	Section:	4
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/18/1997, Status Code 024		
Leasename:	Natomas I.O.C.	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	09-FEB-76
Welldeptha:	4124		
Redrillfoo:	0		
Abandonedd:	23-AUG-99	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241321		

Map ID:	4	Api number:	11320406
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Nahama & Weagant Energy Company	Fieldname:	Any Field
County name:	Yolo	Section:	3
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	25
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Tule Canal	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	20-JUL-76
Welldeptha:	4200		
Redrillfoo:	0		
Abandonedd:	24-JUL-76	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000240477		

Map ID:	5	Api number:	11320226
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Atlantic Oil Company	Fieldname:	Any Field
County name:	Yolo	Section:	2
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 007	Wellnumber:	1
Leasename:	Erwin	Hydraulica:	N
Epawell:	N	Spuddate:	26-OCT-73
Confidenti:	N		
Welldeptha:	4352		
Redrillfoo:	0		
Abandonedd:	03-NOV-73	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000241266		

Map ID:	6	Api number:	11320154
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Natoma Oil Co.	Fieldname:	Any Field
County name:	Yolo	Section:	10
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Natomas-Tule Canal	Wellnumber:	1-10
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	28-AUG-72
Welldeptha:	4789		
Redrillfoo:	0		
Abandonedd:	01-SEP-72	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241195		

Map ID:	7	Api number:	11320164
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Atlantic Oil Company	Fieldname:	Conway Ranch Gas
County name:	Yolo	Section:	10
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	I.O.C.	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	22-OCT-72
Welldeptha:	4554		
Redrillfoo:	0		
Abandonedd:	27-OCT-72	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241205		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Map ID:	8	Api number:	11320294
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Atlantic Oil Company		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	11
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Ensher	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	26-SEP-74
Welldeptha:	4300		
Redrillfoo:	0		
Abandonedd:	02-OCT-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241342		

Map ID:	9	Api number:	11321093
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Capitol Oil Corporation		
County name:	Yolo	Fieldname:	Conway Ranch Gas
Area name:	Any Area	Section:	15
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	28
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Conway	Wellnumber:	15-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	14-OCT-96
Welldeptha:	4400		
Redrillfoo:	0		
Abandonedd:	18-OCT-96	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000242111		

Map ID:	10	Api number:	11320260
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Shell Western Exploration & Production Inc.		
County name:	Yolo	Fieldname:	Conway Ranch Gas
Area name:	Any Area	Section:	15
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments:	Status Code 006	Wellnumber:	15-3
Leasename:	I.O.C.	Hydraulica:	N
Epawell:	N	Spuddate:	24-JUN-74
Confidenti:	N		
Welldeptha:	4727		
Redrillfoo:	0		
Abandonedd:	01-JUL-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241305		

Map ID:	11	Api number:	11320220
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Atlantic Oil Company	Fieldname:	Conway Ranch Gas
County name:	Yolo	Section:	15
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/18/1997, Status Code 025		
Leasename:	I.O.C.	Wellnumber:	15
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	28-SEP-73
Welldeptha:	4475		
Redrillfoo:	0		
Abandonedd:	27-JUL-97	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDG
Site id:	CAOG11000241260		

Map ID:	12	Api number:	11300253
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Arcady Oil Company	Fieldname:	Any Field
County name:	Yolo	Section:	14
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Woodland Farms	Wellnumber:	1-14
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-MAY-62
Welldeptha:	3007		
Redrillfoo:	0		
Abandonedd:	04-JUN-62	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000240960		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	13	Api number:	11320005
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Reynolds & Carver		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	23
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Woodland Farms	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-OCT-67
Welldeptha:	4700		
Redrillfoo:	0		
Abandonedd:	05-NOV-67	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241018		

Map ID:	14	Api number:	11320329
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Nahama & Weagant Energy Company		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	22
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Reichhold-I.O.C.	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	28-APR-75
Welldeptha:	5335		
Redrillfoo:	0		
Abandonedd:	03-MAY-75	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241377		

Map ID:	15	Api number:	11320120
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Sage Oil Co.		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	21
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 006	Wellnumber:	1
Leasename:	Getty-I.O.C.	Hydraulica:	N
Epawell:	N	Spuddate:	27-SEP-71
Confidenti:	N		
Welldeptha:	4231		
Redrillfoo:	0		
Abandonedd:	02-OCT-71	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241162		

Map ID:	16	Api number:	11320058
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Reynolds & Carver		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	22
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	I.O.C.	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	13-JUN-69
Welldeptha:	4705		
Redrillfoo:	0		
Abandonedd:	19-JUN-69	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241114		

Map ID:	17	Api number:	11321173
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Whiting Oil and Gas Corp.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	30
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 10/20/2000, Status Code 007		
Leasename:	I.O.C.	Wellnumber:	19
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-OCT-00
Welldeptha:	4815		
Redrillfoo:	0		
Abandonedd:	25-OCT-00	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000242199		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	18	Api number:	11320311
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Atlantic Oil Company	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	26
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	I.O.C.	Wellnumber:	30
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	16-NOV-74
Welldeptha:	4762		
Redrillfoo:	0		
Abandonedd:	26-NOV-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241360		

Map ID:	19	Api number:	11300255
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Amerada Hess Corporation	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	27
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Woodland Farms	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	29-MAY-54
Welldeptha:	6090		
Redrillfoo:	0		
Abandonedd:	07-JUN-54	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000240962		

Map ID:	20	Api number:	11320046
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Reynolds & Carver	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	26
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 006	Wellnumber:	1
Leasename:	Inv. Operating Corp.	Hydraulica:	N
Epawell:	N	Spuddate:	22-NOV-68
Confidenti:	N		
Welldeptha:	4833		
Redrillfoo:	0		
Abandonedd:	04-DEC-68	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241102		

Map ID:	21	Api number:	11300077
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Neaves Petro. Developments	Fieldname:	Sacramento By-Pass Gas (ABD)
County name:	Yolo	Section:	26
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Yolo Bypass Unit 23-26	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	24-JUL-63
Welldeptha:	2403		
Redrillfoo:	0		
Abandonedd:	27-JUL-63	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000240555		

Map ID:	22	Api number:	11320932
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Zompac Corp.	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	26
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Woodland Farms Unit	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	07-SEP-89
Welldeptha:	4824		
Redrillfoo:	0		
Abandonedd:	11-SEP-89	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241866		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	23	Api number:	11320278
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	27
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	I.O.C. Unit	Wellnumber:	7
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-AUG-74
Welldeptha:	6000		
Redrillfoo:	0		
Abandonedd:	10-SEP-84	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241326		

Map ID:	24	Api number:	11320030
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	27
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	I.O.C. Unit	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	21-AUG-68
Welldeptha:	5000		
Redrillfoo:	0		
Abandonedd:	02-SEP-73	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241041		

Map ID:	25	Api number:	11320061
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.	Fieldname:	Todhunters Lake Gas
County name:	Yolo	Section:	27
Area name:	Any Area	Range:	03E
Township:	09N	Elevation:	Not Reported
Base meridian:	MD		
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments:	Status Code 024	Wellnumber:	4
Leasename:	I.O.C. Unit	Hydraulica:	N
Epawell:	N	Spuddate:	22-JUL-69
Confidenti:	N		
Welldeptha:	3611		
Redrillfoo:	0		
Abandonedd:	13-SEP-84	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241116		

Map ID:	26	Api number:	11321193
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	30
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 11/08/2001, Status Code 017		
Leasename:	I.O.C. Unit	Wellnumber:	11
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	26-OCT-01
Welldeptha:	4384		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	15-NOV-01
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242217		

Map ID:	27	Api number:	11321214
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	28
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/23/2005, Status Code 016		
Leasename:	I.O.C.	Wellnumber:	43-28
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	28-MAY-03
Welldeptha:	3550		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	28-JUN-03
Directiona:	Not Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000241924		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	28	Api number:	11321194
District nun:	6	Redrill can:	--
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	30
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 11/08/2001, Status Code 017		
Leasename:	I.O.C. Unit	Wellnumber:	13
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	07-NOV-01
Welldeptha:	3719		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	27-NOV-01
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242218		

Map ID:	29	Api number:	11321158
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	27
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/23/2005, Status Code 017		
Leasename:	I.O.C. Unit	Wellnumber:	10
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12-DEC-99
Welldeptha:	4048		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	17-DEC-99
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242179		

Map ID:	30	Api number:	11321161
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	28
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments: GPS Date 06/23/2005, Status Code 017
 Leasename: IOC-Swanston Wellnumber: 27-1
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 18-NOV-01
 Welldeptha: 5600
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: 11-DEC-01
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242183

Map ID: 31
 District nun: 6 Api number: 11320287
 Blm well: N Redrill can: Not Reported
 Dryhole: Y Well status: P
 Operator name: Lawrence Perryman
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 26
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: hud
 Comments: Status Code 006
 Leasename: Reynolds & Perryman-Swanston Wellnumber: 3
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 01-OCT-74
 Welldeptha: 4711
 Redrillfoo: 0
 Abandonedd: 07-OCT-74 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDH
 Site id: CAOG11000241335

Map ID: 32
 District nun: 6 Api number: 11320416
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: A
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 27
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 06/23/2005, Status Code 016
 Leasename: Swanston I.O.C. Unit Wellnumber: 1-1
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 30-AUG-76
 Welldeptha: 3563
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Unknown Gissymbol: ADG
 Site id: CAOG11000241138

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Map ID:	33	Api number:	11320416
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/23/2005, Status Code 016		
Leasename:	Swanston I.O.C. Unit	Wellnumber:	1-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-AUG-76
Welldeptha:	3563		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241139		

Map ID:	34	Api number:	11320416
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 06/23/2005, Status Code 016		
Leasename:	Swanston I.O.C. Unit	Wellnumber:	1-1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	30-AUG-76
Welldeptha:	3563		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241140		

Map ID:	35	Api number:	11320042
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments: GPS Date 08/11/1997, Status Code 017
 Leasename: I.O.C. Unit Wellnumber: 2
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 19-OCT-68
 Welldeptha: 5450
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000241054

Map ID: 36
 District nun: 6 Api number: 11320042
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: A
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 27
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 017
 Leasename: I.O.C. Unit Wellnumber: 2
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 19-OCT-68
 Welldeptha: 5450
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000241055

Map ID: 37
 District nun: 6 Api number: 11320044
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: P
 Operator name: H. W. Reynolds, Jr.
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 26
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: hud
 Comments: Status Code 024
 Leasename: Swanston Wellnumber: 1
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 07-DEC-68
 Welldeptha: 4981
 Redrillfoo: 0
 Abandonedd: 21-OCT-84 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDG
 Site id: CAOG11000241057

**GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION**

Map ID:	38	Api number:	11300079
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Supreme Oil & Gas Corporation		
County name:	Yolo	Fieldname:	Sacramento By-Pass Gas (ABD)
Area name:	Any Area	Section:	26
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	Swanston	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	15-SEP-61
Welldeptha:	11194		
Redrillfoo:	0		
Abandonedd:	26-JUN-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000240827		

Map ID:	39	Api number:	11320286
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Lawrence Perryman		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	26
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Reynolds & Perryman-Swanston	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	24-AUG-74
Welldeptha:	5007		
Redrillfoo:	0		
Abandonedd:	29-AUG-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241334		

Map ID:	40	Api number:	11320846
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Capitol Oil Corporation		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	26
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 006	Wellnumber:	1
Leasename:	North Swanston	Hydraulica:	N
Epawell:	N	Spuddate:	23-MAY-86
Confidenti:	N		
Welldeptha:	4990		
Redrillfoo:	0		
Abandonedd:	30-MAY-86	Completion:	14-OCT-86
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241785		

Map ID:	41	Api number:	11321196
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	33
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 10/17/2001, Status Code 017		
Leasename:	I.O.C.	Wellnumber:	25
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	05-SEP-01
Welldeptha:	3767		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	19-OCT-01
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000241907		

Map ID:	42	Api number:	11320266
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 016		
Leasename:	I.O.C. Unit 2	Wellnumber:	1-28
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	04-AUG-74
Welldeptha:	6000		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241312		

**GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION**

Map ID:	43	Api number:	11320266
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 016		
Leasename:	I.O.C. Unit 2	Wellnumber:	1-28
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	04-AUG-74
Welldeptha:	6000		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241311		

Map ID:	44	Api number:	11320266
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 016		
Leasename:	I.O.C. Unit 2	Wellnumber:	1-28
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	04-AUG-74
Welldeptha:	6000		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241313		

Map ID:	45	Api number:	11320266
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	28
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments: GPS Date 08/11/1997, Status Code 016
 Leasename: I.O.C. Unit 2 Wellnumber: 1-28
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 04-AUG-74
 Welldeptha: 6000
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Unknown Gissymbol: ADG
 Site id: CAOG11000241315

Map ID: 46
 District nun: 6 Api number: 11320266
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: I
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 28
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 016
 Leasename: I.O.C. Unit 2 Wellnumber: 1-28
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 04-AUG-74
 Welldeptha: 6000
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Unknown Gissymbol: ADG
 Site id: CAOG11000241314

Map ID: 47
 District nun: 6 Api number: 11320102
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: I
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 27
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 10/24/1999, Status Code 016
 Leasename: I.O.C. Unit Wellnumber: 6
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 31-JUL-70
 Welldeptha: 3952
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Unknown Gissymbol: ADG
 Site id: CAOG11000239859

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	48	Api number:	11320102
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 10/24/1999, Status Code 016		
Leasename:	I.O.C. Unit	Wellnumber:	6
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	31-JUL-70
Welldeptha:	3952		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000239860		

Map ID:	49	Api number:	11320045
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 024		
Leasename:	I.O.C. Unit	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	02-NOV-68
Welldeptha:	5000		
Redrillfoo:	0		
Abandonedd:	15-JUN-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241101		

Map ID:	50	Api number:	11321139
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	40
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Comments: GPS Date 10/24/1999, Status Code 017
 Leasename: I.O.C. Wellnumber: 11
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 06-JUL-99
 Welldeptha: 6600
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: 31-JUL-99
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242157

Map ID: 51
 District nun: 6 Api number: 11321139
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: I
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 27
 Township: 09N Range: 03E
 Base meridian: MD Elevation: 40
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 10/24/1999, Status Code 017
 Leasename: I.O.C. Wellnumber: 11
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 06-JUL-99
 Welldeptha: 6600
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: 31-JUL-99
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242158

Map ID: 52
 District nun: 6 Api number: 11321147
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: A
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 27
 Township: 09N Range: 03E
 Base meridian: MD Elevation: 29
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/10/2000, Status Code 017
 Leasename: I.O.C. Unit Wellnumber: 9
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 08-NOV-99
 Welldeptha: 5362
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: 09-DEC-99
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242165

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	53	Api number:	11321147
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	29
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/10/2000, Status Code 017		
Leasename:	I.O.C. Unit	Wellnumber:	9
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	08-NOV-99
Welldeptha:	5362		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	09-DEC-99
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242166		

Map ID:	54	Api number:	11320414
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Whiting Oil and Gas Corp.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 024		
Leasename:	I.O.C. Unit	Wellnumber:	1-8
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	24-AUG-76
Welldeptha:	4500		
Redrillfoo:	0		
Abandonedd:	21-OCT-99	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDG
Site id:	CAOG11000241135		

Map ID:	55	Api number:	11320414
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Whiting Oil and Gas Corp.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	27
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments: GPS Date 08/11/1997, Status Code 024
 Leasename: I.O.C. Unit Wellnumber: 1-8
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 24-AUG-76
 Welldeptha: 4500
 Redrillfoo: 0
 Abandonedd: 21-OCT-99 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDG
 Site id: CAOG11000241136

Map ID: 56
 District nun: 6 Api number: 11321186
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: I
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 34
 Township: 09N Range: 03E
 Base meridian: MD Elevation: 30
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 03/14/2001, Status Code 017
 Leasename: I.O.C. Wellnumber: 23
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: Not Reported
 Welldeptha: 0
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242209

Map ID: 57
 District nun: 6 Api number: 11321186
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: I
 Operator name: 260 Resource Management LLC
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 34
 Township: 09N Range: 03E
 Base meridian: MD Elevation: 30
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 03/14/2001, Status Code 017
 Leasename: I.O.C. Wellnumber: 23
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: Not Reported
 Welldeptha: 0
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: ADG
 Site id: CAOG11000242210

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	58	Api number:	11321148
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	40
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 10/24/1999, Status Code 017		
Leasename:	I.O.C.	Wellnumber:	14
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	23-OCT-99
Welldeptha:	5954		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	11-NOV-99
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242167		

Map ID:	59	Api number:	11321148
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	40
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 10/24/1999, Status Code 017		
Leasename:	I.O.C.	Wellnumber:	14
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	23-OCT-99
Welldeptha:	5954		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	11-NOV-99
Directiona:	Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000242168		

Map ID:	60	Api number:	11320310
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Whiting Oil and Gas Corp.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	33
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments: GPS Date 08/11/1997, Status Code 024
 Leasename: I.O.C. Wellnumber: 6
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 26-NOV-74
 Welldeptha: 3700
 Redrillfoo: 0
 Abandonedd: 18-MAY-05 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDG
 Site id: CAOG11000241357

Map ID: 61
 District nun: 6 Api number: 11320310
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: P
 Operator name: Whiting Oil and Gas Corp.
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 33
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 024
 Leasename: I.O.C. Wellnumber: 6
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 26-NOV-74
 Welldeptha: 3700
 Redrillfoo: 0
 Abandonedd: 18-MAY-05 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDG
 Site id: CAOG11000241358

Map ID: 62
 District nun: 6 Api number: 11320310
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: P
 Operator name: Whiting Oil and Gas Corp.
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 33
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 024
 Leasename: I.O.C. Wellnumber: 6
 Epawell: N Hydraulica: N
 Confidenti: N Spuupdate: 26-NOV-74
 Welldeptha: 3700
 Redrillfoo: 0
 Abandonedd: 18-MAY-05 Completion: Not Reported
 Directiona: Unknown Gissymbol: PDG
 Site id: CAOG11000241359

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Map ID:	63	Api number:	11320074
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Stream Energy, Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	I.O.C. Unit	Wellnumber:	5
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	19-AUG-69
Welldeptha:	4550		
Redrillfoo:	0		
Abandonedd:	26-AUG-69	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241129		

Map ID:	64	Api number:	11320037
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 016		
Leasename:	I.O.C.	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	27-SEP-68
Welldeptha:	3641		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Not Directionally drilled	Gissymbol:	ADG
Site id:	CAOG11000241048		

Map ID:	65	Api number:	11320037
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	I
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments: GPS Date 08/11/1997, Status Code 016
 Leasename: I.O.C. Wellnumber: 3
 Epawell: N Hydraulica: N
 Confidenti: N Spuudate: 27-SEP-68
 Welldeptha: 3641
 Redrillfoo: 0
 Abandonedd: Not Reported Completion: Not Reported
 Directiona: Not Directionally drilled Gissymbol: ADG
 Site id: CAOG11000241049

Map ID: 66
 District nun: 6 Api number: 11320533
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: P
 Operator name: Whiting Oil and Gas Corp.
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 34
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 025
 Leasename: I.O.C. Wellnumber: 9
 Epawell: N Hydraulica: N
 Confidenti: N Spuudate: 21-AUG-79
 Welldeptha: 3771
 Redrillfoo: 0
 Abandonedd: 20-NOV-02 Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: PDG
 Site id: CAOG11000241496

Map ID: 67
 District nun: 6 Api number: 11320533
 Blm well: N Redrill can: Not Reported
 Dryhole: N Well status: P
 Operator name: Whiting Oil and Gas Corp.
 County name: Yolo Fieldname: Todhunters Lake Gas
 Area name: Any Area Section: 34
 Township: 09N Range: 03E
 Base meridian: MD Elevation: Not Reported
 Locationde: Not Reported
 Gissourcec: gps
 Comments: GPS Date 08/11/1997, Status Code 025
 Leasename: I.O.C. Wellnumber: 9
 Epawell: N Hydraulica: N
 Confidenti: N Spuudate: 21-AUG-79
 Welldeptha: 3771
 Redrillfoo: 0
 Abandonedd: 20-NOV-02 Completion: Not Reported
 Directiona: Directionally drilled Gissymbol: PDG
 Site id: CAOG11000241497

**GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION**

Map ID:	68	Api number:	11320285
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Lawrence Perryman		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	35
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Reynolds & Perryman-Swanston	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-AUG-74
Welldeptha:	5020		
Redrillfoo:	0		
Abandonedd:	22-AUG-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241333		

Map ID:	69	Api number:	11320439
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Capitol Oil Corporation		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	35
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	21
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Swanston	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	11-APR-77
Welldeptha:	5000		
Redrillfoo:	0		
Abandonedd:	17-APR-77	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241089		

Map ID:	70	Api number:	11320347
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 007	Wellnumber:	5
Leasename:	I.O.C.	Hydraulica:	N
Epawell:	N	Spuddate:	04-JUN-75
Confidenti:	N		
Welldeptha:	4476		
Redrillfoo:	0		
Abandonedd:	21-JUN-75	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000241394		

Map ID:	71	Api number:	11320350
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Stream Energy, Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	I.O.C.	Wellnumber:	8
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	21-JUN-75
Welldeptha:	4615		
Redrillfoo:	0		
Abandonedd:	27-JUN-75	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241399		

Map ID:	72	Api number:	11320019
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	A
Dryhole:	N		
Operator name:	260 Resource Management LLC		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	33
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	gps		
Comments:	GPS Date 08/11/1997, Status Code 016		
Leasename:	I.O.C.	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	22-APR-68
Welldeptha:	7000		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	ADG
Site id:	CAOG11000241031		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	73	Api number:	11320063
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Rapp Oil Corporation		
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	35
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Swanston	Wellnumber:	35-35
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	17-JUL-69
Welldeptha:	6750		
Redrillfoo:	0		
Abandonedd:	27-JUL-69	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241118		

Map ID:	74	Api number:	11320059
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	N		
Operator name:	Stream Energy, Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	I.O.C.	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	20-JUN-69
Welldeptha:	5250		
Redrillfoo:	0		
Abandonedd:	10-JUL-69	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000241115		

Map ID:	75	Api number:	11320301
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y		
Operator name:	Chevron U.S.A. Inc.		
County name:	Yolo	Fieldname:	Todhunters Lake Gas
Area name:	Any Area	Section:	34
Township:	09N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Comments:	Status Code 006	Wellnumber:	1-34
Leasename:	G.C.S. Unit	Hydraulica:	N
Epawell:	N	Spuddate:	30-OCT-74
Confidenti:	N		
Welldeptha:	6000		
Redrillfoo:	0		
Abandonedd:	22-NOV-74	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241349		

CALIFORNIA GOVERNMENT WELL RECORDS SEARCHED

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

Water Well Database

Source: Department of Public Health

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

STREET AND ADDRESS INFORMATION

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Northern Water Control Structure

Woodland, CA 95776

Inquiry Number: 4862790.5w

March 06, 2017





EDR DataMap™ Well Search Report

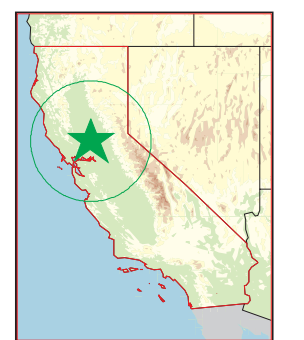
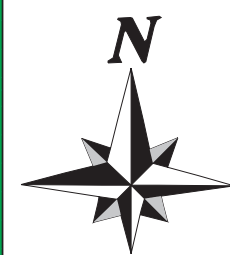
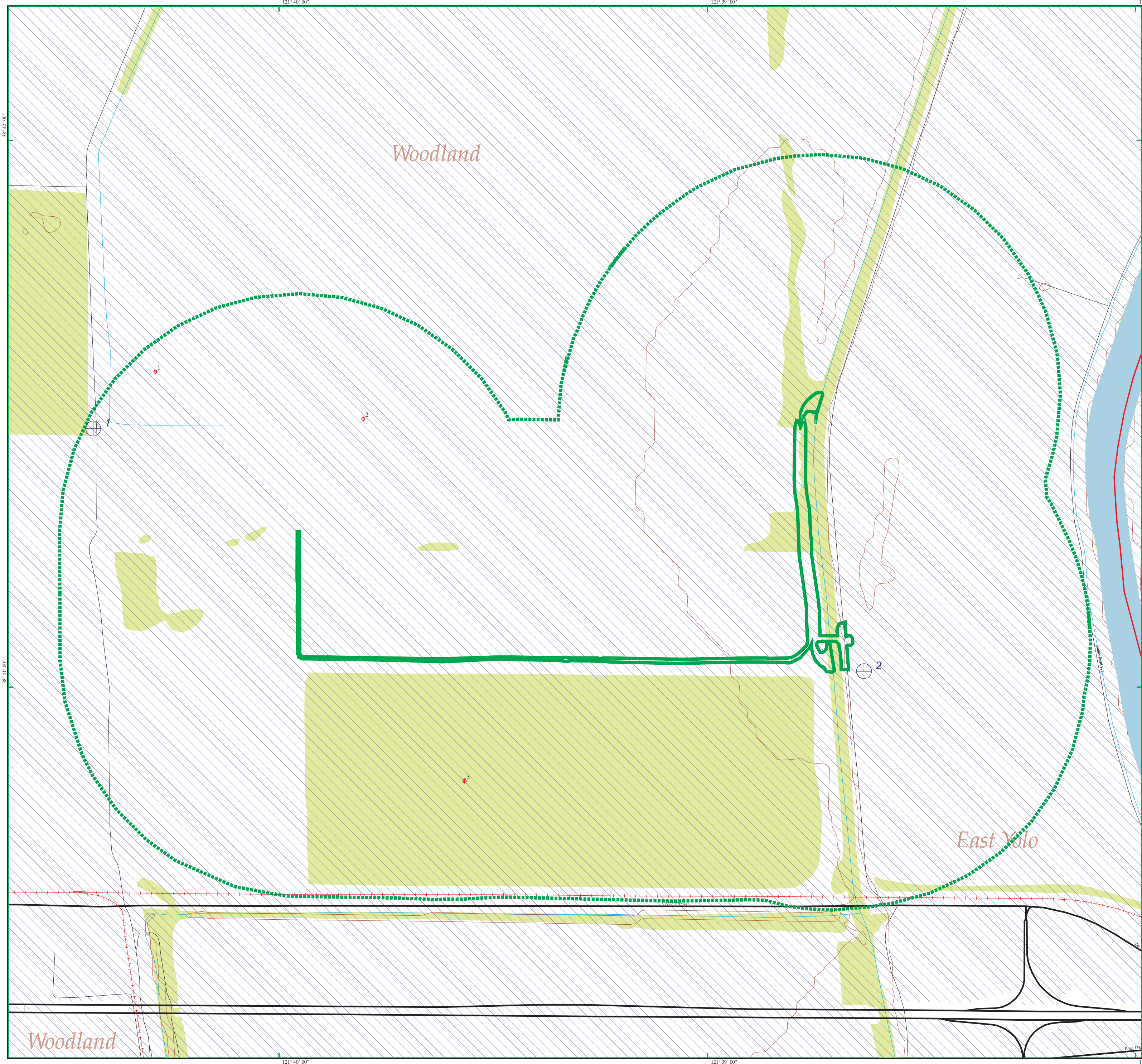


6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR DataMap® Well Search

Northern Water Control Structure

-  Listed Water Wells
-  Oil & Gas Wells
-  Study Boundary
-  Roads
-  Major Roads
-  Waterways
-  Railroads
-  Contour Lines
-  Fault Lines
-  Water
-  Superfund Sites
-  100-Yr Flood Zones
-  Wetlands



Woodland, CA



Scale in Miles



Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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GEOCHECK VERSION 2.1 SUMMARY

FEDERAL DATABASE WELL INFORMATION

MAP ID _____ WELL ID _____

NO WELLS FOUND

STATE WATER WELL INFORMATION

MAP ID	WELL ID
1	CADW60000028438
2	CADW60000032368
2	CADW60000032367

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID
1	CAOG11000241451
2	CAOG11000241509
3	CAOG11000241343

PUBLIC WATER SUPPLY SYSTEM INFORMATION

NO WELLS FOUND

USGS TOPOGRAPHIC MAP(S)

38121-F6 GRAYS BEND, CA

AREA RADON INFORMATION

Federal Area Radon Information for Zip Code: 95691

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

Federal EPA Radon Zone for YOLO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for YOLO COUNTY, CA

Number of sites tested: 13

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.508 pCi/L	92%	8%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.200 pCi/L	100%	0%	0%

GEOCHECK VERSION 2.1

STATE DATABASE WELL INFORMATION

Water Well Information:

Map ID: 1
Objectid: 28438
Latitude: 38.6912
Longitude: -121.6739
Site code: 386912N1216739W001
State well numbe: 10N03E30A001M
Local well name: '10N03E30A001M'
Well use id: 3
Well use descrip: Irrigation
County id: 57
County name: Yolo
Basin code: '5-21.52'
Basin desc: Colusa
Dwr region id: 80235
Dwr region: Northern Region Office
Site id: CADW60000028438

Map ID: 2
Objectid: 32368
Latitude: 38.6838
Longitude: -121.6439
Site code: 386838N1216439W001
State well numbe: 10N03E28K001M
Local well name: 'MW-18s'
Well use id: 1
Well use descrip: Observation
County id: 57
County name: Yolo
Basin code: '5-21.67'
Basin desc: Yolo
Dwr region id: 80236
Dwr region: North Central Region Office
Site id: CADW60000032368

Map ID: 2
Objectid: 32367
Latitude: 38.6838
Longitude: -121.6439
Site code: 386838N1216439W002
State well numbe: 10N03E28K002M
Local well name: 'MW-18d'
Well use id: 1
Well use descrip: Observation
County id: 57
County name: Yolo

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Basin code: '5-21.67'
Basin desc: Yolo
Dwr region id: 80236
Dwr region: North Central Region Office
Site id: CADW60000032367

GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

Oil/Gas Well Information:

Map ID:	1	Api number:	11320482
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y	Operator name:	The Dow Chemical Company
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	20
Township:	10N	Range:	03E
Base meridian:	MD	Elevation:	32
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Thomas-N & W Unit	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	09-DEC-77
Welldeptha:	5000		
Redrillfoo:	0		
Abandonedd:	14-DEC-77	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241451		

Map ID:	2	Api number:	11320544
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y	Operator name:	Hilliard Oil & Gas, Inc.
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	20
Township:	10N	Range:	03E
Base meridian:	MD	Elevation:	31
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 006		
Leasename:	Dow-Knaggs	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	25-JUL-79
Welldeptha:	5102		
Redrillfoo:	0		
Abandonedd:	02-AUG-79	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000241509		

GEOCHECK VERSION 2.1
STATE DATABASE WELL INFORMATION

Map ID:	3	Api number:	11320295
District nun:	6	Redrill can:	Not Reported
Blm well:	N	Well status:	P
Dryhole:	Y	Operator name:	Santa Fe Energy Resources, Inc.
County name:	Yolo	Fieldname:	Any Field
Area name:	Any Area	Section:	29
Township:	10N	Range:	03E
Base meridian:	MD	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Status Code 007		
Leasename:	WAD-City of Woodland	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12-OCT-74
Welldeptha:	4998		
Redrillfoo:	0		
Abandonedd:	25-OCT-74	Completion:	Not Reported
Directiona:	Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000241343		

CALIFORNIA GOVERNMENT WELL RECORDS SEARCHED

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

State Wetlands Data: Wetland Inventory

Source: Department of Fish & Game

Telephone: 916-445-0411

Water Well Database

Source: Department of Public Health

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

STREET AND ADDRESS INFORMATION

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Appendix K1. Bypass Production Model

Technical Appendix

1.0 Introduction

This technical appendix describes the agricultural economic model used in the analysis of alternatives considered for the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project (Project) Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The Bypass Production Model (BPM) is used to evaluate the agricultural economic impact resulting from changes in the frequency, duration, and timing of increased Yolo Bypass flooding under each of the Project alternatives. The BPM was previously applied and reviewed with stakeholders in an analysis of Yolo Bypass flooding commissioned by Yolo County between 2011 and 2013 (Yolo County 2013). The underlying model theory and data are unchanged from the Yolo County analysis. Improvements to the BPM for the economic impact analysis of Project alternatives include the following:

- The BPM was changed from an annual time-step to a daily time-step for consistency with the TUFLOW hydrodynamic model output.
- The pre-processing of hydrodynamic model output was updated to incorporate field-by-field dry day estimates from the TUFLOW model.
- The hydrologic period of record was adjusted for consistency with the post-processed TUFLOW model output (1997 – 2012).
- An Existing Conditions (ExCon) / No Action Alternative (NAA) baseline was defined, consistent with TUFLOW ExCon/NAA output.
- The number of days required for field preparation was updated based on additional stakeholder feedback provided under this current analysis.
- All input and output data were updated for consistency with federal project evaluation guidelines.

As wetted area changes in the Yolo Bypass as a result of Project alternatives there is a corresponding effect on expected crop yields, crop mix, fallowing, and farm income. The BPM is an economic model linked to the hydrodynamic model (TUFLOW) that calibrates to observed conditions in the Yolo Bypass and historical farming decisions in response to changes in wetted area. It is used to quantify incremental changes over baseline (ExCon/NAA) conditions resulting from Project alternatives in terms of economic metrics including irrigated acreage, gross farm revenues, and net farm income. BPM inputs and outputs are consistent with federal National Economic Development (NED) guidelines for evaluating water development projects specified in the Principles and Guidelines (P&Gs).

The economic analysis includes the following alternatives:

- Existing Conditions (same as the No Action Alternative), abbreviated as ExCon/NAA
- Project alternatives including Alternative 1, Alternative 4 (March 15 gate closure), Alternative 4 March (March 7 gate closure), Alternative 5 and Alternative 6 (abbreviated as Alt1, Alt4, Alt4M, Alt5, and Alt6, respectively).¹

The economic impact to Yolo Bypass agriculture is defined as the incremental change under each Project alternative from ExCon/NAA. Each alternative is defined over the 1997 – 2012 hydrologic period of record. Economic impacts for each Project alternative are expressed as an average annual impact over this 16-year hydrologic period of record.

2.0 BPM Model Overview

The BPM is an agricultural production and economic optimization model that simulates Yolo Bypass agricultural production. It was initially applied in a preliminary analysis of Yolo Bypass flooding commissioned by Yolo County and completed between 2011 and 2013 (Yolo County 2013). The underlying model theory is unchanged from the 2013 Yolo County analysis. Modifications to the BPM that were summarized in the previous section are described in more detail in the following sections.

The BPM model is a calibrated economic optimization model of agricultural production. This type of economic model is designed to estimate economic impacts that require linkage with hydrodynamic models (in this case, the TUFLOW model). The framework is also consistent with basic principles of economic impact analyses, and inputs and outputs are adjusted for consistency with NED guidelines. It was selected for the analysis for these reasons.

Calibrated optimization models have been widely applied in agricultural economic impact analyses concerning California agriculture for the last 30 years. The BPM has similar data requirements and shares the same underlying methods and theory as the Statewide Agricultural Production (SWAP) model. The SWAP model is widely used by the Bureau of Reclamation (Reclamation), California Department of Water Resources, United States Department of Agriculture (USDA), and various other state and local agencies for analysis of agricultural impacts in response to changes in resource conditions. In 2009, the SWAP model replaced the Central Valley Production Model (CVPM), which was developed in the 1980s and was initially applied for the economic impact analysis of the 1992 Central Valley Project Improvement Act.

The economic methods underlying the BPM (or calibrated optimization models in general) are well-established, widely applied, and have been peer reviewed. The calibration approach underlying the BPM (and SWAP and CVPM) known as Positive Mathematical Programming (PMP) was developed in the late 1970s and formalized in the peer-reviewed publication by Howitt (1995). This seminal paper has been cited over 990 times and the PMP method continues to be applied in a range of economic analyses concerning agricultural production and water use

¹ Alternatives 2 and 3 provide the same flow through the gated notch and timing as Alternative 1; therefore, these alternatives would have the same results as Alternative 1 and are not independently analyzed.

around the world. The specific application of these models in California and the peer-reviewed publication of California's SWAP model can be found in Howitt et al. (2012).

The following subsections provide an overview of the BPM mechanics, calibration by PMP, and application of the model for the economic impact analysis of Project alternatives.

2.1 BPM Model Mechanics

The BPM assumes that farmers maximize profit subject to resource, technical, and market constraints. Farmers sell and buy in competitive markets, and no one farmer can affect or control the price of any commodity. The model selects those crops, water supplies, and other inputs that maximize profit subject to constraints on available resources, and subject to economic conditions regarding prices, yields, and costs. The competitive market is simulated by maximizing producer surplus subject to the following characteristics of production, market conditions, and available resources:

- Leontief production technology. This is a rigid production technology specification that does not allow for intensive margin adjustments (e.g., input substitution) by farmers. This specification was chosen because it does not allow for input substitution and economic impacts estimated using the BPM are conservative (more significant). Parameters are calculated using a combination of prior information and the PMP method.
- Cost-of-production information for each crop is based on standard University of California Cooperative Extension (UCCE) budgets.
- Resource use and availability is based on UCCE budgets and the Yolo County (2013) study geospatial cropping data.
- Expected crop yield is a function of the planting date, as estimated from the DAYCENT model (Yolo County 2013).
- Wetted area output by field is from the TUFLOW model for the 1997 – 2012 hydrologic period of record.
- Field preparation and miscellaneous drydown time are from Yolo County (2013) and ERA (2015).

The BPM incorporates the wetted area output from the TUFLOW model and other conditions listed above. As conditions change within each BPM region (e.g., the number of dry acres and expected crop yield changes), the model simulates planting decisions, inputs, and corresponding farm revenues. It also fallows land when that appears to be the most cost-effective response to resource conditions.

The TUFLOW model output for each alternative over the 1997 – 2012 period of record includes the last day wet for each field in the Yolo Bypass. A field can be planted no sooner than 34 days after the last day the field was wet. This includes 28 days for field preparation plus an additional 6 days for miscellaneous drydown time determined in coordination with Yolo County representatives and Yolo Bypass growers (Yolo County 2013, ERA 2015).

2.2 BPM Model Theory

The BPM is calibrated using the standard PMP method (Howitt 1995). The underlying assumption in any economic model, including calibrated optimization models such as the BPM, is that farmers behave as profit-maximizing agents. In a traditional optimization model, or spreadsheet accounting analysis, profit-maximizing farmers would simply allocate all land, up until resource constraints become binding, to the most valuable crop(s). This is inconsistent with the mix of high and low value crops observed empirically and thus is not a defensible basis for establishing the economic impacts of any project. The PMP method incorporates information on the marginal production conditions that farmers face and historical observed responsiveness to changes in prices and resource conditions, allowing the model to exactly replicate the base conditions of observed input use and outputs. Marginal conditions may include factors known to affect bypass planting decisions such as inter-temporal effects of crop rotation, microclimate, management skills, farm-level effects such as risk management and input smoothing, and heterogeneity in soil and other physical capital. These factors along with crop profitability jointly determine what is produced in any given area, as revealed in the geospatial Yolo Bypass cropping data.

Production costs are incorporated into the BPM through an exponential PMP cost function that reflects average and marginal production costs. The PMP cost function is both region and crop specific, reflecting differences in production across crops and heterogeneity across different regions in the bypass. For example, the southern end of the Yolo Bypass is characterized by a cooler microclimate, winds, and birds that limit its production potential for rice. The BPM is 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 reflected in standard crop budgets (known data) are unaffected and consistent with NED guidelines.

The PMP calibration procedure can be briefly summarized in three steps. 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 base year of calibration data. In the second step, the dual (shadow) values from the calibration and resource constraints are used to derive the parameters for the exponential PMP cost function and production functions. In the third step, the calibrated production function and PMP cost function are combined into a full profit maximization program. At each stage, there is a corresponding model validation check to ensure the model is calibrating properly. These diagnostic tests are discussed in Howitt et al. (2012).

2.3 BPM Specification

Crop production in the BPM is represented by a Leontief production function (fixed input proportions) for each region and crop. In general, a production function is a mathematical specification of the relationship between inputs and output. The calibration routine in the BPM ensures that both input use and output replicate the base year of observed data. A Leontief production relationship was selected because it does not allow for input substitution which would tend to understate potential economic impacts. In addition, the fixed proportion production function ensures the BPM emphasizes the essential factor in this analysis, the effect of planting date on expected crop yields.

The BPM can be succinctly specified as follows:

$$\max_{X_{gid}} \sum_g \sum_d \sum_i EY_{gid} P_i X_{gid} - \sum_g \sum_i \alpha_{gi} \exp\{\beta_{gi} XT_{gi}\}$$

Subject to:

$$EY_{gi} = f_{gid}(\square)$$

$$XT_{gi} = \sum_d X_{gid}$$

$$\sum_d X_{gid} \leq \sum_d DA_{gd}$$

$$DA_{gd} = \sum_f \sum_{d < \bar{d}} LDW_{fd+34}$$

$$X_{gid} \geq 0$$

The sets include crops $i \in \{\text{corn, dry pasture, irrigated pasture, processing tomatoes, rice, wild rice, safflower, sunflower, alfalfa, grain}\}$, fields $f \in \{1, 2, \dots, 454\}$, regions $g \in \{1, 2, \dots, 6\}$, and Julian days $d \in \{60, 61, \dots, 180\}$. The set f maps uniquely into the set g . The variable X_{gid} defines acreage allocated to crop i , in region g , on day d and XT_{gi} defines total acreage. Parameters include the price P_i , expected yield EY_{gid} , total dry acreage DA_{gd} , last day wet from TUFLOW model output LDW_{fd} , and calibrated cost function parameters α_{gi} and β_{gi} . The expected yield is defined by the crop yield function $f_{gid}(\square)$, which is defined as a function of the dry date output from the TUFLOW model and illustrated in subsequent sections of this technical appendix. The cost function parameters include the average variable production costs, embedded in the α_{gi} term, and the PMP calibrated average plus marginal cost, embedded in the β_{gi} term.

The BPM objective function is to maximize farm net revenue defined as gross revenues less production costs. The convex constraint set is defined as follows. Expected yield is a function of the plant date, which in turn is a function of the cumulative dry fields at a given day. The total acreage planted cannot exceed the cumulative dry acreage, where the total planted acreage is defined as the sum of the planted acreage up to the current date. The total dry acreage at any given day (subscript \bar{d}) is the sum over the corresponding fields in the TUFLOW last day wet output field data, shifted by 34 days to allow for field preparation (28 days) and miscellaneous drydown adjustment time (6 days). Finally, a non-negativity constraint is redundant, but included for completeness.

The model is solved dynamically for each alternative on an annual timestep over the set of Julian days $d \in \{60, 61, \dots, 180\}$. Acreage may be planted incrementally as fields become dry, consistent with revealed farmer actions in the calibration data in the Yolo Bypass. Each alternative is run individually and looped over the 1997 – 2012 period of record. Economic impacts are calculated as the difference between ExCon/NAA and the respective Project alternative for each year. This correctly isolates the incremental impact of the Project.

The BPM does not allow for fields that are typically fallow to be planted under either the ExCon/NAA or Project alternatives. That is, the average annual fallow footprint (fields) in the Yolo Bypass are excluded from the incremental dry acreage (TUFLOW output) in the BPM. This is a conservative assumption that ensures standard rotational fallowing is not incorrectly netted out of the Project impacts – only the typically irrigated footprint (summarized in subsequent sections) is included in the economic impact analysis.

2.4 BPM Calibration

The BPM calibrates to 2005 – 2009 average Yolo Bypass geospatial cropping data, consistent with the Yolo County (2013) study. There are a series of calibration tests in the BPM that ensure various economic first order conditions are satisfied, ultimately cumulating in the final calibration check that the model calibrates in inputs and outputs. Table 1 summarizes the percentage difference between the calibrated BPM and the base land use data by crop and model region. As shown, the BPM calibrates within one percent of the base data, verifying that the model is correctly calibrated. Since the model includes Leontief production technology, the other inputs and outputs are calibrated at the same accuracy by definition.

Table 1. BPM Calibration: Model Acreage by Crop and BPM Region, Percent Difference

	1	2	3	4	5	6
Sunflower	0.00%					0.16%
Alfalfa						0.13%
Corn	0.16%	0.17%	0.29%	0.62%		
Dry pasture					-0.02%	0.01%
Grain	0.01%	0.02%			0.06%	0.14%
Irrigated Pasture					0.03%	-0.03%
Processing Tomatoes	-0.01%	-0.01%	0.00%			0.01%
Rice	-0.01%	-0.01%	-0.01%	-0.02%	0.00%	0.03%
Safflower	-0.01%	-0.02%	-0.02%	0.02%	0.06%	0.21%
Vine Seed		-0.01%	0.00%	0.02%		
Wild Rice		-0.01%	-0.01%	-0.01%	0.01%	0.04%

2.5 Linkage to Hydrodynamic Analysis

The BPM has important interactions with the hydrodynamic analysis. In particular, the TUFLOW model provides last day wet information for each field to the BPM. These data are provided for each field, alternative, and year. Each field has a timestamp for the last day the field was wet as determined by TUFLOW. The BPM model adds an additional 28 days for field preparation and an additional 6 day for miscellaneous drydown time to the TUFLOW model output. This date (dry day plus 34 days) represents the earliest day a field could be planted. It is noteworthy in some years farmers are able to prep and plant fields in a shorter timeframe.

3.0 BPM Model Data

The BPM model requires a wide range of data to simulate Yolo Bypass agricultural production. The data are compiled from various public sources, stakeholder input under the Yolo County (2013) study, and stakeholder input under this current analysis (ERA 2015).

3.1 BPM Regions and Crop Definitions

The Yolo Bypass is divided into seven production regions which reflect differences in soil, microclimate, and cropping patterns determined in consultation with stakeholders (Yolo County 2013). Each region includes a number of fields which are identified and uniquely mapped to the corresponding region. Regions 1-6 are included in the BPM model. Region 7 is excluded because that area is not affected by the Project, has different cropping patterns than the rest of the Yolo Bypass, and is missing data observations that were not gathered under the Yolo County (2013) study. Figure 1 illustrates the BPM regions.

Crops are aggregated into 11 crop groups which are the same across all BPM regions². Each crop group represents a number of individual crops, but many are dominated by a single crop. Irrigated acres represent acreage of all crops within the group; production costs and returns are represented by a single proxy crop for each group. Production costs and returns are from the UCCE crop budgets. Crop group definitions and the corresponding proxy crop are shown in Table 2.

Table 2. BPM Crop Groups

BPM Crop Group	Proxy Crop	Crop Budget
Corn	Field Corn (Grain)	UCCE 2008 Sacramento Valley Corn (field)
Dry Pasture	Dry Pasture	UCCE 2008 Intermountain Pasture
Irrigated Pasture	Pasture Irrigated	UCCE 2008 Intermountain Pasture
Processing Tomatoes	Processing Tomatoes	UCCE 2008 Sacramento Valley Proc. Tomatoes
Rice	Rice	UCCE 2012 Sacramento Valley Rice
Safflower	Safflower	UCCE 2011 Sacramento Valley Safflower
Sunflower	Sunflower	UCCE 2011 Sacramento Valley Sunflower
Vine Seed	Vine Seed	UCCE Squash and Yolo County (2013)
Wild Rice	Wild Rice	UCCE 2005 Intermountain Wild Rice
Alfalfa	Alfalfa	UCCE 2008 Sacramento Valley Alfalfa
Grain	Wheat	UCCE 2009 Sacramento Valley Wheat (grain)

² A potential 12th group of “orchards” is not included because no orchards are grown in Yolo Bypass regions 1-6.

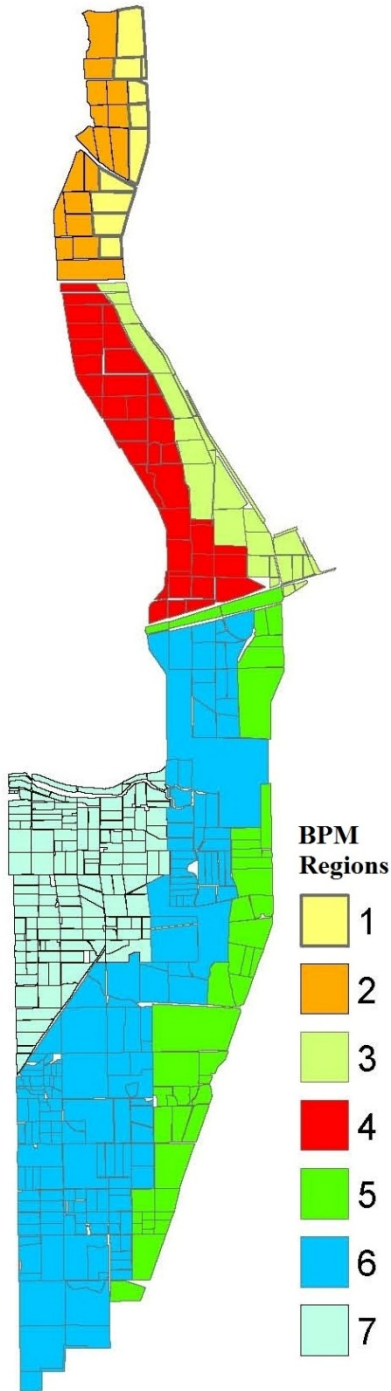


Figure 1. BPM Production Regions

Land use in the BPM is from the Yolo County (2013) field footprints developed for the Yolo Bypass. These include the years 2005 through 2009. These years represent a series of wet and dry years and are described in more detail in Yolo County (2013). Table 3 summarizes the average of 2005 through 2009 crop acreage used to calibrate the BPM.

Table 3. Yolo Bypass 2005 - 2009 Average Crop Acreage

Region	1	2	3	4	5	6	Total
Corn	59	110	62	78	0	0	309
Dry Pasture	0	0	0	0	2,406	6,625	9,031
Irrigated Pasture	0	0	0	0	560	7,012	7,572
Processing Tomatoes	304	673	194	0	0	1,403	2,574
Rice	342	533	390	2,922	570	922	5,679
Safflower	205	406	632	497	173	81	1,993
Sunflower	28	0	0	0	0	48	76
Vine Seed	0	114	48	17	0	0	178
Wild Rice	0	70	368	883	140	520	1,982
Alfalfa	0	0	0	0	0	78	78
Grain	28	30	0	0	171	547	776

Source: Yolo County (2013)

In most years the Yolo Bypass includes a significant amount of fallow land. As discussed previously, including the fallow land footprint as potential irrigable acreage could incorrectly understate the economic impacts of the Project by allowing irrigated acreage to switch these areas. This BPM does not allow for this crop switching to occur by excluding these fallow fields from the potential irrigated footprint.

3.2 Crop Prices and Yields

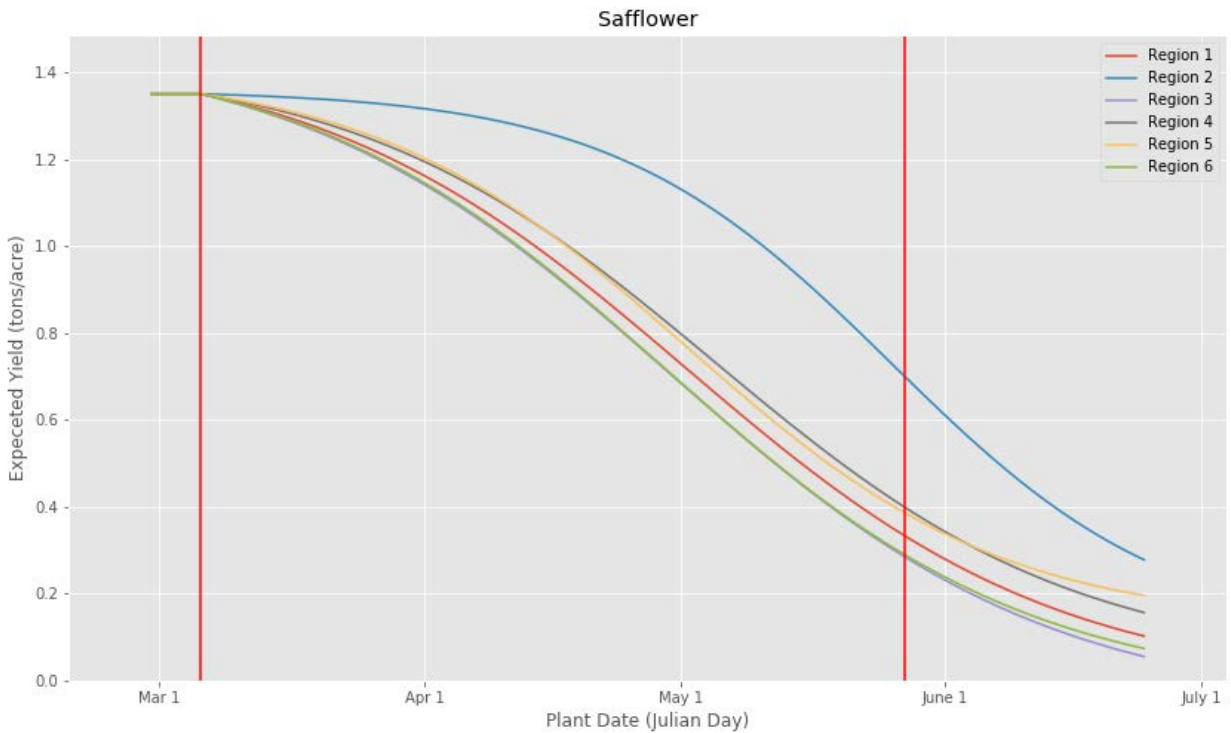
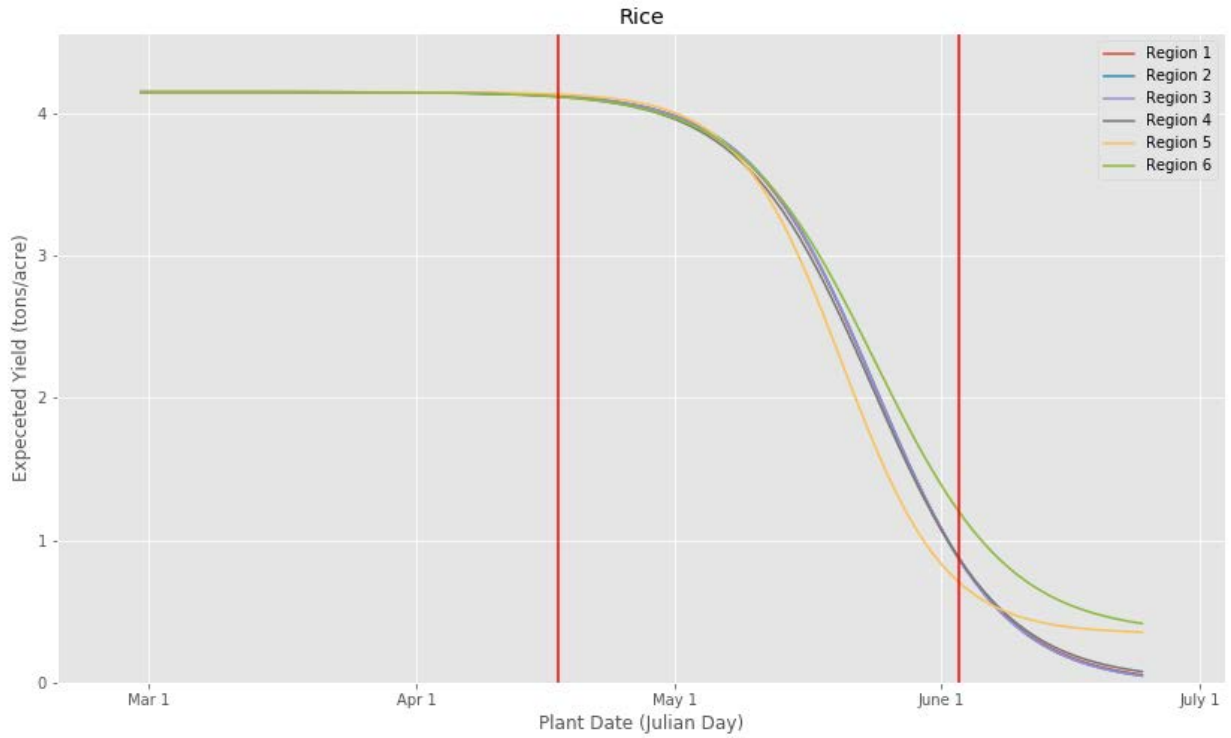
The BPM calibrates to average 2005 – 2009 cropping patterns in the Yolo Bypass. Growers make current planting decisions based on expectations of crop prices. The BPM does not attempt to model how growers form their price expectations; as an approximation, the BPM uses an average of county-level crop prices. Data for county-level crop prices are obtained from the respective County Agricultural Commissioners' annual crop reports for years 2007 through 2009, corresponding to the base average years of calibration data used in the BPM (Yolo County 2005 – 2009).

Crop yields for each crop group in the BPM correspond to the proxy crops listed in Table 2. The corresponding costs of production, discussed in a subsequent section, are from the same UCCE production cost budgets. These represent the maximum yield for each crop group. Prices and yield are summarized in Table 4. It is important to note that prices and yields vary over time and by crop. The economic impacts are defined as the incremental change from the baseline (ExCon/NAA) and these underlying prices and yields are, by definition, the same across all alternatives.

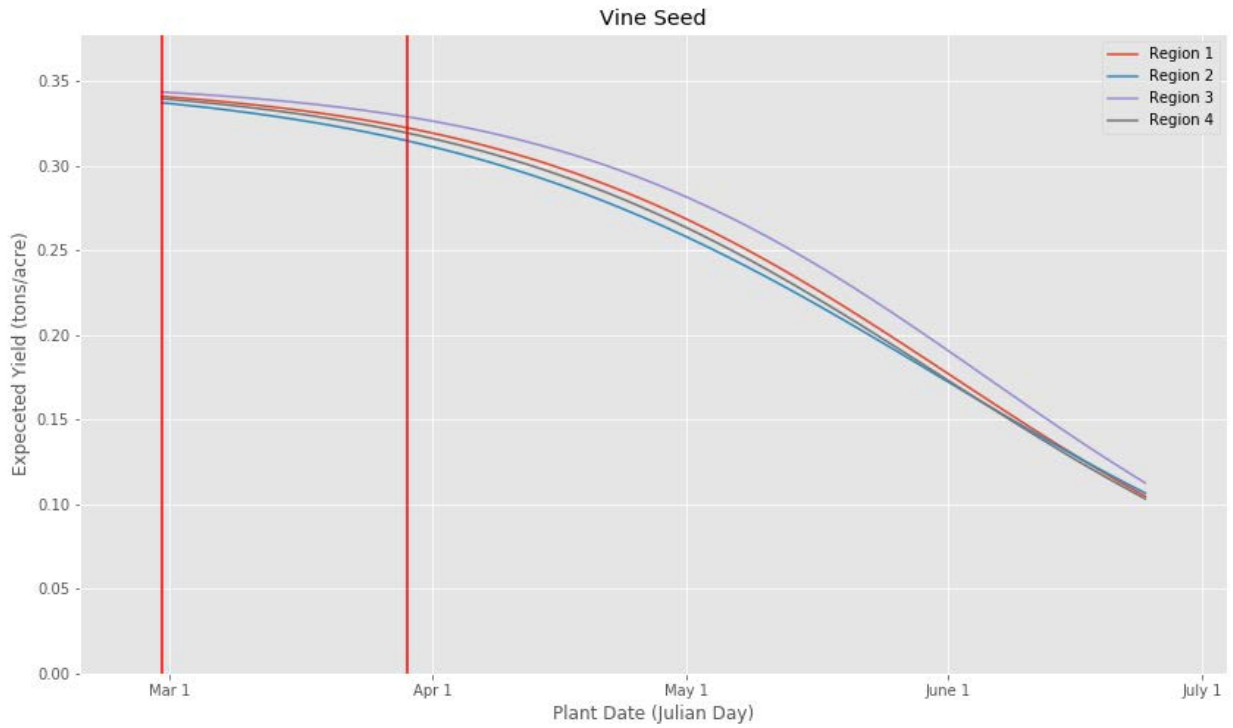
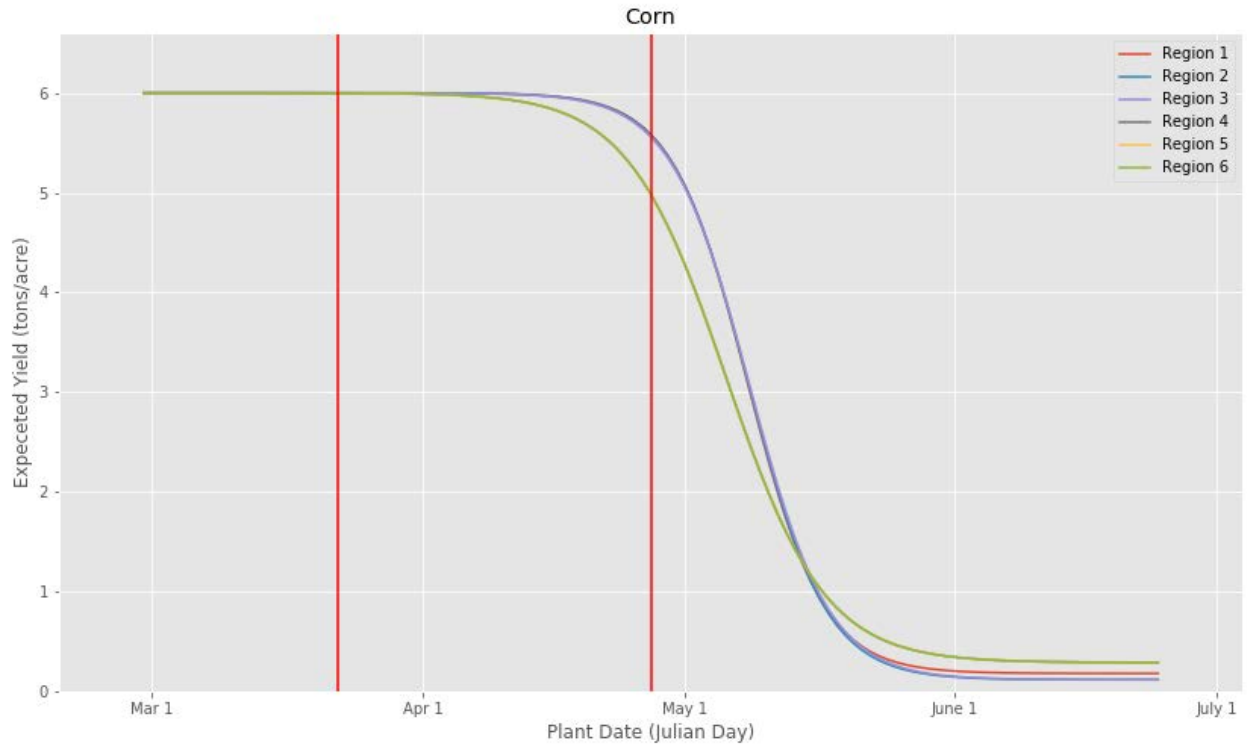
Table 4. BPM crop price (2009 dollars) and yield

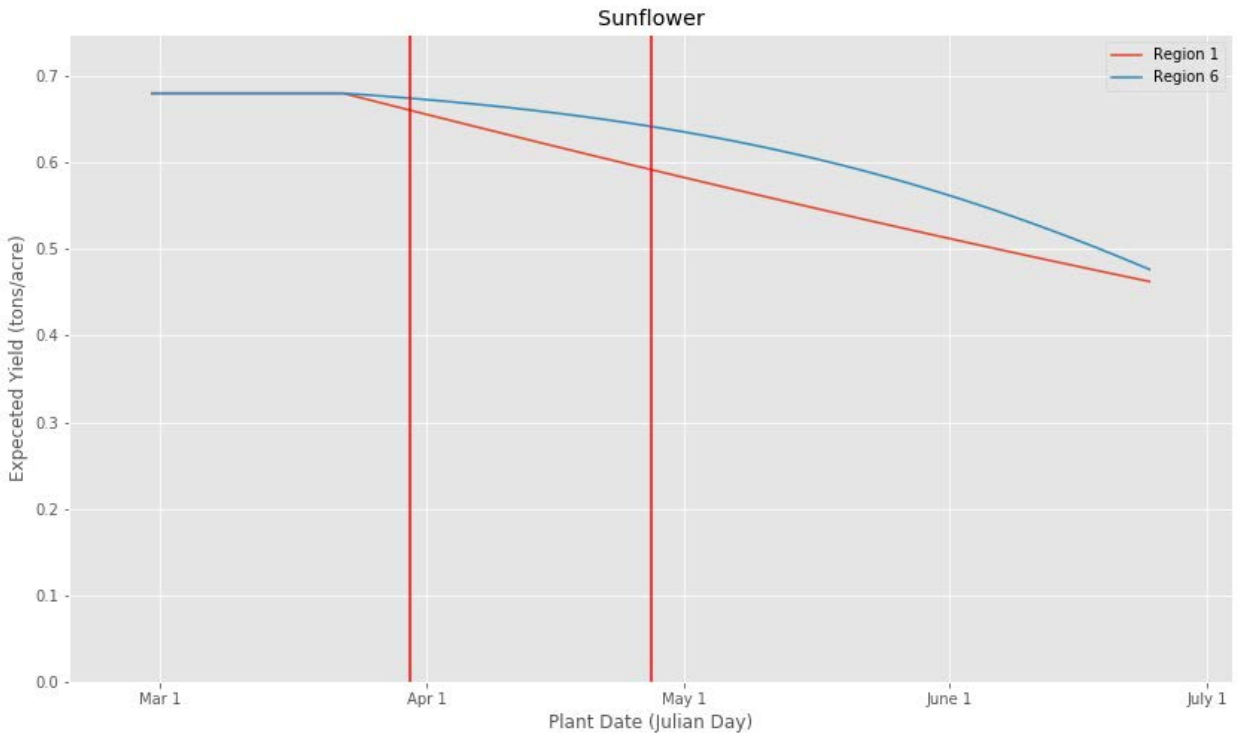
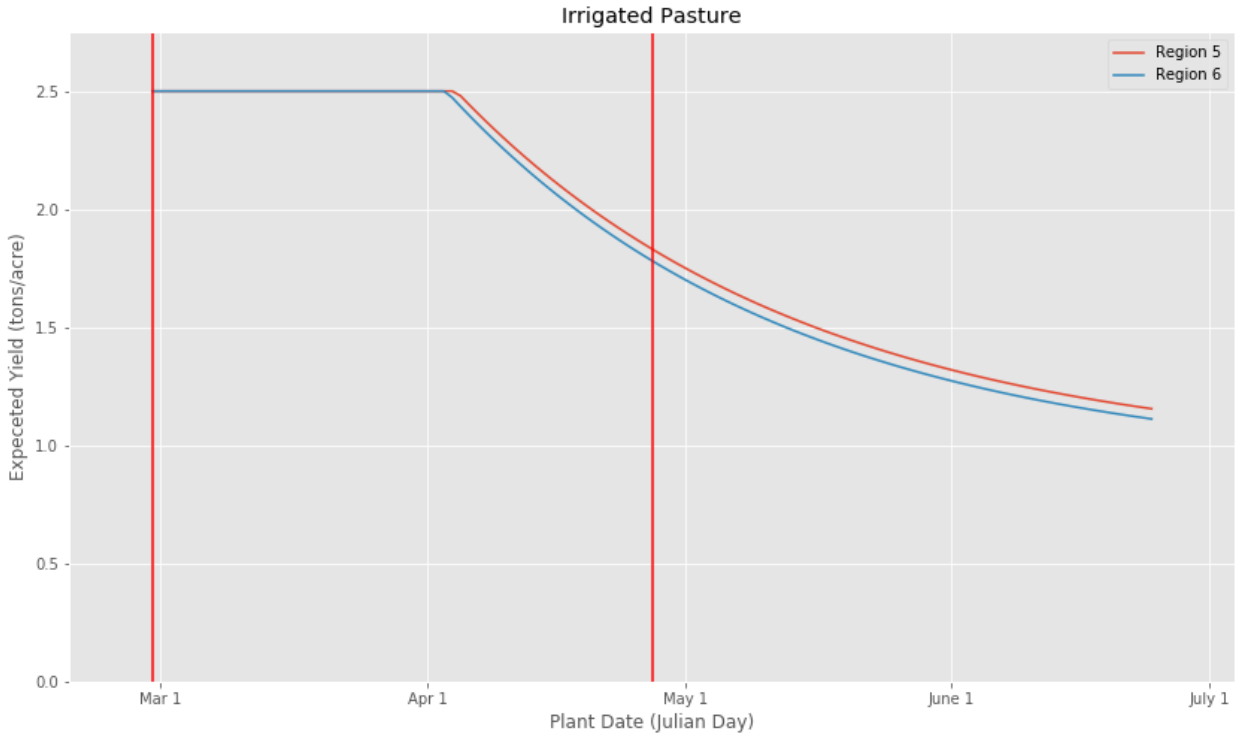
Crop	Price (\$/ton)	Yield (ton/acre)
Corn	152	6.00
Dry Pasture	223	0.50
Irrigated Pasture	223	2.50
Processing Tomatoes	71	35.00
Rice	397	4.15
Safflower	376	1.35
Sunflower	1,436	0.68
Vine Seed	4,844	0.35
Wild Rice	1,442	1
Alfalfa	144	8
Grain	176	3

Increased wetted area in the bypass delays planting date which reduces expected crop yield. The BPM uses the same expected yield relationship as the Yolo County (2013) study, which leverages DAYCENT model output. The yield functions are scaled so that the maximum yield is equal to the reported yield in the UCCE budgets listed in Table 1. This ensures that the fitted functions are consistent with the UCCE budgets and the subsequent NED impact analysis. The dry and irrigated pasture yield functions are the same (scaled to reflect dry yield 0.5 tons/acre and irrigated yield 2.5 tons/acre, respectively). The grain yield uses the same relationship as the corn yield, following the Yolo County (2013) study, where the yield function is scaled to match the grain yield (3 tons/acre). The wild rice function is the same as the conventional rice, following the Yolo County (2013) study, where the yield function is scaled to match the wild rice yield (1 tons/acre). Wild rice can typically be planted later than conventional rice, thus this is a conservative assumption. Figure 2 illustrates the crop yield and standard planting window for each of the BPM crops and regions. The standard planting window is from the respective UCCE budgets. As shown, the BPM yield functions decrease at an increasing rate (with the exception of pasture) as the planting date is pushed farther into the standard planting window. Crops such as processing tomatoes are typically grown under contract and planting is purposefully staggered, sometimes very late in the planting window, to manage processor throughput.



Appendix K1. Bypass Production Model Technical Appendix





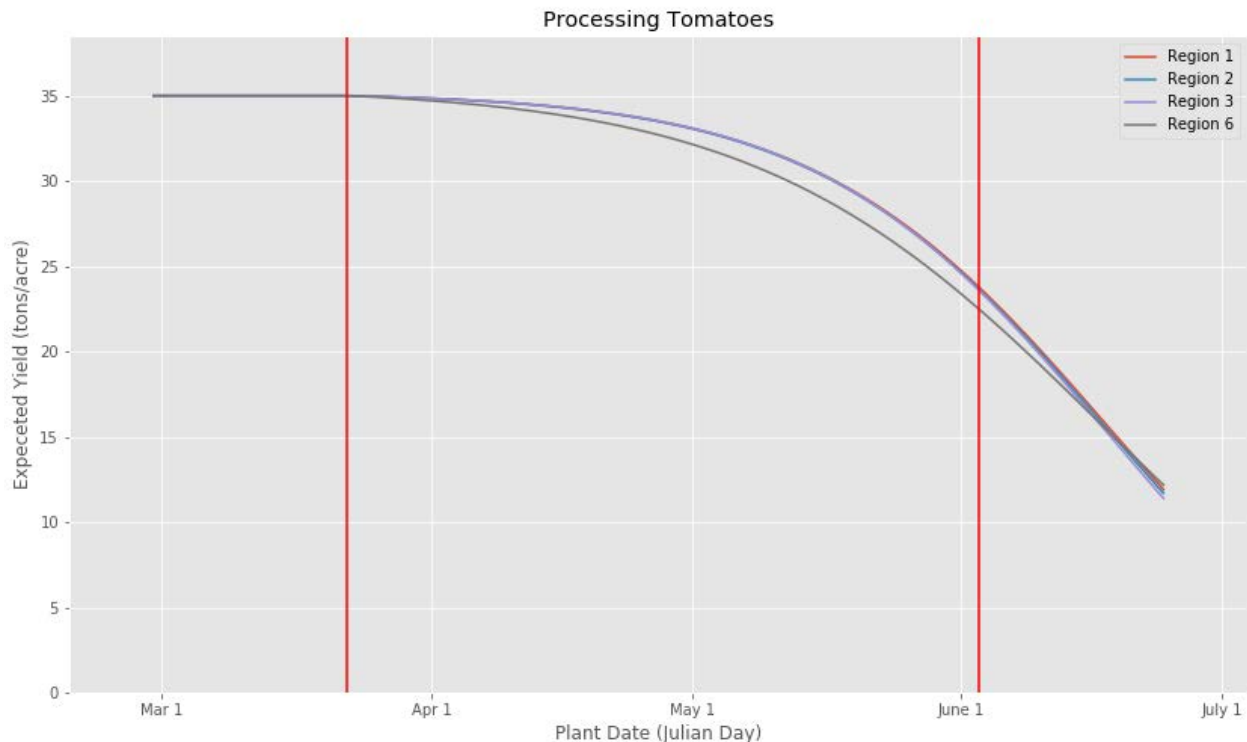


Figure 2. Expected Crop Yield by Planting Day

3.3 Crop Cost of Production Budgets

Land, labor, and other supply costs of production are obtained from the same UCCE crop budgets listed above. Each UCCE budget uses interest rates for capital recovery and interest on operating capital specific to the year of the study. These range from 4 percent to over 8 percent, and as such, require adjustment to a common base year interest rate. A common rate of 6 percent is used for all data.

Land costs are derived from the respective UCCE crop budget and include land rent or land capital recovery costs, as applicable. Capital recovery interest rates are adjusted to a common base of 6 percent.

The labor cost category in the BPM includes both machine and non-machine labor. Labor wages per hour differ for machine and non-machine labor and are reported separately in the UCCE budgets. Both machine and non-machine labor costs include overhead to the farmer of federal and state payroll taxes, workers' compensation, and a small percentage for other benefits which varies by budget. Additionally, a percentage premium (typically around 20 percent) is added to machine labor costs to account for equipment set-up, moving, maintenance, breaks, and field repair. The sum of these components, reported on a per acre basis, is used as input data into the BPM.

The supply cost category in the BPM includes all inputs not explicitly included in the other three input categories (land, labor, and water), including fertilizers, herbicides, insecticide, fungicide, rodenticide, seed, fuel, and custom costs. Additionally, machinery, establishment costs, buildings, and irrigation system capital recovery costs are included. Each sub-category of supply

cost is broken down in detail in the respective crop budget. For example, safflower in the Sacramento Valley requires pre-plant Nitrogen as aqua ammonia at 100 pounds per acre in fertilizer costs. Application of Roundup in February and Treflan in March account for herbicide costs. The sum of these individual components, on a per acre basis, is used as base supply input cost data in the BPM.

3.4 Crop Water Requirements

Applied water is the amount of water applied by the irrigation system to an acre of a given crop for production in a typical year. Variation in rainfall and other climate effects will alter this requirement. Additionally, farmers may stress irrigate crops or substitute other inputs in order to reduce applied water. The latter effect is not considered in the BPM due to the fixed-proportion production technology. Applied water per acre (base) requirements for crops in the BPM is derived from the respective UCCE budget.

3.4.1 BPM Data Sources Summary

The BPM uses a base price level of 2009 for calibration for consistency with the land use data. These prices and costs are deflated to current (2016) dollars in the post-processing of economic impacts, described in subsequent sections. Table 5 summarizes input data and sources used in the BPM.

Table 5. BPM Model Input Data Summary

Input	Source	Notes
Land Use	Yolo County (2013)	Years 2005 - 2009
Crop Prices	County Agricultural Commissioners'	By proxy crop using 2007—2009 average prices
Max Crop Yields	UCCE Crop Budgets	By proxy crop for various years (most recent available)
Expected Crop Yields	Yolo County (2013)	Expected yield by plant day
Interest Rates	UCCE Crop Budgets	All interest rates normalized to 6%
Land Costs	UCCE Crop Budgets	By proxy crop for various years (most recent available)
Labor Costs	UCCE Crop Budgets	By proxy crop for various years (most recent available)
Other input Costs	UCCE Crop Budgets	By proxy crop for various years (most recent available)
Irrigation Water	UCCE Crop Budgets	Average crop irrigation water requirements

4.0 Implementing the BPM for Analysis of Alternatives

The Project alternatives were evaluated over the 1997 – 2012 hydrologic period of record. The BPM is used to compare Yolo Bypass agriculture response to changes in wetted area under the Project alternatives. Alternatives include ExCon/NAA, and the Project alternatives Alt1, Alt4,

Alt4M, Alt5, and Alt6. The economic impact is defined as the incremental difference between the ExCon/NAA and each Project alternative.

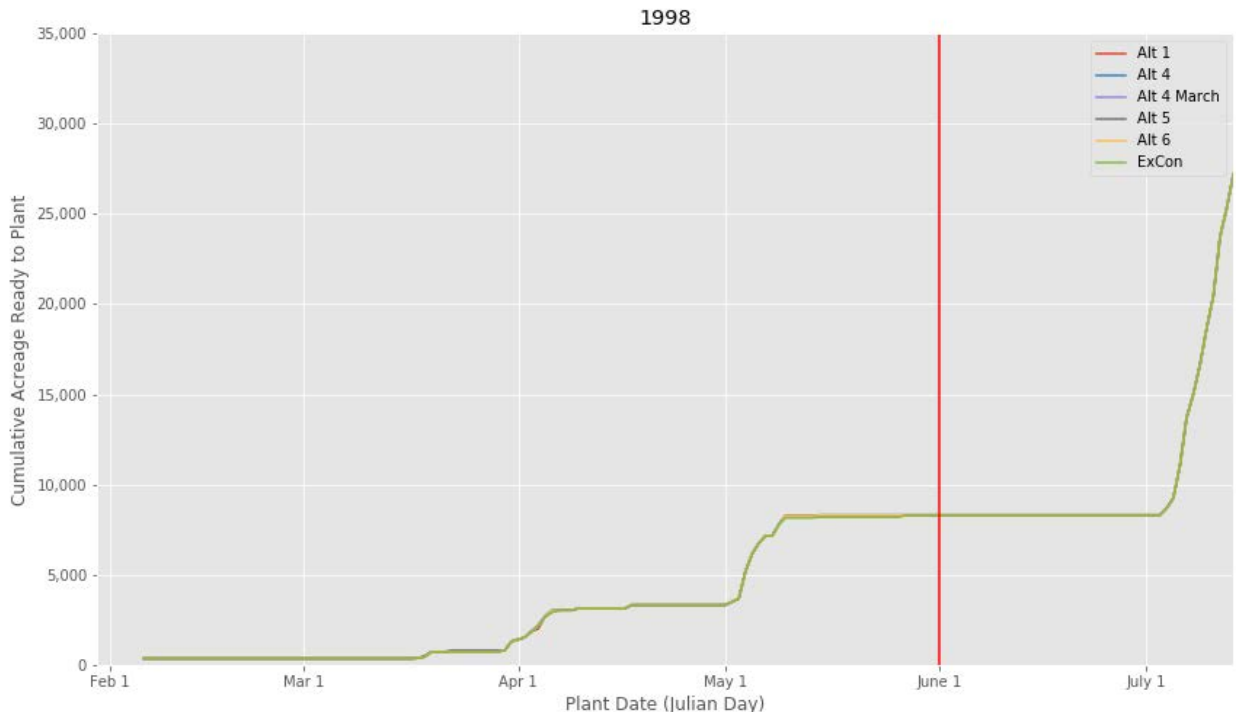
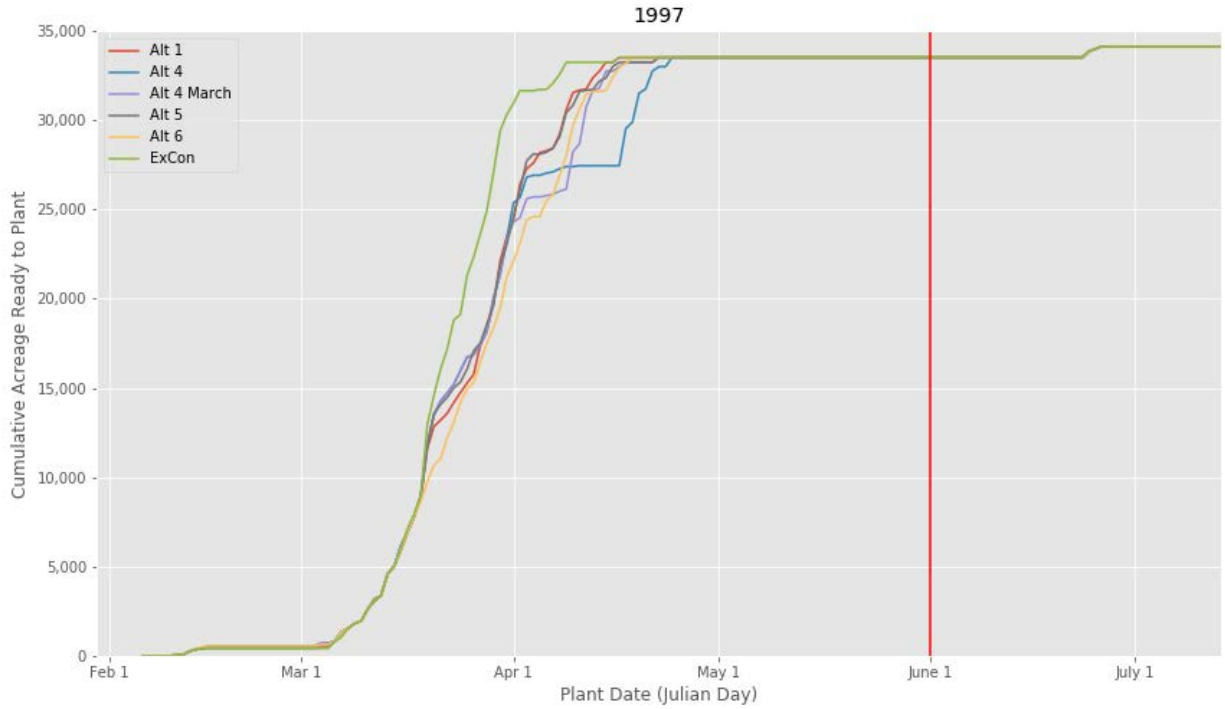
4.1 Wetted Area

The driving variable behind the economic impacts of the Project alternatives is the incremental difference in location, duration, and frequency of additional wetted area in the Yolo Bypass. The economic impact is the difference between ExCon/NAA and each Project alternative. It follows that the Project causes economic impacts when the Project alternative results in additional wetted area during the standard crop planting window for areas that would have otherwise been planted. For example, extending the wetted area in January and February has a negligible effect on economic costs because fields would typically be dry by the beginning of the standard planting window (late March - early April). Conversely, extending wetted area above ExCon/NAA into April and May would have proportionally greater impacts. In short, the economic impacts are driven by the incremental—not total— wetted area simulated by the TUFLOW model.

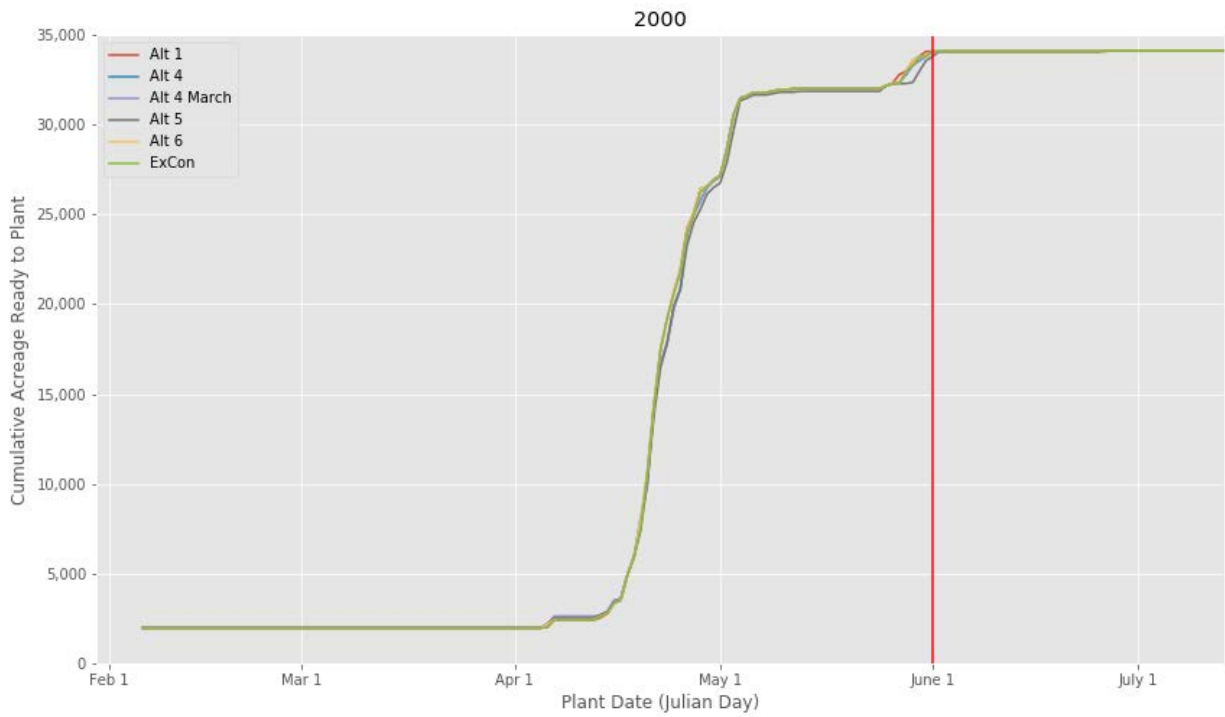
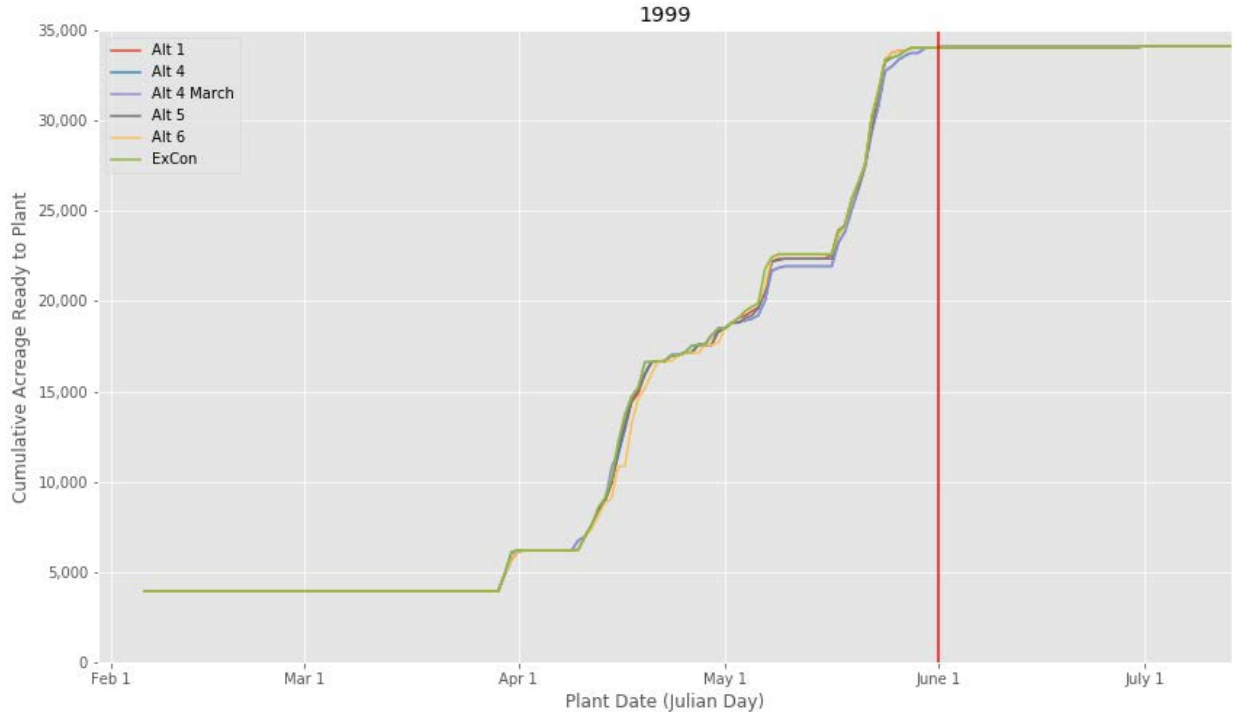
Figure 3 illustrates the cumulative acreage “ready to plant” for each alternative and year. Ready to plant is defined as the dry date from the TUFLOW model plus 6 days for additional miscellaneous drydown plus an additional 28 days for field preparation. The cumulative acreage is calculated by summing over all acreage up to that date. The vertical difference between each Project alternative (various color lines) and ExCon/NAA (green line) shows the incremental wetted area attributable to the Project. That is, reading off of the vertical axis shows the additional acres affected by the Project over and above the baseline (ExCon/NAA) conditions. The red vertical line at June 1 illustrates the end of the standard planting window for most Yolo Bypass crops.

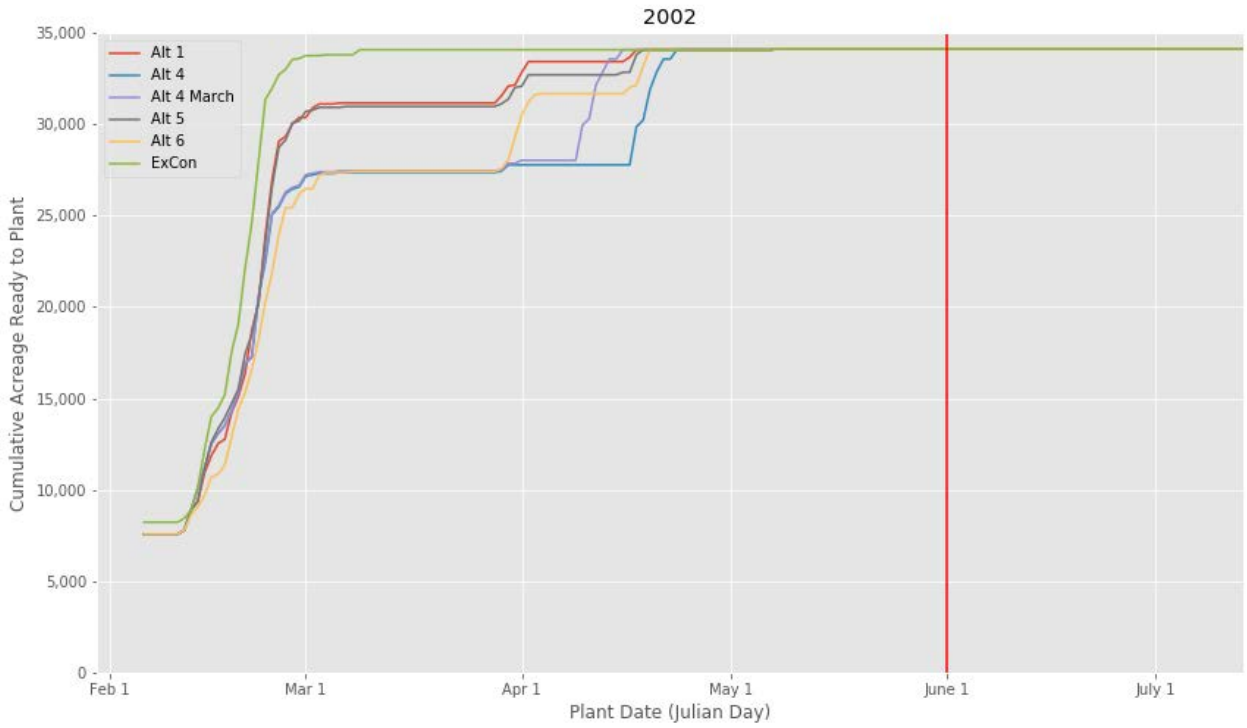
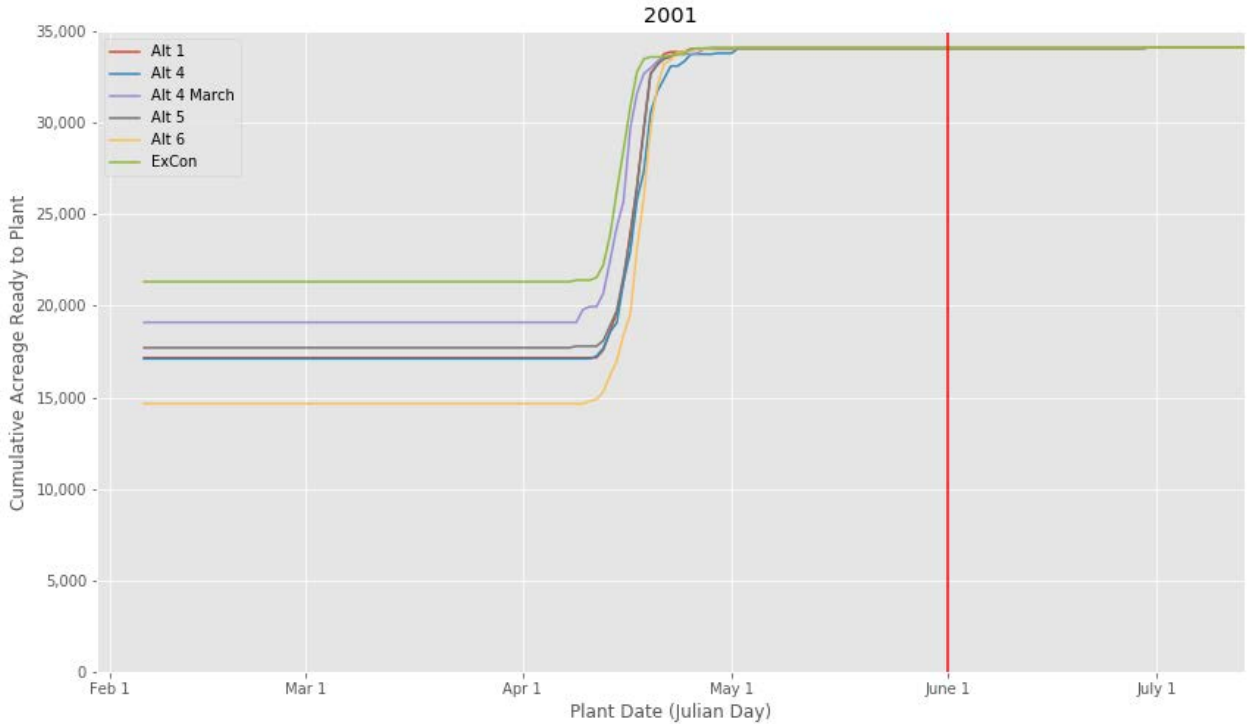
The years 1997 and 1998 illustrate two important factors underlying the economic impact analysis. The year 1997 shows that the Project would result in additional wetted area in the Yolo Bypass under the 1997 hydrologic conditions. This is shown by the vertical difference between the green line (ExCon/NAA) and the line for each of the Project alternatives. However, the additional wetted area is dry and prepped for planting (dry date plus 34 days) by the end of April. It follows that the *incremental* effect on expected crop yields and economic impacts are expected to be moderate to small as fields are dry within a week of ExCon/NAA and before the planting window. Hydrologic year 1998 illustrates a wet year in the Yolo Bypass. In this case the economic impacts of the Project are small because the difference between ExCon/NAA and each of the Project alternatives is negligible. Since the economic impact is the incremental difference between ExCon/NAA and each Project alternative, the economic impact will typically be (perhaps counter-intuitively) small in wet years. Economic impacts are more significant in years when wetted area is extended into the standard planting window over and above what would have naturally occurred under ExCon/NAA.

Appendix K1. Bypass Production Model Technical Appendix

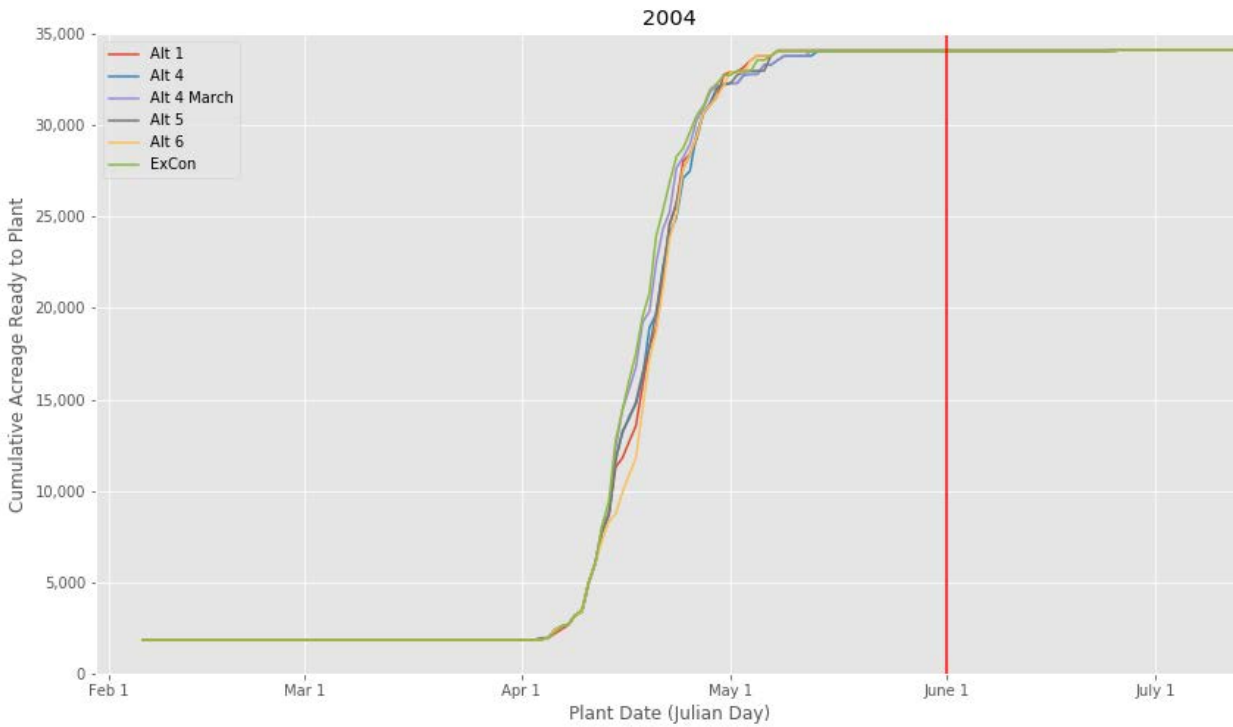
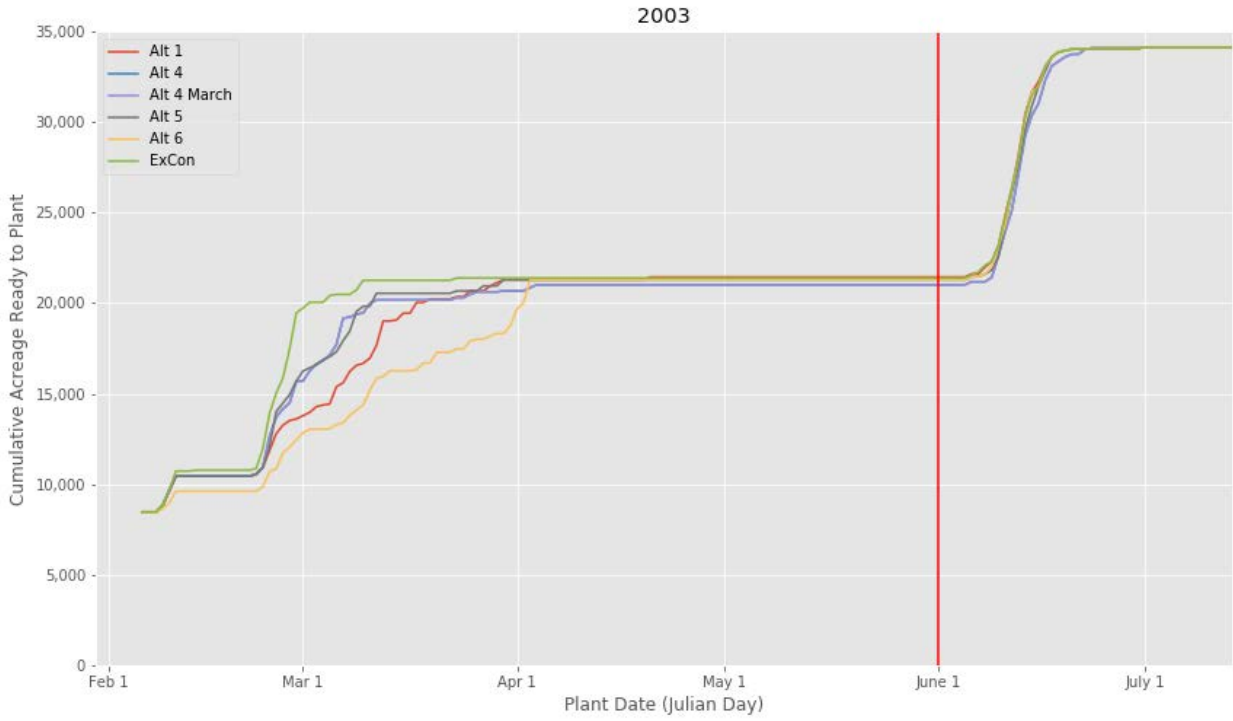


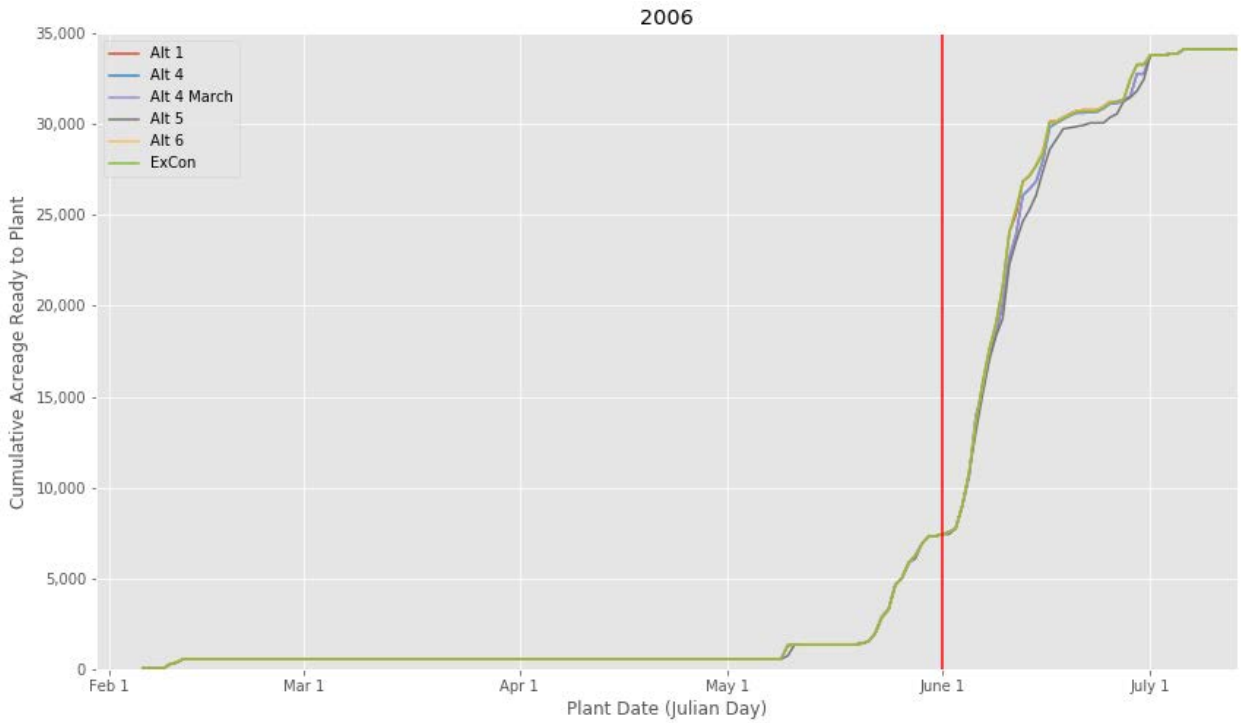
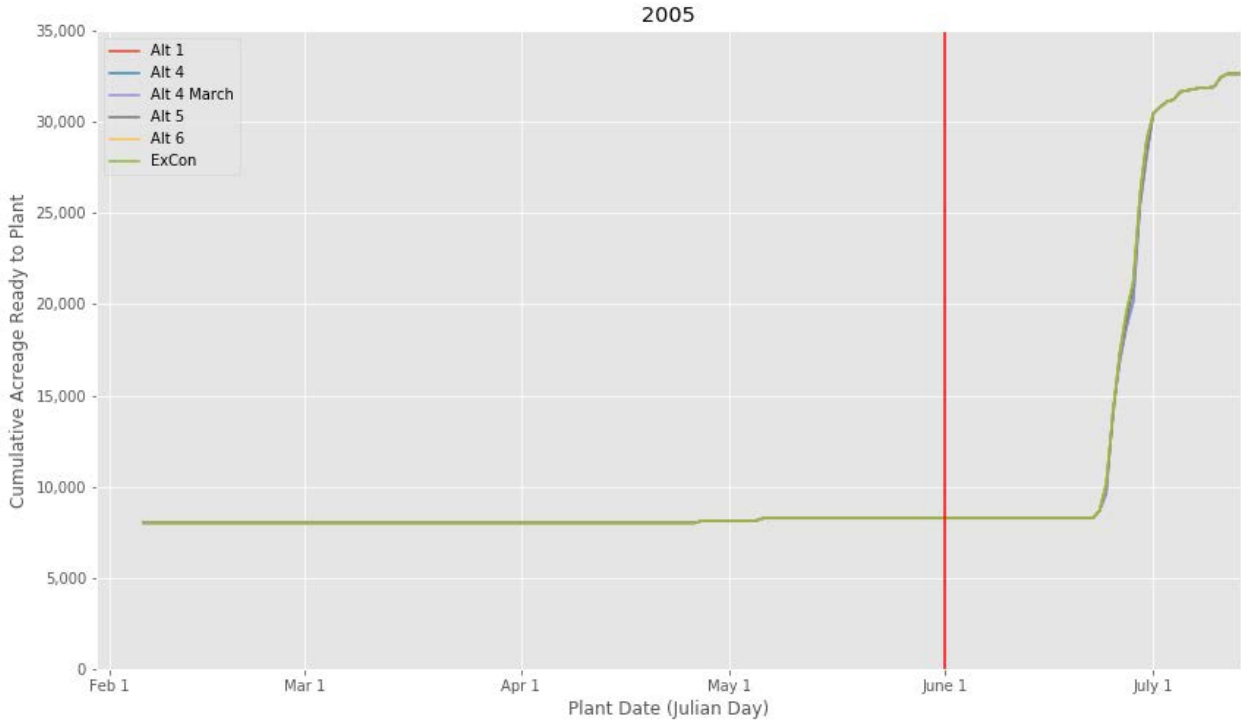
Appendix K1. Bypass Production Model Technical Appendix



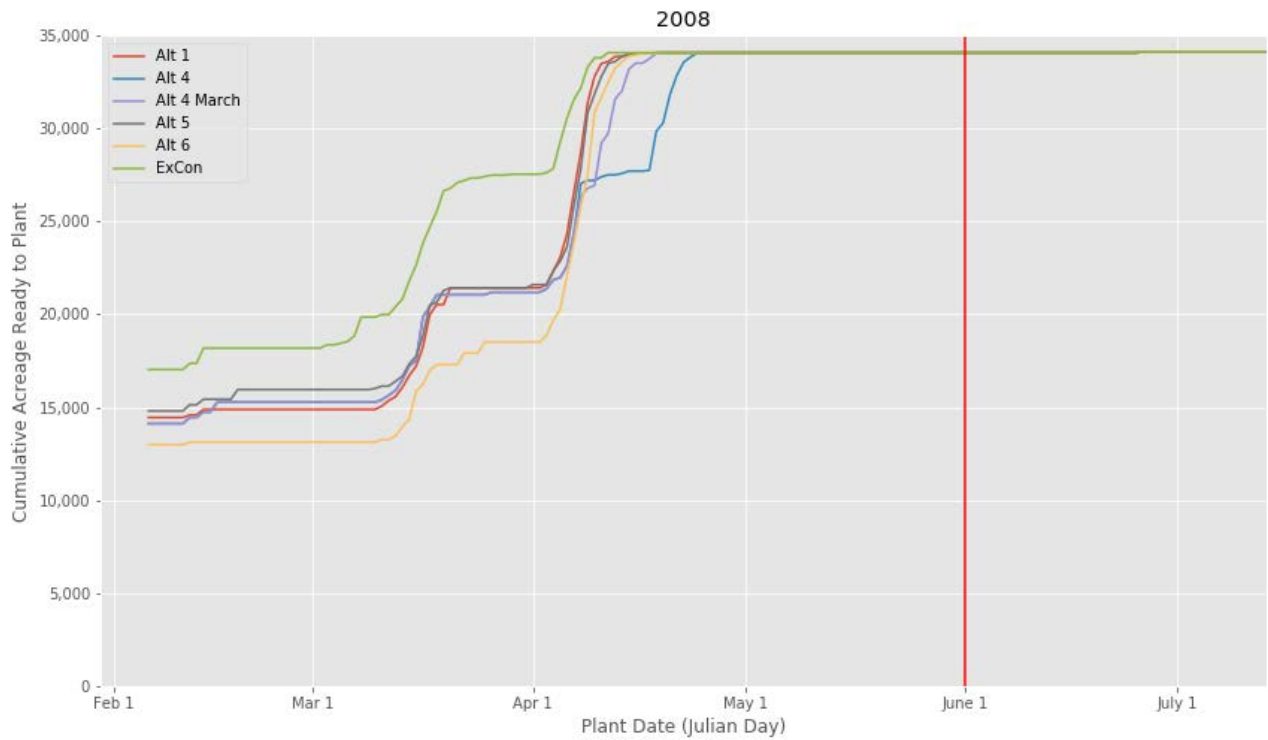
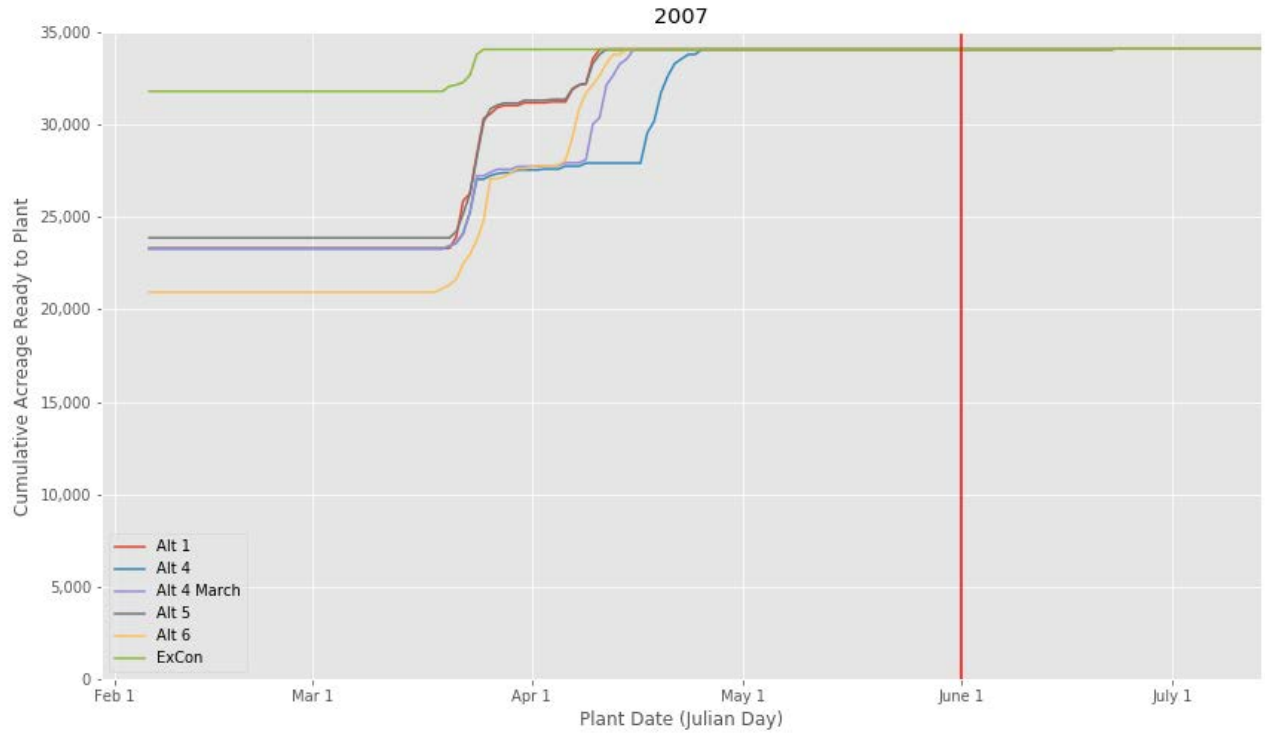


Appendix K1. Bypass Production Model Technical Appendix

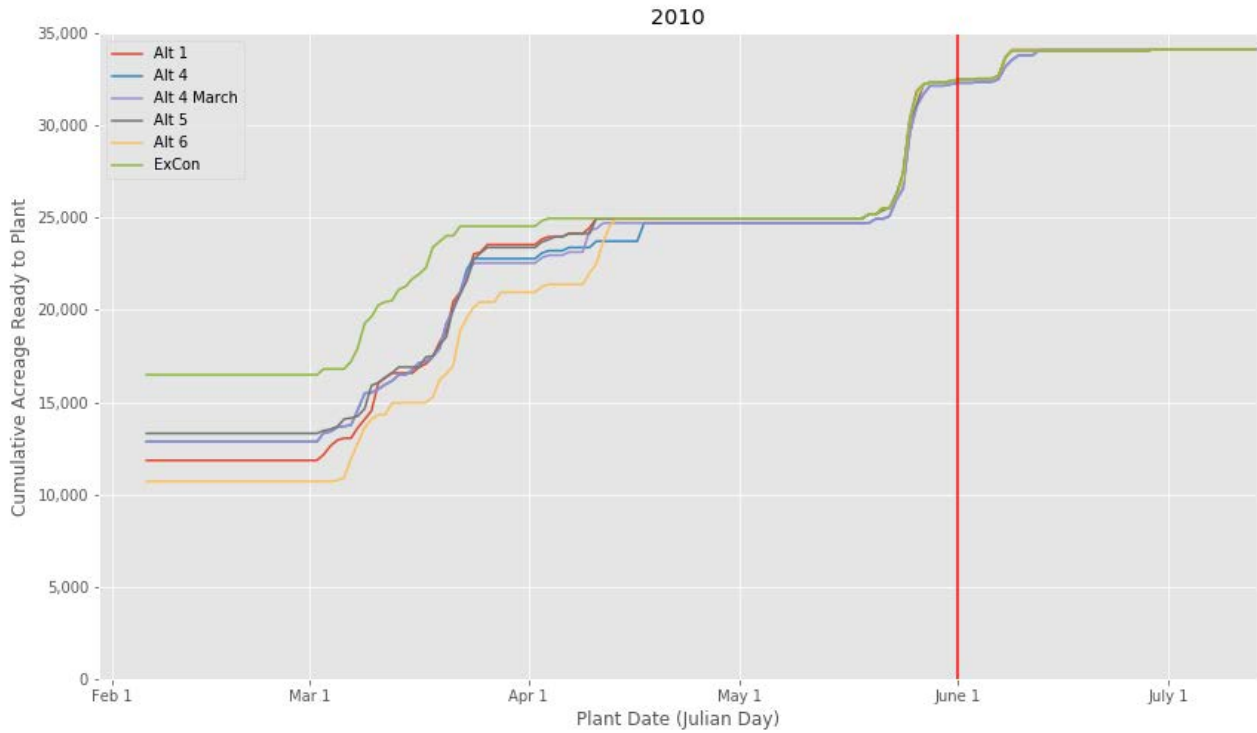
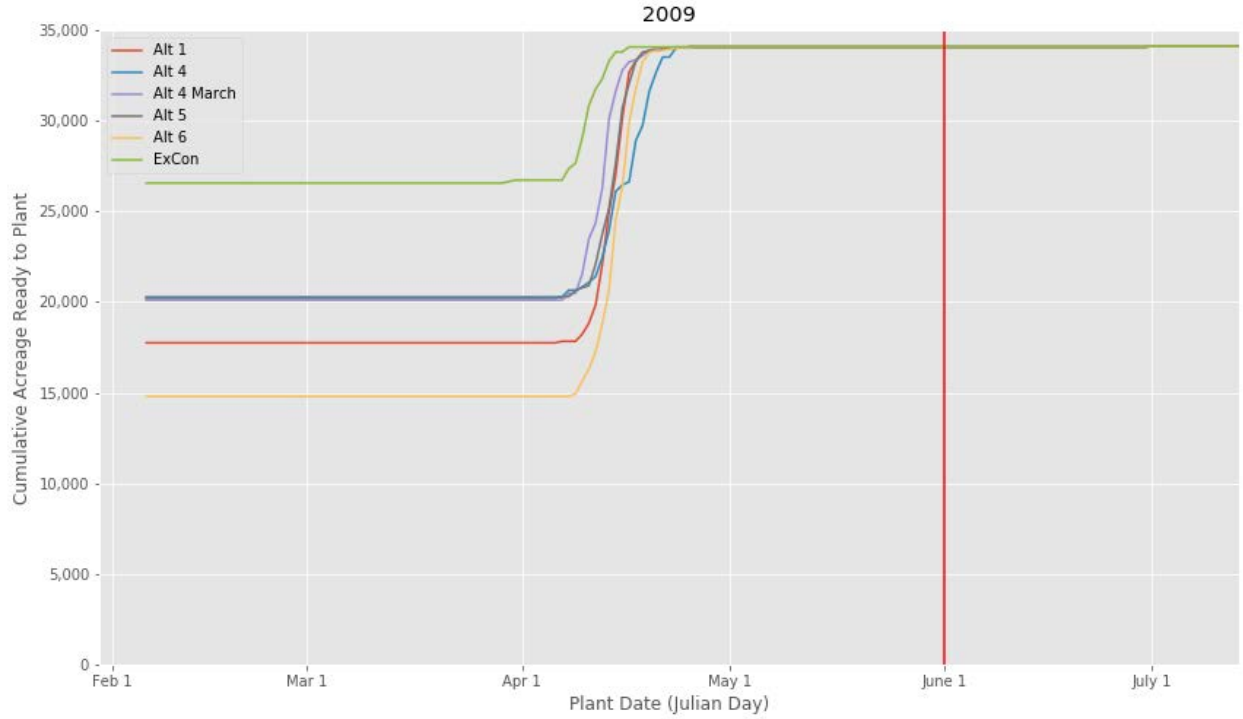




Appendix K1. Bypass Production Model Technical Appendix



Appendix K1. Bypass Production Model Technical Appendix



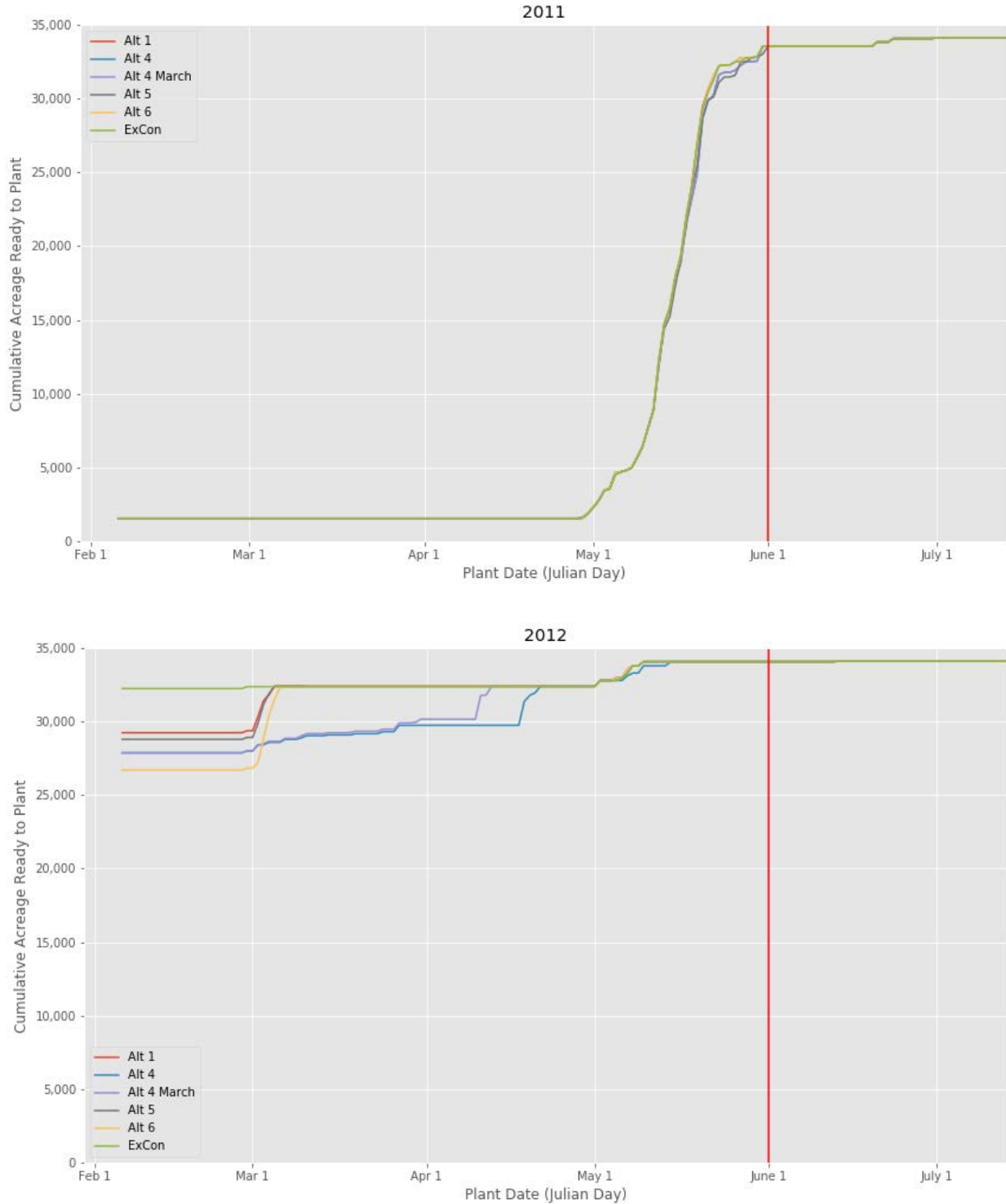


Figure 3. Cumulative Acreage Ready to Plant by Year and Alternative

4.2 National Economic Development (NED) Calculations

The basic guidelines for evaluating water projects at the federal level are specified in the P&Gs. Under the P&Gs, the federal objective for water contributions is to maximize the contribution to

the NED consistent with protection of the environment. In order to adhere to the P&Gs and determine the contribution to NED, a series of adjustments to the BPM outputs are necessary.

Adjustments fall into two categories: pre- and post-processing. Pre-processing adjustments are made prior to optimization with the BPM and include adjustments to input data costs and interest rates. Post-processing adjustments are applied to BPM output and include adjustments to prices and costs. In particular, guidelines require that certain prices be used for valuing changes in physical inputs and outputs. They do not explicitly affect farmers' decisions, so they are applied after the BPM optimization. Post-processing adjustments include interest rates, other supply costs, fallow land costs, normalized crop prices, consumer surplus, water costs, and management charges.

Pre-processing adjustments include changes to the data that occur before BPM optimization, and are made regardless of whether the project is being evaluated under NED guidelines. This includes adjusting interest rates to a consistent 6 percent.

Post-processing adjustments take place after the BPM model optimization. These include:

1. The P&Gs requires that the federal discount rate be used for all interest and capital recovery calculations. The current federal discount rate for is 3.125 percent. A post-processing adjustment is applied to cost data components to adjust the interest rate to 3.125 percent.
2. Machinery capital recovery costs are removed from the NED analysis under all alternatives. Additional land out of production would be quite small and is therefore unlikely to require additional machinery investment. By the same logic, buildings capital recovery costs are removed from the NED analysis under all alternatives.
3. Land rent and cash overhead and land capital recovery costs are removed from the NED analysis under all alternatives. The NED analysis is adjusted to remove land costs that are included within the BPM because land investment in irrigated production is already considered a sunk investment. Sunk investments are irrelevant to determining the economic feasibility/impact of new project investments.
4. Interest on operating capital and capital recovery charges for permanent crop establishment and for irrigation systems are adjusted to a consistent 3.125 percent interest rate.
5. An annual maintenance cost of \$53.89 per acre (in 2016 dollars) is used for the NED analysis to account for fallow land costs, as required by the P&Gs.
6. Reclamation guidelines for preparing NED analysis under the P&Gs recommend including management costs at no less than 6 percent of variable costs. A 6 percent management charge is added to the variable production costs in the BPM.
7. The P&Gs state that USDA Current Normalized Prices (CNP) must be used for calculations when available. These prices have been adjusted by USDA to remove any federal subsidies because such subsidies represent an NED cost that must be accounted for in comparing project benefits and costs. For crop groups covered by USDA's CNP estimates, BPM prices were converted to CNP (USDA 2016). For crop groups without available CNP, the BPM prices are used. CNP reported in 2016 dollars per ton, are as follows: Corn \$211.07, Grains (wheat) \$254.67, and Rice \$394.00. All other crop prices

correspond to the BPM input data described previously and are deflated to 2016 dollars using the Gross Domestic Product implicit price deflator.

8. Pasture is treated separately from the other crops for NED post-processing. Pasture yield and returns are from the 2012 UCCE Intermountain Region Irrigated Pasture study. The UCCE study estimates 2.5 tons of hay per acre and the price of meadow hay is approximately \$220/ton in 2009 dollars. The field is additionally grazed and the UCCE study summarizes additional grazing yields in total Animal Unit Months (AUMs), estimated to be 3 AUMs. For air-dried pasture hay, 800 pounds of hay is equivalent to 1 AUM (2.5 AUM = 1 ton of pasture hay). Based on lease market rates, ranchers estimate \$27 per AUM for good summer pasture. The BPM uses a yield of 2.5 tons of hay per acre at approximately \$220/ton. For comparison, the 2013 USDA California Livestock Review indicates that AUM grazing fees for non-irrigated pasture were \$21.50 per AUM in 2011 and \$23 per AUM in 2012. In summary, pasture values follow these definitions and are deflated to 2016 dollars.

5.0 Yolo Bypass Economic Impacts

This section provides a summary of the agricultural economic impacts of the Project alternatives to Yolo Bypass agriculture estimated using the BPM. A more detailed discussion of each Project alternative and the corresponding economic and socioeconomic impact of each alternative can be found in sections of the main text of the EIR/S. As discussed previously, economic impacts are expressed as the incremental change between each Project alternative and the ExCon/NAA over the 1997 – 2012 period of record analyzed in the TUFLOW hydrodynamic model. Economic impacts include the change in irrigated acreage, gross farm revenues, fallowing cost, and net farm income (income over expenses). Project alternatives include Alternative 1, Alternative 4 (March 15 gate closure), Alternative 4 March (March 7 gate closure), Alternative 5 and Alternative 6 (abbreviated as Alt1, Alt4, Alt4M, Alt5, and Alt6, respectively).

It is important to note that average annual fallowing reflects temporary cropland idling, and not permanent land retirement. This is because the incremental impact of the Project alternatives only occurs in some years, and the additional wetted acreage is small (in proportion to the larger bypass) in those years. As such, all fallowing is temporary (annual), and the economic costs—and modeling using the BPM—reflects these temporary fallowing costs.

Table 6 summarizes the total economic impacts under each of the Project alternatives. The following subsections describe each alternative and the associated economic impacts in greater detail. As shown, Alt 4 (March 15 gate closure) results in the highest average annual economic impact. An average of 106 acres is fallowed annually as a result of the Project, at an average annual fallow land maintenance cost of \$5,708. In addition to fallowing, the Project may cause yield losses in some years as farmers are forced to delay planting until fields are dry. Crop revenue losses resulting from yield losses and fallowing average \$173,903 per year under Alternative 4. The combined NED impact of Alternative 4 equals \$179,611 per year. Alternative 1 causes the lowest average annual economic impact, with 22 acres fallowed and total NED impact of \$65,222 per year.

Table 6. Average Annual Economic Impact of Project Alternatives (2016 dollars)

Metric	Alt 1	Alt 4	Alt4M	Alt5	Alt6
Income over Expenses (\$2016)	-\$64,026	-\$173,903	-\$122,602	-\$75,855	-\$99,645
Acres Fallow	22	106	95	44	26
Variable Fallow Expenses (\$2016)	\$1,195	\$5,708	\$5,124	\$2,370	\$1,394
NED Impact (\$2016)	-\$65,222	-\$179,611	-\$127,725	-\$78,225	-\$101,039

The economic impact analysis also considers the indirect and induced effects in Yolo County resulting from a change in direct farm revenues in the Yolo Bypass. Indirect effects include changes in farm input purchases such as seed, chemicals, and other farm inputs. Induced effects include changes in farm labor and other employee expenditures. Thus the total economic impact includes the direct changes in gross farm revenues and the multiplier effect on all ancillary (backward-linked) industries in Yolo County. The IMPLAN model was constructed with the 2014 R3 data for Yolo County and is used to estimate the indirect and induced impacts. The technical details of the IMPLAN model are described in other sections of the EIR/S. The total economic impact, in terms of jobs, value-added, and total output value, follows from the direct economic impacts estimated using the BPM (gross farm revenues) is summarized in each of the subsequent subsections.

5.1 Alternative 1

Alternative 1 causes the smallest average annual economic impact out of the five Project alternatives considered. Table 5 summarizes the average annual economic impact of Alternative 1 over the 1997 – 2012 hydrologic period of record. Average annual fallowing equals 22 acres and the average annual NED impact equals \$65,222, representing a total decrease of 0.97% over the ExCon/NAA simulation. The maximum annual economic impact occurs in year 2009. Net farm income falls by \$256,106 in this year, and total fallowing equals 126 acres. Net income losses are the combined impact resulting from fallowing and lost revenues due to decreasing yields. The former is illustrated in the plots in Figure 3 and the latter is illustrated in Figure 2.

Table 7. Alternative 1 BPM Economic Impact Summary

Metric	Average annual change
Income over Expenses (\$2016)	(\$64,026)
Acres Fallow	22
Variable Fallow Expenses (\$2016)	1,195
NED Impact (\$2016)	(\$65,222)
Average % Change in NED Farm Income	-0.97%
Maximum Annual Impact: 2009	
Income over Expenses (\$2016)	(\$256,106)
Acres Fallow	126

Figure 4 illustrates the decrease in farm income over expenses for each year in the 1997 – 2012 period of record. Economic impacts are driven by the wetted acreage plots shown in Figure 3. Economic losses increase when additional flooding occurs during the standard planting window. The Alternative 1 economic impact is small in most years because, as shown in Figure 3, the

incremental increase in wetted area is small and occurs outside of the standard planting window for most crops. The years 2001, 2002, and 2009 show the largest annual economic impacts because the incremental wetted area is most significant during these years.

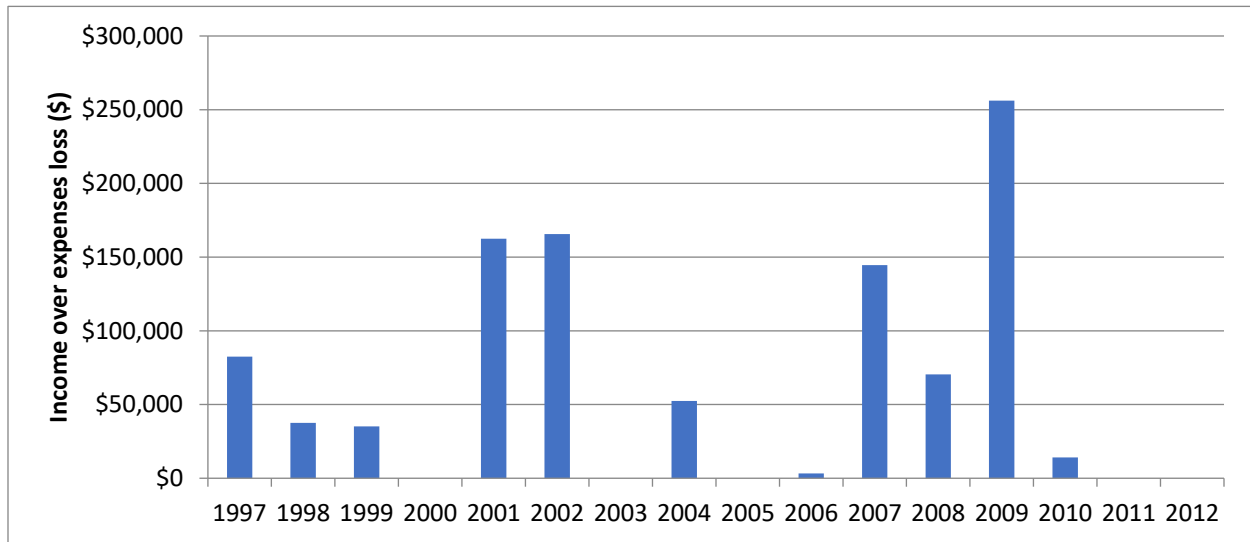


Figure 4. Alternative 1 Annual Loss of Income Over Expenses, 1997 - 2012, (\$ 2016)

Economic impacts are caused by crop yield losses and fallowing. Figure 5 illustrates additional acreage fallowed as a result of Project Alternative 1. As expected, additional fallowing typically occurs in years where the project causes a decrease in income over expenses. In years when the additional wetted acreage caused by the Project is either small or does not occur during the standard planting window, fallowing is generally minor. The most significant fallowing occurs in 2009, when Alternative 1 causes an increase in wetted area during the edge of the standard planting window. It is noteworthy that significant Yolo Bypass fallowing occurs in wet years but this is not an impact of the Project. For example, 2005 and 2006 were particularly wet years with late flooding in the Yolo Bypass, however Project impacts are small because there is no incremental increase in wetted area that is attributable to the Project.

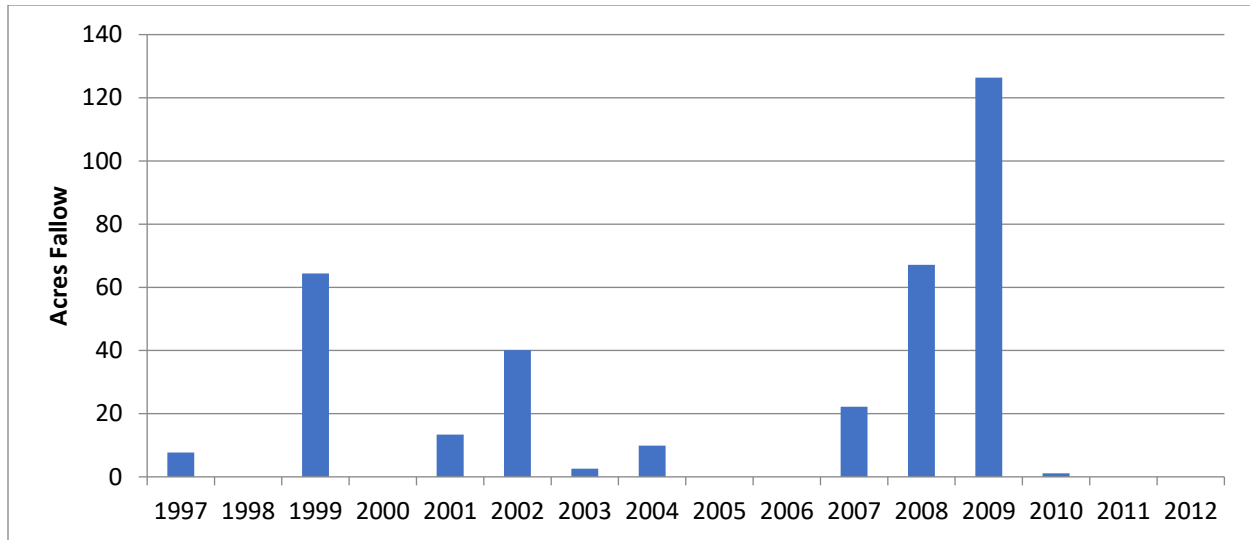


Figure 5. Alternative 1 Annual Fallow Acreage, 1997 - 2012

The gross farm revenue losses estimated using the BPM are inputs to the IMPLAN model and used to estimate the total economic impact caused by the Project. A change in Yolo Bypass farming activity may have multiplier effects on ancillary industries as growers purchase fewer inputs and there are fewer farm jobs available. Table 8 summarizes the total economic impact of Alternative 1. Average annual gross farm revenue is equivalent to the direct change in output value and average \$71,699 per year over the 1997 – 2012 period of record. The total output value loss equals \$102,277 annually. Total value added, a measure of economic activity occurring in Yolo County, falls by \$62,766 across Yolo Bypass crop production and backward-linked industries. Average annual employment decreases by a total of 0.6 jobs as a result of Alternative 1.

Table 8. Alternative 1 Total Economic Impact Summary

Metric	Employment	Value Added	Output Value
Direct Effect	-0.3	(\$42,890)	(\$71,699)
Indirect Effect	-0.2	(\$12,851)	(\$19,089)
Induced Effect	-0.1	(\$7,025)	(\$11,489)
Total Effect	-0.6	(\$62,766)	(\$102,277)

5.2 Alternative 4 (March 15 Gate Closure)

Alternative 4 causes the highest average annual economic impact out of the five Project alternatives considered. Table 9 summarizes the average annual economic impact of Alternative 4 over the 1997 – 2012 hydrologic period of record. Average annual following equals 106 acres and the average annual NED impact equals \$179,611, representing a total decrease of 2.68% over the ExCon/NAA simulation. The maximum annual economic impact occurs in year 2002. Net farm income falls by \$409,931 in this year, and total following equals 71 acres. Note that following is more significant in other years, but the year 2002 represents the highest loss in net income. Net income losses are the combined impact resulting from following and lost revenues

due to decreasing yields. The former is illustrated in the plots in Figure 3 and the latter is illustrated in Figure 2.

Table 9. Alternative 4 BPM Economic Impact Summary

Metric	Average annual change
Income over Expenses (\$2016)	(\$173,903)
Acres Fallow	106
Variable Fallow Expenses (\$2016)	5,708
NED Impact (\$2016)	(\$179,611)
Average % Change in NED Farm Income	-2.68%
Maximum Annual Impact: 2002	
Income over Expenses (\$2016)	(\$409,931)
Acres Fallow	71

Figure 6 illustrates the decrease in farm income over expenses for each year in the 1997 – 2012 period of record. Economic impacts are driven by the impacted acreage plots shown in Figure 3. Economic losses increase when additional flooding occurs during the standard planting window. Alternative 4 economic impacts occur in most years because, as shown in Figure 3, the incremental increase in wetted area occurs, in part, during the standard planting window for most crops. The years 1997, 2001, 2002, 2007, and 2009 show the largest annual economic impacts because the incremental wetted area is most significant during these years.

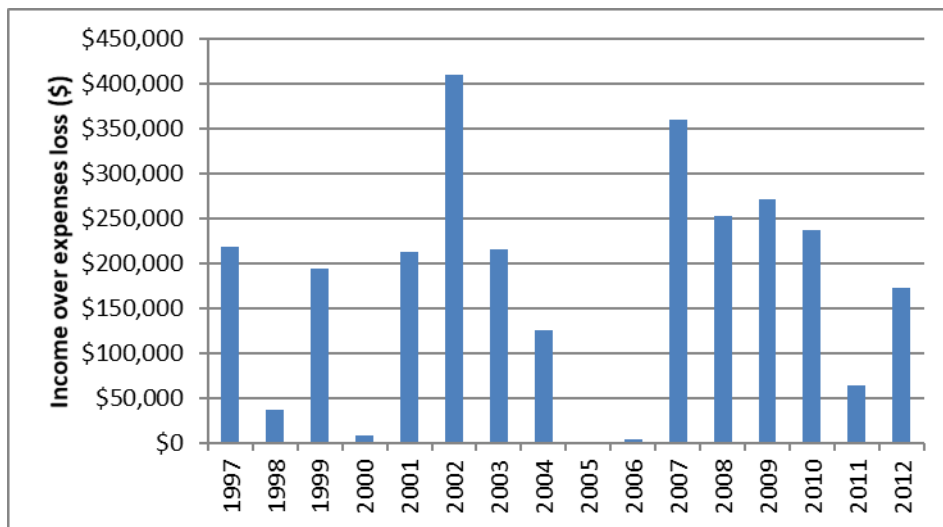


Figure 6. Alternative 4 Annual Loss of Income Over Expenses, 1997 - 2012, (\$ 2016)

Economic impacts are caused by crop yield losses and fallowing. Figure 7 illustrates additional acreage fallowed as a result of Project Alternative 4. As expected, additional fallowing typically occurs in years where the project causes a decrease in income over expenses. In years when the additional wetted acreage caused by the project is either small or does not occur during the standard planting window, fallowing is generally minor. This includes 2005 and 2006. The most

significant fallowing occurs in 2010, when Alternative 4 causes an increase in wetted area during the edge of the standard planting window. It is noteworthy that significant Yolo Bypass fallowing occurs in wet years such as 2005 and 2006. However, Project fallowing impacts are small because there is no incremental increase in wetted area that is attributable to the Project in those years.

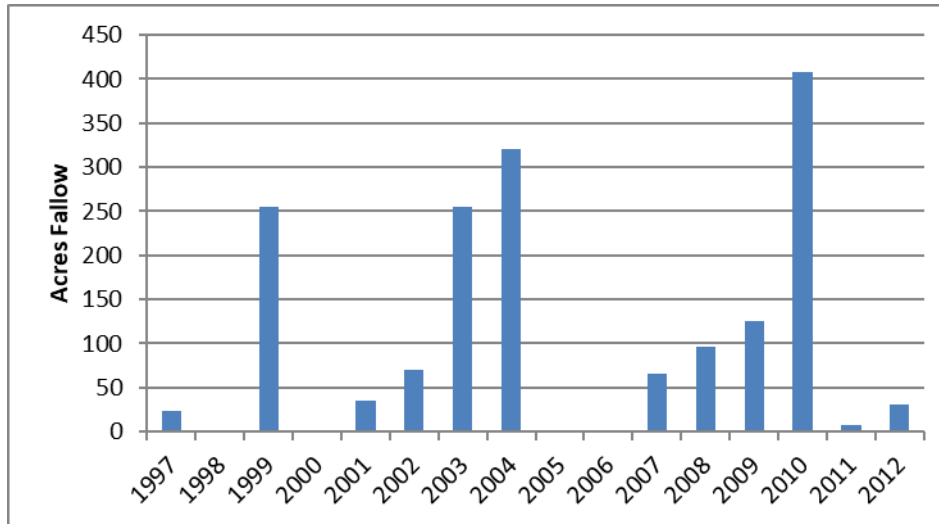


Figure 7. Alternative 4 Annual Fallow Acreage, 1997 - 2012

The gross farm revenue losses estimated using the BPM are inputs to the IMPLAN model and used to estimate the total economic impact caused by the Project. A change in Yolo Bypass farming activity may have multiplier effects on ancillary industries as growers purchase fewer inputs and there are fewer farm jobs available. Table 10 summarizes the total economic impact of Alternative 4. Average annual gross farm revenue is equivalent to the direct change in output value and average \$246,620 per year over the 1997 – 2012 period of record. The total output value loss equals \$360,730 annually. Total value added, a measure of economic activity occurring in Yolo County, falls by \$189,367 across Yolo Bypass crop production and backward-linked industries. Average annual employment decreases by a total of 1.5 jobs as a result of Alternative 4.

Table 10. Alternative 4 Total Economic Impact Summary

Metric	Employment	Value Added	Output Value
Direct Effect	-0.5	(\$115,103)	(\$246,620)
Indirect Effect	-0.8	(\$55,569)	(\$83,536)
Induced Effect	-0.2	(\$18,695)	(\$30,575)
Total Effect	-1.5	(\$189,367)	(\$360,730)

5.3 Alternative 4M (March 7 Gate Closure)

Alternative 4M causes the second highest annual economic impact out of the five Project alternatives considered. Table 11 summarizes the average annual economic impact of Alternative 4M over the 1997 – 2012 hydrologic period of record. Average annual fallowing equals 95 acres

and the average annual NED impact equals \$127,725, representing a total decrease of 1.90% over the ExCon/NAA simulation. The maximum annual economic impact occurs in year 2002, similar to Alternative 4. Net farm income falls by \$282,893 in this year, and total fallowing equals 42 acres. Net income losses are the combined impact resulting from fallowing and lost revenues due to decreasing yields, thus the maximum fallowing impact occurs in other years. The former is illustrated in the plots in Figure 3 and the latter is illustrated in Figure 2.

Table 11. Alternative 4M BPM Economic Impact Summary

Metric	Average annual change
Income over Expenses (\$2016)	(\$122,602)
Acres Fallow	95
Variable Fallow Expenses (\$2016)	5,124
NED Impact (\$2016)	(\$127,725)
Average % Change in NED Farm Income	-1.90%
Maximum Annual Impact: 2002	
Income over Expenses (\$2016)	(\$282,893)
Acres Fallow	42

Figure 8 illustrates the decrease in farm income over expenses for each year in the 1997 – 2012 period of record. Economic impacts are driven by the impacted acreage plots shown in Figure 3. Economic losses increase when additional flooding occurs during the standard planting window. Alternative 4M economic impacts are moderate in most years because, as shown in Figure 3, the incremental increase in wetted area is moderate and occurs during the standard planting window for most crops. The years 1999, 2002, 2003, 2007, 2010 and 2009 show the largest annual economic impacts because the incremental wetted area is most significant during these years.

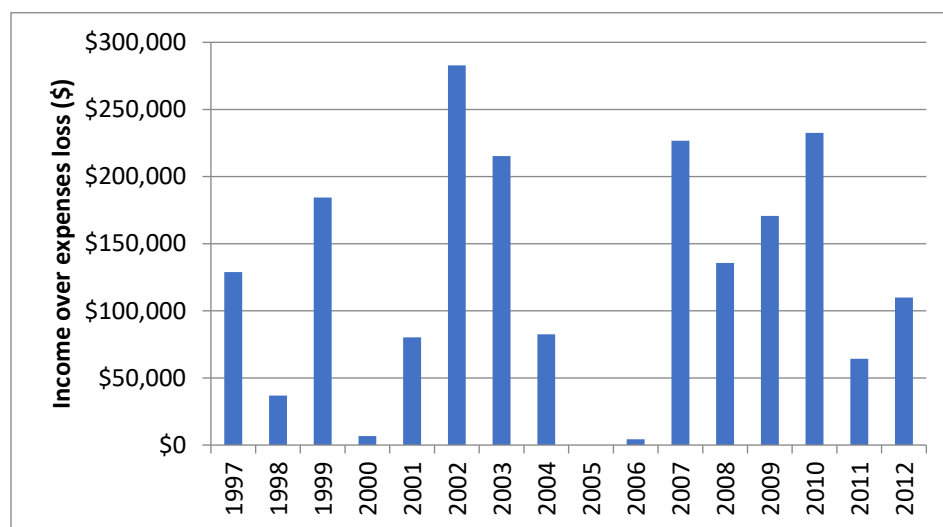


Figure 8. Alternative 4M Annual Loss of Income Over Expenses, 1997 - 2012, (\$ 2016)

Economic impacts are caused by crop yield losses and fallowing. Figure 9 illustrates additional acreage fallowed as a result of Project Alternative 4M. As expected, additional fallowing

typically occurs in years where the project causes a decrease in income over expenses. In years when the additional wetted acreage caused by the project is either small or does not occur during the standard planting window, fallowing is generally minor. The most significant fallowing occurs in 2010, when Alternative 4M causes an increase in wetted area during the edge of the standard planting window. It is noteworthy that significant Yolo Bypass fallowing occurs in wet years. For example, 2005 and 2006 were particularly wet years with late flooding in the Yolo Bypass, however Project impacts are small because there is no incremental increase in wetted area that is attributable to the Project.

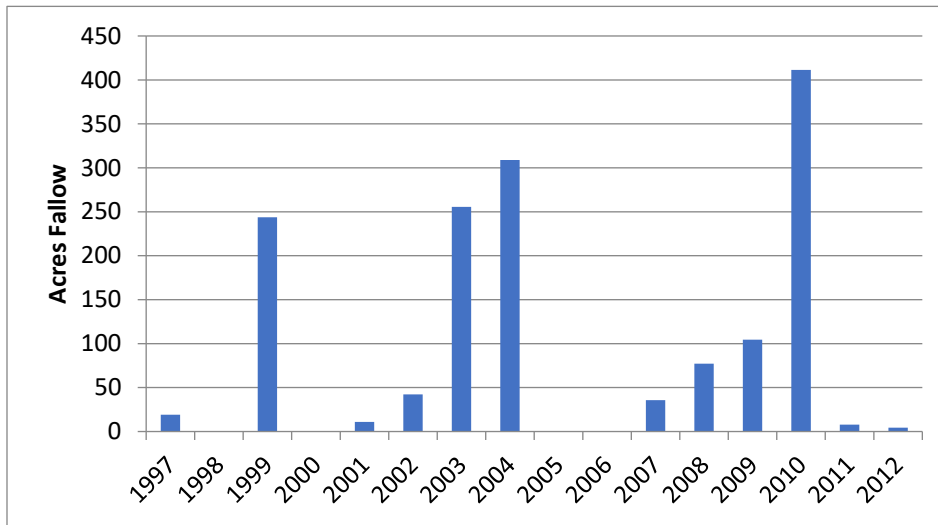


Figure 9. Alternative 4M Annual Fallow Acreage, 1997 - 2012

The gross farm revenue losses estimated using the BPM are inputs to the IMPLAN model and used to estimate the total economic impact caused by the Project. A change in Yolo Bypass farming activity may have multiplier effects on ancillary industries as growers purchase fewer inputs and there are fewer farm jobs available. Table 12 summarizes the total economic impact of Alternative 4M. Average annual gross farm revenue is equivalent to the direct change in output value and average \$191,066 per year over the 1997 – 2012 period of record. The total output value loss equals \$284,495 annually. Total value added, a measure of economic activity occurring in Yolo County, falls by \$141,526 across Yolo Bypass crop production and backward-linked industries. Average annual employment decreases by a total of 1.2 jobs as a result of Alternative 4M.

Table 12. Alternative 4M Total Economic Impact Summary

Metric	Employment	Value Added	Output Value
Direct Effect	-0.4	(\$80,659)	(\$191,066)
Indirect Effect	-0.7	(\$46,470)	(\$69,883)
Induced Effect	-0.2	(\$14,398)	(\$23,546)
Total Effect	-1.2	(\$141,526)	(\$284,495)

5.4 Alternative 5

Alternative 5 causes the second smallest average annual economic impact out of the five Project alternatives considered. Table 13 summarizes the average annual economic impact of Alternative 5 over the 1997 – 2012 hydrologic period of record. Average annual fallowing equals 44 acres and the average annual NED impact equals \$78,225, representing a total decrease of 1.17% over the ExCon/NAA simulation. The maximum annual economic impact occurs in year 2002. Net farm income falls by \$222,091 in this year, and total fallowing equals 43 acres. Net income losses are the combined impact resulting from fallowing and lost revenues due to decreasing yields. The former is illustrated in the plots in Figure 3 and the latter is illustrated in Figure 2.

Table 13. Alternative 5 BPM Economic Impact Summary

Metric	Average annual change
Income over Expenses (\$2016)	(\$75,855)
Acres Fallow	44
Variable Fallow Expenses (\$2016)	2,370
NED Impact (\$2016)	(\$78,225)
Average % Change in NED Farm Income	-1.17%
Maximum Annual Impact: 2002	
Income over Expenses (\$2016)	(\$222,091)
Acres Fallow	43

Figure 10 illustrates the decrease in farm income over expenses for each year in the 1997 – 2012 period of record. Economic impacts are driven by the impacted acreage plots shown in Figure 3. Economic losses increase when additional flooding occurs during the standard planting window. Alternative 5 economic impacts are small in most years because, as shown in Figure 3, the incremental increase in wetted area is small and occurs outside of the standard planting window for most crops. The years 2001, 2002, and 2009 show the largest annual economic impacts because the incremental wetted area is most significant during these years.

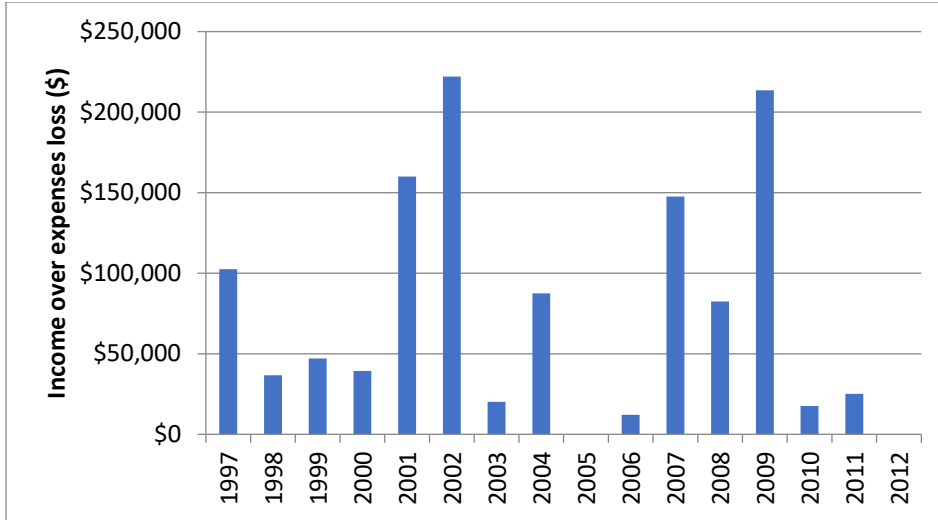


Figure 10. Alternative 5 Annual Loss of Income Over Expenses, 1997 - 2012, (\$ 2016)

Economic impacts are caused by crop yield losses and fallowing. Figure 11 illustrates additional acreage fallowed as a result of Project Alternative 5. As expected, additional fallowing typically occurs in years where the project causes a decrease in income over expenses. In years when the additional wetted acreage caused by the project is either small or does not occur during the standard planting window, fallowing is generally minor. The most significant fallowing occurs in 2004, when Alternative 5 causes an increase in wetted area during the edge of the standard planting window. It is noteworthy that significant Yolo Bypass fallowing occurs in wet years. For example, 2005 and 2006 were particularly wet years with late flooding in the Yolo Bypass, however Project impacts are small because there is no incremental increase in wetted area that is attributable to the Project.

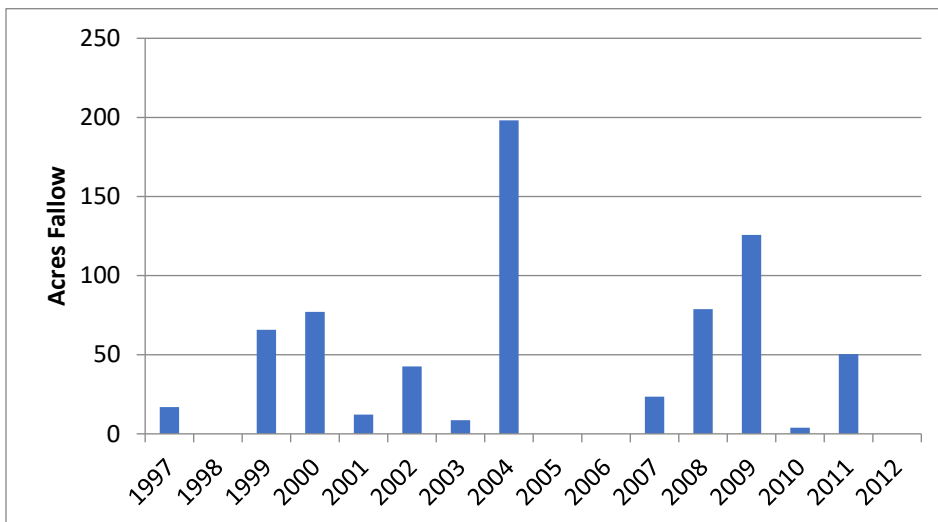


Figure 11. Alternative 5 Annual Fallow Acreage, 1997 - 2012

The gross farm revenue losses estimated using the BPM are inputs to the IMPLAN model and used to estimate the total economic impact caused by the Project. A change in Yolo Bypass farming activity may have multiplier effects on ancillary industries as growers purchase fewer inputs and there are fewer farm jobs available. Table 14 summarizes the total economic impact of Alternative 5. Average annual gross farm revenue is equivalent to the direct change in output value and average \$95,252 per year over the 1997 – 2012 period of record. The total output value loss equals \$135,154 annually. Total value added, a measure of economic activity occurring in Yolo County, falls by \$81,324 across Yolo Bypass crop production and backward-linked industries. Average annual employment decreases by a total of 0.7 jobs as a result of Alternative 5.

Table 14. Alternative 5 Total Economic Impact Summary

Metric	Employment	Value Added	Output Value
Direct Effect	-0.3	(\$55,406)	(\$95,252)
Indirect Effect	-0.3	(\$17,422)	(\$26,007)
Induced Effect	-0.1	(\$8,496)	(\$13,895)
Total Effect	-0.7	(\$81,324)	(\$135,154)

5.5 Alternative 6

Alternative 6 causes moderate annual economic impacts relative to the other Project alternatives considered. Table 15 summarizes the average annual economic impact of Alternative 6 over the 1997 – 2012 hydrologic period of record. Average annual fallowing equals 26 acres and the average annual NED impact equals \$101,039, representing a total decrease of 1.51% over the ExCon/NAA simulation. The maximum annual economic impact occurs in year 2009. Net farm income falls by \$317,084 in this year, and total fallowing equals 137 acres. Net income losses are the combined impact resulting from fallowing and lost revenues due to decreasing yields. The former is illustrated in the plots in Figure 3 and the latter is illustrated in Figure 2.

Table 15. Alternative 6 BPM Economic Impact Summary

Metric	Average annual change
Income over Expenses (\$2016)	(\$99,645)
Acres Fallow	26
Variable Fallow Expenses (\$2016)	1,394
NED Impact (\$2016)	(\$101,039)
Average % Change in NED Farm Income	-1.51%
Maximum Annual Impact: 2009	
Income over Expenses (\$2016)	(\$317,084)
Acres Fallow	137

Figure 12 illustrates the decrease in farm income over expenses for each year in the 1997 – 2012 period of record. Economic impacts are driven by the impacted acreage plots shown in Figure 3. Economic losses increase when additional flooding occurs during the standard planting window.

Alternative 6 economic impacts are small in most years because, as shown in Figure 3, the incremental increase in wetted area is small and occurs outside of the standard planting window for most crops. The years 2001, 2002, 2007, and 2009 show the largest annual economic impacts because the incremental wetted area is most significant during these years.

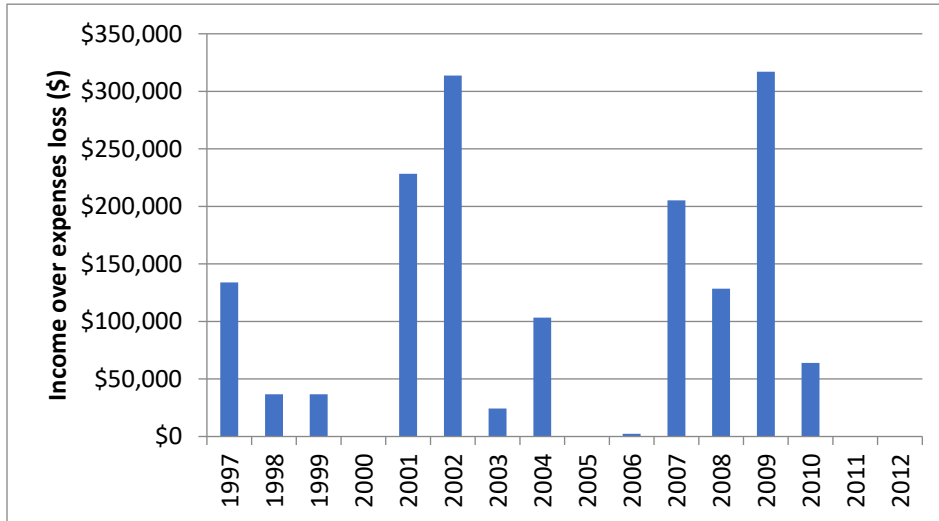


Figure 12. Alternative 6 Annual Loss of Income Over Expenses, 1997 - 2012, (\$ 2016)

Economic impacts are caused by crop yield losses and fallowing. Figure 13 illustrates additional acreage fallowed as a result of Project Alternative 6. As expected, additional fallowing typically occurs in years where the project causes a decrease in income over expenses. In years when the additional wetted acreage caused by the project is either small or does not occur during the standard planting window, fallowing is generally minor. The most significant fallowing occurs in 2009, when Alternative 6 causes an increase in wetted area during the edge of the standard planting window. It is noteworthy that significant Yolo Bypass fallowing occurs in wet years. For example, 2005 and 2006 were particularly wet years with late flooding in the Yolo Bypass, however Project impacts are small because there is no incremental increase in wetted area that is attributable to the Project.

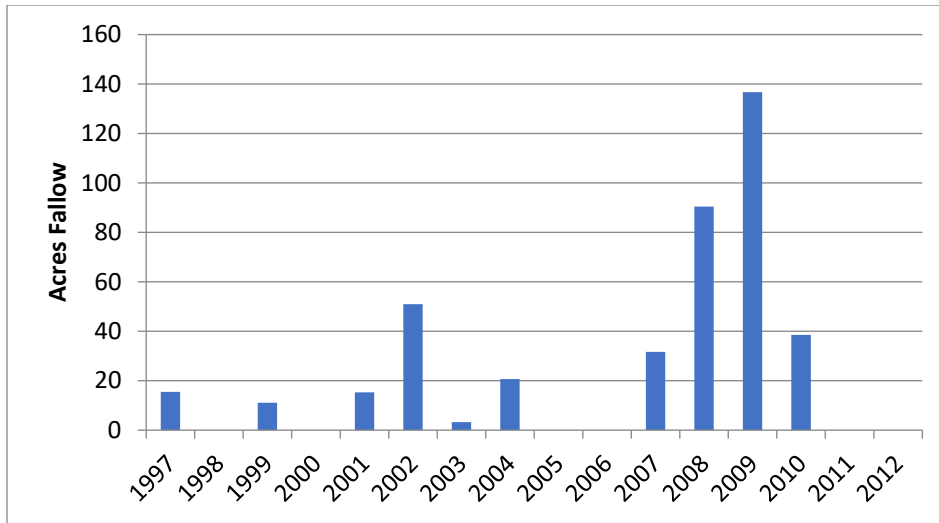


Figure 13. Alternative 6 Annual Fallow Acreage, 1997 - 2012

The gross farm revenue losses estimated using the BPM are inputs to the IMPLAN model and used to estimate the total economic impact caused by the Project. A change in Yolo Bypass farming activity may have multiplier effects on ancillary industries as growers purchase fewer inputs and there are fewer farm jobs available. Table 16 summarizes the total economic impact of Alternative 6. Average annual gross farm revenue is equivalent to the direct change in output value and average \$106,568 per year over the 1997 – 2012 period of record. The total output value loss equals \$150,624 annually. Total value added, a measure of economic activity occurring in Yolo County, falls by \$95,602 across Yolo Bypass crop production and backward-linked industries. Average annual employment decreases by a total of 0.9 jobs as a result of Alternative 6.

Table 16. Alternative 6 Total Economic Impact Summary

Metric	Employment	Value Added	Output Value
Direct Effect	-0.5	(\$66,981)	(\$106,568)
Indirect Effect	-0.3	(\$17,889)	(\$26,506)
Induced Effect	-0.1	(\$10,731)	(\$17,551)
Total Effect	-0.9	(\$95,602)	(\$150,624)

6.0 Economic Impact Summary

The economic impacts of incremental increases in wetted acreage vary across the Yolo Bypass depending on the Project alternative. Figure 14 illustrates the average annual change in irrigated acreage (temporary fallowing) under each of the Project alternatives. As shown, bypass regions 3 and 4 have the highest temporary fallowing under the alternatives. These areas are most frequently inundated. Under Alternatives 4 and 4M additional water infrastructure is installed to increase standing water, which in turn increases temporary fallowing.

Figure 15 illustrates the average annual change in NED farm income under each of the Project alternatives. As shown, bypass regions 3 and 4 have the highest economic impact under the alternatives. These areas are most frequently inundated, and thus realize higher losses from temporary fallowing, crop switching, or yield losses. Under Alternatives 4 and 4M additional water infrastructure is installed to increase standing water, which in turn increases economic costs.

7.0 BPM Limitations

The BPM is an optimization model that makes the best (most profitable) adjustments to changes in resource conditions. The BPM calibrates to observed planting decisions by bypass farmers and these cropping decisions reflect responses to changes in bypass wetted area under natural flood events. Nevertheless, an optimization model can tend to over-adjust and minimize costs associated with detrimental changes or, similarly, maximize benefits associated with positive changes.

The BPM is importantly linked to the dry day estimates generated by the TUFLOW hydrodynamic model. The assumptions implicit to the TUFLOW model therefore affect the economic impact analysis. TUFLOW model output enters into the BPM as acreage available for planting under each Project alternative after adjusting for assumed field preparation time (28 days) and miscellaneous drydown (6 days).

The BPM does not explicitly account for the dynamic nature of agricultural production and it does not explicitly incorporate risk or risk preferences (e.g., risk aversion) into its objective function. Risk aversion is incorporated implicitly into the model. The calibration procedure for the BPM reproduces the observed crop mix, so to the extent that the observed crop mix in the Yolo Bypass incorporates risk spreading and risk aversion by bypass farmers, the starting, calibrated BPM base condition will also.

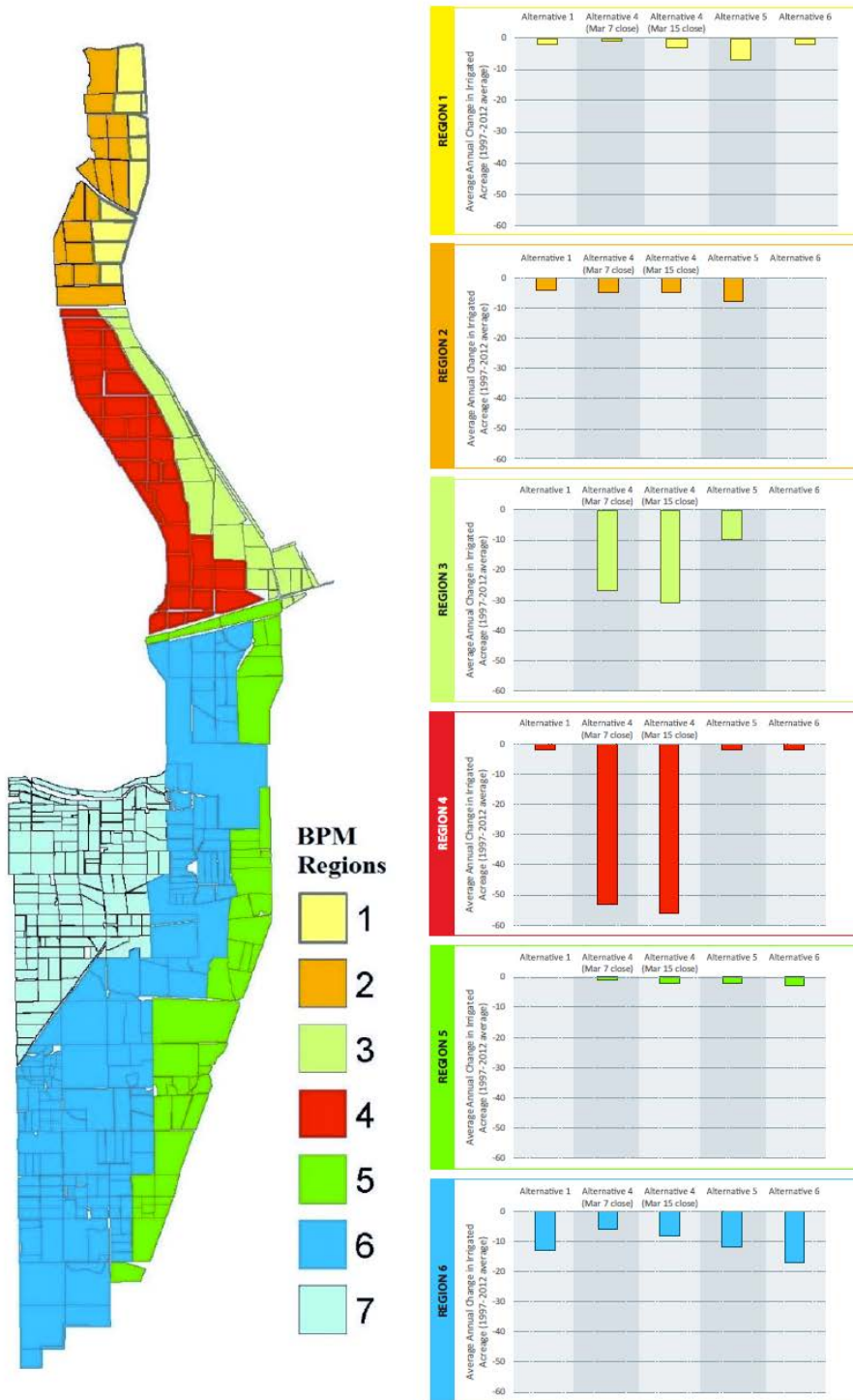


Figure 14. Average annual temporary land following under each alternative

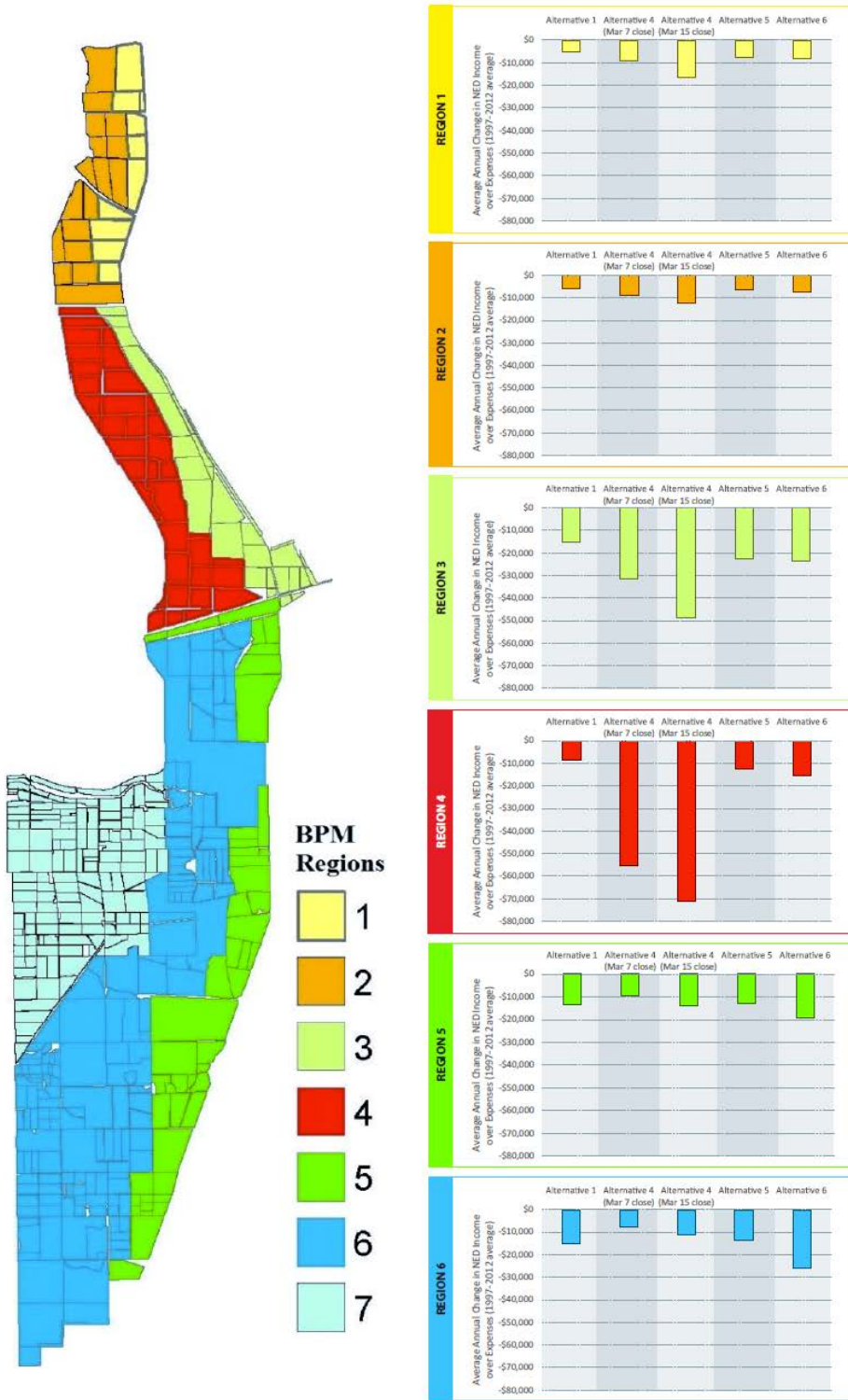


Figure 15. Average annual change in NED farm income under each alternative

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RECLAMATION

Managing Water in the West

Yolo Bypass Rice and Tomato Tipping Points: Milling and Processing, Crop Insurance, and Loan Rates

**Yolo Bypass Salmonid Habitat Restoration and Fish Passage
Mid-Pacific Region**



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Executive Summary

California Department of Water Resources (DWR) and United States Bureau of Reclamation (Reclamation) are jointly working on the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project. DWR and Reclamation are planning the project to comply with the 2009 National Marine Fisheries Service (NMFS) Biological Opinion (BO) and Conference Opinion on the Long-term Operation of the Central Valley Project and State Water Project Reasonable and Prudent Alternative (RPA) actions 1.6.1 and 1.7. The RPA and BO broadly require improvements in seasonal floodplain rearing habitat from December through April in the lower Sacramento River Basin. Reclamation and DWR prepared an Environmental Impact Report and Environmental Impact Statement (EIR/S) for alternatives to meet RPA requirements. The alternatives generally consist of modifying the Fremont Weir to improve the connection between the Yolo Bypass and the Sacramento River to extend the frequency and duration of flooding in the bypass.

The 59,000-acre Yolo Bypass is a working agricultural landscape, protects the city of Sacramento and surrounding communities from Sacramento River flood events, and provides seasonal habitat for fish and terrestrial species.

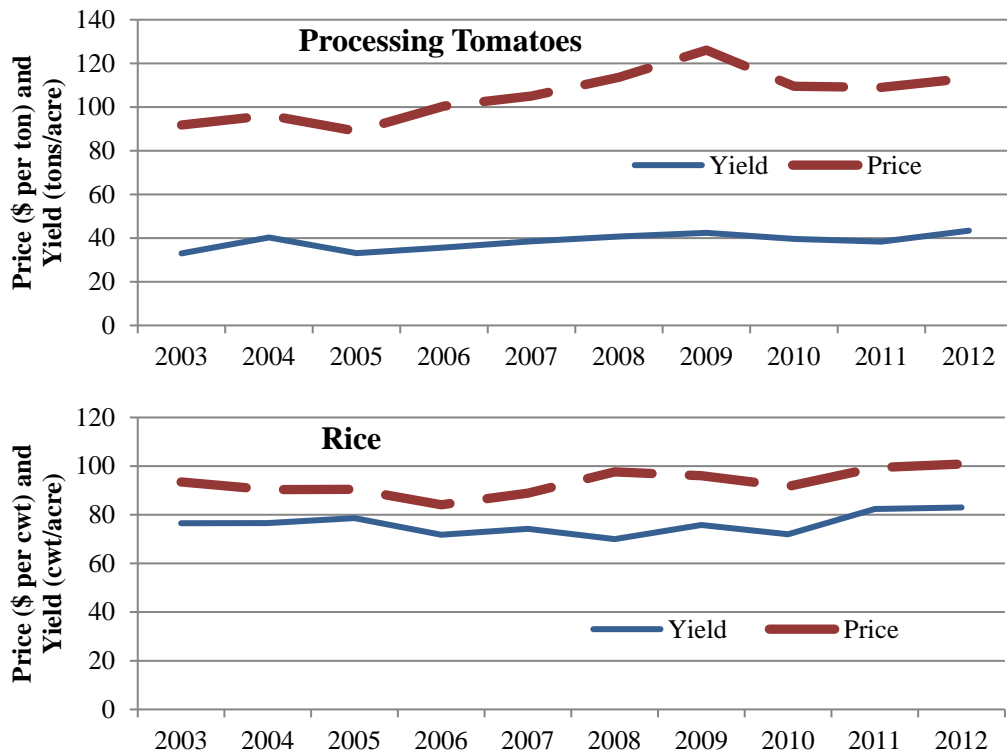
Approximately 16,000 acres of the total bypass area are conserved as permanent wildlife habitat and native vegetation (YBF 2016). Total agricultural harvested acreage in the bypass varies with market conditions but generally averages around 35,000 acres per year, representing approximately 7 percent of the total harvested acreage in Yolo County (USDA NASS various years; Yolo County GIS various years). Primary crops produced include rice, processing tomatoes, miscellaneous vegetables and melons, and a mix of grains and pastureland (YBF 2001; Yolo County 2016; Howitt et al. 2013). The gross farm-gate value of Yolo Bypass agriculture also varies with market conditions, but generally averages \$25 million per year, representing approximately 4 percent of the total value in Yolo County (USDA NASS various years).

Farming in the Yolo Bypass is an inherently risky venture with the periodic winter and spring flood events. Bypass growers understand these production risks, and importantly, have the knowledge and expertise to profitably manage their businesses. An increase in the frequency and duration of flood events in the Yolo Bypass may impose financial costs on growers, and in turn, input suppliers, processing industries, insurers, and lenders. The magnitude of the potential economic cost depends on when the additional flooding occurs. In general, when fields are wet during the March – June spring planting season this prevents growers from beginning field preparation and crops will be planted later than what would otherwise be ideal. Shorter growing seasons can lower expected yields, expose growers to risk from early fall rains, and cause a loss in farm-gate

production value. Ancillary industries are also affected by this loss in farm-gate revenues. The agricultural economic impact analysis being completed for the EIR/S will quantify these losses for each proposed project alternative. This technical report quantifies the potential impact to key industries supporting major crops produced in the Yolo Bypass that could result from the RPA actions.

Rice and processing tomatoes are the dominant Yolo Bypass crops likely to be affected by RPA actions. Processing tomatoes are grown on approximately 3,300 acres in the Yolo Bypass, accounting for approximately 8 percent of total processing tomato acreage in Yolo County. Rice is grown on approximately 7,500 acres in the Yolo Bypass—ranging from 5,800 to 10,100 acres between 2005 and 2009—and accounts for approximately 25 percent of Yolo County rice production and 1.4 percent of California rice production (USDA NASS various years; Howitt et al. 2013). Like most crops, farm-gate prices and yields vary with market conditions, weather, pest and disease pressure, and other factors outside of the growers’ control. Figure ES-1 illustrates price and yield variability for Yolo County rice and processing tomatoes. Price and yield variability affects gross crop revenues, and in turn, farm profitability.

Figure ES-1. Yolo County rice and processing tomato price and yield, 2003 – 2012 (price in 2012 dollars)



Source: USDA NASS various years.

The purpose of this technical report is to quantify the impact of reduced rice and processing tomato production in the Yolo Bypass on rice mills, tomato processors, crop insurance, and bank loan rates. These analyses are collectively referred to as tipping point studies because they quantify the conditions under which changes in Yolo Bypass crop production could “tip” the broader industry and cause other firms to leave the area.

The tipping point studies presented in this technical report quantify the maximum potential economic impact from a decrease in the production of rice and processing tomatoes in the Yolo Bypass. Specifically, the maximum potential impact in this study is defined as complete cessation of rice and processing tomato production in the Yolo Bypass.

The following tipping point studies are presented in this technical report:

1. **Rice mill and tomato processor.** Could rice mills or tomato processors shut down if Yolo Bypass production decreases (ceases)?
2. **Crop insurance.** Could access to rice and processing tomato crop insurance change if the frequency and duration of flooding in the Yolo Bypass increases? What is the associated financial cost to growers who farm in the bypass?
3. **Loan rates.** Could an increase in the frequency and duration of flooding in the Yolo Bypass cause an increase in production risk sufficient to cause lenders to increase interest rates or stop offering loans? What is the associated financial cost to growers who farm in the bypass?

The following sections of the executive summary briefly review the methods, data, and results for each component of the analysis. The main text of the report presents additional background information and a more detailed description of each component of the study.

Mill and Processor Tipping Point

This analysis evaluates whether a representative rice mill or tomato processor is likely to shut down if there is a decrease in Yolo Bypass production of rice or processing tomatoes, respectively. The first step in the methodology is to establish the minimum quantity of product (rice or tomatoes) that must be milled/processed in order for the mill/processor to break even, defined as the “tipping point.” The tipping point is calculated using the widely-accepted microeconomic principles for a profit maximizing firm. The tipping point occurs at a throughput quantity where there are enough units processed so that the sum of the contribution margin per unit is sufficient to cover the plant fixed costs. The contribution margin is defined as the gross revenues minus the variable or operating costs. If the quantity of product processed falls below this threshold, the firm shuts down. In other words, if the firm is not able to generate enough revenue to cover its fixed costs of production, the firm would make more profit (incur lower losses) if the firm shut

down. Given this definition and the assumptions outlined below, the shut-down decision for the rice mill and tomato processor is evaluated by comparing the tipping point quantity to the quantity of rice/tomatoes available to the mill/processor if there is no production in the Yolo Bypass. Data for the analysis are compiled from primary interviews, published studies, and industry reports.

The following assumptions apply to the analysis:

1. The analysis assumes there is a 100 percent decrease in the production of rice and processing tomatoes in the Yolo Bypass.
2. The scenario evaluates a “representative” mill or processor. The representative mill or processor is modeled after the existing businesses that process Yolo Bypass production, as described below, but business names are omitted to preserve confidentiality.
3. The analysis assumes 100 percent of Yolo Bypass rice/tomato production goes to the representative mill/processor and that the mill/processor cannot procure additional rice/tomatoes from other regions when Yolo Bypass production decreases. All mill and processor managers interviewed for the analysis indicated they in fact have a diverse supply portfolio to manage against this type of risk.
4. The analysis evaluates a short-run tipping point decision using a long-run economic criterion, and as such, is a conservative analysis. In practice, most businesses are able to manage (potentially large) short-run fluctuation in production (price or quantity) without deciding to leave the industry.

Tomato processor. The analysis finds that the quantity of processing tomatoes available to the tomato processor does not fall below the tipping point quantity under a plausible range of parameter assumptions. Tomatoes grown in the Yolo Bypass represent a small share of total Yolo County acreage, and a smaller share of the quantity processed by the representative processor. Without bypass production, the processor is able to maintain production above the tipping point threshold. A series of sensitivity analyses are performed to establish the robustness of this result. Under all scenarios, the representative processor’s throughput quantity is 2.5 to 3.5 times the tipping point threshold. However, as shown under one scenario where the representative tomato processor does not secure contracts from other regions, net revenues fall by \$23 million to \$42 million.

Rice mill. The analysis finds that the quantity of rough rice available to the mill does not fall below the tipping point quantity under a plausible range of parameter assumptions. The analysis finds the tipping point quantities for the mill range between 400,000 and 800,000 hundredweight (cwt) annually. The representative rice mill handles rice quantities between 3.3 and 3.6 million cwt annually without any rice from the Yolo Bypass. A series of sensitivity analyses are performed to

establish the robustness of this result. Under all scenarios, the representative mill's throughput quantity is above the tipping point threshold.

It is also noteworthy that during the current drought California rice acreage fell by more than 25 percent, from 563,000 acres in 2012 to 416,000 acres in 2015 (USDA ERS 2015). However, even with 25 percent less rice available for California mills to process, no mills have shut down, demonstrating the resilience of the industry to market volatility

Crop Insurance

Crop insurance is an important tool that growers use to hedge against production risk (ISUUE 2014). There are a number of insurance instruments available to growers who farm rice or processing tomatoes in the Yolo Bypass. The most popular insurance policies used in the Yolo Bypass are yield and revenue protection (USDA RMA 2014; USDA FCIC 2010). Yield protection insures against yield variability whereas revenue protection insures against price and yield variability. Within this coverage there are fundamentally two types of crop insurance options available for growers: (i) catastrophic risk protection that is subsidized by the federal government, and (ii) buy-up insurance policies that enable growers to select a higher coverage level and pay a corresponding premium. This analysis focuses primarily on buy-up policies, as they are the most commonly used crop insurance policies by Yolo Bypass growers. Common provisions in buy-up policies include late planting, prevented planting, replanting, and replanting to a different crop (USDA RMA 2014; FCIC 2010).

Much like home or auto insurance, crop insurance premiums are based on coverage level and production risk. Higher risk production areas naturally require growers to pay higher premiums for the same level of coverage. Risk ratings for any production area are developed by the United States Department of Agriculture (USDA) Risk Management Agency (RMA) (USDA RMA 2012; USDA RMA 2012a). They are crop-specific measures which are periodically updated and used to quantify the level of risk for farming a given crop in a given area. The production risk can be classified as 001 (lowest risk), AAA, or BBB (highest risk). Processing tomato production anywhere in Yolo County is classified as risk rating AAA (USDA RMA 2014a). Rice production on land outside of the Yolo Bypass is classified as 001. Rice production on land in the Yolo Bypass is either AAA (areas to the north) or BBB (areas to the south affected by colder Delta winds) (USDA RM, 2014a; USDA RMA 2013). It is important to note that not all policies are available for all crops (NCIS 2014). For example, there is no prevented planting coverage (insurance for missed or late plantings) offered for processing tomatoes in Yolo County (Sanchez 2014; Otto 2014).

The increase in production risk resulting from project alternatives should be quantified by evaluating the increase in variability of farm-gate revenues (price

and yield variability) under each of the proposed alternatives relative to historical average conditions. Since the project alternatives have not been specified, this analysis assumes that the project alternatives increase the production risks for rice and processing tomato farming in the Yolo Bypass in all years. That is, it is assumed that there is late-season flooding in the bypass that is likely to affect the planting window for these crops in every year, representing a 100 percent increase in production risk.

The USDA RMA sets policy provisions and rates for crop insurance, and contracts with private insurance companies to facilitate and administer the policies (Sanchez 2014; Otto 2014). Insurer risk is partially offset through reinsurance policies. If production risk increases, USDA RMA may increase the risk classification. Representatives from the USDA RMA who are responsible for setting Yolo County risk classifications were interviewed to determine if the risk classification would change in response to additional flooding in all years in the Yolo Bypass. The USDA RMA representatives confirmed that the risk classification already takes into account flood risks, and as such, the risk classification for rice and processing tomatoes in the Yolo Bypass would stay at the current classification under the hypothesized increase in flooding in all years.

Insurance companies may increase insurance premiums to compensate for higher expected indemnity payouts even if USDA RMA does not increase the risk classification for rice or processing tomatoes. Data from local private insurance companies, growers, USDA RMA, and USDA RMA representative interviews were used to estimate the potential increase in rice and tomato crop insurance premiums in response to increased flood risk. The analysis finds, and interviews confirmed, that crop insurance, including prevented planting buy-up policies, would still be offered if the frequency of flooding in the bypass increases in all years. For processing tomatoes the only insurance offered is Actual Production History (APH), which is a yield-based insurance policy (USDA RMA 2014). The analysis estimates that tomato crop insurance premiums could increase by \$1.36 to \$2.73 per acre under a scenario with additional bypass flooding in all years. Rice growers have more options for insurance, including prevented planting. The analysis estimates that rice insurance premiums could increase by \$6.48 to \$12.96 per acre if flooding increases in all years.

The final part of the analysis evaluates the impact of an increase in insurance premiums on farm income to determine whether growers are likely to continue farming in the bypass. It is important to note that agriculture is one of the most heavily regulated and highly variable industries in California (Hamilton 2006). Any increase in costs due to policy action or regulation places significant financial strain on growers. The analysis uses the University of California Cooperative Extension (UCCE) farm cost of production budgets for rice and processing tomatoes to evaluate the impact of higher insurance premiums (UCCE 2008; UCCE 2012). Net returns to land and management per acre decrease by 1.4 to 3.0 percent for rice growers and 0.3 to 0.6 percent for tomato growers, if

insurance premiums increase in response to the scenario of additional flooding in all years. Both rice and tomato growers are likely to realize a decrease in net income, but likely to be able to maintain a positive margin over variable costs under the scenarios considered. However, it is important to note that growers are not able to maintain a positive margin over variable costs (on a cash accounting basis) on some fields in years where rice prices are low, yields are poor, or there is late season flooding.

Table ES-1 summarizes the effect of an increase in insurance premiums on rice and processing tomato net returns. As shown,

Table ES-1. Rice and tomato production costs and returns with increased insurance premiums (in 2012 dollars)

Rice Cost and Returns per Acre	AAA	0.25 Increase	0.35 Increase	0.50 Increase
Gross Returns	1,598	1,598	1,598	1,598
Operating Costs	-	-1,148	-1,148	-1,148
Crop Insurance Premium	-31	-38	-41	-45
Net Returns Above Operating Costs	419	412	410	406
Tomato Cost and Returns per Acre	AAA	0.003 Increase	0.004 Increase	0.006 Increase
Gross Returns	2,839	2,839	2,839	2,839
Operating Costs	-	-2,337	-2,337	-2,337
Crop Insurance Premium	-13	-14	-15	-16
Net Returns Above Operating Costs	489	487	487	486

Source: UCCE 2008, UCCE 2012

Bank Loans

Operating loans are an important financial tool that many growers use to smooth seasonal cash flow (Blank 2012). Most crops require a significant capital outlay at planting and additional expenditures for management costs during the growing season, but do not generate revenue until sometime after harvest. Short-term seasonal loans can be used to smooth this financial cycle. Short-term financing is usually acquired through budgeted loans or revolving lines of credit with maturities of one to four years. Current lending rates on these loans are on the order of 5.5 percent (AAC 2016; Elliessy 2014). Other medium and long-term loans are discussed, but the analysis is primarily concerned with short-term lending as this would be most likely to be affected by an increase in bypass farming risk.

The ability of an agricultural business to obtain financing is primarily based on the creditworthiness of the borrower and the intended use of the funds (Elliessy 2014; Monaco 2014). Standard quantitative measures used to evaluate the

creditworthiness of agricultural borrowers include farm financial information (balance sheets, and importantly, total crop/business portfolio), collateral support (farm property), current and historical cash flow, and structuring (longer term maturity increase the probability of repayment). Agricultural lenders also consider qualitative factors such as management ability, character, reputation, intangible risk factors, farm appearance, farm record keeping, asset quality, and general business knowledge. There is no standard method used to evaluate the creditworthiness of an individual loan. A combination of financial ratios and qualitative factors are used in the loan decision.

General loan requirements, loan criteria, and loan processes are examined to identify key factors affecting lenders and borrowers, and how these factors could change under an increase in production risk. The same increase in production risk used in the crop insurance analysis is applied to the bank loan analysis. Namely, there is an increase in Yolo Bypass flooding in all years. The analysis quantifies the effect of increased production risk on access to credit and interest rates using data from the USDA, a local representative at a large lending institution in Yolo County, data from USDA NASS, and a farm loan manager from the Farm Services Agency (FSA). These data and interviews with local lenders were combined to quantify the potential change in loan access and interest rates in response to an increase in bypass farming risk.

The primary finding of the analysis is that interest rates may increase if the increase in risk was perceived (by lenders) to be significant, but loans are likely to continue to be offered to bypass growers. However, all of the experts that were interviewed emphasized the importance of personal relationships between lenders and growers and stressed that it was highly unlikely interest rates offered to current growers would increase if they continue to farm in the bypass. In other words, increased production risks are more likely to affect growers with limited farming experience or with limited additional assets (collateral). In addition to personal relationships, another important consideration is the total business portfolio of the grower. If the significant proportion, typically defined as 25 percent or more, of the total land farmed by a grower is located in the bypass, this can limit the ability to get a production loan. However, if the grower has a diversified business then farming exclusively in the bypass is not a limit to securing short-term production loan. That is, both the crop portfolio and business portfolio are important for determining access to credit. Bypass growers have a diversified crop and business portfolio, making it unlikely that an increase in risk would lead to an increase in production loan rates.

The FSA representative and private lender were interviewed to estimate the potential increase in production loan rates if there is a large increase in flooding risk. They were able to generate a series of hypothetical scenarios to show how their business would increase rates if risk increased (generically). They estimated that a 2 to 3 percentage point interest rate increase would cover the additional risk exposure of the lender under the scenarios of increased flooding in all years. This

estimate is supported by an analysis by Walraven and Barry (2003) of the Federal Reserve Bank that examined agricultural lending risk between 1997 and 2002 and found that, on average, a loan with the least risky rating carried an interest rate 1.3 percentage points lower than a loan with the highest risk rating. This analysis finds that an upper bound for the increase in interest rates charged to growers for short-term production loans is between 1.3 and 3 percentage points.

To quantify the additional financing costs incurred by growers due to increased flooding risk, 1.3 and 3 percentage point increases in the interest on operating capital are evaluated. The UCCE crop production budgets are used to estimate grower revenues and costs (UCCE 2008; UCCE 2012). The baseline data and assumptions in the UCCE budgets were confirmed with the representatives from the lending agencies, industry experts, and growers. These estimates are used as a baseline for determining changes in net returns to land and management due to increased interest rates. The line-item expense “interest on operating capital” in a standard UCCE budget captures the interest cost on short-term loans. The baseline interest rate is 5.75 percent, and this is increased by 1.3 to 3 percentage points to evaluate the cost to the grower. Processing tomato interest on operating capital could increase by \$12 to \$29 per acre with an increase of 1.3 to 3 percentage points, respectively, translating to a 2.9 to 7 percent reduction in net return to land and management. Rice interest on operating capital could increase by \$6 to \$11 per acre with an increase of 1.3 to 3 percentage points, respectively, translating to a 1.4 to 2.6 percent reduction in net return to land and management. In all cases, farm profitability is reduced but growers are maintain a positive margin over variable production costs in the scenarios considered in this analysis. Table ES-2 summarizes the results of the analysis. Average annual net return above operating cost falls as interest rates on seasonal loans increase.

Table ES-2. Net Returns per Acre with Increased Interest Rates on Short-term Seasonal Loan (Net Revenues in 2012 dollars)

	Net Returns Above Operating Costs		
	5.75% base interest	with 1.3% Increase	with 3% Increase
Processing Tomatoes	\$409	\$397	\$380
Rice	\$416	\$411	\$405

Source: UCCE Cost and Return Studies

The analysis additionally considers access to federal support programs. The 2014 Farm Bill authorizes the USDA Commodity Credit Corporation (CCC) to issue nonrecourse marketing assistance loans (MALs) to agricultural producers who grow certain crops including medium grain rice (USDA FSA 2014a – 2014e). The loan rate for medium grain rice is \$6.50 per cwt for 2014 – 2018. If the price of rice falls below \$6.50 a loan deficiency payment is issued. Since marketing assistance loans and loan deficiency payments are used to help protect against price fluctuations in the rice market, the loans and payments are not used during the production timeframe. The USDA Commodity Credit Corporation (CCC) only issues the marketing loan against a physical crop after a crop is harvested. As a

result, any increase in risk to farming in the Yolo Bypass does not impact the ability of a grower to acquire federal loan assistance.

Summary

The tipping point studies include an evaluation of rice mill and tomato processor shut-down decision, an analysis of insurance availability and premiums, and an analysis of changes in short-term production loans and interest rates. The analyses are based on the best available data, interviews with industry experts and growers, and well-established economic methods. Since the project alternatives are still being developed all of the tipping point studies are based on a “worst case” scenario where flooding increases in all years and the risks to farming unambiguously increase. The study finds: (i) it is unlikely that rice mills or processors would shut down if Yolo Bypass crop production decreases, (ii) the risk classification for rice and tomatoes grown in the Yolo Bypass is likely to remain unchanged, insurance is likely to continue to be offered, but premiums could increase thereby decreasing net farm income, and (iii) banks are likely to continue to offer loans, but interest rates could increase slightly thereby decreasing net farm income as the cost of servicing this short-term debt increases.

1 Introduction

California Department of Water Resources (DWR) and United States Bureau of Reclamation (Reclamation) are jointly working on the Yolo Bypass Salmonid Habitat Restoration and Fish Passage Project. DWR and Reclamation are planning the project to comply with the 2009 National Marine Fisheries Service (NMFS) Biological Opinion (BO) and Conference Opinion on the Long-term Operation of the Central Valley Project and State Water Project Reasonable and Prudent Alternative (RPA) actions 1.6.1 and 1.7. These broadly require improvements in seasonal floodplain rearing habitat from December through April in the lower Sacramento River Basin. Reclamation and DWR are preparing a Draft Environmental Impact Report and Environmental Impact Statement (EIR/S) to evaluate alternatives to meet RPA requirements. The project alternatives are still being developed, but generally consist of modifying the Fremont Weir to improve the connection between the Yolo Bypass and the Sacramento River thereby extending the frequency and duration of flooding.

The 59,000-acre Yolo Bypass is a working agricultural landscape, protects the city of Sacramento and surrounding communities from Sacramento River flood events, and provides seasonal bird and fish habitat. Approximately 16,000 acres of the total bypass area are conserved as permanent wildlife habitat and native vegetation (Yolo County 2016; YBF 2016). Total agricultural harvested acreage in the bypass varies with market conditions but generally averages around 35,000 acres per year, representing approximately 7 percent of the total harvested acreage in Yolo County. Primary crops produced include rice, processing tomatoes, miscellaneous vegetables and melons, and a mix of grains and pastureland. The gross farm-gate value of Yolo Bypass agriculture also varies with market conditions, but generally averages \$25 million per year, representing approximately 4 percent of the total value in Yolo County (USDA NASS various years).

Extending the frequency and duration of flood events in the Yolo Bypass may impose financial costs on agricultural producers, and in turn, input suppliers, processing industries, insurers, and lenders. The magnitude of the potential economic cost depends on when the additional flooding occurs. In general, if the Yolo Bypass has standing water that extends into the March – June spring planting season it prevents growers from beginning field preparation and crops are planted after the standard planting window. Shorter growing seasons can lower expected yields and expose growers to risk from early fall rains, translating into a decrease in farm-gate production value. Ancillary industries, including processors, insurers, lenders, and input suppliers, are also affected by any loss in farm-gate revenues. The agricultural economic impact analysis being completed for the EIR/S will quantify the loss in farm revenue for each proposed project

alternative. The purpose of this technical report is to estimate the potential impact of the RPA actions to key industries that support the major crops produced in the Yolo Bypass. The following studies are presented in this technical report:

1. **Rice milling and tomato processing.** Given that rice and tomatoes are the dominant crops in the bypass is it possible that rice mills or tomato processors shut down if Yolo Bypass production decreases (ceases)?
2. **Crop insurance.** Could access to rice and processing tomato crop insurance change if the frequency and duration of flooding in the Yolo Bypass increases? What is the associated financial cost to growers who farm in the bypass?
3. **Loan rates.** Could an increase in the frequency and duration of flooding in the Yolo Bypass cause an increase in production risk sufficient to cause lenders to increase interest rates or stop offering loans? What is the associated financial cost to growers who farm in the bypass?

Organization of the Report

The first section of the report provides an overview of agriculture in Yolo County and the Yolo Bypass. This section includes a description of current and historical trends in acreage and the value of production for major crops produced in the county. Yolo County and the Yolo Bypass are summarized separately so that the reader can understand the proportional contribution of bypass agriculture to the agricultural economy of the county. After that, the next two sections describe the tomato processing and rice milling tipping points, respectively. The following two sections describe the loan rate and crop insurance tipping point analyses. Each of these sections provides a narrative and describes the problem, data, methods, results, and sensitivity analysis.

2 Yolo County and Yolo Bypass Agriculture

Yolo County boasts a robust and growing agricultural industry. Agricultural production currently accounts for more than 80 percent of total developed land use in the county. The gross farm-gate value of crop production in the county currently exceeds \$600 million annually. Primary crops produced include fruits, nuts, rice, and a mix of field crops (USDA NASS various years). The Yolo Bypass is generally a small proportion of total county production (USDA NASS various years). However, although it is small, it is an important and unique area in the county with fertile farmland producing a mix of high-value crops (Young 2014). This section presents an overview of Yolo County and Yolo Bypass agriculture so that the reader can put the tipping point studies presented in the following sections into context.

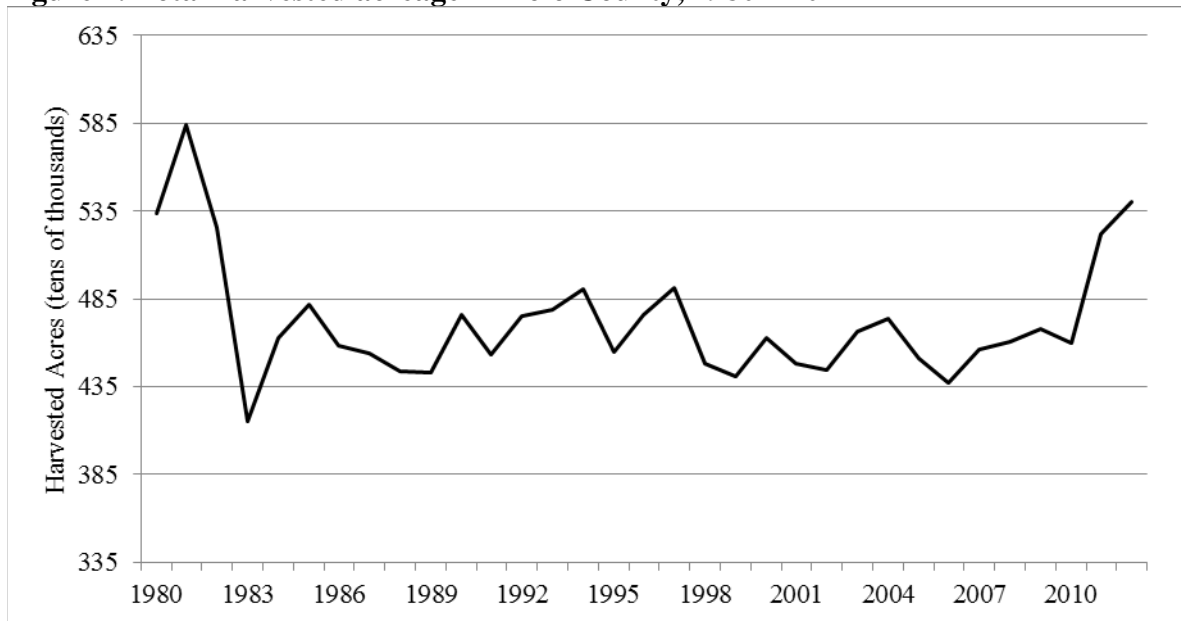
2.1 Yolo County Agriculture

The total land footprint of agriculture in Yolo County has contracted over the last decade. Development pressure, regulations, and drought are some of the commonly cited factors driving this general trend. The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) survey data confirm a long run, county-wide contraction in the agricultural footprint. Over the last decade, 19,000 net acres, 3.5 percent of total harvested acres, of agricultural land were converted to other uses. Some of the farmland conversion in Yolo County has been for habitat conservation (FMMP various years; USDA NASS various years; Jeutong 2013). In 2001, 8,656 acres in Tule Ranch were converted into conservation land and became part of the Yolo Bypass Wildlife Area (YBWA) (Young 2014). The total area of the YBWA now includes approximately 16,000 acres and represents the largest (by area) conservation project within Yolo County (YBF 2016). There has been a concurrent increase in conservation areas including farmland, creeks, watershed areas, riparian corridors, and various plant and animal habitats, which exist to conserve natural open space and agricultural landscapes that provide a habitat for special and at-risk species (YBF 2016).

While the total footprint of agriculture has decreased, trends in total harvest acreage over the last 30 years can be described as stable. A decreasing total footprint and stable, or increasing, harvested acreage means that the intensity of farming has increased. Figure 1 illustrates total harvest acreage in Yolo County between 1980 and 2012. The total change over this time frame was a modest increase of 1.2 percent. Total harvested acreage fluctuated between a low of 415,000 acres in 1983 and a high of 584,000 acres in 1981, primarily driven by

changes in market conditions for crops produced in the county. The recent increase in acreage since 2010/2011 has been driven by strong demand for fresh fruit, vegetables, and nuts. With a comparatively stable water supply, Yolo County agriculture has benefited from strong prices for specialty crops and the harvested acreage has expanded significantly. It is likely this trend will level off as the current downturn in the nut market plays out over the next few years.

Figure 1. Total harvested acreage in Yolo County, 1980 – 2012



Source: USDA NASS, California Agricultural Statistics, 1980-2012

Underlying the trends in total harvested acreage is a significant shift in the crop mix. Table 1 summarizes harvested acreage by crop group over the decade ending in 2012. Between 2003 and 2012 total harvested acreage increased from 448,000 acres to 540,000 acres, driven by a more than 50 percent increase in fruit and nut acreage in the county. Walnuts, almonds, citrus, and olives have more than doubled in acreage driven by strong market conditions and conversion of grazing land into orchards and vineyards. Processing tomatoes and rice, the primary focus of this technical report, have been relatively stable with patterns following the variability in market conditions and weather. Yolo County produces around 7 percent of total California rice production and 13 percent of total California processing tomato production (USDA NASS various years). Yolo County rice predominantly consists of medium grain Calrose and some wild rice varieties that are grown in the Yolo Bypass. Tomato acreage has expanded post-2012 during the current drought as tomato contracts have shifted from the San Joaquin Valley to areas with better access to water supplies like Yolo County.

Table 1. Yolo County harvested acreage by crop, 2003 – 2012 (in thousands of acres)

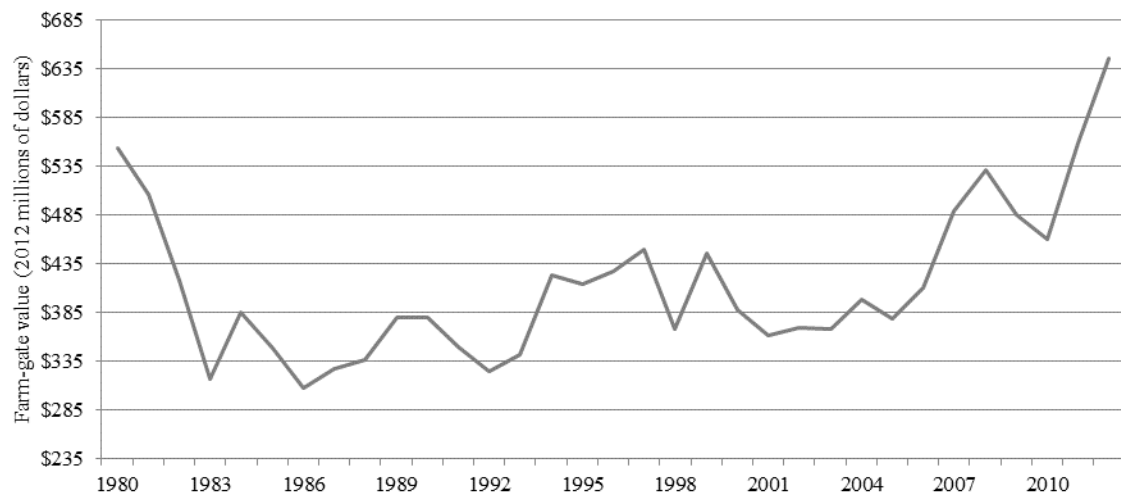
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Field Crops ¹	349.3	340.9	333.4	320.4	333.2	339.2	342.6	334.6	387.7	408.7
Fruit and Nuts ²	29.7	29.2	30.2	33.1	32.9	36.0	38.3	38.2	41.8	45.2
Rice ³	37.3	45.7	34.7	32.6	36.6	34.4	37.4	41.4	42.5	40.5
Processing Tomatoes	38.3	45.1	42.2	37.0	42.1	37.6	37.9	33.0	40.1	36.8
Vegetable Crops ⁴	12.1	12.6	10.5	13.6	11.4	12.9	11.5	12.1	9.2	9.4
Nursery ⁵	0.0	0.0	0.0	0.6	0.0	0.5	0.5	0.4	0.3	0.0
Total	466.6	473.5	451.0	437.3	456.2	460.6	468.1	459.7	521.7	540.5

Source: USDA NASS, California Agricultural Statistics 2003-2012

Notes:

1. Field Crops are comprised of corn grain, cotton, miscellaneous field crops, alfalfa, grain, pasture, sudan grass, safflower, safflower seed, unspecified seed grass, other seed, sunflower seed, and wheat.
2. Fruit and nuts are comprised of almond, unspecified fruit and nuts, wine grapes, olives, dried plums, and English walnuts.
3. Rice includes wild rice.
4. Vegetable Crops are comprised of Honeydew, vine and vegetable seed, unspecified lettuce, and unspecified vegetables.
5. Nursery is comprised of bearing and non-bearing fruit and vine products, and other miscellaneous nursery products.

Total harvested acreage in the county has been relatively stable, but the value of the crops produced on that land has been steadily increasing since the early 1990s. Figure 2 illustrates the total value of crop production in Yolo County between 1980 and 2012. Over this time period the total farm-gate value of Yolo County agriculture grew approximately 16.5 percent, from \$554 million to \$646 million, in constant 2012 dollars. Most of this increase is driven by the shift to higher-value fresh fruit, vegetables, and nuts in response to strong consumer demand for these products.

Figure 2. The total farm-gate value of Yolo County agriculture, 1980 – 2012 (in 2012 millions of dollars)

Source: USDA NASS, California Agricultural Statistics, 1980-2012

Increasing farm-gate value of production is driven by increasing yields per acre (improved technology), increasing crop prices, or both. Table 2 summarizes prices for significant crops produced in Yolo County over the decade ending in 2012. The price received for most crops increased between 2003 and 2012. Nut price increases were driven by increased demand for almond and walnut exports from Asian and Middle Eastern countries (AMRC 2016; ABC 2014). Field crop prices increased as a result of drought, increased demand for grains from developing countries, increased demand for ethanol, and low inventory stocks (USDA ERS, 2011). The average price received for processing tomatoes increased by 18 percent, from \$59 to \$70 per ton. Rice prices increased approximately 14 percent, from \$312 to \$357 per ton (\$15.60 – \$17.85 per cwt) (CalAgTrader 2014; USDA ERS 2012; USDA NASS various years). In short, there has been robust growth in the market for crops produced in Yolo County. However, balanced against the strong general market trends, some crop prices have fallen from recent all-time highs. In particular, the 2016 spot-market for rice is closer to \$230 per ton, in line with prices before the recent increases.

Table 2. Yolo County crop prices received, 2003 – 2012 (in 2012 dollars per ton)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Fruit and Nuts ¹	1,455	1,971	2,442	1,972	1,908	1,530	1,532	1,341	1,573	1,739
Rice ²	339	275	237	246	293	552	405	392	338	357
Field Crops ³	144	139	144	147	191	246	179	177	246	259
Processing Tomatoes	59	56	56	65	66	73	84	70	71	70
Apiary, Livestock, and Poultry ⁴	15	16	15	15	19	20	11	N/A	N/A	N/A
Vegetable Crops ⁵	289	309	278	329	318	313	N/A	N/A	N/A	N/A

Source: USDA NASS, California Agricultural Statistics 2003-2012

Notes:

1. Fruit and nuts are comprised of almond, unspecified fruit and nuts, wine grapes, olives, dried plums, and English walnuts.
2. Rice includes wild rice.
3. Field Crops are comprised of corn grain, cotton, miscellaneous field crops, alfalfa, grain, sudan grass, pasture (dry and irrigated), safflower, safflower seed, unspecified seed grass, other seed, sunflower seed, and wheat.
4. Apiary, Livestock and Poultry comprised of unspecified apiary bee products, cattle and calves, hogs and pigs, unspecified livestock, milk, poultry, sheep ewes, and lambs.
5. Vegetable Crops are comprised of honeydew melons, vine and vegetable seed, unspecified lettuce, and unspecified vegetables.

Trends in the total farm-gate value of crops produced in Yolo County generally follow the price trends, but also take into account variation in yields. Table 3 summarizes crop values between 2003 and 2012. The total annual farm-gate value of the crops produced in Yolo County increased by just over 75 percent, from approximately \$368.5 million to \$645 million. Processing tomatoes and rice are two of the highest value crops annually. Between 2003 and 2012 processing tomatoes increased in value by 50 percent, from \$74.1 million to \$112 million. As of 2012, tomato production contributed 17 percent of total agricultural value in Yolo County. Over the same time period, the total value of rice increased

modestly, from \$48.3 million to \$60 million. As of 2012, rice contributed 9 percent of total agricultural value in Yolo County (USDA NASS various years).

Table 3. Yolo County farm-gate crop value, 2003 – 2012 (in 2012 millions of dollars)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Field Crops ¹	99.2	97.6	86.5	127.1	146.4	173.9	102.0	117.1	183.4	222.3
Fruit and Nuts ²	87.6	85.5	117.6	105.0	113.5	101.6	118.3	105.3	123.9	176.4
Processing Tomatoes	74.1	101.5	77.9	85.4	107.9	111.2	134.2	91.2	108.7	111.6
Rice ³	48.3	48.0	32.2	28.4	41.6	64.1	56.9	58.4	59.2	60.0
Vegetable Crops ⁴	27.7	35.0	30.1	29.6	36.6	38.7	36.9	49.8	40.8	31.7
Apiary, Livestock and Poultry ⁵	24.5	25.2	28.0	25.4	35.4	32.2	26.6	28.6	28.6	30.9
Nursery ⁶	7.1	5.6	6.9	9.0	7.9	9.8	10.4	9.8	14.2	12.8
Total	368.5	398.4	379.2	410.0	489.3	531.5	485.3	460.2	558.9	645.8

Source: USDA NASS, California Agricultural Statistics 2003-2012

Notes:

1. Field Crops are comprised of corn grain, cotton, miscellaneous field crops, alfalfa, grain, sudan grass, pasture (dry and irrigated), safflower, safflower seed, unspecified seed grass, other seed, sunflower seed, and wheat.
2. Fruit and nuts are comprised of almond, unspecified fruit and nuts, wine grapes, olives, dried plums, and English walnuts.
- 3 Rice includes wild rice.
4. Vegetable Crops are comprised of Honeydew, vine and vegetable seed, unspecified lettuce, and unspecified vegetables.
5. Nursery is comprised of bearing and non-bearing fruit and vine products, and other miscellaneous nursery products.

Agriculture employs approximately 6 percent of the total county workforce. According to the California Employment Development (EDD), in 2012 Yolo County employed 96,900 people, with 5,300 employed on farms (directly). Between 2003 and 2012, direct farm employment increased by 1,100 employees, a 26 percent increase, whereas employment in all industries increased by about 1 percent. Direct farm employment includes laborers and others employed on the farm. It does not include employment in related industries such as processing, distribution, and input suppliers (EDD various years).

2.2 Yolo Bypass Agriculture

The 59,000 acre Yolo Bypass represents a small but unique area in the county with fertile farmland able to produce a mix of high-value crops. The purpose of this technical report is to evaluate the effect of changes in bypass crop production on mills, processors, insurance, and bank loans. As such, it is important to understand the proportion of crop production that occurs in the bypass relative to the rest of the county. This section summarizes crop production in the bypass from 2005 – 2009. These years are selected because they represent the most recent available data available from geo-referenced data, validated through grower interviews, and prepared in coordination with Yolo County representatives (Howitt et al. 2013). The years 2005 – 2009 are a representative sample for conditions in the Yolo Bypass. Crop prices were low in 2005 and steadily

increased through 2009. The years 2005 and 2006 were wet, with late season flooding in the Yolo Bypass, whereas the years 2007 – 2009 were relatively dry years with no flooding in the bypass.

Approximately 16,000 acres in the Yolo Bypass are conserved as permanent wildlife habitat and native vegetation (YBF 2016). Crops include a mix of grazing land (pasture) and various crops. Grazing lands (pasture) have been the primary historical use of land in the bypass, and continue to be the largest share of land use (Yolo County 2016; USDA NASS various years, FMMP various years). The periodic floods limit the types of crops that can be grown to annual crops that can tolerate a shorter growing season (Miyao 2014). In addition, variation in soil and weather limit the economic viability of some crops. Delta winds are more prevalent at the southern end of the bypass (south of I-80) which limits the ability to grow some crops (Miyao 2014; Espino 2014). As such, pastureland is primarily seen on land south of I-80, north of Cache Slough. Rice and processing tomatoes are generally grown on land in the northern part of the bypass. Rice and processing tomatoes are the primary crops in 2009, representing 45 percent and 15 percent of cultivated land in the bypass, respectively (Yolo County GIS various years). Table 4 summarizes acreage in the Yolo Bypass between 2005 and 2009¹.

Table 4. Yolo Bypass acreage of major crops, 2005 – 2009 (acres)

	2005	2006	2007	2008	2009
Pasture	19,052	18,040	18,452	18,385	19,442
Rice	5,837	5,655	8,951	7,677	10,181
Wetlands	9,428	9,428	9,428	9,428	9,428
Field Crops ¹	6,172	8,004	8,339	8,823	7,245
Native Vegetation	11,659	10,707	5,905	6,621	4,525
Processing Tomatoes	2,564	2,944	3,699	3,668	3,653
Fruit and Nuts ²	48	155	373	373	373
Vegetable Crops ³	402	229	14	186	314
Total Bypass Acres	55,161	55,161	55,161	55,161	55,161

Source: Compiled into a GIS using data from: University of California Davis, Yolo County, Yolo Bypass Farmers, Pesticide Use Reports, and various local agencies.

Notes:

1. Field Crops are comprised of alfalfa, barley, beans (dried), corn, oats, safflower, rye grass, sorghum, sorghum seed, sudan grass, sunflower, sunflower seed, and wheat.
2. Fruit and Nuts are comprised of apples, pears, and walnuts.
3. Vegetable Crops are comprised of melons, melon seed, peppers, squash seed, and tomato seed.

In total, the Yolo Bypass comprises around 7 percent of the average annual crop acreage in Yolo County (USDA NASS various years). Table 5 summarizes rice, tomato, and other crop acreage, including all pastureland, in the bypass and in Yolo County. Between 2005 and 2009, bypass crop acreage ranged between 34,000 and 41,000 acres. Over the same time period, total county acreage ranged

¹ Yolo Bypass crop data compiled into a GIS using data from University of California Davis, Yolo County, Yolo Bypass Farmers, Pesticide Use Reports, and various local agencies, are referred to as “Yolo County GIS” data in the rest of the report. See Howitt et al. (2013) for a description of how these data were merged.

between 437,000 and 468,000 acres. Rice was planted to between 5,800 and 10,100 acres, representing 17 to 28 percent of total county rice production. The share of rice production in the Yolo Bypass usually increases in drought years because Yolo Bypass growers have senior water rights. Tomatoes were planted to between 2,500 and 3,600 acres, representing 6 to 10 percent of total county tomato production. Processing tomato acreage has expanded in the bypass and Yolo County in response to drought condition in the San Joaquin Valley.

Table 5. Yolo Bypass and Yolo County Agricultural Acreage, 2005 – 2009

	2005	2006	2007	2008	2009
<i>Yolo Bypass (Acres)</i>					
Rice	5,837	5,655	8,951	7,677	10,181
Tomatoes	2,564	2,944	3,699	3,668	3,653
Other Crops	25,674	26,427	27,178	27,767	27,374
Total	34,075	35,026	39,828	39,112	41,209
<i>Yolo County (Acres)</i>					
Rice	34,700	30,000	32,700	30,100	36,600
Tomatoes	42,200	37,000	42,100	37,600	37,900
Other Crops	374,100	370,300	381,400	392,900	393,600
Total	451,000	437,300	456,200	460,600	468,100
<i>Share of land in the Yolo Bypass (%)</i>					
Rice	17	19	27	26	28
Tomatoes	6	8	9	10	10
Other Crops	7	7	7	7	7
Total	8	8	9	8	9

Source: State of California GIS Maps and USDA NASS, California Agricultural Statistics, 2005 - 2009

2.3 Summary

The 59,000 acre Yolo Bypass represents a small but unique area in the county with fertile farmland. On average, the bypass contributes around 7 percent of total harvested acreage in Yolo County. Primary crops produced in the bypass include rice and tomatoes, which constitute 17-28 and 6-8 percent of total county acreage, respectively. The following sections analyze the effect of a decrease in bypass production on rice milling, tomato processing, crop insurance, and bank loans.

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3 Tomato Processor Tipping Point Analysis

Proposed changes in Yolo Bypass flooding frequency and duration may reduce the growing season for processing tomatoes. If fields remain wet too long due to flooding, growers may miss the planting window (late March through June), with direct consequences for both growers and processors (Miyao 2014; Espino 2014). Growers may either fallow the field or plant a crop with a shorter growing season. Processing facilities may fall short of anticipated supply, or have to secure contracts in other areas, potentially jeopardizing the facility's ability to stay in business, or causing the firm to relocate. This analysis presented in this section provides a basis for understanding the cost incurred by a representative tomato processing facility if tomato production decreases.

3.1 An Overview of Tomato Processing in Yolo County

Processing tomatoes are typically grown under contract with a tomato processor. The processor pays the grower the market value for raw tomatoes, picks up the raw product directly from the field, and transports it to the processing facility (Durham et al. 1995). California produces around 90 percent of the United States processing tomatoes and approximately 35 percent of world production (Hartz et al. 2008). Table 6 summarizes processing tomato acreage and production quantities by county in 2012. Processing tomatoes are produced across the state, from Kern County in the south to Colusa County in the north. In 2012, Yolo County ranked second in total area with 36,800 acres and third in total production with 1.6 million tons, accounting for 11 percent of the California's total processing tomato production (USDA NASS various years).

Table 6. 2012 Processing tomato acreage and production, by county

County	Harvested Acres	Tons of Production
Fresno	97,600	5,504,000
Yolo	36,800	1,597,000
Kings	36,000	1,858,000
Stanislaus	28,300	1,473,000
San Joaquin	26,300	1,105,000
Merced	15,000	773,000
Colusa	13,500	593,000
Kern	12,000	671,000
Solano	10,000	419,000
Sutter	7,830	296,000
Madera	3,000	202,000
Sacramento	2,640	98,400
Contra Costa	2,120	106,000
San Benito	1,730	106,000
Santa Clara	980	61,900
Total	293,800	14,863,300

Source: USDA NASS California Agricultural Statistics 2012

Tomato processing facilities turn raw tomatoes into consumable products, destined for domestic consumption or international export. Table 7 summarizes the 21 tomato processing companies operating in California as of 2015, excluding sun driers and dehydrator facilities (PTAB 2014). Pacific Coast Producers (PCP) is located in Woodland and is the only tomato processing plant in Yolo County. PCP is a canning facility that produces diversified products. There are additional processing facilities in the surrounding areas including Morning Star and Olam Tomato Processors in Williams, and Campbell Soup in Dixon. Morning Star and Olam Tomato Processors primarily produce paste and Campbell Soup produces a range of products (Miyao 2014).

Table 7. California tomato processing facilities

Processor Name	City
Campbell Soup Supply Co. LLC	Sacramento
Cascade Specialties, Inc	Merced
Cebro Frozen Foods	Newman
Con-Agra Foods, Inc	Oakdale
Del Monte Corporation	Lathrop
Escalon Premier Brands, Inc	Escalon
Ingomar Packing Company	Los Banos
J.G. Boswell Tomato Company - Kern, LLC	Buttonwillow
Los Gatos Tomato Products	Huron
Olam Tomato Processors	Lemoore
Olam Tomato Processors	Williams
Pacific Coast Producers	Lodi
Pacific Coast Producers	Woodland
Pictsweet Frozen Foods, Inc	Santa Maria
San Benito Foods	Hollister
Stanislaus Food Products Co	Modesto
The Morning Star Packing CO	Liberty
The Morning Star Packing CO	Los Banos
The Morning Star Packing CO	Williams
Toma Tek	Firebaugh
Unilever Foods N.A.	Stockton

Source: PTAB, 2014

The representative processing facility in this analysis is a diversified tomato processing plant located in Yolo County. The viability of the plant is evaluated if there is a significant and permanent decrease in the quantity of tomatoes produced in the Yolo Bypass. Rather than predicting the extent of flooding and modeling variation in flooding, this analysis considers a worst-case scenario where all Yolo Bypass tomato production ceases. This is not a proposed policy, but rather an upper bound on the potential impacts from changes in Yolo Bypass flooding.

3.2 Methodology

This analysis evaluates whether the representative tomato processor would be likely to shut down if there is a decrease in Yolo Bypass tomato production. The first step in the methodology is to establish the minimum quantity of tomatoes that must be processed in order for the processor to break even. The break-even point is calculated using well-established microeconomic principles for a profit maximizing firm (Nicholson 2004). The break-even point occurs at a throughput quantity where there are enough units processed so that the sum of the contribution margin per unit is sufficient to cover the plant fixed costs. If the quantity of product processed falls below this threshold, the processor would shut down. Given this definition and the assumptions outlined below, the shut-down decision for the processor is evaluated by comparing the break-even quantity to the quantity of tomatoes available to the processor if there is no production in the Yolo Bypass. The following critical assumptions apply to the analysis:

1. The analysis assumes there is a 100 percent decrease in Yolo Bypass crop production.
2. The scenario evaluates a “representative” processor using the best available data to characterize business financial information.
3. The analysis assumes 100 percent of Yolo Bypass tomato production goes to the representative processor and that the processor cannot procure additional tomatoes from other regions when Yolo Bypass production decreases. In practice, processors have a diverse supply portfolio to manage against this type of risk.
4. The analysis evaluates a short-run tipping point decision using a long-run economic criterion, and as such, is a conservative analysis. In practice, most businesses are able to manage (potentially large) short-run fluctuation in production (price or quantity) without deciding to leave the industry.

The analysis requires detailed sensitive financial information for the representative processor. These data are necessary to establish the production volume, product mix, and fixed and variable production costs, which are then combined to estimate the break-even point described above. Data come from three primary sources: (i) consultation with local experts (Farm Advisors and growers), (ii) tax data available from the IMPLAN model², and (iii) a review of published studies and industry reports for tomato processing costs. The processing tomato cost of production data are largely based on a report published by the Giannini Foundation examining transportation and marketing efficiency in California tomato processors (Durham, et al. 1995) and a previous study of the processing tomato industry by Logan (1984). All of the cost data were validated with industry experts and all values in the analysis are deflated to 2012 dollars for consistent comparison (Miyao 2014; Hartz et al. 2008; Morning Star 2013; UCCE 2008;). Processing costs assume a large diversified processing plant with a 300,000 to 400,000-ton raw tomato capacity, consistent with a plant based in Yolo County (Morning Star 2013; PCP 2014).

The analysis evaluates the tipping point for each year, 2005 – 2009, individually. These years are used because the data are available and they are a representative sample of years with variation in crop prices and bypass flooding. Sensitivity analysis is performed to examine how adjustments in parameters, data, and assumptions affect the tipping point threshold.

3.3 Tomato Processor Costs and Revenues

Yolo County’s processing tomato production ranged from 1.3 million tons to 1.6 million tons between 2005 and 2009 (USDA NASS various years). The analysis assumes that all of the raw tomatoes that go to the processor are sourced from Yolo County. As such, approximately 24 percent of total Yolo County processing

² IMPLAN Group LLC. www.implan.com. 2013 V3 Data for California counties.

tomatoes are sent to the representative facility to meet the production capacity of the processor (300,000 – 400,000 tons). It is further assumed that all of the tomato production in the Yolo Bypass goes to the representative processor. The top two rows of table 8 show the total quantity of tomatoes produced in the Yolo Bypass and the total quantity produced in other parts of Yolo County. Taking 2009 as an example, 155,000 tons of tomatoes were produced in the bypass and 1,452,000 tons were produced outside of the bypass in Yolo County.³ Rows 4 and 5 show the production sent to the processor from the bypass and other parts of Yolo County. Again using 2009 as an example, the processor processes 386,000 tons with bypass production, but only 231,000 tons (155,000 tons less) without bypass production.

Tomato processors establish production contracts to purchase tomatoes from growers well before harvest begins (Miyao 2014; Hartz et al. 2008). Plantings are staged so that harvest can be staged, creating a steady supply of raw tomatoes being delivered to the processor. Generally, tomato processors diversify the geographic source of their tomato supplies to better manage quality and quantity issues that may arise in a particular region (Miyao 2014). The farm-gate price received by growers for processing tomatoes is also the price paid for raw tomatoes (a production input) by the processor. Rows 5 and 6 of Table 8 show the variable cost of raw tomatoes purchased by the processor, calculated by multiplying the farm-gate price by total quantity sent to the processor. Row 7 shows the difference in the cost of raw tomatoes purchased by the processor. Without bypass production the processor purchases fewer inputs, and variable input costs decrease by \$4.7 million to \$12.9 million.

Table 8. Tomato production, processing, and input cost, 2005 – 2009

	2005	2006	2007	2008	2009
<i>Total Tomato Production (thousands of tons)</i>					
Yolo Bypass	85	105	143	150	155
Other Yolo County	1,311	1,214	1,480	1,380	1,452
<i>Tomato Processor Raw Tomato Inputs (thousands of tons)</i>					
Total	335	317	390	367	386
Total without bypass	250	211	247	218	230
<i>Total Raw Tomato Cost to Processor (thousands of dollars, 2012)</i>					
Total	\$18,685	\$20,472	\$25,863	\$26,715	\$32,210
Total without bypass	\$13,955	\$13,669	\$16,385	\$15,833	\$19,246
Difference	-\$4,730	-\$6,804	-\$9,478	-\$10,881	-\$12,964

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013.

A processor will generally contract with a single transportation company and pay the transportation cost from the field to the processing facility. This analysis assumes the average distance from the field to the representative processor is 16

³ Total tomato production is calculated by multiplying the total acres by the average annual production (yield) expressed in tons per acre.

miles, based on standard practice of contracting tomato production within 16 miles of the facility (PCP 2016). Transportation cost estimates are based on a fixed fee per ton per mile using deflated average fuel costs (BLS 2014a). Processor transportation costs, with and without Yolo Bypass production, are summarized in Table 9. The bottom row in Table 9 shows that by removing Yolo Bypass tomato production, the processor purchases fewer tomatoes and transportation costs decrease by \$1.8 million to \$3.3 million.

Table 9. Processor transportation costs, 2005 – 2009 (in 2012 thousands of dollars)

	2005	2006	2007	2008	2009
Total	7,284	6,884	8,468	7,983	8,387
Total without bypass	5,440	4,596	5,365	4,731	5,011
Difference	-1,844	-2,288	-3,103	-3,252	-3,376

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013, BLS 2014a.

Tomato processing facilities generally specialize in either paste production or diversified products (e.g., diced tomatoes, pizza sauce, ketchup, etc.), but may produce both (Morning Star 2013; PCP 2014; Miyao 2014; Logan 1984). The representative processor costs are based on a diversified plant like that found in Yolo County. Tomato processors run 24 hours a day, 7 days a week during the processing season. They carefully plan transitions between products to avoid unnecessary labor and equipment startup and shutdown costs. High solids content tomatoes are used for paste, ketchup, and sauces, and low solids content tomatoes are used for canned diced or whole tomato production. The processor determines the optimal solids mix and ensures this is met through grower contracts. This analysis assumes that 50 percent of the representative plant's processing activity generates high solids content products and 50 percent of production is low solids content products.

Plant operation variable costs include labor, electricity, materials, and all other inputs required to process high and low solids tomatoes. Table 10 summarizes plant operating costs between 2005 and 2009. Without tomato production from the Yolo Bypass there is a reduction in variable processing costs of \$15 million to \$29 million. All values are deflated to 2012 dollars using the BLS Fruit & Vegetable Preserving & Specialty Food Manufacturing index (BLS 2014).

Table 10. Processor operating costs, 2005 – 2009 (in 2012 thousands of dollars)

	2005	2006	2007	2008	2009
Total	57,533	56,049	70,774	68,021	72,012
Total without bypass	42,969	37,422	44,838	40,314	43,028
Difference	-14,564	-18,627	-25,936	-27,706	-28,983

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013, BLS 2014.

Tables 8, 9, and 10 summarized the variable production costs for the representative tomato processor. Fixed costs include those costs that must be paid

by the processor whether or not the plant is operating. In general, fixed costs vary based on processor type (paste-only or a diversified product plant), processor size, facility age, and technology, among other factors. The representative tomato processor's fixed cost estimate is based on a report published by Morning Star (2013), validated by Durham et al. (1995) and with industry experts, and estimated to equal \$20.9 million annually.

Having established the fixed and variable production costs, the final piece of financial information required for the analysis is processor revenues. Output prices are based on prices identified by Durham et al. (1995) with high solids products (50 percent of production) receiving a price premium. Table 11 summarizes gross sales revenue, with and without bypass production. Since it is assumed that the processor does not purchase tomatoes from other regions, total revenues fall when bypass production decreases.

Table 11. Processor gross sales revenue, 2005 – 2009 (in 2012 thousands of dollars)

	2005	2006	2007	2008	2009
Total	173,560	169,084	213,503	205,198	217,238
Total without Bypass	129,626	112,891	135,261	121,616	129,803
Difference	-43,935	-56,193	-78,241	-83,581	-87,434

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013.

Table 12 summarizes the variable costs (raw tomato inputs, transportation, and operating cost), gross revenue, and net revenue for the representative tomato processor. Net revenues are calculated by subtracting variable costs from gross sales revenue. The top 5 rows summarize costs and revenues with bypass production, and the bottom 5 rows summarize costs and revenues without bypass production. Without bypass production, all other factors being equal and assuming that the processor does not replace the lost tomatoes with tomatoes from other sources, net revenue decreases by between \$23 million and \$42 million annually, or 25 to 41 percent.

Table 12. Summary of processor costs and revenues, 2005 – 2009 (in 2012 millions of dollars)

	2005	2006	2007	2008	2009
<i>Total Including Bypass Production</i>					
Raw Tomato Cost	18.7	20.5	25.9	26.7	32.2
Transportation Cost	7.3	6.9	8.5	8.0	8.4
Operating Cost	57.5	56.0	70.8	68.0	72.0
Gross Revenue	173.6	169.1	213.5	205.2	217.2
Contribution Margin	90.1	85.7	108.4	102.5	104.6
<i>Total Excluding Bypass Production</i>					
Raw Tomato Cost	14.0	13.7	16.4	15.8	19.2
Transportation Cost	5.4	4.6	5.4	4.7	5.0
Operating Cost	43.0	37.4	44.8	40.3	43.0
Gross Revenue	129.6	112.9	135.3	121.6	129.8
Contribution Margin	67.3	57.2	68.7	60.7	62.5

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013.

3.4 Tomato Processor Tipping Point Analysis

The data summarized in the previous section are used to estimate the break-even or “tipping point” and determine if the tomato processor would continue to operate if no tomatoes are grown in the Yolo Bypass. As discussed previously, for a given plant, the tipping point occurs at a throughput quantity where there are enough units processed so that the sum of the contribution margin per unit is sufficient to cover the plant fixed costs. Intuitively, if the processor is not able to cover fixed costs it is more profitable to shut down the plant.

The contribution margin per ton is calculated by dividing the total contribution margin (row 5 in Table 12) by the total production quantity (row 3 in Table 8). The break-even quantity is calculated by dividing the total fixed costs of the plant (\$20.9 million) by the contribution margin per ton. Row 1 and 2 in Table 13 summarize the contribution margin and break-even (tipping point) quantity, respectively. The tipping point quantity for the representative mill is between 74,900 and 77,700 tons per year.

Row 3 in Table 13 shows the quantity of tomatoes processed by the processor if there are no tomatoes produced in the Yolo Bypass and the processor does not secure tomatoes from another region (from row 4 in Table 8). Comparing this to the break-even quantity demonstrates that in all years the processor is significantly above the tipping point quantity. Row 4 shows that the total quantity is 133,500 to 172,305 tons above the tipping point quantity.

Table 13. Summary of tomato processor tipping point, 2005 – 2009 (2012 dollars)

	2005	2006	2007	2008	2009
<i>Including Bypass Production</i>					
Contribution margin (\$/ton)	269	270	278	279	271
Break-even (tons)	77,695	77,407	75,179	74,910	77,120
Production without bypass (tons)	250,000	211,000	247,000	218,000	230,000
Difference (tons)	+172,305	+133,593	+171,821	+143,090	+152,880

If growers stopped producing tomatoes in the Yolo Bypass, a tomato processor would be likely to seek tomato contracts with growers in other regions to offset the loss of supply. In addition, processors take a long run view of their processing activities since they do not have perfect foresight of important factors that impact their profitability such as input prices, input quantities, and output prices. Because of their long run decision making, processors would likely remain in business even if they cannot cover fixed costs for a single year. In addition, a processor may enter a production season anticipating a profitable season, and if market conditions change after contracts have been signed, it would be too late for the processor to consider shutting down. As such, the findings of the analysis should be interpreted as an upper bound on the maximum tipping point.

3.4.1 Sensitivity Analysis

The previous section demonstrates that the representative Yolo County tomato processor is likely to be able to maintain production above the tipping point threshold if growers decide to stop producing tomatoes in the Yolo Bypass. The analysis in this section adjusts key parameters to determine how sensitive the tipping point level of tomato production is to the previously defined assumptions. Sensitivity analysis is performed for 7 scenarios described below.

Scenario 1: Increase the share of low solids tomatoes to 100 percent

This scenario increases the share of low solids tomatoes from 50 percent to 100 percent of total processing quantity. Shifting to 100 percent low solids tomato products simulates a tomato processing plant with no tomato paste production. Variable costs decrease in this scenario because low solids tomatoes cost less to process; however, revenues also decline since low solids tomato products sell for a lower price. By changing the share of low solids content, net revenue decreases by approximately \$9 per ton. Table 14 shows that the tipping point quantity increases to 79,652, which is below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Scenario 2: Increase the share of high solids tomatoes to 100 percent

This scenario increases the share of high solids tomatoes to represent 100 percent of total processing quantity. Tomatoes with high solids content are more expensive to process because they require greater processing times and inputs. However, tomato paste made from high solids tomatoes receive a price premium compared to other tomato products. By increasing the share of high solids content tomatoes, net revenues increase by approximately \$9 per ton. Table 14 shows that

the tipping point quantity decreases to 74,654, which is still below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Scenario 3: Increase transportation distance to 30 miles

In this scenario, tomatoes purchased by the representative processor are sourced from a 30-mile radius, rather than the standard 16-mile radius. Marginal costs for transportation increase in this scenario while other marginal costs and marginal revenue remains the same, resulting in a \$4 per ton decrease in net revenue. Table 14 shows that the tipping point quantity increases to 78,405, which is below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Scenario 4: Increase cost of raw tomatoes to \$100/ton

Agricultural prices are notoriously volatile. In this scenario, the price paid for raw tomatoes is increased to \$100 per ton. This is well above prices in recent years but consistent with the inflation-adjusted historical high price. Net revenues decrease to \$255 per ton as marginal costs increase and gross revenue remains the same. Table 14 shows that the tipping point quantity increases to 82,065, which is below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Scenario 5: Decrease gross revenue to \$500/ton

Prices received for processed agricultural goods are also variable. Morning Star's report *Tomato Paste and Processed Tomato Statistics* indicates that since 1985, the lowest price for tomato paste was \$670 per ton in 2012 dollars (Morning Star 2013). This scenario decreases gross revenue even further, to \$500 per ton, to simulate a downturn in the consumer demand for processed tomatoes. Marginal costs remain unchanged resulting in a \$63 per ton decrease in net revenue. Table 14 shows that the tipping point quantity increases to 100,458, which is below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Scenario 6: Combination of Scenarios 2-5

Under this scenario, the representative tomato processor processes 100 percent high solids tomatoes, acquired for \$100 per ton, sourced from 30 miles away, and sold as tomato paste for \$500 per ton. This is an improbable event of high costs and poor market conditions. It is a highly unlikely scenario as weak demand for processed tomatoes would put downward pressure on the farm-gate price. This scenario results in net revenue equal to \$183 per ton. Table 14 shows that the tipping point quantity increases to 114,014, which is below the minimum quantity of tomatoes available without bypass production, 211,000 tons. The processor maintains production above the tipping point threshold.

Table 14. Tomato processor tipping point sensitivity analysis

	Net Revenue (\$ per ton)	Tipping Point (tons)	Minimum tons available without bypass (2005 – 2009)
Standard assumptions	\$271	77,072	211,000
Scenario 1. Increase share of low solids to 100%	\$262	79,652	211,000
Scenario 2. Increase share of high solids to 100%	\$280	74,654	211,000
Scenario 3. Increase transportation distance to 30 miles	\$267	78,405	211,000
Scenario 4. Increase cost of raw tomatoes to \$100/ton	\$255	82,065	211,000
Scenario 5. Decrease gross revenue to \$500/ton	\$208	100,458	211,000
Scenario 6. Combination of scenarios 2-5	\$183	114,014	211,000

Source: USDA NASS California Agricultural Statistics, various years, Yolo Bypass GIS, Durham, et al. 1995, Morning Star 2013, PCP 2014, IMPLAN, 2013..

3.5 Tomato Processor Tipping Point Summary

The analysis demonstrates that the representative processor processes more than the tipping point tonnage in every scenario without bypass production and no supplemental tomatoes sourced from other regions. The sensitivity analysis suggests that processor could change its mix of low and high solids tomatoes, increase transportation costs, increase raw tomato costs, decrease output prices, or double its fixed costs and maintain production levels above the tipping point threshold. If the processor does not secure additional production from other regions outside of the bypass, production volume and net revenue would decrease, as shown under each of the sensitivity analyses described above.

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4 Rice Mill Tipping Point Analysis

Proposed changes in Yolo Bypass flooding frequency and duration may reduce the growing season for rice. If fields remain wet too long due to flooding, growers may miss the planting window (April through June), with direct consequences for both growers and processors. Growers would either fallow the field or plant a crop with a shorter growing season. Mills may fall short of anticipated supply, potentially jeopardizing the facility's ability to stay in business.

The analysis presented in this section provides a basis for understanding the cost incurred by a representative rice mill in Yolo County if no rice is produced in the bypass. The analysis establishes the economic shut-down decision, which is then used to evaluate whether the mill would be likely to stay in business if bypass rice production decreases.

4.1 An Overview of Rice Milling in Yolo County

California is the second largest rice producing state in the United States, producing more than 2 million tons of rough rice each year (Richardson and Outlaw, 2010; USDA NASS, various years). California rice is used for household consumption, sushi, beer production, rice mixes, and pet food. Approximately 40 percent of California rice production is exported to Japan, Korea, Taiwan, and Turkey. According to the California Rice Commission, around 97 percent of rice produced in California is grown within a 100-mile radius of Sacramento (CRC 2016). Colusa, Sutter, Butte, and Glenn Counties are the dominant producers in the state (USDA NASS various years). Table 15 summarizes rice acreage and production in California. Yolo County ranks fifth in total rice production in California (USDA NASS various years).

Table 15. 2012 California rice acreage and production, by county

County	Harvested Acres	Tons of Production
Colusa	150,000	652,000
Sutter	116,000	467,000
Butte	94,500	412,000
Glenn	84,800	359,000
Yolo	40,500	168,000
Yuba	37,600	163,000
Placer	15,900	62,200
San Joaquin	6,010	24,600
Sacramento	5,900	24,800
Fresno	3,240	10,100
Merced	2,410	9,110
Stanislaus	2,030	8,530
Sum of Others	261	365
Total	559,151	2,360,705

Source: USDA NASS California Agricultural Statistics 2012

Rice mills turn roughrice into a consumption good by removing the husk from the rice. After milling and removing excess debris from the rice, the mill packages the final product into bags destined for export or domestic purchase. There are generally two types of rice milling operations: grower-owned cooperatives and independent mills. Cooperatives usually mill, market, and sell the rice as a vertically integrated operation. Members of the cooperative are paid based on production share and the price received for milled rice throughout the season. Independent rice mills may also market and sell the rice on behalf of the grower and take a share of profit from total net revenue. There are other agencies that exclusively market and sell rice, but this analysis examines the cost of milling and selling rice from the perspective of an independent mill.

The California Rice Commission lists 12 rice processing companies throughout the state, with the majority located in the greater Sacramento area. Three processing facilities are located in Yolo County: Bunge Milling (Pacific International Rice Mills), Farmers' Rice Cooperative, and SunFoods, LLC (CRC 2014a). Table 16 summarizes rice mill, exporter, marketer, and foodservice supplier companies in California. The "County Location" indicates company headquarters, which is not necessarily where a production or storage facility is located.

Table 16. California rice milling, drying, and distribution

Company	County Location	Description
Bunge Milling, Inc (Pac. Int'l)	Yolo	Milling & Foodservice Supplier
Farmers' Rice Cooperative	Yolo	Milling & Foodservice Supplier
PGP International	Yolo (Colusa mill)	Processor & Foodservice Supplier
SunFoods, LLC	Yolo	Milling
Rue & Forsman Ranch, Inc.	Sutter	Foodservice Supplier
Valley Commodities, LLC	Sutter	Marketing
Penny Newman Grain	Sacramento	Exporter
Koda Farms	Merced	Milling
Sage V Foods	Los Angeles	Foodservice Supplier
ADM Rice, Inc	Colusa	Exporter
American Commodity Company, LLC	Colusa	Drying, Storing, Foodservice Supplier
California Family Foods, LLC	Colusa	Milling & Foodservice Supplier
California Heritage Mills	Colusa	Exporter
Calrose Co-op	Colusa	Marketing
Polit Farms, Inc.	Colusa	Milling & Foodservice Supplier
Sun Valley Rice Company, LLC	Colusa	Milling & Foodservice Supplier
Tamaki Rice Corporation	Colusa	Milling & Foodservice Supplier
Associated Rice Marketing Coop	Butte	Marketing, Supplier
Butte County Rice Growers Assn.	Butte	Drying & Storage
California Rice Exchange, Inc.	Butte	Trader
California Rice Marketers	Butte	Marketing
Far West Rice, Inc.	Butte	Milling & Foodservice Supplier
Farm and Trade, Inc.	Butte	Marketing
Lundberg Family Farms	Butte	Milling & Foodservice Supplier
SunWest Foods, Inc.	Butte	Milling & Foodservice Supplier

Source: California Rice Commission 2014a.

Rice growers receive revenue in two installments, partial payment upon rice delivery at a mill and a share of revenue once the rice is sold. The price mills pay to growers includes a marketing loan amount issued by the United States Department of Agriculture (USDA). The USDA marketing loan rate is \$6.50 per hundredweight⁴ (cwt) of rice under the 2014 Farm Bill (USDA FSA 2014e). Mills generally have annual contracts with their buyers and negotiate prices at specified time intervals. An interview with a local independent mill owner, who asked to remain anonymous, indicated that mills generally attempt to return as much money as possible to growers in order to establish ongoing relationships and consistent supply for future harvests. As a result, the rice milling industry is highly competitive. The representative mill in this analysis is an independent mill in Yolo County. The viability of the facility is evaluated if there is a significant and permanent decrease in the quantity of rice produced in the Yolo Bypass. Rather than predicting the extent of flooding and modeling variation in flooding, this analysis considers a worst case scenario where all Yolo Bypass rice production ceases. This is not a proposed policy, but rather an upper bound on the potential impacts to Yolo County mills from changes in Yolo Bypass flooding.

It is important to note that this study focuses on an independent mill as opposed to a cooperative mill. Independent mills, as mentioned above, have annual contracts with growers and some additionally buy product from the cash market during the milling year. As such, independent mills are influenced by market conditions and rough rice prices. This forces independent mills to be more focused on profit maximization. Cooperative mills have a defined membership, allowing them to know their milling pool before planting begins, ensuring supply for the mill from year to year. This provides a competitive advantage when supply is anticipated to be short, since every harvesting acre is crucial. Therefore, performing this analysis on a cooperative mill would yield a more optimistic result.

4.2 Methodology

The rice mill tipping point analysis uses the same general methodology as the tomato processor analysis described in the previous section. Namely, this analysis evaluates whether the representative mill is likely to shut down if there is a decrease in Yolo Bypass rice production. The first step in the methodology is to establish the minimum quantity of rice that must be milled in order for the mill to break even. The break-even point is calculated using well-established microeconomic principles for a profit maximizing firm. The break-even point occurs at a throughput quantity where there are enough units processed so that the sum of the contribution margin per unit is sufficient to cover the plant fixed costs. If the quantity of rice milled falls below this threshold, the mill is likely to shut down. Given this definition and the assumptions outlined below, the shut-down decision for the mill is evaluated by comparing the break-even quantity to the

⁴ The common unit for measuring rice in California is a hundredweight, which is abbreviated cwt and is equivalent to 100 pounds or 0.04536 metric tons.

quantity of rice available to the mill if there is no production in the Yolo Bypass. The following critical assumptions apply to the analysis:

1. The analysis assumes there is a 100 percent decrease in Yolo Bypass crop production.
2. The scenario evaluates a “representative” mill using the best available data.
3. The analysis assumes 100 percent of Yolo Bypass rice production goes to the representative mill and that the mill cannot procure additional rice from other regions when Yolo Bypass production decreases.
4. The analysis evaluates a short-run tipping point decision using a long-run economic criterion, and as such, is a conservative analysis. In practice, most businesses are able to manage (potentially large) short-run fluctuation in production (price or quantity) without deciding to leave the industry.

The analysis requires detailed proprietary financial information for the representative mill. These data are necessary to establish the production volume, and fixed and variable production costs, which are then combined to estimate the break-even point described above. Data come from three primary sources: (i) consultation with local experts (Farm Advisors, growers, a rice mill owner, and other local rice mill representatives), (ii) tax data available from the IMPLAN model, and (iii) a review of published studies and industry reports for rice milling costs.

The variable and fixed cost framework is based on various sources including: information from a local rice mill, a 2010 report by Texas A&M University examining the economic benefits of rice to the United States (Richardson and Outlaw, 2010), and a 1993 report by the American Society of Agricultural Engineers (ASAE) examining how changes in the variable cost affect the economics of wheat milling (Flores, et al. 1993). Wheat milling costs are used because an independent rice mill owner recommended using wheat milling studies as a proxy cost structure since first-hand information on rice milling is not publicly available. Accordingly, wheat milling fixed cost estimates are used as a proxy for the rice mill in Yolo County. Previous studies examining the economics of rice milling have also used wheat milling cost structures as a proxy for rice milling cost structures (Borsen 1987). These costs are verified by reviewing IMPLAN data for rice milling in the Sacramento Region (IMPLAN 2013), and supplemental cost studies for milling costs (Eustace et al. 1976; Eustace et al. 1977).

Annual variable milling costs are based on a mill capacity of approximately 4 million cwt annually. This estimate is extrapolated from the data previously cited, based on local mills, and it is intentionally conservative, local rice mill capacities may exceed this estimate. Additionally, this study assumes that rice growers bear the cost of drying and transporting the rough rice to the milling facility. All of

Yolo County rice production is assumed to go to the representative Yolo County rice mill. This is done to test the effects of the most significant impact to a single rice mill, despite information from local rice farmers that suggests less than 50 percent of Yolo Bypass rice production is sent to any one mill. Since Yolo County production does not meet annual mill capacity, rice is also obtained from nearby counties.

The analysis evaluates the tipping point for each year, 2005 – 2009, individually. These years are used because the data are available and they are a representative sample of years with variation in crop prices and bypass flooding. Sensitivity analysis is performed to examine how adjustments in parameters, data, and assumptions influence the tipping point threshold.

4.3 Rice Mill Costs and Revenues

Yolo Bypass rice production ranged from 406,000 to 772,000 cwt between 2005 and 2009 (Yolo County GIS, various years). In the Sacramento Valley, rice is typically harvested in September and October and is dried to a moisture level that helps preserve quality and enables long-term storage (Espino 2014). Following harvest growers transport rice to a drying and storage facility or directly to a mill. This analysis assumes growers receive prices as reported by the USDA NASS, which combines pooled prices (cooperative) and cash prices to create a weighted average for the county (CalAgTrader 2014; USDA NASS various years).

The analysis assumes that the mill sources rough rice from Yolo County first and then makes up any excess capacity from other nearby counties. The Yolo Bypass contributes approximately 12 percent of the 4 million cwt capacity of the mill. The top 4 rows of Table 17 show the total quantity of rough rice produced in the Yolo Bypass, within Yolo County, and from outside of the county that is handled by the representative mill. Taking 2009 as an example, the mill processes 772,000 cwt of rice produced in the bypass, 2,774,000 cwt from elsewhere in Yolo County, and 454,000 cwt from other counties. The total rice milled is 4 million cwt. The bottom row of Table 17 shows the cost of the rough rice purchased by the mill. Rice input costs range between \$11.83 and \$27.58 per cwt between 2005 and 2009.

Table 17. Rice production quantity and input cost, 2005 – 2009

	2005	2006	2007	2008	2009
<i>Rough rice Quantity to Mill (thousands of cwt)</i>					
Yolo Bypass	459	406	664	537	772
Other Yolo County	2,727	2,154	2,426	2,107	2,774
Other counties	814	1,440	909	1,356	454
Percent from Yolo Bypass	11%	10%	17%	13%	19%
<i>Rough rice Cost (dollars per cwt)</i>					
Cost of rough rice	11.83	12.29	14.64	27.58	20.25

Source: USDA NASS California Agricultural Statistics, Yolo County GIS, Flores et al. 1993, SunWest 2014, Richardson and Outlaw 2010, CRC 2014b, IMPLAN 2013.

The variable costs of rice milling include the processes for turning rough rice into a consumable good. The representative rice mill variable costs include energy, labor, and material requirements for receiving and storage, cleaning and conditioning, milling, packaging, storage, and load out. This cost is estimated to equal \$3.04 per cwt.

Table 18 summarizes the mill variable costs between 2005 and 2009. Total variable costs averaged \$12 million per year between 2005 and 2009. Between \$1.4 and \$2.3 million — or 11 to 19 percent — of the annual variable cost of the representative mill are from Yolo Bypass rice.

Table 18. Rice mill variable costs, 2005 – 2009

	2005	2006	2007	2008	2009
<i>Mill Operating Cost (thousands of dollars, 2012)</i>					
Yolo Bypass	1,395	1,234	2,019	1,634	2,346
Other Yolo County	8,291	6,548	7,376	6,405	8,434
Other counties	2,474	4,378	2,765	4,121	1,380
Total operating cost	12,160	12,160	12,160	12,160	12,160
<i>Mill Variable Cost (dollars per cwt)</i>					
Operating cost per cwt	3.04	3.04	3.04	3.04	3.04

Source: USDA NASS California Agricultural Statistics, Yolo County GIS, Flores et al. 1993, SunWest 2014, Richardson and Outlaw 2010, CRC 2014b, IMPLAN 2013.

Fixed costs include those costs that must be paid by the mill whether or not the plant is operating. For example, overhead costs such as repairs and maintenance, research, insurance, advertising, interest payments, telecommunications service fees, legal services, tax preparation, and the share of labor costs associated with managerial and administrative salaries. The fixed costs of the mill are estimated using industry interview, industry reports, and IMPLAN data for rice milling in the Sacramento area. Using these data, the fixed costs of the representative mill are estimated to equal \$9 million per year.

Milled rice revenues are based on USDA data, interviews with growers and a mill owner, and the study by Richardson and Outlaw (2010). Growers receive a share of revenue after the processed rice is sold. Mills compete to retain growers by maximizing the proportion of revenues returned to the grower. Rice harvested in the fall, dried, stored, and milled, is usually sold the following year. Thus, the price received for the current year harvest is determined by the market in the following year. This lag time is accounted for in the analysis by adjusting revenue years to reflect harvest years. In addition, there is a loss of product during the rice milling process, estimated to equal 25 percent of rough rice input, and milled rice quantities used to calculate gross returns reflect this loss. That is, mills purchase rough rice in the year it is grown at the price per cwt shown in Table 17, and 75 percent of that rough rice is turned into a consumable good (3 million cwt per year) and sold the following year at the prices shown below in row 1 of Table 19.

Table 19 shows that the gross revenues of the representative mill (output price multiplied by output quantity) were between \$78 million and \$159 million per year.

Table 19. Rice mill gross revenues, 2005 – 2008

	2005	2006	2007	2008
Output price (\$ per cwt)	26.09	28.13	34.22	53.15
Total gross revenue (\$)	78,271	84,403	102,657	159,456

Source: USDA NASS California Agricultural Statistics, Yolo County GIS, Flores et al. 1993, SunWest 2014, Richardson and Outlaw 2010, CRC 2014b, IMPLAN 2013.

Table 20 summarizes rice mill net revenue, which is defined as the gross revenues net of all the variable operating costs. Between 2005 and 2008 the representative rice mill annual net revenues ranged between \$18.8 million to \$37 million per year.

Table 20. Rice mill net revenue, 2005 – 2008 (in 2012 thousands of dollars)

	2005	2006	2007	2008
<i>Including bypass production</i>				
Rough rice cost	47,329	49,140	58,540	110,322
Operating cost	12,160	12,160	12,160	12,160
Gross revenue	78,271	84,403	102,657	159,456
Contribution Margin	18,783	23,103	31,957	36,974
<i>Excluding bypass production</i>				
Rough rice cost	41,900	44,152	48,820	95,501
Operating cost	10,765	10,926	10,141	10,526
Gross revenue	70,326	70,389	88,865	128,692
Contribution Margin	17,661	15,311	29,904	22,665

Source: USDA NASS California Agricultural Statistics, Yolo County GIS, Flores et al. 1993, SunWest 2014, Richardson and Outlaw 2010, CRC 2014b, IMPLAN 2013.

4.4 Rice Mill Tipping Point Analysis

The data summarized in the previous section are used to estimate the break-even or “tipping point” and determine if the rice mill would continue to operate if no rice is grown in the Yolo Bypass. As discussed previously, for a given plant, the tipping point occurs at a throughput quantity where there are enough units processed so that the sum of the contribution margin per unit is sufficient to cover the plant fixed costs. Intuitively, if the mill cannot cover fixed costs it is more profitable to shut down the mill.

The contribution margin per unit is calculated by subtracting the cost of rough rice per cwt (in Table 17) and the operating cost (Table 18) from the gross revenue per cwt (row 1 in Table 19). The break-even quantity is calculated by dividing the total fixed costs of the plant (\$9 million) by the contribution margin per cwt. Row 1 and 2 in Table 21 summarize the contribution margin and break-even (tipping point) quantity, respectively. The tipping point quantity for the representative mill is between 399,000 and 802,000 tons per year. Row 3 shows the rough rice available without bypass production (from Table 17), and row 5

shows the margin over the tipping point. As shown, the mill is able to operate at a level well above the tipping point threshold even if there is no rice produced in the Yolo Bypass.

Table 21. Summary of rice mill tipping point, 2005 – 2008

	2005	2006	2007	2008
Contribution margin (\$/cwt)	11.22	12.81	16.54	22.53
Break-even (cwt)	802,258	702,615	544,005	399,441
Production without bypass (cwt)	3,541,000	3,594,000	3,335,000	3,463,000
Difference	+2,738,742	+2,891,385	+2,790,995	+3,063,559

4.4.1 Rice Mill Sensitivity Analysis

The previous section demonstrates that the representative Yolo County rice mill is able to maintain production above the tipping point threshold if it is assumed that there is no rice produced in the bypass, the mill does not purchase additional rice from other regions, and the mill operates under standard market conditions and costs. The analysis in this section involves adjusting the parameters to determine how sensitive the tipping point level of rice production is to the previously defined assumptions. The following 4 scenarios demonstrate the sensitivity of the rice mill tipping point. Table 22 summarizes the results of the analysis.

Scenario 1: Increase cost of rough rice

This scenario increases the cost of rough rice to simulate volatility in the farm-gate price of rice. In practice, a rise in the cost of rough rice is likely coupled with an increase in the price of milled rice and a commensurate increase in the mill's revenues. This scenario increases the farm-gate price for rough rice by 50 percent over the highest observed price (\$27.58 per cwt), to \$41.37 per cwt. Under this scenario, net revenue per hundredweight drops to \$8.74 and the tipping point quantity is 1,029,511 cwt. The mill still processes 2.3 million cwt above the tipping point threshold without bypass production. The mill is able to maintain production above the tipping point threshold.

Scenario 2: Increase operating costs

Milling operational costs vary depending on the mill's age, technology, and management practices. The mill operating costs used in this study are based on the best available data and mill owner interview. However, operating costs are highly confidential and thus subject to some uncertainty in the analysis. This scenario triples the operating costs of the representative mill to \$9.12 per cwt. Under this scenario, net revenue per hundredweight drops to \$5.14 and the tipping point quantity is no greater than 1,751,540 cwt. The mill still processes 1.5 million cwt above the tipping point threshold without bypass production. The mill is able to maintain production above the tipping point threshold.

Scenario 3: Increase fixed costs

Rice mill fixed costs may vary significantly based on the facility's age, technology, staffing efficiencies, and management. The mill fixed costs used in this study are based on the best available data and mill owner interviews.

However, fixed costs are highly confidential and thus subject to some uncertainty in the analysis. This scenario triples the fixed costs of the representative mill to \$27 million. Under this scenario, net revenue is unchanged but the tipping point quantity is no greater than 2,406,774 cwt. The mill still processes 0.9 million cwt above the tipping point threshold without bypass production. The mill is able to maintain production above the tipping point threshold.

Scenario 4: Decrease milled rice revenues

Prices for processed rice are also volatile. This scenario decreases milled rice revenue by 25 percent to simulate this situation. As in Scenario 1, a decline in the price of milled rice is almost certainly coupled with a decrease in the cost of rough rice and a commensurate decrease in the mill's input costs, meaning this scenario is highly improbable. Under this scenario, net revenue per hundredweight drops to \$4.70 and the tipping point quantity is no greater than 1,916,641 cwt. The mill still processes 1.4 million cwt above the tipping point threshold without bypass production. The mill is able to maintain production above the tipping point threshold.

Table 22. Rice mill tipping point and sensitivity analysis (\$2012 Dollars)

	Net Revenue (\$ per cwt)	Tipping Point (cwt)	Minimum cwt available without bypass (2005 – 2009)
Standard assumptions	\$11.22	802,258	3,335,000
Scenario 1. Increase cost of rough rice by 50%	\$8.74	1,029,511	3,335,000
Scenario 2. Triple mill operating costs	\$5.14	1,751,540	3,335,000
Scenario 3. Triple mill fixed costs	\$11.22	2,406,774	3,335,000
Scenario 4. Decrease output price by 25%	\$4.70	1,916,641	3,335,000

Source: USDA NASS California Agricultural Statistics, Yolo County GIS, Flores et al. 1993, SunWest 2014, Richardson and Outlaw 2010, CRC 2014b, IMPLAN 2013.

4.5 Rice Mill Tipping Point Summary

This study has provided a quantitative assessment of the impacts to a representative rice mill's economic viability from a reduction in rice acreage in the Yolo Bypass. The baseline scenario indicates that even without Yolo Bypass production, the processor still processes well above the minimum profitable quantity, or tipping point quantity, in any given year.

The sensitivity analysis evaluated a range of scenarios where key parameters that affect the tipping point decision were changed. Under all scenarios the mill is able to maintain production above the tipping point threshold without milling any rice from the bypass. An empirical confirmation of the analysis can be seen in the current ongoing drought. It is noteworthy that during the current drought California rice acreage fell by more than 25 percent, from 563,000 acres in 2012 to 416,000 acres in 2015 (USDA NASS various years; USDA ERS 2015).

However, even with 25 percent less rice available for California mills to process, no mills have shut down, demonstrating the resilience of the industry to market volatility.

5 Rice and Processing Tomato Crop Insurance Analysis

Late season flooding in the Yolo Bypass shortens the growing season for crops, and growers may decide to fallow fields or plant alternative crops. Most crop insurance policies offer coverage for late planting and missed plantings. When yields or revenues fall below a specified threshold an indemnity payout⁵ is issued. If there is an anticipated increase in risk, the United States Department of Agriculture (USDA) Risk Management Agency (RMA) and insurance companies may increase insurance premiums to compensate for potentially higher indemnity payouts. Insurance premium rates and coverage are determined by historical risk factors, which in the Yolo Bypass, include some risk of late season flooding. This section summarizes crop insurance, standard policies carried by most bypass growers, and the potential for premiums to increase if farming risks in the Yolo Bypass increase.

5.1 Crop Insurance

Growers face financial risks from a number of factors including: water supply, weather events, pests, disease, and variation in market conditions. Many growers use crop insurance as a risk-management tool to hedge against events that can lead to increased costs, lost crop revenue, and partial or complete crop loss (FDIC 2014; NCIS 2014; Paulson and Coppess 2014). A range of flexible insurance plans are available and coverage rates can be tailored to specific farming operations. Protection and coverage levels are defined before crops are planted, so growers know the risk involved with producing the crop. Most insurance programs provide partial coverage of losses to cover some of the planting, material application, and other production costs incurred.

Most growers carry crop insurance. Between 2000 and 2012, the number of crop insurance contracts in California decreased by 7 percent, but the total crop insurance coverage increased by 25 percent. That is, the level of coverage per contract has increased. In 2012, there were 1,818 rice crop insurance contracts in California with a net indemnity payout of \$1.2 million and 1,061 tomato crop insurance contracts with a total payout of \$2.5 million (RHIS 2013).

The USDA provides insurance premium subsidies to farmers to reduce the out of pocket expense of purchasing crop insurance. The USDA RMA sets policy provisions and rates for crop insurance, and then contracts with private insurance companies to facilitate and administer the policies (USDA RMA 2014b; USDA

⁵ An indemnity payout is money paid to a grower when an insurance claim is filed.

RMA 2013). USDA also provides support programs to insurance companies (reinsurance) to help offset risky policies and reduce financial exposure.

The insurance policies offered to growers reflect the diversity of agricultural production. There are fundamentally two types of crop insurance options available for growers: (i) catastrophic risk protection that is fully subsidized by the federal government, and (ii) buy-up insurance policies that enable growers to select a higher coverage level and pay a corresponding premium (USDA RMA 2014). This analysis focuses primarily on buy-up policies, as they are the most commonly used crop insurance policies by Yolo Bypass growers (Sanchez, 2014; Otto, 2014).

The standard Catastrophic Risk Protection (CAT) policies pay out based on historical prices (USDA RMA 2012; USDA RMA 2012a). Typical payout is for 55 percent of the crop price on crop losses greater than 50 percent of historical yield. The insurance premium is fully subsidized by the federal government. Each grower must pay a \$300 administrative fee for each crop insured in each county. CAT coverage offers a basic level of risk protection, but it is not available to all growers or for all crops (RMA 2014). As such, many growers opt to purchase a buy-up policy. Buy-up policies can be purchased in coverage levels between 50 and 85 percent, typically in 5 percent increments (ISUUE 2014). The coverage level can be based on a number of measures including county historical yields, individual actual yields, projected prices, or harvest price. Basic policy provisions that are included in many buy-up policies include coverage for:

- Late planting
- Prevented planting
- Replanting
- Replanting to a different crop

In all insurance policies, an indemnity payout is issued when yields or revenues fall below the specified threshold. Growers pay a pre-determined amount for insurance coverage based on crop farming risk classification set by the USDA RMA and the level of coverage. The insurance premium is paid at the end of the season or when an indemnity payment is made, whichever comes first, and a portion of the insurance premium is subsidized by the federal government (USDA RMA 2014; Sanchez 2014; Otto 2014).

Each year the USDA sets a reference price for each crop. This price is used as the basis for indemnity payouts. Growers can select coverage of between 55 and 100 percent of the reference price. For example, if a grower chooses a yield/price coverage plan of 70/100, if yield drops below 70 percent the specified yield then the USDA maximum price is covered at 100 percent (USDA RMA 2014; Sanchez 2014; Otto 2014).

The methods used to determine premium rates by the USDA RMA changed in 2012. This was required by Section 508(i) of the Federal Crop Insurance Act (FCIA), which mandates the RMA review its premium rates and rating methodology on a periodic basis. With the revised premium calculation approach in 2012, rice growers in California realized a 14 percent savings on crop insurance premiums (USDA RMA 2012a).

Federal grower premium subsidies consist of two components: (i) premium cost subsidy, and (ii) administration and operation expense payment. In the CAT policy, the federal government subsidizes the full premium cost, but not the administrative costs. With buy-up policies, the subsidy rate varies with the coverage level (USDA RMA 2014; Sanchez 2014; Otto 2014). Table 23 summarizes 2014 California rice and tomato premium subsidy rates in California. The federal government subsidizes the premium at the defined rate regardless of premium. This is important to note when examining increased risk production in the Yolo Bypass because the federal government incurs additional costs as premiums increase, as do growers. In general, federal subsidies make crop insurance more affordable for growers to purchase and for insurance companies to sell.

Table 23. California insurance coverage and subsidy rate for rice and tomatoes in 2014

Coverage Level	Percent Coverage							
	50	55	60	65	70	75	80	85
Rice Premium Subsidy	67	64	64	59	59	55	48	38
Tomato Premium Subsidy	67	64	64	59	59	55	N/A	N/A

Source: USDA RMA 2014

Reinsurance is when an insurance company transfers risk to another company who is willing to bear the risk, but not willing to administer an insurance policy. The purpose of reinsurance is to offset some of the financial risk that the insurance provider undertakes in offering insurance to a risky operation. If the RMA designates a crop and area eligible for crop insurance, by law the private insurance company must provide coverage, meaning that they may take on more risk. In addition, insurance companies may believe that the premium rates set by the USDA in a particular area are not reflective of actual risk associated with production. Reinsurance also helps insurance companies who may not have enough capital to cover potential indemnity payments (USDA RMA 2014; Sanchez 2014; Otto 2014).

The current Farm Bill, passed in 2014, is comprehensive legislation that provides funding for nutrition and agriculture programs. As it relates to crop insurance, the 2014 Farm Bill replaced the Direct Payment subsidies with the Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) programs, which are aimed at providing income protection against significant losses (USDA FSA 2014f; USDA FSA 2014a – 2014e). Conceptually, the ARC and PLC programs

act as supplemental coverage for growers' deductibles, if a claim is filed. The ARC and PLC programs are available to rice growers; however growers must make a one-time decision of selecting either: (i) PLC/County ARC, or (ii) individual ARC program. Selecting between the two programs depends on the type of risk the grower is trying to minimize. The PLC has the greatest benefits if it is more likely that market price for a covered commodity will fall below the reference price, and the ARC has the greatest benefits if it is more likely that some combination of future revenues (yields and prices) will drop below historic levels by more than 14 percent (Kelleher 2014).

Under the PLC program, indemnities are paid when the price of a crop drops below the established reference price for that commodity. The indemnity is equal to 85 percent of the base acres covered times the reference price (or effective price difference) times the program payment yield (USDA RMA 2014). Under the county ARC program, indemnities are issued when the county crop revenue of a covered crop is less than the ARC revenue guarantee. The indemnity is equal to 85 percent of the base acres times the difference between the county guarantee and the actual crop revenue (USDA FSA 2014f; USDA RMA 2014). Under the individual ARC program, indemnities are issued when individual crop revenues, across all covered crops, fall below the ARC individual guarantee for those crops. The indemnity is equal to 65 percent of the total base acres covered multiplied by the difference between the individual revenue guarantee and the actual individual revenue.

5.2 Methodology

This section describes the methodology used to quantify the impacts of increased production risk for Yolo Bypass rice and tomato growers. This analysis examines available crop insurance options and commonly used coverage levels by growers in Yolo County and the Yolo Bypass, and assesses the fiscal impact of increased risks to farming in the Yolo Bypass. Since the project alternatives have not been specified it is not possible to quantify the increased "level" of risk. As such, the analysis is based on a "significant" increase in the level of risk from farming in the Yolo Bypass. This means that the probability of late season flooding events increases in all years.

Data for the analysis come from a review of published studies, industry reports, and from interviews with local farmers, private insurers, and RMA representatives. The analysis examines general crop insurance policies and rate determination and then focuses on crop insurance use in the Yolo Bypass. The analysis then quantifies the additional costs growers may incur as well as the point at which insurance companies may stop offering crop insurance due to greater crop production risk.

5.3 Yolo County Crop Insurance

This section of the analysis focuses on crop insurance options for rice and tomato growers in Yolo County and the Yolo Bypass, including how risk differs among production regions within the Yolo Bypass and how increased production risk translates to changes in the premiums paid by growers. Data was collected primarily through conversations with USDA RMA representatives in the California Regional Office and from RMA insurance data.

RMA representatives communicated that indemnity payments are only issued when a natural disaster occurs such as drought, flooding, or earthquake. It is important to clarify that the increased flooding frequency and duration must result from a naturally occurring event, rather than a controlled event, in order for Yolo Bypass growers to receive indemnity payouts. The representatives also stated that Yolo County growers have historically received higher indemnity payouts in comparison to other local counties because of the prevented planting indemnities paid to Yolo Bypass growers (Sanchez 2014; Otto 2014).

The most popular insurance policies used in the Yolo Bypass are yield and revenue protection (USDA RMA 2014; Sanchez 2014; Otto 2014). Yield protection insures against yield variability whereas revenue protection insures against price and yield variability. Crop insurance premiums are based on coverage level and production risk. Higher risk production areas naturally command higher grower premiums for the same level of coverage. Risk ratings are developed by RMA and are based on natural disaster occurrences over a pre-determined historical time frame. The assessment uses a combination of quantitative and qualitative data in determining risk. Risk maps are defined on a county-level basis for all major crops produced. Within a county, each production region has a risk classification used to determine grower premium cost. The RMA defines risk in three categories in Yolo County (USDA RMA 2014):

- 001: This classification has the lowest level of production risk,
- AAA: This classification has moderate production risk and is closer to natural disaster areas,
- BBB: This classification has high production risk and usually occurs in areas with marginal agricultural production.

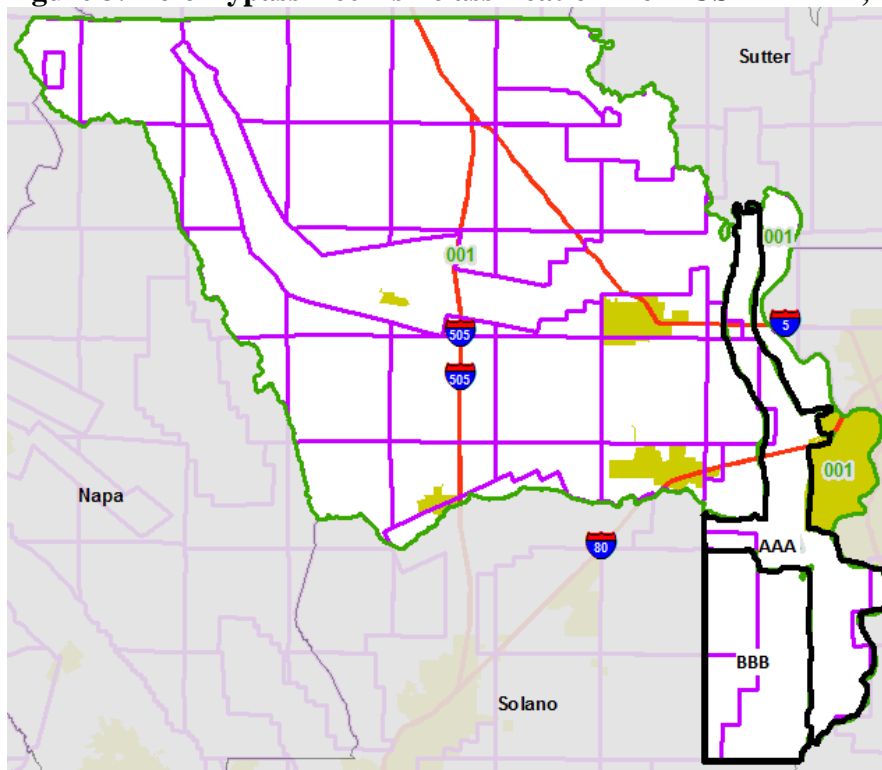
5.3.1 Rice Insurance

Figure 3 illustrates Yolo County RMA risk classification for rice production as of 2014 (USDA RMA 2014a). For the production regions outside of the Yolo Bypass, production risk is defined as 001, which is the lowest risk classification level. The Yolo Bypass, encircled in black, reflects higher risk production with AAA and BBB ratings. The northern half of the bypass is classified as AAA because it is better suited for rice production. According to RMA representatives the occasional flooding is not sufficient enough to be considered incompatible

with growing rice. The southern region is classified as BBB, because of poor rice production conditions, caused by frequent Sacramento-San Joaquin Delta winds and cooler temperatures. AAA premium rates are 1.167 times the 001 rate, and BBB premium rates are 2 times the 001 rate.

Indemnity payments are paid to growers when actual yield falls below a defined reference yield. If a grower does not have historical yield data, the grower can use county data provided by the RMA. In 2014, for 001 and AAA risk classifications the reference yield is 79.35 cwt per acre and for BBB classifications the reference yield is 20 cwt per acre. Using these reference yields, a grower with 75 percent coverage is paid when yields drop below 15 cwt per acre in BBB areas and 59.51 cwt per acre in 001 and AAA areas.

Figure 3. Yolo Bypass rice risk classification from USDA RMA, 2014



Source: USDA RMA, 2014a

Grower premium costs are based on the level of coverage selected and the risk classification. Rice insurance plans offered in Yolo County include yield protection, revenue protection, and revenue protection with harvest price exclusion (USDA FCIC 2010; USDA RMA 2014; NCIS 2014). According to the USDA RMA, rice coverage rates range between 50 to 85 percent (Sanchez 2014; Otto 2014). Based on grower feedback, the most commonly used rice insurance program and coverage used in the Yolo Bypass is yield protection with 75 percent coverage (Espino 2014).

Table 24 summarizes 2014 yield crop insurance rates in Yolo County. The estimates are based on a 100-acre irrigated medium grain rice field with 75 percent yield coverage and 100 percent price coverage. The bottom rows of Table 24 show the important information. The cost of rice insurance is \$25.06 to \$50.12 per acre for the same level of coverage, depending on the risk classification. A rice field outside of the bypass (001 rating) would pay \$25.06 per acre and that same field in the bypass (AAA rating) would pay \$29.24, an increase of \$4.18 per acre (USDA RMA 2014a).

Table 24. Yolo County rice premium rates, 2014 (2012 dollars per acre)

	001 Rating	AAA Rating	BBB Rating
Coverage:	850.03	850.03	850.03
Production Guarantee Amount:	1,133.38	1,133.38	1,133.38
Total Premium Amount (Including admin):	67.09	78.30	134.19
Premium Risk Subsidy:	30.27	35.32	60.54
Administrative and Operating Subsidy:	12.06	14.07	24.11
Producer Premium (No Administrative Fee Included):	24.77	28.90	49.54
Administrative Fee:	0.29	0.29	0.29
Producer Premium (Administrative Fee Included):	25.06	29.24	50.12
Producer Premium Cost Difference per acre	-	4.18	20.87

Source: USDA RMA 2014a

The USDA RMA representatives interviewed anticipate that even with increased flooding frequency and duration, in all years, in the Yolo Bypass risk ratings would not change from AAA to BBB; however, the premium multiplier may increase. The current AAA premium multiplier rate is estimated to increase by 25 to 35 basis points, where a basis point is equal to 0.01 percentage points, depending on how frequently growers receive payouts caused by increased flooding frequency and duration (USDA RMA 2014a; Sanchez 2014; Otto 2014).

Table 25 uses the basic AAA rating risk classification from Table 24 to show the incremental cost of increased production risk in the bypass. The premium multiplier is increased from 1.167 to 1.667, which conservatively increases the multiplier by 50 basis points, 15 basis points over the USDA RMA estimated increase of 35 basis points. Using these multiplier increases, the per-acre premium cost increases from \$4.18 per acre to \$12.53 per acre. These increases are selected to demonstrate the effects of a more extreme impact than is anticipated by USDA RMA experts, thus establishing a conservative upper bound.

Table 25. Rice insurance premium rates with increased production risk (2012 dollars per acre)

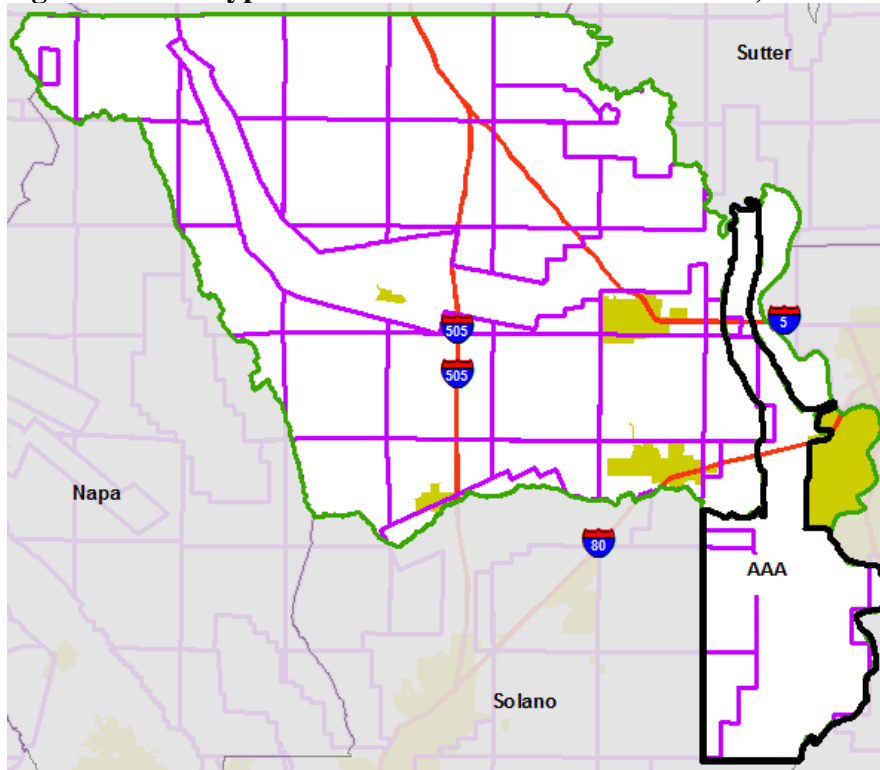
	AAA	0.25 Increase	0.35 Increase	0.50 Increase
Coverage:	850.03	850.03	850.03	850.03
Production Guarantee Amount:	1,133.38	1,133.38	1,133.38	1,133.38
Total Premium Amount (Including admin):	78.30	95.07	101.78	111.84
Premium Risk Subsidy:	35.32	42.89	45.92	50.46
Administrative and Operating Subsidy:	14.07	17.08	18.29	20.10
Producer Premium (No Administrative Fee Incl.):	28.90	35.10	37.57	41.29
Administrative Fee:	0.29	0.41	0.44	0.48
Producer Premium (Administrative Fee Incl.):	29.24	35.51	38.01	41.77
Producer Premium Cost Difference	-	6.26	8.77	12.53

Source: USDA RMA 2014a

Since the federal government subsidizes 55 percent of premium cost, the cost of the increase in premium rates is split with the grower. By increasing the premium rate multiplier from 1.167 to 1.667, the grower's cost increases by \$12.53 per acre. The 2014 Farm Bill introduced the ARC and PLC plans which are available to Yolo Bypass rice growers (USDA FSA 2014f). According to RMA representatives, bypass growers generally do not use these policies (Sanchez 2014; Otto, 2014).

5.3.2 Processing Tomato Insurance

Processing tomato production in Yolo County is classified as risk rating AAA (USDA RMA, 2014a). USDA RMA representatives confirmed that prevented planting coverage insurance is not offered for tomatoes anywhere in Yolo County (Sanchez 2014; Otto 2014). For tomato production, seed and transplant material represents nearly 20 percent of production costs in a season, thus prevented planting coverage is too expensive for insurance companies to offer. Growers typically avoid planting in areas that jeopardize young plants because they cannot secure prevented planting coverage (UCCE 2008; Espino 2014).

Figure 4. Yolo Bypass Risk Classification for Tomatoes, 2014

Source: USDA RMA 2014a

In Yolo County, the Actual Production History (APH) plan is the only crop insurance plan offered to tomato growers and it does not cover prevented planting (USDA RMA 2014a; Sanchez 2014; Otto 2014). The APH plan offers coverage rates between 50 and 75 percent of historical yields. The standard coverage plan used by Yolo Bypass growers is 65 percent coverage.

For Yolo County tomato production the USDA RMA applies a multiplier to the base rates to account for additional production risk. The total premium liability amount is multiplied by the premium rate to determine the premium cost. Areas with AAA risk classification carry a premium rate that is 0.002 points higher than a 001 risk classification (USDA RMA, 2014a). Table 26 shows the difference between 001 and AAA premium costs for tomato growers in Yolo County. The estimates are based on 100 acres of irrigated tomatoes in Yolo County. The price premium cost to the grower increases by \$88.11 for 100 acres, or \$0.88 per acre, between the 001 and AAA risk classifications. USDA RMA representatives noted that the AAA classification and small additive value are intended to reflect a slightly higher risk for tomato production in Yolo County (Sanchez, 2014; Otto, 2014).

Table 26. Yolo County tomato premium rates, 2014 (Premium per 100 acres, in 2012 dollars)

	001 Rating	AAA Rating
Liability Amount:	\$107,346.87	\$107,346.87
Total Guarantee Amount (Tons):	\$2,030.19	\$2,030.19
Total Premium Amount (Including A&O):	\$3,009.84	\$3,224.41
Subsidy (Including A&O):	\$1,997.64	\$2,443.14
Producer Premium (No Admin Administrative Included):	\$1,012.20	\$1,100.31
Administrative Fee:	\$29.00	\$29.00
Producer Premium (Administrative Fee Included):	\$1,041.20	\$1,129.31
Producer Premium Cost Difference	-	88.11

Source: USDA RMA 2014a

The increased production risk for tomatoes increases the multiplier. This analysis applies the same approach used to calculate rice premium rate increases to determine tomato premium increases. Table 27 summarizes the results based on an AAA risk classification and a base premium cost of \$1,041 per 100 acres from Table 26.

Table 27. Tomato premium rates with increased production risk (Premium per 100 acres in 2012 dollars)

	AAA	0.003 Increase	0.004 Increase	0.006 Increase
Liability Amount:	\$107,347	\$107,347	\$107,347	\$107,347
Total Guarantee Amount (Tons):	\$2,030	2,030	2,030	2,030
Total Premium Amount (Including A&O):	\$3,010	\$3,668	\$3,801	\$4,000
Subsidy (Including A&O):	\$1,998	\$2,723	\$2,802	\$2,919
Producer Premium (No Admin Administrative Incl.):	\$1,012	\$1,232.08	\$1,284.79	\$1,363.85
Administrative Fee:	\$29	\$30	\$30	\$30
Producer Premium (Administrative Fee Incl.):	\$1,041	\$1,262	\$1,315	\$1,394
Producer Premium Cost Difference	-	\$94	\$147	\$226

5.4 Insurance Premiums and Net Farm Income

Given current conditions and assumptions about policy coverage, rice premium costs increase by \$6.48 to \$12.96 per acre and tomato premium costs increase by an average of \$1.36 to \$2.73 per acre. Table 28 examines variable operating costs and revenues for rice and tomatoes in the Sacramento Valley, based on UCCE Cost and Return Studies (UCCE 2008; UCCE 2012; UCCE various years). Yolo Bypass farmer costs of production are likely to differ from the UCCE budgets, but they provide a useful reference point to illustrate how insurance premiums affect farm profitability.

Table 28 shows that the increased insurance premium costs reduce net returns to land and management by 3.0 percent in rice and 0.6 percent in tomato production. Revenues are still sufficient to cover variable production costs and growers would likely remain in business.

Table 28. Rice and tomato production costs and returns with increased insurance premiums (in 2012 dollars)

<i>Average Price and Yields</i>				
Rice Cost and Returns per Acre	AAA	0.25 Increase	0.35 Increase	0.50 Increase
Gross Returns	1,598	1,598	1,598	1,598
Operating Costs	-1,148	-1,148	-1,148	-1,148
Crop Insurance Premium	-31	-38	-41	-45
Net Returns Above Operating Costs	419	412	410	406
Tomato Cost and Returns per Acre	AAA	0.003 Increase	0.004 Increase	0.006 Increase
Gross Returns	2,839	2,839	2,839	2,839
Operating Costs	-2,337	-2,337	-2,337	-2,337
Crop Insurance Premium	-13	-14	-15	-16
Net Returns Above Operating Costs	489	487	487	486
<i>Low Price and Yields</i>				
Rice Cost and Returns per Acre	AAA	0.003 Increase	0.004 Increase	0.006 Increase
Gross Returns	1,085	1,085	1,085	1,085
Operating Costs	-1,111	-1,111	-1,111	-1,111
Crop Insurance Premium	-30	-37	-39	-43
Net Returns Above Operating Costs	-56	-63	-65	-69
Tomato Cost and Returns per Acre (Low Price and Yield)	AAA	0.003 Increase	0.004 Increase	0.006 Increase
Gross Returns	2,123	2,124	2,124	2,124
Operating Costs	-2,134	-2,134	-2,134	-2,134
Crop Insurance Premium	-12	-13	-14	-14
Net Returns Above Operating Costs	-22	-23	-24	-25

Source: UCCE 2008, 2012

5.5 Crop Insurance Summary

By increasing production risk in the Yolo Bypass in all years, premium rates will increase by \$6.48 to \$12.96 per acre for rice growers and by \$1.36 to \$2.73 per acre for tomato growers. Under all scenarios, increases in crop insurance costs result in a small (less than 3 percent) decrease in net returns. Private insurance companies would continue to provide crop insurance as required by the USDA RMA, with additional costs subsidized by federal programs.

Increased flooding frequency and duration in the Yolo Bypass would lead to riskier production conditions and greater likelihood of payouts. Crop insurance companies are required to provide insurance policies that follow USDA RMA guidelines. Even with increased production risk in the bypass it is mandatory for crop insurance companies to continue offering coverage, but premiums may increase.

In summary, the tipping point analysis of the cost and availability of crop insurance policies for Yolo Bypass processing tomato and rice growers was completed before the final EIR/S Project alternatives were specified. As such, the insurance tipping point analysis considered a hypothetical “high risk” scenario where there would be an increasing in wetted acreage in the Yolo Bypass in all (or most) years. The Project alternatives have been defined subsequent to the initial analysis and it is clear that the Project causes a marginal incremental increase in wetted acreage in some—but not all—years. As of the publication date of the draft EIR/S there is uncertainty over the incremental effect of the Project on rice and processing tomato crop insurance cost, and availability.

Crop insurance, like all insurance, is a way for the purchaser to offset a portion of risk in exchange for a premium payment to the insurer. Growers purchase insurance from an insurer to cover a portion of losses that could occur under adverse events, thereby transferring some risk to the insurer in exchange for an insurance premium payment. Any increase in risk generally translates to higher premiums. The increase in insurance premiums that could occur under Project alternatives is still uncertain. The initial tipping point analysis hypothesized a clear increase in farming risk in all years. Subsequent hydrodynamic modeling of the Project alternatives now shows that the Project may cause small incremental changes in inundation under specific year types. Since the incremental change in inundated acreage is small, the corresponding effect on Yolo Bypass farming risk is also small—much less than the catastrophic scenario considered in the tipping point studies—and it is likely that the effect of any increase in farming risk caused by the Project on crop insurance premiums will be less than what was estimated in the initial tipping point study.

Indemnity payments for crop insurance policies are only issued when the crop loss is the result of an insurable event. USDA RMA representatives have stated that insurable events for prevented planting coverage (a common policy for Yolo Bypass rice growers) would include natural events but might not include “man made” events. It is not clear at this time if the incremental increase in wetted acreage caused by the operation of the Fremont Weir gates under the proposed Project alternatives would constitute “man made” or “natural” flooding. As such, it is possible that insurers would no longer offer prevented planting coverage to Yolo Bypass rice growers. However, it is important to note this is not a new issue for California crop insurance. The operation of the Central Valley Project and State Water Project is constantly evolving due to “man made” changes in

operations, where many districts historically received full water supply but now expect must less than that in many years. These operational changes in the state and federal water supply system could be viewed as uninsurable (“man made”) events, but rice growers in these regions still have access to prevented planting coverage. Since crop insurance is federally mandated, and insurers are in the business of selling insurance to growers, there are incentives to continue to offer crop insurance policies so long as it is profitable for both insurers and growers. It is important to establish whether the proposed Project alternatives result in additional wetted acreage due to “man made” events, and if so, whether insurers will continue to offer insurance plans to Yolo Bypass growers. However, a final resolution might not be reached until the USDA, insurers, and the growers are actually facing this situation and have to grapple with the various implications and incentives.

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6 Rice and Processing Tomato Bank Loan Rate Analysis

Operating loans are an important financial tool that many growers use to smooth seasonal cash flow (Blank 2012). Most crops require a significant capital outlay at planting and payment for management costs through the season, but do not receive payment until sometime after harvest. Short-term seasonal loans can be used to smooth this financial cycle. Short-term financing is usually acquired through budgeted loans or revolving lines of credit with maturities of one to four years. Current lending rates on these loans are on the order of 5.5 percent (Elliessy 2014). Other medium and long-term loans are discussed, but the analysis is primarily concerned with short-term lending as this would be most likely to be affected by an increase in bypass farming risk.

6.1 Bank Loan Rate Introduction

Growers use agricultural loans to purchase land, make improvements, and cover production expenses. Short-term loans are used primarily for operating finance and are the most frequently occurring agricultural loans. Short-term financing is usually acquired through budgeted loans or revolving lines of credit with maturities of one to four years, and are typically structured to be paid back from post-harvest revenues. Intermediate loans usually have loan maturities of up to 10 years and are often used for development of permanent plantings, production and processing equipment purchases, building repairs or improvements, construction, debt refinancing, and timber or land purchases. Long term agricultural loans may have fixed or variable interest rates and are generally used for real estate purchase and improvement, vineyard and orchard development, packing and storage facilities, water development and irrigation projects, and debt refinancing (Elliessy 2014).

Production loans are an important component of many banks' loan portfolios because they diversify risk. Agricultural production is much less responsive to changes in the financial industry, in contrast to the residential and commercial real estate industries. However, agricultural production is subject to commodity price changes and weather conditions that other markets are not subject to. Most traditional banks have less than 30 percent of their portfolios in agricultural products, while banks that specialize in agricultural lending may hold up to 100 percent of their portfolios in agricultural loans (Elliessy 2014; AAC 2016).

6.2 Methodology

This analysis examines production loan underwriting and how lending practices may change with increased production risk due to increased flooding frequency and duration in the Yolo Bypass. The analysis focuses on short-term production loans as they are most responsive to changes in crop production. General loan requirements, loan criteria, and loan processes are examined to identify the factors that influence lenders in lending and growers in borrowing. The analysis then measures the effect of increased production risk in the Yolo Bypass, using data from a representative at a large lending institution in Yolo County, as well as a representative from the United States Department of Agriculture and the Farm Bureau. Conversations with lenders gave a local account of agricultural lending and likely reactions to an increase in flooding frequency and duration in the Yolo Bypass. Finally, a literature review examines how bank loan rates change with increased production risk.

The analysis uses UCCE Cost and Return Budgets for crops grown in the Sacramento Valley and Yolo Bypass to determine production costs and revenues (UCCE 2008; UCCE 2012), GIS data to estimate bypass production acreage (Yolo County GIS, various years), and USDA NASS data to examine Yolo County prices and yields (USDA NASS various years). The analysis uses the UCCE budgets as a baseline and then adds increased production loan rates to quantify the cost of additional production risk and the overall impact on farm profitability. The UCCE budgets take into consideration interest paid on production loans, defined as “interest on operating capital.” For this analysis, production interest rates are estimated to equal 5.75 percent, based on the recommendation of an agricultural lending agency (Monaco 2014).

6.3 Loan Criteria and Process

Loan amounts and access to credit are determined based on standard lending criteria and personal relationships. Generally, loan underwriting standards that are used for commercial loans are also applied to agricultural loans. Lenders examine several components of a farm operation to consider the following in developing a loan:

- **Financial and Other Credit Information.** In agricultural production, financial and credit information is the first and most important information to determine if a loan will be granted. The process uses annual financial information including balance sheets, income statements, cash flow projections, loan officer file comments, collateral inspections, verifications, and valuations (FDIC 2014). Considerations in underwriting a loan include profitability, financial leverage, degree of asset liquidity, managerial and financial expertise, amount and type of credit, financial

- strength and history of the borrower, loan type, and the economic, climatic or other external conditions that may affect repayment (FDIC 2014).
- **Collateral Support.** Collateral is often used as security by the lender in intermediate and long-term agricultural loans. Generally, collateral security is an all-inclusive lien of farm personal property including crops, machinery and equipment, livestock, and harvested grain (FDIC 2014). A real estate lien is commonly used for land purchase or in instances where a lender desires additional security.
 - **Cash Flow Analysis.** Cash flow, as opposed to collateral coverage, is the primary repayment method for intermediate and short-term agricultural loans (FDIC 2014). This component considers current conditions, as well as historical performance of the farming operation. For short term loans, cash flow analysis helps the lender determine how much risk exposure is safe, based on historical cash flow data for repayment.
 - **Structuring.** A short maturity loan can lead to loan default or impose a burden on the farming operation's cash flow capacity (FDIC 2014). Timely liquidation of agricultural debt based on a repayment schedule and borrower's understanding of repayment obligations helps prevent collection problems from occurring (FDIC 2014). Conversely, a loan maturity that is too long can leave the bank vulnerable to changes in the borrower's financial circumstances.

In practice, each lending institution has a different method to assess risk and loan viability, using a combination of financial ratios, historical information, and qualitative factors.

6.4 Yolo County Agricultural Loans

This section examines production loan availability to growers in Yolo County and determinants used in setting loan rates. Information from FSA and a private industry representative are used as the basic framework to examine how changes in risk affect loan availability in Yolo County and the Yolo Bypass (USDA FSA 2014a – 2014e; Monaco 2014; Elliessy 2014). The representatives were asked how increased production risks in the Yolo Bypass changes a grower's ability to acquire a production loan.

The FSA representative works as a Farm Loan Manager and has extensive knowledge of Sacramento Valley agricultural production. The FSA representative indicated that nearly all production loans are based on yield averages over the previous three years. If flooding occurs and decreases yields in a particular year, interest rates will increase to reflect the additional risk of production in an area. Knowledge of future events, such as increased frequency and duration of flooding, also increases interest rates as banks factor in the probability that a grower may not be able to plant or harvest a crop in time to determine payback expectations.

The FSA representative estimated that a 2 to 3 percentage point interest rate increase covers the additional risk exposure of the lender under the scenarios of increased flood frequency and duration in the Yolo Bypass in all years. The increased interest rate estimate is reasonable given a 2013 study that examined commercial bank risk rating usage between 1997 and 2002. On average, a loan with the least risky rating carried an interest rate 1.3 percentage points lower than a loan with the highest risk rating (Walraven 2003).

According to the FSA representative, although production loans are based primarily on a three year production history, qualitative considerations are also used in loan underwriting. Qualitative factors include how long a grower has produced in a particular area, what other crops the grower has in her or his portfolio, and the grower's track record in repaying loans. Some lenders may not increase production loan rates with increased flooding in the Yolo Bypass because these qualitative factors are deemed sufficient to mitigate the additional risk. This is likely in an area such as the Yolo Bypass where there are a few well-established growers.

The second contact works as a Branch Manager in Woodland for a lending institution that has been servicing California agriculture since 1917. The institution has 11 regional offices in California, located in Southern California, the Central Coast, the San Joaquin Valley, and the Sacramento Valley. The representative has worked with the institution for over 20 years. The representative indicated that the largest threat to a grower is the ability to acquire a loan. Interest rates for production loans may not change substantially, but increased production risk may change the likelihood of a bank loan to growers, particularly for new borrowers. The representative discussed Yolo Bypass flooding that occurred in the 1990s, and how lending practices did not change because of the floods. Despite this past lack of response, the frequency of flooding may alter lending practices in the future.

An important consideration in lending to a Yolo Bypass grower is the grower's crop and acreage portfolio. If a grower's acreage is largely located in the bypass, that is, 25 percent or more, the ability to acquire a production loan becomes extremely limited. However, if less than 10 percent of total acreage is located in the bypass, then bank risk decreases for an individual grower and the grower has a greater likelihood of acquiring a production loan.

Yolo Bypass portfolio diversification data are based on interviews with Yolo Bypass rice growers. Based on interviews with growers and loan officers, many growers have acreage outside the Yolo Bypass. However, for some bypass growers, a large share of production, ranging between 30 and 100 percent, is located inside the bypass. The acreage share varies depending on the water year. In dry years, growers tend to have a larger production share within the bypass because of senior water rights, and the opposite is true in wet years.

There are a few growers that make up the majority of rice production within the Yolo Bypass. All growers reported producing a diverse mix of crops with some land in the bypass and some land outside of the bypass. Despite the concentration of acreage in the Yolo Bypass, according to information from the private industry lender and growers most growers diversify their farming operations through income-generating activities outside the bypass. Growers may have production risk with increased flooding risk, but most are financially diversified and are not expected to have difficulty acquiring a production loan.

6.5 Production Loan Rate Changes

To quantify the additional financing costs incurred by growers due to increased flooding risk, 1.3 and 3 percentage point increases in the interest on operating capital are evaluated. The analysis uses 2009 USDA NASS prices and yields for Yolo County production to reflect local production conditions.

The UCCE Cost and Return budgets are used to estimate grower profitability based on information provided by farmers, farm advisors, and industry experts (UCCE 2008; UCCE 2012; Monaco 2014; Elliessy 2014). These estimates are used as a baseline in determining profitability changes due to increased interest rates. The analysis assumes that all crops have the same production loan rates and are equally impacted by increased production risk from increased flooding frequency and duration. The analysis uses these budgets to determine interest costs incurred during the production season. The budgets account for interest on operating capital based on cash operating costs and are calculated monthly until harvest. The nominal interest rate provided by a representative farm lending agency for a production loan is 5.75 percent (Monaco 2014), which is confirmed with the UCCE budgets (UCCE various years).

Increased loan costs incurred by growers are estimated by calculating the difference between the baseline loan rate and the increased loan rates. Table 29 summarizes the annual per acre losses from higher interest rates. Tomato growers incur the largest losses, at \$12 per acre with a 1.3 percentage point increase and \$29 per acre with a 3 percentage point increase. All values are presented in 2012 dollars for equal comparison.

Table 29. Per Acre Interest Rate Effects

	2009 Acres	1.3% Increase	3% Increase
		<i>Lost Revenues, 2012 dollars per acre</i>	<i>Lost Revenues, 2012 dollars per acre</i>
Processing Tomatoes	3,661	-12	-29
Rice	7,448	-5	-11

Source: UCCE various Cost and Return Studies, Yolo County GIS, 2012

Increased interest rate costs are evaluated to determine if they are sufficient to force a grower to stop producing in the Yolo Bypass. This happens if the operating costs of production exceed expected revenues. The UCCE Cost and Return studies summarize a grower's net return above operating costs, which is used as the baseline profitability value.

Table 30 summarizes how interest rate changes impact grower profitability. In all instances, cash net returns above operating costs remain positive. Net returns above operating costs vary year-to-year with market conditions, climate, and across different farms. However, this variation is independent from an increase in loan rates due to an increase in farming risk.

Table 30. Grower Net Returns per Acre with Increased Interest Rates (Net Revenues in 2012 dollars)

	Net Returns Above Operating Costs 5.75% base interest	with 1.3% Increase	with 3% Increase
Processing Tomatoes	409	397	380
Rice	416	411	405

Source: Calculations based on UCCE Various Cost and Return Studies

6.6 Marketing Assistance Loans and Loan Deficiency Payments

This section examines marketing assistance loans and loan deficiency payments (LDP) provided by the federal government. The USDA offers loans called Marketing Assistance Loans (MAL) to growers who produce certain crops⁶ to help smooth supply and store production until market conditions are more favorable than at harvest time (FSA 2014a). When the price of a crop falls below the MAL the federal government pays a LDP. MALs help smooth supply and serve as a price floor for growers through the LDP.

The 2014 Farm Bill authorizes the USDA Commodity Credit Corporation (CCC) to issue nonrecourse MALs to agricultural producers who grow certain crops including medium grain rice. MALs provide interim financing at harvest to alleviate cash flow issues without having to sell the harvested product when market prices are usually at their lowest (USDA FSA 2014b). These loans are nonrecourse in nature because the harvested crop is pledged as collateral and growers have the option of delivering the collateral as loan repayment upon maturity. A settlement value is determined and applied to the outstanding loan principal and interest (USDA FSA 2014b). By law, the CCC charges one percentage point above the cost of borrowing from the United States Treasury at

⁶ Crops include: wheat, corn, grain sorghum, barley, oats, upland cotton, extra-long staple cotton, long grain rice, medium grain rice, soybeans, other oil seeds, dry peas, lentils, small chickpeas, large chickpeas, graded and non-graded wool, mohair, unshorn pelts, honey and peanuts.

the time the loan is made (USDA FSA 2014a). The loan rate for medium grain rice is \$6.50 per cwt for 2014 – 2018.

LDPs are used to support growers when loan amounts are above the price received for certain crops, including medium grain rice. This helps to ensure that growers do not take a loss if market conditions weaken. Loan deficiency payments are based on Posted County Price (PCP), which is an estimate of the crop's local price, developed by the CCC. The loan deficiency payments are generally available when the posted county price is below the loan rate. Growers are paid the difference between the posted price and loan rate (Borton and Betz 2006). Additional support is available when the posted county price is below than the loan rate. When this happens only a portion of the principal and no interest has to be paid. The share of principal that is waived when the posted price is less than the loan rate is called the marketing loan gain.

Since marketing assistance loans and loan deficiency payments are used to help protect against market price fluctuations, the loans and payments are not used during the production timeframe. The CCC only issues the marketing loan against a physical crop after a crop is harvested, eliminating any production risk. As a result, increased flooding frequency and duration in the Yolo Bypass does not impact a grower's ability to acquire federal marketing assistance loans.

6.7 Bank Loan Rate Summary of Findings

This study has provided an independent and quantitative assessment of potentially increased loan rates, caused by increased flooding frequency and duration in the Yolo Bypass. Increased production risk is estimated to increase production loan rates by 1.3 to 3 percentage points above current rates. Using these estimates, total operating costs across the major crops grown in the Yolo Bypass increase by \$1 to \$29 per acre after accounting for changes in production loan rates. Even with the increased loan rates, growers would still achieve a positive net return above operating costs for all crops reviewed.

Data from local lenders and growers indicate that many Yolo Bypass growers have acreage both inside and outside the bypass and, on average, bypass growers have a majority of their acreage within the bypass. Even with higher concentration of acres within the Yolo Bypass, most growers diversify production risk by having other businesses outside of the bypass. The private lender indicated that rather than increasing interest rates, it is more likely that banks will discontinue lending to Yolo Bypass growers if risk is too high. Overall, with increased flooding frequency and duration, the ability of bypass growers to acquire a production loan would not be significantly jeopardized.

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