
From: Tom Stokely [tgstoked@gmail.com]
Sent: 3/4/2020 4:32:19 PM
To: Alicia Forsythe [aforsythe@sitesproject.org]
Subject: Re: Are you now preparing a supplemental/recirculated DEIS/EIR?

Thanks for the update. May sounds good.

I look forward to a potential decision to recirculate!

Yes, we've been having a great time skiing 5X week at the Mt Shasta Ski park, but it's pretty thin and wet now. It can't hold up much longer but a little snow is supposed to fall this weekend, we hope!

My surgery is scheduled for 3/25 although I might wait a little to try CBD to shrink the tumor. Unsure I want to take that chance, but then coronavirus is coming and I sure don't want that near surgery!

Please keep me posted. Thanks for all of your honesty.

Best,

Tom

On Wed, Mar 4, 2020 at 4:14 PM Alicia Forsythe <aforsythe@sitesproject.org> wrote:

I was thinking about you while driving into the office today and how I needed to circle back with you.

We did tee up the question for our participants at our February Reservoir Committee and Board meetings. We continue to look at right sizing the project for the current participants. The Board voted to recirculate if the revised Preferred Alternative requires it. So I don't think we have a final decision to recirculate right now, but the Board acknowledged that recirculation is a possibility.

We are finishing up a draft Value Planning report that we anticipate taking to the Board in the March meeting, with a final Value Planning report at the April meeting. Assuming the Board approves the final Value Planning report at their April meeting, I would expect them to also give us final direction on whether to recirculate the Draft EIR/EIS at that meeting.

So I don't think we have a "final" decision to recirculate the EIR/EIS, but I would expect one at the April Board meeting.

With all of this, I was thinking that it would be best for us to hold off on meeting until May. At that time, we should have the Value Planning report completed, a new Preferred Alternative identified, know if we are recirculating the EIR/EIS and have a sense of how we are going to approach the EIR/EIS. In essence, I will have a much better sense of where Sites is going and I can give more certain information in the May timeframe.

So no final decision on recirculation yet, but the wheels of dialogue and analysis are turning.

I hope you are doing well! I know you're having a great time before being out for a bit. The weather has just been so fabulous, but a bummer that it hasn't rained more. Its going to be a challenging year if we don't see some rain soon.

Ali

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Reservoir Project | 916.880.0676 | aforsythe@sitesproject.org | www.SitesProject.org

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From: Tom Stokely <tgstoked@gmail.com>
Sent: Wednesday, March 4, 2020 1:40 PM
To: Alicia Forsythe <aforsythe@sitesproject.org>
Subject: Are you now preparing a supplemental/recirculated DEIS/EIR?

Ali,

I heard through your website that you are preparing a supplemental DEIS/EIR? Is this true? Please let me know ASAP so I can stop complaining so much about the project?

If so, congrats on convincing the powers-that-be that this is a good thing for the project!

Best,

Tom

From: Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]
Sent: 3/5/2020 8:48:12 AM
To: Briard, Monique [Monique.Briard@icf.com]
CC: Spranza, John [John.Spranza@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]
Subject: Sites: Value Planning Appendix H
Attachments: Appendix H- Value Planning Mitigation Costs-02272020.pdf; 3.2.2020 Value Planning Group Presentation.pptx

Hey Monique

With the recent developments that came out of the value planning session earlier this week, we'd like ICF to update the attached memo to reflect the additional alternatives VP1 through VP7. In speaking to Ali, we both feel that it shouldn't be a large effort, maybe a few hours. Can Harry revise the memo by COB Monday?

I've attached the PowerPoint from Monday's meeting that will help with the layout as well as a measles chart that Jeff Herrin prepared for the overall value planning report. The PowerPoint provides an overview of VP1 through VP4. What came out of the session are recommendations VP5 through VP7

Table 4. Recommended Alternative and Alternates

Major Facilities	VP5 Alternate 1	VP6 Alternate 1A	VP7 Recommended
Reservoir Size	1.3 MAF	1.3 MAF	1.5 MAF
Bridge Size (avoids future traffic Interruption)	1.5 MAF	1.5 MAF	1.5 MAF
South Road to Local Residents	Included	Included	Included
Misc. Local and Project Roads	Included	Included	Included
Diversion Locations	Funks and TRR	Funks and TRR	Funks and TRR
Dunnigan Release	1,000 cfs to CBD	1,000 cfs to River	1,000 cfs to CBD
Estimated Cost (2019 dollars)	\$2,779,000,000 to \$2,814,000,000	\$2,905,000,000 to \$2,940,000,000	\$2,961,000,000 to \$2,996,000,000

In summary, we don't expect anything to change in the memo, but it needs to reflect VP1 through VP7.

I'm available to chat about the task today. I'm free after 1030. I'll be out of the office at noon, but available via cell phone. Should be back online around 3pm.

Thanks

Jelica Arsenijevic
Environmental Project Manager

HDR
 2379 Gateway Oaks Drive, Suite 200
 Sacramento, CA 95833
 D 916-679-8854
 M 209-329-6897

Jelica.Arsenijevic@hdrinc.com

hdrinc.com/follow-us

**AD-HOC
ENVIRONMENTAL PLANNING AND
PERMITTING WORKGROUP**

MARCH 2020



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Agenda

- Previous Action Item Review
- Value Planning Update
- Planning and Permitting Schedule Update
 - Risks and Assumptions
- Organizational Assessment
- Upcoming Work and Priorities
- Next Meeting
- New Action Item Review

Speaker: Ali

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PREVIOUS ACTION ITEM REVIEW



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Action Item Review

1. Provide Integration and EPP costs for Phase 1B support. Provide information on who from HDR is supporting Integration. Provide description/definition of Integration to Work Group.
2. Provide information on Program costs and accomplishments to date.
 - Note, this will be in the upcoming Annual Report being prepared by the Controls Team and thus, will not be tracked here.
3. Provide clarity on critical path schedule items with a focus on what is needed for the January 1, 2022 requirements (graphic is desired). Develop simplified chart of schedule for April package.

Speaker: Linda

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Action Item Review

- Integration / Program Management
 - Ensures work being performed by consultant team meets the agreed to performance requirements
 - May represent or otherwise stand in place for an Authority Agent but without the ability to bind the Authority
 - Provides all Program / staffing support to keep the Program going
 - Analogous to Program Management function

Speaker: Linda

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Action Item Review

- Integration budget for Amendment 1B (Jan 2020 thru Aug 2020) for Service Area E & F with staff resources identified

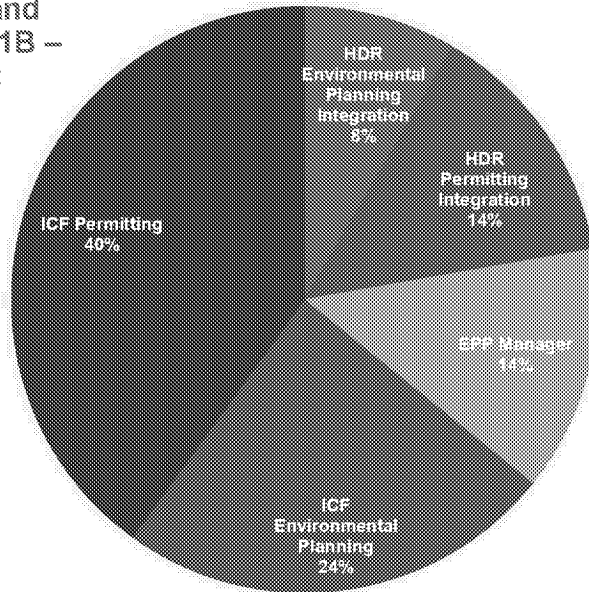
Task	Fee	Budgeted Staff
<i>Environmental Planning Integration</i>	\$149,357	Laurie Warner Herson Linda Fisher
<i>Permitting Integration</i>	\$243,884	John Spranza Jelica Arsenijevic Josh Peabody
Total	\$393,241	

Speaker: Linda

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Action Item Review

Budget by Consultant for Environmental Planning and Permitting – Amendment 1B – January 2020 thru August 2020



EPP + HDR = about 36% of budget

Total budget for E & F = \$1.77M

Environmental Planning and Permitting (EPP) Manager budget for Amendment 1B :

- \$30,000/month + expenses = about \$240,000 for 1/2020 to 8/2020

Speaker: Linda

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VALUE PLANNING UPDATE



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Value Planning Update - Process

- October 2019 - Began Value Planning Efforts
- Value Planning Work Group established:
 - Wheeler-Ridge Maricopa Water Storage District
 - RD 108
 - Carter Mutual
 - Colusa County
 - Davis Water District
 - TCCA
 - Colusa County Water District
 - GCID
 - MWD

- Met about 6 times since October 2019

Speaker: Ali/Laurie/Jelica

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Value Planning Update – Alternatives Considered During Value Planning

Features	Value Planning Alternatives															
	1	2	3	4a	4b	5a	5b	6a	6b	VP1	VP2	VP3	VP4	VP5	VP6	VP7
Cost (\$billions)	\$4.0	\$4.0	\$3.9	\$3.8	\$3.9	\$3.5	\$3.9	\$3.4	\$3.6	\$3.3	\$2.8	\$3.3	\$3.0	\$2.7	\$2.9	\$2.9
Savings from 1.8 MAF Alternative D (\$billions)	\$1.2	\$1.2	\$1.3	\$1.4	\$1.3	\$1.7	\$1.3	\$1.8	\$1.6	\$1.9	\$2.3	\$1.9	\$2.1	\$2.4	\$2.2	\$2.2
1.5 MAF Reservoir	*	*	*	*	*	*	*	*	*							*
1.3 MAF Reservoir										*	*	*	*	*	*	*
Funks/Sites PGP	*	*		*	*	*	*									
Funks PGP											*	*	*	*	*	*
TRR and TRR PGP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
TCRR with Pumping Plant and Pipeline									*	*	*					
Delevan Canal/Pipeline Release	*	*	*	*	*											
Delevan Pipeline												*				
Dunnigan Pipeline to CBD Release (750 cfs)						*		*		*	*					
Dunnigan Pipeline to CBD Release (1,000 cfs)														*		*
Dunnigan to River Release (750 cfs)							*		*							
Dunnigan Pipeline to River Release (1,000 cfs)													*		*	
Bridge (sized for 1.3 MAF)									*		*	*	*			
Bridge (sized for 1.5 MAF)	*			*	*	*	*	*	*	*	*	*	*	*	*	*
South Road to Lodoga		*														
South Road to Local Residents	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Rockfill Embankment Dam	*	*	*			*	*			*	*	*	*	*	*	*
Earthfill Dam				*				*	*	*	*	*	*	*	*	*
Hardfill Dam					*					*	*	*	*	*	*	*

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Speaker: Ali/Laurie/Jelica

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Value Planning Update - Enviro Appendix

- Value Planning Alternatives Appraisal Report
- Memo ID's key differences of the value planning alternatives when compared to Alternative D as described in the Draft EIR/EIS:
 - Species within the alternatives footprint that could potentially be impacted through construction and operation of the Project;
 - Key permits and approvals required to construct and operate the Project including any additional regulatory requirements beyond those identified in the Draft EIR/EIS;
 - Environmental planning considerations related to CEQA/NEPA analysis;
 - Qualitative change in mitigation cost; and
 - A relative weighting associated with environmentally related criteria (and associated metrics) compared to Alternative D in the Draft EIR/EIS.

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Speaker: Ali/Laurie/Jelica

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Value Planning Update – Relative Permittability of Each Alternative Compared to Alternative D

Permits	Alternatives																
	D (CRVEIS)	1	2	3	4a and 4b	5a	5b	6a	6b	VP1	VP2	VP3	VP4	VP5	VP6	VP7	
Federal																	
Clean Water Act (404)	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Section 408	1	2	2	2	2	3	2	3	2	3	3	3	1	1	3	1	3
Federal ESA (NMFS and USFWS)	1	2	2	2	2	3	2	3	2	3	3	2	2	3	2	3	
Section 106	1	2	2	2	2	3	2	3	2	3	3	2	2	3	2	3	
State																	
Clean Water Act (401) and Wetland Policy	1	2	2	2	2	2	1	2	1	2	2	2	2	2	1	2	
California ESA	1	2	2	2	2	3	2	3	2	3	3	2	2	3	2	3	
1602 Lake and/or Streambed Alteration Agreements	1	2	2	2	2	2	1	2	1	2	2	1	2	2	1	2	
Water Right(s)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
sum of points	8	15	15	15	15	19	13	19	13	19	19	15	15	19	15	19	
Average	1.00	1.88	1.88	1.88	1.88	2.36	1.63	2.36	1.63	2.36	2.36	1.68	1.68	2.36	1.68	2.36	

Notes:
Relative Permeability Scale: 0 = more difficult; 1 = approximately the same; 2 = slightly less difficult; 3 = moderately less difficult
higher number - relatively easier to obtain permit/approval from regulatory resource agency compared to Alternative D

	No Delevan diversion, slightly smaller inundation (smaller size), narrower Delevan easement to river, river outfall
	No Delevan diversion, slightly smaller inundation (smaller size), no easement to river, shorter conveyance off TCC, northern regulating reservoir facilities (6a)
	No Delevan diversion, slightly smaller inundation (smaller size), no Delevan easement to river, easement to river off TCC and river outfall, northern regulating reservoir facilities (6b)
	No Delevan diversion, slightly smaller inundation (smaller size), no Delevan easement to river, easement to river off TCC and river outfall, northern regulating reservoir facilities removed
	No Delevan diversion, slightly smaller inundation (smaller size), Delevan canal/pipeline easement to river, easement to river off TCC and river outfall, northern regulating reservoir facilities removed

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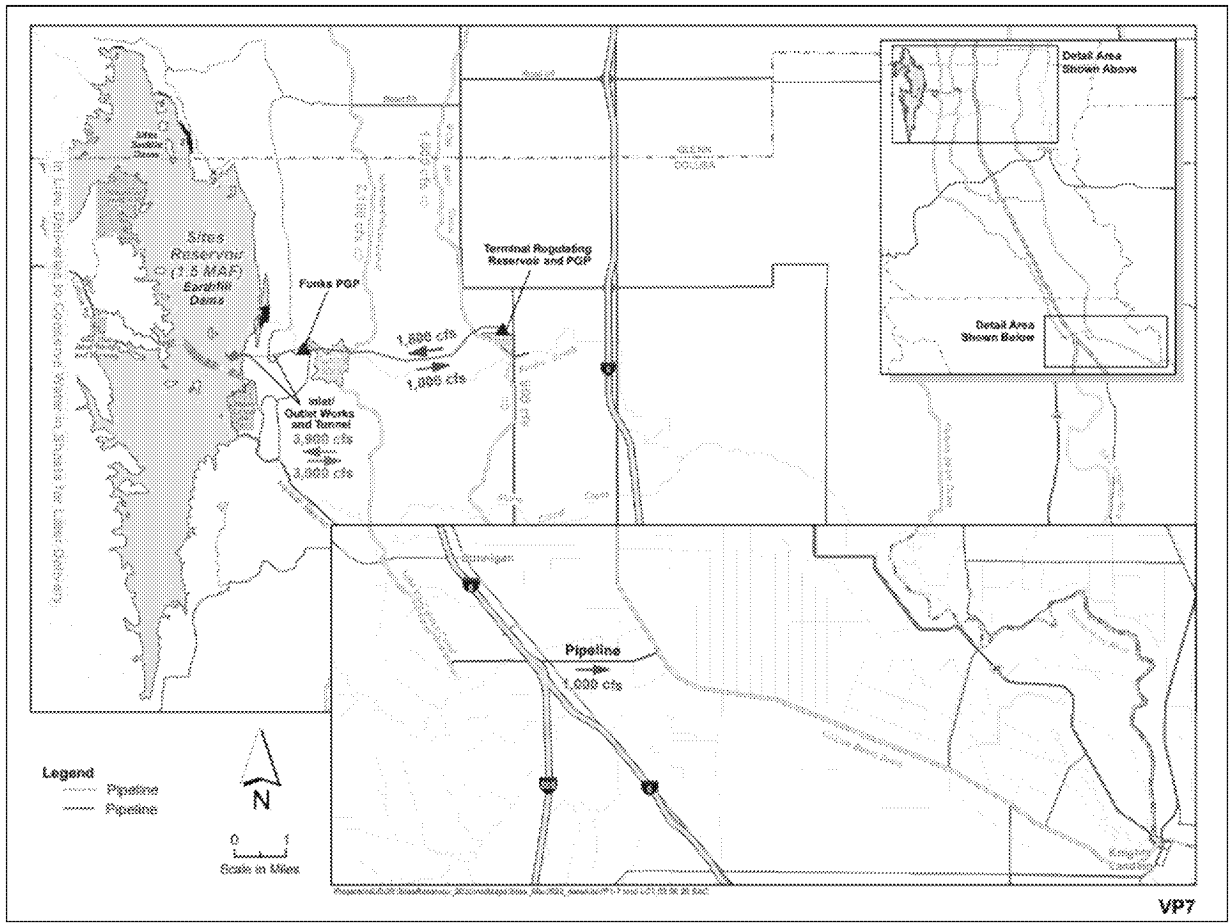
Value Planning Update – CEQA/NEPA Considerations

Alternative	CEQA/NEPA Key Considerations
VP5 Alternate 1	<p>Reduction in reservoir size may reduce effects on cultural, biological, and land use (agriculture) resources, but not to less-than-significant levels.</p> <p>Elimination of the Delevan pipeline or canal would potentially reduce land use (agricultural) effects, but effects would likely still be considered significant and unavoidable for the overall Project.</p> <p>Earthfill dam rather than rockfill dam would need to be analyzed for potential changes in environmental effects.</p> <p>Release from the southern terminus of the T-C Canal to the CBD would require additional study.</p>
VP6 Alternate 1A	<p>Similar to Alternative VP5, reduction in reservoir size may reduce effects on cultural, biological, and land use (agriculture) resources, but not to less-than-significant levels.</p> <p>Elimination of Delevan pipeline or canal would potentially reduce agricultural effects, but effects would likely still be considered significant and unavoidable for the overall Project.</p> <p>Release from the southern terminus of the T-C Canal would require additional study; the proposed Dunnigan pipeline to Sacramento River may affect federal project levees (though likely less than Alternative D).</p> <p>Earthfill dam rather than rockfill dam would need to be analyzed for potential changes in environmental effects.</p>
VP7 Recommended	<p>Similar to VP5 and VP6, reduction in reservoir size may reduce effects on cultural, biological, and land use (agriculture) resources, but not to less-than-significant levels.</p> <p>Elimination of Delevan pipeline or canal would potentially reduce agricultural effects, but effects would likely still be considered significant and unavoidable for the overall Project.</p> <p>Earthfill dam rather than rockfill dam would need to be analyzed for potential changes in environmental effects.</p> <p>Release from the southern terminus of the T-C Canal to the CBD would require additional study.</p>

Value Planning Update – Recommended Alternative

Major Facilities	VP5 Alternate 1	VP6 Alternate 1A	VP7 Recommended
Reservoir Size	1.3 MAF	1.3 MAF	1.5 MAF
Bridge Size (avoids future traffic interruption)	1.5 MAF	1.5 MAF	1.5 MAF
South Road to Local Residents	Included	Included	Included
Misc. Local and Project Roads	Included	Included	Included
Diversion Locations	Funks and TRR	Funks and TRR	Funks and TRR
Dunnigan Release	1,000 cfs to CBD	1,000 cfs to River	1,000 cfs to CBD

CBD = Colusa Basin Drain
 MAF = Million Acre-feet
 TRR = Terminal Regulating Reservoir



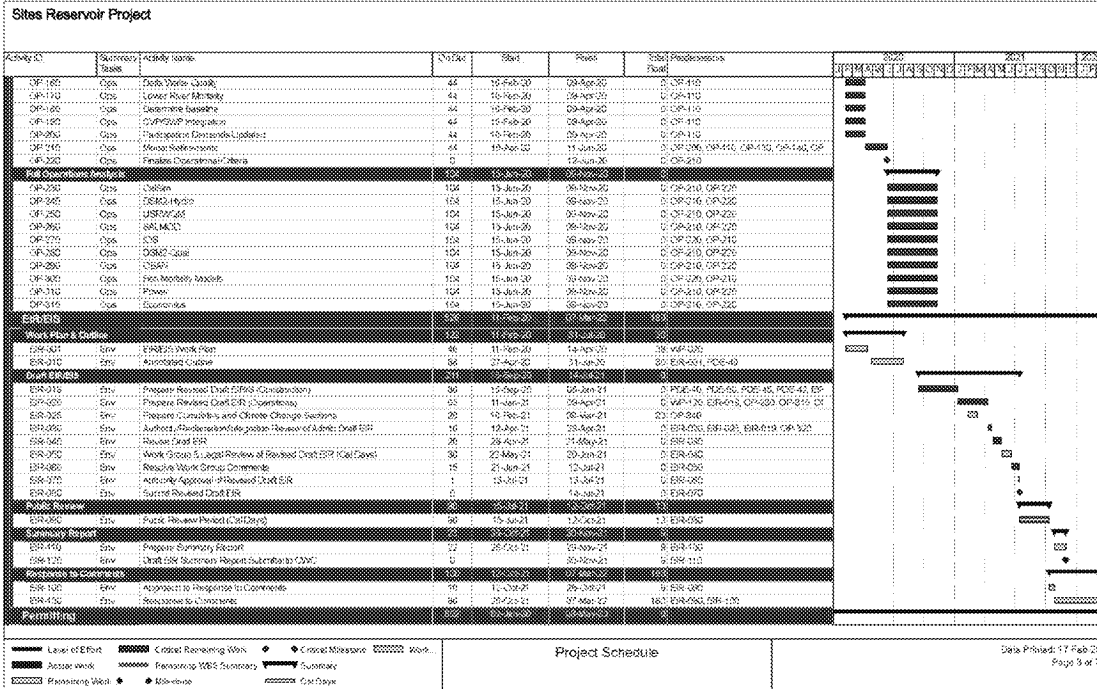
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PLANNING AND PERMITTING SCHEDULE UPDATES THRU 12/2021



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Planning and Permitting Schedule Updates

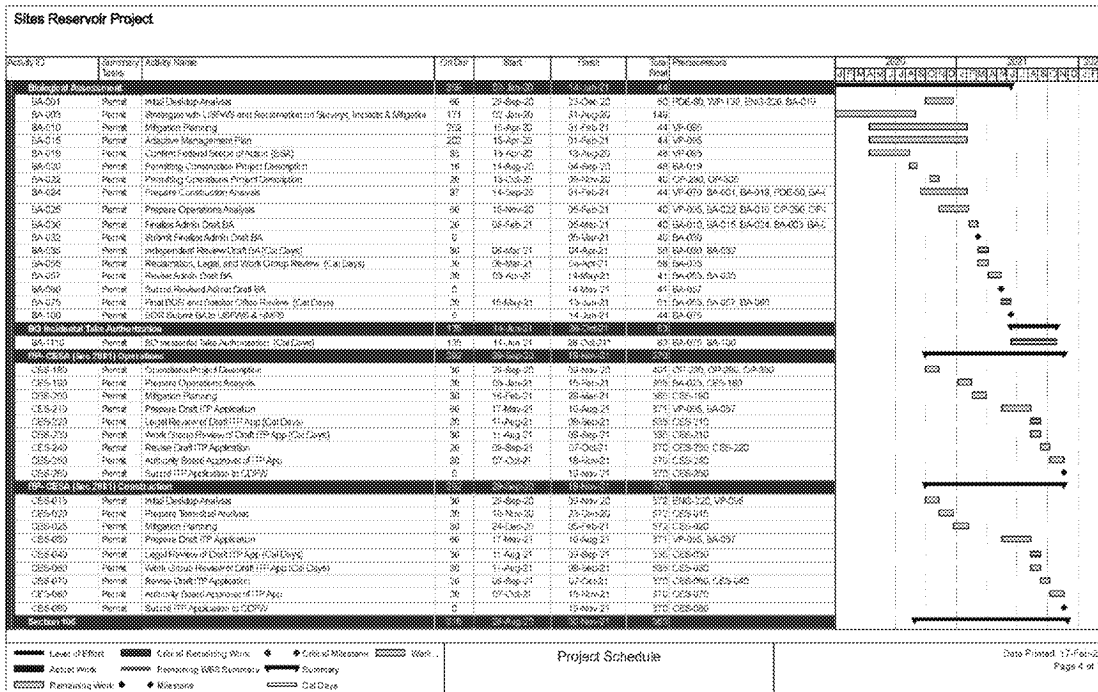


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Speaker:

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Planning and Permitting Schedule Updates



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Speaker:

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Schedule Risks and Assumptions – All Service Areas

In development of the project schedule we have identified some risks and methods to mitigate those risks:

- Funding limitations – for all three service areas there is some risk that estimated funding is not sufficient to complete work and some tasks would not be completed according to schedule
 - Monitor budget regularly with the controls team and elevate any concerns to the Work Group and others so that we can prioritize activities

Speaker: Laurie

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Schedule Risks and Assumptions – Planning

- Revised Draft EIR/EIS - Due to Reclamation's NEPA process, the joint Draft EIR/EIS may be delayed and could risk missing Prop 1 funding deadline
 - Early and frequent coordination with Reclamation to confirm process and schedule; if necessary, separate EIR from EIS
- EIR Feasibility Summary Report for CWC – If the number and substantive content of comments on the Revised Draft EIR are greater than anticipated the report could be delayed and may risk the determination of environmental feasibility
 - Work with CWC to determine their needs; proactive outreach to prior commenters so that comments on the previous Draft EIR/EIS are addressed to the extent possible in the Revised Draft EIR
- EIR/EIS Alternatives – An increase in the range or number of alternatives may result in additional costs and schedule delays, also a risk to Prop 1 funding
 - Development of EIR/EIS alternatives will be coordinated with Work Group, Reservoir Committee and Board as EIR/EIS approach is developed

Speaker: Laurie

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Schedule Risks and Assumptions – Permitting

- Activities completed to date to mitigate risks:
 - Extensive agency coordination
 - ✓ Agreed on many species modeled habitats for impact analysis
 - ✓ Site tours and information sharing
 - ✓ Agency workshops
 - ✓ Building relationships with staff
 - Looking to add modeling resources
 - Additional coordination with Reclamation

Speaker: John

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Schedule Risks and Assumptions – Permitting

- ESA and 106 Compliance - Reclamation Not on Same Page

- Modeling Efforts
 - Baseline changes
 - Modeling resources become limited
 - Low projected benefits
 - Criteria acceptance delays

Speaker: John

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ORGANIZATIONAL ASSESSMENT



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Organizational Assessment Matrix

- See Organizational Assessment Matrix handout (MS Word file)
- Format
 - Helpful?
 - Suggested improvements?
- Content
 - Responses appropriate?
 - Additional actions?
 - Right prioritization levels?
 - Timing for updates on responses / actions?

Speaker: Ali

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WE'RE ALMOST TO THE END. . .



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Upcoming Work and Priorities – March / April Focus

- Project Description Development
 - Project Management Plan and kick off meeting with internal team
 - Key questions / challenges and *approach* for resolution
 - Approach for addressing comments on the 2017 Draft EIR/EIS and identification of commenters that Sites may want to meet with
- Schedule
 - Refinements and summary graphic / flow chart
- Organizational Assessment
 - Near term items

Speaker: Ali

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Upcoming Work and Priorities – May

- Amendment 2 Task Orders (9/2020 to 12/2021) + refined costs for Planning / Permitting
- Continue Project Description Development

Speaker: Ali

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Schedule Next Meeting

- Before April Reservoir Committee meeting (April 17)
 - Topics –
 - Project Description – Alternatives and Baseline
 - Others??

Speaker: Ali / Linda

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Action Item Review

- Identify and Assign Action Items

Speaker: Group

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From: Briard, Monique [Monique.Briard@icf.com]
Sent: 3/5/2020 12:44:49 PM
To: Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]
CC: Spranza, John [John.Spranza@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]; Oakes, Harry [Harry.Oakes@icf.com]
Subject: RE: Sites: Value Planning Appendix H
Attachments: Sites_Oct2019_NewAlts_Fig6b.pdf; Sites_Oct2019_NewAlts_Fig6a.pdf

Jelica and Ali,

A question regarding this request –

- The table in your email refers to a VP7 option but I don't see that term used in the presentation that you forwarded to us. Would you point out to us what figure/Alt in the presentation represents VP7.

Assuming that VP7 is another name for one of the options in the presentation, we've already reviewed VP5 - 7. The attached Figs 6a & 6b were used for the review that Harry completed last month, which appears to be the same version of the figures used for all of the alternatives in the presentation. If VP7 is just a different name for one of the Alts 1-6, then all we need to do is revise a single sentence to reflect it.

Thanks,
 Monique

From: Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>
Sent: Thursday, March 5, 2020 8:48 AM
To: Briard, Monique <Monique.Briard@icf.com>
Cc: Spranza, John <John.Spranza@hdrinc.com>; Alicia Forsythe <aforsythe@sitesproject.org>
Subject: Sites: Value Planning Appendix H

Hey Monique

With the recent developments that came out of the value planning session earlier this week, we'd like ICF to update the attached memo to reflect the additional alternatives VP1 through VP7. In speaking to Ali, we both feel that it shouldn't be a large effort, maybe a few hours. Can Harry revise the memo by COB Monday?

I've attached the PowerPoint from Monday's meeting that will help with the layout as well as a measles chart that Jeff Herrin prepared for the overall value planning report. The PowerPoint provides an overview of VP1 through VP4. What came out of the session are recommendations VP5 through VP7

Table 4. Recommended Alternative and Alternates

Major Facilities	VP5 Alternate 1	VP6 Alternate 1A	VP7 Recommended
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In summary, we don't expect anything to change in the memo, but it needs to reflect VP1 through VP7.

I'm available to chat about the task today. I'm free after 1030. I'll be out of the office at noon, but available via cell phone. Should be back online around 3pm.

Thanks

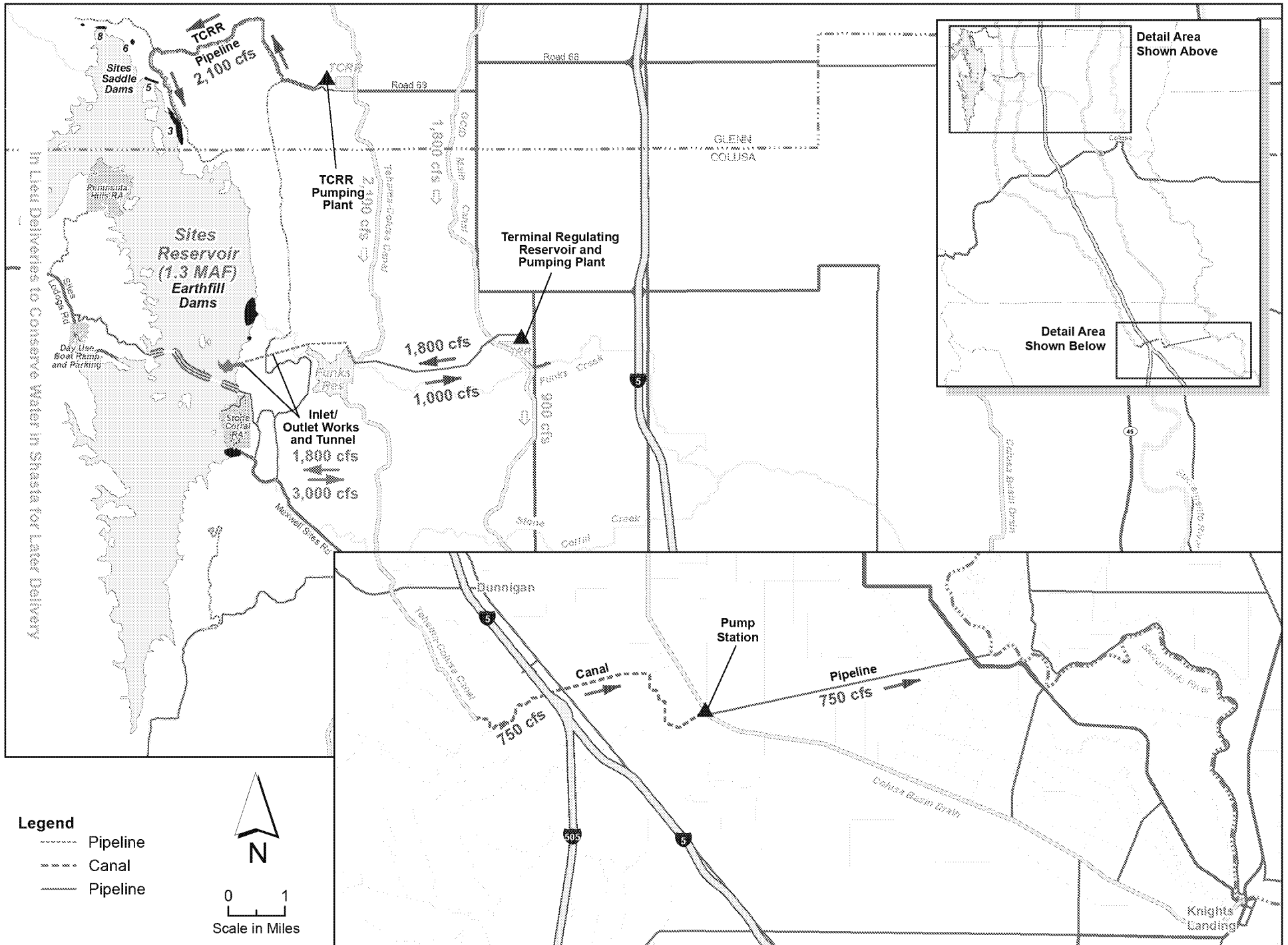
Jelica Arsenijevic
Environmental Project Manager



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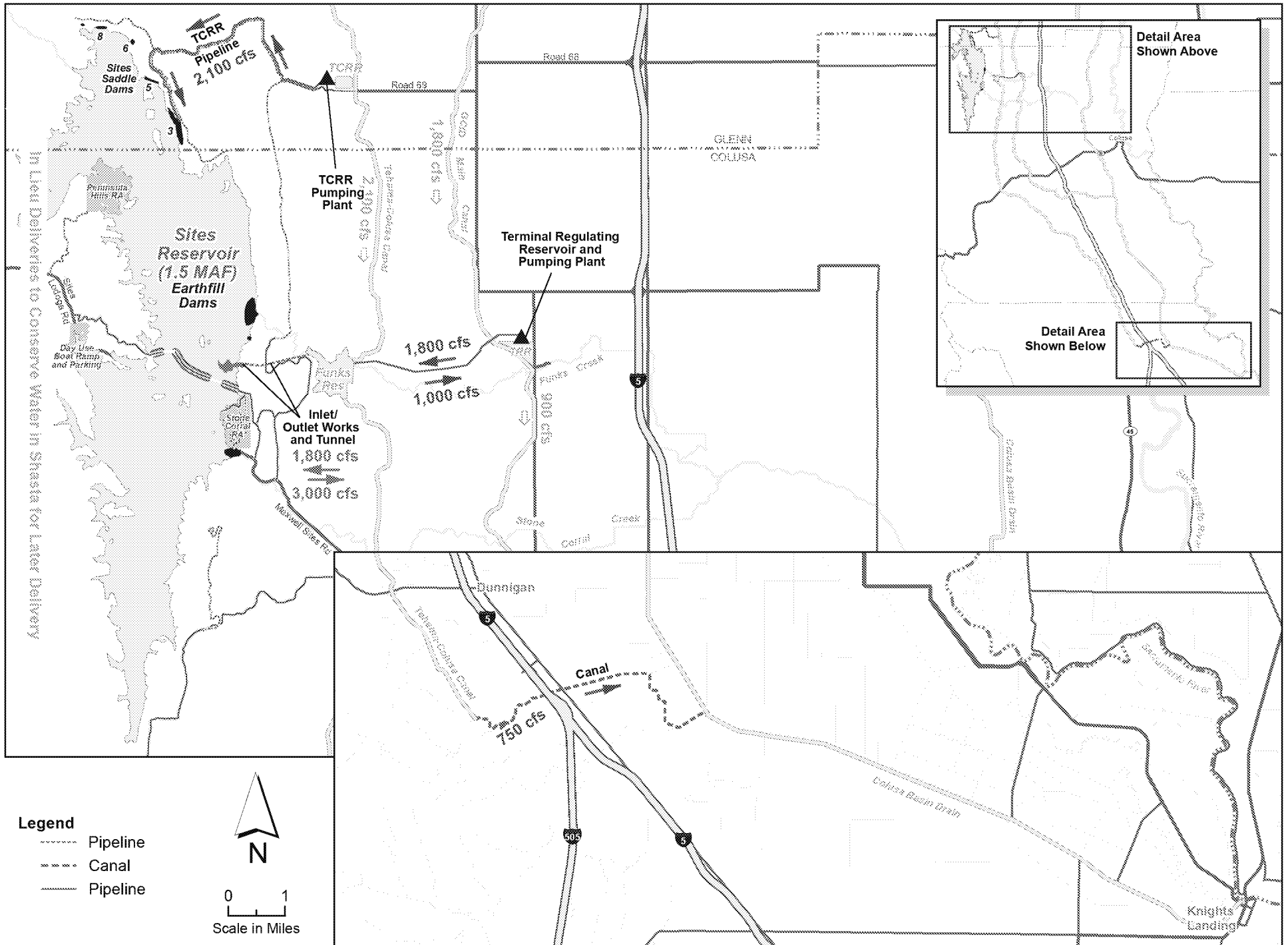
Jelica.Arsenijevic@hdrinc.com

hdrinc.com/follow-us



Projects\NODOS\SitesReservoir_2019\ArcMaps\Sites_Oct2019_NewAIts5-n-6.mxd LCT 10.26.19 SAC

Figure 6b



Projects\NODOS\SitesReservoir_2019\ArcMaps\Sites_Oct2019_NewAlts5-n-6.mxd LCT 10.26.19 SAC

Figure 6a

From: Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]
Sent: 3/5/2020 12:52:03 PM
To: Briard, Monique [Monique.Briard@icf.com]
CC: Spranza, John [John.Spranza@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]; Oakes, Harry [Harry.Oakes@icf.com]
Subject: RE: Sites: Value Planning Appendix H

Hey Monique

VP1 through 4 were discussed during meeting

VP5, 6, and 7 are what came out of the meeting - recommended alternatives (what was cherry picked). The table within the email provides the recommendations .

Figures are still being developed by AECOM but between the table and measles chart that I just sent you can use previous figures to see what is proposed .

Hope this helps

I'm available via cell to chat

Jelica Arsenijevic

--

Sent from Workspace ONE Boxer

On March 5, 2020 at 12:45:35 PM PST, Briard, Monique <Monique.Briard@icf.com> wrote:

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jelica and Ali,

A question regarding this request –

- The table in your email refers to a VP7 option but I don't see that term used in the presentation that you forwarded to us. Would you point out to us what figure/Alt in the presentation represents VP7.

Assuming that VP7 is another name for one of the options in the presentation, we've already reviewed VP5 - 7. The attached Figs 6a & 6b were used for the review that Harry completed last month, which appears to be the same version of the figures used for all of the alternatives in the presentation. If VP7 is just a different name for one of the Alts 1-6, then all we need to do is revise a single sentence to reflect it.

Thanks,
Monique

From: Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>
Sent: Thursday, March 5, 2020 8:48 AM
To: Briard, Monique <Monique.Briard@icf.com>
Cc: Spranza, John <John.Spranza@hdrinc.com>; Alicia Forsythe <aforsythe@sitesproject.org>
Subject: Sites: Value Planning Appendix H

Hey Monique

With the recent developments that came out of the value planning session earlier this week, we'd like ICF to update the attached memo to reflect the additional alternatives VP1 through VP7. In speaking to Ali, we both feel that it shouldn't be a large effort, maybe a few hours. Can Harry revise the memo by COB Monday?

I've attached the PowerPoint from Monday's meeting that will help with the layout as well as a measles chart that Jeff Herrin prepared for the overall value planning report. The PowerPoint provides an overview of VP1 through VP4. What came out of the session are recommendations VP5 through VP7

Table 4. Recommended Alternative and Alternates

Major Facilities	VP5	VP6	VP7
	Alternate 1	Alternate 1A	Recommended
Reservoir Size	1.3 MAF	1.3 MAF	1.5 MAF
Bridge Size (avoids future traffic Interruption)	1.5 MAF	1.5 MAF	1.5 MAF
South Road to Local Residents	Included	Included	Included
Misc. Local and Project Roads	Included	Included	Included
Diversion Locations	Funks and TRR	Funks and TRR	Funks and TRR
Dunnigan Release	1,000 cfs to CBD	1,000 cfs to River	1,000 cfs to CBD
Estimated Cost (2019 dollars)	\$2,779,000,000 to \$2,814,000,000	\$2,905,000,000 to \$2,940,000,000	\$2,961,000,000 to \$2,996,000,000

In summary, we don't expect anything to change in the memo, but it needs to reflect VP1 through VP7.

I'm available to chat about the task today. I'm free after 1030. I'll be out of the office at noon, but available via cell phone. Should be back online around 3pm.

Thanks

Jelica Arsenijevic
Environmental Project Manager


2379 Gateway Oaks Drive, Suite 200
Sacramento, CA 95833
D 916-679-8854
M 209-329-6897
Jelica.Arsenijevic@hdrinc.com
hdrinc.com/follow-us

<Sites_Oct2019_NewAlts_Fig6b.pdf>
<Sites_Oct2019_NewAlts_Fig6a.pdf>

From: Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]
Sent: 3/5/2020 2:07:09 PM
To: Briard, Monique [Monique.Briard@icf.com]; Oakes, Harry [Harry.Oakes@icf.com]
CC: Spranza, John [John.Spranza@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]
Subject: Re: FW: Sites: Value Planning Appendix H
Attachments: Facilities rev1.docx

It would help if I sent the chart.
Sorry!

Jelica Arsenijevic

--

Sent from Workspace ONE Boxer

On March 5, 2020 at 12:43:50 PM PST, Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com> wrote:

Thanks Monique for forwarding

Harry - The attached measles chart may help too. The proposed Dunnigan Canal is now a pipeline. I also think that the memo should be addressed to Ali .

Jelica Arsenijevic

--

Sent from Workspace ONE Boxer

On March 5, 2020 at 11:24:42 AM PST, Briard, Monique <Monique.Briard@icf.com> wrote:

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Harry, Please see the request below to revise the memo that you developed last month to reflect the new alternatives. Please reach out to Jelica if you have questions and please let us both know if this is something that you can complete by Monday.

Thanks,
Monique

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To: Briard, Monique <Monique.Briard@icf.com>
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hdrinc.com/follow-us

<Appendix H- Value Planning Mitigation Costs-02272020.pdf>
<3.2.2020 Value Planning Group Presentation.pptx>

Value Planning Alternatives.

Features	Value Planning Alternatives															
	1	2	3	4a	4b	5a	5b	6a	6b	VP1	VP2	VP3	VP4	VP5	VP6	VP7
Cost (\$billions)	\$4.0B	\$4.0B	\$3.9B	\$3.8B	\$3.9B	\$3.5B	\$3.9B	\$3.4B	\$3.6B	\$3.3B	\$2.8B	\$3.3B	\$3.0B	\$2.7B	\$2.9B	\$2.9B
Savings from 1.8 MAF Alternative D	\$1.2B	\$1.2B	\$1.3B	\$1.4B	\$1.3B	\$1.7B	\$1.3B	\$1.8B	\$1.6B	\$1.9B	\$2.3B	\$1.9B	\$2.1B	\$2.4B	\$2.2B	\$2.2B
1.5 MAF Reservoir	.	.	.	.	.	.	.	.	.							.
1.3 MAF Reservoir									.	.	.	.		.	.
Funks/Sites PGP	.	.		.	.	.	.		
Funks PGP											.	.	.	.	.	.
TRR and TRR PGP	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TCRR with Pumping Plant and Pipeline			.					.	.	.
Delevan Canal/Pipeline Release	.	.	.	.	.						
Delevan Pipeline												.				
Dunnigan Pipeline to CBD Release (750 cfs)						.		.		.	.		.
Dunnigan Pipeline to CBD Release (1,000 cfs)														.		.
Dunnigan to River Release (750 cfs)							.		.							
Dunnigan Canal to River Release (1,000 cfs)													.		.	
Bridge (sized for 1.3 MAF)									.		.	.	.
Bridge (sized for 1.5 MAF)	.		.	.	.	.	.	.		.				.	.	.
South Road to Lodoga		.														
South Road to Local Residents	.		.	.	.	.	.	.	.	.	.	.		.	.	.
Rockfill Embankment Dam	.	.	.			.	.		
Earthfill Dam				.				.	.	.	.	.		.	.	.
Hardfill Dam					.											

CBD = Colusa Basin Drain
 MAF = million acre feet
 PGP = Pumping/Generating Plant
 TCRR = Tehama-Colusa Regulating Reservoir
 TRR = Terminal Regulating Reservoir

From: Alicia Forsythe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A6CDF06A7E904B65BAA21702A82AD329-AFORSYTHE]
Sent: 3/6/2020 7:50:07 AM
To: David Guy [dguy@norcalwater.org]; Bryce Lundberg (bryce@lundberg.com) [bryce@lundberg.com]
CC: Kevin Spesert [kspesert@sitesproject.org]
Subject: RE: Sites, water quality.....

Thanks for the email David and the continued support for Sites.

We received Mr. Boles comments on the 2017 Draft EIR/EIS. The Draft EIR/EIS included extensive water quality analysis, both in Chapter 7, Surface Water Quality and Appendix 7, Surface Water Quality. We are in the process of incorporating responses to comments, including Mr. Boles' comments, in the upcoming CEQA/NEPA documentation. While we are completing a detailed analysis and response of Mr. Boles concerns, it's important to remember that Sites is planned to be a 1.3 to 1.5 million acre-foot reservoir -- larger than Folsom Lake -- and the seventh or eighth largest reservoir in California. Sites will also be actively managed, with water cycled thru on a regular basis. So the dilution potential is quite large and the evaporative potential (to concentrate pollutants in the source waters) is quite small.

Sites will obtain all appropriate permits and will comply with all water quality discharge requirements. Being good stewards of the environment is important to the Authority and our member agencies.

We continue to work on the response to comments and will have detailed responses to Mr. Boles comments and concerns in our upcoming CEQA/NEPA documentation. We are also happy to meet with Mr. Boles and/or Supervisor Lucero and discuss these concerns in more detail.

Ali

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Reservoir Project | 916.880.0676
| aforsythe@sitesproject.org | www.SitesProject.org

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-----Original Message-----

From: David Guy <dguy@norcalwater.org>
Sent: Friday, February 28, 2020 7:31 AM
To: Alicia Forsythe <aforsythe@sitesproject.org>
Cc: Bryce Lundberg (bryce@lundberg.com) <bryce@lundberg.com>
Subject: Sites, water quality.....

Good morning Ali - Bryce and I talked with Supervisor Lucero in Butte County this week and she raised the water quality concerns with Sites below. I am guessing she received this from Aqua Alliance, but not entirely sure. Do you have any responses to comments or other information we can provide her with respect to the issues she has raised? Thank you!

David J. Guy
President
Northern California Water Association
(916) 442-8333

-----Original Message-----

From: Lucero, Debra <DLucero@buttecounty.net>
Sent: Thursday, February 27, 2020 8:25 PM
To: bryce@lundberg.com; David Guy <dguy@norcalwater.org>
Subject: Good to Meet & Discuss Water With You!

Dear Bryce and David:

Thank you for the discussion on Wednesday. I enjoyed meeting you, David. I look forward to learning more from both of you about water, farming and conservation.

Here is the information I promised about Sites.

SITES RESERVOIR WATER QUALITY

Jerry Boles, retired Chief of the Water Quality and Biology Section of the Northern District of the Department of Water Resources in Red Bluff, submitted comments on the proposed Sites Reservoir Draft

Environmental Impact Report. I have pulled a few of his comments for you to read but I encourage you to view his full report for details.

"The draft fails to discuss the high concentrations of a number of metals in the source waters to the proposed project, and, even more important, does not discuss water quality in the proposed reservoir. Water quality in the proposed reservoir will mimic that of the source waters, and hence the reservoir will have concentrations of a large number of metals that exceed many water quality criteria and standards. The high concentrations of metals likely to occur in the proposed reservoir will impact most, if not all, beneficial uses of the proposed project, including agricultural supply, wildlife and fisheries, and drinking water supplies for communities that divert water from the Sacramento River, making the project potentially infeasible."

Mr. Boles has compiled source water data to illustrate his analysis and explains, "It is apparent that the preparers of the EIR failed to examine or simply ignored the available data that would show potential significant adverse impacts from the proposed project."

Boles explains that during his tenure with DWR he collected data that showed elevated levels of aluminum, arsenic, cadmium, iron, chromium, copper, lead, manganese, mercury, nickel, selenium, and zinc in the Sacramento River with the highest levels coming from tributary flows. The highest concentrations were found during the higher flow months (December through March). Many of these metals exceed a large number of criteria and standards, including those developed to protect drinking water, public health, freshwater aquatic life, and agricultural uses. Funding for water quality monitoring by DWR was curtailed in 1998 after the project manager in the Red Bluff office was informed of potential adverse impacts from metals by Boles when he was Chief of the Water Quality and Biology Section.

The Sites project plans to pull water out of the river during high water runoff events when tributaries provide 95% of the flow below Keswick Dam. Boles explains that Cottonwood Creek contributes the most significant input into the Sacramento River during high runoff events and that toxic concentrations increase during high runoff events.

The poor quality of the source water will certainly be further degraded if the water is impounded in the proposed off-stream reservoir. Boles explains, "Extremely high concentrations of metals are present in the small streams in the reservoir footprint, which occur due to the nature of the soils in the area of the proposed reservoir. Sites Reservoir would inundate these soils resulting in leaching of metals and further incremental loading of metals to the proposed reservoir. There is no discussion in the EIR about the potential impacts of metals leaching from the soils that would be inundated by the proposed reservoir."

Releases from the proposed reservoir would occur during the summer when metals concentrations in the Sacramento River are much lower due to the majority of flow being from Shasta Reservoir, with much better water quality, though still carrying a metals load. High metals concentrations in the proposed reservoir releases could adversely affect water quality in the Sacramento River during the summer months by increasing metals loads beyond acceptable limits and adversely impact beneficial uses.

"Though high concentrations of metals that exceed water quality criteria exist in source waters to the proposed project, they cannot be regulated by governmental entities since they are natural occurrences. However, once contained artificially in a reservoir, they are subject to jurisdictional control by regulatory agencies. Any releases of water from the proposed reservoir will likely be subject to review by water quality regulatory agencies to ensure that such releases do not adversely affect downstream resources due to the heavy metals loads in the releases. The SWRCB has an antidegradation policy that prohibits discharges that would degrade water quality to a level below water quality objectives. The contribution of additional metal loads from releases from the proposed Sites Reservoir during the summer could cause concentrations of metals in the Sacramento River to exceed criteria and standards or at least be subject to the antidegradation policy due to an incremental increase in metals in the Sacramento River from the proposed project. Thus, the proposed project may face prohibition of releases if stored water does not meet water quality criteria or standards or if releases can cause criteria or standards to be exceeded by downstream inputs (i.e., antidegradation policy)."

A factual evaluation of the available data is presented by Boles in his comments which includes detailed data sheets showing significant potential adverse impacts associated with the proposed project.

TAXPAYER FUNDING

Sites continues to tap taxpayer money to keep the planning process and the generous (\$325K/year) salary to Sites general manager James Watson. The project is at the top of the list for funding under the water bond, Proposition 1. The bond money could be used for half the cost of the project, and could only be used for "public benefits" like recreation, flood control, and the environment. The state has committed \$816 million <<https://www.sacbee.com/news/state/california/water-and-drought/article215421995.html>> in Proposition 1 bond money to Sites, and Watson said the federal Bureau of Reclamation is considering sizable investment in the project, up to a maximum of around \$1 billion.

Debra Lucero
Butte County Supervisor District 2
269 E. 3rd St., Ste. 100
Chico, CA 95928
Appointments: 530-891-7535
Mobile: 530-552-2030

From: Laurie Warner Herson [laurie.warner.herson@phenixenv.com]
Sent: 3/6/2020 8:30:18 AM
To: Alicia Forsythe [aforsythe@sitesproject.org]
Subject: RE: Sites, water quality.....

Thanks - have a good day today !

-----Original Message-----

From: Alicia Forsythe [mailto:aforsythe@sitesproject.org]
Sent: Friday, March 6, 2020 7:52 AM
To: Laurie Warner Herson <laurie.warner.herson@phenixenv.com>; Monique Briard (Monique.Briard@icf.com) <Monique.Briard@icf.com>; Williams, Nicole <Nicole.Williams@icf.com>; Heydinger, Erin <Erin.Heydinger@hdrinc.com>; Tull, Robert/SAC <Robert.Tull@jacobs.com>; John Spranza (john.spranza@hdrinc.com) <john.spranza@hdrinc.com>; Jelica Arsenijevic (Jelica.Arsenijevic@hdrinc.com) <Jelica.Arsenijevic@hdrinc.com>
Subject: FW: Sites, water quality.....

FYI. My response regarding Mr. Boles' water quality comments.

Pulling in John and Jelica as this will also flow into future permitting discussions.

Ali

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Reservoir Project | 916.880.0676
| aforsythe@sitesproject.org | https://urldefense.proofpoint.com/v2/url?u=http-3A__www.SitesProject.org&d=DwIGaQ&c=euGZstcaTD11vimEN8b7jXrwqOf-v5A_CdpnVfiiMM&r=51Di_dRX9hZUR3uaaaVnGL7X3t7keCUI33rc_MkofTH8fiDFwXqwpRnG7poqY5i5&m=aEPjZLVIHNTD1qxcWncNj1Y9h_cRZSLHgAT65DtGq8&s=g75eFp3nXgM_sMaVuu104Kwi1GVZTDRtbrFO2_8vwo0&e=

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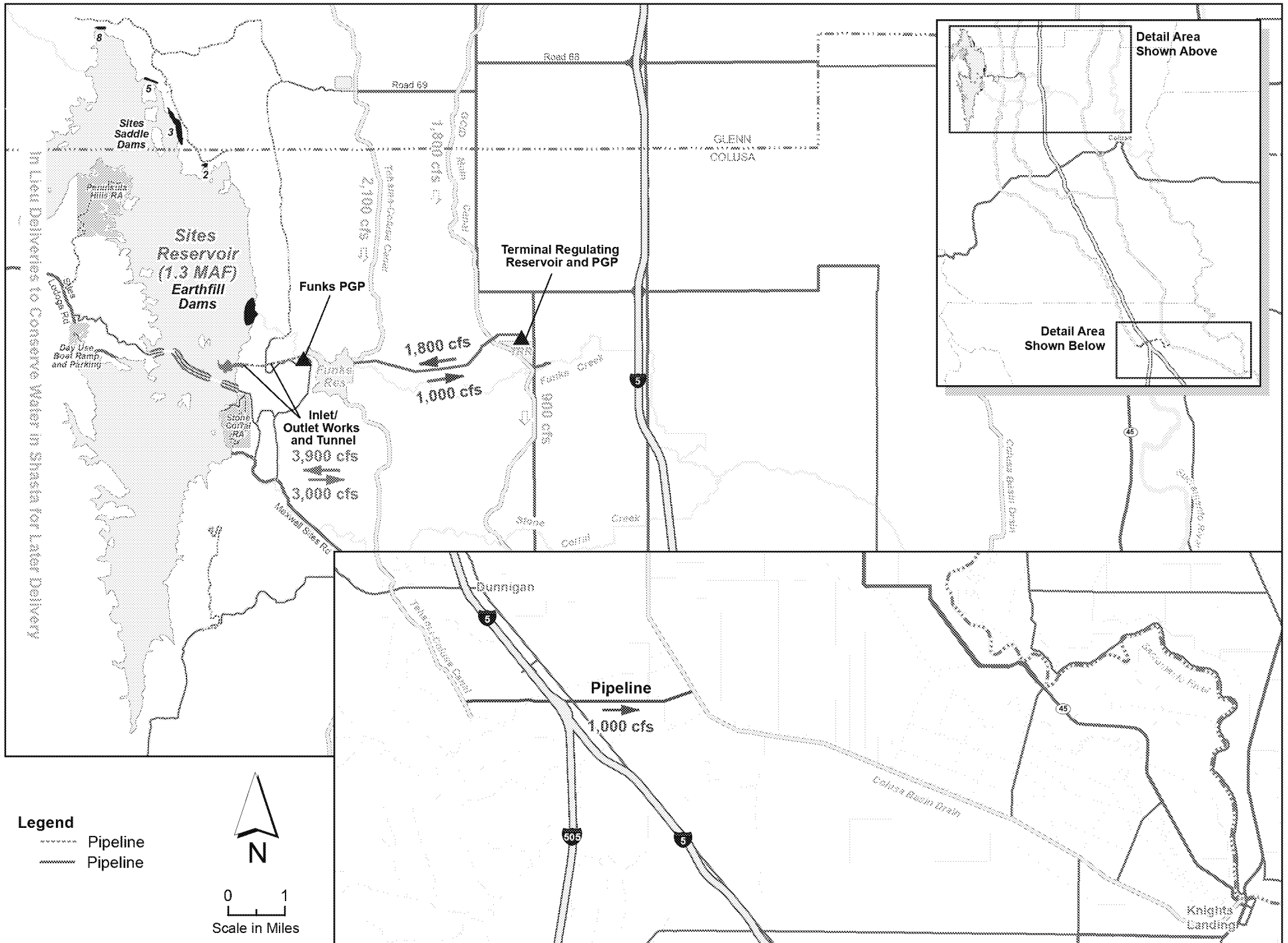
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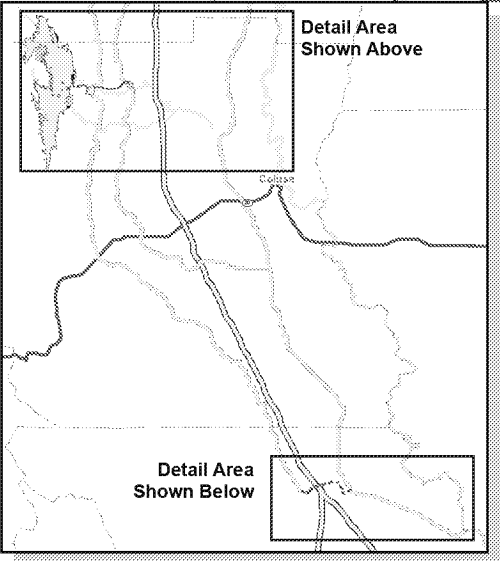
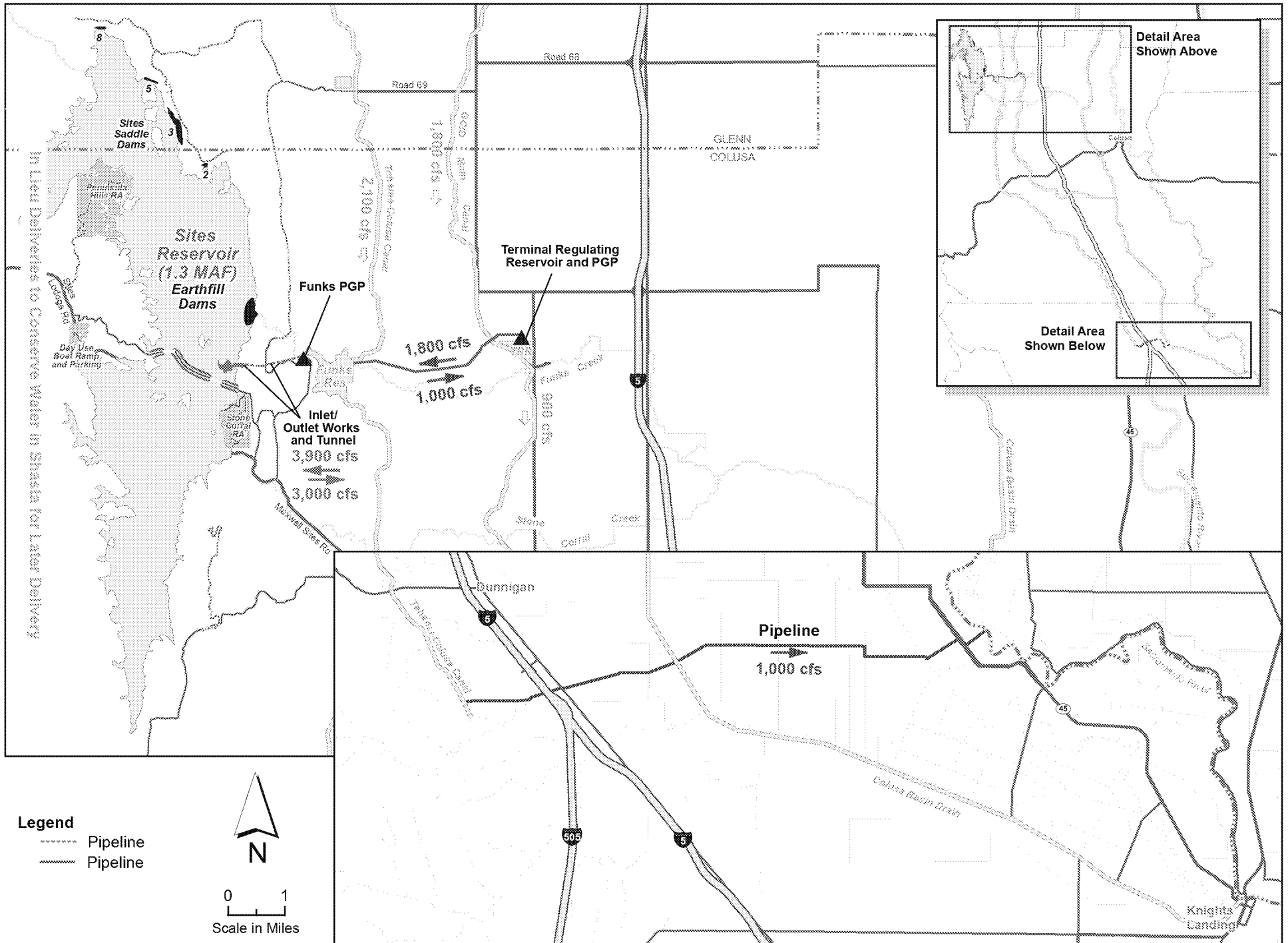
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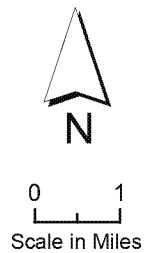
Debra Lucero
Butte County Supervisor District 2
269 E. 3rd St., Ste. 100
Chico, CA 95928
Appointments: 530-891-7535
Mobile: 530-552-2030



Projects\NODOS\SitesReservoir_2020\ArcMaps\Sites_Mar2020_NewAItsVP1-7.mxd LCT 03.06.20 SAC



- Legend**
- Pipeline
 - Pipeline



Projects\NODOS\SitesReservoir_2020\ArcMaps\Sites_Mar2020_NewAItsVP1-7.mxd LCT 03.06.20 SAC



March 9, 2020

Mr. John Spranza, MS, CCN
Senior Ecologist/Regulatory Specialist
HDR
2379 Gateway Oaks Drive, Suite 200
Sacramento, CA 95833

Subject: Sites Reservoir Project: Review of Value Planning - Mitigation Cost Estimate Update of 2016 Technical Memorandum & Evaluation of Value Planning Alternatives 1 – 7 (VP1 – VP7)

Dear Mr. Spranza:

Per your request, ICF has completed our review of the Value Planning technical memorandum (memo), dated October 11, 2019, that was developed by Sites Project team members as part of the initial review and evaluation of the mitigation measures and associated costs for the Sites Project alternatives. The stated purpose of the Value Planning memo was to review the mitigation cost estimate prepared in 2016 (AECOM 2016), based on the then preferred project Alternative C, and to refine the mitigation cost estimate, if possible, to consider the current project alternatives being considered in the Value Planning process. In addition to memo review, ICF also evaluated the potential impacts, mitigation measures and associated costs for the recently formulated Value Planning (VP) Alternative 1 – 7.

The memo was developed based on Site's Permitting Integration Team's initial review and applicability of the 2016 mitigation cost estimate, a mitigation planning analysis performed in 2019 by ICF International, and Alternatives developed during the Value Planning process, including most recent versions of Alternatives 6a and 6b.

The findings of the memo are consistent with ICF's 2019 review of the 2016 mitigation acreage assumptions and mitigation cost estimate for the project alternatives, including Alternative 6a, 6b, and VP1- VP7. As stated in the Value Planning memo, a detailed comparison of the 2016 mitigation cost estimate to the present-day project mitigation requirements cannot be performed with precision because 1) the project's impact assessment on terrestrial and aquatic resources, including listed species, has yet to be finalized, and 2) the associated mitigation ratios/acres have yet to be determined by the state and federal regulatory agencies. ICF also concurs with the memo's finding that review of existing analyses and mitigation cost estimates currently being used do not result in any significant changes in estimated mitigation costs (>\$50M) when applied to the Value Planning Alternatives.

ICF's 2019 evaluation of the 2016 mitigation assumptions and mitigation cost estimate did not include the more recently developed Alternatives 6a and 6b or VP1 – VP7. A detailed evaluation and comparison of mitigation and mitigation costs associated with Alternatives 6a, 6b and VP1 – VP7

cannot be performed with precision because the project's impact assessment on terrestrial and aquatic resources, including listed species, has yet to be finalized. Based on an evaluation of aerial imagery available on Google Earth, Alternative 6a would appear to affect fewer terrestrial and aquatic resources and Alternative 6b could have impacts comparable to a Delevan diversion. Other considerations that will factor into future evaluations of mitigation and mitigation costs associated with Alternatives 6a, 6b and VP1 – VP7 include the following:

- Alternatives 6a and 6b would eliminate the proposed Delevan diversion and rely on other existing diversions and would include either a Dunnigan release to the Colusa Basin Drain (Alternative 6a) or the Sacramento River (Alternative 6b).
- VP4 and VP7 would both have 1.5 million acre feet (MAF) and therefore more impacts than the other five VP alternatives which would have 1.3MAF reservoirs.
- VP2 – VP7 would include a Funks Pumping/Generating Plant (PGP). Alternatives 1 – 6b and VP1 would not include a Funks PGP however the biological impacts associated with this PGP would not significantly increase the overall project related impacts.
- VP3 would include a Delevan Pipeline to the Sacramento River. VP1, VP2, VP5 and VP7 alternatives would include a Dunnigan Pipeline to Colusa Basin Drain releases and would therefore have fewer impacts associated than VP3. VP4 and VP6 alternatives would include a Dunnigan Pipeline to the River and impacts would likely be comparable to VP3.

Thank you for the opportunity to review the Value Planning technical memo and the recently formulated VP alternatives. Please contact Monique Briard or me if you have any questions.

Sincerely,

Harry Oakes

Harry Oakes
Senior Restoration Ecologist

cc: Monique Briard - ICF

List of Potential Agencies with Permitting Responsibility or Review Requirements

Agency	Permit/Review	Legal Authority
FEDERAL		
Federal Energy Regulatory Commission	Hydroelectric License Application	18 CFR Part 5
Bureau of Land Management	Right-of-Way Grants Land Leases	Federal Land Policy and Management Act Mineral Leasing Act and Energy Policy Act
Bureau of Indian Affairs	Right-of-Way Grants	Title 25, United States Code sections 323-328
U.S. Fish and Wildlife Service	Biological Assessment Biological Opinion Jeopardy Opinion	Fish and Wildlife Coordination Act Endangered Species Act Federal Power Act Migratory Bird Treaty Act Eagle Protection Act
U.S. Army Corps of Engineers	404 Permit/Jurisdictional Determination	Clean Water Act
USDA Forest Service	Special Use Permit Project-specific Plan Amendment (if not designated for the use)	36 CFR 251
National Park Service	Right-of-Way Permit (for transmission lines)	Title 16, United States Code section 79
US Environmental Protection Agency	Adequacy of NEPA review Prevention of Significant Determination	Section 309, Clean Air Act Section 112, Clean Air Act
Bureau of Reclamation	Hydroelectric License Application Overhead Crossing Permit Lease of Power Privilege	Federal Power Act Reclamation Act
Department of Energy	Designate energy transport corridors Designate national interest electric transmission corridors	Section 368, Section 1221(a) Energy Policy Act of 2005
Federal Aviation Administration	Airspace Review	Title 14, Code of Federal Regulations, Part 77
Advisory Council on Historic Preservation	Historic Preservation Advisory Comments	National Historic Preservation Act of 1966, as amended 36 CFR Part 800
CALIFORNIA		
Energy Commission	Certification	Warren-Alquist Act
Public Utilities Commission	Certificate of Public Convenience and Necessity Permit to Construct	Public Utilities Act
State Lands Commission	Land Use Lease Geothermal Exploration or prospecting leasing (oil, gas & other minerals)	Public Resources Code section 6000 et seq.
Department of Fish & Game	Approval Stream or Lake Alteration Permit Dredging Permit Endangered Species Take Permit	CA Endangered Species Act, Fish & Game Code section 2090 Fish and Game Code section 1600-7 565053.9, 11037
Department of Transportation	Encroachment Permit	Facilities that impact state highways
Dept. of Water Resources, Div. of Safety of Dams	Plan Approval	Water Code, Div. 3, Part 1 & 2

Agency	Permit/Review	Legal Authority
State Historic Preservation Officer	Section 106 c consultation	National Historic Preservation Act of 1979, as amended
State Water Resources Control	Certification of Adequacy of Water Rights Permit to Appropriate Water Statement of Diversion and Use NPDES permit Clean Water Act Section 401 Certification	Public Utilities Code section 2821 Water Code, Div. 1 & 2
Reclamation Board	Encroachment Permit	Water Code section 8590 et seq.
OTHER AGENCIES		
Local Agencies	General Plan Compliance, Specific Plan Compliance Zoning Code/Ordinance Compliance Encroachment Permit Building Permit Subdivision Map Act Compliance Williamson Act Compliance Any other special plans/standards specific to a jurisdiction	Varying and depending on jurisdiction
Air Districts	Preliminary/Final Determination of Compliance Permits to Construct/Operate	Warren-Alquist Act Clean Air Act
Regional Water Quality Control Boards	NPDES Permits 401 Certifications	Clean Water Act; Porter Cologne Water Quality Control Act; CA Water Code Section 13000
Municipal Utilities	Project Approval	Locally Elected Governing Boards
California ISO	LGIA/SGIA	FERC Order No. 2003-C

From: Jim Watson [jwatson@sitesproject.org]
Sent: 3/10/2020 9:47:51 AM
To: Alicia Forsythe [aforsythe@sitesproject.org]; RTull@ch2m.com; laurie.warner.herson@phenixenv.com; Westcot, Cathy [Cathy.Westcot@hdrinc.com]
CC: Joe Trapasso [jtrapasso@sitesproject.org]; Frederiksen, Lee E. [Lee.Frederiksen@hdrinc.com]; JP Robinette [JRobinette@BrwnCald.com]; Kevin Spesert [kspesert@sitesproject.org]
Subject: Sites: Operations Schedule (Informational-Benchmark)
Attachments: Ch2mHill(2011May10)ModelingSchedule.xlsx; DHCCP-CalSim Modeling Process Flow Chart.pptx

All

As we work to put together a schedule to use in a predictive manner, I went back into my archives for what was being done to understand the complex modeling for BDCP (and early WaterFix). Granted, BDCP modeling was Delta centric with limited tributary analysis vs. Sites being the opposite, but they were able to demystify the process that, in turn, aided in developing inputs to a CPM schedule that was used as a management tool and having the ability to evaluate alternative scenarios.

NOTE: The Sties' analytical framework is a good start and is consistent with BDCP's approach to create a modeling "wiring diagram". The next step is how best to translate it into a predictive schedule.

Jim Watson, PE
General Manager, Sites Project Authority

Phone: 530.410.8250
Email: jwatson@SitesProject.org
Web: www.SitesProject.org

P.O. Box 517
122 Old Hwy 99W
Maxwell, CA 95955

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EIR/EIS Baseline and Alternatives Discussion Agenda



Date: March 20, 2020

Location:

Call In: 1-844-531-9388; Access code: 732 081 799
WebEx Link added to Invitation

Time: 9:00 AM to 11:00 AM

Leader: Ali Forsythe

Recorder: HDR – Sites Integration

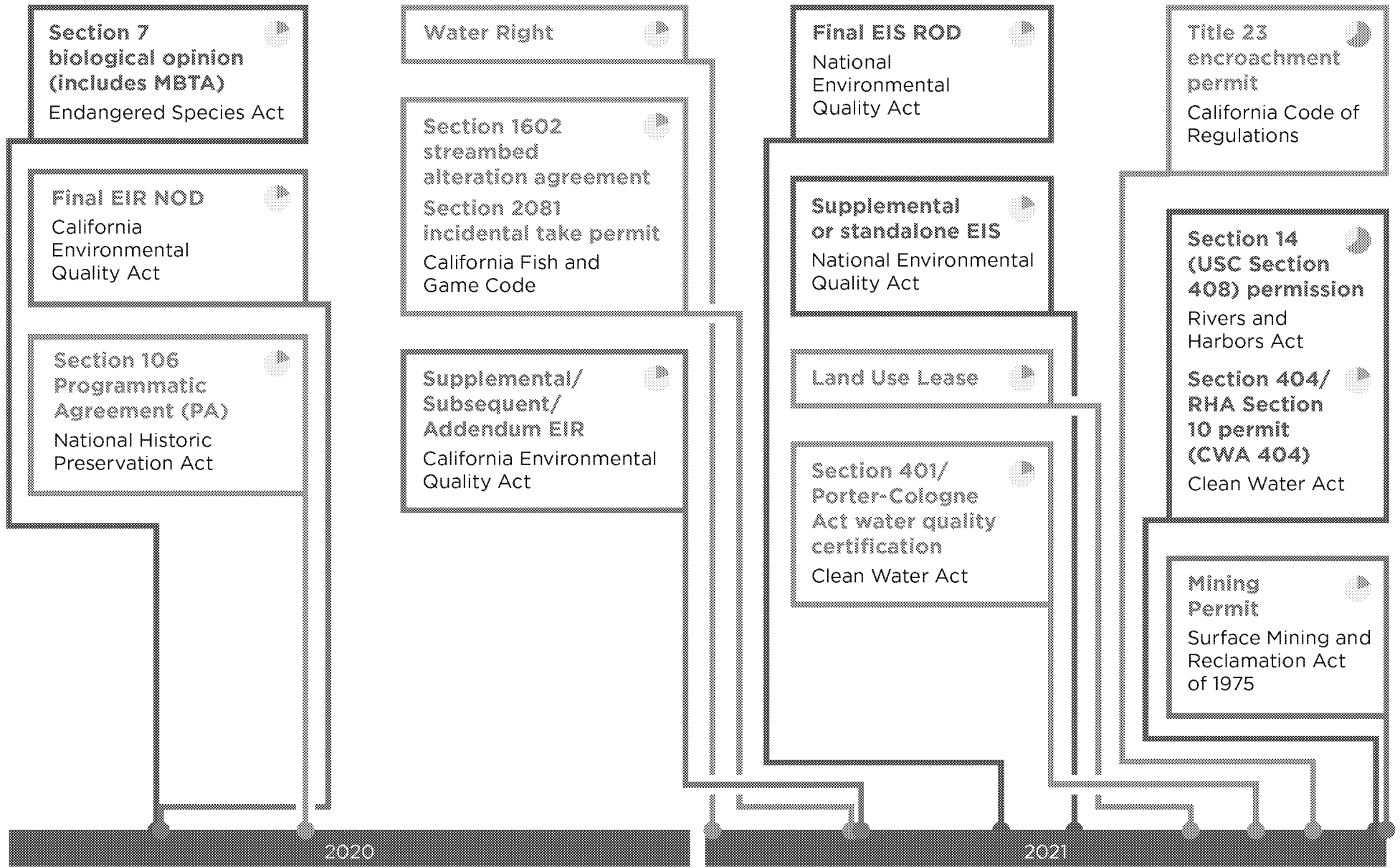
Purpose: Discussion of Baseline for Modeling and EIR/EIS Analysis

Attendees:

Jelica Arsenijevic, Sites Integration	Ali Forsythe, Sites Authority	Rob Tull, Jacobs
Ellen Berryman, ICF	Erin Heydinger, Sites Integration	Laurie Warner Herson, Sites Integration
Monique Briard, ICF	Jim Lecky, ICF	Nicole Williams, ICF
Linda Fisher, Sites Integration	John Spranza, Sites Integration	

Agenda:

Discussion Topic	Topic Leader	Time Allotted
1. Purpose of the Meeting	Ali	10 min
a. Identification of Appropriate/Defensible Baseline for Analysis		
2. Value Planning Preferred Project	Laurie/Jelica	10 min
3. What is the Appropriate Baseline for Analysis?	Nicole/Rob/Jim	45 min
a. Prior EIR/EIS Approach from Master Response 5: "The Existing Conditions assumptions used in the Final EIR/EIS accounts for all current conditions at the time of the release of the supplemental NOP (March 2017). This includes applicable regulatory requirements and operational criteria of the Central Valley Project (CVP) and State Water Project (SWP), including implementation of the 2008 USFWS and 2009 NMFS biological opinions; and the SWRCB water rights orders and decision and water quality criteria; municipal, environmental, and agricultural water uses; land uses; and relevant current plans and policies."		
b. Modeling/Regulatory Assumptions		
c. Update Existing Conditions/Baseline for EIR/EIS		
4. Additional Work Required to Support Baseline Identification	Monique/Rob	30 min
d. Coordination with Reclamation		
e. Coordination with Legal Counsel		
5. Desktop Research and Limited Field Reconnaissance – when does this occur?		
6. Upcoming Work Priorities/Action Items	Ali/all	10 min



- Local
- State
- Federal

4 Application Requirements

- Detailed project location description
- Detailed location description of project with maps
- Disclosure of resources affected by project
- Disclosure of permits, assessments and studies

- 30% design completion requirement
- 65% design completion requirement
- indication of permit completeness

From: Laurie Warner Herson [laurie.warner.herson@phenixenv.com]
Sent: 3/12/2020 9:43:36 AM
To: Alicia Forsythe [aforsythe@sitesproject.org]; John Spranza (john.spranza@hdrinc.com) [john.spranza@hdrinc.com]; Monique Briard (Monique.Briard@icf.com) [Monique.Briard@icf.com]; Heydinger, Erin [Erin.Heydinger@hdrinc.com]; Jelica Arsenijevic (Jelica.Arsenijevic@hdrinc.com) [Jelica.Arsenijevic@hdrinc.com]; Linda Fisher (linda.fisher@hdrinc.com) [linda.fisher@hdrinc.com]
Subject: RE: Sites - Organization Assessment Table - Input by Noon 3/12

I have no comments. Although ... regarding 9.1 comparative costs of mitigation, I agree that priority should be higher but the issue/concern has somewhat morphed post-value planning and would be limited to the preferred project and whatever else we decide to include in the EIR/EIS.

From: Alicia Forsythe [mailto:aforsythe@sitesproject.org]
Sent: Tuesday, March 10, 2020 5:04 PM
To: John Spranza (john.spranza@hdrinc.com) <john.spranza@hdrinc.com>; Laurie Warner Herson <laurie.warner.herson@phenixenv.com>; Monique Briard (Monique.Briard@icf.com) <Monique.Briard@icf.com>; Heydinger, Erin <Erin.Heydinger@hdrinc.com>; Jelica Arsenijevic (Jelica.Arsenijevic@hdrinc.com) <Jelica.Arsenijevic@hdrinc.com>; Linda Fisher (linda.fisher@hdrinc.com) <linda.fisher@hdrinc.com>
Subject: Sites - Organization Assessment Table - Input by Noon 3/12

Hi all –

Attached is the table in its current format. Please take a look and provide any comments / suggested changes in track changes. I could use your input by noon Thursday as I think this will be going in the Board packet that should be done on Friday. Sorry for the mad rush.

I've also attached the Organizational Assessment in case its helpful.

Ali

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Reservoir Project | 916.880.0676 |
aforsythe@sitesproject.org | www.SitesProject.org

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From: Briard, Monique [Monique.Briard@icf.com]
Sent: 3/12/2020 9:53:54 AM
To: Heydinger, Erin [Erin.Heydinger@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]; Spranza, John [John.Spranza@hdrinc.com]; Laurie Warner Herson [laurie.warner.herson@phenixenv.com]; Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]; Fisher, Linda [Linda.Fisher@hdrinc.com]
CC: Boling, Robert M. [Robert.Boling@hdrinc.com]
Subject: RE: Sites - Organization Assessment Table - Input by Noon 3/12
Attachments: Sites_PermitMatrix_082719.pdf; 20200310_Org Assesment Table - EH_ICF comments.docx

Flag: Follow up

Ali,

Thank you for the opportunity to review the table. I have added a few edits and comment bubbles to the table.

Attached is a copy of a 2019 permit matrix that I developed (similar to what is included in the EIR/EIS) that we can update and submit if you want to commit to an earlier date than 12/20 for 1.3.

Thanks,
Monique

From: Heydinger, Erin <Erin.Heydinger@hdrinc.com>
Sent: Wednesday, March 11, 2020 7:35 AM
To: Alicia Forsythe <aforsythe@sitesproject.org>; Spranza, John <John.Spranza@hdrinc.com>; Laurie Warner Herson <laurie.warner.herson@phenixenv.com>; Briard, Monique <Monique.Briard@icf.com>; Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>; Fisher, Linda <Linda.Fisher@hdrinc.com>
Cc: Boling, Robert M. <Robert.Boling@hdrinc.com>
Subject: RE: Sites - Organization Assessment Table - Input by Noon 3/12

Hi Ali,

Thanks for sending this over – it looks good and I like how it was set up. A couple of items (which I also included in the attached):

- I attached a permitting graphic Madalyn started last summer. This is now very out of date and was never finalized, but something similar might be what the participants are looking for with respect to Action # 1.4
- Action # 3.2 may be referring specifically to DWR participation. We could propose to revisit this after we update the demand patterns and know which participants are signing up again for the Amendment 2 Work Plan (thinking Available Capacity memo or something similar).
- I'm not sure I understand what Action #10.1 means?
Determine process and schedule to deliver information regarding the cost of storage versus the cost of yield in the context of developing a tiered pricing approach."
- Action #13: Staff will document and track all governance member questions and provide responses to the governance members.
 - We developed something and it is available in Smartsheet. We just need to start using it. I think we can move this due date up to April.

CC'd Robert because I know he has been thinking about the response to the Org Assessment as well.

Please let me know if you have questions.

Erin

Erin Heydinger PE, PMP

From: Alicia Forsythe <aforsythe@sitesproject.org>

Sent: Tuesday, March 10, 2020 5:04 PM

To: Spranza, John <John.Spranza@hdrinc.com>; Laurie Warner Herson <laurie.warner.herson@phenixenv.com>;
Monique Briard (Monique.Briard@icf.com) <Monique.Briard@icf.com>; Heydinger, Erin <Erin.Heydinger@hdrinc.com>;
Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>; Fisher, Linda <Linda.Fisher@hdrinc.com>

Subject: Sites - Organization Assessment Table - Input by Noon 3/12

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Hi all –

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I've also attached the Organizational Assessment in case its helpful.

Ali

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Reservoir Project | 916.880.0676 |
aforsythe@sitesproject.org | www.SitesProject.org

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Authorization/Permit	Regulatory Agency	Trigger	Needed for	Target Approval Date	Status/Notes	Permitting Timelines
CEQA: Final EIR NOD	Sites JPA	Discretionary authority to approve and implement a project	Construction, CF&GC 1602, CF&GC 2081, CWA 401, CVFPB encroachment permit, CSLC lease, water right, property acquisition, state funding	3/30/2020	Currently working on responses to comments on Draft EIS/EIR	Schedule driven by lead agency
NEPA: Final EIS ROD	USBR	Discretionary authority to approve and fund a project	Funding approval	6/7/2021	Currently working on responses to comments on Draft EIS/EIR	Schedule driven by lead agency; assumes signature required by Assistant Secretary of Water and Science
CEQA: Supplemental /Subsequent/ Addendum EIR	Sites JPA	Discretionary authority to approve and implement a project, specifically for project changes/refinements	Construction, CF&GC 1602, CF&GC 2081, CWA 401, CVFPB encroachment permit, CSLC lease, water right	3/29/2021	The type of document required will be dependent on the level of changes needed.	Schedule driven by lead agency
NEPA: Supplemental or standalone EIS	USACE Operations	Discretionary approvals under CWA (Section 10 and 404) and RHA (Section 408)	Construction, CWA 404/10 permit, RHA Section 408 permission	~7/2021	Supplemental or standalone document will be adopted post USBR EIS ROD. EIS for 408 action needed for levee modifications at Delevan intake and 404 individual permit requirement of 404(b)(1) Alternative Analysis	Schedule driven by USACE and applicant
CCR: Title 23 encroachment permit	CVFPB	Work in a designated floodway; reviewed in conjunction with USC 408 permission	Construction	11/19/2021	CVFPB will initiate the 408 consultation with USACE	CVFPB has 10 days to determine completeness of application, but total timeline is dependent on USC Section 408 review. Total process typically takes 6 to 9 months.
RHA: Section 14 (USC Section 408) permission	USACE Operations	Alteration and/or occupation of a Civil Works project (Delevan intake)	Construction, CWA 404, NEPA ROD (USACE), CVFPB encroachment permit	12/27/2021	Will want to meet criteria to stay at the USACE Division level for approval. 65% drawings and USACE NEPA document required. USBR led Section 106 and Section 7 consultation will be used for the 408 permission.	USACE has 30 days to determine completeness of submittal and 90 days to review and issue decision (total of 120 days). If a multi-phased review is requested, this timeline applies to each phase.
CWA Section 404/RHA Section 10 permit (CWA 404)	USACE Regulatory	Discharge to Waters of the U.S. and Navigable Waters	Construction, Section 408 permission, NEPA ROD (USACE)	12/27/2021	Individual Permit will require public notice, public interest review, individual NEPA analysis and a 404(b)(1) Alternative Analysis	USACE decision dependent on the timing of additional permits and reviews (e.g., Water Quality Certification, an approved Compensatory Mitigation Plan, or other federal Processes [CZMA, NHPA, or ESA Section 7]).
ESA: Section 7 biological opinion (includes MBTA)	USFWS	Construction and Operations potential effects ESA terrestrial species	Construction, CWA 404, NEPA ROD (USBR and USACE)	3/25/2020	Admin Draft submitted to Sites and Reclamation 7/28. Updating to include project description details, operations criteria and additional analysis. Consultation with FWS anticipated to resume in September 2019.	Presidential Memo timeline. Standard consultation is supposed to last 135 days after submittal of Biological Assessment (90 days for Corps/USFWS/NMFS consultation, 45 days to prepare the Biological Opinion).
ESA: Section 7 biological opinion (includes MSFCMA)	NMFS	Construction and Operations potential effects on ESA fish species	Construction, CWA 404, NEPA ROD (USBR and USACE)	3/25/2020	Admin Draft submitted to Sites and Reclamation 7/28. Updating to include project description details, operations criteria and additional analysis. Consultation with NMFS and CDFW to develop the Proposed Action anticipated to begin in September 2019.	Presidential Memo timeline. Standard consultation is supposed to last 135 days after submittal of Biological Assessment (90 days for Corps/USFWS/NMFS consultation, 45 days to prepare the Biological Opinion).
NHPA: Section 106 Programmatic Agreement (PA)	SHPO	Potential effects on listed or eligible cultural resources	Construction, CWA 404, Section 408, NEPA ROD (USBR and USACE)	6/3/2020	Draft PA scheduled to be submitted for review September 2019. Will need to engage USACE to be a signatory party. Outreach with Tribes, treatment and relocation plans, effects analysis and field work/surveys will be phased to be completed prior to start of construction.	Consultation for a Section 106 PA can take up to a year, depending on the complexity of the project.
CF&GC: Section 2081 incidental take permit	CDFW	Potential effect on State-listed fish and wildlife	Construction	3/26/2021	Final EIR NOD is needed, and mitigation purchased or bonds posted for permit to be valid.	30 days to determine application for a take permit is complete, then 90 days to issue the permit.
CF&GC: Section 2081 incidental take permit	CDFW	Potential effect on State-listed fish and wildlife	Operations	12/31/2021	Final EIR NOD is needed, and mitigation purchased or bonds posted for permit to be valid.	30 days to determine application for a take permit is complete, then 90 days to issue the permit.
CF&GC: Section 1602 streambed alteration agreement	CDFW	Modification of a lake, river, or stream	Construction	3/26/2021	Anticipate phasing of construction and obtaining up to 6 agreements prior to start of construction in 2021. CDFW's general practice is to issue 2081 permit first and then base 1602 conservation measures and mitigation on the 2081 requirements.	Submit application, 30 days to determine completeness, then 60 days to issue draft agreement. If the applicant submits comments to draft agreement, CDFW must respond within 30 days.
CF&GC: Section 1602 streambed alteration agreement	CDFW	Modification of a lake, river, or stream	Operation	12/31/2021	12-year agreement to cover routine maintenance activities of the facilities and long-term diversion of a stream.	Submit application, 30 days to determine completeness, then 60 days to issue draft agreement. If the applicant submits comments to draft agreement, CDFW must respond within 30 days.
CWA: Section 401/ Porter-Cologne Act water quality certification	SWRCB	Discharge to Waters of the State	Construction, CWA 404	10/21/2021	Will need to analyze and mitigate for both dredging and fill activities.	Submit application, 30 days to determine completeness, 60 days after determined complete to issue or deny certification.
Land Use Lease	CSLC	Work on sovereign land; specifically, below OHWM of Sacramento River	Construction	~9/2021	Will require approval at a Board meeting (infrequently scheduled). Will require copy of FEIR NOD.	30 days to determine if application is complete. Approval timelines depend on CEQA/NEPA authorizations and may take over a year to complete.
Water Right	SWRCB	Diversion of water from a specified source and put to a beneficial, nonwasteful use	Water diversions	1/3/2021	Application to be submitted March 2020, will need Final EIR and NOD as well as CDFW and NMFS buy-off to resolve potential protests for approval	Once application submitted, 30 days to deem complete, 60 days for applicant to correct any defects if deemed non-complete. May need Supplemental CEQA. 60 Days to allow public review and protests, Resolve protests by 10/2020. Water Right Hearing Oct 2020, decision issued Jan 2021
SMARA mining permit	Colusa County, Glenn County	Borrow pitting exceeding 1 acre or removal of more than 1,000 cubic yards of material	Onsite borrow activities	12/31/2021	EnviroMINE will be a subconsultant in Phase II to lead this effort.	Once application submitted, 30 days to deem complete, 30 days for written comments and 30 days notice to approve plan. Additional time needed if Financial Assurances Review process is required.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
1.1	F	Prepare an analysis of the major regulatory decisions being made regarding flow in the Sacramento River and Delta and determine flow-related permitting strategy with identification of risks.	Permitting strategy memo was prepared by ICF in May 2019 and updated through CDFW meetings in fall/winter 2019. A revised version that will include updates with recent relevant changes is in progress.	Staff will review prior related materials and prepare the analysis identified.	High	August 2020	Ali Forsythe	
1.2	E	Prepare an analysis of the major comments received on the draft EIR/S. Identify approach to addressing those comments and working with specific commenters.	<ul style="list-style-type: none"> March 29, 2019 – Jacobs provided a memo that included Draft EIR/EIS Comments Matrix, Master Response Topics, Key Comment Letter Summaries, and draft Initial Responses. April 12, 2019 – Strategy meetings were initiated with ICF, Reclamation and Authority to address overall approach as well as specific topics. Based on these strategy sessions, an outline for the Final EIR/EIS was prepared and an approach for responding to comments, including master responses to comments was identified and forwarded to both CEQA (Authority) and NEPA (Reclamation) legal counsel. June 5, 2019 – ICF provided master response annotated outlines and commenced preparing responses. In addition, the Authority EPP began meeting with key commenters, (e.g., CDFW, NRDC, Humboldt County, etc.) to clarify issues of concern. 	<ul style="list-style-type: none"> The work that has been completed to date in responding to comments will be utilized in either the completion of a Final EIR/EIS or in preparing a Recirculated Draft EIR/EIS. Assuming recirculation of the Draft EIR/EIS is the preferred approach for moving forward based on the status of the Value Planning effort, ICF is in the process of preparing a strategy/work plan to be completed in April 2020. The Authority EPP will also continue outreach to Draft EIR/EIS commenters and Agencies as efforts move forward. 	High	<ul style="list-style-type: none"> Analysis completed under original work plan and to be updated April 2020 with preparation of EIR/EIS Work Plan Meetings with specific commenters – ongoing throughout 2020 and 2021 	Ali Forsythe	

Commented [AF3]: This sounds like a long way out, but I just feel like we have been so slammed lately that I wanted to push some of these dates out. Its going to take us a while to get to some of this with everything else going on.

Commented [AF1]: Can I get a copy of this? I don't know that I have seen it.

Commented [BM2R1]: There are 3 memos that John sent to you on 3/11

Commented [BM4]: I'd like to move this to May since we will be working on it through April and moving it out a month will give us time for any potential changes/coordination/issues.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
1.3	E	Identify legal requirements of the environmental laws that Sites will be required to comply with.	Preliminary list of permit requirements and other approvals were included in the Draft EIR/EIS released in August 2017.	The preliminary list will be updated in the development of the Revised Draft EIR/EIS.	Medium	Dec 2020	Ali Forsythe	
1.4	F	Establish a permitting flow chart with realistic timelines.	In 2019, the Environmental Planning and Permitting team developed and maintained an MS Project schedule.	<ul style="list-style-type: none"> Environmental Planning and Permitting team along with the Operations and Engineering teams is currently developing a detailed project schedule focusing on activities thru the end of 2021. Develop planning / permitting flow chart and add in key dates from schedule effort. Present summary schedule and flow chart to Res Com and Board and then track progress monthly thereafter. 	High	<ul style="list-style-type: none"> April 2020 Res Com and Board meetings – Detailed and summary schedule completed along with flow chart On-going – Track and report on progress 	Ali Forsythe	
1.5	E/F	Prepare analysis of the draft EIR/S for use by all of the permitting agencies to issue permits upon the finalization of the EIR/S. Identify schedule for document completion.	A preliminary list of permit requirements and other approvals were included in the Draft EIR/EIS released in August 2017.	<ul style="list-style-type: none"> Analysis – As the team works to develop a revised project description and revise the Draft EIR/EIS, the permitting agency comments will be reviewed in response to Action 1.2 and a regulatory agency technical team will be formed in response to Action 2.4. These two efforts will collectively address the analysis request in this action. Schedule – See Action 1.4 for schedule development. 	Addressed thru other Action Items	--	--	--

Commented [BM5]: ICF has created a similar table that can be updated and submitted if an earlier completion date is needed.

Commented [HE6]: See attached for draft from Madalyn that was started last summer. Could be updated.

Commented [BM7]: I agree with Erin, I think to fully address this action we will want to include all permits since the schedule is for just the key permits to be submitted in 2021. We have examples from other projects that we can discuss to show the sequencing of permit needs.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
1.6	General Manager	Determine if Water Commission has authority to grant schedule relief. If yes, then formally request schedule relief. If no, then figure out a legislative fix and timing.	The Authority has had a number of discussions with Water Commission staff over the past few years.	<ul style="list-style-type: none"> Work with Legal Counsel, and Gov't Relations Team to review statute in detail and determine options. Present options along with pros/cons at future Workshop or Reservoir Committee/Board meeting to determine path forward. 	High	June 2020	Jim Watson	
1.7	E	Prepare an analysis of the pros and cons along with a staff recommendation to present to the governance bodies on whether to spend additional time and money pursuing WIIN Act funding.	Extensive coordination with Reclamation has been conducted to date and Reclamation anticipates providing being its final review process of their Feasibility Report in April. Staff has also developed a strategy on how to bring the Federal Feasibility Report in line with the Value Planning effort by next summer (2021).	Staff will prepare the analysis requested and elevate for decision-making to the Reservoir Committee and Board.	High	June 2020	Ali Forsythe	
1.8	--	Determine if there is a viable strategy to phasing, which could allow for additional project partners.	The Value Planning exercise has formulated potential projects around meeting the needs of current participants with the opportunity to expand in the future.	Reservoir Committee/Board will be selecting a preferred project in April. All alternatives have the ability to be phased should the Reservoir Committee/Board chose to do that.	No Action	--	--	--
2.1	F	Develop an interest, science based permitting strategy.	Permitting strategy memo was prepared by ICF in May 2019 for the fisheries analysis approach and recommended approach with NMFS and CDFW updated through CDFW meetings in fall/winter 2019. A revised version that will include updates with recent relevant changes is in progress.	Staff will review prior related materials and prepare the strategy identified for the key permits (Water Rights, USFWS & NMFS Joint Biological Assessment, Section 106 Programmatic Agreement, CDFW Take Permit for Operations and Construction, and USACE Section 408/404 permits).	High	August 2020	Ali Forsythe	
2.2	F	Determine when appropriate for project staff and governance members to be involved in the permitting process and at what level.	--	This is addressed on a case-by-case, situation-by-situation basis.	No Action	--	--	--

Commented [AF10]: This sounds like a long way out, but I just feel like we have been so slammed lately that I wanted to push some of these dates out. Its going to take us a while to get to some of this with everything else going on.

Commented [AF8]: Can I get a copy of this? I don't know that I have seen it.

Commented [BM9R8]: John sent you copies on 3/11, though these memos are focused on NMFS and CDFW so all of the agencies involved in the key permits will need to be included in the updated version of the strategy memo (Water Rights, Corps, Reclamation consultation action area, etc.)

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
2.3	F	Determine if overall project provides a "net environmental benefit" beyond cold water pool in Shasta. If yes, then work to get agency and NGO buy in.	Outside of the Refuge water supply and Delta smelt benefits, net environmental benefits were identified in the WSIP application related to cold water pool management in Shasta. CDFW expressed concerns with using these net environmental benefits to offset impacts in their 2081 permit – requesting "assurances" that benefits would occur.	<ul style="list-style-type: none"> Revised net environmental benefits will be determined as part of the development of operational criteria. Agency and NGO discussions are planned to occur throughout 2020. 	High	December 2020	Ali Forsythe	
2.4	F	Establish a regulatory agency technical advisory committee at the staff level that meets regularly.	A number of meetings were held with CDFW, USFWS, and NMFS in 2019, including the CDFW "60-day" process that included technical, management, and executive level meetings.	A regulatory agency technical team will be established in spring / early summer 2020 as environmental planning and permitting activities are restarted.	High	June 2020	Ali Forsythe	
3.1	D	Quantify and get agreement from the state and feds as to what the benefits are to an integrated operation with the SWP and CVP.	Sites Reservoir operations scenarios have assumed have been operated assuming an integrated operation of the SWP and CVP. Numerous discussions have occurred with DWR and Reclamation on operations criteria and benefits.	<ul style="list-style-type: none"> Development of a revised operational scenario is scheduled to be completed in June 2020. Modeling and analysis to quantify benefits of the revised operational scenario is scheduled to be completed in December 2020. Sites staff will be working with Reclamation and DWR throughout the development and analysis of the revised scenarios to both quantify and obtain agreement on criteria and resulting benefits of an integrated operation with the SWP and CVP. Discussions with SWP and CVP should be memorialized in draft agreements and the Operations Plan, Version 1.0 in 2020. 	High	December 2020	Ali Forsythe	

Commented [BM11]: We could also include that monthly mtgs with the EPP Ad Hoc WG started in Jan, so this has technically already started.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
3.2	C	Establish a strategy to get state and federal agencies to be storage investors.	<ul style="list-style-type: none"> The State is committed to being an investor in the project through the WSIP program. Federal participation is addressed in Action Item #1.7. 	<ul style="list-style-type: none"> Build schedule to meet the current requirements of the CWC WSIP to maintain state current level of investment Continue to position with CWC to get additional funding through WSIP should funds come available. Working with government affairs work group to position for potential funds in a November state water bond. Address Federal participation through Action Item #1.7. 	High	Ongoing	Kevin Spesert	
4.1	H	Review all facility planning previously completed by DWR to make certain that there are not missed opportunities to integrate new facilities with existing facilities	The Value Planning effort has taken a close look at project facility needs and costs and has re-evaluate all of the previously identified facilities.	Complete the Value Planning Report and adopt a new Preferred Alternative.	High	April 2020	Lee Fredrickson	
5.1	B	Once a schedule is developed, then make certain to include all anticipated Board decisions that are critical path to project development.	--	A detailed project schedule that includes identification of critical path actions and focuses on activities thru the end of 2021 is under development.	High	April 2020	Jim Watson	
5.2	Board / Res Comm	Once a new schedule is agreed to, governance members need to dedicate enough time to keep up with the agreed upon pace of this project.					Fritz Durst / Thad Bettner	
5.3	General Manager	Get materials to governance members at least a week in advance that clearly identifies decisions to be made, any analysis being made in support of the authority staff recommended decisions, and other options that were considered.	Staff have previously developed templates for Reservoir Committee and Authority Board materials.	<ul style="list-style-type: none"> Work with a small group of Reservoir Committee and Authority Board members to identify templates / example documents that may serve as guides. Develop new templates / document formats in coordination with small group for review / input by Reservoir Committee and Authority Board. 	High	July 2020	Jim Watson	

Commented [HE12]: May be referring to DWR vs. WSIP funds. Could do an "available yield" memo or something similar after demand patterns have been updated and participants sign up again for Amendment 2 WP work.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
5.4	Board / Res Comm	As part of the new schedule, each governance member should identify which decisions warrant staff making a presentation to their individual agency to make certain that they are in concurrence with the direction the project is moving.					Fritz Durst / Thad Bettner	
5.5	--	Use joint Board workshops and individual agency meetings to walk thru assumptions and anticipated outcomes so that when a decision comes to governance members for approval, the information will not be new.	Staff has started to utilize joint Board / Reservoir Committee workshops in 2019.	<ul style="list-style-type: none"> Staff will continue to propose and utilize joint Board / Reservoir Committee workshops as appropriate for specific topics. Individual agency meetings may be initiated by staff or by an individual agency and tracked thru the process developed under Action Item #13 below. No additional specific action will be taken to address this Action Item. 	--	Ongoing	--	--
5.6	C	Review the costs and deliverables accrued to date and tie future cash calls to anticipated deliverables.	Staff has worked to tie cash calls to deliverables in the recent Amendment 1B efforts. However some activities are more ongoing business that do not necessarily result in a deliverable.	<ul style="list-style-type: none"> Annual Report – Prepare a 2019 Annual Report that summarizes accomplishments and expenditures to date. Continue to refine and expand the content of the Annual Report and prepare it annually into the future. Amendment 2 Workplan – Work to tie deliverables by service area for this amendment and explain areas where there may not be a “deliverable”. 	High	April 2020	Joe Trapasso	
6.1	A	Determine process and schedule to deliver cost per acre-foot and long-term debt information to project investors	Cost per acre-foot has historically been developed and shared with members. In late 2019, staff developed a “Cash Flow” tool to help show long-term debt information.	<ul style="list-style-type: none"> Continue to present cost per acre-foot when discussing affordability. Update Cash Flow tool periodically as assumptions change or become outdated. 	High	April 2020 – Updates as a result of Value Planning efforts Future – Periodic updates as changes occur	Lee Fredrickson	

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
7.1	--	Determine process and schedule to deliver how long-term costs of this project compare to other sources of water.	Information on costs of other sources of water is difficult to obtain. In addition the "value proposition" for each member agency will be different depending on a number of factors including ag, M&I uses, water located north or south of Delta, length of agreement, and risks.	As this is different for each member and information is difficult to obtain, no additional work is proposed.	Low	--	--	--
8.1	A	Prepare a financial plan that lays out the potential sources of funding including California IBank.	The scope and budget for the development of a financial plan was deferred by the Reservoir Committee / Board to a later date.	Develop finance plan as part of Amendment 2.	Medium	July 2021	Jim Watson	
9.1	F	Prepare a Board briefing on the comparative costs of mitigation from comparable projects to help determine a level of reasonableness.	Mitigation cost technical memorandum was prepared by CH2M Hill in 2016. Additional mitigation cost reviews were prepared in October of 2019 and February 2020 for the Value Planning Process.	Mitigation planning and a class 4 cost estimate are scoped to occur in Amendment 2 (late 2020/early 2021).	Low	Late 2020	Ali Forsythe	
10.1		Determine process and schedule to deliver information regarding the cost of storage versus the cost of yield in the context of developing a tiered pricing approach.						
11.1	--	Once the governance members agree on a project schedule then have staff only focus on scope thru permitting and come up with a budget.	We are currently working under the direction the committee/board approved for Workplan Amendment 1B which prioritized env planning, env. Permitting, operations and value planning. We have proposed to the committee/board that Workplan Amendment 2 focus on Env. Planning, Env Permitting, operations and feasibility		No action			
12.1	Board / Res Comm	Hold team building sessions to better understand how governance members process information and make decisions with the anticipated outcome for governance members and authority staff to agree upon their respected roles and responsibilities.					Fritz Durst / Thad Bettner	

Commented [SJ13]: This should be moderate or high.

Commented [HE14]: Not sure I understand what this means.

**Action Items and Schedule in Response to Organization Assessment
March 9, 2020**

Action #	Primary Service Area	Summary of Action	Activities Completed To Date	On-going and Suggested Future Activities to Address Recommendation	Priority (High, Medium, Low)	Target Completion Date	Person Responsible	Status
12.2	General Manager	Authority staff should work to make Board meetings more of a final sign off or endorsement of a policy decision or budget approval.	This action item is similar to Action Item #5.5.	See Action Item #5.5.	--	Ongoing	--	--
13	B	Staff will document and track all governance member questions and provide responses to the governance members.	--	Staff will develop a tracking tool to track member questions and information requests and update it on a regular basis.	High	August 2020	Joe Trapasso	
14.1	F	Concerns with the structure and information flow from the CDFW discussions.	--	<ul style="list-style-type: none"> Hold more frequent Environmental and Permitting Work Group meetings to provide updates on the CDFW efforts. Continue to provide updates at the Operations Work Group meetings on the CDFW efforts. 	High	Throughout 2020	Ali Forsythe	
15.1	General Manager	Prepare a discussion paper on what lessons have been learned by other similar projects that can potentially be adopted for use by the Sites Project.	--	Staff will prepare the requested discussion paper.	Medium	December 2020	Jim Watson	
15.2	Board / Res Comm	Create a joint strategic plan for the Reservoir Committee and Board.					Fritz Durst / Thad Bettner	
16.1	C	Create a strategy to get Reclamation to the table to describe what the local investment will do for their contracts.	See Action Item #1.7.	Such as strategy will be coordinated with Action Item #1.7.	High	June 2020	Kevin Spesert	
16.2	C	Explore the concept of beneficiary pays to accurately account for the benefits received by each investor and consider a tiered pricing system.	The concept of beneficiary pays has been discussed a number of times. Once a Preferred Project has been selected and additional design / use / beneficiary information is better understood, the concept of beneficiary pays can be explored further.	Explore the concept of beneficiary pays as design and cost information progresses. Refine and have an agreed upon approach for Phase 3 (post 2021).	Medium	June 2021	Joe Trapasso	
16.3	Board / Res Comm	Formally request south of Delta investors to identify ways of keeping north of Delta ag in the project.					Fritz Durst / Thad Bettner	
17.1		Perform analysis to validate if increased partnerships would result in the project becoming more affordable.	--	There are a variety of partnerships that may be explored moving forward. Staff will prepare the requested analysis.	Medium	June 2021	Joe Trapasso	

Commented [HE15]: Already started in Smarsheet. Need to start using. Could move up the due date to April 2020.
Link here:
<https://app.smartsheet.com/sheets/FVxq3g9XRgR82wF6Px7pW55pjVXR3Wgc5Gh88P91?view=grid>

Sites Reservoir Project
Schedule Assumptions – Service Area D, E, and F
March 12, 2020 – Draft

Service Area D – Operations

1. Operations analysis is iterative. Preliminary information and analysis will be provided to the Service Area E and F teams and, based on discussion as a team, will identify the likelihood and risk of the preliminary information changing and implications of those changes to operation criteria and potential mitigation costs.
2. Current conditions are used for the baseline hydrology.
3. ROC on LTO is used for the baseline operations.
4. Operations analysis includes 1 baseline and 2 alternatives.
5. The analysis will use Scenario B or similar diversion criteria.
6. Project facilities will be the same or similar as those identified in the current Value Planning efforts.
7. WSIP benefits will be limited to Incremental Level 4 refuge water supply and Yolo Bypass.
8. Sites will be integrated with CVP and SWP operations.
9. VAs will not impact operations.
10. Evaluation will be completed with current Sites tools.

Service Area E – Environmental Planning

1. Coordination with Agencies, NGOs, and Commenters on the 2017 Draft EIR/EIS is on-going throughout the development of the Revised Draft EIR/EIS and permit packages.
2. EIR/EIS is a joint document. If separated, then EIS can lag behind EIR (would also result in cost increase).
3. Reclamation is the lead federal agency for the EIS and will analyze the whole of the project (versus limited project actions).
4. The EIS is exempt from the page and time limits under Secretarial Order 3355.
5. The EIS will follow the executive review process in Secretarial Order 3355. This may result in schedule delays that are identified as schedule risks.
6. EIR/EIS includes 2 to 3 alternatives that generally vary based on different footprints or Reclamation participation.
7. Existing conditions will be updated based on new project boundaries and desk-top analysis.

Service Area F – Environmental Permitting

1. No or limited field data collection will be possible for biological and cultural. USFWS and CDFW will agree to approach to complete consultation without field surveys.
2. Reclamation will agree to consult under ESA and NHPA on the whole of the Value Planning alternative (versus a more limited action).
3. Reclamation and the USACE can quickly reach agreement on how to coordinate federal efforts under One Federal Project directives.

From: Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]
Sent: 3/18/2020 10:18:25 AM
To: Heydinger, Erin [Erin.Heydinger@hdrinc.com]
CC: Spranza, John [John.Spranza@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]
Subject: FYI - CDFFW Scenarios A and B

Hey Erin

I don't have the finalized table of Scenarios A and B, but John and Ali should. Below is what I have recently from PowerPoint and one of Rob's memo's.

**Operations Scenarios A and B
 Diversion Criteria Considered**

For Scenario A

- Wilkins Slough bypass = 8,000 cfs year-round
- Fremont Weir notch buffer of 1%
- Strict interpretation of new WaterFix ITP criteria would apply to Sites fills

For Scenario B

- Wilkins Slough bypass = 8,000 cfs April-May
- Fremont Weir notch buffer of 5%
- Relaxed interpretation of WaterFix ITP criteria

18 | Sutter River Planning, 2020 Mar 2 | Draft | Document Change

TABLE 4-3. SCENARIO B DIVERSION AND OPERATIONS CRITERIA.

Criteria	Scenario B
Wilkins Slough Bypass Flow	8,000 cfs April/May; all other times, 5,000 cfs
Fremont Weir Notch	Prioritize the Fremont Weir Notch, Yolo Bypass preferred alternative, flow over weir within 5%
Flows into the Sutter Bypass System ¹	No restriction due to flow over Moulton, Colusa, and Tisdale Weirs
Freeport Bypass Flow	Modeled WaterFix Criteria (applied on a daily basis) Post-Pulse Protection (applied on a moving 7-day average) Post-Pulse (3 levels) = Jan-Mar Level 2 starts Jan 1 st Level 1 is initiated by the pulse trigger
Net Delta Outflow Index (NDOI) Prior to Project Diversions	44,500 cfs between March 1st and May 31st

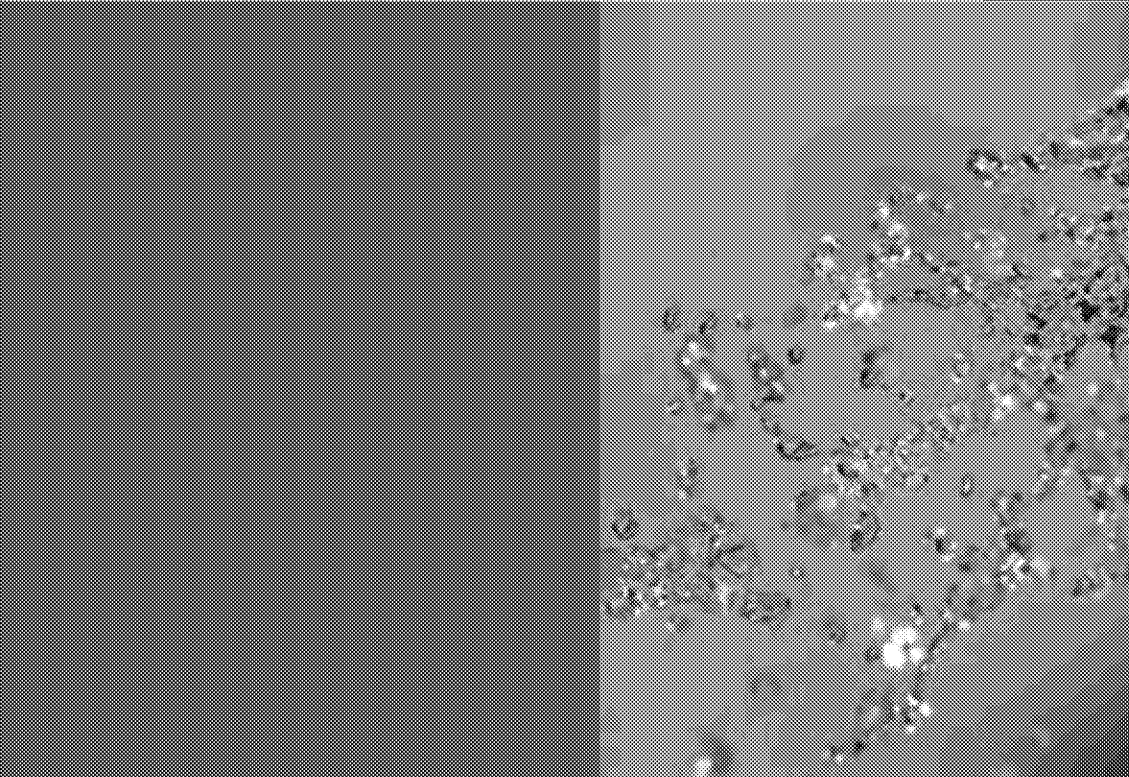
Jelica Arsenijevic
Environmental Project Manager



2379 Gateway Oaks Drive, Suite 200
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Jelica.Arsenijevic@hdrinc.com

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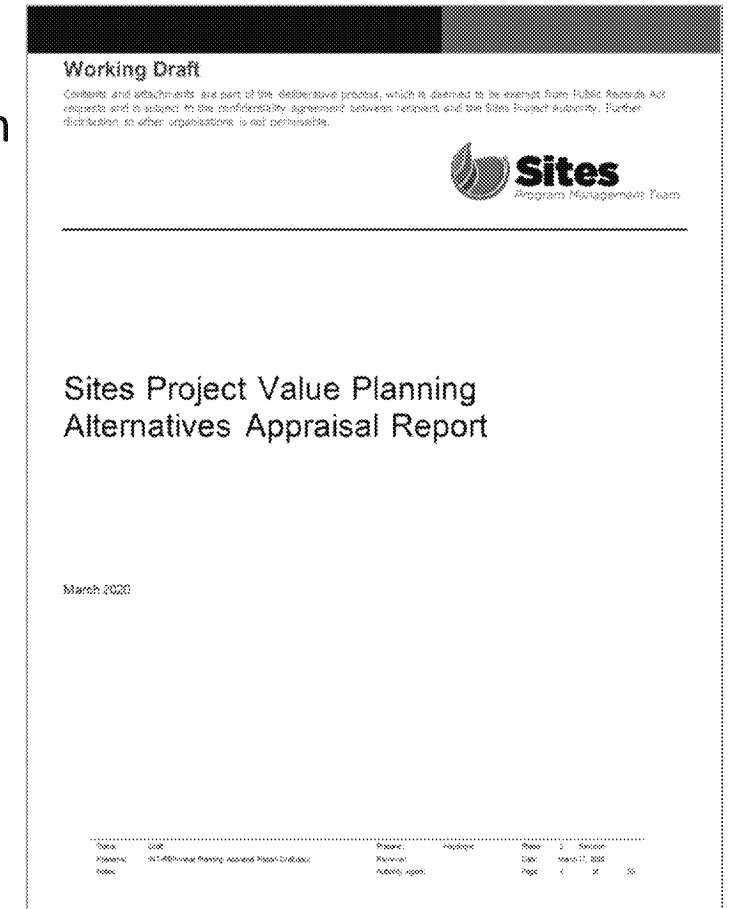
March Reservoir Committee 8.1: Home Board Presentation

March 2020



Proposed Home Board Package

- Amended Phase 2 participation agreements with updated work plan
- Value Planning Report
- Draft Storage Policy
- 2019 Annual Report
- 4-Page Prospectus
- Power Point template for presentations to home boards



Are there additional things you need for your home board?

2



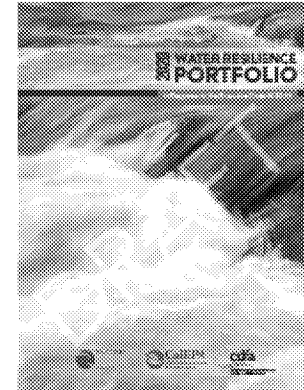
Sites Reservoir Project Executive Prospectus



March 2020

HIGHLIGHTS OF WHAT HAS BEEN ACCOMPLISHED TO DATE

- Named in the Governor's Water Resiliency Plan
- Reduced the construction cost by over \$2B through the value planning process
- Leveraged your investment dollars against other federal and state dollars. For every dollar you invested we stretched it into \$1.50
- Honed in on permitting criteria
- Adopted storage policy that you can use to meet individual investor needs



Additional Investments

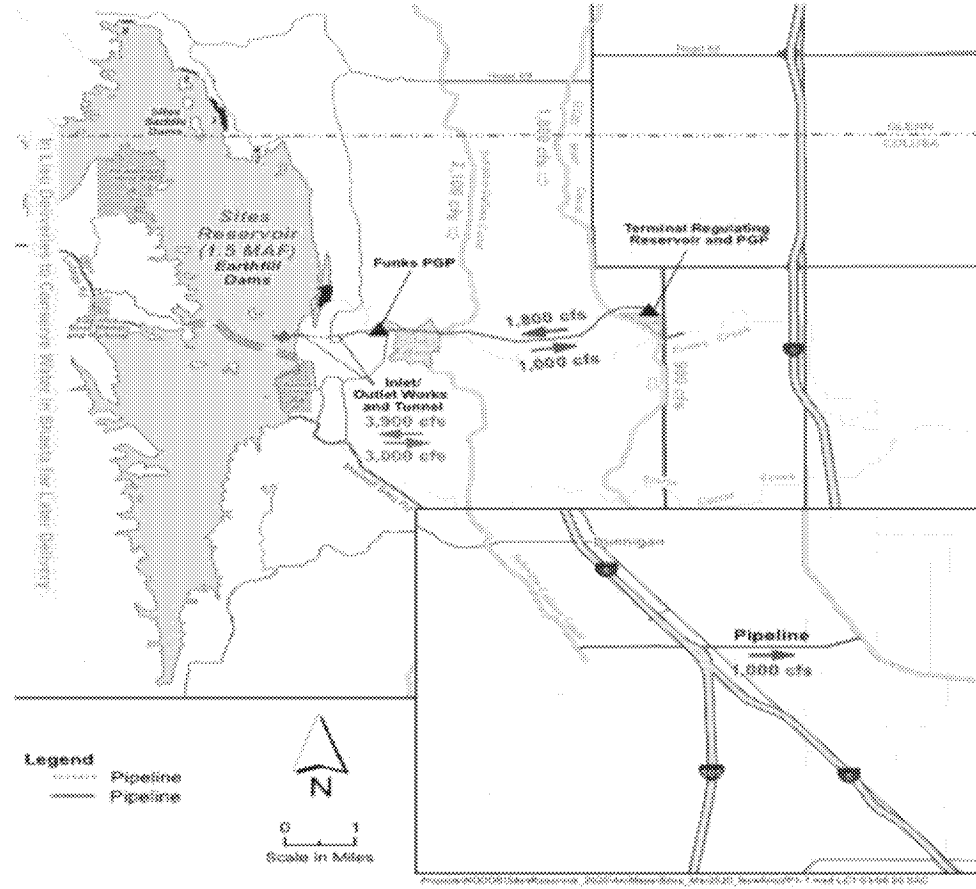
BOR WIIN Act	\$6M
USDA Low Interest Rate Loan	\$439M
Prop 1	\$816M

CURRENT PARTICIPATION

Member	Reservoir Participation (AFY)
Public Water Agencies	
North of Delta	52,142
South of Delta	140,750
Subtotal Public Water Agencies	192,892
State of CA (WSIP)	-40,000
Total Requirement	-230,000



VALUE PLANNING



Leveraged federal dollars to do geotech explorations in 2019

ENVIRONMENTAL PLANNING & PERMITTING

- Plan to Recirculate EIS

DIVERSION CRITERIA CONSIDERED				
Criteria	Scenario A		Scenario B	
Reservoir Size	1.5 MAF		1.5 MAF	
GCC Maintenance Window	2 weeks (Jan/Feb)		2 weeks (Jan/Feb)	
Wilkins Slough Bypass Flow	8,000 cfs		8,000 cfs April/May, all other times, 5,000 cfs	
Fremont Weir Notch	Prioritize the Fremont Weir Notch, Yolo Bypass preferred alternative, flow over weir within 1%		Prioritize the Fremont Weir Notch, Yolo Bypass preferred alternative, flow over weir within 5%	
Flows into the Sutter Bypass System	No restriction due to flow over Moulton, Colusa, and Tisdale Weirs		No restriction due to flow over Moulton, Colusa, and Tisdale Weirs	
Freeport Bypass Flow	Modeled WaterFix Criteria (applied on a daily basis) Pulse & Post-Pulse Protection (applied on a moving 7-day average) Pulse = Oct-Mar (35,000 cfs offramp) Post-Pulse (3 levels) = Oct-Jun Level 1 starts Oct 1st		Modeled WaterFix Criteria (applied on a daily basis) Post-Pulse Protection (applied on a moving 7-day average) Post-Pulse (3 levels) = Jan-Mar Level 2 starts Jan 1st Level 1 is initiated by the pulse trigger	
Net Delta Outflow Index (NDOI) Prior to Project Diversions	44,500 cfs between March 1st and May 31st		44,500 cfs between March 1st and May 31st	
Potential Range of Diversions to Fill Sites (Average)	Lower (Estimate) 189 TAF	Upper (Modeled) 209 TAF	Lower (Estimate) 242 TAF	Upper (Modeled) 272 TAF

OPERATIONS

Year Type	1,000 cfs Release Capacity (TAF)
Wet	116
Above Normal	286
Below Normal	273
Dry	382
Critically Dry	237
Long Term Average	243



AFFORDABILITY

- Continue to advance beneficiary pays concept

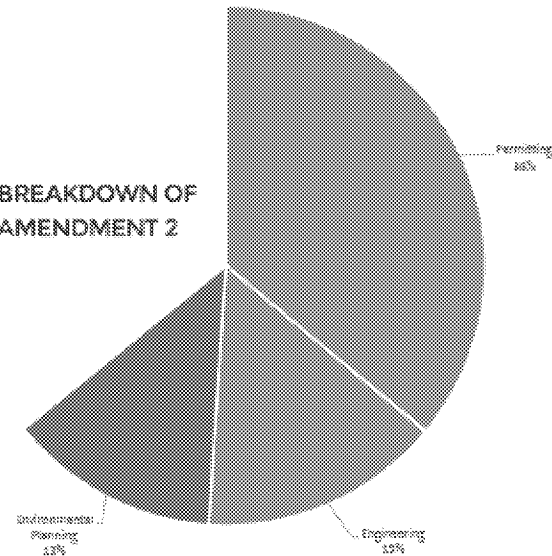
Annual Repayment Costs per Acre Foot of Release

Reservoir Size (MAF)	1.5
Project Cost (2019\$, billions)	\$3.0
Annualized AF/year Release (TAF)	2.43
PWA Annual Costs During Repayment Without WIFIA Loan (2020\$, \$/AF)	\$648
PWA Annual Costs During Repayment With WIFIA Loan (2020\$, \$/AF)	\$598

NEXT STEPS

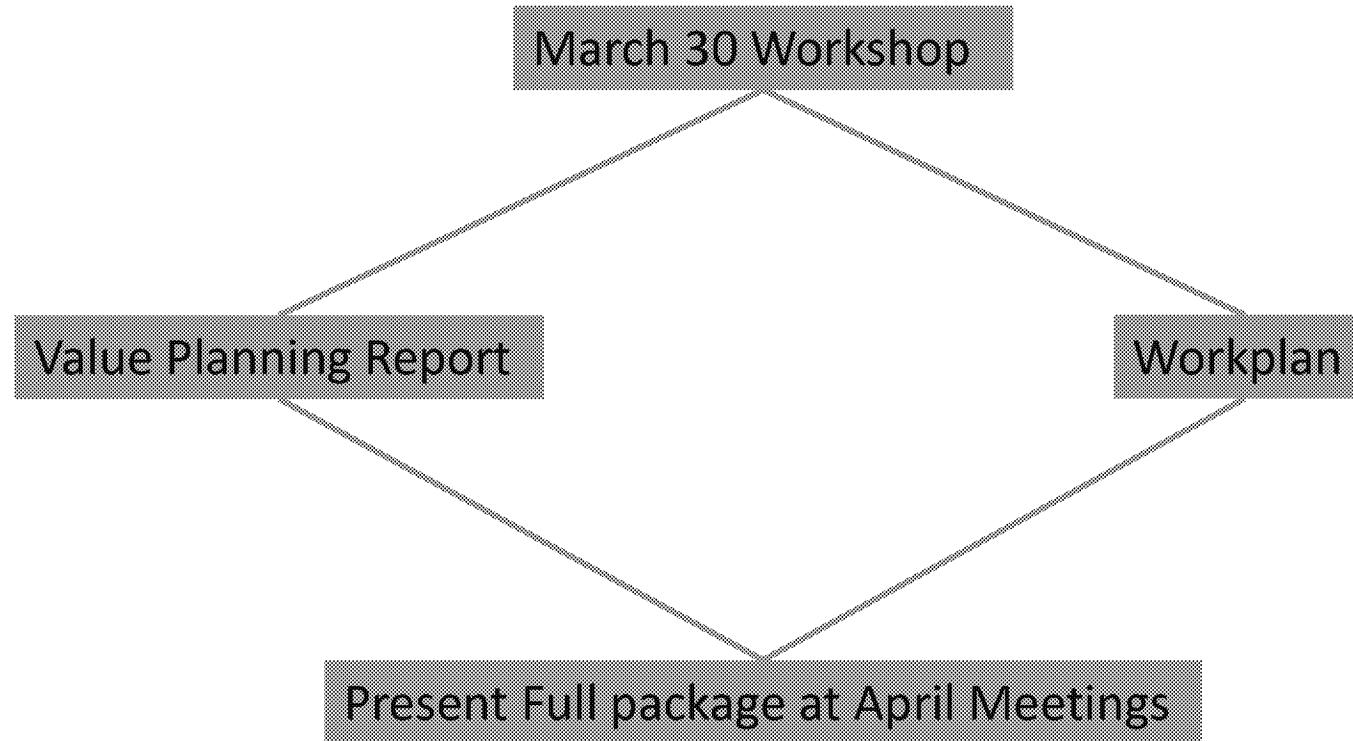
- Workplan Highlights include
 - Operations/SWP/CVP Exchange Refinements
 - Advancing Permitting Certainty
 - Recirculation of Draft EIS
 - Feasibility Study
 - State and Federal Grant Administration
 - Continue to strengthen community and landowner relationships
 - Develop plan to advance the project past 2021

BREAKDOWN OF AMENDMENT 2

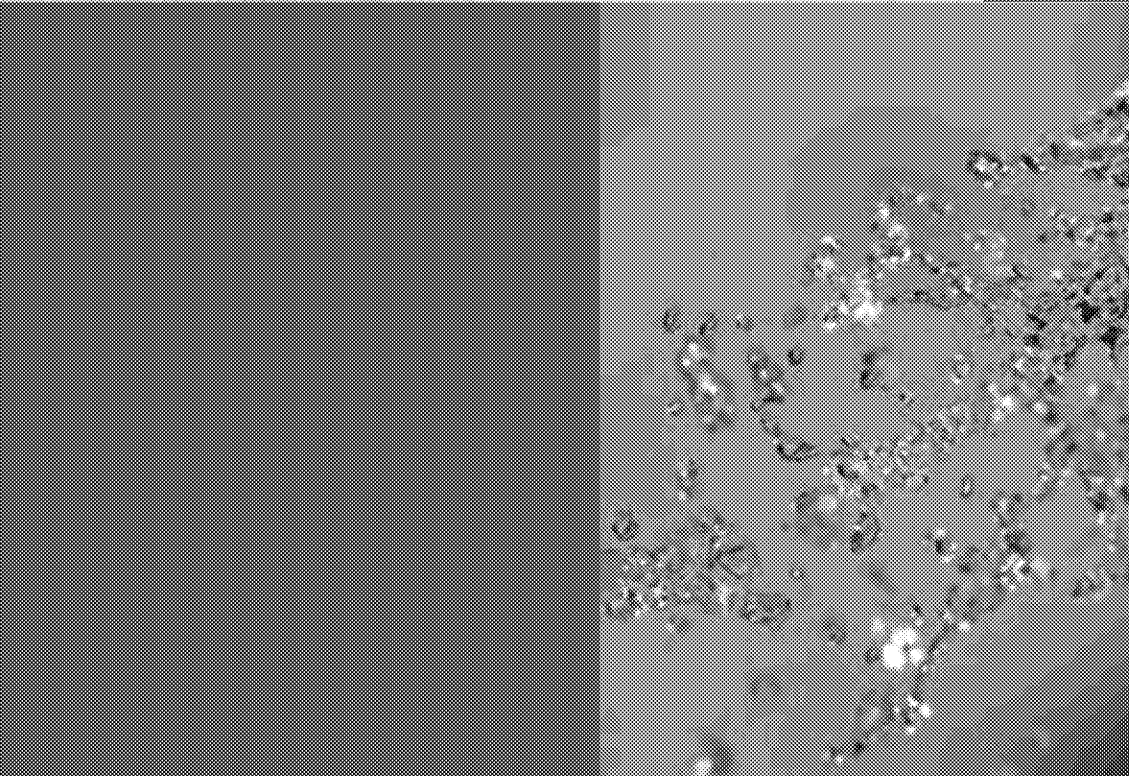


- Workplan translates into \$100/acre-ft cash call from Sept. 1, 2020 through December 31, 2021

Next Steps



Proposed Ad Hoc Work Group to Finalize Prospectus & Power Point



Break for Closed Session

March 2020



OVERVIEW OF VALUE PLANNING PROCESS

MARCH, 2020



Reservoir Committee, 2020, Mar. 19 - Draft, Subject to Change

Value Planning Work Group

Participants:

Kunde, Vanderwaal, Evans, Azevedo, Bettner, Sutton, Traynham, Carter, Murphy, Ruiz, Neudeck

Key staff/consultants:

Frederiksen, Spesert, Forsythe, Herrin, Tull, Rude, Barnes, Spranza, Arsenijevic, Warner Herson, Heydinger, Grubbs

Ad Hoc Value Planning Work Group

- Representatives of the Reservoir Committee and Authority Board formed the Ad Hoc Value Planning Work Group in October 2019.
- Over several meetings, the Work Group directed the efforts of the Authority staff and consultant team to formulate and evaluate alternatives that would yield a more affordable project.
- On March 2, 2020, the Value Planning Work Group, through a sequential process of evaluating initial and refined alternatives, has identified a recommended project and two options that would provide the ability to complete the Project as circumstances evolve.

Value Planning Appraisal Report

- Purpose of report is to present information that the participants will find useful
- The draft Value Planning Appraisal Report will be submitted to the Reservoir Committee and Authority Board in March, 2020 for review and comment
- A workshop will be held on March 30, 2020 to provide opportunity for detailed questions on the process and analysis
- The final Value Planning Appraisal Report will be submitted to the Reservoir Committee and Authority Board in April, 2020 for approval

Project Objectives

Primary Objectives	Secondary Objectives
Improve Water Supply and Water Supply Reliability	Provide Opportunities for Recreation
Provide Incremental Level 4 Water Supply for Refuges	Provide Opportunities for Flood Damage Reduction
Improve the Survival of Anadromous Fish	
Enhance the Delta Ecosystem	

Key Components and Approach for Reducing Costs

Diversion Facilities for Filling – use the existing T-C and GCID and diversions rather than constructing new facilities.

Conveyance for Releases – use the existing T-C Canal to deliver water to the southern terminus of the canal. Releases could then be conveyed from the southern end of the T-C Canal to either the Colusa Basin Drain (CBD) or the Sacramento River.

Storage – smaller reservoir sizes, focusing on reservoir sizes of 1.5, 1.3, and 1.0 million acre-feet (MAF) to reduce the number and size of the dams and saddle dams along with related gates, towers, tunnels, and pumping facilities needed to fill Sites Reservoir.

Roads and Bridges – use shorter bridges with the use of constructed fill.

Elimination of Unsupported Components – Pump back hydropower has no apparent investors at this time.

Sites Reservoir Releases under Varying Storage and Release Capacities

Storage Capacity (MAF)	Long-term Average		
	1,500 cfs Release Capacity (TAF)	1,000 cfs Release Capacity (TAF)	750 cfs Release Capacity (TAF)
1.5	253	243	236
1.3	243	234	230
1.0	207	195	191
Meets participant demand (193+40=233)			
Does not meet participant demand			

Annual Repayment Costs per Acre-Foot of Release

	VP1			VP2			VP3		VP4		VP5	VP6	VP7
Release Capacity (cfs)	750			750			1,500		1,000		1,000	1,000	1,000
Reservoir Size (MAF)	1.0	1.3	1.5	1.0	1.3	1.5	1.3	1.5	1.3	1.5	1.3	1.3	1.5
Project Cost (2019 \$, billions)	3.2	3.4	3.6	2.7	2.9	3.1	3.4	3.6	2.9	3.1	2.8	2.9	3.0
Annualized acre-feet/year Release (TAF)	191	230	236	191	230	236	243	253	234	243	234	234	243
PWA Annual Costs During Repayment Without WIFIA^a Loan (2020 \$, \$/acre-feet)	862	776	804	730	667	692	737	754	660	678	631	659	648
PWA Annual Costs During Repayment With WIFIA Loan (2020 \$, \$/acre-feet)	798	724	754	664	613	641	688	707	608	628	577	607	598

Value Planning Group Recommended Project and Options

	VP5	VP6	VP7
	Option 1	Option 2	Recommended
Reservoir Size	1.3 MAF	1.3 MAF	1.5 MAF
Release Capacity	1,000 cfs	1,000 cfs	1,000 cfs
Estimated Cost (2019 dollars)	\$2,779,000,000 to \$2,814,000,000	\$2,910,000,000 to \$2,945,000,000	\$2,961,000,000 to \$2,996,000,000
Estimated Cost per Acre-Foot with WIFIA* (2020)	\$577	\$607	\$598
Estimated Deliveries (Long-Term Average in TAF)	234	234	243
Key Options vs. VP7	-Smaller reservoir	-Smaller reservoir -Release pipeline to Sacramento River	

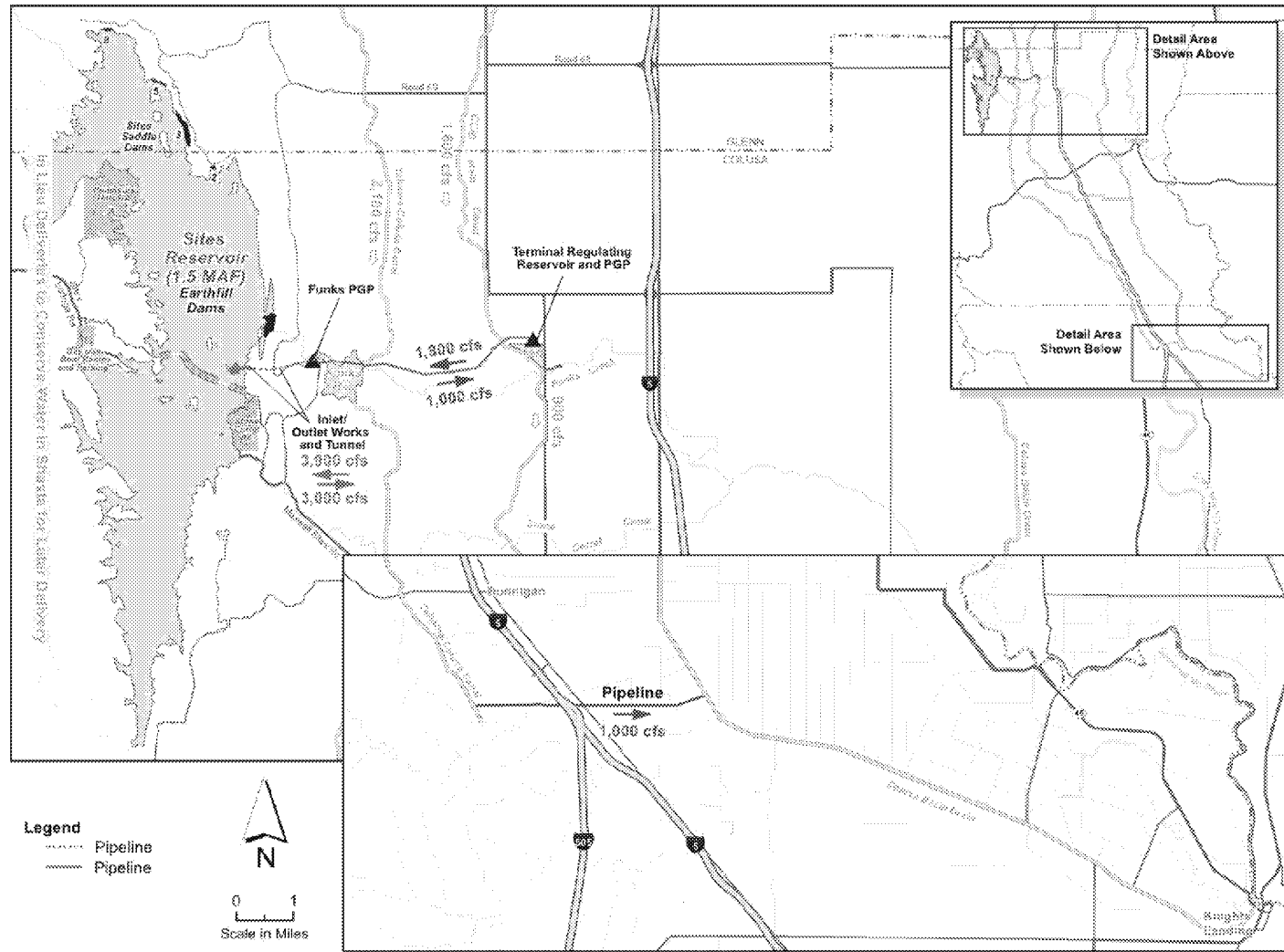
Note: Inclusion of WIFIA loan reduces costs by ~\$50/AF

Value Planning Recommended Project and Options

The Value Planning Workgroup recommends the Project proceed as Alternative VP7. Although Alternative VP5 had the lowest overall cost and lower cost per acre-foot, the Value Planning Workgroup recommends VP7 based on higher deliveries at a comparable cost and improved operational flexibility with a 1.5 MAF reservoir.

The Value Planning Workgroup also recommends the subsequent analyses of the Project include options for a 1.3 MAF reservoir (per VP5) and a Dunnigan to Sacramento River 1000 cfs release pipeline (per VP6) in order to provide flexibility to respond to any future condition changes that might result in such facilities becoming preferable.

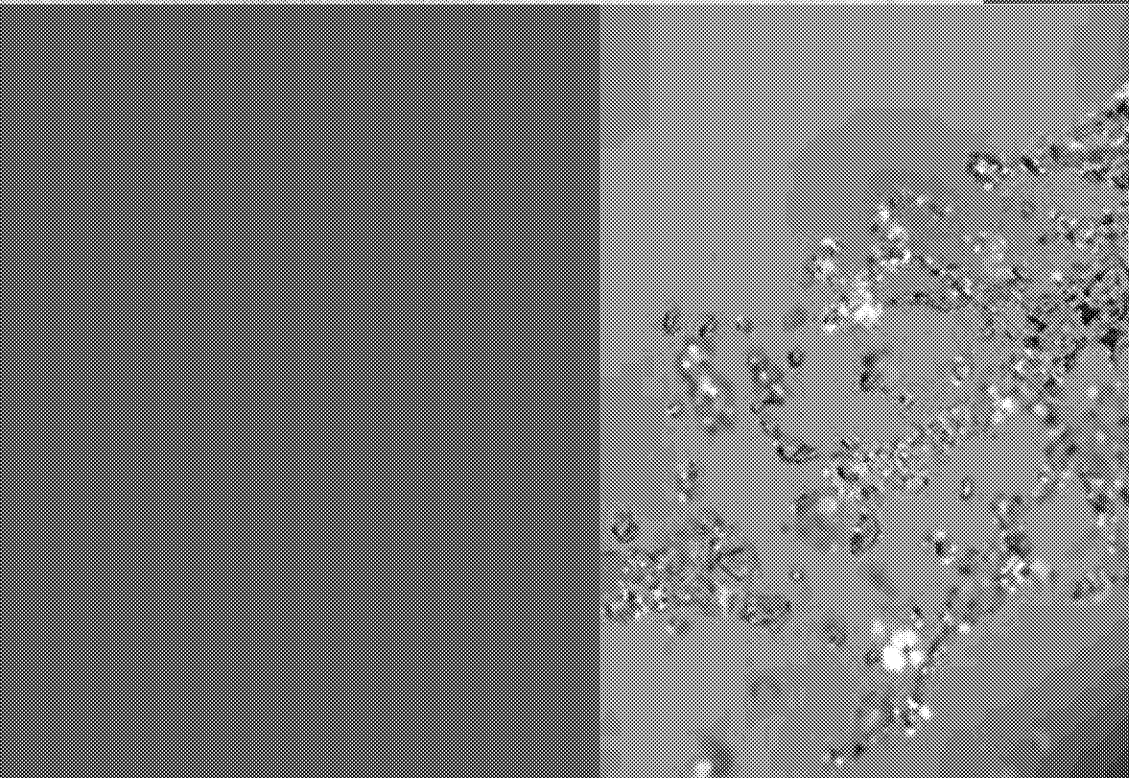
Recommended Value Planning Alternative (VP7)



END

QUESTIONS?





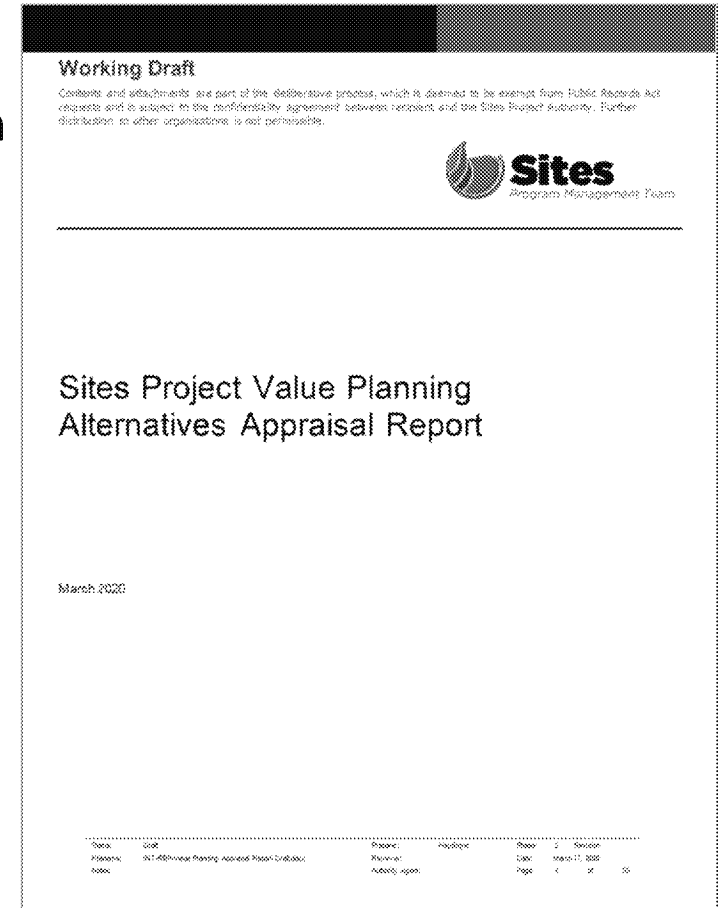
March Reservoir Committee 8.1: Home Board Presentation

March 2020



Proposed Home Board Package

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- Draft Storage Policy
- 2019 Annual Report
- 4-Page Prospectus
- Power Point template for presentations to home boards



Are there additional things you need for your home board?

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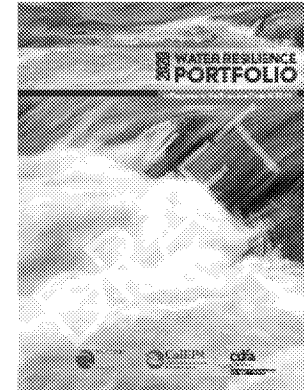
Sites Reservoir Project Executive Prospectus



March 2020

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- Named in the Governor's Water Resiliency Plan
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Additional Investments

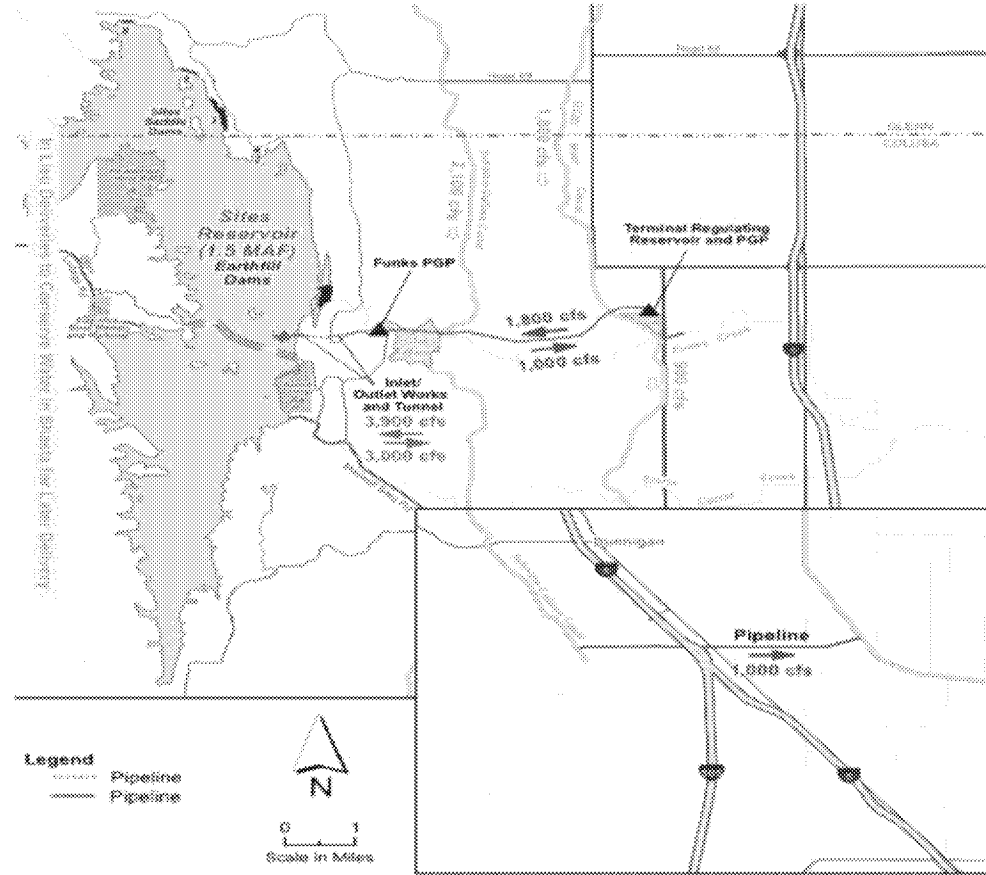
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Subtotal Public Water Agencies	192,892
State of CA (WSIP)	-40,000
Total Requirement	~230,000



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Leveraged federal dollars to do geotech explorations in 2019

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- Plan to Recirculate EIS

DIVERSION CRITERIA CONSIDERED				
Criteria	Scenario A		Scenario B	
Reservoir Size	1.5 MAF		1.5 MAF	
GCC Maintenance Window	2 weeks (Jan/Feb)		2 weeks (Jan/Feb)	
Wilkins Slough Bypass Flow	8,000 cfs		8,000 cfs April/May, all other times, 5,000 cfs	
Fremont Weir Notch	Prioritize the Fremont Weir Notch, Yolo Bypass preferred alternative, flow over weir within 1%		Prioritize the Fremont Weir Notch, Yolo Bypass preferred alternative, flow over weir within 5%	
Flows into the Sutter Bypass System	No restriction due to flow over Moulton, Colusa, and Tisdale Weirs		No restriction due to flow over Moulton, Colusa, and Tisdale Weirs	
Freeport Bypass Flow	Modeled WaterFix Criteria (applied on a daily basis) Pulse & Post-Pulse Protection (applied on a moving 7-day average) Pulse = Oct-Mar (35,000 cfs offramp) Post-Pulse (3 levels) = Oct-Jun Level 1 starts Oct 1st		Modeled WaterFix Criteria (applied on a daily basis) Post-Pulse Protection (applied on a moving 7-day average) Post-Pulse (3 levels) = Jan-Mar Level 2 starts Jan 1st Level 1 is initiated by the pulse trigger	
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AFFORDABILITY

- Continue to advance beneficiary pays concept

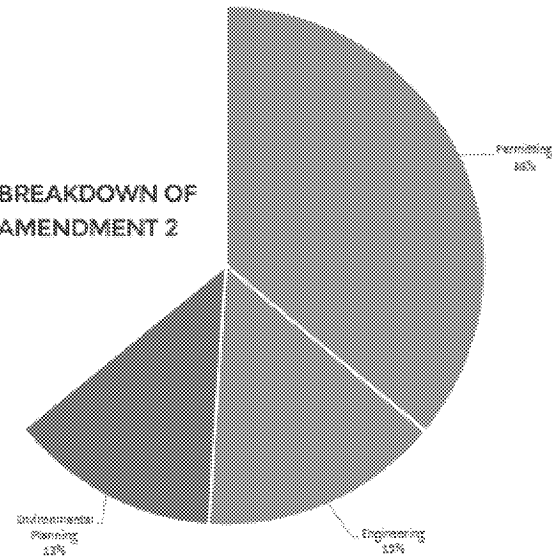
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NEXT STEPS

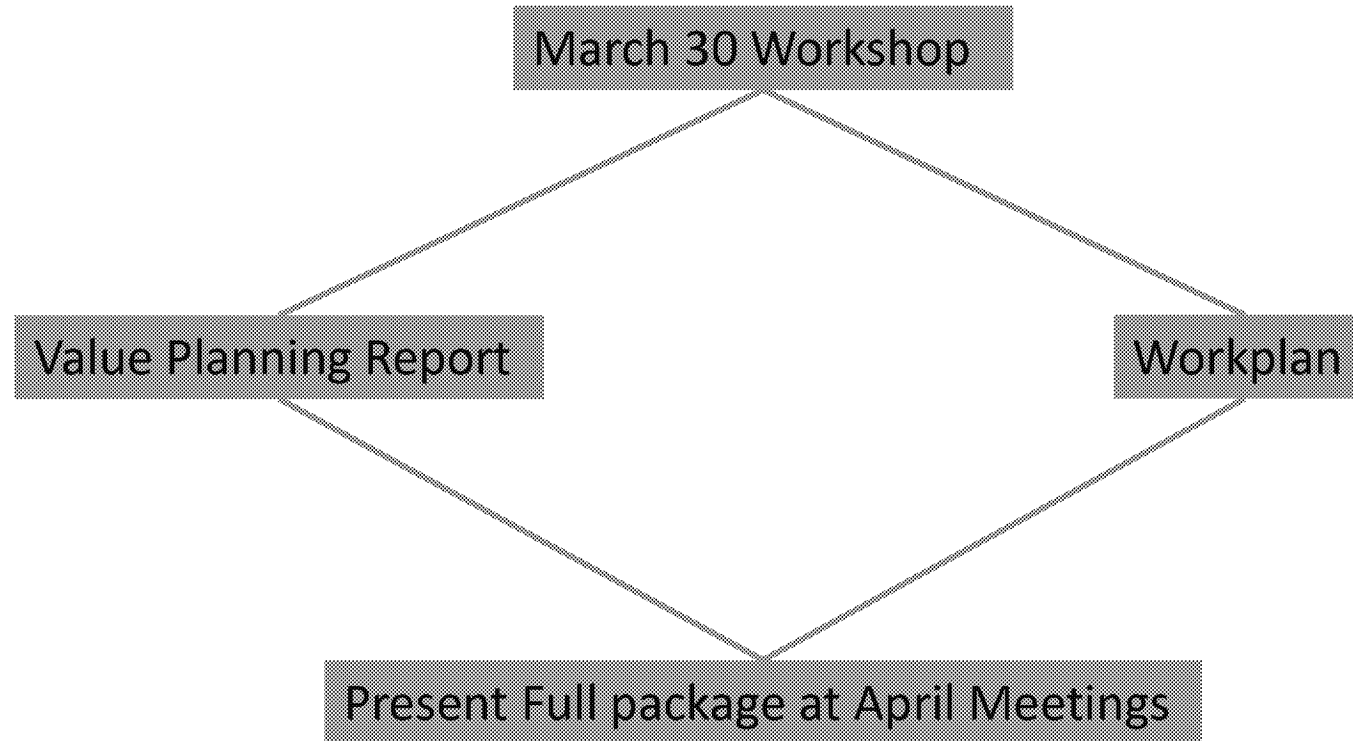
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BREAKDOWN OF AMENDMENT 2

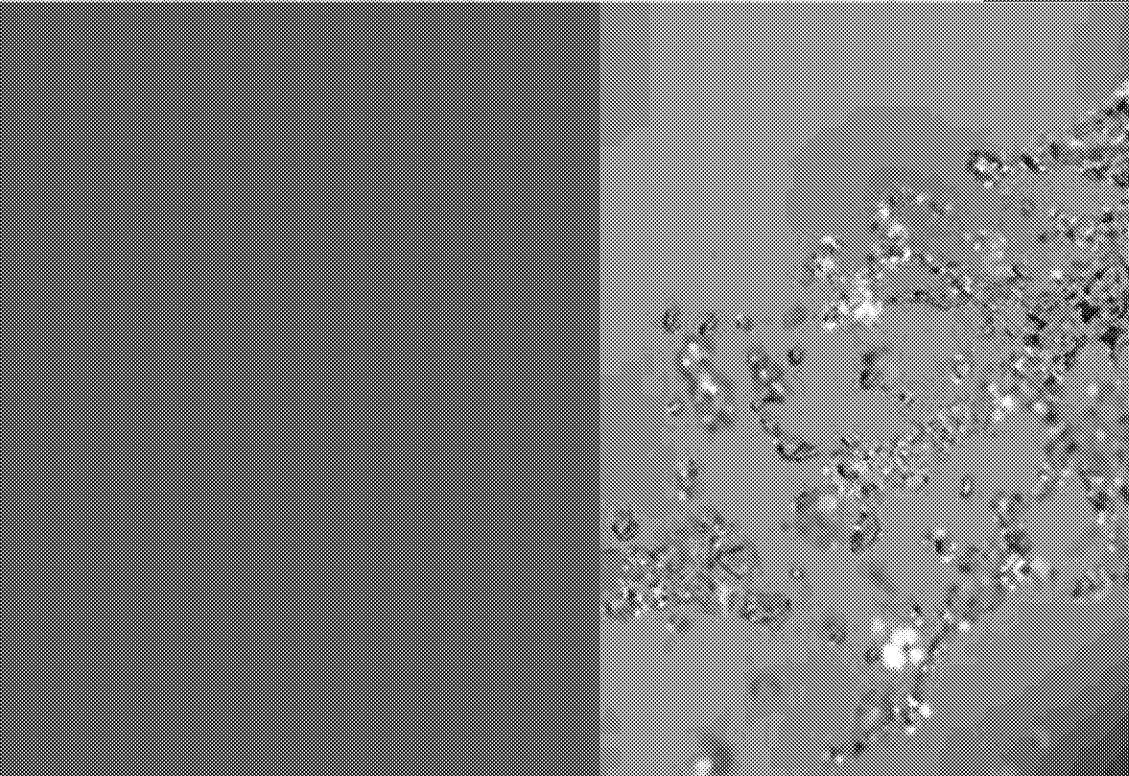


- Workplan translates into \$100/acre-ft cash call from Sept. 1, 2020 through December 31, 2021

Next Steps



Proposed Ad Hoc Work Group to Finalize Prospectus & Power Point



Break for Closed Session

March 2020



From: Laurie Warner Herson [laurie.warner.herson@phenixenv.com]
Sent: 3/20/2020 7:36:51 AM
To: Briard, Monique [Monique.Briard@icf.com]; Williams, Nicole [Nicole.Williams@icf.com]; Berryman, Ellen [Ellen.Berryman@icf.com]; Lecky, Jim [Jim.Lecky@icf.com]; Tull, Robert/SAC [Robert.Tull@jacobs.com]; Alicia Forsythe [aforsythe@sitesproject.org]; Fisher, Linda [Linda.Fisher@hdrinc.com]; Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]; Heydinger, Erin (Erin.Heydinger@hdrinc.com) [Erin.Heydinger@hdrinc.com]; Spranza, John [John.Spranza@hdrinc.com]
Subject: Sites Project EIR/EIS - Baseline Discussion
Attachments: INT-REP-Value Planning Appraisal Report-DraftCompressed-20200317.pdf

I assume most of you have this already but, if not, please see the attached draft Value Planning Appraisal Report for information regarding the screening level analysis of project alternatives and identification of a recommended project (VP7).

Laurie Warner Herson
Principal/Owner



Environmental Planning

916.201.3935
laurie.warner.herson@phenixenv.com
State of California Small Business (#1796182)
Supplier Clearinghouse Women Business Enterprise (#16000323)

<http://phenixenv.com/>

From: Spranza, John [John.Spranza@hdrinc.com]
Sent: 3/23/2020 5:15:21 PM
To: Evan Sawyer - NOAA Federal [evan.sawyer@noaa.gov]; Kundargi, Kenneth (Kenneth.Kundargi@wildlife.ca.gov) [Kenneth.Kundargi@wildlife.ca.gov]; Davis-Fadtke, Kristal@Wildlife [Kristal.Davis-Fadtke@wildlife.ca.gov]; Boyd, Ian@Wildlife [Ian.Boyd@Wildlife.ca.gov]; Williams, Jonathan@Wildlife [Jonathan.Williams@wildlife.ca.gov]; Sullivan, Lauren [lauren_sullivan@fws.gov]; Cathy Marcinkevage - NOAA Federal [cathy.marcinkevage@noaa.gov]; stephen.maurano@noaa.gov; Roberts, Jason@Wildlife [Jason.Roberts@wildlife.ca.gov]
CC: CFitzer@esassoc.com; Jim Lecky (jim.Lecky@icf.com) [jim.Lecky@icf.com]; Monique Briard (monique.briard@icf.com) [monique.briard@icf.com]; Greenwood, Marin [Marin.Greenwood@icf.com]; Grimaldo, Lenny [Lenny.Grimaldo@icf.com]; Alicia Forsythe [aforsythe@sitesproject.org]; Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]; Heydinger, Erin [Erin.Heydinger@hdrinc.com]; laurie.warner.herson [laurie.warner.herson@phenixenv.com]
Subject: Sites Project Update.

Good Afternoon and Greetings from the Sites Team,

The team thought it was time to reach out to you all and provide an update of the project's status as it has been a while since we have spoken and a lot has been going on with the project. The Sites JPA has just completed some internal planning and analysis to "right size" the project based on discussions with your respective agencies, the affordability of the project for our member agencies, the demand needs of the current Sites member agencies and the activities that have occurred at both the state and federal levels that either include this project or could affect the permitting, operation, construction and cost of the project that ultimately gets build (i.e., ROC on LTO, Delta conveyance, VAs, etc.) .

The process we have been working on is a "Value Planning" process which is an effort to identify and evaluate additional alternatives that could make the project more affordable for the members and address comments provided during and after the release of the 2017 Draft EIR/EIS. To do that, an Ad Hoc Value Planning Workgroup was formed in late 2019 and continued to meet through early 2020. The Workgroup directed the efforts of Authority staff and the consultant teams to formulate and evaluate project alternatives that would be more affordable, address public comments and agency input to the extent feasible, and to identify a recommended new project.

A Sites workshop is scheduled for Monday, March 30, 2020. The workshop will provide an opportunity for members to ask questions and provide feedback regarding the value planning study. The report will be finalized reflecting input from participants and a final report will be submitted to the Reservoir Committee and Board for approval.

Although the details are still **draft**, and no final decision will be made until the Board votes in April, I can say that the following features are from the staff-recommended Value Planning Alternative:

Changes in Project Footprint and Operation

- Reservoir size will be reduced from 1.8 to 1.5 MAF. This reduces the number and size of the dams and saddle dams along with related gates, towers, tunnels, and pumping facilities needed to fill Sites Reservoir.
- Delevan diversion, pipeline and outfall has been removed.
- Diversions from the Sacramento River will be from the existing Red Bluff Diversion Dam and Glenn Colusa Irrigation District's diversion at Hamilton City.
- Release capacity to the Sacramento River will be reduced from 1,500 to 1,000 cfs
- Water will be released from Sites to the existing Tehama Colusa Canal which will be used to deliver water to the southern terminus of the canal near Dunnigan. Releases would then be conveyed from the southern end of the T-C Canal to either the Colusa Basin Drain (CBD) or the Sacramento River via a new 1,000 cfs pipeline. Sites staff have recommended the CBD option, but both options are still being considered.
- Our modeling team is working on providing new results on a range of operational criteria we worked through with the Department last summer and fall.
- The schedule is being revised to reflect the reboot of the project activities.

- We are working with Reclamation on how to potentially integrate a locally preferred alternative into the EIS.
- The potential recirculation of the 2017 Draft EIR is being discussed in the Sites Ad-Hoc Environmental Committee and a final decision on the potential recirculation will occur once a decision is made to select and approve a preferred value planning alternative project.
- No pump-back hydropower anticipated.

We will be reaching out to all of you in the very near future to schedule meetings to continue permitting coordination in support of the project submitting a BA in May 2021 and two 2081 ITP applications by November 2021 (one operations and one construction).

I am sure you will have plenty of questions and I'd be happy to work to get them answered so feel free to email or call me. I would anticipate that our first meeting would be a workshop in May to review the selected Value Planning Alternative and provide a general update.

Please feel free to forward this to anyone I failed to include on the update.

Thanks, and be safe during these stressful and challenging times.

John

John Spranza, MS, CCN
Senior Ecologist / Regulatory Specialist

HDR
2379 Gateway Oaks Drive, Suite 200
Sacramento, CA 95833
D 916.679.8858 M 818.640.2487
john.spranza@hdrinc.com

hdrinc.com/follow-us
hdrinc.com/follow-us

Meeting: **Phase 2 Reservoir Project Agreement** **2020 March 30**
Subject: **Joint Board & Reservoir Committee Workshop** **1:00 PM – 5:00 PM**

Location: By Teleconference Call in: **1-844-531-9388**
WEBEX LINK Code: **738 675 471**

Board Chair Fritz Durst (Reclamation District 108)
Board Vice Chair: Jeff Sutton (Tehama-Colusa Canal Authority)
Chair: Thad Bettner (Glenn-Colusa Irrigation District)
Vice Chair: Jeff Davis (San Geronio Pass Water Agency)
Treasurer: Jamie Traynham (Davis Water District)

AGENDA

Notice: Pursuant to Executive Order N-25-20 and N-33-20, issued by Governor Newsom, and guidance by the California Department of Public Health dated March 11, 2020, this meeting will be conducted by teleconference. The public may attend the meeting and offer public comments by phone, using the call-in number above, or in person, at the address above. Members of the Board and Committee will participate by teleconference from other locations.

Workshop AGENDA

NO ACTION WILL BE TAKEN

CALL TO ORDER:

- Summarize teleconferencing process
- Refer to Separate Talking Points
- Introductions.
-

To minimize people talking over each other, propose to seek input based on geographic regions:

1. Monitor chat feature
2. In the Room (if any)
3. Sacramento Valley
4. Bay Area & San Joaquin
5. S. California
6. Staff & Consultants
Public/Others

Status: **Issued for Use**
Purpose: **Informational**
Caveat 1: **Subject to change**
Caveat 2:

Version: **A**
Date: **2020 March 30**
Ref/File #:
Page: **1** of **3**

1. **Chairpersons' Report:**

1.1 Introductory remarks.

2. **Review of Value Planning:**

Kunde

2.1 Operations/Permitting.

2.2 Engineering.

2.3 Repayment.

2.4 Recommended Project.

3. **Amendment 2 Work Plan:**

Robinette

3.1 Tasks.

3.2 Schedule.

3.3 Cash Calls.

4. **Extending the Current Participation Agreement:**

Trapasso

4.1 Status of Contract Amendment.

4.2 2019 Annual Report.

4.3 Executive-level Prospectus.

4.4 Executive-level PowerPoint.

5. **Recap:**

Upcoming Meetings:

Reservoir Committee:

Friday, April 17, 2020 9:00 AM – 12:00 PM

Sites Project Office

122 Old Highway 99W, Maxwell, CA 95955

Authority Board:

Status: Issued for Use
Purpose: Informational
Caveat 1: Subject to change
Caveat 2:

Version: A
Date: 2020 March 30
Ref/File #:
Page: 2 of 3

Wednesday, April 22, 2020 1:30 PM – 4:00 PM

Sites Project Office

122 Old Highway 99W, Maxwell, CA 95955

ADJOURN

PERIOD OF PUBLIC COMMENT: Any person may speak about any subject of concern, provided it is within the jurisdiction of the Directors and Reservoir Committee and is not already on today's agenda. The total amount of time allotted for receiving such public communication shall be limited to a total of 10 minutes per issue and each individual or group will be limited to no more than 5 minutes each within the 15 minutes allocated per issue. **Note:** No action shall be taken on comments made under this comment period.

ADA COMPLIANCE: Upon request, Agendas will be made available in alternative formats to accommodate persons with disabilities. In addition, any person with a disability who requires a modification or accommodation to participate or attend this meeting may request necessary accommodation. Please make your request to the Board Clerk, specifying your disability, the format in which you would like to receive this Agenda and any other accommodation required no later than 24 hours prior to the start of the meeting.

Status: Issued for Use
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Memorandum

To:	Sites Authority
From:	Ellen Berryman, ICF
Date:	March 23, 2020
Re:	California Red-legged Frog Habitat Assessments for the Sites Reservoir Project

ICF is proposing onsite assessments within the disturbance footprint of the Sites Reservoir Project (Project), to refine California red-legged frog (CRLF) habitat mapping. The purpose of these onsite assessments would be to reduce CRLF mitigation requirements for the Project.

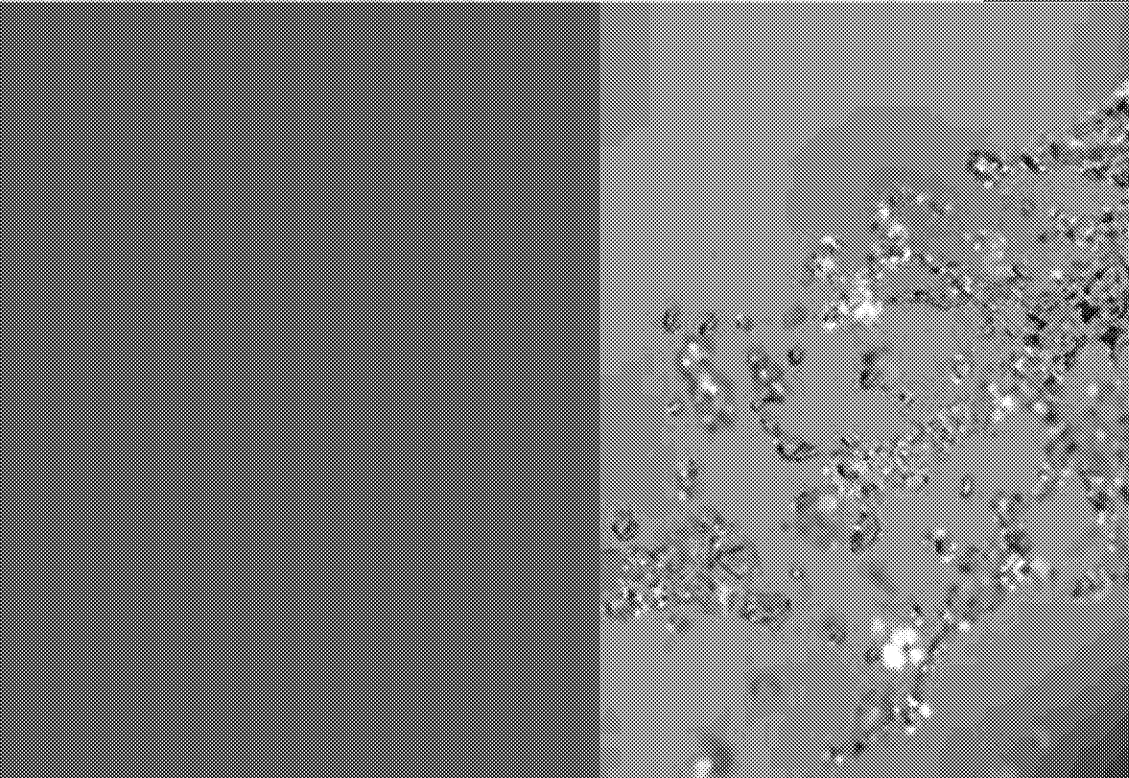
No onsite CRLF habitat evaluations or survey data for the area within the Project footprint are currently available. ICF developed a habitat model for CRLF based on aerial imagery. The areas mapped included drainages and aquatic features, and uplands within 300 feet of those features, from Funks Reservoir westward. Based on this mapping and the 2019 project footprint, the 2019 administrative draft Biological Assessment estimated that 483 acres of aquatic habitat and 5,265 acres of adjacent upland habitat for CRLF would be affected. At the standard 3:1 mitigation ratio, this would require protection of 1,449 acres of aquatic habitat 15,795 acres of adjacent upland habitat for this species.

ICF's habitat model and aerial imagery interpretation for the administrative draft Biological Assessment necessitated a conservative approach to CRLF habitat mapping, in that it was based on a remote wetland assessment, and it captured drainages that may or may not be suitable for the species. ICF would likely be able to rule out some of the mapped aquatic features and remove them from the habitat model upon examination in the field. Features to be removed from the model would include:

- Pools/ponds that based on evidence (vegetation, hydrologic indicators) do not pool until at least July and hold water for a minimum of 20 weeks and are shallow (generally less than 2 feet deep).
- Streams that are moderate to high gradient, lack pools or other slow water habitat, or are ephemeral, generally shallow, and do not maintain flow or pond water until at least July.

For each aquatic area removed from the model, 300 feet of adjacent uplands on either side of the aquatic habitat may also be removed. This has the potential to substantially reduce the CRLF impact acreage, hence the mitigation acreage required for the Project.

Prior to gaining property access, ICF may be able to refine the model based on additional aerial imagery interpretation to remove some of the mapped drainages, by looking at topography and aerial imagery from different times of the year. We recommend site visits where feasible, however, to assess habitat in the Project footprint.



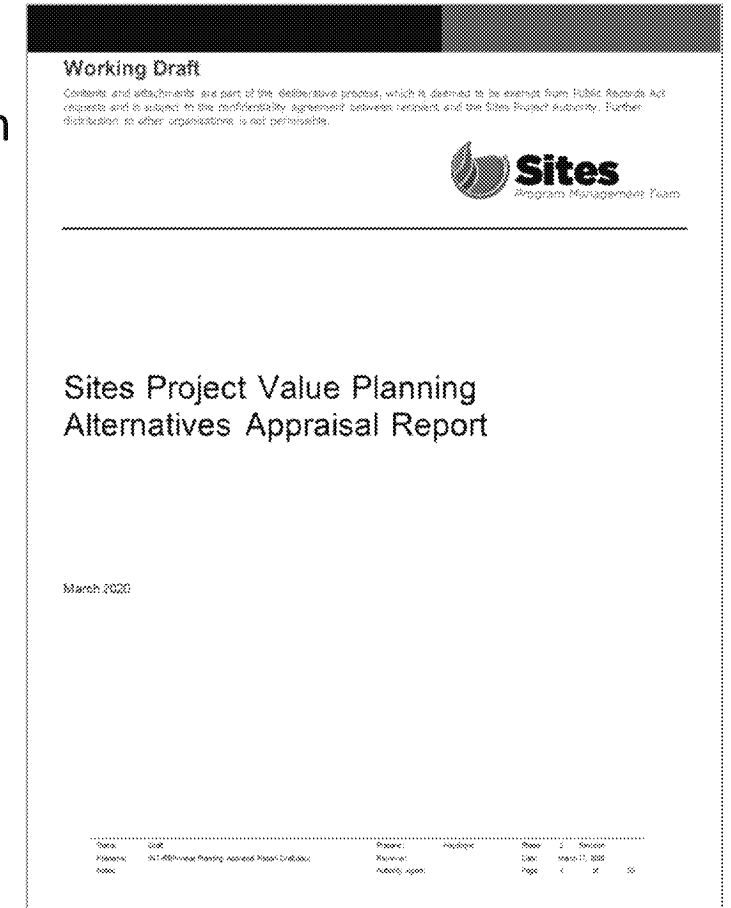
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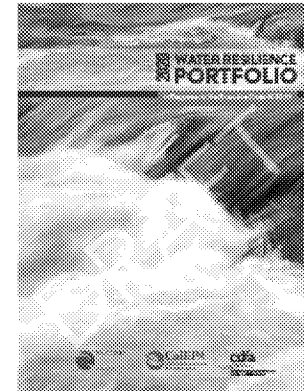
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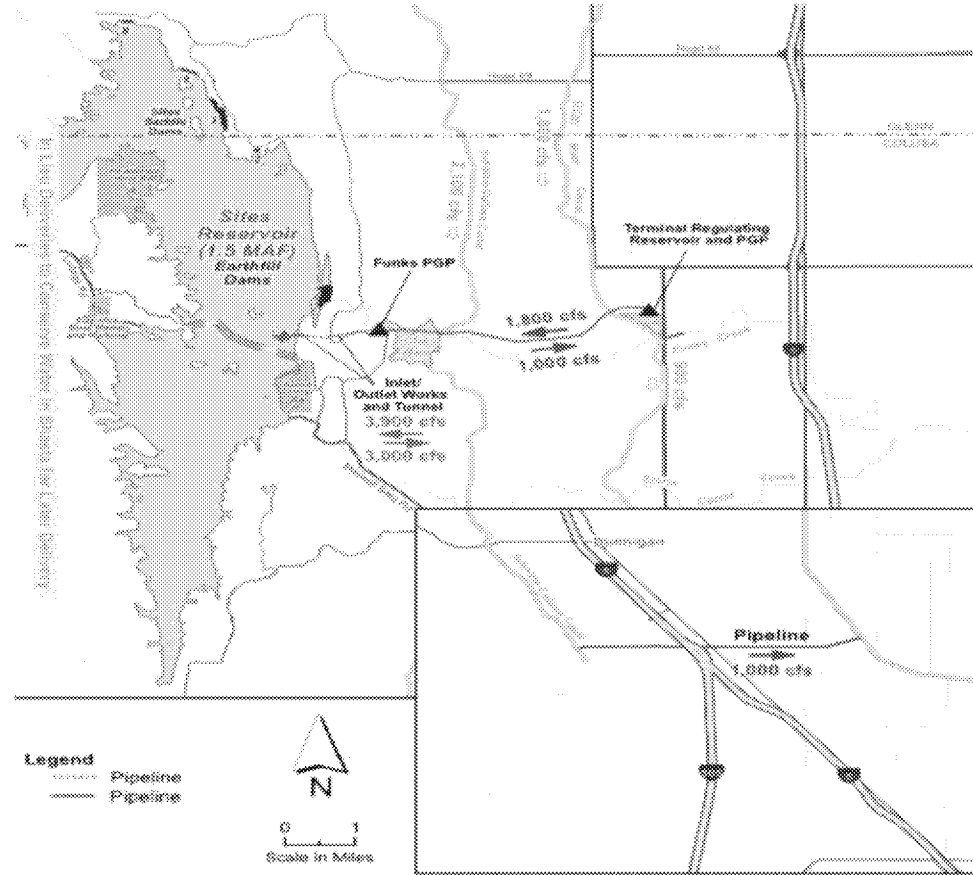
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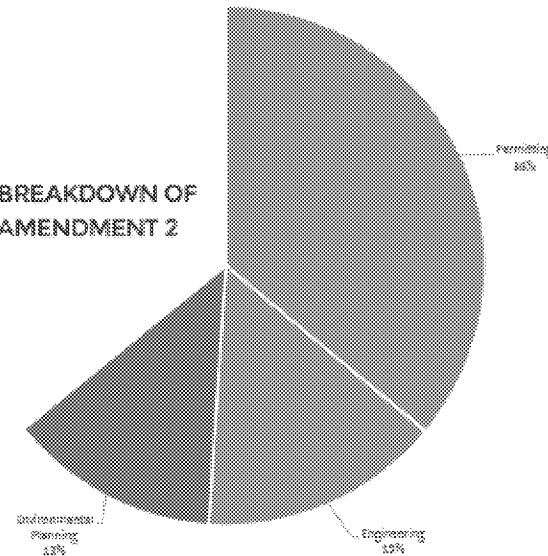
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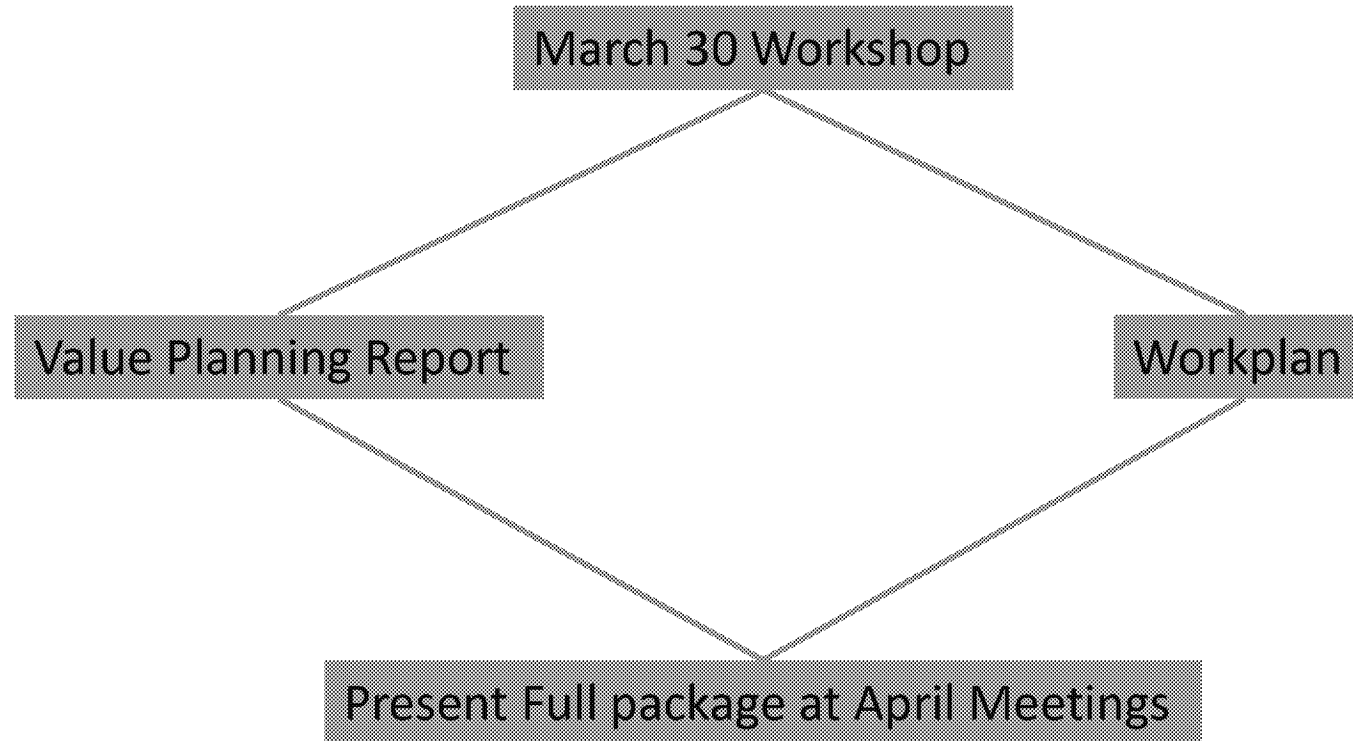
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BREAKDOWN OF AMENDMENT 2

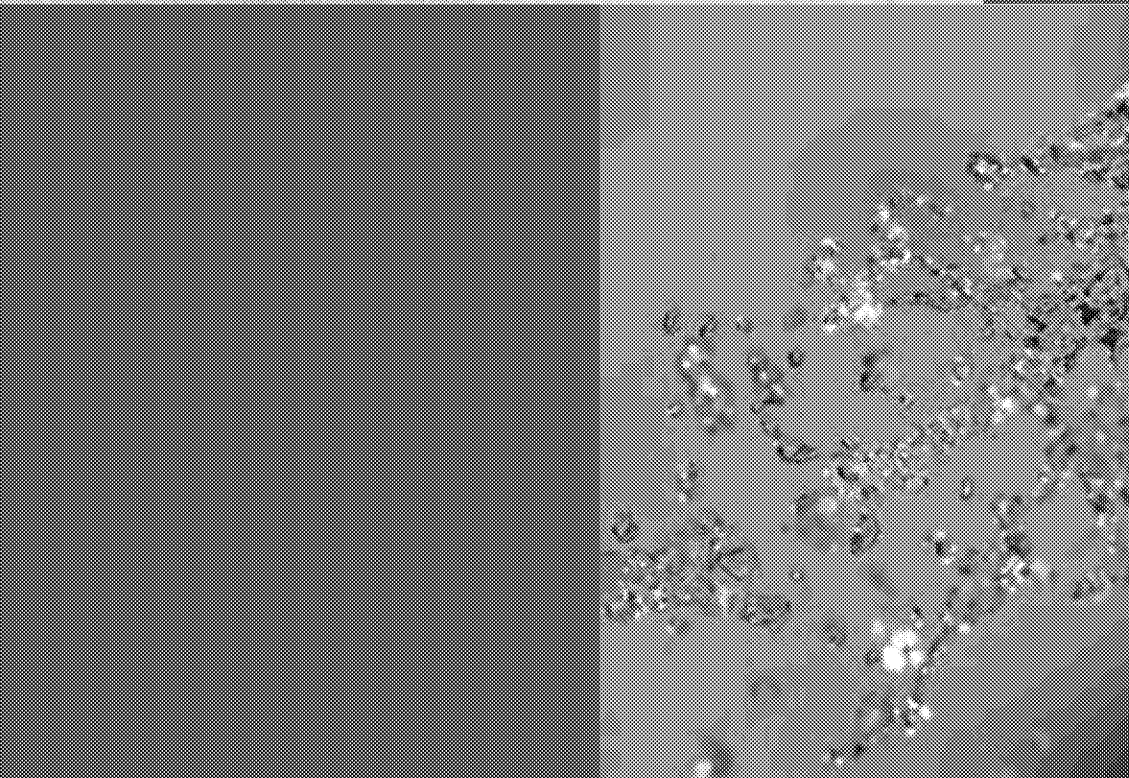


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Next Steps



Proposed Ad Hoc Work Group to Finalize Prospectus & Power Point



Break for Closed Session

March 2020



File Provided Natively

Ad Hoc Environmental Planning and Permitting Work Group Meeting Minutes



Meeting Information:

Date: March 18, 2020 **Location:** Dial in: 866-583-7984; 1977661#
 Skype Meeting

Time: 1:00 PM to 4:00 PM

Notes By: HDR – Sites Integration

Meeting Participants

Mike Azevedo, Colusa County	Eric Leitterman, SCVWD	Jim Lecky, ICF
Ben Barker, PCWA	Bill Vanderwaal, RD 108	John Spranza, Sites Integration
Thad Bettner, GCID	Jelica Arsenijevic, Sites Integration	Laurie Warner Herson, Sites Integration
Dee Bradshaw, MWD	Linda Fisher, Sites Integration	Cathy Westcot, Sites Integration
Heather Dyer, SBVMWD	Ali Forsythe, Sites Authority	Nicole Williams, ICF
Trevor Joseph, City of Roseville	Jim Watson, Sites Authority	
Jason Marks, City of Roseville	Monique Briard, ICF	

Action items

Action Item	Owner	Deadline	Notes
1 Schedule (carried over from previous mtg)	Ali/Sites Integration	April Work Group Meeting	Provide clarity on critical path schedule items with a focus on what is needed for the January 1, 2022 requirements (graphic is desired). Develop simplified chart of schedule for April package.
2 Value Planning Alternative Tables (Slides 13 and 14)	Ali/Sites Integration	Value Planning Report	Update/change VP 5 Alternate 1 and VP 6 Alternate 1a to VP 5 Option 1 and VP6 Option 2
3 Align Contract Amendment 2 Task Breakdowns among the service areas	Sites Integration/Controls	--	Work with Controls to line up the task breakdowns (i.e. Project Description, DEIR/EIS, BA, ITP, etc.) among the service providers (specifically ICF and Integration Environmental Planning and Permitting) so it is clearer how much is spent for a specific task. Do not include Ali's time in the task breakdown reporting keep it separate.
4 Organizational Assessment Comments	Work Group Members	April Work Group Meeting	Provide comments in either track changes mode or comment bubbles on the Organizational Assessment

Meeting Minutes:

1. Introductions

2. Reviewed/Update of Action Items from February 18, 2020 meeting

- The action items from the Feb. 18, 2020 meeting were reviewed.
 - Integration and EPP costs for Phase 1B are included in the slide presentation (slide 6) as well as a description of the services Integration provides. Integration serves as an extension of staff to the Authority and ensures that work performed by the consultant team meets agreed to SOW, budget, and quality standards.
 - Program costs and work completed to date are being compiled in the Annual Report by the Controls Team and will come out in April. This action item has been removed from this work group.
 - See item 4 below for discussion of critical path schedule tasks. The Project schedule will continue to be improved and updated. Further discussion will take place in April.
- Action items 1 and 2 from the February 18, 2020 meeting were closed out; action item 3 – Schedule carries forward to the next work group meeting.

3. Value Planning Update

- Ali Forsythe and Jelica Arsenijevic provided an overview of key activities from the Value Planning effort that started in October 2019.
- 16 new Alternatives were developed, considered, and are included in the Value Planning Alternatives Appraisal Report. Appendix C of the report, the Environmental Planning and Permitting Memo, compares the value planning alternatives to Alternative D of the DEIR/EIS and provides planning and permitting considerations.
- Appendix C includes screening level info and criteria related to permitability of each alternative in comparison to Alternative D. It also includes key CEQA/NEPA considerations/differences relative to Alternative D.
- Appendix C also includes the qualitative changes in mitigation costs in comparison to Alt. D, which ICF assisted with.
- The recommended alternative is VP7, which includes:
 - 1.5MAF
 - Bridge
 - South Road
 - Local Roads
 - Diversion Locations – Funks and TRR
 - Dunnigan Release of 1,000 cfs to Colusa Basin Drain
- VP7 is anticipated to have less effects to species
- Discussed the Value Planning Work Group decision to consider two additional alternatives moving forward for EIR/EIS. VP5, Option 1 includes a smaller reservoir size with 1,000 cfs release to the CBD. VP6 Option 2 includes a smaller reservoir with 1,000 cfs to the Sacramento River from the terminus of TCC (through the CBD).
- There will be a workshop on March 30th for the participants to provide comments and questions on the Value Planning Appraisal Report and its appendices.
- **Action Items:**
 - Change VP 5 Alternate 1 and VP 6 Alternate 1a to VP 5 Option 1 and VP6 Option 2 in the tables in Appendix C.

4. Project Schedule Updates

- Monique Briard, Laurie Warner Herson, and John Spranza provided overview of key activities for environmental planning and permitting thru December 2021.
- Predecessors have been included in the schedule (slides 17 and 18 in the presentation) to show the linkages between tasks.

- Several activities are running concurrently. Operations is a collaborative (fisheries team) and iterative process that will run concurrently/overlap several tasks.
- EIR/EIS team is currently determining which sections will need new analysis and/or substantial revisions in order to develop a realistic schedule. ICF is developing a work plan that includes an annotated outline for the Recirculated EIR/EIS. The schedule assumes that a joint recirculated EIR/EIS will be prepared still.
- Permitting team is currently focusing on the main permits for the project and developing approaches for those permits. Major assumptions factored into the schedule include no surveys for the Biological Assessment and development of two ITPs – one for construction and one for ops. The permitting team is also focusing on the 106 Programmatic Agreement and a strategy for coordination with the USACE on the 408 authorization and 404 permit.
- EIR/EIS Work Plan will help identify and mitigate schedule risks. Current assumption is a joint EIR/EIS however, it could be split apart. High schedule risk associated with Reclamation; we will need to coordinate with Reclamation early and have frequent meetings. Ideally Reclamation and Authority's schedules align.
- EIR Summary Report will be prepared and released after the Recirculated DEIR/EIS to support the Draft Feasibility Report. Authority will need to meet with the CWC early to confirm documentation needs to ensure Prop 1 funding.
- EIR/EIS alternatives – additional analysis required for new alternatives and alternative footprints and increased range of alternatives, which could result in additional costs and schedule delays.
- Permitting team has built relationships with resource agencies through the extensive previous coordination. Looking to add modeling resources so that modeling doesn't become a bottleneck.
- Similar risks for permitting team as EIR/EIS team related to Reclamation. Reclamation has a different opinion of what the effects to species are, what the project action area is, and the 106 compliance process.
- Permitting is dependent on modeling. Modeling carries a high risk to the schedule, not only because of modeling staff's conflicting priorities but also because of delays in approval of the ops criteria and therefore, delays in running the model and the potential for a lower cost benefit ratio for the project.
- **Action Item:**
 - Work with Controls to align Contract Amendment 2 task breakdowns among the service areas, specifically for ICF and Integration Environmental Planning and Permitting, so that it is clearer what has been spent collectively by the service providers for a specific task. Do not include Ali's time in the task breakdown reporting; keep separate.

5. Organizational Assessment

- Organizational Assessment Table for Service Areas E and F was provided as part of the meeting handouts. Table shows connectivity of action items. The priority column helps the project team organize and manage workload and keep on schedule for targeted completion date.
- We will report back to the Work Group periodically on the status of the organizational assessment action items.
- **Action Item:**
 - Requested Work Group participants to provide comments in either track changes or comment bubbles on the organizational assessment table. Comments are to be provided by the next Ad Hoc EPP Work Group meeting.

6. Upcoming Work and Priorities

- Project Description development:
 - Project Management Plan (all service areas) and kick off meeting
 - Determining/setting the project baseline
 - reviewing previous DEIR/EIS comments and determining who the Authority may want to meet with ahead of the Recirculated DEIR/EIS
- Refinements to the project schedule

- Amendment 2 Task Orders (Sept. 2020 – Dec. 2021) – May

7. Schedule Next Meeting

- Integration will send a doodle poll to schedule a meeting before the April 17th Reservoir Committee Meeting via teleconference and Skype.
- Preliminary topics for next meeting:
 - Project Description – baseline and alternatives
 - ICF Work Plan review and full recommendation for Recirculated DEIR/EIS (Reservoir Committee needs to approve full recommendation for Recirculated DEIR/EIS)
 - Updated schedule
 - Organization Assessment comments

8. Action Item Review

- See table above.

Project Description Development – Team Meeting Agenda



Date: April 15, 2020

Location: WebEx meeting – See Outlook invite

Time: 1:00 PM to 3:30 PM

Leader:	Ali Forsythe	Recorder:	HDR – Sites Integration
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Purpose: Overview of Value Planning Report and Introduction of Team Members' Roles

Attendees:

Jelica Arsenijevic, Sites Integration	Lee Frederiksen, HDR	Robert Tull, CH2M
Ellen Berryman, ICF	Ali Forsythe, Sites Authority	Ellen Unsworth, ICF
Robert Boling, HDR	Jeff Herrin, AECOM	Laurie Warner Herson, Sites Integration
Monique Briard, ICF	Erin Heydiner, HDR	Jim Watson, Sites Authority
Jerry Brown, Sites Authority	Jim Lecky, ICF	Nicole Williams, ICF
Linda Fisher, Sites Integration	Pete Rude, CH2M	
Michael Forrest, AECOM	Kevin Spesert, Sites Authority	
	John Spranza, Sites Integration	Additional Team Members

Agenda:

Discussion Topic	Topic Leader	Time Allotted
1. Introductions	Ali	5 min
2. Purpose and Goals of the Meeting	Ali	10 min
3. Value Planning Report and VP5, VP6, and VP7 Overview	Lee Frederiksen, Jeff Herrin, Pete Rude	45 min
4. Project Team Presentations – ID role, short overview of scope, overview of info needs / coordination needs from others necessary to achieve scope		
a. ICF – Planning		10 min
b. ICF – Permitting		10 min
c. CH2M – Modeling		10 min
d. AECOM – Engineering, Reservoir		10 min
e. CH2M – Engineering, Conveyance		10 min
f. HDR – Integration		10 min

5. Action Item Review	All	5 min
6. Next Steps	Ali	5 mins

Baseline Discussion (Cont.) Agenda



Date: April 1, 2020

Location:

Call In: 1-510-338-9438; Access code: 626 633 354
WebEx Link added to Outlook Invitation

Time: 10:00 AM to 12:00 PM

Leader: Ali Forsythe

Recorder: HDR – Sites Integration

Purpose: Continued Discussion of Baseline for Modeling and Analysis

Attendees:

Jelica Arsenijevic, Sites Integration	Ali Forsythe, Sites Authority	Rob Tull, Jacobs
Ellen Berryman, ICF	Erin Heydinger, Sites Integration	Laurie Warner Herson, Sites Integration
Monique Briard, ICF	Jim Lecky, ICF	Nicole Williams, ICF
Linda Fisher, Sites Integration	John Spranza, Sites Integration	

Agenda:

Discussion Topic	Topic Leader	Time Allotted
1. Prior Meeting Recap (see Ali's notes): <ul style="list-style-type: none"> a. Original Draft EIR/EIS – existing conditions same as baseline for NEPA current conditions at the time of the release of the supplemental NOP (March 2017) including implementation of the 2008/09 BioOps; SWRCB water rights orders and decision and water quality criteria; municipal, environmental, and agricultural water uses; land uses; and relevant current plans and policies. b. What is the appropriate baseline for recirculated Draft EIR/EIS? <ul style="list-style-type: none"> i. CEQA - generally 2017 with updates ii. NEPA – same as CEQA existing conditions c. What is the appropriate baseline for ESA/CESA? <ul style="list-style-type: none"> i. ROC on LTO or 2008/9 BioOps 	Ali	10 min
2. Comparison table of 2008/9 BioOps to ROC on LTO <ul style="list-style-type: none"> a. how this might influence operations and effects to species 	Rob/Jim	
3. Approach <ul style="list-style-type: none"> a. Update existing conditions through desktop and database queries b. Update regulatory setting for terrestrial as well as aquatic c. Address Delta Conveyance in cumulative 		
4. Upcoming Priorities/Action Items <ul style="list-style-type: none"> a. Small break-out group discussion re: ESA and CESA (John) b. Draft technical memo (ICF) c. Coordinate with legal counsel (Laurie) d. Coordinate with Reclamation (Laurie/ICF) e. Outreach to Regulatory Agencies (Ali/John/ICF) f. Formulate recommendation to take to Work Group (Ali/team) 	All	10 min

AFFORDABILITY

- Continue to advance beneficiary pays concept

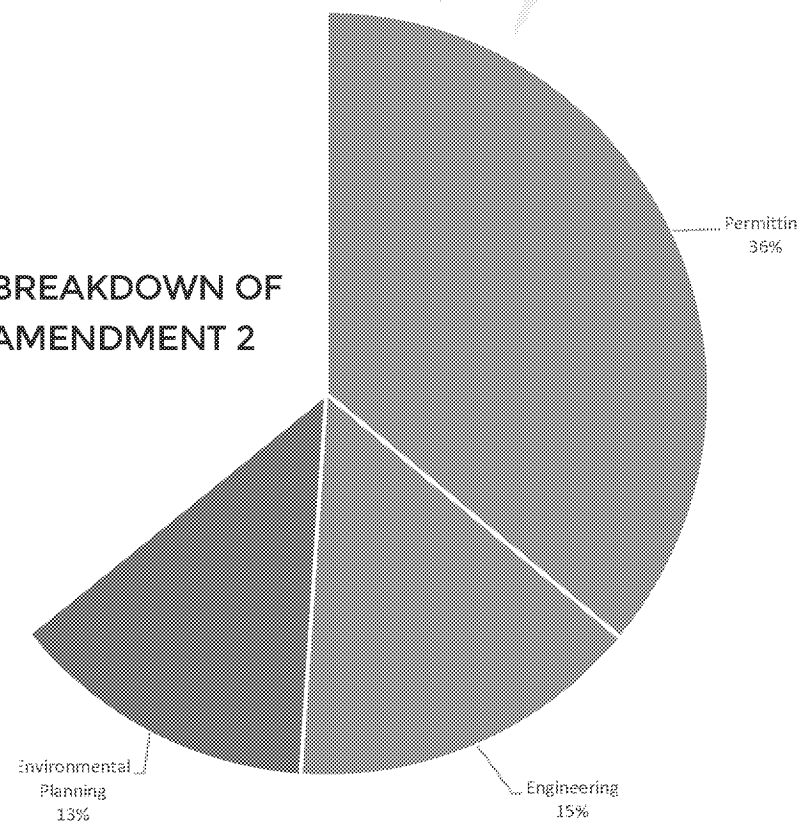
Annual Repayment Costs per Acre Foot of Release

Reservoir Size (MAF)	1.5
Project Cost (2019\$, billions)	\$3.0
Annualized AF/year Release (TAF)	243
PWA Annual Costs During Repayment Without WIFIA Loan (2020\$, \$/AF)	\$650 - \$710
PWA Annual Costs During Repayment With WIFIA Loan (2020\$, \$/AF)	\$600 - \$660

NEXT STEPS

- Workplan Highlights include
 - Operations/SWP/CVP Exchange Refinements
 - Advancing Permitting Certainty
 - Recirculation of Draft EIS
 - Feasibility Study
 - State and Federal Grant Administration
 - Continue to strengthen community and landowner relationships
 - Develop plan to advance the project past 2021

BREAKDOWN OF AMENDMENT 2



Workplan translates into \$100/acre -ft cash call from Sept. 1, 2020 through December 31, 2021

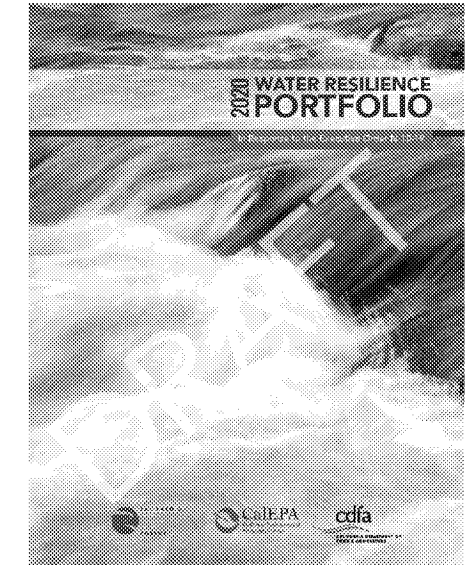
Sites Reservoir Project Executive Prospectus



March 2020

HIGHLIGHTS OF WHAT HAS BEEN ACCOMPLISHED TO DATE

- Named in the Governor's Water Resiliency Plan
- Reduced the construction cost by over \$2B through the value planning process
- Leveraged your investment dollars against other federal and state dollars. For every dollar you invested we stretched it into \$1.50
- Honed in on permitting criteria
- Adopted storage policy that you can use to meet individual investor needs



Additional Investments

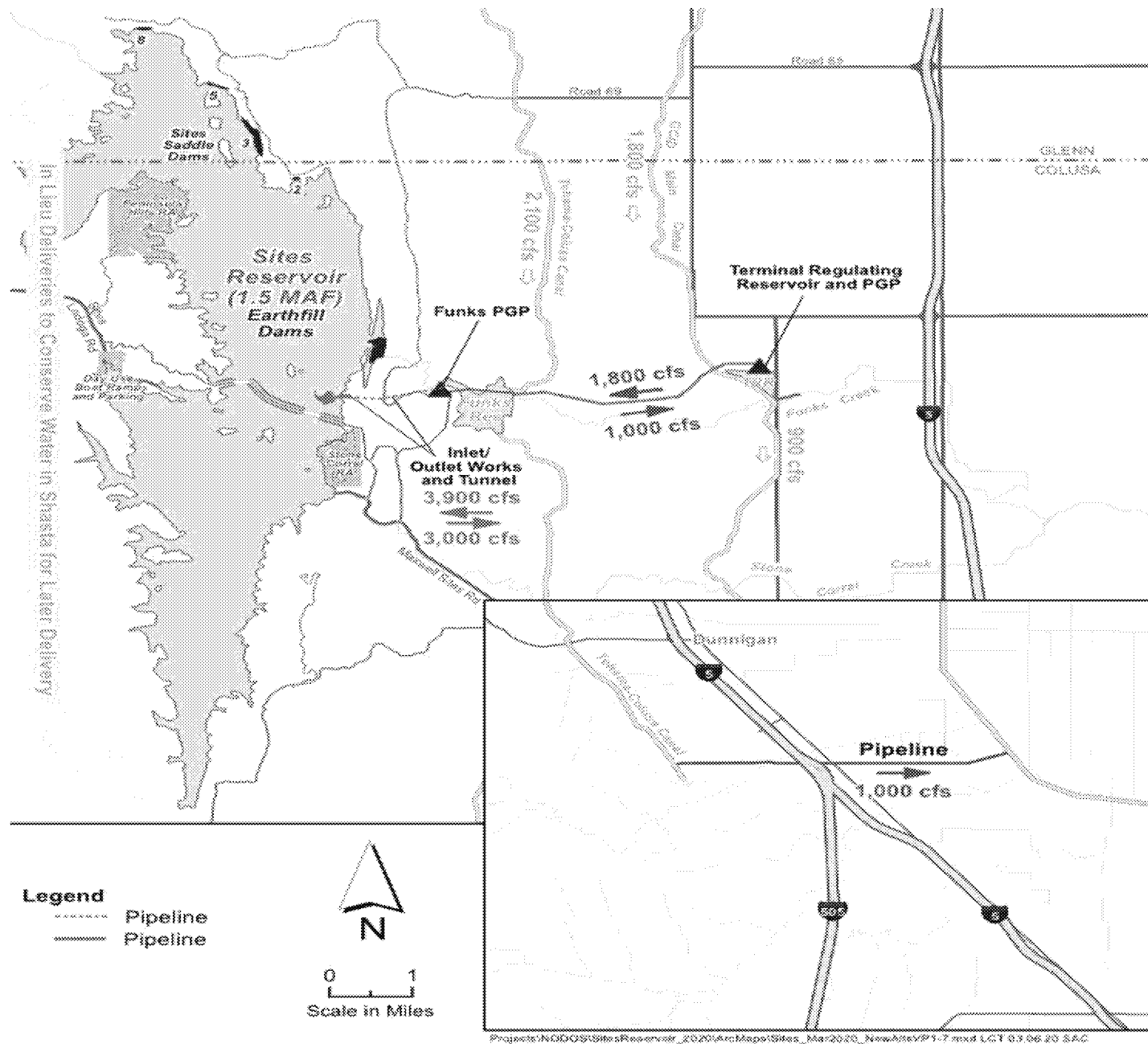
BOR WIIN Act	\$6M
USDA Low Interest Rate Loan	\$439M
Prop 1	\$816M

CURRENT PARTICIPATION

Member	Reservoir Participation (AFY)
Public Water Agencies	
North of Delta	52,142
South of Delta	140,750
Subtotal Public Water Agencies	192,892
State of CA (WSIP)	~40,000
Total Requirement	~230,000



VALUE PLANNING



Leveraged federal dollars to do geotech explorations in 2019

ENVIRONMENTAL PLANNING & PERMITTING

- Plan to Recirculate EIS

DIVERSION CRITERIA CONSIDERED

	Scenario A	Scenario B
Potential Range of Diversions (TAF)	189 - 209	242 - 272

OPERATIONS

Year Type	1,000 cfs Release Capacity (TAF)
Wet	116
Above Normal	286
Below Normal	273
Dry	382
Critically Dry	237
Long Term Average	243

- Further negotiations with BOR could result in additional yield with Shasta exchange



Home Board Presentation

March 2020



Sites Reservoir Project Overview



- Will utilize surplus flows from the Sacramento River
- Water stored in an Off Stream Sacramento River Storage (1.3 – 1.5 million acre-feet)
- Primary objectives are to improve water supply and reliability for participants and environment
- Secondary objectives provide opportunities for recreation and flood damage reduction

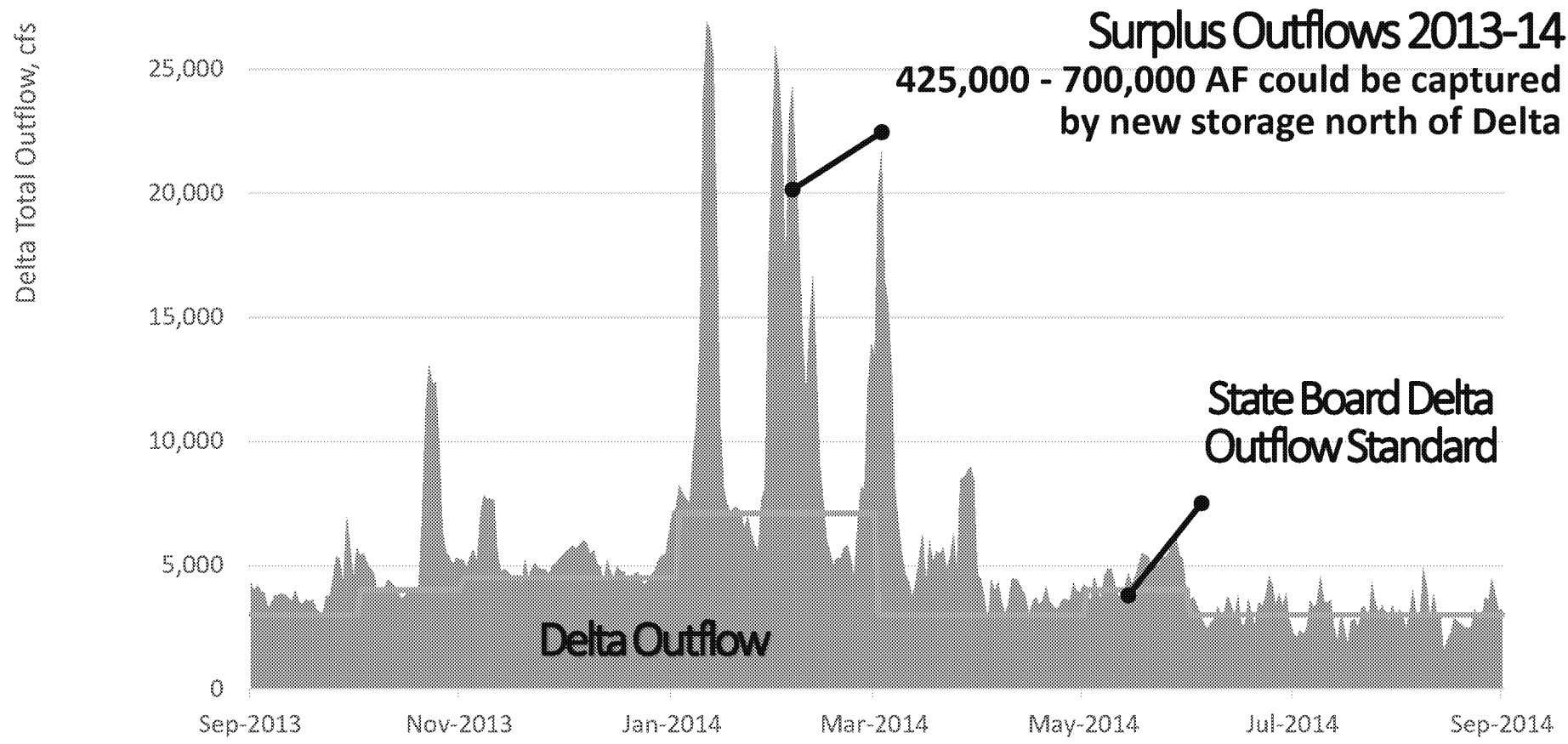
Sites Reservoir Project Overview



- Reservoir site is largely undeveloped
- Agriculture grazing land is the primary use
- Project will maximize use of existing facilities
 - Tehama Colusa Canal
 - Glen Colusa Canal
 - Red Bluff and GCID intake screens on Sac River
 - Colusa Basin Drain

Background – Sites Captures Surplus Outflow

Surplus Outflows Capture Analysis



Analysis of the October 2013 through September 2014 drought period conducted by Metropolitan Water District.



Pivotal Benefits of Sites Reservoir



Water from Sites directly benefits:

Environment



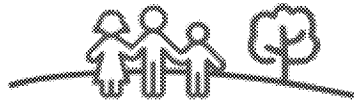
Communities



Agriculture



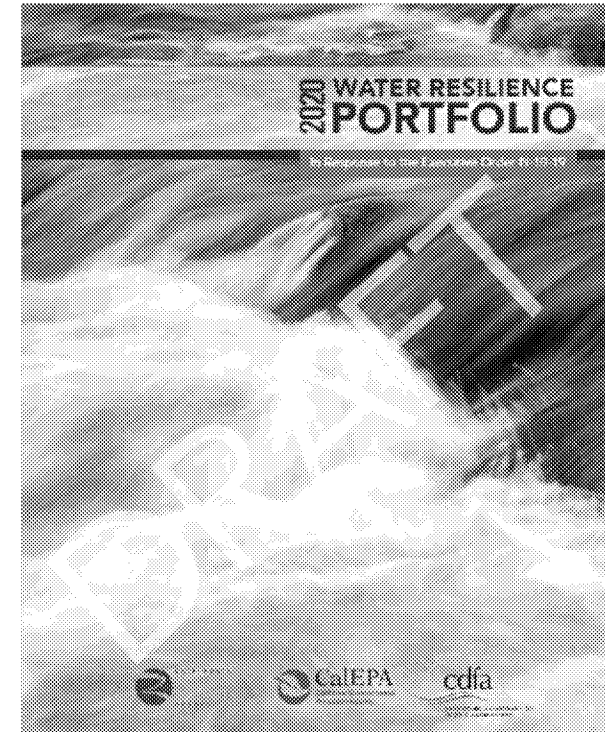
Families



- Increases California water supply resiliency with climate change
- Portion of the storage is dedicated to environmental flow needs
- Enhances ability to capture flood flows for both Northern & Southern California
- Transfers surplus flows to times of low flow when fisheries and water quality need it most
- Provides opportunity for recreation and flood damage reduction

Key Authority Accomplishments to Date

- Named in Governor's Draft Water Resiliency Portfolio
- Reduced construction cost by over \$2B through value planning process
- Leveraged your investment dollars against other State dollars. For every dollar you invested it is stretched to \$1.50
- Increased certainty of permitting criteria
- Adopted Storage Policy to meet individual investor needs
- Furthered landowner and stakeholder engagement



Used additional USBR dollars to start geotech exploration



Reservoir Configuration Meets Current Participation Demands

Member	Reservoir Participation (AFY)
Public Water Agencies	
North of Delta	52,142
South of Delta	140,750
Subtotal Public Water Agencies	192,892
State of CA	~ 40,000
Total Requirement	~230,000

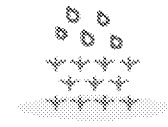
28 participants span California



Our participants serve:



Cities/Neighborhoods



Farmland/Irrigation



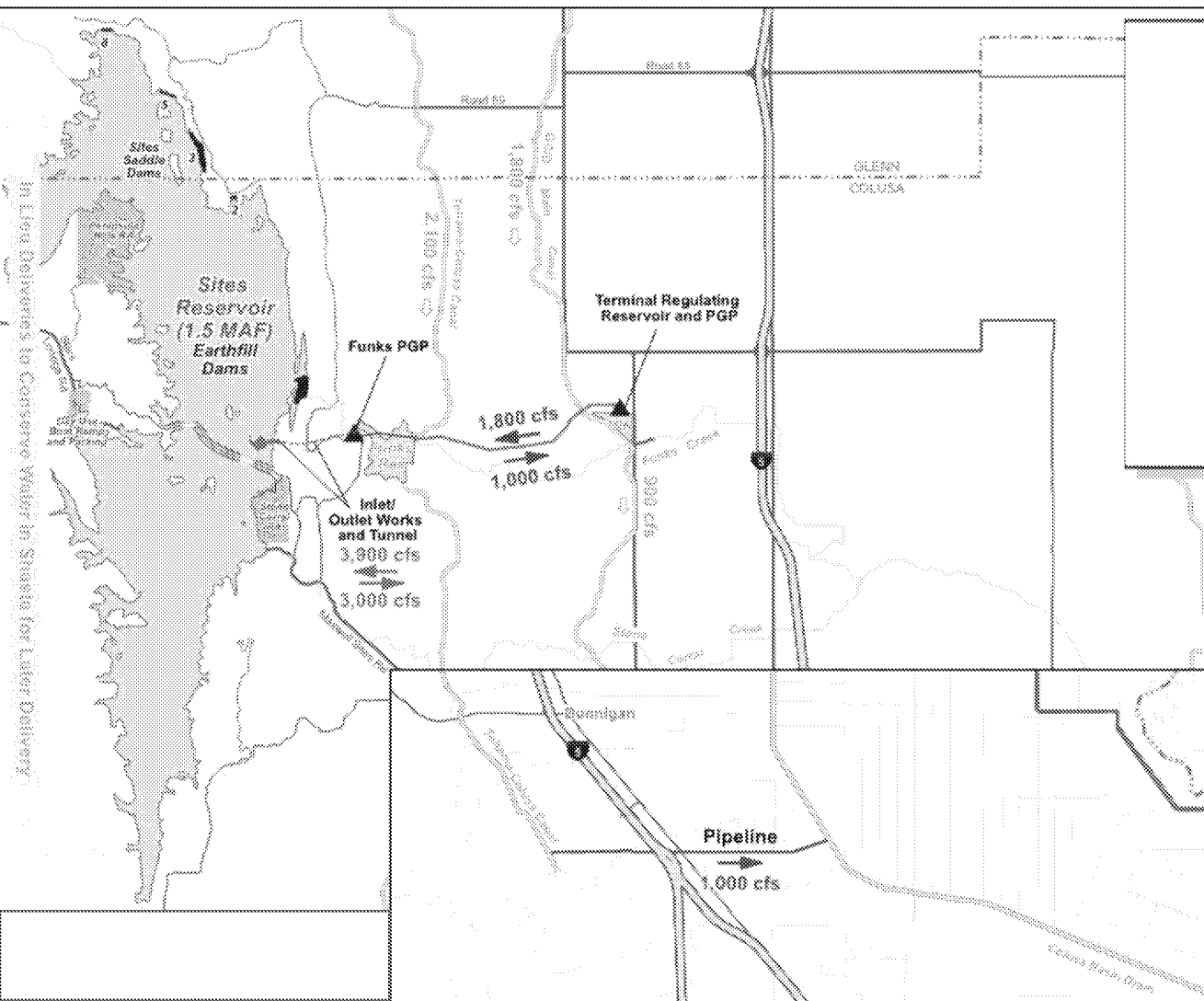
State/Environment

equating to **24+** million people and **1+** million acres of farmland

Plus \$6M from BOR WIIN Act and \$439M USDA Loan



Key Features of the Recommended Project



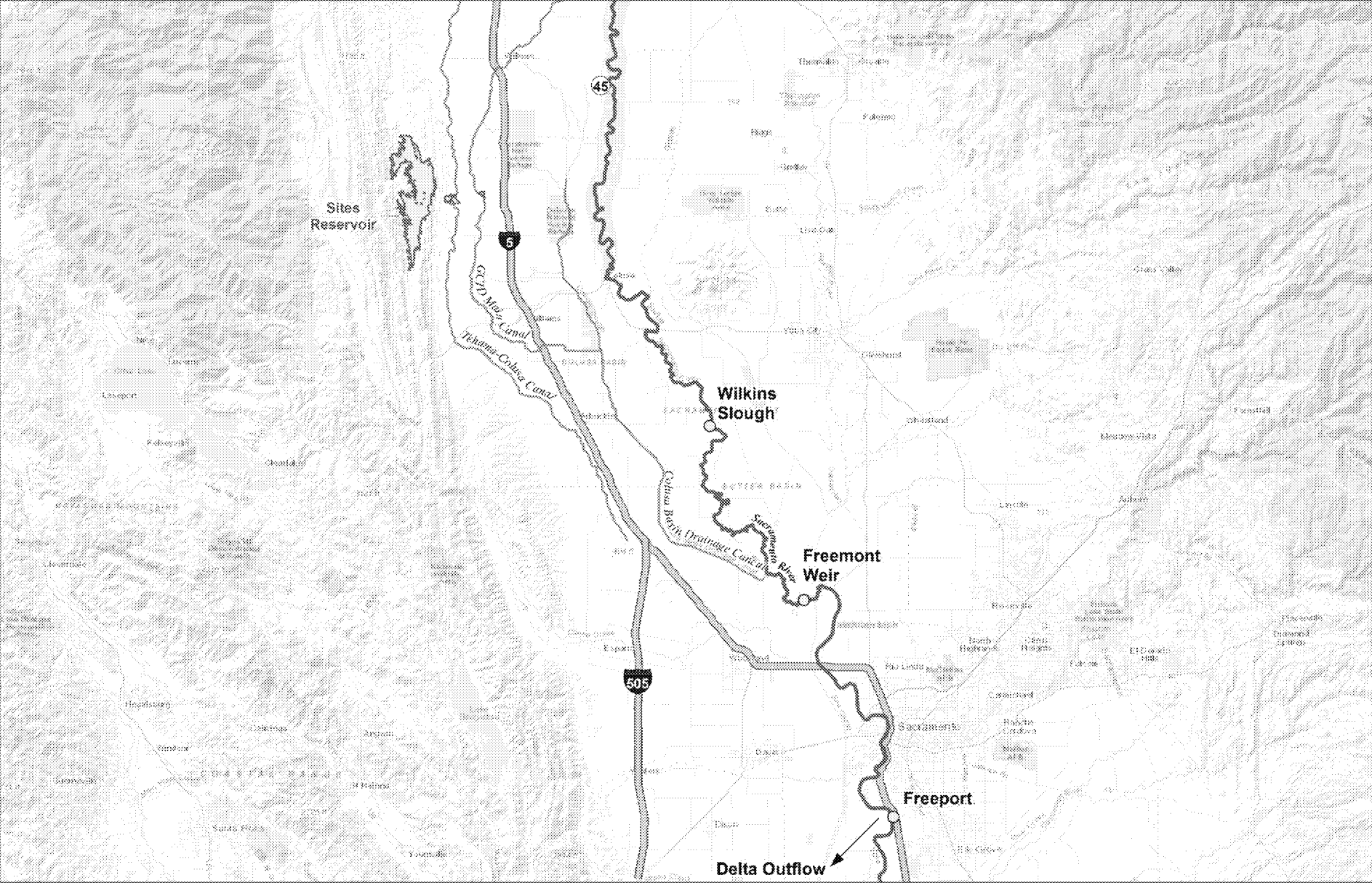
- 1.5 MAF Reservoir
- 1,000 cfs release to Colusa Basin Drain (CBD)
- CBD drains to Sacramento River and Yolo Bypass
- Multi-span Bridge
- South Access Road

~\$2B in Construction Cost Savings

Environmental Planning & Permitting

	Scenario A	Scenario B	Scenario C
Potential Range of Diversions from the Sacramento River (TAF)	189 – 209	242 – 272	283 – 313
Potential Range of Average Annual Deliveries from Sites (TAF)	175 – 194	225 – 253	264 – 292

Environmental Compliance Points



Reservoir Releases

Release Capacity from Sites Based on Year Type

Year Type	1,000 cfs Release Capacity (TAF)
Wet	116
Above Normal	286
Below Normal	273
Dry	382
Critically Dry	237

Shasta Exchange could increase the yield significantly.

Long Term Average Annual Yield of 243,000 acre-ft

Affordability

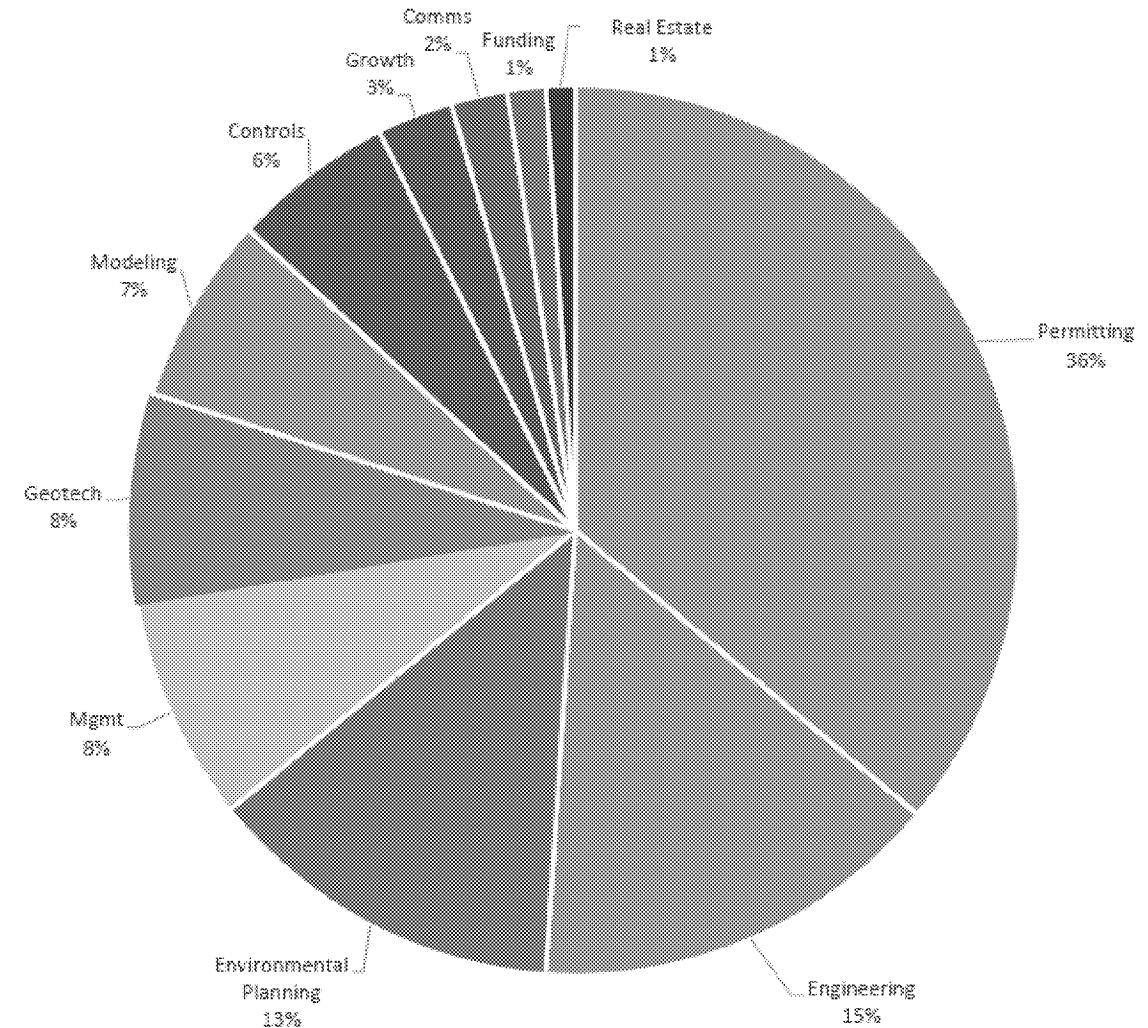
Reservoir Size (MAF)	1.5
Project Cost (2019\$, billions)	\$3.0
Annualized AF/year Release (TAF)	243
Range of Annual Costs During Repayment Without WIFIA Loan (2020\$, \$/AF)	\$650 - \$710
Range of Annual Costs During Repayment With WIFIA Loan (2020\$, \$/AF)	\$600 - \$660

Beneficiary Pays Policy would lower costs to Sac Valley Investors



Next Steps for 2020/2021

- Operations CVP/SWP Exchange Refinements
- Advancing Permitting Certainty
- Recirculation of Draft EIR/EIS
- Complete Feasibility Study
- Administer State and Federal Grants
- Continue to strengthen community and landowner relationships
- Develop Plan to advance the project past 2021



\$100/acre-ft cash call takes us to the end of 2021

Planned Environmental Planning Accomplishments at End of 2021

- Finalization of the EIR/EIS Project Description Chapter, both construction and operations/maintenance of the project and alternatives
- Desk top research to update environmental baseline, where appropriate, to better support analysis and the administrative record
- Continued outreach to Landowners, Agencies, NGOs, Tribes, and other stakeholders to minimize risk of extensive comments later
- Prepare and circulate a revised Draft EIR/EIS
- Review, categorize and draft initial responses to comments received on the recirculated Draft EIR/EIS
- Prepare and submit an Environmental Summary Report to support CWC feasibility determination

We will be very close to having a final EIR/EIS

Planned Permitting Accomplishments at End of 2021

- Permits for Geotechnical exploration
- Section 401 permit application
- Section 106 Action Plan
- Water Rights application
- Updated BA and BO
- CESA Section 2081 application submitted
- Agreement on approach for 404.408 and streambed alteration agreement

We will have greater permitting certainty

Planned Engineering Accomplishments at End of 2021

- Final Feasibility Report
- DSOD buy-in on our approach
- Collecting more geotech data
- Geotech investigation plan for the entire project
- Updated cost estimate



We have already started collecting geotech data using BOR's money

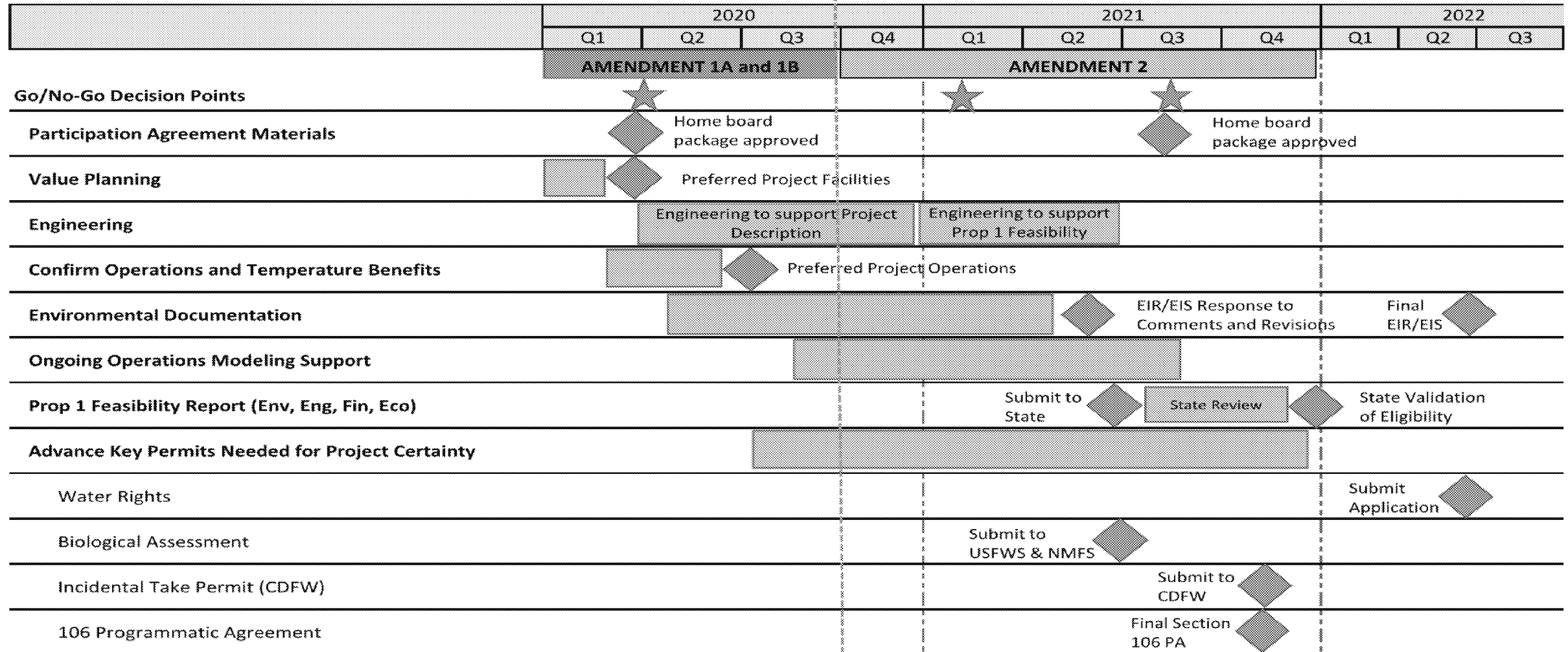
We will be ready to launch into full design at the start of 2022



Amendment 2 High Level Schedule

Sites Reservoir Program
 Updated 2020-2021 Schedule Drivers

September 1, 2020



NOTE: This graphic includes schedule drivers only and does not include all activities/deliverables.
 This work plan is based on current participation commitments.

Key Accomplishments at end of 2021

- Meet eligibility requirements under Prop 1 (WSIP) in order to access \$XXX M
- Draft EIR/EIS with responses to comments
- Feasibility Report
- Greater environmental permit certainty and draft permit applications
- Updated and refined cost estimate and affordability analysis
- Adopted Storage Policy that can be used to meet individual investor needs
- Better definition of SWP/CVP (Shasta) exchange, including Operations Plan
- Stronger landowner and stakeholder engagement



From: Tull, Robert/SAC [Robert.Tull@jacobs.com]
Sent: 3/30/2020 4:39:18 PM
To: Laurie Warner Herson [laurie.warner.herson@phenixenv.com]; Williams, Nicole [Nicole.Williams@icf.com]; Briard, Monique [Monique.Briard@icf.com]; Lecky, Jim [Jim.Lecky@icf.com]; Berryman, Ellen [Ellen.Berryman@icf.com]; John.Spranza@hdrinc.com; Jelica Arsenijevic (Jelica.Arsenijevic@hdrinc.com) [Jelica.Arsenijevic@hdrinc.com]; Fisher, Linda [Linda.Fisher@hdrinc.com]; Alicia Forsythe [aforsythe@sitesproject.org]
CC: Leaf, Rob/SAC [Rob.Leaf@jacobs.com]; Micko, Steve/SAC [Steve.Micko@jacobs.com]
Subject: Comparison of DCR2015 and ROC on LTO Ops Assumptions and Criteria
Attachments: Draft Sites DCR_2015_ROC_revAlt1_Comparison 3_30_20.docx

Laurie,

Attached is a draft table comparing operations assumptions and criteria between the DCR2015 baseline (used for the WSIP application) and the ROC on LTO Revised Alt1. This table includes more detail than this group needs but it provides a summary of all the assumptions and criteria we track including the BOs etc.. We have highlighted the items that may have an influence on Sites operations. We can prepare a condensed version of this table with just the items of concern to this group as a next step.

We will release an update to this table with DWR ITP Alternative 2b assumptions and criteria as soon as the ITP is publicly available.

Thanks,
Rob

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Draft Assumptions and Operations Criteria Comparison

DWR Delivery Capability Report 2015 vs ROC on LTO Revised Alt1

3/30/2020

	DCR 2015	ROC on LTO Revised Alternative 1 (Revised ALT1)	Relationship to Sites Operations
GENERAL			
Planning horizon^a	Year 2015	Year 2030	No change to Sites
Period of simulation	82 years (1922-2003)	Same as DCR 2015	No change to Sites
HYDROLOGY			
Climate Condition	Current climate	ELT Q5 projected changes in temperature, and precipitation; Sea level rise increased by 15cm.	Benefit to Sites; Sites <i>should</i> provide increased diversions and benefits under future climate conditions.
Inflows/Supplies	Inflows based on Historical Hydrology	Modified inflows based on historical hydrology and projected climate condition.	No change to Sites
Level of development	Projected 2030 level ^c	Same as DCR 2015	No change to Sites
DEMANDS, WATER RIGHTS, CVP/SWP CONTRACTS			
Sacramento River Region (excluding American River)			
CVP ^d	Land-use based, full build-out of contract amounts	Land-use based, full build-out of contract amounts, except for Settlement Contractors represented with historical diversions.	No change to Sites
SWP (FRSA) ^e	Land-use based, limited by contract amounts	Same as DCR 2015	No change to Sites
Non-project	Land use based, limited by water rights and SWRCB Decisions for Existing Facilities	Same as DCR 2015	No change to Sites
Antioch Water Works	Pre-1914 water right	Same as DCR 2015	No change to Sites

Draft Assumptions and Operations Criteria Comparison

DWR Delivery Capability Report 2015 vs ROC on LTO Revised Alt1

3/30/2020

	DCR 2015	ROC on LTO Revised Alternative 1 (Revised ALT1)	Relationship to Sites Operations
Federal refuges	Firm Level 2 water supply needs	Same as DCR 2015	No change to Sites
Sacramento River Region - American River^g			
Water rights	Year 2025, full water rights	Same as DCR 2015	No change to Sites
CVP	Year 2025, full contracts, including Freeport Regional Water Project	Year 2025, full contracts except for Settlement Contractors at historical diversions, including Freeport Regional Water Project	No change to Sites
San Joaquin River Region^h			
Friant Unit	Limited by contract amounts, based on current allocation policy	Same as DCR 2015	No change to Sites
Lower Basin	Land-use based, based on district level operations and constraints	Same as DCR 2015	No change to Sites
Stanislaus River	Land-use based, Revised Operations Plan (2008 model assumptions) and NMFS BO (Jun 2009) Actions III.1.2 and III.1.3	Land-use based, Stepped Release Plan (SRP)	No change to Sites
San Francisco Bay, Central Coast, Tulare Lake and South Coast Regions (CVP/SWP project facilities)			
CVP ^d	Demand based on contract amounts	Same as DCR 2015	No change to Sites
CCWD ⁱ	195 TAF/yr CVP contract supply and water rights	195 TAF/yr CVP contract supply and water rights; and updated to include in-Delta transfers	No change to Sites
SWP ^{e,k}	Demand based on Table A amounts	Same as DCR 2015	No change to Sites
Article 56	Based on 2001-08 contractor requests	Same as DCR 2015	No change to Sites

Draft Assumptions and Operations Criteria Comparison

DWR Delivery Capability Report 2015 vs ROC on LTO Revised Alt1

3/30/2020

	DCR 2015	ROC on LTO Revised Alternative 1 (Revised ALT1)	Relationship to Sites Operations
Article 21	MWD demand up to 200 TAF/month (December-March) subject to conveyance capacity, KCWA demand up to 180 TAF/month, and other contractor demands up to 34 TAF/month, subject to conveyance capacity	Same as DCR 2015	No change to Sites
North Bay Aqueduct (NBA)	77 TAF/yr demand under SWP contracts, up to 43.7 cfs of excess flow under Fairfield, Vacaville and Benicia Settlement Agreement. NOD Allocation Settlement Agreement terms for Napa and Solano	Same as DCR 2015	No change to Sites
Federal refuges	Firm Level 2 water needs	Same as DCR 2015	No change to Sites
FACILITIES			
Systemwide			
Systemwide	Existing facilities	Same as DCR 2015	No change to Sites
Sacramento River Region			
Shasta Lake	Existing, 4,552 TAF capacity	Same as DCR 2015	No change to Sites
Red Bluff Diversion Dam	Diversion dam gates out all year, Pumping Plant operated to deliver CVP water	Same as DCR 2015	No change to Sites
Fremont Weir	Existing weir	Notched Fremont Weir as represented in Yolo Bypass Salmonid Habitat Restoration and Fish Passage EIS/EIR Alternative 1 (preferred alternative)	ROC on LTO impact to Sites; Fremont Weir Notch and its operations would limit Sites' ability to divert
Colusa Basin	Existing conveyance and storage facilities	Same as DCR 2015	No change to Sites

Draft Assumptions and Operations Criteria Comparison

DWR Delivery Capability Report 2015 vs ROC on LTO Revised Alt1

3/30/2020

	DCR 2015	ROC on LTO Revised Alternative 1 (Revised ALT1)	Relationship to Sites Operations
Upper American River ^{g,l}	PCWA American River Pump Station	Same as DCR 2015	No change to Sites
Lower Sacramento River	Freeport Regional Water Project ⁿ	Same as DCR 2015	No change to Sites
San Joaquin River Region			
Millerton Lake (Friant Dam)	Existing, 520 TAF capacity	Same as DCR 2015	No change to Sites
Lower San Joaquin River	City of Stockton Delta Water Supply Project, 30-mgd capacity	Same as DCR 2015	No change to Sites
Sacramento River–San Joaquin Delta Region			
SWP Banks Pumping Plant (South Delta)	Physical capacity is 10,300 cfs but 6,680 cfs permitted capacity in all months. Pumping can be up to 10,300 cfs during Dec 15 – Mar 15 depending on Vernalis flow conditions; additional capacity of 500 cfs (up to 7,180 cfs) allowed Jul – Sep for reducing impact of NMFS BO (Jun 2009) Action IV.2.1 on SWP	Same as DCR 2015	No change to Sites
CVP C.W. Bill Jones Pumping Plant (Tracy PP)	Permit capacity is 4,600 cfs in all months (allowed for by the Delta-Mendota Canal–California Aqueduct Intertie)	Same as DCR 2015	No change to Sites
Upper Delta-Mendota Canal Capacity	Existing plus 400 cfs Delta-Mendota Canal–California Aqueduct Intertie	Same as DCR 2015	No change to Sites
Head of Old River Barrier (HORB)	HORB installed in Fall (Sep 16 – Nov 30)	Not installed	Slight export benefit to Sites (Without HORB, OMR flow is not as sensitive to exports)

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	HORB also installed in Spring (April 1 – May 31) when SJR flow is less than 5,000 cfs		
Montezuma Slough Salinity Control Gates	Not modeled	Delta salinity conditions are adjusted for months in which the salinity control gate is operated (see operations)	No change to Sites
San Francisco Bay Region			
South Bay Aqueduct (SBA)	SBA rehabilitation, 430 cfs capacity from junction with California Aqueduct to Alameda County FC&WSD Zone 7 diversion point	Same as DCR 2015	No change to Sites
South Coast Region			
California Aqueduct East Branch	Existing capacity	Same as DCR 2015	No change to Sites
REGULATORY STANDARDS			
North Coast Region			
Trinity River			
Minimum flow below Lewiston Dam	Trinity EIS Preferred Alternative (369-815 TAF/yr)	Same as DCR 2015	No change to Sites
Trinity River Fall Augmentation Flows	Not modeled	420 cfs August 1 through September 30 in all but wet years	No change to Sites
Trinity Reservoir end-of-September minimum storage	Trinity EIS Preferred Alternative (600 TAF as able)	Same as DCR 2015	No change to Sites
Sacramento River Region			
Clear Creek			

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Minimum flow below Whiskeytown Dam	Downstream water rights, 1963 Reclamation proposal to USFWS and NPS, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.1.1	Downstream water rights, 1963 USBR Proposal to USFWS and NPS; and 200 cfs October through May or 150 cfs in Critical years and 150 cfs June through September with 10 TAF for channel maintenance in February of BN, AN and Wet years and 10 TAF for Spring pulse flows in June of all years	No change to Sites
Upper Sacramento River			
Shasta Lake end-of-September minimum storage	NMFS 2004 Winter-run Biological Opinion (1,900 TAF in non-critical dry years), and NMFS BO (Jun 2009) Action I.2.1	1900 TAF in non-critically dry years (not explicitly modeled - achieved through project allocation profiles when hydrologically feasible)	No change to Sites
Minimum flow below Keswick Dam	Flows for the SWRCB Water Rights Order 90-5, predetermined Central Valley Protection Improvement Act 3406(b)(2) flows, and NMFS BO (Jun 2009) Action I.2.2	SWRCB WR 90-5; and stabilize fall flows to reduce redd dewatering and rebuild cold water pool; and spring pulse flow up to 150 TAF if projected May 1 storage > 4.1 MAF	Spring pulse flow would limit Sites' ability to divert; Sites may prove beneficial for Fall stability flows
Feather River			
Minimum flow below Thermalito Diversion Dam	2006 Settlement Agreement (700 / 800 cfs)	Same as DCR 2015	No change to Sites
Minimum flow below Thermalito Afterbay outlet	1983 DWR, DFG Agreement (750-1,700 cfs)	Same as DCR 2015	No change to Sites
Yuba River			
Minimum flow below Daguerre Point Dam	D-1644 Operations (Lower Yuba River Accord) ^f	Same as DCR 2015	No change to Sites
American River			

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Minimum flow below Nimbus Dam	American River Flow Management as required by NMFS BO (Jun 2009) Action II.1	American River Flow Management Standard, per 2017 Water Forum Agreement with a planning minimum end of December storage target of 275 TAF	No change to Sites
Minimum Flow at H Street Bridge	SWRCB D-893	Same as DCR 2015	No change to Sites
Lower Sacramento River			
Minimum flow near Rio Vista	SWRCB D-1641	Same as DCR 2015	No change to Sites
San Joaquin River Region			
Mokelumne River			
Minimum flow below Camanche Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (100-325 cfs)	Same as DCR 2015	No change to Sites
Minimum flow below Woodbridge Diversion Dam	FERC 2916-029, 1996 (Joint Settlement Agreement) (25-300 cfs)	Same as DCR 2015	No change to Sites
Stanislaus River			
Minimum flow below Goodwin Dam	1987 USBR, DFG agreement, and flows required for NMFS BO (Jun 2009) Action III.1.2 and III.1.3	Flows per New Melones SRP	No change to Sites
Minimum dissolved oxygen	SWRCB D-1422	Model representation same as SWRCB D-1422	No change to Sites
Merced River			
Minimum flow below Crocker-Huffman Diversion Dam	Davis-Grunsky (180-220 cfs, Nov-Mar), and Cowell Agreement	Same as DCR 2015	No change to Sites

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Minimum flow at Shaffer Bridge	FERC 2179 (25-100 cfs)	Same as DCR 2015	No change to Sites
Tuolumne River			
Minimum flow at Lagrange Bridge	FERC 2299-024, 1995 (Settlement Agreement) (94-301 TAF/yr)	Same as DCR 2015	No change to Sites
San Joaquin River			
San Joaquin River below Friant Dam/ Mendota Pool	Full San Joaquin River Restoration flows, not constrained by current river capacity, model implementation does not include any recapture/recirculation	Same as DCR 2015	No change to Sites
Maximum salinity near Vernalis	SWRCB D-1641	Stanislaus contribution per New Melones SRP	No change to Sites
Minimum flow near Vernalis	SWRCB D1641. VAMP is turned off since the San Joaquin River Agreement has expired. NMFS BO (Jun 2009) Action IV.2.1 Phase II flows not provided due to lack of agreement for purchasing water	Stanislaus contribution per New Melones SRP	No change to Sites
Sacramento River–San Joaquin Delta Region			
Delta Outflow Index (Flow, NDOI)	SWRCB D-1641 and FWS BO (Dec 2008) Action 4	SWRCB D-1641 and for Summer/Fall Delta Smelt habitat operate to meet X2 of 80 km for September and October of AN, and Wet years with transitional flows in last half of August	ROC on LTO actions are beneficial to Sites; X2 requirements are relaxed as compared to those in DCR 2015
Delta Cross Channel gate operation	SWRCB D-1641 with additional days closed from Oct 1-Jan 31 based on NMFS BO (Jun 2009) Action IV.1.2 (closed during flushing flows from Oct 1-Dec 14 unless adverse	Gate operations per Multi Year Study Program; model representation Same as NAA	No change to Sites

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	DCR 2015	ROC on LTO Revised Alternative 1 (Revised ALT1)	Relationship to Sites Operations
	water quality conditions would result)		
South Delta export limits (Jones PP and Banks PP)	SWRCB D-1641, Vernalis flow-based export limits Apr 1 – May 31 as required by NMFS BO (June 2009) Action IV.2.1 (additional 500 cfs allowed for Jul-Sep for reducing impact on SWP)	SWRCB D-1641	ROC on LTO benefit to Sites; less restrictions on Delta exports in Spring
Combined Flow in Old and Middle River (OMR)	FWS BO (Dec 2008) Actions 1-3 and NMFS BO (Jun 2009) Action IV.2.3	<p>OMR target of -5,000 cfs January through June except for:</p> <p>Adult Delta Smelt (First Flush) Trigger: Freeport > 50 NTU & Freeport > 25,000 cfs Period: December 1 to January 31 CalSim assumption: Sacramento River Runoff > 20,000 then OMR = -2,000 cfs for 14 days</p> <p>Adult Delta Smelt (Turbidity Bridge) January to March & Sacramento River Runoff > 20,000 OMR = -2,000 cfs for 5 days</p> <p>Salvage Threshold (assume triggering 50% single year loss thresholds in Wet, Above Normal, Below Normal, and Dry Years) March: OMR = -3,500 cfs April: OMR = -3,500 cfs</p> <p>OMR Flex (storm flex)</p>	OMR flex criteria allow for more Sites exports during winter storms

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		If first flush or turbidity bridge are not triggered, then January: OMR = 7 days at OMR - 6,000 cfs (AN and BN years) February: OMR = 7 days at OMR - 6,000 cfs (AN and BN years) Once in January or February: OMR = 7 days at -6,000 cfs (D) H&S off-ramp when exports are low	
OPERATIONS CRITERIA: RIVER-SPECIFIC			
Sacramento River Region			
Upper Sacramento River: Flow objective for navigation (Wilkins Slough)	NMFS BO (Jun 2009) Action I.4; 3,250–5,000 cfs based on CVP water supply condition	Flow objective for Wilkins Slough based on month, CVP allocation, and Shasta storage condition to reflect CVP operations for local delivery	No change to Sites
American River: Folsom Dam flood control	Variable 400/600 flood control diagram (without outlet modifications)	Same as DCR 2015	No change to Sites
Feather River: Flow at Mouth of Feather River (above Verona)	Maintain DFG/DWR flow target of 2,800 cfs for Apr – Sep when flows available dependent on Oroville inflow and FRSA allocation	Same as DCR 2015	No change to Sites
San Joaquin River Region			
Stanislaus River: Flow below Goodwin Dam	Revised Operations Plan and NMFS BO (Jun 2009) Action III.1.2 and III.1.3	Flows per New Melones SRP	No change to Sites

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San Joaquin River: Salinity at Vernalis	Grasslands Bypass Project (full implementation)	Same as DCR 2015	No change to Sites
Sacramento River–San Joaquin Delta Region			
Montezuma Slough Salinity Control Gates	Not modeled	Operate to meet SWRCB D-1641 water quality standards in Montezuma Slough during salinity control season October through May; and for Summer/Fall Delta Smelt habitat operate for up to 60 days June through October of BN, AN, and Wet years	Impact to Sites; Summer/fall SMSCG operations require increased Delta Outflow to meet Delta Water Quality Regulations. This will limit export capacity in the summer.
OPERATIONS CRITERIA: SYSTEMWIDE			
CVP water allocation			
Settlement / Exchange	100% (75% in Shasta critical years)	Same as DCR 2015	No change to Sites
Refuges	100% (75% in Shasta critical years)	Same as DCR 2015	No change to Sites
Agriculture Service	100% - 0% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions	100%-0% based on supply, South-of-Delta allocations are additionally limited due to D-1641 and OMR action	No change to Sites
Municipal & Industrial Service	100% - 50% based on supply. South-of-Delta allocations are additionally limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions	100%-50% based on supply, South-of-Delta allocations are additionally limited due to D-1641 and OMR action	No change to Sites
SWP water allocation			
North of Delta (FRSA)	Contract-specific	Same as DCR 2015	No change to Sites

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South of Delta (including North Bay Aqueduct)	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are limited due to D-1641, FWS BO (Dec 2008), and NMFS BO (Jun 2009) export restrictions	Based on supply; equal prioritization between Ag and M&I based on Monterey Agreement; allocations are additionally limited due to D-1641 and OMR action	No change to Sites
CVP-SWP coordinated operations			
Sharing of responsibility for in-basin-use	1986 Coordinated Operations Agreement (FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use)	Revised Coordinated Operations Agreement According to Coordinated Operations Agreement (2018), sharing responsibility for meeting Sacramento Valley In-basin use during balance condition with water year type in percentage for CVP and SWP, respectively are: 80/20 in AN and W 75/25 in BN 65/35 in D 60/40 in C As per NAPA agreement, FRWP and EBMUD 2/3 of the North Bay Aqueduct diversions are considered as Delta export, 1/3 of the North Bay Aqueduct diversion is considered as in-basin use	No change to Sites
Sharing of surplus flows	1986 Coordinated Operations Agreement	Revised Coordinated Operations Agreement (above)	No change to Sites
Sharing of restricted export capacity for	Equal sharing of export capacity under SWRCB D-1641, FWS BO	Revised Coordinated Operations Agreement (above)	No change to Sites

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project- specific priority pumping	(Dec 2008), and NMFS BO (Jun 2009) export restrictions		
Water transfers	Acquisitions by SWP contractors are wheeled at priority in Banks Pumping Plant over non-SWP users; LYRA included for SWP contractors	Same as DCR 2015	No change to Sites
Sharing of export capacity for lesser priority and wheeling-related pumping	Cross Valley Canal wheeling (max of 128 TAF/yr), CALFED ROD defined Joint Point of Diversion (JPOD)	Same as DCR 2015	No change to Sites
San Luis Reservoir	San Luis Reservoir is allowed to operate to a minimum storage of 100 TAF	Same as DCR 2015	No change to Sites
CVPIA 3406(b)(2)^v			
Policy Decision	Per May 2003 Department of Interior decision	N/A	No change to Sites
Allocation	800 TAF/yr, 700 TAF/yr in 40-30-30 dry years, and 600 TAF/yr in 40-30-30 critical years	No B2 Allocation modeled	No change to Sites
Actions	Pre-determined non-discretionary FWS BO (Dec 2008) upstream fish flow objectives (Oct-Jan) for Clear Creek and Keswick Dam, non-discretionary NMFS BO (Jun 2009) actions for the American and Stanislaus Rivers, and NMFS BO (Jun 2009) actions leading to export restrictions	Pre-determined upstream fish flow objectives below Whiskeytown	No change to Sites
Accounting	No discretion assumed under FWS BO (Dec 2008) and NMFS BO (Jun 2009), no accounting	No B2 Accounting modeled	No change to Sites

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WATER MANAGEMENT ACTIONS			
Water Transfer Supplies (long term programs)			
Water Transfer Window	July through September	July through November	Benefit to Sites; Greater time window for transfers from Sites to South of Delta water users
Lower Yuba River Accord	Yuba River acquisitions for reducing impact of NMFS BO export restrictions on SWP	Yuba River acquisitions for reducing impact of D-1641 and OMR Action export restrictions on SWP	No change to Sites
Phase 8	None	Same as DCR 2015	No change to Sites