

## **July 5 Planning Meeting for July 11, 2023 Meeting with Butte, Plumas, Yuba City**

### Review Existing documents:

- Kunde notes from 9/3 and 9/9/2020 meetings with Feather River Contractors identifying their concerns and issues
- Dec 2020 Cooke brainstorming responses to Feather River issues

### Discuss DRAFT 7/11 Agenda

1. Sites - General Description
  - a. Facilities
  - b. Operations
    - i. Diversions from Sac River by year type
    - ii. Releases to Sac River by year type
    - iii. Effect on Oroville operations
    - iv. Relation of Sites operations to SWP operations
2. Sites - Current Status
  - a. EIR
  - b. Water Right Permit Application
  - c. Schedule
  - d. Draft SWP Contract Amendment (for 4 SWP Contractors)
3. Sites and DWR Response to Sept 2020 Feather River Contractor Issues
  - a. Issues raised
  - b. Responses
4. Q&A and Followup

**IDENTIFY NON-PARTICIPANT ISSUES  
FOR A SITE CONTRACT AMENDMENT**Participants:

Butte County - Paul Gosselin

Plumas County FC&amp;WCD - Rob Thorman

Yuba City - Greg Young

Sites Group - Jeff Davis, Robert Kunde

Yuba City (Greg Young)

1. CO in Oroville - Yuba big issue with DWR
  - a. Yuba gets CO in SLR (on the books), but no Article 21, so impact on carryover a concern
  - b. Yuba went to DWR on this:
    - i. Yuba wanted CO in Oroville
    - ii. DWR said no
    - iii. Yuba presented other solutions, DWR rejected them
  - c. Yuba would like to bring this into Sites discussions
2. CO in SLR (concern similar to Yuba concern from DCF)
  - a. what water spills first? If Yuba loses SLR CO due to Sites, then Sites should make up the loss. Ideas are:
    - i. if move Sites water in the fall for SLR storage, then Sites water should spill before Yuba CO
    - ii. given lower Sites quantities than DCF, Sites should consider limits on Sites SLR storage
    - iii. Sites should consider exchange agreements:
      - (1) Sites makes up the Yuba CO loss by providing equivalent Table A to Yuba
      - (2) Sites Participants to provide water in Oroville to Yuba
      - (3) exchanges should not cause a financial hit to Yuba e.g. if Sites provides water from Dry Year Transfer Program, this is much more expensive than CO water and Yuba should not bear the incremental cost
3. Does Sites storage in SLR cause the state variable to increase? According to Lightle, there is no clean way to separate these effects. There could be an indirect effect of increasing Yuba's SWP costs
  - a. *[aside: unclear if North SWC have a variable charge, even if so, Sites cost increase would be small for them]*
4. More water in the SWP system is good, so expect Yuba would be supportive of Sites so long as water supply and cost impacts to Yuba are mitigated

5. A stack of Contract Amendments is too much for the NOD SWC Boards, so try to fold into some other process.

Plumas (Rob Thorman)

6. Thinks Plumas can support Sites

Butte (Paul Gosselin)

7. Butte's priorities re Sites impacts to Butte are
  - a. First, water supply
  - b. Second, Lake Oroville water levels (recreation impacts)
  - c. Third, minimize rice fallowing (local economic impacts)
8. Political
  - a. Butte Board of Supervisors unhappy with DWR on Oroville issues - mixed feelings
  - b. NGO's in Chico are opposed to Sites

**Butte - Sept 3 Call among Gosselin, JDavis, Kunde - Notes**

9. Davis initial comments
  - a. explains why Sites Contr Amd important
  - b. Sites water to come from Sac R existing TC/GC diversions, no Feather R diversions
  - c. We want to get all SWC to support or not object. What would this look like for Butte?
10. Gosselin comments:
  - a. Butte had concerns with prior CVP/SWP coordinated operations studies which showed some Oroville lake lowering to to save cold water for Shasta? Could this happen with Sites? It would be a concern.
  - b. Butte Board of Supervisors - would have concerns regarding
    - i. unfunded reimbursements from DWR and
    - ii. unintended Sites consequences for Butte?
    - iii. Board is split on relative importance of enviro vs water supply issues
  - c. Is there any benefit to Butte from Sites?
  - d. Suggests SWC strive for Butte to be neutral on Sites
  - e. No harm to Butte means *what does it do to Oroville lake levels?*
  - f. With DCP, analyses showed pretty significant impacts (lake levels) to Oroville; pretty firm NOD opposition to DCP, so it would be helpful to disassociate Sites from DCP
  - g. A Contr Amd would require the Butte Board to be briefed, so politics will play a role. Can't do a Sites Contr Amd under the radar.
  - h. Butte perceives a constant desire for NOD to SOD water transfers which Butte perceives as a negative. The WtrMgmt tools lessen pressure for North to South

transfers - does Sites? If so, this is a positive for Butte

- i. Davis states for SWC M&I, Sites would lessen NOD to SOD transfers because it is an additional a dry year supply
- ii. Kunde states SWC Ag has little Sites participation so the Ag NOD to SOD pressure may be mostly unchanged by Sites.

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Issues\NPIssues\_Butte\_Plumas\_Yuba\_Sept2020\_Consolidated.wpd)

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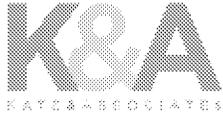
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**From:** Quin La Capra [qlacapra@katzandassociates.com]  
**Sent:** 7/5/2023 1:42:16 PM  
**To:** KEITH DUNN [keithdunn@me.com]; Jerry Brown [jbrown@sitesproject.org]  
**CC:** Kevin Spesert [kspesert@sitesproject.org]; Ann Newton [anewton@katzandassociates.com]; Sara M. Katz [skatz@katzandassociates.com]  
**Subject:** RE: For Review: Draft Statement on CA Budget

Thanks, everyone! We're ready to send once everything is signed and final.



**Quin La Capra**  
Senior Account Executive  
San Diego · Los Angeles · San Francisco

---

**From:** KEITH DUNN <keithdunn@me.com>  
**Sent:** Wednesday, July 5, 2023 10:59 AM  
**To:** Jerry Brown <jbrown@sitesproject.org>  
**Cc:** Kevin Spesert <kspesert@sitesproject.org>; Quin La Capra <qlacapra@katzandassociates.com>; Ann Newton <anewton@katzandassociates.com>; Sara M. Katz <skatz@katzandassociates.com>  
**Subject:** Re: For Review: Draft Statement on CA Budget

The Senate will pass it today and send to the Governor - who is vacationing in Montana....

Keith Dunn  
(916) 273-6567 office  
(916) 290-2900 cell

On Jul 5, 2023, at 11:58 AM, Jerry Brown <jbrown@sitesproject.org> wrote:

Looks good. Ready to go when after the bills get passed and signed by the Governor. Thank you!

---

**From:** KEITH DUNN <keithdunn@me.com>  
**Date:** Wednesday, July 5, 2023 at 10:30 AM  
**To:** Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** Quin La Capra <qlacapra@katzandassociates.com>, Jerry Brown <jbrown@sitesproject.org>, Ann Newton <anewton@katzandassociates.com>, "Sara M. Katz" <skatz@katzandassociates.com>  
**Subject:** Re: For Review: Draft Statement on CA Budget

Looks good, no edits from me.

Keith Dunn  
(916) 273-6567 office  
(916) 290-2900 cell

On Jul 5, 2023, at 11:23 AM, Kevin Spesert <kspesert@sitesproject.org> wrote:

Looks good to me...no additional edits.

Please get final ok from Jerry and Keith and get ready send out after the Gov signs it...expecting the Senate vote today and Govs signature before the end of the week...

Thanks for putting this together!

Kevin

---

**From:** Quin La Capra <qlacapra@katzandassociates.com>  
**Sent:** Wednesday, July 5, 2023 10:19 AM  
**To:** Jerry Brown <jbrown@sitesproject.org>; KEITH DUNN <keithdunn@me.com>; Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** Ann Newton <anewton@katzandassociates.com>; Sara M. Katz <skatz@katzandassociates.com>  
**Subject:** RE: For Review: Draft Statement on CA Budget

Hi all,

With the final vote and Governor's signature expected soon, I wanted to send the updated statement for final review.

Please let us know if you have any additional changes or questions!

Thanks,  
Quin

<image001.png>

**Quin La Capra**

Senior Account Executive

San Diego · Los Angeles · San Francisco

---

**From:** Jerry Brown <jbrown@sitesproject.org>  
**Sent:** Wednesday, June 28, 2023 5:23 PM  
**To:** KEITH DUNN <keithdunn@me.com>; Quin La Capra <qlacapra@katzandassociates.com>  
**Cc:** Kevin Spesert <kspesert@sitesproject.org>; Ann Newton <anewton@katzandassociates.com>; Sara M. Katz <skatz@katzandassociates.com>  
**Subject:** Re: For Review: Draft Statement on CA Budget

I've completed my suggested edits in sharepoint and I think I covered Keith's changes as well. We should wait to release until after confirmation of the legislature passage and the Governors signature. thanks

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**Date:** Wednesday, June 28, 2023 at 1:59 PM  
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**Subject:** Re: For Review: Draft Statement on CA Budget

My edits are below - THANKS!

2023

(310) 774-7639

**CA Budget Agreement Includes Sites Reservoir in Permitting Reforms Initiative**

Maxwell, Calif. – The Sites Reservoir Board of Directors would like to commend and thank Governor Gavin Newsom and the California State Legislature for working together to pass an Infrastructure Permitting Streamlining legislative package

that will allow eligible projects certified by the Governor to use a streamlined approval process to get essential infrastructure into construction and operation for the benefit of all Californians.

In May, Governor Newsom introduced proposals to streamline permitting and project review for critical infrastructure projects, like Sites Reservoir, that would help meet the state's climate and economic development goals and will become law upon signature of the Governor.

"We're grateful to Governor Newsom and the State Legislature for their leadership and support of much-needed permitting reforms," said Jerry Brown, Executive Director of the Sites Project Authority. "These reforms will allow us to reduce costs by millions of dollars and move the project forward so Sites Reservoir can provide a resilient and reliable water supply for California's people, environment, and farms."

The passage of these critical legislative proposals adds even more momentum to the Sites Reservoir project, which is nearing key milestones, including a consideration of a water right permit by the State Water Resources Control Board and the certification of its Final Environmental Impact Report/Statement.

*Sites is an off-stream reservoir proposed north of the Sacramento-San Joaquin Delta, where it would provide unique water supply and environmental benefits during dry periods, especially during extended drought. Additional information can be found at [www.sitesproject.org](http://www.sitesproject.org) or on Facebook and Twitter at @SitesProject.*

Keith Dunn  
Dunn Consulting  
[www.keithdunnconsulting.com](http://www.keithdunnconsulting.com)  
1121 L Street # 700  
Sacramento, CA 95814

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Office Phone: (916) 273-6567  
Cell Phone: (916) 290-2900

On Jun 28, 2023, at 1:34 PM, Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)> wrote:

Here you go!

-----  
**From:** KEITH DUNN <[keithdunn@me.com](mailto:keithdunn@me.com)>  
**Sent:** Wednesday, June 28, 2023 1:33 PM  
**To:** Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)>  
**Cc:** Jerry Brown <[jbrown@sitesproject.org](mailto:jbrown@sitesproject.org)>; Kevin Spesert <[kspesert@sitesproject.org](mailto:kspesert@sitesproject.org)>; Ann Newton <[anewton@katzandassociates.com](mailto:anewton@katzandassociates.com)>; Sara M. Katz <[skatz@katzandassociates.com](mailto:skatz@katzandassociates.com)>  
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Can you please just send as an attachment - I never have luck logFong into Microsoft - thanks

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On Jun 28, 2023, at 1:30 PM, Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)> wrote:

Hi Jerry and Keith,

We drafted a statement for the upcoming state budget and permitting reform announcement that Kevin has edited. The draft is ready for your review here: [Statement on CA Budget Agreement - DRAFT](#)

Let us know if you have any questions!

Thank you,  
Quin

<image001.png>

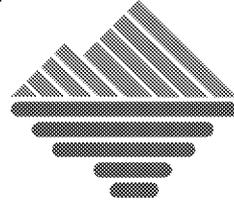
**Quin La Capra**

Senior Account Executive

[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

<Statement on CA Budget Agreement - DRAFT.docx>

**File Provided Natively**



CONTRA COSTA  
WATER DISTRICT

# CCWD WATER RIGHTS CONCERNS

CCWD-Sites meeting

July 5, 2023

## Written commitment from Sites Project to SWRCB

- Clearly stating the seniority of LV water rights
- Add specific diversion criteria in Sites water right terms for protection of CCWD's Delta water quality
- Commitment to future coordination and cooperation to optimize both Sites and LVE project benefits

# DRY PERIOD DIVERSION LIMITS



- No diversions between January and March if the Delta excess flow is less than 3,000 cfs
- No diversions between April and September in Shasta critical years or Sacramento River Index dry and critically dry years
- Consistent with the Calsim modeling for Sites ops
  - Limits Delta water quality and water supply impacts to level analyzed in Sites CEQA
  - Should not affect Sites project yields, since these diversions were not included in the planning models

# SEPTEMBER DIVERSIONS



- No diversions in September if X2 is greater than 80 km
- LTO B0 requires Fall X2 to be less than 80 km in wet and above normal years
  - Wilkins Slough bypass criteria is 5,000 cfs in September, not protective of Delta water quality
  - The additional limitation should not impact Sites project yield, because September is in excess conditions only in very wet years, when X2 is required to be less than 80 km

# DIVERSIONS AT THE BEGINNING OF EXCESS SEASON

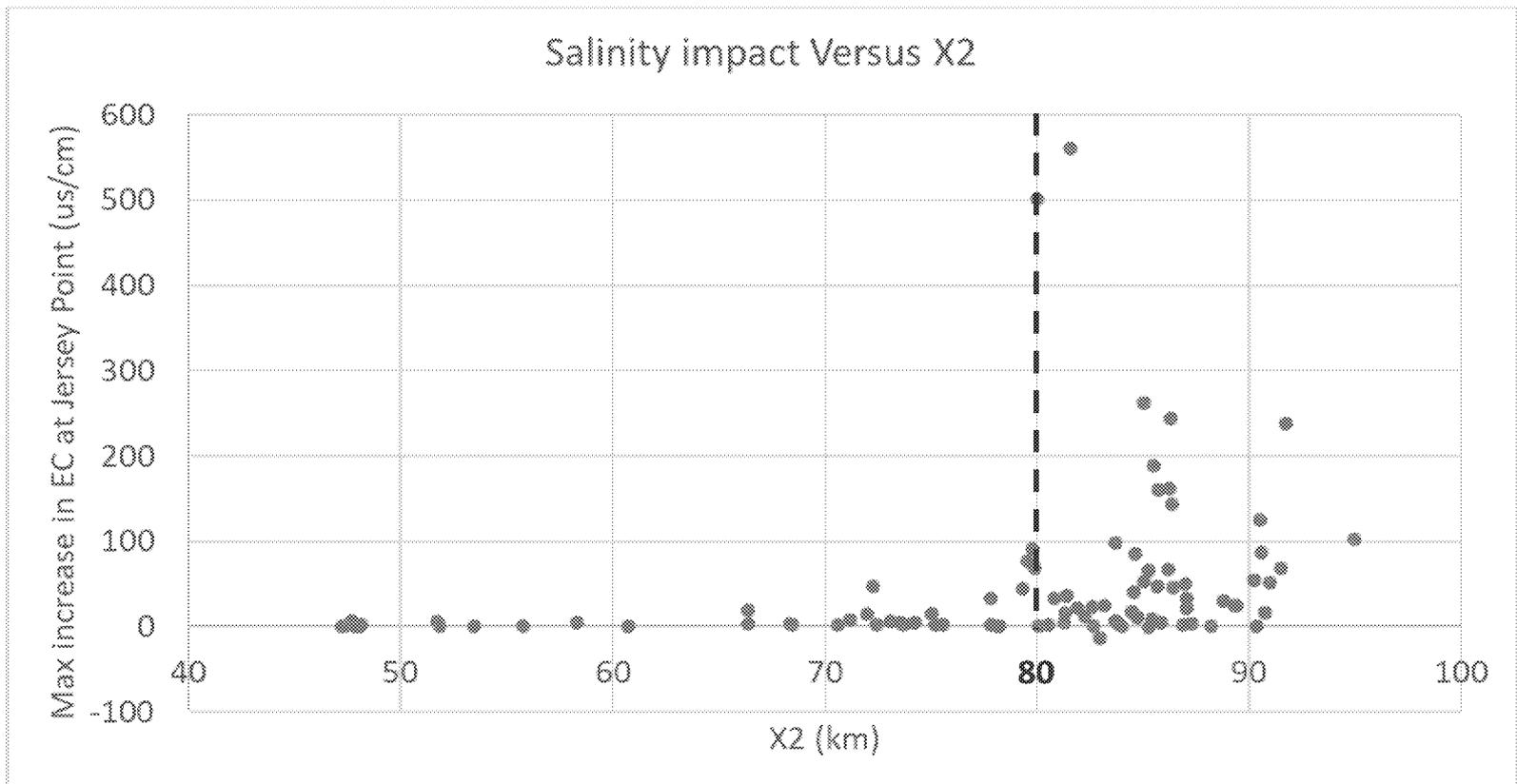


- No diversions until X2 is less than 80 km
- Significant impacts on Delta water quality when Sites diversions start before X2 is less than 80 km, due to delaying the freshening of the Delta
  - The impact to Sites project yield should be small
    - Historical WAA model: Would limit Sites diversions for 4 days in December 2006, for 10 TAF reduction in diversions in the 22 years analyzed

# DIVERSIONS AT THE BEGINNING OF EXCESS SEASON



- Sites diversions in the first month that the Delta goes into excess conditions have the potential to cause a significant impact to Delta salinity when  $X2 > 80$  km



# WATER QUALITY IMPACTS TO CCWD



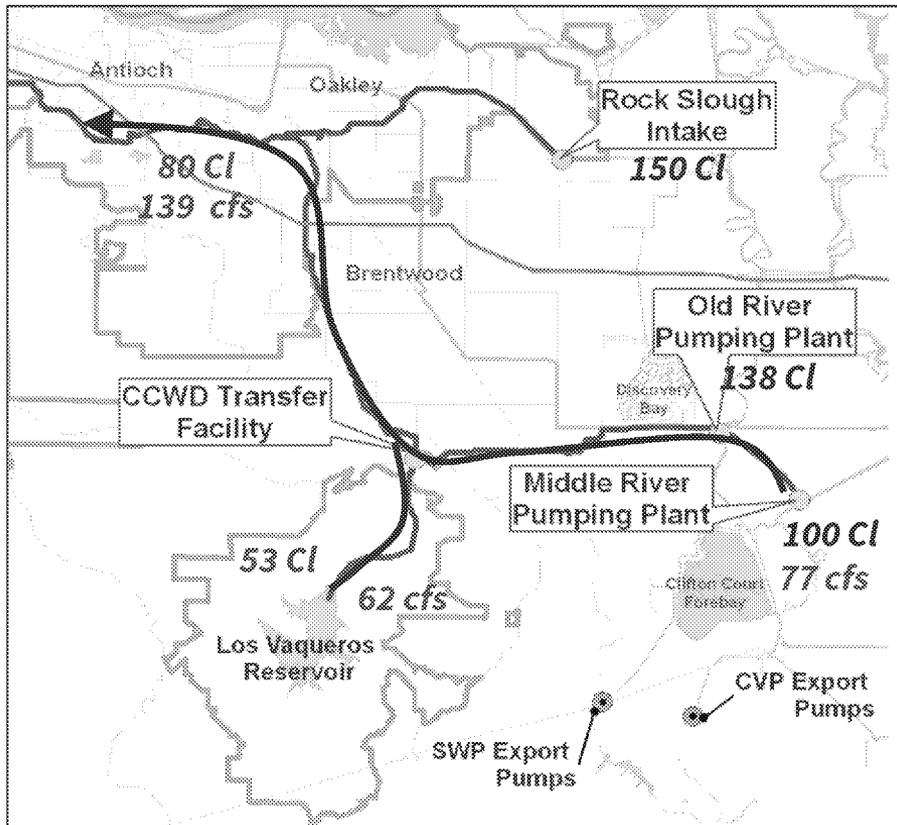
**December 1957**

Sites diversions = 2,806 cfs

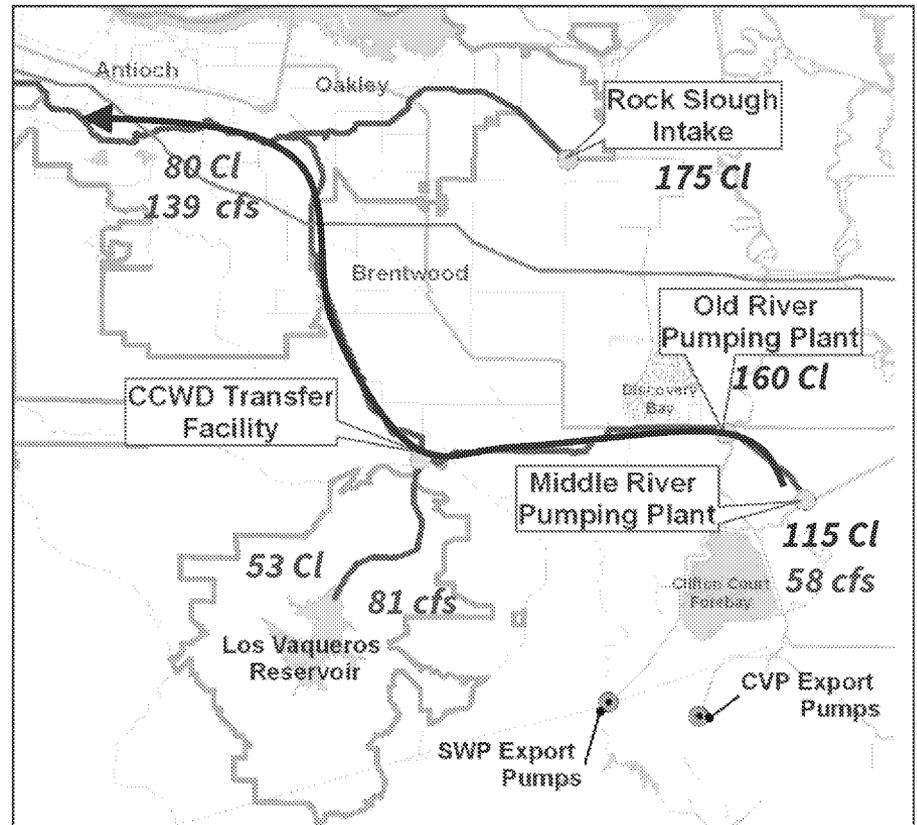
X2: 84 km in NAA, 85 km in Alt3

Without Sites Diversions

With Sites Diversions: 1.2 TAF additional LV releases



July 5<sup>th</sup>, 2023



Sites-CCWD Coordination Meeting

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**From:** Quin La Capra [qlacapra@katzandassociates.com]  
**Sent:** 7/10/2023 1:46:27 PM  
**To:** KEITH DUNN [keithdunn@me.com]; Jerry Brown [jbrown@sitesproject.org]; Kevin Spesert [kspesert@sitesproject.org]  
**CC:** Ann Newton [anewton@katzandassociates.com]; Sara M. Katz [skatz@katzandassociates.com]  
**Subject:** RE: For Review: Draft Statement on CA Budget  
**Attachments:** Statement on CA Budget Agreement.docx

Hi all,

I saw the Governor wrapped up his press conference, so I wanted to see if we are good to distribute the press release now? Attaching the final version for reference again.

Thanks!

Quin



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Keith Dunn  
Dunn Consulting  
[www.keithdunnconsulting.com](http://www.keithdunnconsulting.com)  
1121 L Street # 700  
Sacramento, CA 95814

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Office Phone: (916) 273-6567  
Cell Phone: (916) 290-2900

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Can you please just send as an attachment - I never have luck logFong into Microsoft - thanks

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(916) 273-6567 office  
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On Jun 28, 2023, at 1:30 PM, Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)> wrote:

Hi Jerry and Keith,  
We drafted a statement for the upcoming state budget and permitting reform announcement that Kevin has edited. The draft is ready for your review here: [Statement on CA Budget Agreement - DRAFT](#)

Let us know if you have any questions!

Thank you,  
Quin

<image001.png>

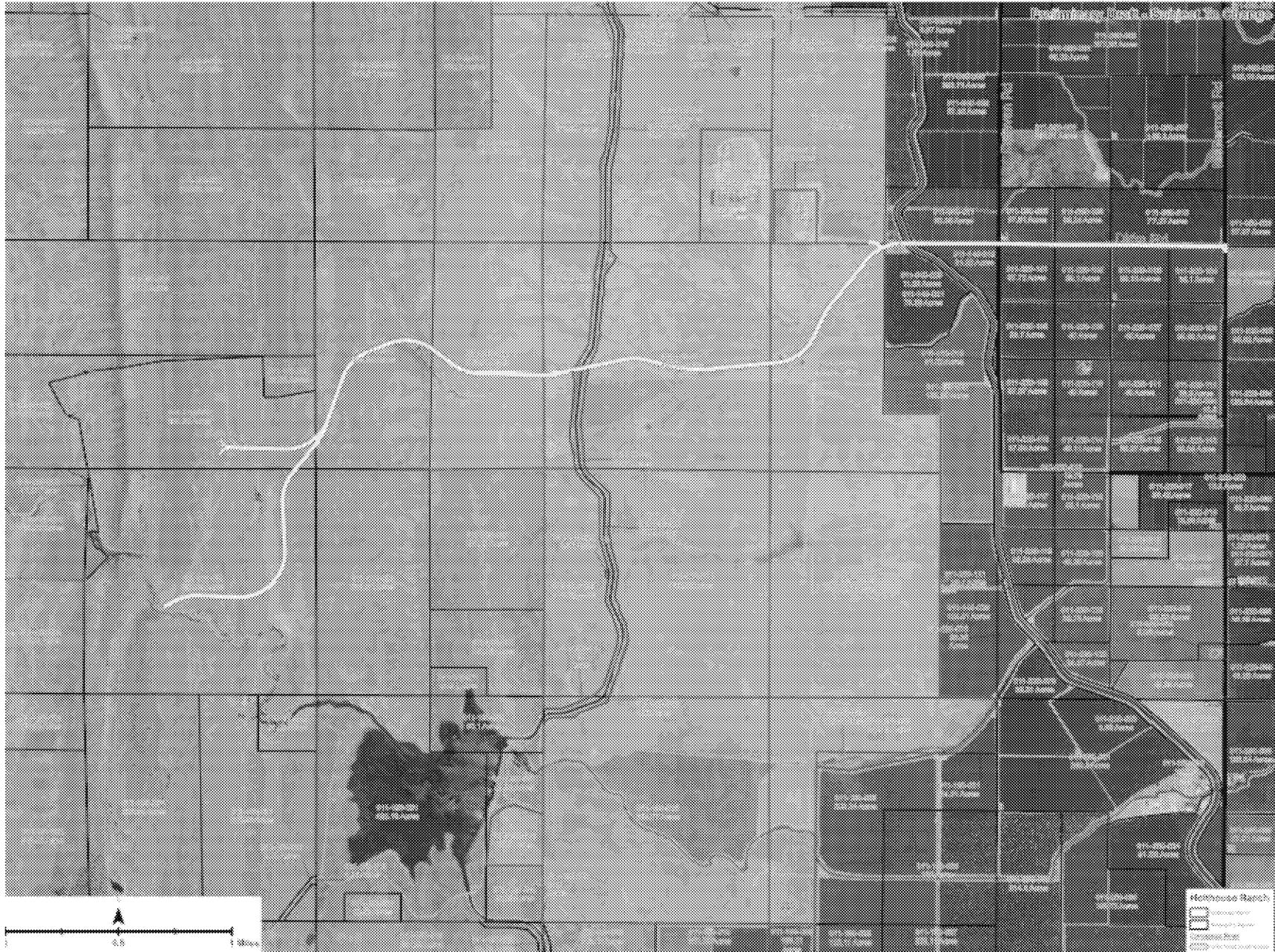
**Quin La Capra**  
Senior Account Executive  
[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

<Statement on CA Budget Agreement - DRAFT.docx>



<ul style="list-style-type: none"> <li>c) Discussion of Dirks Road</li> <li>e. Red Stick</li> <li>f. Wells</li> <li>g. Ken LaGrande</li> <li>h. Matt LaGrande</li> <li>i. Kellogg</li> <li>j. Cody Arnold</li> </ul>	
5. Local Coordination – Recap, Current Engagement, Look-Ahead	Conner / Jeff / All
<ul style="list-style-type: none"> <li>a. USBR / TCCA <ul style="list-style-type: none"> <li>a) TCCA Canal - Yolo County - Dunnigan Borings - Figure in Revision</li> <li>b. GCID Coordination – Geotech Work Package 3 - November</li> </ul> </li> </ul>	
6. Right-of-Way Manual	Conner / Jeff / Caitlin / Trishna
<ul style="list-style-type: none"> <li>a. Updated Draft In Process</li> </ul>	
7. Highway Crossings	
8. Railroad Crossings	
9. Project Team – Interdisciplinary Coordination	Conner / All
<ul style="list-style-type: none"> <li>a. Environmental Mitigation <ul style="list-style-type: none"> <li>a) July 27 - Ali and JP - Discussion - Open House Planning - Spranza encouraged invite of Real Estate - Dawn discussing with Ali</li> <li>b) September 6 - Open House</li> <li>c) September 6 + Follow-Up Meetings</li> </ul> </li> <li>b. Project Controls - Scheduling - Dave Hubbard</li> <li>c. Engineering - Roadways - Glenn County - Coordination with Henry</li> <li>d. Engineering - Utility Outreach</li> <li>e. Land Survey - Awaiting Word From Glenn County - R.E.Y. Updated</li> <li>f. Engineering - Aggregate Materials - Import / Borrow - Henry advises potential future tours</li> <li>g. USBR Agreement - USBR Realty</li> </ul>	
10. Administrative	Conner
<ul style="list-style-type: none"> <li>a. Two Landowner Meetings - Mid-August <ul style="list-style-type: none"> <li>a) 1 Maxwell - August 16</li> <li>b) 1 Dunnigan - August 17</li> <li>c) Landowner Contact Database</li> </ul> </li> </ul>	
11. Open Discussion	All
12. Action-Item Recap	Caitlin
13. Next Steps	Kevin / Conner / All





Layout: Sites Comp vs Prior Month						Filter All: Less than 100%, WBS Starts With																																				
#	Activity ID	Activity Name	Start	Finish	Remaining Duration	2023												2024												2025												
						Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec						
16	<b>Real Estate</b>																																									
17	<b>Land Access Agreements</b>																																									
18	A1250	Landowners Access Agreements for Geotech	22-Mar-22 A	30-May-24	251	Landowners Access Agreements for Geotech																																				
19	<b>Colusa County</b>																																									
20	LAAC-1300	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #3	03-Jan-23 A	19-Jun-23	11	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #3																																				
21	LAAC-1400	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #4	20-Jun-23	08-Dec-23	120	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #4																																				
22	LAAC-1500	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #5	11-Dec-23	30-May-24	120	Colusa Co. Landowners Access Agreements for Geotech Work Pkg #5																																				
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Work Pkg #3 completed (rows 20, 24, 27) on June 19? If not, new date is?

Row 20 -- September 15?

Row 24 -- Complete

Row 27 -- Complete

And can we show Access Agreements for Work Pkg #4 (rows 21, 25, 28) starting on June 20?

Yes

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#	Activity ID	Activity Name	Start	Finish	Remaining Duration	2023												2024												2025												
						May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul										
220	<b>Real Estate</b>																																									
221	<b>Key Deliverables</b>																																									
222	KD-1500	Conduct Options Negotiations with Willing Seller Properties	01-Jul-22 A	28-Jun-23	18	Conduct Options Negotiations with Willing Seller Properties																																				
223	KD-1490	Complete Land Acquisition Master Plan (tied to Construction Package)	03-Oct-22 A	12-Apr-24	218	Complete Land Acquisition Master Plan (tied to Construction Packages)																																				
224	<b>Land Acquisition</b>																																									
225	RE-1060	Construction Package 1 - Land Acquisition	29-Jun-23	27-Apr-29	1500	Construction Package 1 - Land Acquisition																																				
226	RE-1070	Construction Package 2 - Land Acquisition	20-Nov-23	27-Apr-29	1400	Construction Package 2 - Land Acquisition																																				
227	RE-1080	Construction Package 3 - Land Acquisition	15-Apr-24	27-Apr-29	1300	Construction Package 3 - Land Acquisition																																				
228	RE-1050	Land Cost Established		27-Jun-24	0	Land Cost Established																																				
229	<b>Relocation</b>																																									
230	RE-1100	Relocation Assistance, as Needed	29-Jun-23	27-Apr-29	1500	Relocation Assistance, as Needed																																				
231	<b>USBR - Land Agreement</b>																																									
232	FED-100	USBR Land Agreements (tied to Construction Packages)	02-Nov-20 A	12-Apr-24	218	USBR Land Agreements (tied to Construction Packages)																																				

on "Conduct Options Negotiations with Willing Sellers" ? Probably not finished; do you have a new target date? I would guess that rows 225 and 230 also need to move out on those start dates shown here?

Row 222 - Show As?

Row 225 - Show As?

Row 230 - No Change

Owner	County	Project Feature	Work Package 3- 7/1/23 to 12/31/23 Work Package 4- 1/24 to 12/31/24	Potential Start Month	Status and Notes
Red Stick Farms, Colusa County	Colusa	Sites Dam, S-L Road, Shoo-Fly	Work Package 3.07	Jul-23	Agreement Signed
Wells, Colusa County	Colusa	Golden Gate Dam, Borrow	Work Package 3.08	Aug-23	Agreement Signed
Cody Arnold, Colusa County	Colusa	Sites Dam	Work Package 3.09	Sep-23	In Negotiations
Holthouse, Colusa County	Colusa	TRR	Work Package 3.10	Oct-23	In Negotiations - R/E In Review
GCID Canal APN, Owner Unknown	Colusa	TRR	Work Package 3.11	Nov-23	Encroachment Permit Signed
USA TCCA Government	Yolo	Dunnigan Intake Structure	Work Package 3.12	Dec-23	To Be Added To R/E
USA TCCA Government	Colusa	TRR Pipeline	Work Package 3.12	Dec-23	R/E Signed - Depends on Reservoir Drawdown - Funks Reservoir - Schedule dependent on TCCA Operations; Rank Order of Preference Required
Colusa County	Colusa	Sites Dam Borrow	Work Package 3.x	Town of Sites	Discussions with Colusa County
Banyan Transport Systems, Colusa County	Colusa	Sites Dam	Work Package 3.x	Dec-23	Agreement Signed - Access Through Others; Locations on Northern Parcel that require access through Red Stick / Arnold
Jensen, Colusa County	Colusa	Golden Gate Dam	Work Package 3.x	Nov-23	In Negotiations - R/E Agreement In Review

Owner	County	Work Package 3- 7/1/23 to 12/31/23 Work Package 4- 1/24 to 12/31/24	Notes
Aulman LLC, Yolo County	Yolo	Work Package 4	
B&G Ranches, Colusa County	Colusa	Work Package 4	
Brothers Doherty, Yolo County	Yolo	Work Package 4	
Butler, Yolo County	Yolo	Work Package 4	
C & H ORCHARDS III FARMING VENTURE LP, Yolo County	Yolo	Work Package 4	
Christy Lee Snelgrove, Colusa County	Colusa	Work Package 4	
Douglas Parker, Colusa County	Colusa	Work Package 4	
Dunn Family Trust , Yolo County	Yolo	Work Package 4	
GCID Canal APN, Owner Unknown	Colusa	Work Package 4	possible if on GCID Corridor, and not on adjacent lands
Giutere Vineyard , Yolo County	Yolo	Work Package 4	
Holthouse, Colusa County	Colusa	Work Package 4	
Jensen, Colusa County	Colusa	Work Package 4	
LaGrande, Brett, Glenn County	Glenn	Work Package 4	
LaGrande, Colusa County	Colusa	Work Package 4	
LaGrande, Glenn County	Glenn	Work Package 4	
LaGrande, M&R, Colusa County	Colusa	Work Package 4	
Mathis Family, Colusa County	Colusa	Work Package 4	
Maureen Doherty, Colusa County	Colusa	Work Package 4	
Morgan Twin Holdings LLC, Yolo County	Yolo	Work Package 4	
MOUNTANOS TRUST, Yolo County	Yolo	Work Package 4	
Mumma, Yolo County	Yolo	Work Package 4	
Owens, Glenn County	Glenn	Work Package 4	
P Doherty, Yolo County	Yolo	Work Package 4	
Richard Riolo, Yolo County	Yolo	Work Package 4	
Ritchie Bros, Yolo County	Yolo	Work Package 4	
Banyan Transport Systems, Colusa County	Colusa	Work Package 4.zzz	Southern Parcel Activities - accessibility to the locations is unlikely - no clearance to remove trees to traverse forested area, wildfire danger, fire suppression equipment access issues



---

**From:** Sara M. Katz [skatz@katzandassociates.com]  
**Sent:** 7/10/2023 2:01:01 PM  
**To:** Quin La Capra [qlacapra@katzandassociates.com]; KEITH DUNN [keithdunn@me.com]; Jerry Brown [jbrown@sitesproject.org]; Kevin Spesert [kspesert@sitesproject.org]  
**CC:** Ann Newton [anewton@katzandassociates.com]  
**Subject:** RE: For Review: Draft Statement on CA Budget

Quin -- I spoke with Keith and Kevin. They are both fine with us sending out the materials but wanted us to close the loop with Jerry. I have called and also sent a text to Jerry. Stay tuned. Thanks



**Sara M. Katz**  
Founder/CEO  
mobile: 619.813.9551  
San Diego · Los Angeles · San Francisco

---

**From:** Quin La Capra <qlacapra@katzandassociates.com>  
**Sent:** Monday, July 10, 2023 1:46 PM  
**To:** KEITH DUNN <keithdunn@me.com>; Jerry Brown <jbrown@sitesproject.org>; Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** Ann Newton <anewton@katzandassociates.com>; Sara M. Katz <skatz@katzandassociates.com>  
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Hi all,  
I saw the Governor wrapped up his press conference, so I wanted to see if we are good to distribute the press release now? Attaching the final version for reference again.

Thanks!  
Quin



**Quin La Capra**  
Senior Account Executive  
San Diego · Los Angeles · San Francisco

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**From:** KEITH DUNN <keithdunn@me.com>  
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The Senate will pass it today and send to the Governor - who is vacationing in Montana....

Keith Dunn  
(916) 273-6567 office

(916) 290-2900 cell

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Thanks for putting this together!

Kevin

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Please let us know if you have any additional changes or questions!

Thanks,

Quin

<image001.png>

**Quin La Capra**

Senior Account Executive

San Diego · Los Angeles · San Francisco

Draft\_0025781

---

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**Sent:** Wednesday, June 28, 2023 5:23 PM  
**To:** KEITH DUNN <keithdunn@me.com>; Quin La Capra <qlacpra@katzandassociates.com>  
**Cc:** Kevin Spesert <kspesert@sitesproject.org>; Ann Newton <anewton@katzandassociates.com>; Sara M. Katz <skatz@katzandassociates.com>  
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My edits are below - THANKS!

2023

(310) 774-7639

**CA Budget Agreement Includes Sites Reservoir in Permitting Reforms Initiative**

Maxwell, Calif. – The Sites Reservoir Board of Directors would like to commend and thank Governor Gavin Newsom and the California State Legislature for working together to pass an Infrastructure Permitting Streamlining legislative package that will allow eligible projects certified by the Governor to use a streamlined approval process to get essential infrastructure into construction and operation for the benefit of all Californians.

In May, Governor Newsom introduced proposals to streamline permitting and project review for critical infrastructure projects, like Sites Reservoir, that would help meet the state's climate and economic development goals and will become law upon signature of the Governor.

"We're grateful to Governor Newsom and the State Legislature for their leadership and support of much-needed permitting reforms," said Jerry Brown, Executive Director of the Sites Project Authority. "These reforms will allow us to reduce costs by millions of dollars and move the project forward so Sites Reservoir can provide a resilient and reliable water supply for California's people, environment, and farms."

The passage of these critical legislative proposals adds even more momentum to the Sites Reservoir project, which is nearing key milestones, including a consideration of a water right permit by the State Water Resources Control Board and the certification of its Final Environmental Impact Report/Statement.

*Sites is an off-stream reservoir proposed north of the Sacramento-San Joaquin Delta, where it would provide unique water supply and environmental benefits during dry periods, especially during extended drought. Additional information can be found at [www.sitesproject.org](http://www.sitesproject.org) or on Facebook and Twitter at @SitesProject.*

Keith Dunn  
Dunn Consulting  
[www.keithdunnconsulting.com](http://www.keithdunnconsulting.com)  
1121 L Street # 700  
Sacramento, CA 95814

---

Office Phone: (916) 273-6567  
Cell Phone: (916) 290-2900

On Jun 28, 2023, at 1:34 PM, Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)> wrote:

Here you go!

---

**From:** KEITH DUNN <[keithdunn@me.com](mailto:keithdunn@me.com)>

**Sent:** Wednesday, June 28, 2023 1:33 PM

**To:** Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)>

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**Subject:** Re: For Review: Draft Statement on CA Budget

Can you please just send as an attachment - I never have luck logFong into Microsoft - thanks

Keith Dunn

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<image001.png>

**Quin La Capra**

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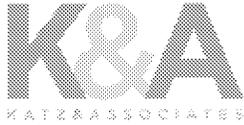
[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

<Statement on CA Budget Agreement - DRAFT.docx>

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Yes, closed the loop with Jerry. We are good to go. Thanks Quin.



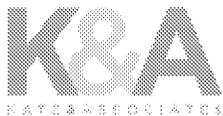
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Sacramento, CA 95814

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Here you go!

---

**From:** KEITH DUNN <[keithdunn@me.com](mailto:keithdunn@me.com)>

**Sent:** Wednesday, June 28, 2023 1:33 PM

**To:** Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)>

**Cc:** Jerry Brown <[jbrown@sitesproject.org](mailto:jbrown@sitesproject.org)>; Kevin Spesert <[kspesert@sitesproject.org](mailto:kspesert@sitesproject.org)>; Ann Newton <[anewton@katzandassociates.com](mailto:anewton@katzandassociates.com)>; Sara M. Katz <[skatz@katzandassociates.com](mailto:skatz@katzandassociates.com)>

**Subject:** Re: For Review: Draft Statement on CA Budget

Can you please just send as an attachment - I never have luck logFong into Microsoft - thanks

Keith Dunn

(916) 273-6567 office

(916) 290-2900 cell

On Jun 28, 2023, at 1:30 PM, Quin La Capra <[qlacapra@katzandassociates.com](mailto:qlacapra@katzandassociates.com)> wrote:

Hi Jerry and Keith,

We drafted a statement for the upcoming state budget and permitting reform announcement that Kevin has edited. The draft is ready for your review here: [Statement on CA Budget Agreement - DRAFT](#)

Let us know if you have any questions!

Thank you,

Quin

<image001.png>

**Quin La Capra**

Senior Account Executive

[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

<Statement on CA Budget Agreement - DRAFT.docx>

---

**From:** Sites Project [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FE3D979238CE48168411DD8F93D5A6E6-INFO00041]  
**Sent:** 7/10/2023 3:17:50 PM  
**To:** Sites Project [info@sitesproject.org]  
**CC:** Ann Newton [anewton@katzandassociates.com]  
**BCC:** csouza@cfbf.com; brian@agnetmedia.com; Brad Hooker [brad@agri-pulse.com]; llowe@appealdemocrat.com; melissa@valcomnews.com; abeam@ap.org; kronayne@ap.org; qlacpra@katzandassociates.com; Mariah Hugo [mhugo@katzandassociates.com]; smayer@bakersfield.com; mwilliams@cmua.org; alastair@calmatters.org; julie@calmatters.org; dan@calmatters.org; Manola.Secaira@capradio.org; mwolcott@chicoer.com; carol.cormaci@latimes.com; erin.rode@desertsun.com; janet.wilson@desertsun.com; editor@valcomnews.com; Jesse Klein [jesse@greenbiz.com]; bjohnson@theintermountain.com; news@northstate.news; eanderson@kpbs.org; eromero@kqed.org; sscauzillo@scng.com; chernandez@scpr.org; editor@valcomnews.com; tony.barboza@latimes.com; tony.briscoe@latimes.com; Sahagun, Louis [louis.sahagun@latimes.com]; hayley.smith@latimes.com; Xia, Rosanna [rosanna.xia@latimes.com]; laurel.rosenhall@latimes.com; whouston@marinij.com; mshuman@thetribunenews.com; progers@bayareanewsgroup.com; asheeler@sacbee.com; jlurie@motherjones.com; beberling@napanews.com; catrin.einhorn@nytimes.com; tfuller@nytimes.com; corina.knoll@nytimes.com; raymond.zhong@nytimes.com; bstaggs@scng.com; sscauzillo@scng.com; cvonkaenel@politico.com; dkahn@politico.com; cwhisnand@portervillerecorder.com; jsteinberg@scng.com; birwin@recordnet.com; damon.arthur@redding.com; eritchie@scng.com; NStockdale@sacbee.com; btaylor@sacbee.com; paul@kitagakiphoto.com; rsabalow@bizjournals.com; sacgazette@aol.com; newsroom@sacobserver.com; valleymirror@pulsarco.com; joshua.smith@suniontribune.com; Alexander, Kurtis [kalexander@sfchronicle.com]; bstaggs@scng.com; jwolf@sfexaminer.com; intermountain.news@icloud.com; bstaggs@scng.com; awagner@newsobserver.com; KFishman@mendovoice.com; mshuman@thetribunenews.com; acary@tricityherald.com; ccarlson@vcstar.com; ben.fritz@wsj.com; jim.carlton@wsj.com  
**Subject:** For Immediate Release: Sites Reservoir on a Regulatory Fast Track with State's Permitting Reforms  
**Attachments:** Sites Reservoir Statement on CA Budget Agreement\_July 2023 PDF.pdf

Good afternoon,

Please see the attached news release for Sites Reservoir, and reach out with any questions.



**For Immediate Release: July 10, 2023**

**Contact:** Ann Newton, [anewton@katzandassociates.com](mailto:anewton@katzandassociates.com), (310) 774-7639

### **Sites Reservoir on a Regulatory Fast Track with State's Permitting Reforms**

Maxwell, Calif. – The Sites Project Authority would like to commend and thank Governor Gavin Newsom and the California State Legislature for working together to pass a critically important infrastructure streamlining package that will allow eligible projects certified by the Governor to use a streamlined approval process to get essential infrastructure into construction and operation for the benefit of all Californians. All seven of the Proposition 1 water storage projects are eligible, including the Sites Reservoir Project.

In May, Governor Newsom introduced proposals to streamline permitting and project review for critical infrastructure projects, like Sites Reservoir, that would help meet the state's needs to provide new, climate-resilient water supplies.

"We are grateful to Governor Newsom and the State Legislature for their leadership on such a challenging aspect of our regulatory process," said Jerry Brown, Executive Director of the Sites Project Authority. "Their actions to incorporate these policy changes will expedite securing our water supplies to become more resilient to a changing climate. These actions strike the right balance—time saved and costs reduced for delivery of critically important water projects like Sites, while still providing our communities and environments proper safeguards."

The passage of these critical legislative proposals adds even more momentum to the Sites Reservoir project, which is nearing key milestones, including a consideration of a water right permit by the State Water Resources Control Board and the certification of its Final Environmental Impact Report/Statement.

*Sites is an off-stream reservoir proposed north of the Sacramento-San Joaquin Delta, where it would provide a unique water supply and environmental benefits during dry periods, especially during extended drought. Additional information can be found at [www.sitesproject.org](http://www.sitesproject.org) or on Facebook and Twitter at @SitesProject.*

###



**For Immediate Release:**

July 10, 2023

Contact: Ann Newton

(310) 774-7639

### **Sites Reservoir on a Regulatory Fast Track with State’s Permitting Reforms**

Maxwell, Calif. – The Sites Project Authority would like to commend and thank Governor Gavin Newsom and the California State Legislature for working together to pass a critically important infrastructure streamlining package that will allow eligible projects certified by the Governor to use a streamlined approval process to get essential infrastructure into construction and operation for the benefit of all Californians. All seven of the Proposition 1 water storage projects are eligible, including the Sites Reservoir Project.

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###

---

**From:** Alicia Forsythe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A6CDF06A7E904B65BAA21702A82AD329-AFORSYTHE]  
**Sent:** 7/11/2023 7:56:13 AM  
**To:** Scott Brown [scott@larsenwurzel.com]; Angela Bezzone [bezzone@mbkengineers.com]; JP Robinette [jrobinette@sitesproject.org]; Wesley Walker [walker@mbkengineers.com]  
**CC:** William Vanderwaal [wvanderwaal@rd108.org]; Adam Riley [adam@larsenwurzel.com]; Patrick Soper [Patrick@larsenwurzel.com]  
**Subject:** RE: CALSIM Data Discussion (RD108/Sites)  
**Attachments:** SPJPA\_Sites\_ParticipantAccountDashboard\_rev08\_20230710.xlsm

Hi Scott – Attached is the Participant Dashboard. We are getting this out to members tomorrow, but its ready to go so thought I would send it over.

It's a 17 MB file, so hopefully it comes through on your end.

Ali

---

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Project Authority | 916.880.0676  
| [aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org) | [www.SitesProject.org](http://www.SitesProject.org)

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**From:** Alicia Forsythe  
**Sent:** Saturday, July 8, 2023 11:09 AM  
**To:** Scott Brown <scott@larsenwurzel.com>; Angela Bezzone <bezzone@mbkengineers.com>; JP Robinette <jrobinette@sitesproject.org>; Wesley Walker <walker@mbkengineers.com>  
**Cc:** William Vanderwaal <wvanderwaal@rd108.org>; Adam Riley <adam@larsenwurzel.com>; Patrick Soper <Patrick@larsenwurzel.com>  
**Subject:** RE: CALSIM Data Discussion (RD108/Sites)

Hi Scott – Angela ended up on leave a little earlier than expected, so Wes and I are working to wrap this up in her absence. I hope to have this out early next week.

Ali

---

Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Project Authority | 916.880.0676  
| [aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org) | [www.SitesProject.org](http://www.SitesProject.org)

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**From:** Scott Brown <[scott@larsenwurzel.com](mailto:scott@larsenwurzel.com)>  
**Sent:** Thursday, July 6, 2023 8:50 AM

**To:** Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>; JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Cc:** William Vanderwaal <[wvanderwaal@rd108.org](mailto:wvanderwaal@rd108.org)>; Adam Riley <[adam@larsenwurzel.com](mailto:adam@larsenwurzel.com)>; Patrick Soper <[Patrick@larsenwurzel.com](mailto:Patrick@larsenwurzel.com)>

**Subject:** RE: CALSIM Data Discussion (RD108/Sites)

Good morning, everyone!

Just checking in on the availability of the dashboard. I would like to get our efforts for RD 108 kicked off before I leave on vacation next week. Please let me know so we can plan accordingly.

Thank you,  
Scott

---

**Scott L. Brown, P.E.**

Larsen Wurzel & Associates, Inc.

2450 Venture Oaks Way, Ste 240 | Sacramento, CA 95833

Main: (530) 665-8222 | Direct/Cell: (916) 827-1707

[www.larsenwurzel.com](http://www.larsenwurzel.com)

---

**From:** Scott Brown

**Sent:** Thursday, June 22, 2023 3:11 PM

**To:** Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>; JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Subject:** RE: CALSIM Data Discussion (RD108/Sites)

No worries. Thanks for the update!

---

**From:** Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>

**Sent:** Thursday, June 22, 2023 2:54 PM

**To:** Scott Brown <[scott@larsenwurzel.com](mailto:scott@larsenwurzel.com)>; JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Subject:** RE: CALSIM Data Discussion (RD108/Sites)

Hi Scott,

The dashboard we shared has been updated, but I forgot that one of our team is out of the office this week and won't return until Tuesday. I have put together a "read me" document that needs his review before we send it out. We will be sending it out to the Sites members by Wednesday next week. Sorry for the delay!

Angela

---

**From:** Scott Brown <[scott@larsenwurzel.com](mailto:scott@larsenwurzel.com)>

**Sent:** Thursday, June 22, 2023 2:48 PM

**To:** JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>; Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>

**Subject:** RE: CALSIM Data Discussion (RD108/Sites)

You don't often get email from [scott@larsenwurzel.com](mailto:scott@larsenwurzel.com). [Learn why this is important](#)

**CAUTION - EXTERNAL SENDER:** This email originated from outside of the organization. Only open links from **TRUSTED** sources.

Good afternoon Ali, Angela and JP.

Just checking in to see if you have an ETA for sending the CALSIM dashboard for our use to support the RD108 Sites participation fee?

I was/am hoping to get it this week, so we can start our modeling next week.

Let me know if there's any hiccups or if you need more time.

Thank you!  
Scott

---

**Scott L. Brown, P.E.**

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2450 Venture Oaks Way, Ste 240 | Sacramento, CA 95833

Main: (530) 665-8222 | Direct/Cell: (916) 827-1707

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-----Original Appointment-----

**From:** Marcia Kivett <[MKivett@sitesproject.org](mailto:MKivett@sitesproject.org)>

**Sent:** Thursday, June 8, 2023 5:43 AM

**To:** Marcia Kivett; JP Robinette; Scott Brown; Adam Riley; William Vanderwaal; Alicia Forsythe; Angela Bezzone

**Subject:** CALSIM Data Discussion (RD108/Sites)

**When:** Tuesday, June 13, 2023 8:00 AM-9:00 AM (UTC-08:00) Pacific Time (US & Canada).

**Where:** Microsoft Teams Meeting

I was unsure if you wanted me to create the event, but I thought I would, so we did not lose the option. Please forward this to anyone I've missed.

**From:** Scott Brown <[scott@larsenwurzel.com](mailto:scott@larsenwurzel.com)>

**Sent:** Tuesday, June 6, 2023 5:18 PM

**To:** JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>

**Cc:** Adam Riley <[adam@larsenwurzel.com](mailto:adam@larsenwurzel.com)>; William Vanderwaal <[wvanderwaal@rd108.org](mailto:wvanderwaal@rd108.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Subject:** RE: Info-data request

Good afternoon, JP.

Reinitiating discussion on our request for CALSIM output data. I agree that a conversation is needed but wanted to layout our intended use of the data in advance of meeting.

In addition to establishing/communicating the RD 108 fee structure, we will need to convey the value of participating in Sites to landowners. To this end, my approach is to use the annualized CALSIM output data, along with an assumed water value/price by water year type, to provide the expected range (min/average/max) of value for the following:

1. Value of water diverted to Sites during the current year net of variable O&M cost to move water into the reservoir
2. Value of water released from Sites during the current year plus generation credit toward variable O&M cost from reservoir releases
3. Value of water stored/available for transfer the following year

This "valuation" would be divided into water year types and juxtaposed against the participation cost (i.e. the District's fee) to inform landowner discussions.

From your presentation last month, I believe that RD 108 is included in the "North of Delta – Sacramento River Settlement Contractors" group for assumed Operations Decisions in the CALSIM model. I believe this is fine for this exercise to inform landowners and we won't need any additional CALSIM modeling runs.

I'm sure there is more to discuss, but I'll leave that to our meeting. Please feel free to forward this to others that should be included in the discussion and let me know what your teams availability is through June 16<sup>th</sup>. I'll try to find a timeslot that works for everyone on our end.

Thank you,  
Scott

---

**Scott L. Brown, P.E.**

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Main: (530) 665-8222 | Direct/Cell: (916) 827-1707

[www.larsenwurzel.com](http://www.larsenwurzel.com)

---

**From:** JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>

**Sent:** Friday, March 24, 2023 2:18 PM

**To:** William Vanderwaal <[wvanderwaal@rd108.org](mailto:wvanderwaal@rd108.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Cc:** Scott Brown <[scott@larsenwurzel.com](mailto:scott@larsenwurzel.com)>; Adam Riley <[adam@larsenwurzel.com](mailto:adam@larsenwurzel.com)>

**Subject:** Re: Info-data request

Good afternoon,

We can certainly help with this, but I think it will require some conversation. The CalSim model uses assumptions for demand for RD108, but that may not be best for rate-setting purposes. Would you like a call? If so, we should include Ali and Angela.

Based on the project docs (Guiding Principles, Storage Principles, etc.), RD108 will own a capacity interest in the Project, which will be identified in the Benefits and Obligations Contract. As an example, RD108's capacity interest is estimated between 1-2% (1.8% in the tables) depending on forthcoming decisions on Reclamation's participation in the Project and subject to future rebalancing. RD108's available share of Sites diversions is equal to their capacity interest. RD108 will be able to decide if it wants to take its share of diversions. Variable O&M will be based on actual water diverted into and released from the reservoir and include actuals for power cost and wheeling charges. Once water is in storage, the documents allow for RD108 to release water for their own use or sell water subject to certain limitations and capacity constraints. Additionally, RD108 could lay off costs by leasing storage, or sell storage and thereby reduce its capacity interest.

Regardless of these decisions, RD108 will be charged:

- Debt service and fixed O&M based on their capacity interest.
- Variable O&M based on the actual costs to fill or release their water.

The tables previously released (attached for convenience) show a high and an average variable O&M. They also show the fixed O&M charges, which are based on an agency's capacity interest. These tables will be updated in the next two months, so I recommend using them for understanding purposes only as financing mechanisms, interest rates, and escalation will all get a fresh look.

Thanks,

JP

---

**From:** William Vanderwaal <[wvanderwaal@rd108.org](mailto:wvanderwaal@rd108.org)>

**Sent:** Thursday, March 23, 2023 3:35 PM

**To:** JP Robinette <[jrobinette@sitesproject.org](mailto:jrobinette@sitesproject.org)>; Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Cc:** [scott@larsenwurzle.com](mailto:scott@larsenwurzle.com) <[scott@larsenwurzle.com](mailto:scott@larsenwurzle.com)>; Adam Riley <[adam@larsenwurzle.com](mailto:adam@larsenwurzle.com)>

**Subject:** Info-data request

JP or Ali,

We've hired Larsen-Wurzle to help us with the Prop-218 that we're doing in RD-108 and they have provided us a data request, some of which I need from the Sites Project.

I'm going to paste the request below instead of trying to translate it:

In TO1, we outlined two models for evaluating the cost (fee model) and benefit (revenue model). The fixed cost elements (capital and O&M) have been established but these two models will evaluate the variable costs by correlating the following:

1. RD108's share of diversions to Sites Reservoir
2. The variable O&M cost to convey/pump into the reservoir
3. The variable O&M cost to release/convey water from the reservoir
4. Value/price of water based on water year type
5. Operational decisions to transfer/sell/carryover storage by water year type

I would like to base these models on the current CalSim modeling output file for Alternative 3 (the preferred alternative in Final EIR/EIS) with the entire model period (1922 – 2003). The objective would be to evaluate operational options (Item 5 of the list) for each water year type to bracket the range of variable costs and potential revenue, along with the likely frequency and duration of each water year type.

If you do not already have a copy of this data, can you please request a copy of the complete output file for Alternative 3 from the Site Authority. I'm familiar with the output file format and can manipulate the raw data from output file, so there is no need to request any post-processing from the Sites Project team.

I'm assuming that they would release this data to RD108 for use in securing participation in the project. LWA is willing to sign any required acknowledgement/waiver of liability.

Please let me know if there are any issues with providing this modeling output file. I appreciate your assistance with this.

Thanks  
Bill V

William Vanderwaal, P.E.  
Deputy Manager - RD-108  
Manager - Dunnigan WD  
(530) 812-6276

---

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**File Provided Natively**

# Sites Virtual Tour

## VIRTUAL TOUR VIDEO OUTLINE

### Maxwell/Community Intro

Sites Reservoir is a proposed off-stream reservoir that would supply water for people, farms and the environment during dry periods when it's most needed. The reservoir would be located near Maxwell, California – a rural farming town in Colusa County, approximately 65 miles northwest of Sacramento. With a population of just over 1,200 and home to xx acres of productive farmland, Maxwell represents the rural farming communities that are so critical to California.

In this way, Sites Reservoir will support the Sacramento Valley way of life, supporting our farms, mills, and the jobs that depend on them. The Sites Project Authority was established to ensure that local stakeholders were involved and leading the development of Sites. Members of the Sites Project team live and work in Maxwell —and we're proud to be part of this community. We also recognize Sites Reservoir would change the landscape of this area, so we are working closely with residents and local landowners to incorporate their input into the planning and construction of Sites Reservoir.

[Kevin – what additional messages do you want to include?]

**Visuals:** Maxwell sign, Sites JPA office door, community images, farming, , b-roll of local community services (police, education etc.), animation

### Sites Reservoir: The Big Picture

- *The Sites Location*

The proposed location for Sites Reservoir is uniquely situated as a natural bowl in the earth. For an off-river reservoir, this is the perfect location to store extra water for dry years.

Sites would stretch 12.7 miles long from north to south and 4.5 miles wide from east to west. When full, the reservoir would be 257 feet deep from surface to floor at its lowest point. The reservoir can hold up to 1.5 million acre-feet of water, enough to serve 7.5 million people with water for an entire year.

- *Saddle Dams, Sites and Golden Gate Dams*

**Commented [SMK1]:** If there is something that people can relate to that we can compare this size and volume of water with - enough to fill a professional football stadium 500 times (Making this up)...

**Commented [AN2R1]:** 8th largest reservoir, football fields.

While the natural topography provides most of the physical infrastructure needed to contain the water, smaller dams will be built to hold water in where the hills surrounding the reservoir are lower. Sites would include seven small dams, known as saddle dams, to top off the ridges and hold the water at the right level. In addition, the reservoir has two primary dams – Sites Dam and Golden Gate Dam – that are also used to contain water. Not to be confused with large dams that block waterways and rivers, the dams that are part of Sites Reservoir are designed to hold water supplies in the reservoir and allow for controlled releases in and out – but will not dam up river waters from the Sacramento River. Sites Dam and Golden Gate Dam are 267 feet and 287 feet tall, respectively, and up to 1,300 feet wide at their bases.

- *Moving Water In*

Water moves into the reservoir during the diversion season, which is September 1 through June 14, after all other senior water rights are fulfilled. Water would come from two general sources: the Sacramento River and local creeks. Water from the Sacramento River is diverted at the existing Red Bluff Pumping Plant, owned by the United States Bureau of Reclamation and operated by the Tehama-Colusa Canal Authority, and at the Hamilton City Pump Station, owned and operated by the Glenn-Colusa Irrigation District.

Water diverted at Red Bluff Pumping Plant, would enter the Tehama-Colusa Canal and will be conveyed down to Funks Reservoir. From there, the Sites Project Authority would pump the water up into Sites Reservoir through a series of pipelines and tunnels. State-of-the-art fish screens are already in place to protect fish from future project operations.

Similarly, after water is diverted at the Hamilton City Pump Station, it enters Glenn-Colusa Irrigation District's Main Canal and will be conveyed down to the new Terminal Regulating Reservoir and the Authority would pump the water up into Sites Reservoir through a series of pipelines and a tunnel.

Water from local creeks will also be captured. The Project's two main dams – Sites Dam and Golden Gate Dam – will be constructed on Funks and Stone Corral creek. Water from these two local creeks will also be captured in the reservoir.

**Commented [AN3]:** Need clarification on how this operates/how to describe this

- *Moving Water Out*

Water can move out of the reservoir at any time of the year. However, most water will be moved out of the reservoir between June and November. The Project can

only be diverting water or releasing water at one time – diversions and releases cannot happen simultaneously.

Water would be held in storage in Sites Reservoir until its needed and requested by one of the water agencies participating in Sites. Generally, this would occur from May to November but could occur at any time of the year, depending on the participant's need and capacity to convey water to their intended point of delivery.

For south of Delta water agencies, a new pipeline, Dunnigan pipeline, will deliver water from Sites back into the Sacramento River when needed so that it can be delivered to participants via existing conveyance facilities. A portion of the water stored in Sites that is specifically for the environment will also move through Dunnigan Pipeline.

**Commented [AN4]:** Need specs on Dunnigan pipeline

**Commented [AN5R4]:** Not including specs because there are two alternatives.

- *Existing Facilities*

In addition to the local topography, building Sites in this specific location allows us to use existing infrastructure that lowers the cost and overall footprint of the reservoir. Red Bluff Pumping Plant, Hamilton City Pump Station, Funks Reservoir and Glenn-Colusa Irrigation District's main canal are all existing facilities owned by Sites' partners that are critical to the operation of Sites Reservoir. They also include existing fish screens, that add vital environmental protections to the project.

- *Keeping Communities Connected*

We also want to keep communities connected. Sites Reservoir will require a new east-west route, so the proposed re-aligned Sites Lodoga Road and bridge will be built over the reservoir to connect Stonyford, Lodoga, and Maxwell.

- *Recreation*

In addition to providing water for people, the environment and farms, Sites Reservoir would also provide new local recreation opportunities. The three proposed recreational areas--Peninsula Hills Recreational Area, Stone Corral Recreational Area and the Day Use Boat Ramp Recreational Area—span about 618 acres. People from across the Sacramento Valley and visitors to this part of the state will be able to enjoy boating, fishing, camping, hiking, picnicking, and more for generations to come.

CLOSE

---

**From:** Sara M. Katz [skatz@katzandassociates.com]  
**Sent:** 7/12/2023 11:02:24 AM  
**To:** Kevin Spesert [kspesert@sitesproject.org]; Jerry Brown [jbrown@sitesproject.org]; Alicia Forsythe [aforsythe@sitesproject.org]; JP Robinette [jrobinette@sitesproject.org]  
**Subject:** FW: Sites Media Coverage 7.12.23

More coverage today. FYI only.



**Sara M. Katz**  
Founder/CEO  
mobile: 619.813.9551  
[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

---

**From:** Sarah Joyce <sjoyce@katzandassociates.com>  
**Sent:** Wednesday, July 12, 2023 10:30 AM  
**To:** Sara M. Katz <skatz@katzandassociates.com>; Ann Newton <anewton@katzandassociates.com>; Mariah Hugo <mhugo@katzandassociates.com>; Quin La Capra <qlacapra@katzandassociates.com>; Hannah Blome <hblome@katzandassociates.com>  
**Cc:** Sarah Rossetto <srossetto@katzandassociates.com>  
**Subject:** Sites Media Coverage 7.12.23

Hi everyone,

Here is an article published this morning about Sites.

#### **Agent West – Permitting Reform Legislation to Benefit Sites Reservoir**

Sites Reservoir is one of the projects that will directly benefit from recent reforms to permitting requirements for water and energy infrastructure projects. The Sites Project Authority commended Governor Gavin Newsom and the California State Legislature for passing the legislative package. Projects certified by Newsom are eligible for a simplified approval process to bring the crucial infrastructure online at a quicker pace.

“We are grateful to Governor Newsom and the State Legislature for their leadership on such a challenging aspect of our regulatory process,” Executive Director of the Sites Project Authority, Jerry Brown [said in a press release](#). “Their actions to incorporate these policy changes will expedite securing our water supplies to become more resilient to a changing climate. These actions strike the right balance—time saved and costs reduced for delivery of critically important water projects like Sites, while still providing our communities and environments proper safeguards.”

Newsom unveiled proposals in May to expedite permitting and review procedures for vital infrastructure projects such as the Sites Reservoir. The purpose is to help speed up the overall process of bolstering water resiliency in California. All seven water storage initiatives established under Proposition 1 are eligible under the recently signed legislation. Several state legislators expressed enthusiasm for getting the legislation package approved and enabling the necessary infrastructure to move forward.

“I’m tired of watching infrastructure projects like Sites Reservoir get tied up for years, while Californians are left to suffer the consequences,” said Assembly Republican Leader James Gallagher. “For years, Republicans have been trying to cut red tape that holds up these critical projects. I’m glad Gov. Newsom and our Democrat colleagues have finally joined us.”

Here is another articles from yesterday about Sites.

**Appeal Democrat/Sun Herald – State permitting reforms puts Sites Reservoir on a regulatory fast track**

New state permitting reforms are allowing projects such as Sites Reservoir in Colusa County to undergo a streamlined approval process for the purpose of getting essential infrastructure into construction and operation.

The Sites Project Authority credits both Gavin Newsom and the California State Legislature for kick-starting this initiative and working together to pass what has been described as a critically important infrastructure streamlining package for the benefit of all Californians.

“We are grateful to Governor Newsom and the state legislature for their leadership on such a challenging aspect of our regulatory process,” Sites Project Authority Executive director Jerry Brown said in a statement. “Their actions to incorporate these policy changes will expedite securing our water supplies to become more resilient to a changing climate. These actions strike the right balance – time saved and costs reduced for delivery of critically important water projects like Sites, while still providing our communities and environments proper safeguards.”

These streamlined permitting proposals were introduced by Newsom in May to help meet California's need to provide new climate-resilient water supplies. Currently, all seven of the Proposition 1 water storage projects are eligible, including the Sites Reservoir Project.

The passage of these legislative proposals adds even more momentum to the Sites Reservoir project, officials said, which is nearing some key milestones such as the consideration of a water right permit by the California State Water Resources Control Board and the certification of its final environmental impact report.

Best,  
Sarah



**Sarah Joyce**

Account Coordinator

d: 858.926.7004

[San Diego](#) · [Los Angeles](#) · [San Francisco](#)

---

**From:** Spranza, John [John.Spranza@hdrinc.com]  
**Sent:** 7/13/2023 11:02:55 AM  
**To:** Clabaugh, Anna [Anna.Clabaugh@hdrinc.com]; Huber, Anne [Anne.Huber@icf.com]; Erecius, Lesa [Lesa.Erecius@icf.com]  
**CC:** Alicia Forsythe [aforsythe@sitesproject.org]  
**Subject:** FW: Sites - I/O intake structure inlet elevations  
**Attachments:** Sites\_I-O Structure Inlet Elevations\_20230713.docx

I have not had a chance to review this yet but wanted to pass it along to this group.

John Spranza

D 916.679.8858 M 818.640.2487

---

**From:** Zarchi, Idit <Idit.Zarchi@aecom.com>  
**Sent:** Thursday, July 13, 2023 10:47 AM  
**To:** Luu, Henry <Henry.Luu@hdrinc.com>; Spranza, John <john.spranza@hdrinc.com>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Aldridge, Benjamin <Benjamin.Aldridge@aecom.com>; Inouye, Shanna <shanna.inouye@aecom.com>; Rude, Pete/RDD <Pete.Rude@jacobs.com>; Micko, Steve <Steve.Micko@jacobs.com>  
**Subject:** Sites - I/O intake structure inlet elevations

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 John and Henry,

Back on April 27<sup>th</sup> we had a meeting regarding the I/O intake structure and a lot of the discussion centered on inlet elevations and how they will be operated. We wanted to share what we are assuming regarding inlet elevations for the 30% design (see attached) to check if there are any questions/concerns from the rest of the team (such as the environmental team). The size and number of ports at each elevation is still under development at this time.

Thank you,  
Idit

---

Idit Zarchi  
Water Resources Engineer, PE  
C 1-424-220-0431  
[Idit.Zarchi@aecom.com](mailto:Idit.Zarchi@aecom.com)

AECOM  
300 Lakeside Drive, Suite 400  
Oakland, CA 94612, USA  
[www.aecom.com](http://www.aecom.com)

## I/O Structure Inlet Elevations

The proposed elevations of the inlets were determined considering anticipated reservoir elevations, temperature profiles and spacing between inlet ports. The following information was provided by Jacobs Operations Team regarding operations:

- Probabilities of exceedance for reservoir elevations generated using CALSIM II modeling software, based on 82 years of modified historical hydrology (water years 1922 to 2003) from the Sacramento River as documented in the EIR/EIS.
- Monthly temperature profiles for a full reservoir and for the reservoir during drought conditions generated using CE-QUAL-W2 modeling.

At this stage in design, quality criteria for water releases are still being determined. Releases to Funks creek will undergo thorough mixing through over 3,200 feet of tunnel. Water discharged to Funks reservoir and the TRR will undergo further mixing within the conveyance pipelines.

**Table 1: Proposed Inlet Elevations**

<u>Port Elevation</u> (ft. NAVD88)	<u>Max Anticipated Water Temperature when Reservoir is Full (°C)</u>	<u>Probability of Reservoir Level Exceedance**</u>	<u>Notes</u>
470	18	30%	28 feet below max water surface elevation
445	8	48%	
420	6	62%	
400	5	69%	
380	4	75%	
360*	4	83%	

\*During a drought year, it is anticipated that reservoir levels could go down to roughly El. 370. Having an inlet at El. 360 ft and a low-level inlet at El. 300 ft would allow two inlet ports to be available during a drought period.

\*\*The probability of reservoir level exceedance provided is over its general life and not tied to seasons.

These inlet elevations are preliminary and subject to change.

# Sites Reservoir Project Overview

South Bay Engineers Club  
Sites Reservoir

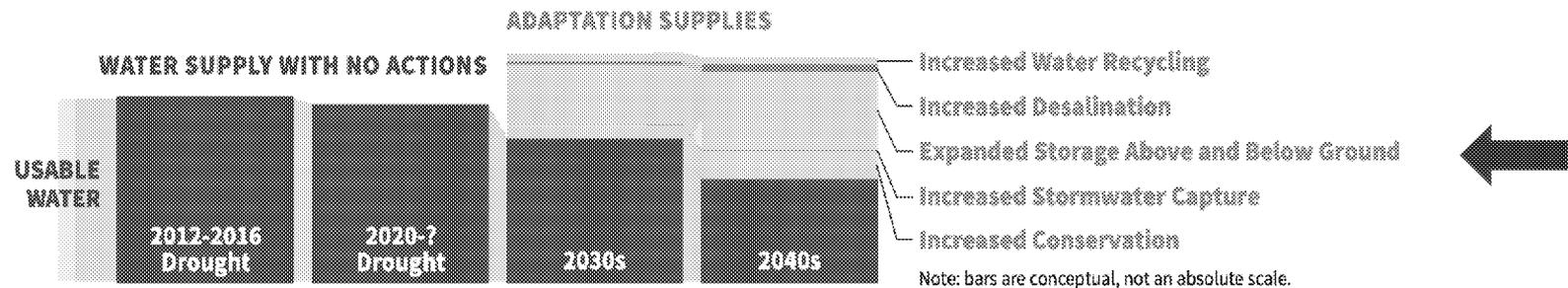
July 13, 2023



# What Problem Does the Sites Project Help Solve?

Over the next 20 years, California could lose 10 percent<sup>1</sup> of its water supplies.

Our climate has changed, and the West continues to get hotter and drier. As it does, we will see on average less snowfall, more evaporation, and greater consumption of water by vegetation, soil, and the atmosphere itself.

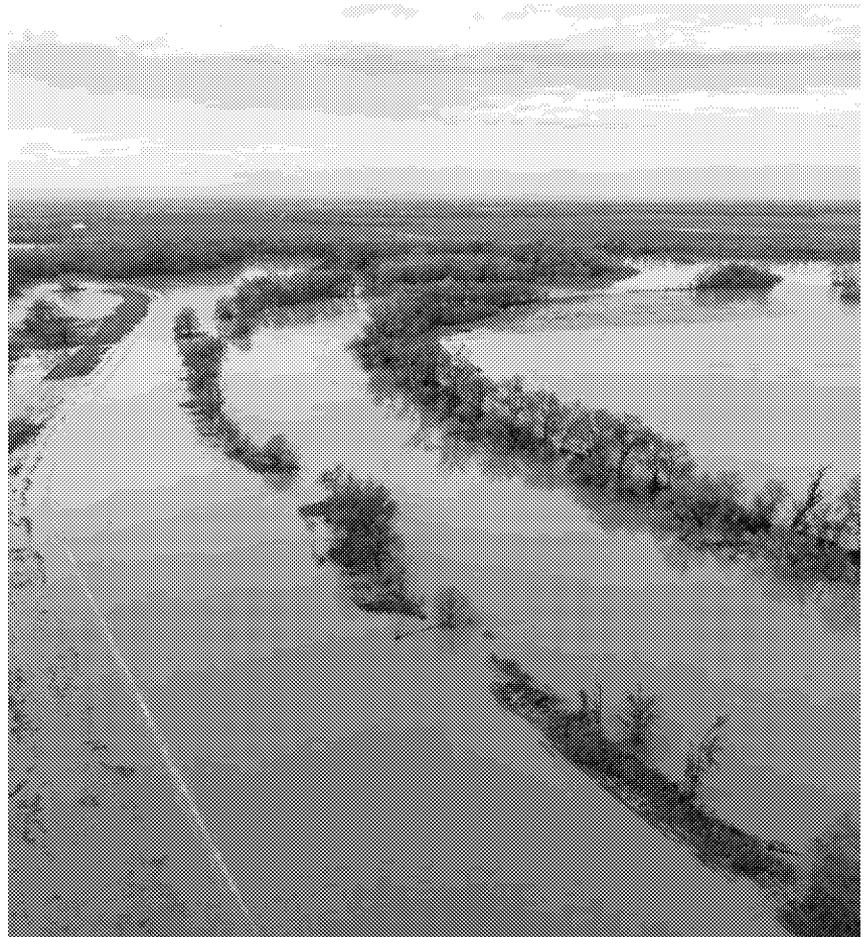


In previous droughts the ratio of precipitation to evaporation to runoff has been similar. However, as temperatures rise, evaporation increases, with the consequence of a fall in runoff. As average temperatures continue to increase, the increase in evaporation will continue, with a concurrent drop in runoff.

Excerpted from Aug 2022 "California's Water Supply Strategy, Adapting to a Hotter Drier Future"

# ‘What if we had Sites?’ – most recent storms update

- Estimate for January 2023 storms - ~250,000af
- Estimate for March-April 2023 ~250,000af
- Forecasted for May-June 2023. ~200,000af
- Total for 22/23 Season – **700,000af** (almost ½ of the reservoir)
- Estimates are based on operations simulation tool that monitors actual and forecasted river/Delta conditions
- This real-time analysis shows that the Project is capable of delivering the expected diversion performance

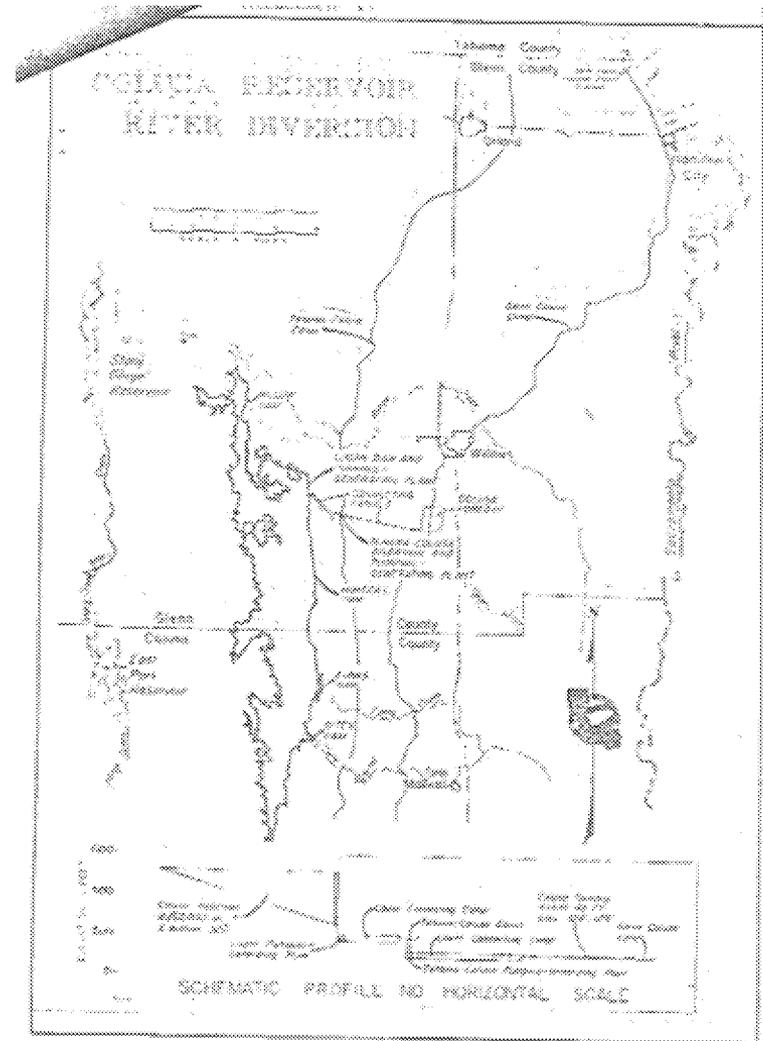


# Most Frequently Asked Question

Why is it taking so long to build Sites Reservoir?

# A Walk Down Memory Lane

- **1957** - DWR Bulletin 3 identifies Sites Reservoir "like" in the 1957 California Water Plan
- **1977** - DWR files several applications for water rights related to the Colusa Reservoir River Diversion
- **1997 through 2010** - Reclamation/DWR evaluate "NODOS", part of CALFED program, locals not happy
- **2010** - Sites Joint Powers Authority is formed to serve as the lead local agency to advance the project



# Sites Project History

- **2014** – California passes Proposition 1 that provides \$2.7 billion for water storage projects, dams and reservoirs.
- **2016/17** – Sites Project Reservoir Committee formed. Draft EIR/EIS released
- **2018** – Project is awarded \$816 million from Proposition 1 and a \$449 million construction loan from USDA
- **2019** – The Sites Project goes through an extensive value planning process to make the project affordable, permittable, and buildable.
- **2020/21** – Authority establishes its Strategic Plan, Federal and State feasibility certified, Authority releases revised Draft EIR/EIS, (i.e. Sites 2.0)
- **2022** – The Sites Project is invited to apply for a \$2.2 billion EPA WIFIA loan (3X larger than any previous loan amount) and submits its Water Rights Application.
- **2023** – Sites water right application deemed complete and noticed for public comment.

# Sites Project Authority

*'the Sites Project is a local led project'*

- Joint Powers Authority established under California law
- Authority member agencies located in the Sacramento Valley
- Reservoir Committee made up statewide agencies investing in the Sites Project
- The Sites Project Authority will own and operate Sites Reservoir

## **Board of Directors:**

Colusa County  
Colusa County Water District  
Glenn County  
Glenn-Colusa Irrigation District  
Placer County Water Agency/City of Roseville  
Reclamation District 108  
Sacramento/Sac County Water Agency  
Tehama-Colusa Canal Authority  
Westside Water District

# Our Strength is in Our Broad Statewide Participation *'the Sites Project is Beneficiary Pays'*

## **Sacramento Valley**

City of American Canyon  
Colusa County  
Colusa County Water Agency  
Cortina Water District  
Davis Water District  
Dunnigan Water District  
Glenn County  
Glenn-Colusa Irrigation District  
LaGrande Water District  
Placer County Water Agency  
Reclamation District 108  
City of Roseville  
Sacramento County Water Agency  
City of Sacramento  
Tehama-Colusa Canal Authority  
Westside Water District  
Western Canal Water District

## **Bay Area**

**Santa Clara Valley Water District**  
**Zone 7 Water Agency**

## **San Joaquin Valley**

Wheeler Ridge-Maricopa Water Storage  
District  
Rosedale-Rio Bravo Water Storage District

## **Southern California**

Antelope Valley – East Kern Water Agency  
Coachella Valley Water District  
Desert Water Agency  
Irvine Ranch Water District  
Metropolitan Water District  
San Bernardino Valley Municipal Water District  
San Geronio Pass Water Agency  
Santa Clarita Valley Water Agency

## **Waiting List**

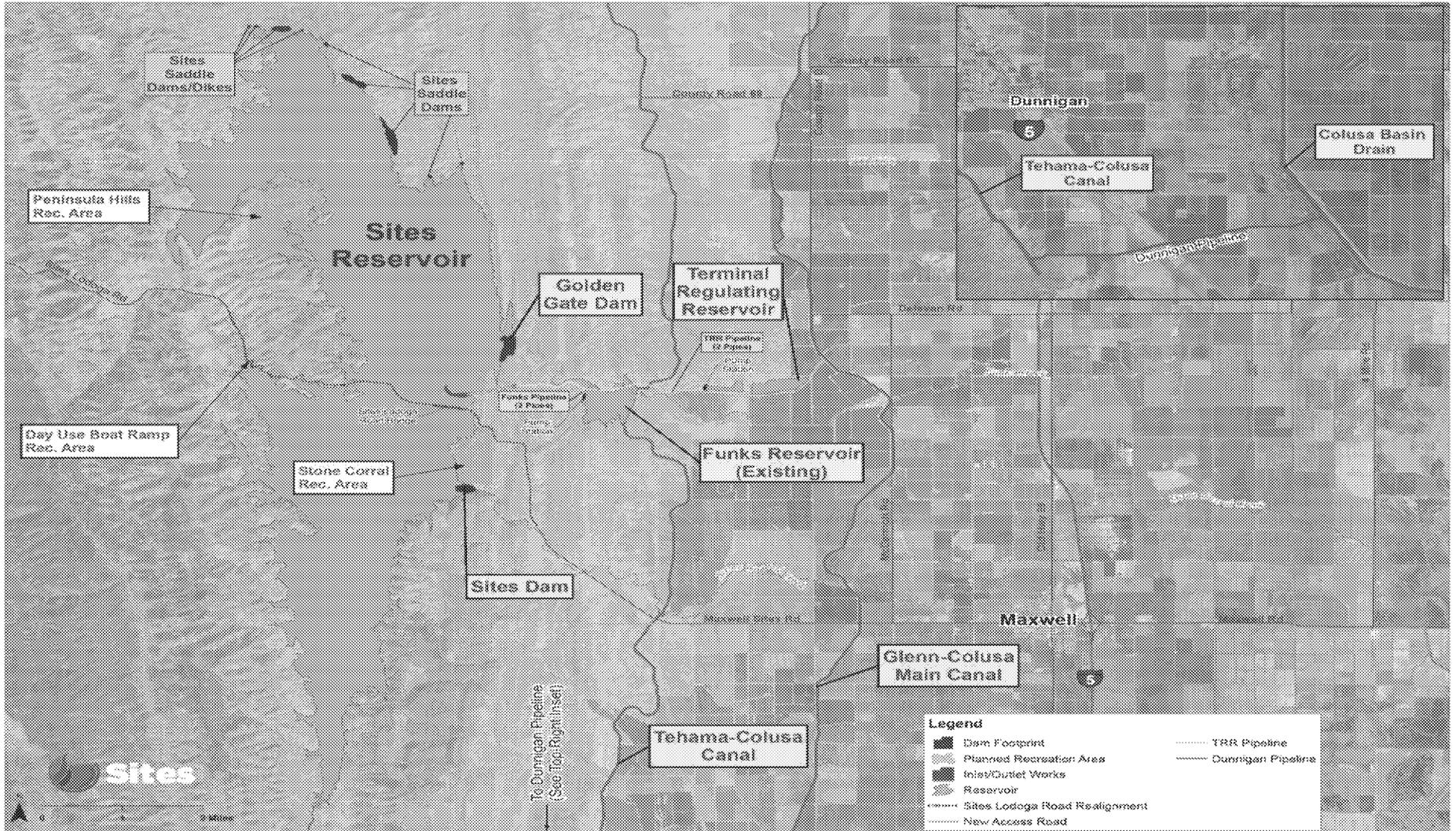
Cal-Am Sacramento  
City of Napa  
Delta View WUA  
Glenn County  
La Cumbre MWC  
Madera County  
Pacific Resources MWC  
Palmdale WD  
Santa Clara Valley WD  
Western Municipal WD  
Westlands WD  
Wheeler Ridge Maricopa WSD  
Woodland Davis CWA



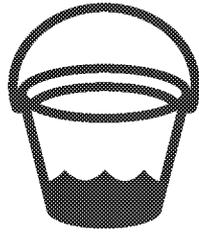
# Overview of Sites Reservoir Project

- The Project is a multi-benefit, beneficiary pays off-stream surface storage project that will help provide needed flexibility, reliability and resiliency to California's water supply.
- **The Project will capture and store stormwater flows from the Sacramento River (after all other water rights and regulatory requirements are met) for release primarily in dry and critical years for California communities, farms, and ecosystems.**
- The Project will use existing intakes with state-of-the-art fish screens. Diversions would only occur when permitted river flows exist that are protective of river and Delta aquatic species.
- The Sites Authority has applied for a new water right to divert water from the Sacramento River at Red Bluff and Hamilton City.
- The Project includes about 180 miles of conveyance. Only about 20 miles is new facilities. The remainder is shared existing infrastructure.
- **Sites water is to be conveyed "through Delta" to southern California participants - not reliant upon the proposed Delta Conveyance Project.**
- The Project is climate resilient; it does not rely on snowmelt but will capture winter river runoff from uncontrolled streams below existing reservoirs in the Sacramento Valley.
  - As such, it will inherently adapt to future climate conditions and will be operated to improve water supply resilience to predicted changes in weather

# Project Facilities



# What Do You Get With Your Investment in Sites Reservoir?



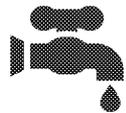
1. Share of Storage Space – your own bucket
2. Access to Proportionate Share of Water Diverted to Storage - X% of 300 TAF annual average (estimated)



Hold Water



Lease Storage



Take Water

Sell Water

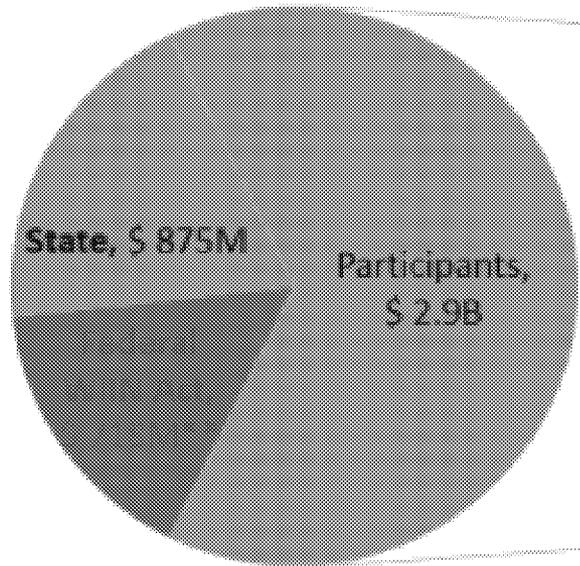


Investor Decides - Local control of storage space and stored water

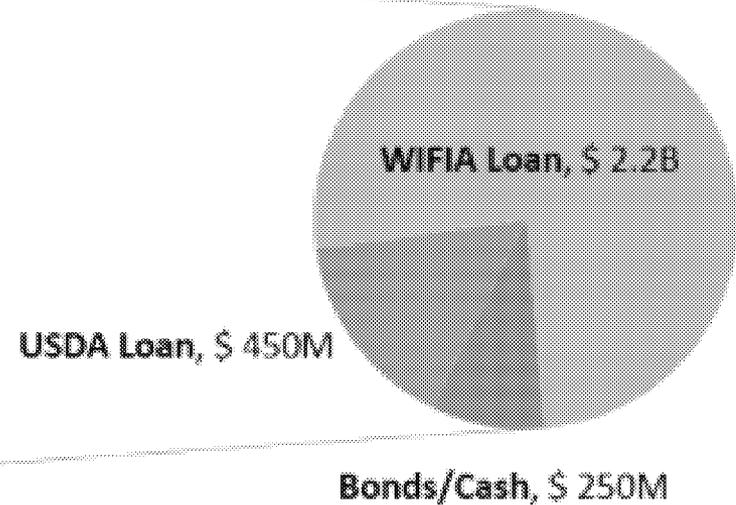
# Project Funding Sources

## 'State/Federal Interest in the Sites Project'

Project Investors



Participant Funding Sources



\*\*WIIN Act funding is based on 16% Reclamation investment under Alternative 3 (Preferred Project) and is reported in future dollars.

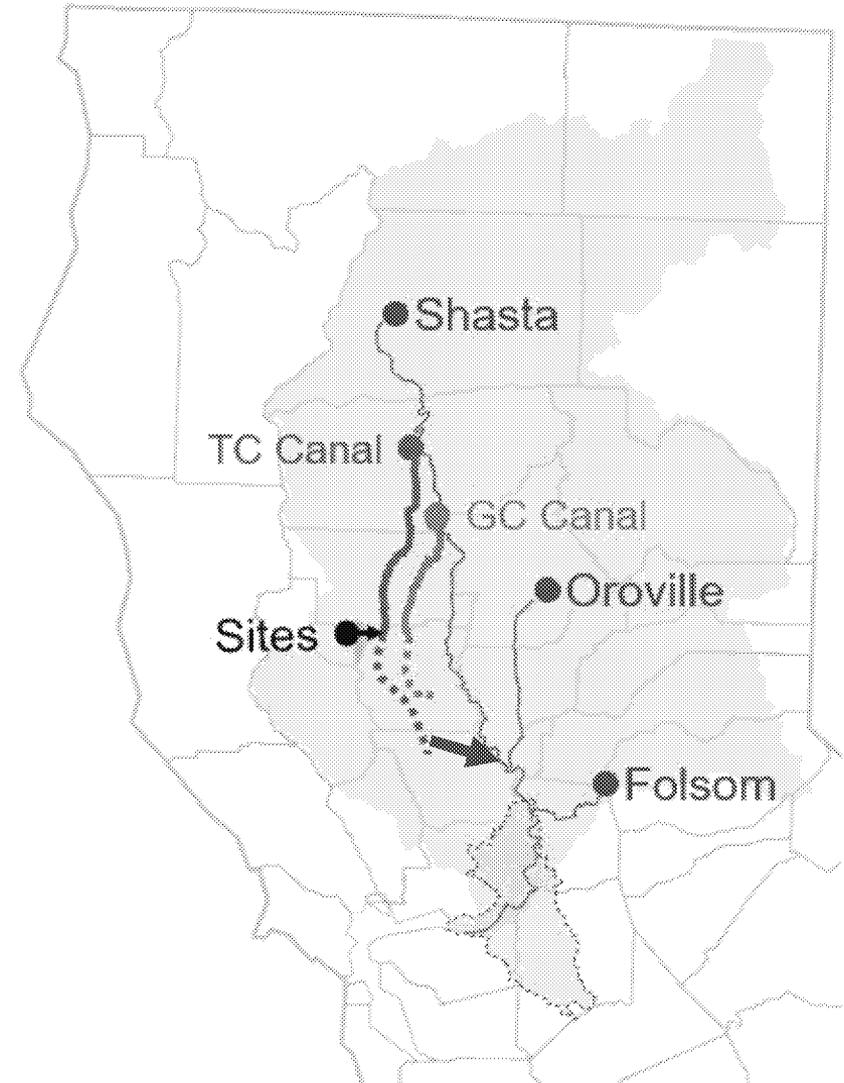
# State Participation Overview

- Prop 1 WSIP – California Water Commission
- 244,000 af of storage and 17.3% of divertable water
- ~\$875M committed to date
- Public Benefits
  - Flood Control ~\$50M
  - Recreation \$225M
  - Ecosystem ~\$600M
- Opportunity to advance Environmental Water Manager concept



# Federal Participation (in progress)

- WIIN/BIL - Bureau of Reclamation
- Has expressed interest in 16% capacity share, currently only 9% available
- ~\$200M committed to date
- Federal Benefits
  - Anadromous Fish temperature control,
  - Refuges,
  - CVP water supply
- WRLCM results demonstrate positive effects for endangered winter run salmon



# Environmental Planning & Permitting Update

- Environmental Impact Report
  - 2017 Draft Document
  - 2021 Revised Draft document
    - Released for public review in November 2021
    - Comment period closed in January 2022
  - 2023 Final document
    - Expected in September 2023
    - All concerns evaluated
    - Revisions to 2021 draft included
    - Response to comments
- Water Right Permit
  - Submitted application to State Board in May 2022
  - 60-day public review of complete application in progress

# Engineering Update

- **2021** – Completed Feasibility Analysis
  - California Water Commission Determined the Project Feasible for continuing eligibility for Prop 1
- **2022-2024** – Conducting Field Studies
  - Survey Mapping & Geotechnical Investigations to Inform Preliminary Engineering Analysis and Design
- **Fall 2024** – Complete 30% Design
  - Update Project Cost Estimate
- **2024** and Beyond – Key Agency Reviews and Approvals, Benefits and Obligations Contracts Executed
- **2025** - Begin Construction

The project is mostly a large earthwork project because of the heavy dependence on existing pumping and conveyance features

Serving California's environment, families, and farms takes:

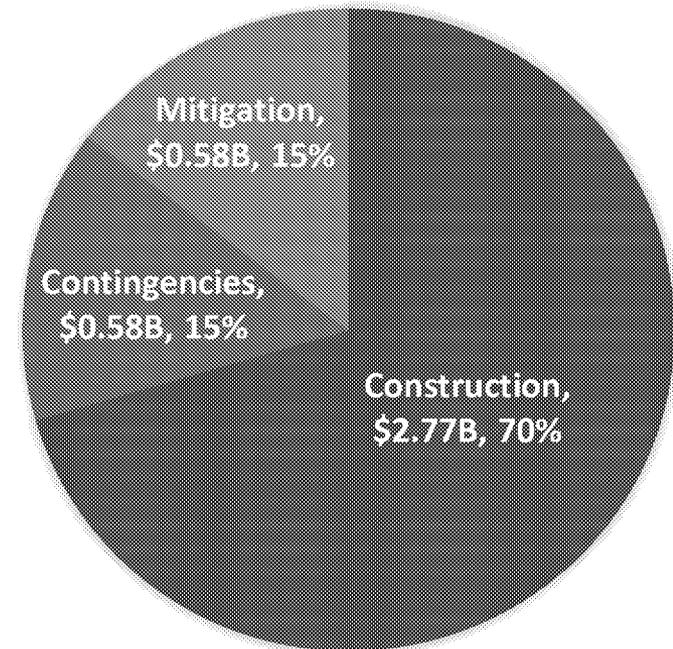
1.5 million acre-ft of storage

2 new large dams and several smaller saddle dams

11 miles of big pipes (9-12ft)

20 million cubic yards of fill

ESTIMATED PROJECT COSTS  
(\$3.9B, 2021\$)



*Estimated construction costs are based on the class 4 cost estimate for alternative 1 approved by the Reservoir Committee and Authority Board in June 2021*



# Summary of the Authority's Current Contracting Strategy adopted July 2022 (costs in 2021\$)

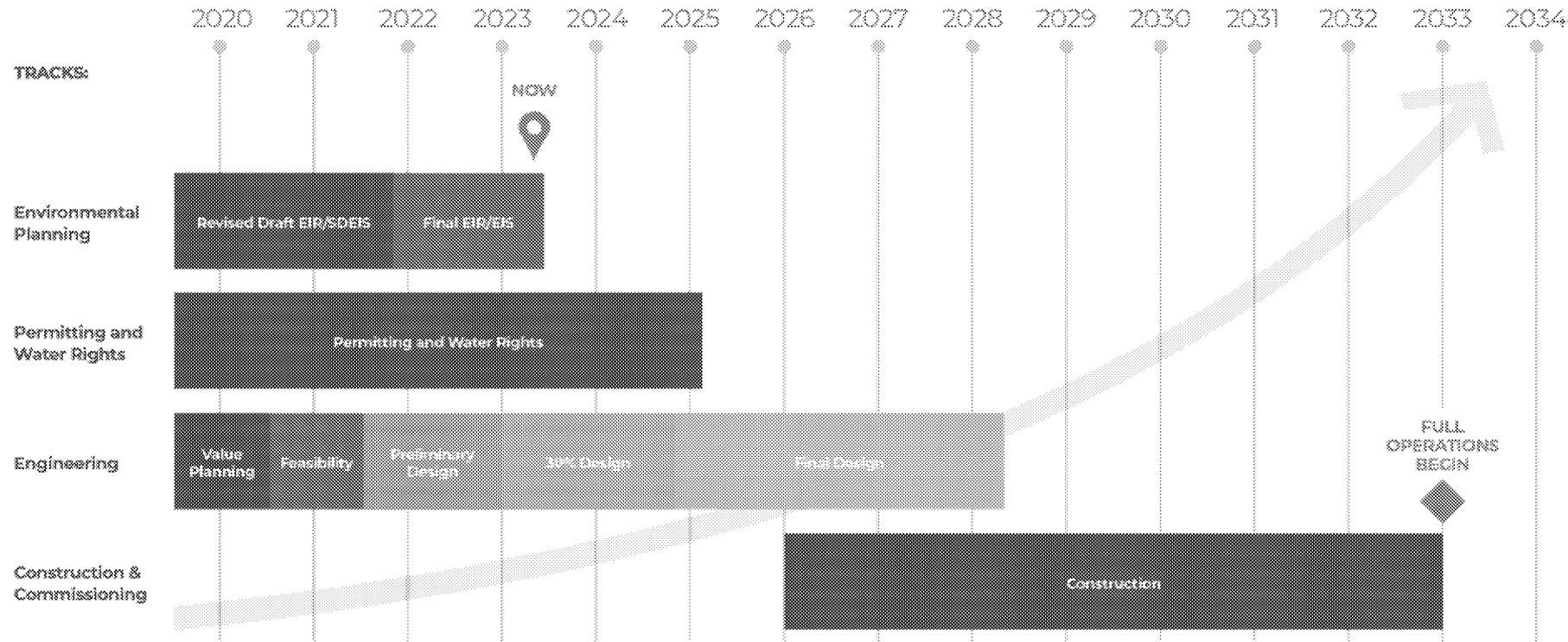


# Real Estate Update

- Coordinating with Landowners on the project design. Two most frequently asked questions:
  - anticipated land needs and
  - timing for acquisition
- Securing Temporary Rights of Entry (TROE) and other agreements to conduct necessary technical field activities
- Having acquisition discussions on key project parcels or parcels associated with major project infrastructure
- Land Acquisition anticipated to start in 2024.

# Project Schedule

## Sites Reservoir Project Schedule



# Governor Permit Reform Proposal

- Sites could be a beneficiary of the legislation, if passed.
- Three areas of primary interest in the package:
  - Executive Order – directive to expedite state permits and approvals, continuing the Strike Team
  - CEQA Streamlining – Court resolution of CEQA lawsuits within 270 days, streamlining the admin record
  - Species Reclassifications – CDFW permitting procedures.
- Overall Effect – Positive; reduces uncertainty
- Specific – may reduce water rights process by ~6 months and overall schedule duration by ~12 to 18 months

# What is the Sites Authority “Ask”?

- Support local water district’s efforts to secure reliable, sustainable water supplies for your area including supporting revenue increases needed to pay for projects.
- Publicly express your support for the Sites Project where appropriate – upcoming potential opportunities include:
  - Water Rights Noticing – In Progress
  - EIR/EIS Final Approval – September 2023
  - Federal Appropriations and State Budget Funding - Ongoing
- Sites Authority would like to hear from you if there are any concerns or questions. The Sites team pledges to work in an open and transparent manner to constructively solve challenges and explore opportunities.
- Sites Authority believes that working together, we must get this project built within the next decade.



# Questions





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**From:** Micko, Steve [Steve.Micko@jacobs.com]  
**Sent:** 7/13/2023 3:47:18 PM  
**To:** Alicia Forsythe [aforsythe@sitesproject.org]; Yuan Liu [yliu@ccwater.com]; Lucinda Shih [lshih@ccwater.com]; Marguerite Patil [mpatil@ccwater.com]; Lu Han [lhan@ccwater.com]; Wesley Walker [walker@mbkengineers.com]  
**Subject:** RE: Sites - Water Quality Discussion  
**Attachments:** Sites\_CCWD\_WQ Meeting\_rev01\_20230713.pdf; Sites\_MonthlyAverageX2Distance\_ALT3\_051722.xlsx

Hi all,

Great discussion today! See presentation slides and monthly average DSM2 X2 values attached.

Please let me know if you have any questions.

Thanks,  
Steve

-----Original Appointment-----

**From:** Alicia Forsythe <aforsythe@sitesproject.org>  
**Sent:** Wednesday, July 5, 2023 3:24 PM  
**To:** Alicia Forsythe; Yuan Liu; Lucinda Shih; Marguerite Patil; Lu Han; Micko, Steve; Wesley Walker  
**Subject:** Sites - Water Quality Discussion  
**When:** Thursday, July 13, 2023 1:00 PM-2:00 PM (UTC-08:00) Pacific Time (US & Canada).  
**Where:** Microsoft Teams Meeting

---

## Microsoft Teams meeting

### Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 227 832 262 464

Passcode: ep3RoM

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### Or call in (audio only)

+1 916-538-7066,,23780324# United States, Sacramento

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# Sites Project Operations and Water Quality Review

July 13, 2023



# Analysis Approach

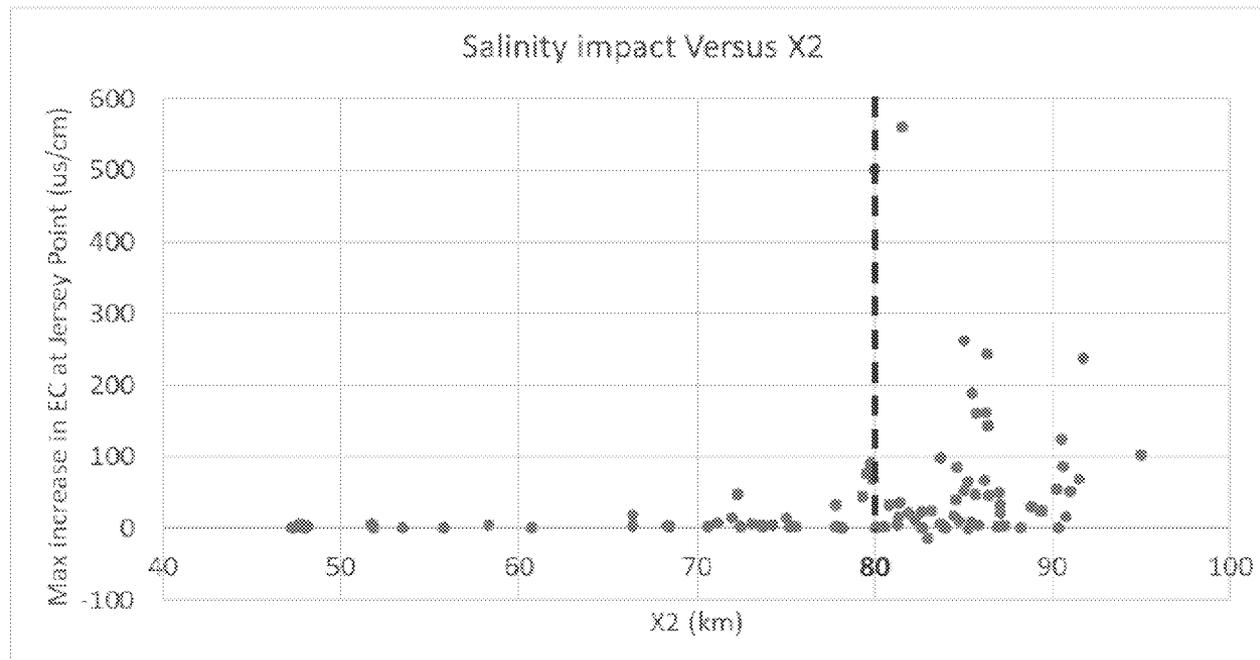
- Monthly offset of X2 in CalSim II
  - CalSim II presents X2 distance from the previous month
- Preference for DSM2 when reviewing X2
  - CalSim II estimates X2 with the ANN
    - Not a physical model – 7 input parameters are used to estimate X2
    - Outputs are end of month X2
  - DSM2 is a hydrodynamic and water quality model calibrated/validated for the Sacramento – San Joaquin River Delta
    - Physically models flow and water quality in the Delta
    - Best available planning model for Delta tidal hydrodynamic and salinity modeling
    - Through post-processing, can produce monthly average X2

# X2 from CalSim II (Max Change over Two Months)

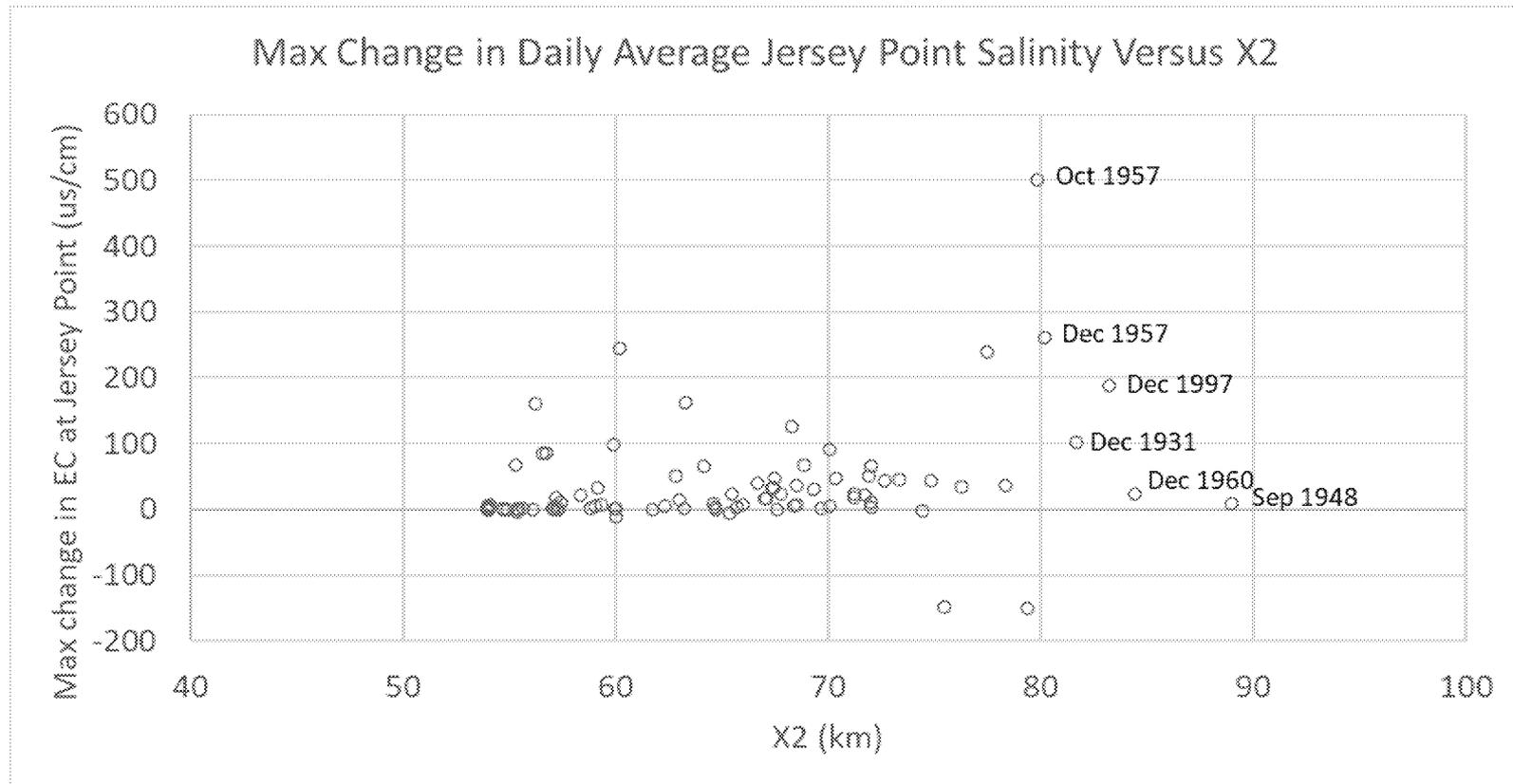
## DIVERSIONS AT THE BEGINNING OF EXCESS SEASON



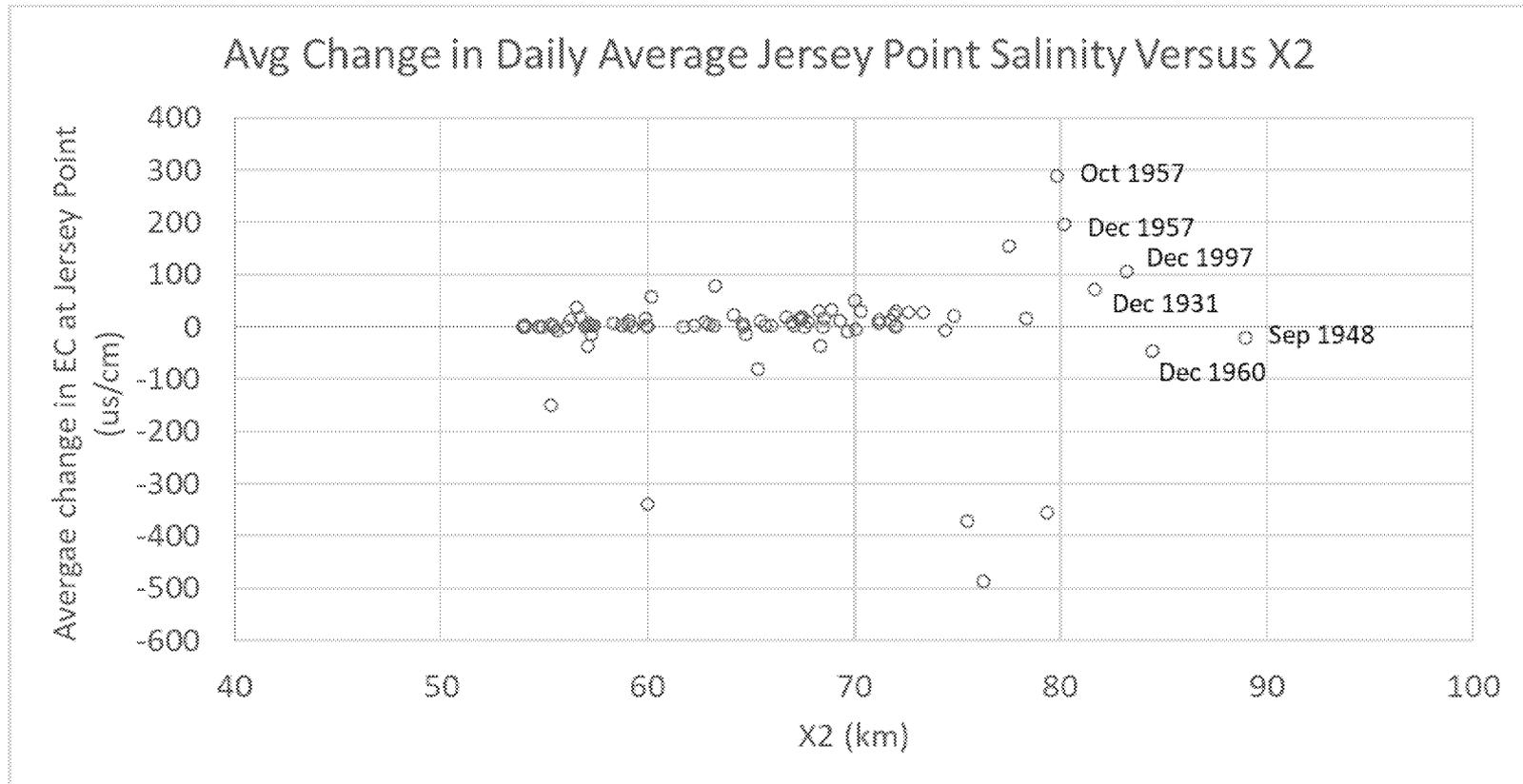
- Sites diversions in the first month that the Delta goes into excess conditions have the potential to cause a significant impact to Delta salinity when  $X2 > 80$  km



# X2 from DSM2 (Max Change)

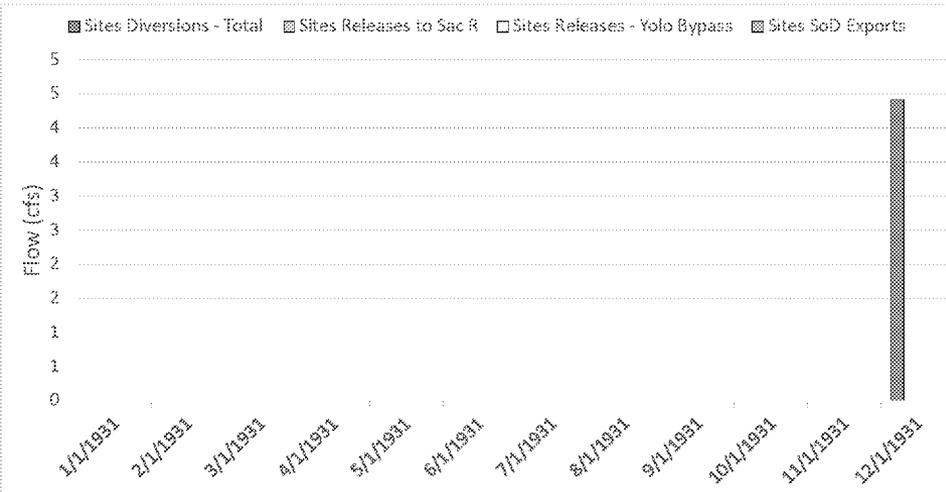
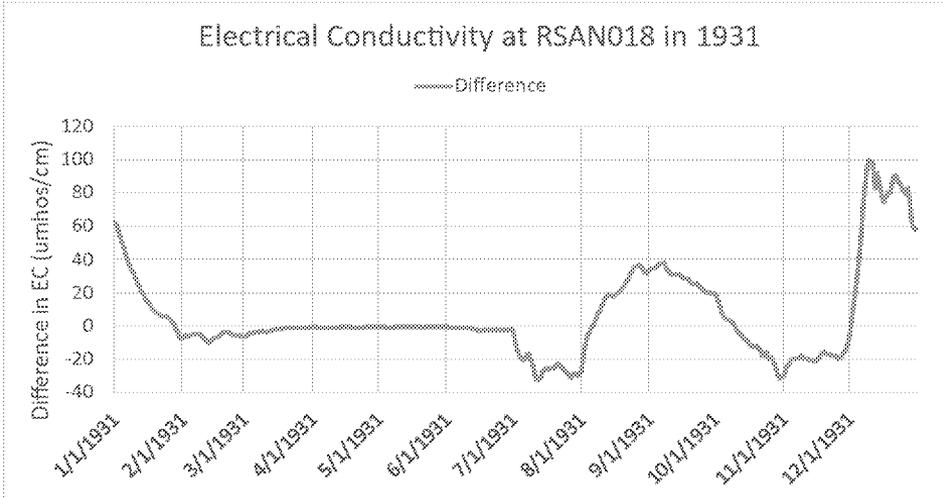
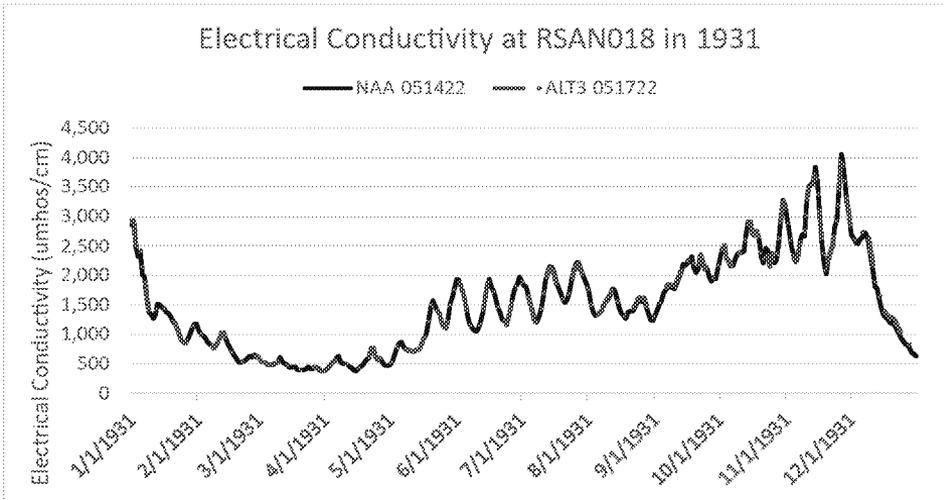


# X2 from DSM2 (Average Change)



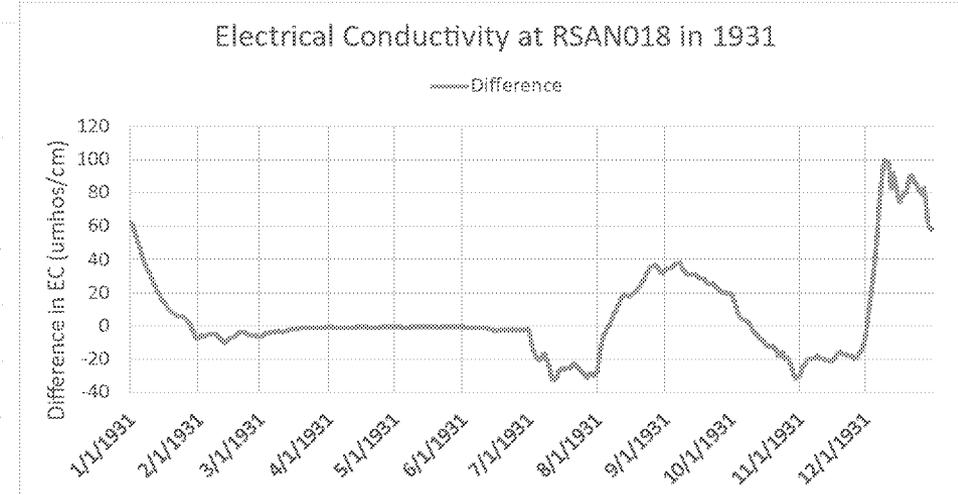
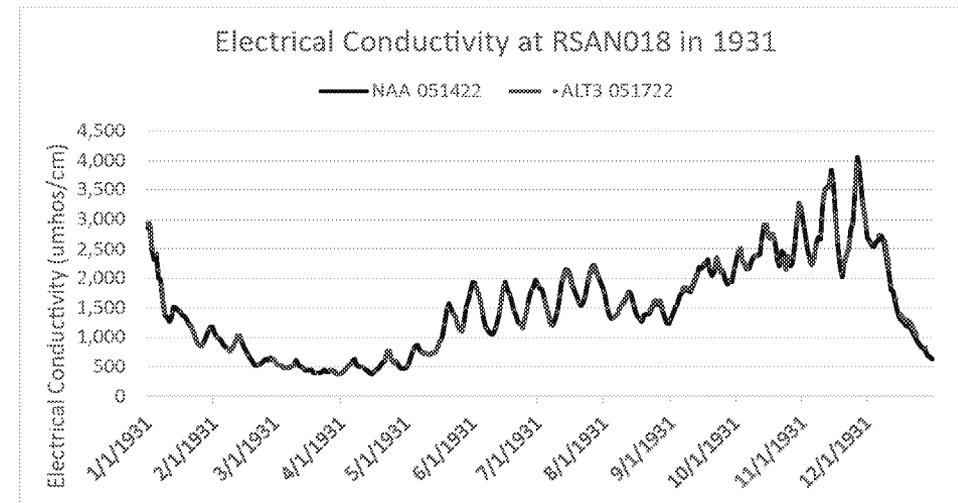
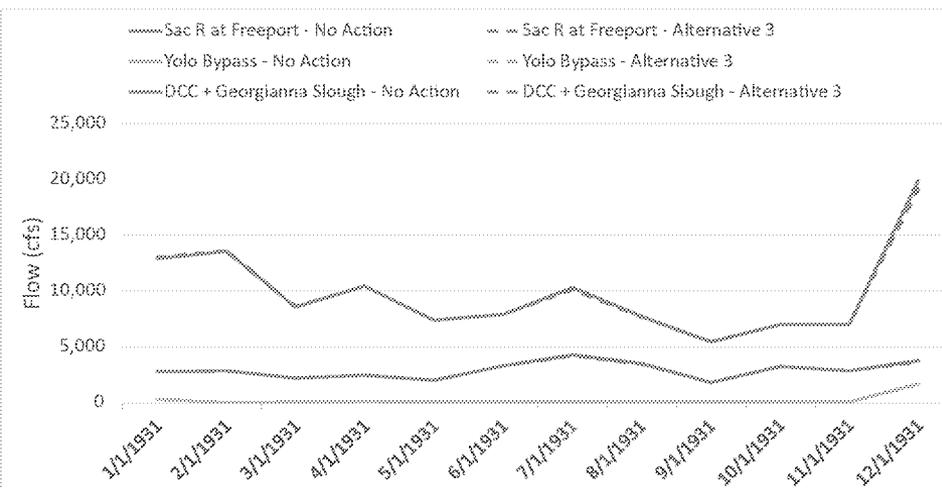
# Example Daily Timeseries Plots – 1931

- 1931 is a Critical Year;
- 1932 is a Dry Year
- Diversions are 5 cfs in Dec 1931



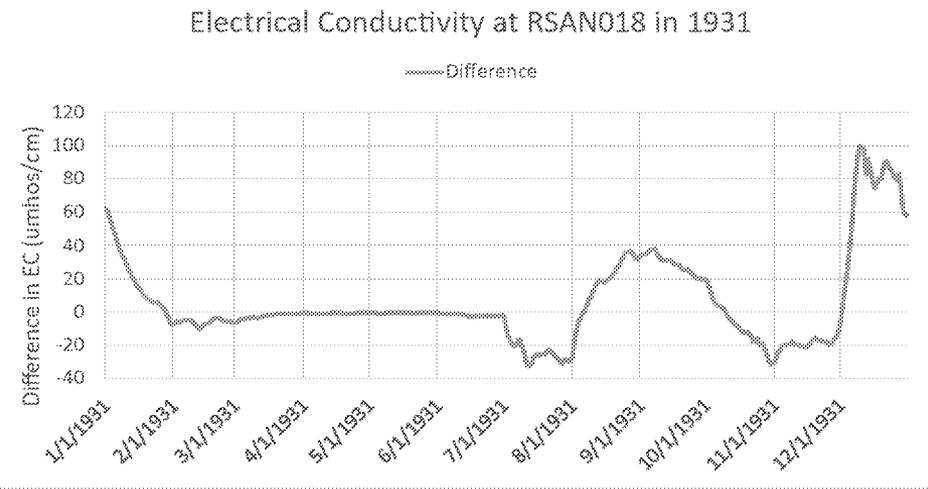
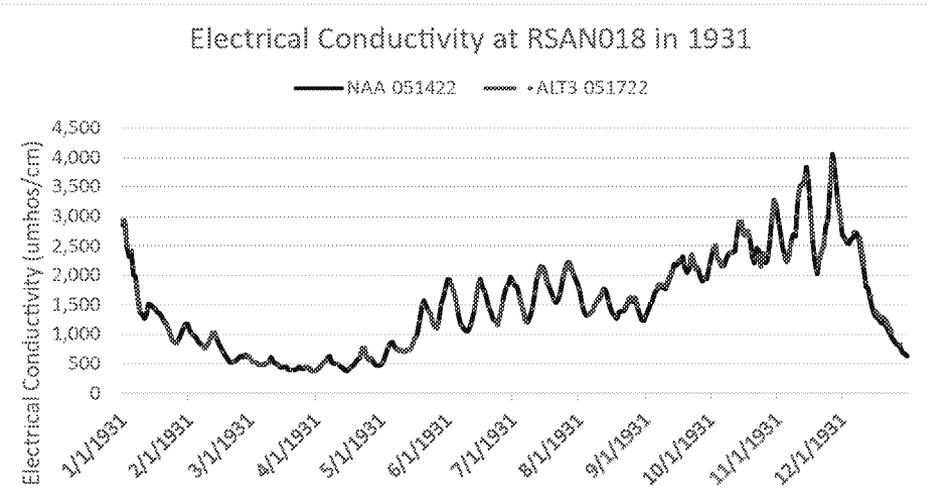
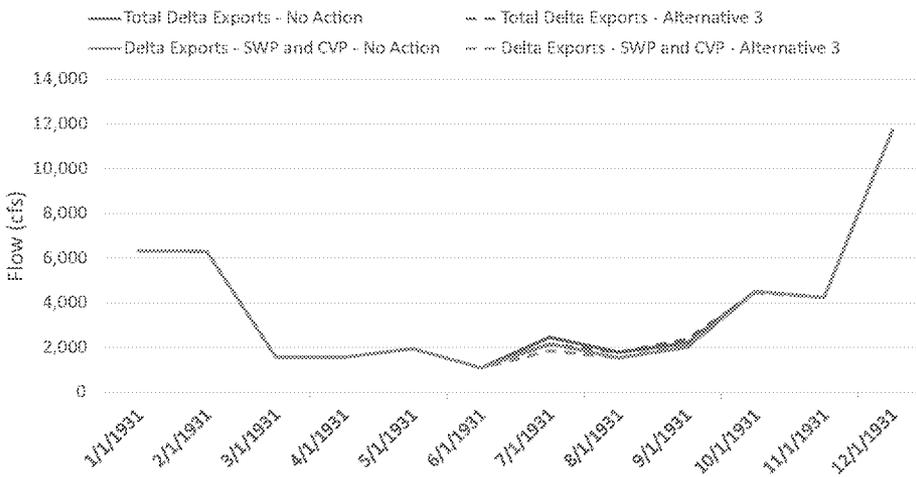
# Example Daily Timeseries Plots – 1931

- 1931 is a Critical Year;
- 1932 is a Dry Year
- Diversions are 5 cfs in Dec 1931



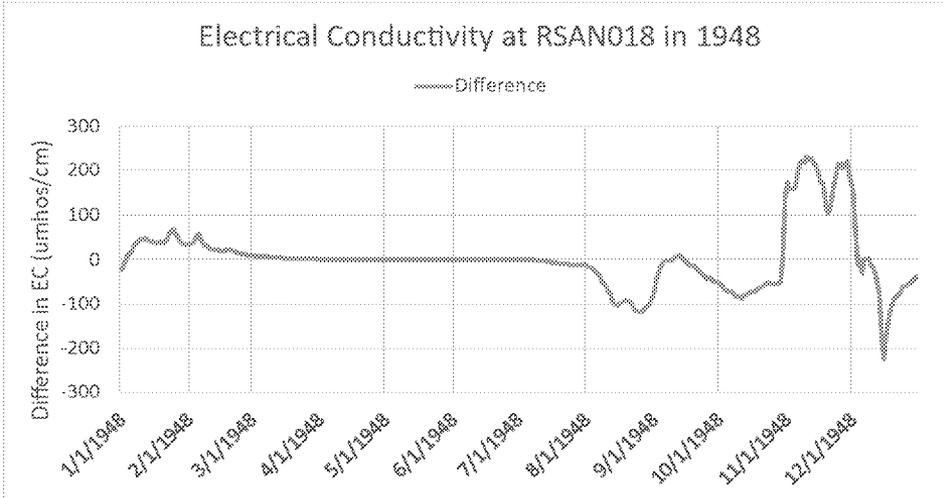
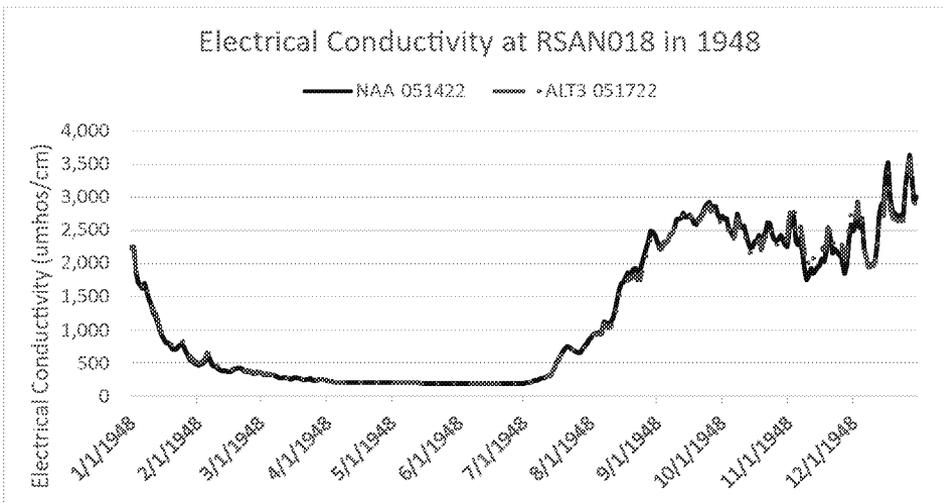
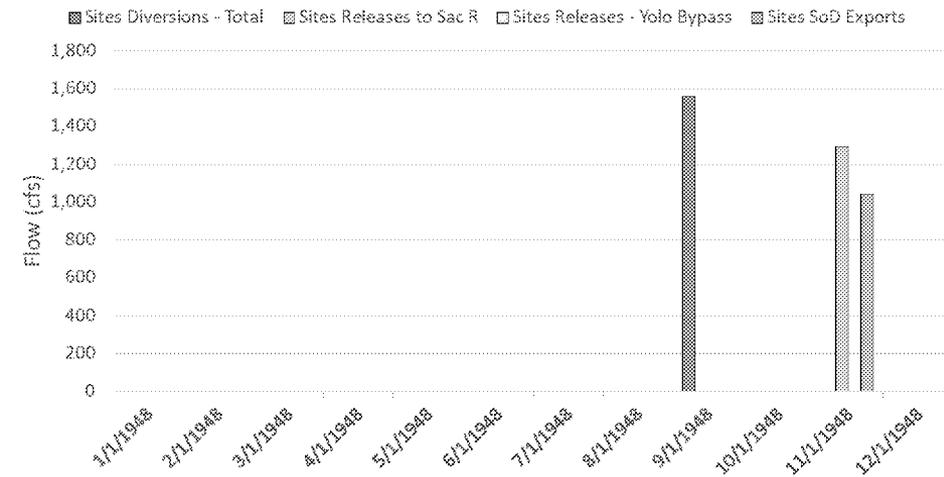
# Example Daily Timeseries Plots – 1931

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- Diversions are 5 cfs in Dec 1931



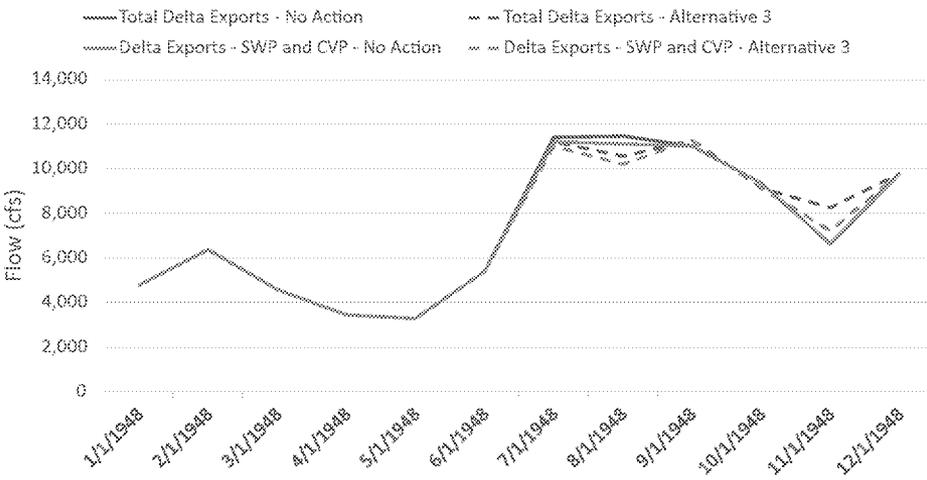
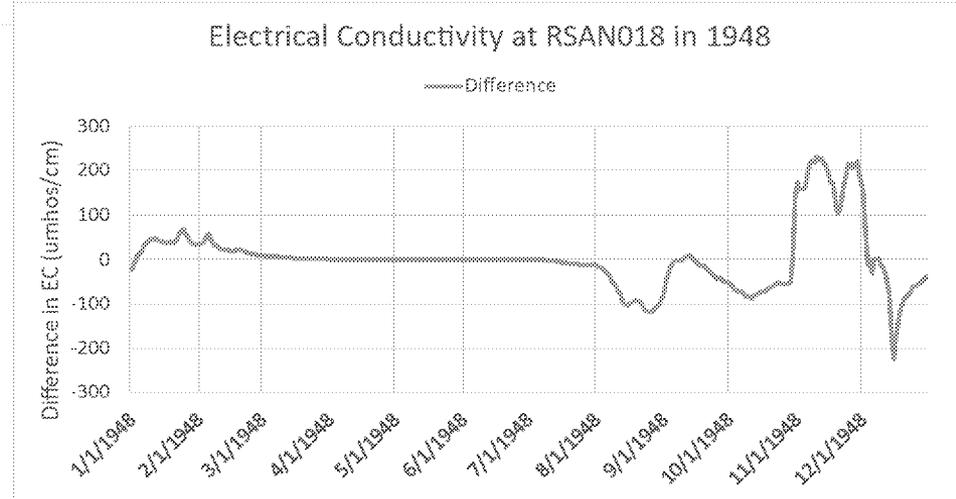
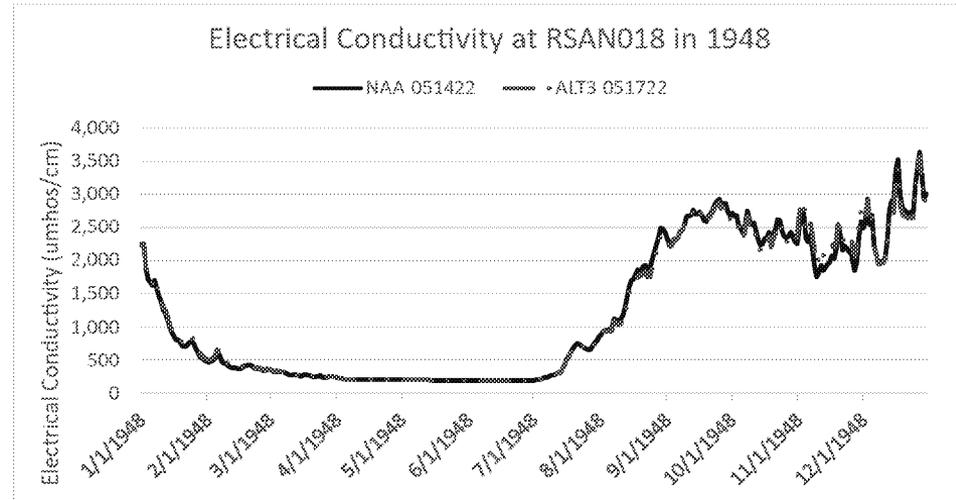
# Example Daily Timeseries Plots – 1948

- 1948 is a BN Year;
- 1949 is a Dry Year
- Overall, water tends to freshen in Sep of 1948



# Example Daily Timeseries Plots – 1948

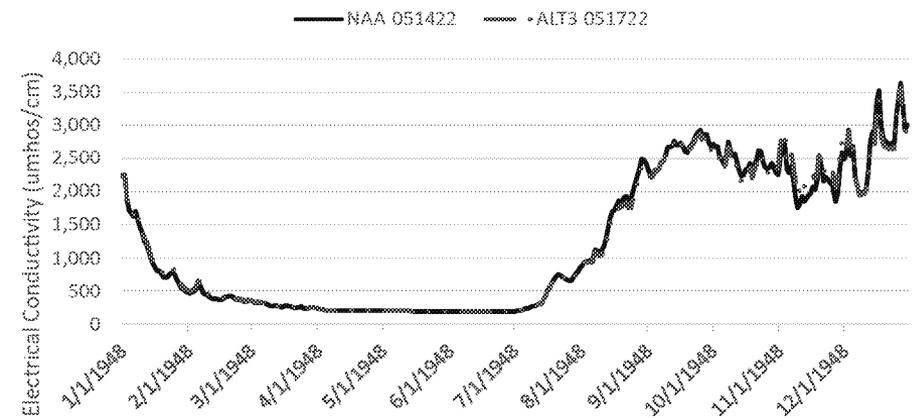
- 1948 is a BN Year;
- 1949 is a Dry Year
- Overall, water tends to freshen in Sep of 1948



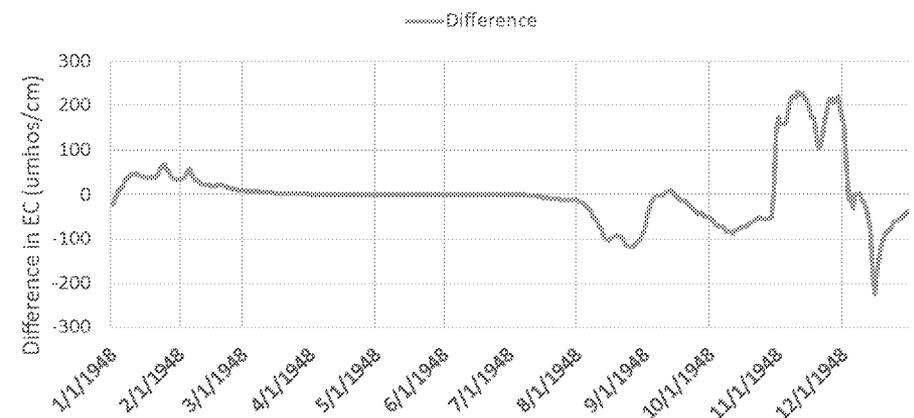
# Example Daily Timeseries Plots – 1948

- 1948 is a BN Year;
- 1949 is a Dry Year
- Overall, water tends to freshen in Sep of 1948

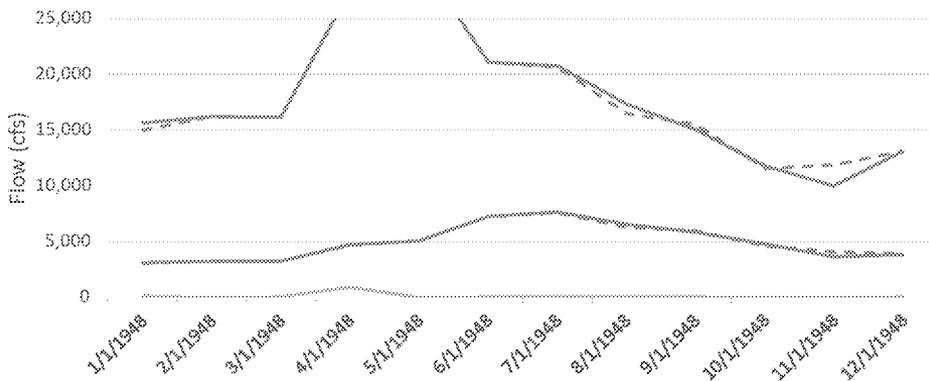
Electrical Conductivity at RSAN018 in 1948



Electrical Conductivity at RSAN018 in 1948

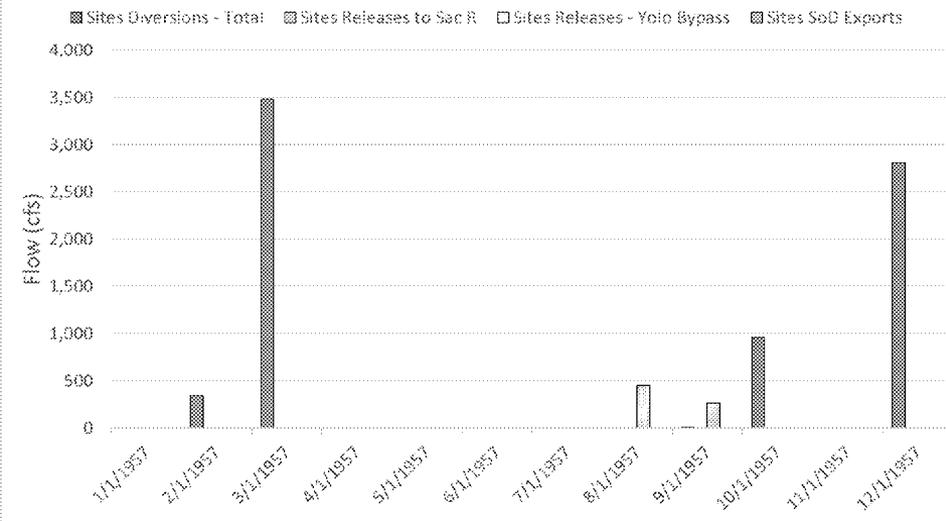
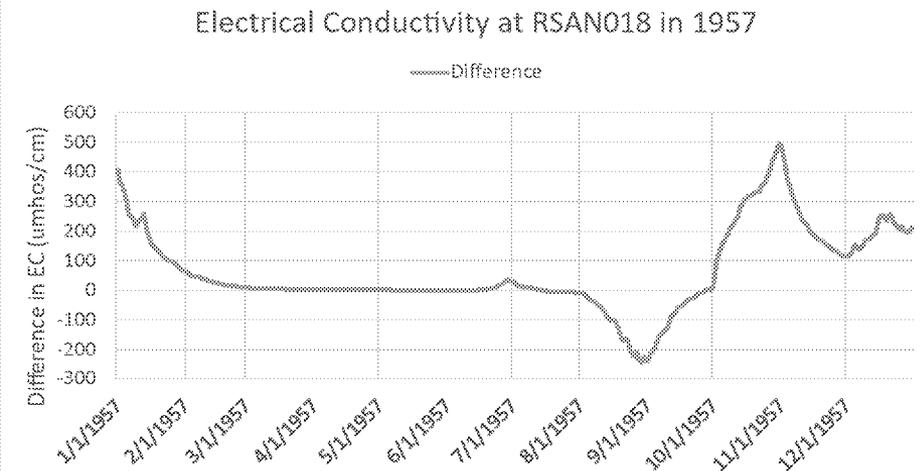
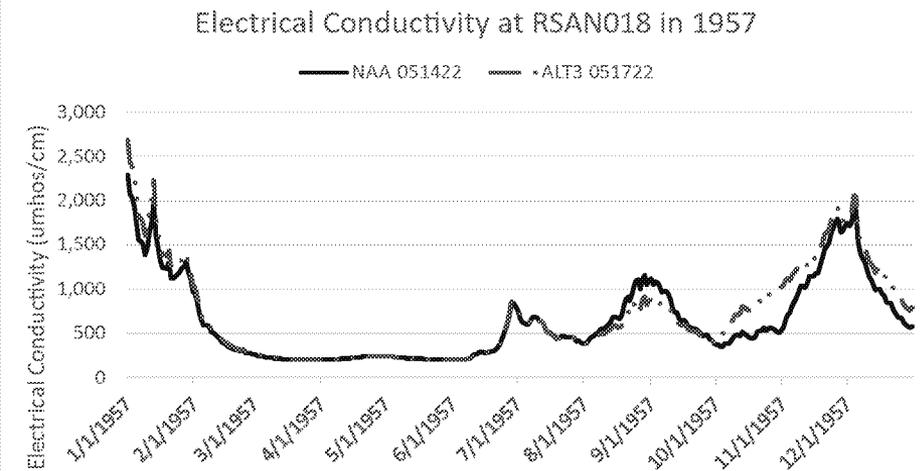


- Sac R at Freeport - No Action
- Sac R at Freeport - Alternative 3
- Yolo Bypass - No Action
- Yolo Bypass - Alternative 3
- DCC + Georgianna Slough - No Action
- DCC + Georgianna Slough - Alternative 3



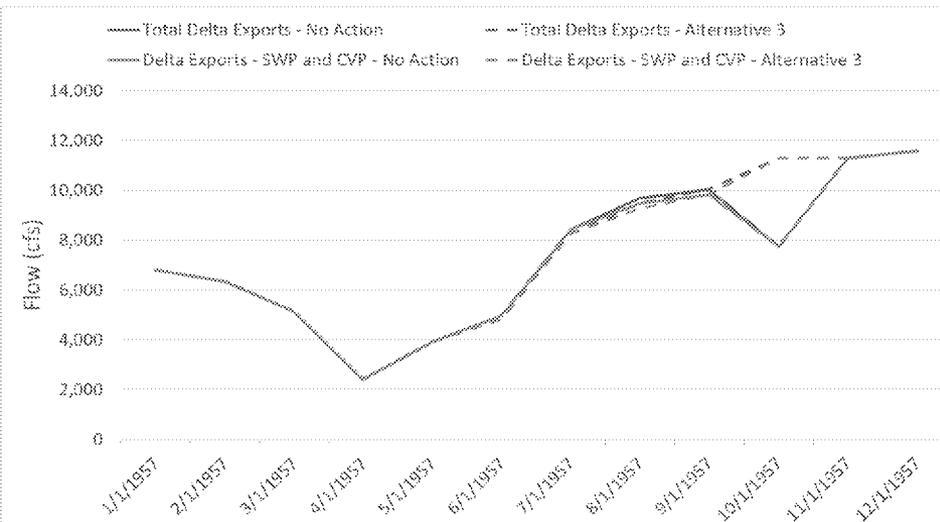
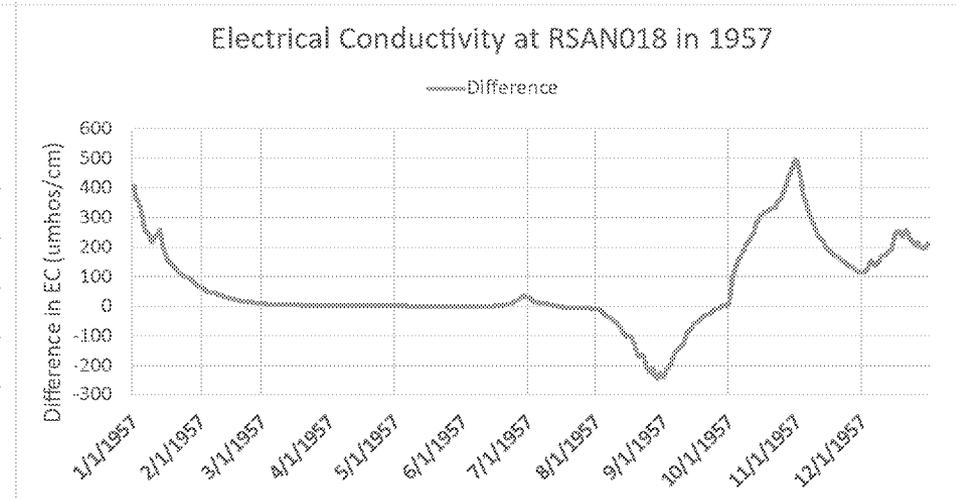
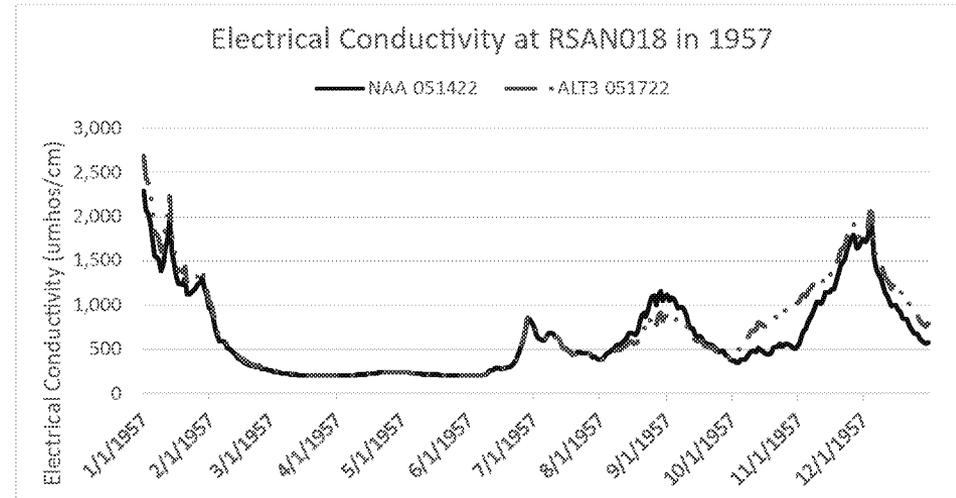
# Example Daily Timeseries Plots - 1957

- 1957 is a AN Year;  
1958 is a Wet Year
- CVP/SWP pumping increases in Oct 1957
- Salinity remains high through Dec



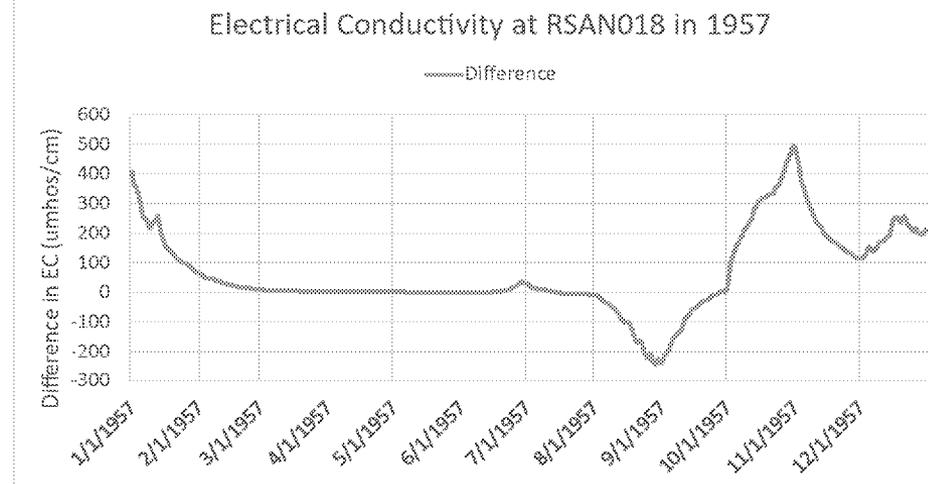
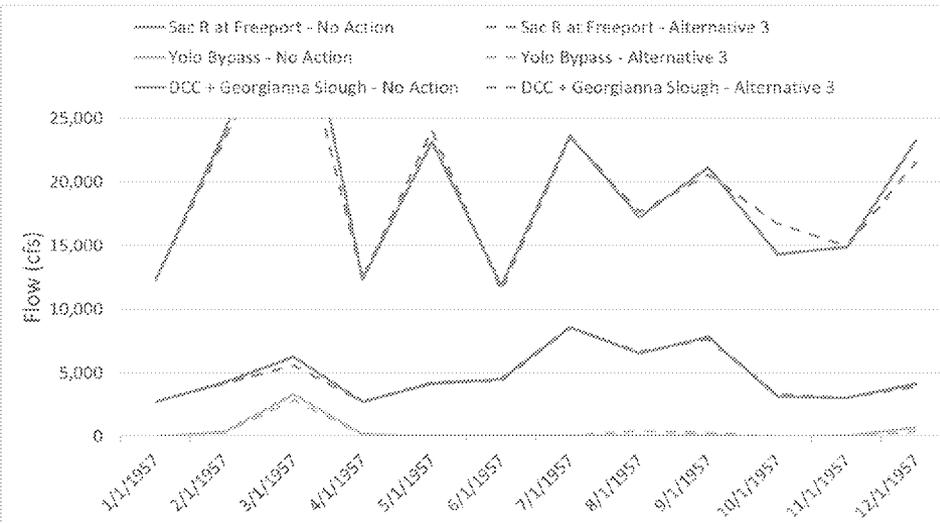
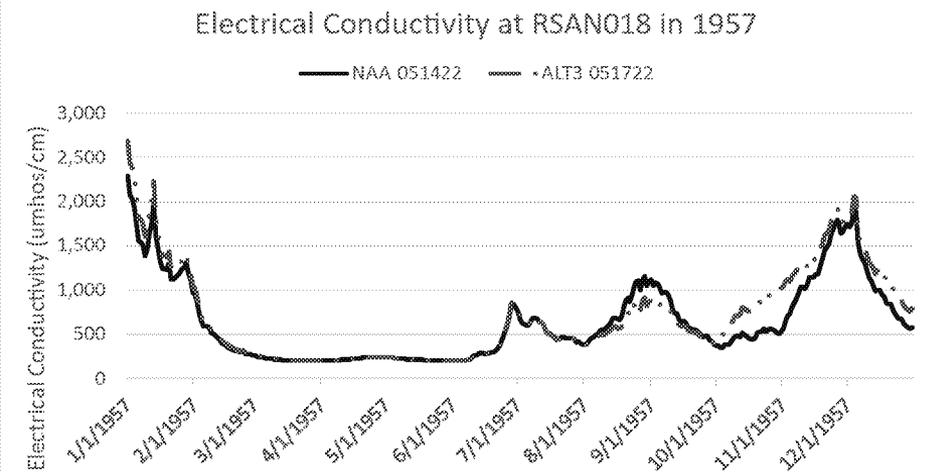
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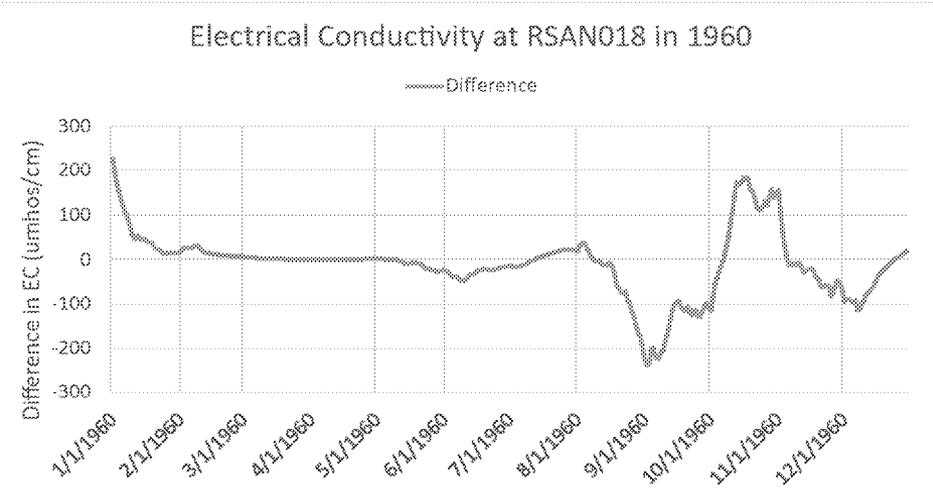
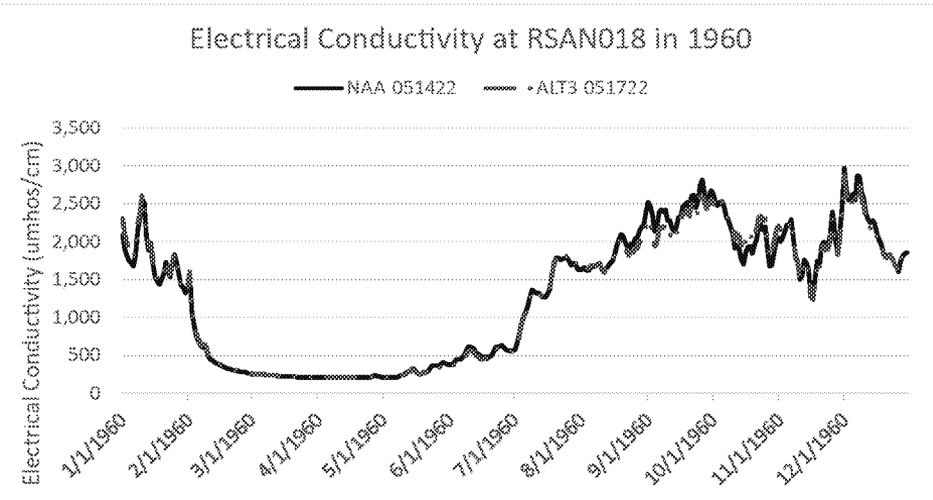
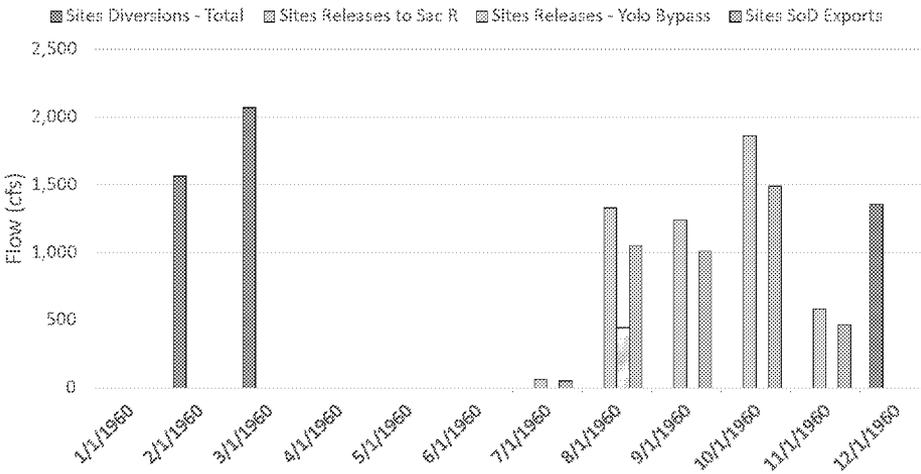
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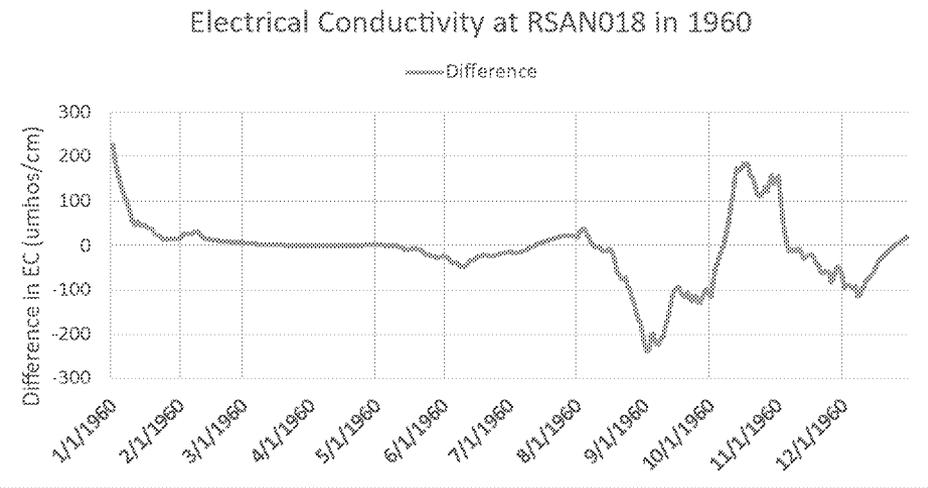
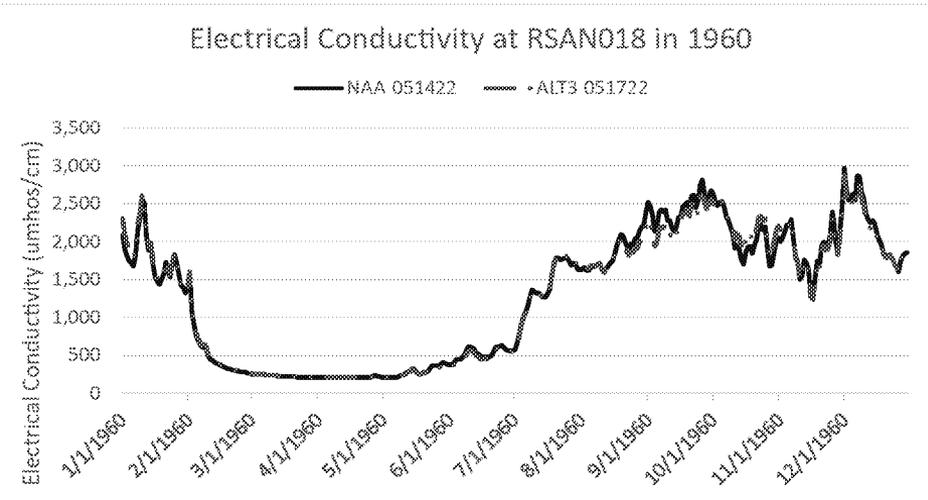
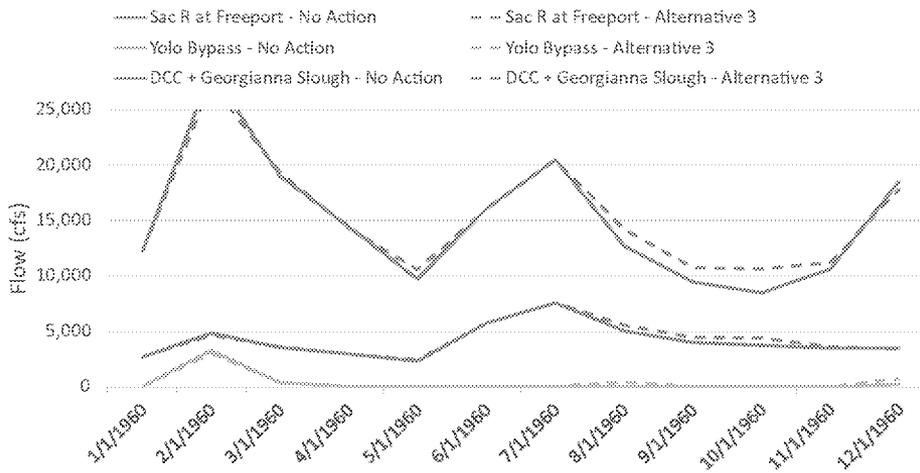
# Example Daily Timeseries Plots – 1960

- 1960 is a Dry Year;  
1961 is a Dry Year
- Overall, water is fresher in Dec 1960



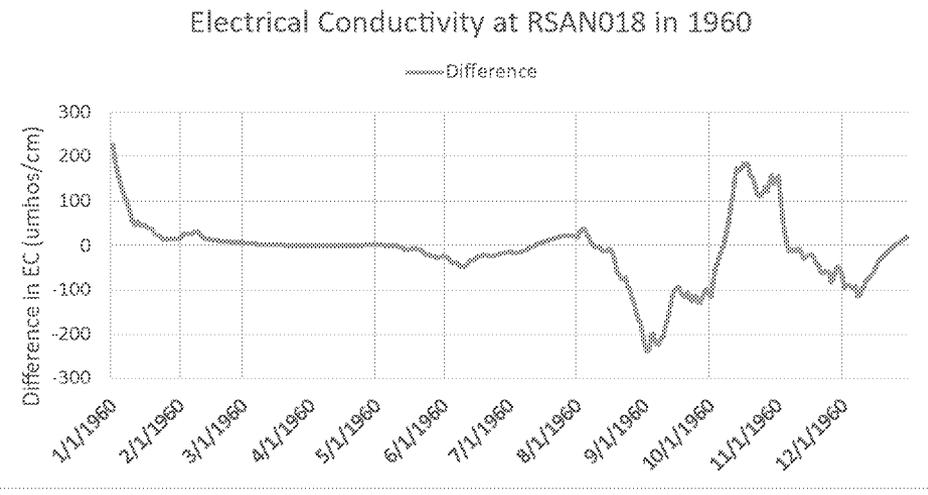
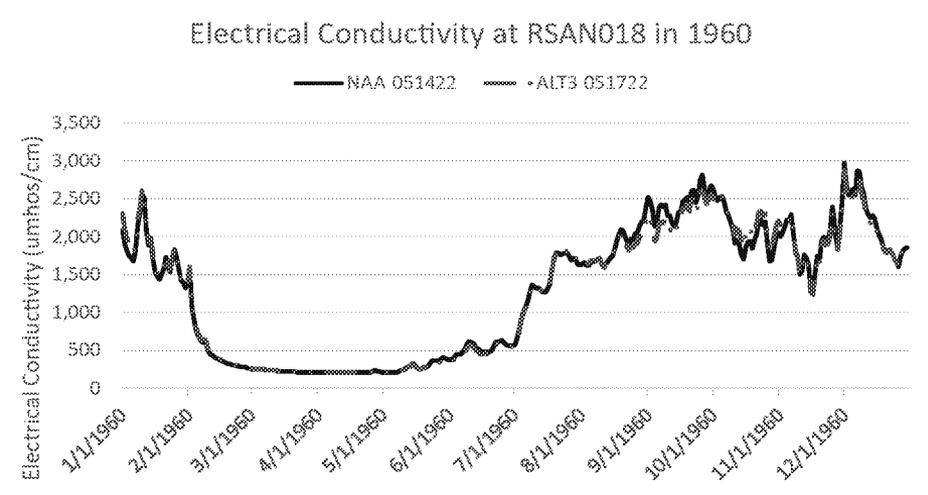
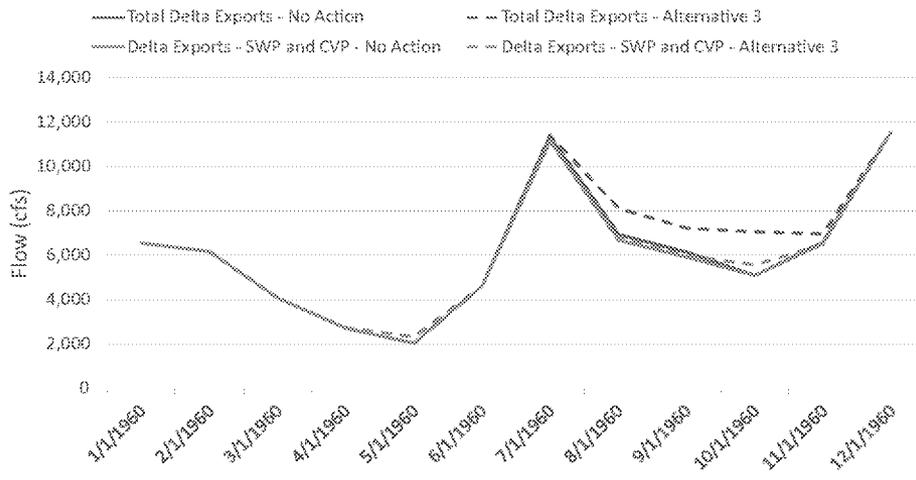
# Example Daily Timeseries Plots – 1960

- 1960 is a Dry Year;  
1961 is a Dry Year
- Overall, water is fresher in Dec 1960



# Example Daily Timeseries Plots – 1960

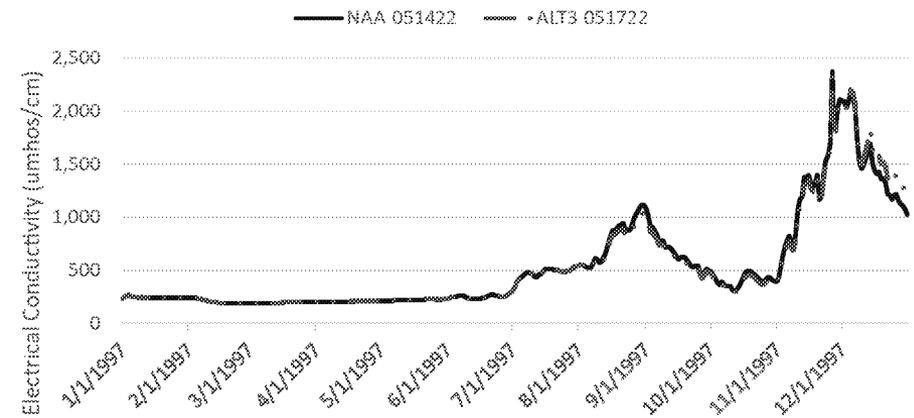
- 1960 is a Dry Year;  
1961 is a Dry Year
- Overall, water is fresher in Dec 1960



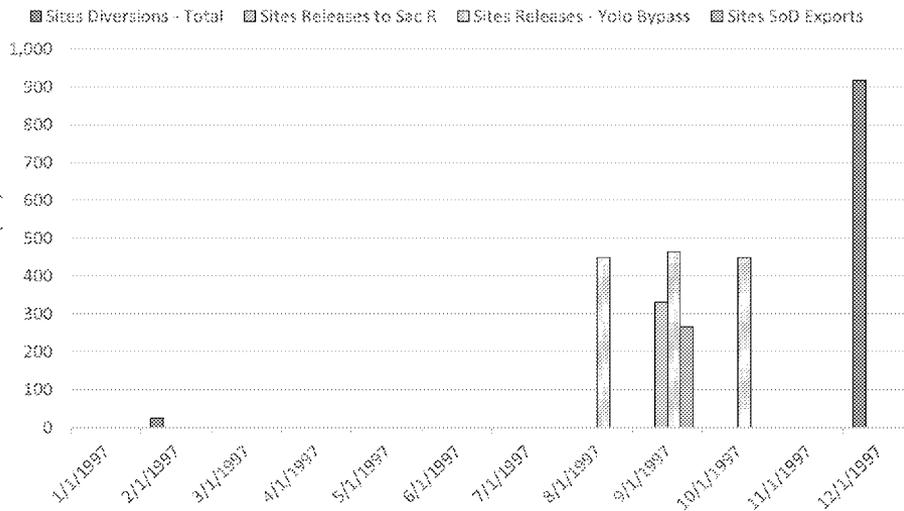
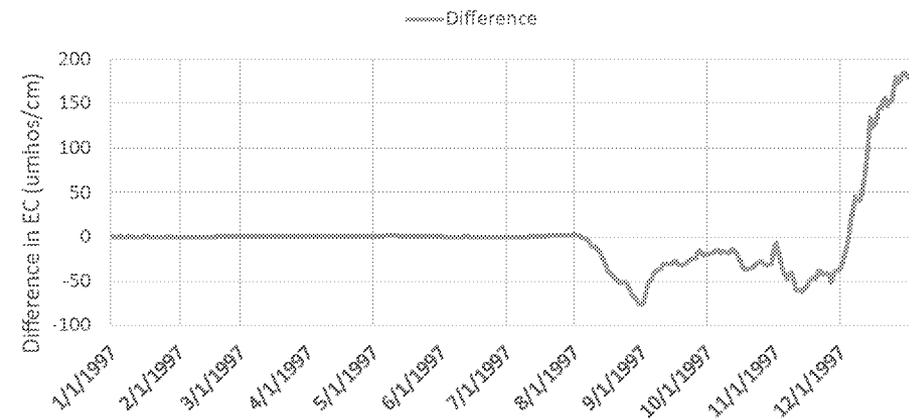
# Example Daily Timeseries Plots – 1997

- 1997 is a Wet Year;
- 1998 is a Wet Year
- Monthly average diversions

Electrical Conductivity at RSAN018 in 1997



Electrical Conductivity at RSAN018 in 1997



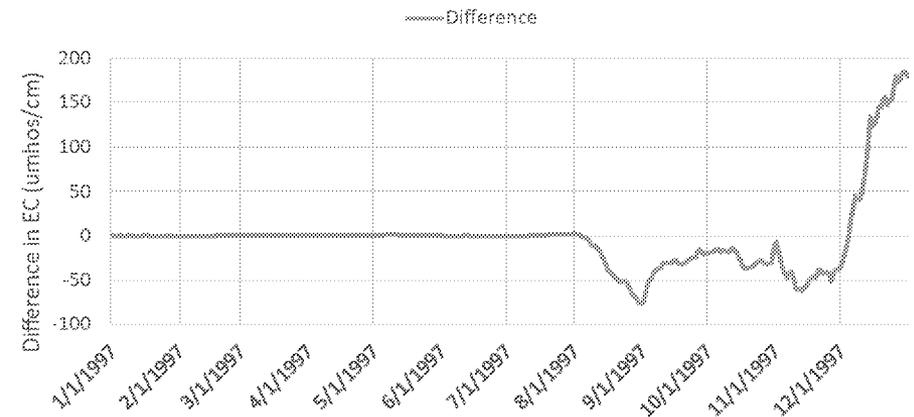
# Example Daily Timeseries Plots – 1997

- 1997 is a Wet Year;
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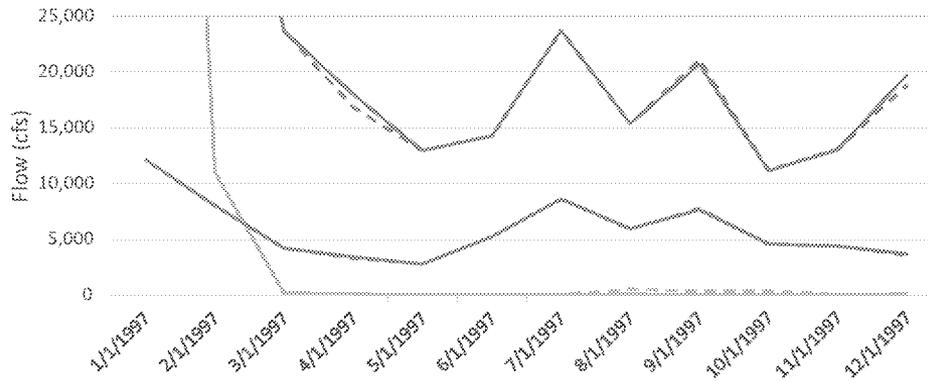
Electrical Conductivity at RSAN018 in 1997



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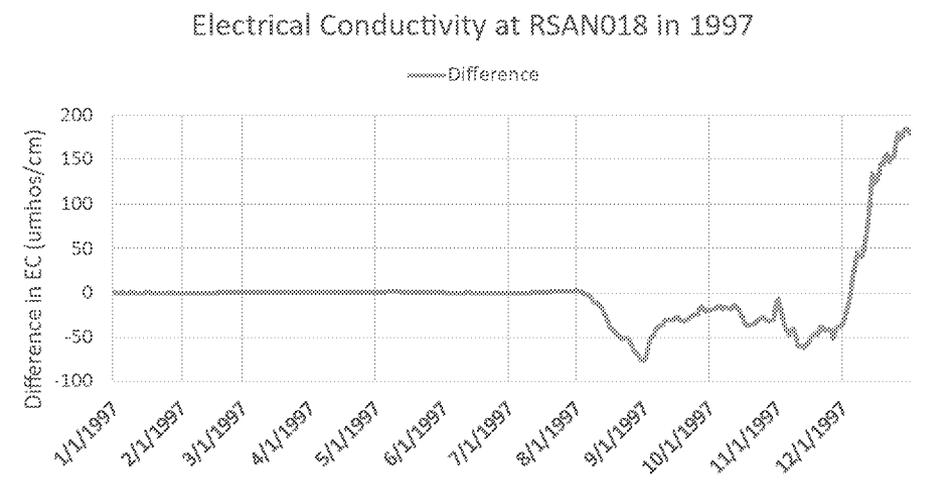
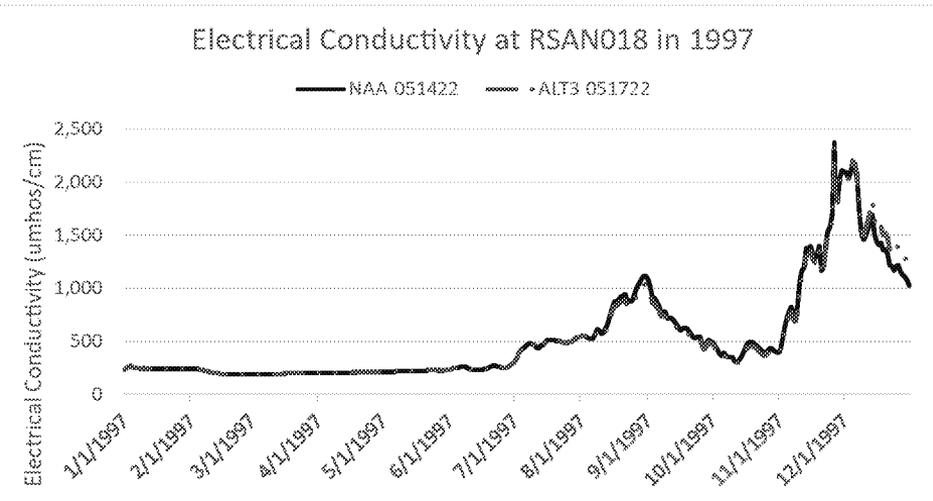


— Sac R at Freeport - No Action      - - - Sac R at Freeport - Alternative 3  
 — Yolo Bypass - No Action          - - - Yolo Bypass - Alternative 3  
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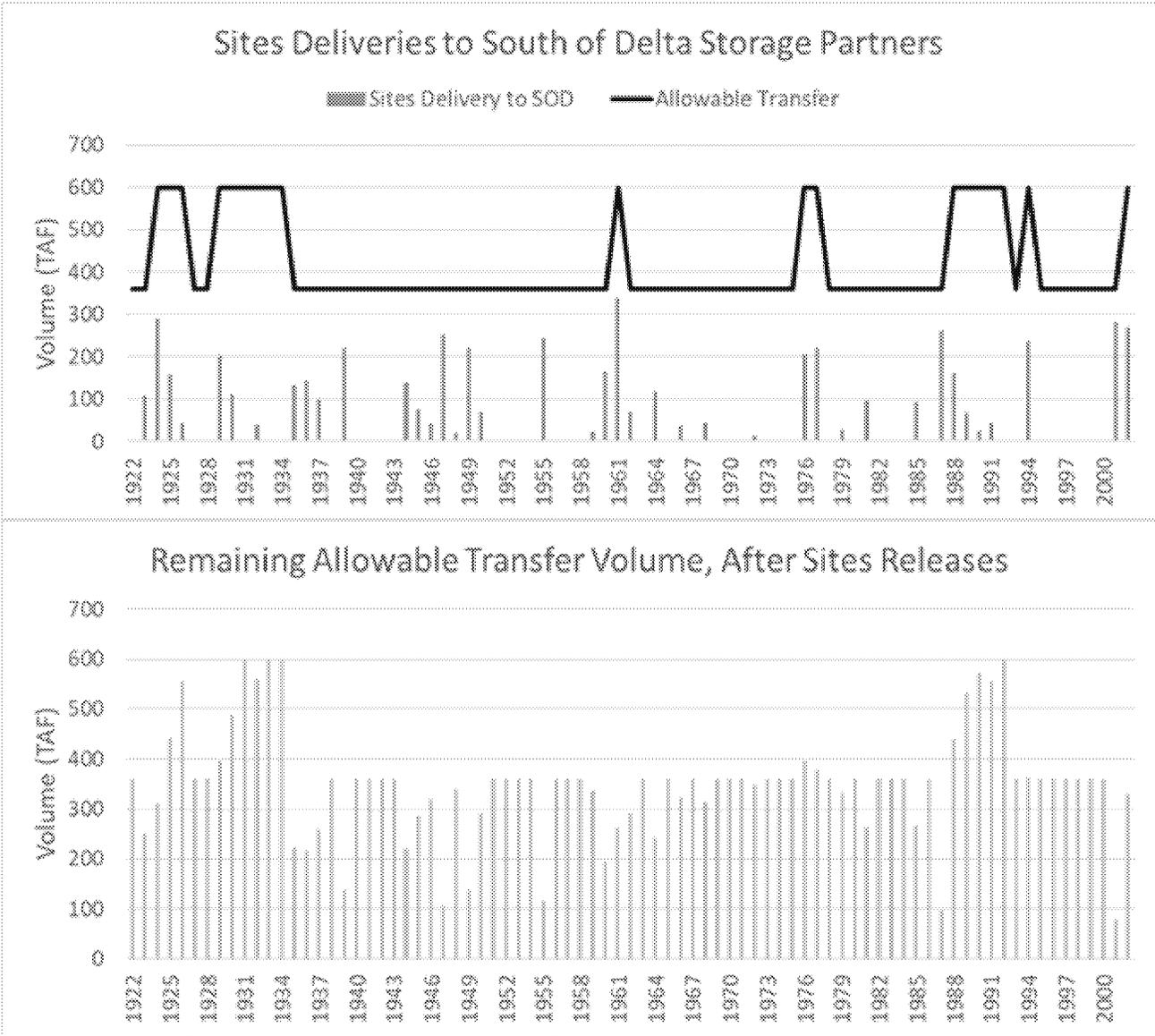
**File Provided Natively**

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**From:** Alicia Forsythe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A6CDF06A7E904B65BAA21702A82AD329-AFORSYTHE]  
**Sent:** 7/13/2023 3:47:29 PM  
**To:** Rob Kunde [rkunde@wrnwmsd.com]; Angela Bezzone [bezzone@mbkengineers.com]; Jeff Davis [jdavis@ppeng.com]; Cooke, Robert@DWR [Robert.Cooke@water.ca.gov]; Maroney, Jagruti@DWR [Jagruti.Maroney@water.ca.gov]; Wesley Walker [walker@mbkengineers.com]; Jerry Brown [jbrown@sitesproject.org]; Marc Van Camp [Vancamp@mbkengineers.com]; Stuhr, Gretchen [GretchenStuhr@countyofplumas.com]; Okita, David@DWR [David.Okita@water.ca.gov]; kloeser@buttecounty.net; cbuck@buttecounty.net; gyoung@zanjeroams.com; tpioro@yubacity.net; robthorman@countyofplumas.com  
**Subject:** RE: Sites Project Briefing for Butte & Plumas Counties/Yuba City  
**Attachments:** 20230711\_Sites Presentation for Butte\_Plumas\_Yuba Counties\_Final.pdf

Hello all – Thank you for the great discussion on Tuesday. Attached are the PowerPoint slides that I shared at our meeting.

At our meeting, I also committed to providing information on generally how much water Sites would be looking to move through the transfer window. The set of graphics included below provides a graphic overview of this. In the first graphic, Sites deliveries to south-of-Delta (SOD) members is shown along with the allowable transfer window from the 2019 Biological Opinions. The second graphic shows the remaining allowable transfer volume. I should share that these graphics are based on Alternative 1, which was our previous preferred alternative. Alternative 1 includes a Reclamation investment of up to 7% (CalSim models it at 7%). With Reclamation at a higher investment under Alternative 3 (up to 25% and modelled in CalSim at 25%), Sites would generally be looking to move slightly less water through the Delta to our SOD members. I suspect the difference is minor, but just wanted to be transparent.



Hope all of this information is helpful. If you have any questions on the Sites Project water right application or environmental documents, please don't hesitate to reach out.

Ali

-----  
 Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Project Authority | 916.880.0676  
 | [aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org) | [www.SitesProject.org](http://www.SitesProject.org)

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-----Original Appointment-----  
**From:** Marcia Kivett <[MKivett@sitesproject.org](mailto:MKivett@sitesproject.org)>  
**Sent:** Wednesday, July 5, 2023 7:41 AM  
**To:** Marcia Kivett; Alicia Forsythe; Rob Kunde; Angela Bezzone; Jeff Davis; Cooke, Robert@DWR; Maroney,

Jagruti@DWR; Okita, David@DWR; kloeser@buttecounty.net; cbuck@buttecounty.net; gyoung@zanjeroams.com; tpioro@yubacity.net; robthorman@countyofplumas.com

**Cc:** Wesley Walker; Jerry Brown; Marc Van Camp; Stuhr, Gretchen

**Subject:** Sites Project Briefing for Butte & Plumas Counties/Yuba City

**When:** Tuesday, July 11, 2023 1:00 PM-2:00 PM (UTC-08:00) Pacific Time (US & Canada).

**Where:** Microsoft Teams Meeting

---

**From:** Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Sent:** Tuesday, June 27, 2023 6:07:16 PM

**To:** Rob Kunde <[rkunde@wrmwsd.com](mailto:rkunde@wrmwsd.com)>; Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>; Marcia Kivett <[MKivett@sitesproject.org](mailto:MKivett@sitesproject.org)>; Jerry Brown <[jbrown@sitesproject.org](mailto:jbrown@sitesproject.org)>; Jeff Davis <[jdavis@ppeng.com](mailto:jdavis@ppeng.com)>; Cooke, Robert@DWR <[Robert.Cooke@water.ca.gov](mailto:Robert.Cooke@water.ca.gov)>; Maroney, Jagruti@DWR <[Jagruti.Maroney@water.ca.gov](mailto:Jagruti.Maroney@water.ca.gov)>; Okita, David@DWR <[David.Okita@water.ca.gov](mailto:David.Okita@water.ca.gov)>; kloeser@buttecounty.net <[kloeser@buttecounty.net](mailto:kloeser@buttecounty.net)>; cbuck@buttecounty.net <[cbuck@buttecounty.net](mailto:cbuck@buttecounty.net)>; gyoung@zanjeroams.com <[gyoung@zanjeroams.com](mailto:gyoung@zanjeroams.com)>; robthorman@countyofplumas.com <[robthorman@countyofplumas.com](mailto:robthorman@countyofplumas.com)>; Wesley Walker <[walker@mbkengineers.com](mailto:walker@mbkengineers.com)>

**Subject:** RE: Sites Project Briefing for Butte and Plumas Counties and Yuba City

Hi all – Marcia is going to help me with logistics here. Please keep an eye out for a doodle poll from her.

We will also be including days/times for the week of July 17 as I suspect some folks might have vacation next week around the Fourth of July holiday and thus, it may be hard to get this scheduled in the very near term.

Thanks all!

Ali

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Alicia Forsythe | Environmental Planning and Permitting Manager | Sites Project Authority | 916.880.0676  
| [aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org) | [www.SitesProject.org](http://www.SitesProject.org)

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**From:** Rob Kunde <[rkunde@wrmwsd.com](mailto:rkunde@wrmwsd.com)>

**Sent:** Monday, June 26, 2023 12:27 PM

**To:** Alicia Forsythe <[aforsythe@sitesproject.org](mailto:aforsythe@sitesproject.org)>

**Cc:** Angela Bezzone <[bezzone@mbkengineers.com](mailto:bezzone@mbkengineers.com)>; Marcia Kivett <[MKivett@sitesproject.org](mailto:MKivett@sitesproject.org)>; Jerry Brown <[jbrown@sitesproject.org](mailto:jbrown@sitesproject.org)>; Jeff Davis <[jdavis@ppeng.com](mailto:jdavis@ppeng.com)>; Cooke, Robert@DWR <[Robert.Cooke@water.ca.gov](mailto:Robert.Cooke@water.ca.gov)>; Maroney, Jagruti@DWR <[Jagruti.Maroney@water.ca.gov](mailto:Jagruti.Maroney@water.ca.gov)>; Okita, David@DWR <[David.Okita@water.ca.gov](mailto:David.Okita@water.ca.gov)>; kloeser@buttecounty.net; cbuck@buttecounty.net; gyoung@zanjeroams.com; robthorman@countyofplumas.com

**Subject:** Sites Project Briefing for Butte and Plumas Counties and Yuba City

Ali:

I have made contact with the SWP Feather River Contractors and all are willing to be briefed on the Sites Project. Their email addresses are in the cc: to this email. They are:

Kamie Loeser and Christina Buck, Butte County  
Rob Thorman, Plumas County FC&WCD  
Greg Young, Yuba City  
They may wish to invite other members of their organizations.

**Please arrange a poll** of the parties to this email for an initial 1 hour briefing for the following days subject to your input:

July 5, 7, 10, 11, 12 and 13.

DWR has been briefing the State Water Contractors on the Sites Project and Rob Cooke, Jagruti Maroney, and David Okita have made presentations. Some of this material will be suitable for the Feather River contractors. I will review my notes from our September 2020 meeting with them to see if there are additional issues to bring up. My rough outline would be:

1. Sites Project - General Description
2. Water Right Application
3. Relation to State Water Project
4. Other Feather River Items of Interest
5. Q&A and Followup

Also, we will need a planning meeting in order to decide on the initial presentation among Sites staff, Kunde, Davis, Cooke, Maroney, and Okita.

**Robert J. Kunde, P.E.**

Retired Annuitant  
Wheeler Ridge-Maricopa Water Storage District  
cell: 661-345-3719 email: [rkunde@wrmwsd.com](mailto:rkunde@wrmwsd.com)

---

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# Sites Reservoir Project Overview

Eastern Municipal Water  
District  
Sites Reservoir

July 19, 2023



## 'What if we had Sites?' – most recent storms update

- Estimate for January 2023 storms - ~250,000af
- Estimate for March-April 2023 ~250,000af
- Forecasted for May-June 2023. ~200,000af
- Total for 22/23 Season – **700,000af** (almost ½ of the reservoir)
- Estimates are based on operations simulation tool that monitors actual and forecasted river/Delta conditions
- This real-time analysis shows that the Project is capable of delivering the expected diversion performance



## Sites Project Authority

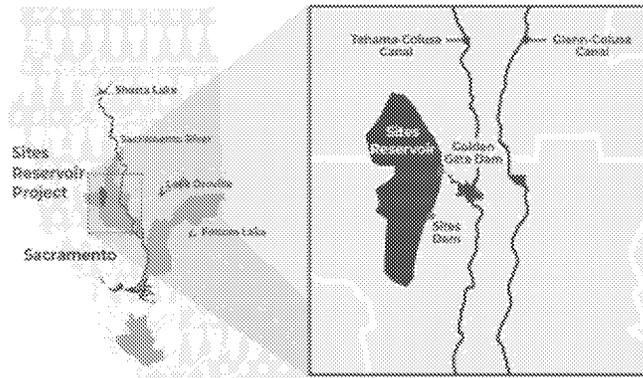
*'the Sites Project is a local led project'*

- Joint Powers Authority established under California law
- Authority member agencies located in the Sacramento Valley
- Reservoir Committee made up statewide agencies investing in the Sites Project
- The Sites Project Authority will own and operate Sites Reservoir

### Board of Directors:

Colusa County  
Colusa County Water District  
Glenn County  
Glenn-Colusa Irrigation District  
Placer County Water Agency/City of Roseville  
Reclamation District 108  
Sacramento/Sac County Water Agency  
Tehama-Colusa Canal

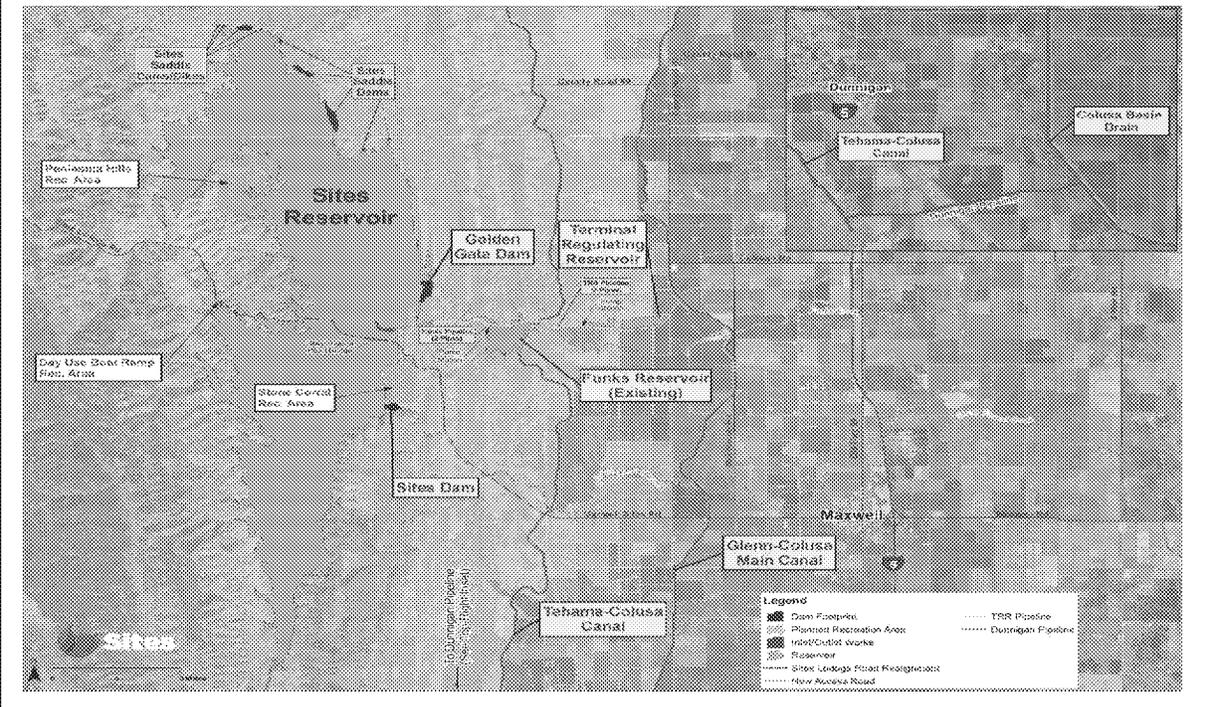
# Sites is a Climate Change Adaptation that Compliments California's Water Management



Sites is 100% rain fed.  
Project performance range  
under climate change  
scenarios  
No Change  $\longleftrightarrow$  +15%

Sites Reservoir Reservoirs  
are located in California, the  
State of California, the State of  
California, California

# Project Facilities



**Our Strength is in Our  
Broad Statewide Participation  
*'the Sites Project is Beneficiary  
Days!'***

**Sacramento  
Valley**

City of American Canyon  
Colusa County  
Colusa County Water Agency  
Cortina Water District  
Davis Water District  
Dunnigan Water District  
Glenn County  
Glenn-Colusa Irrigation District  
LaGrande Water District  
Placer County Water Agency  
Reclamation District 108  
City of Roseville  
Sacramento County Water Agency  
City of Sacramento  
Tehama-Colusa Canal Authority  
Westside Water District  
Western Canal Water District

**Bay Area**

Santa Clara Valley Water District  
Zone 7 Water Agency

**San Joaquin Valley**

Wheeler Ridge-Maricopa Water Storage  
District  
Rosedale-Rio Bravo Water Storage  
District

**Southern California**

Antelope Valley - East Kern Water  
Agency  
Coachella Valley Water District  
Desert Water Agency  
Irvine Ranch Water District  
Metropolitan Water District  
San Bernardino Valley Municipal Water  
District

**Waiting List**

Cal-Am Sacramento  
City of Napa  
Delta View WDA  
Glenn County  
La Cumbre MWC  
Madera County  
Pacific Resources MWC  
Palmdale WD  
Santa Clara Valley WD  
Western Municipal WD  
Westlands WD  
Wheeler Ridge Maricopa WSD  
Woodland Davis CWA



# Current Allocation of Active Sites Storage Space

(planning level estimates, subject to change)

Participant Name	Amendment 3 Participation Level	Amendment 3 Storage Allocation	% Available Storage <sup>1, 2, 3</sup>
Antelope Valley-East Kern WA	500	3,117	0.2%
City of American Canyon	4,000	24,936	1.8%
Coachella Valley WD	10,000	62,340	4.4%
Colusa County	10,000	62,340	4.4%
Colusa County WD	9,256	57,702	4.1%
Cortina WD	450	2,905	0.2%
Davis WD	2,000	12,468	0.9%
Desert WA	6,500	40,521	2.9%
Dunnigan WD	2,972	18,527	1.3%
Glenn-Colusa ID	5,000	31,170	2.2%
Irvine Ranch WD	1,000	6,234	0.4%
LaGrande WD	1,000	6,234	0.4%
Metropolitan Water District of SC	50,000	311,720	22.1%
Reclamation District 108	4,000	24,936	1.8%
Rosedale-Rio Bravo WD	500	3,117	0.2%
San Bernardino Valley Municipal WD	21,400	133,406	9.5%
San Geronio Pass WA	14,000	87,276	6.2%
Santa Clara Valley WD	500	3,117	0.2%
Santa Clarita Valley WA	5,000	31,170	2.2%
Westside WD	5,375	33,508	2.4%
Wheeler Ridge - Maricopa WSD	3,250	19,914	1.3%
Zone 7 WA	10,000	62,340	4.4%
State of California - Total	n/a	244,000	17.3%
Reclamation	n/a	128,020	9.1%
Available Storage Total	166,503	1,410,500	100.0%

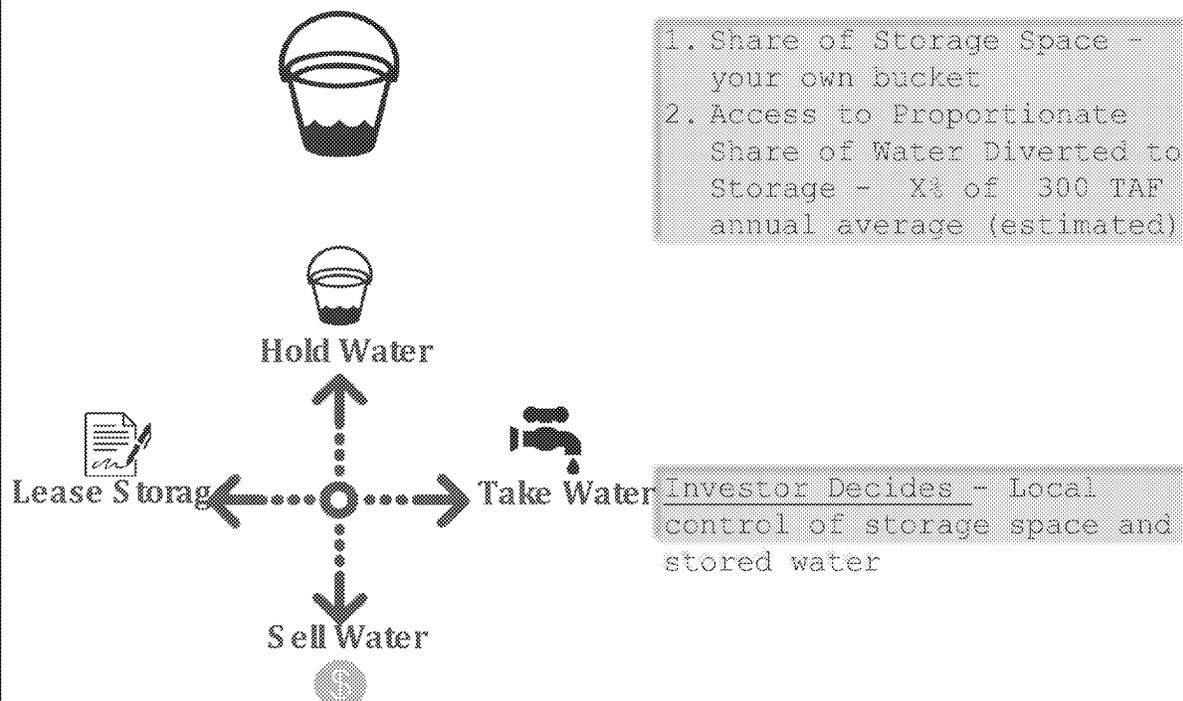
Percent Available Storage equals Capacity Interest in Base Facilities for Participants, a term to be defined in the Benefits and Obligation Contracts (Contract) to represent the granting of capacity in Sites Owned Base Facilities to Participants by the Sites Authority. Base Facilities will be defined in the Contract.

Capacity Interest in Sites Owned Downstream Facilities, including the Dunnigan Pipeline, will be allocated amongst the subset of Participants using Downstream Facilities to convey water to their Secondary Point of Delivery based on their Storage Allocation. Downstream Facilities will be defined in the Contract.

This is the proportionate share of water diverted that would be available to the Participant for storage in their allocated space.

4. Assumed total storage space available is 1,470,000 acre-feet based on most current surveying data and allocation of "dead pool" of 60,000 acre-feet.

# What Do You Get With Your Investment in Sites Reservoir?



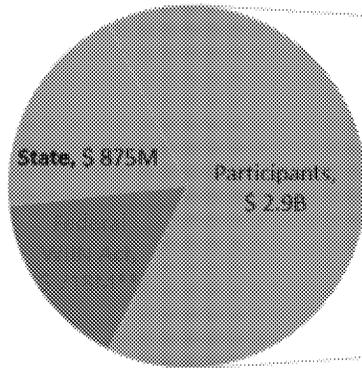
## Priority System For Project Participants – How the Two Guarantees Work

- Each Storage Partner has sole decision making over the use of their space and water
- Example: With 22/23 Sites Filling, MWD would have rights to ~155TAF of water, (22.1% of 700TAF). They could
  - Store this water in their 311TAF of storage space, if space available
  - Lease space from another Participant to store this water
  - Forego their rights to this water, allowing another to acquire a larger share
  - All water deliveries from Sites are “Through Delta” as non project water during transfer window (~Jul-~Nov)
- Other Considerations:
  - Modeling shows that “yield” improves with annual turnover
  - Storage Partners + waiting list = “Sites Marketplace”
  - Potential partnering with State and Federal uses

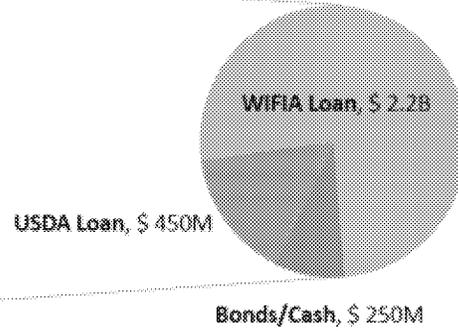
# Project Funding Sources

## *A Local, State, and Federal Partnership*

Project Investors



Participant Funding Sources



\*\*WIIN Act funding is based on 16% Reclamation investment under Alternative 3 (Preferred Project) and is reported in future dollars.

# General Comparison of Sites to Alternative Water Supply System Costs

TABLE 5-9. ALTERNATIVE WATER SUPPLY SYSTEM COSTS (\$/AF; \$2021)

	Supply Cost (\$/AF; \$2021)			Integration (\$/AF; \$2021)	Total Cost (\$/AF; \$2021)		
	Low	Medium	High		Low	Medium	High
<b>Stormwater Capture</b>							
Small (< 1.5 TAF)	\$653	\$1,253	\$1,413	\$321	\$1,001	\$1,674	\$1,786
Large (6.5 TAF - 8.1 TAF)	\$259	\$272	\$286		\$626	\$653	\$667
<b>Recycled Water - Non-Potable Reuse</b>							
Small (< 9.7 TAF)	\$599	\$653	\$1,265	\$1,048	\$1,646	\$1,701	\$2,313
<b>Recycled Water - Indirect Potable Reuse</b>							
Small (< 9.7 TAF)	\$1,646	\$2,041	\$2,449	\$503	\$2,163	\$2,558	\$2,953
Large (> 9.7 TAF)	\$1,238	\$1,442	\$1,742		\$1,742	\$1,946	\$2,259
<b>Brackish Water Desalination</b>							
Small (< 16.2 TAF)	\$963	\$1,660	\$1,905	\$121	\$1,125	\$1,782	\$2,027
Large (> 9.73 TAF)	\$925	\$1,116	\$1,347		\$1,048	\$1,238	\$1,469
<b>Seawater Desalination</b>							
Small (< 16.2 TAF)	\$2,735	\$2,898	\$4,504	\$215	\$2,953	\$3,116	\$4,721
Large (> 9.73 TAF)	\$2,082	\$2,136	\$2,865		\$2,095	\$2,340	\$2,865

Source: Casley et al., The Cost of Alternative Urban Water Supply and Efficiency Options in California 2015. AF (acre feet), TAF (thousand acre feet).

Sites Reservoir

\$850

\$450\*

\$1,300

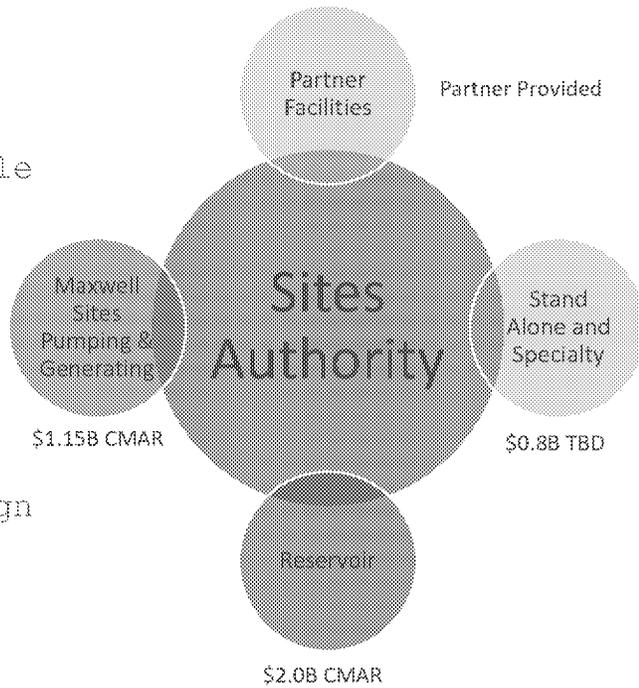
Supply costs are FOB out of the reservoir. Integration is estimated cost of transmission plus Through-Delta and other conveyance losses. Total cost is delivered through the state water project system to the Los Angeles region.

## Environmental Planning & Permitting Update

- Environmental Impact Report
  - 2017 Draft Document
  - 2021 Revised Draft document
    - Released for public review in November 2021
    - Comment period closed in January 2022
  - 2023 Final document
    - Expected in September 2023
    - All concerns evaluated
    - Revisions to 2021 draft included
    - Response to comments
- Water Right Permit
  - Submitted application to State Board in May 2022
  - Board notice for public review/protests in

# Engineering Update

- **2021** – Completed the Feasibility Analysis
  - The California Water Commission Determined the Project is Feasible
- **2022-2024** – Conducting Field Studies
  - Survey Mapping & Geotechnical Investigations to Inform Preliminary Engineering Analysis and Design
- **2024** – Complete 30% Design
  - Update Project Cost Estimate
- **2024** and Beyond – Key Agency Reviews and Approvals



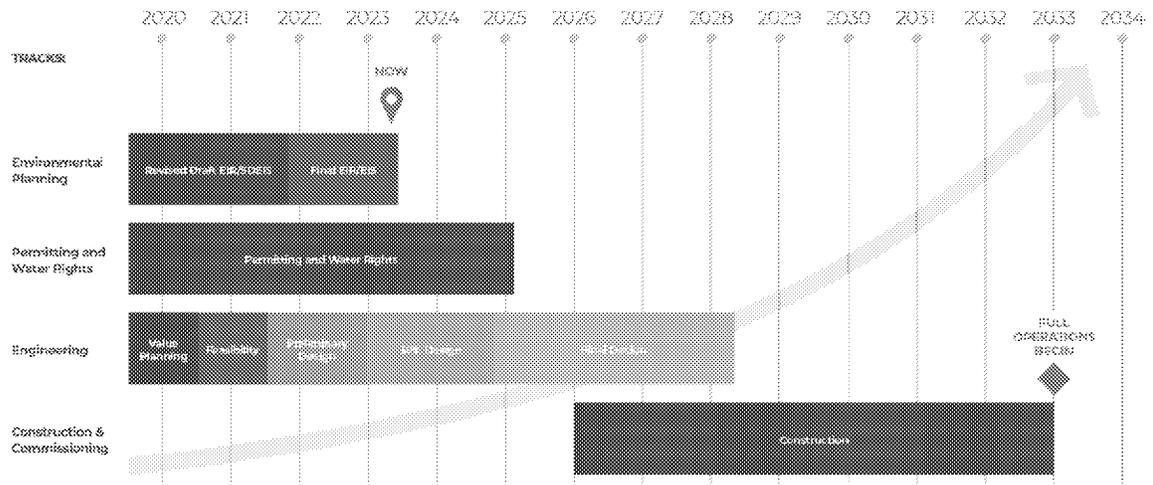
# Real Estate Update

- Coordinating with Landowners on project design. Two most frequently asked questions:
  - anticipated land needs and
  - timing for acquisition
- Securing Temporary Rights of Entry (TROE) and other agreements to conduct necessary technical field activities
- Having acquisition discussions on key project parcels or parcels associated with major project infrastructure
- Land Acquisition anticipated to start in 2024.



# Project Schedule

## Sites Reservoir Project Schedule



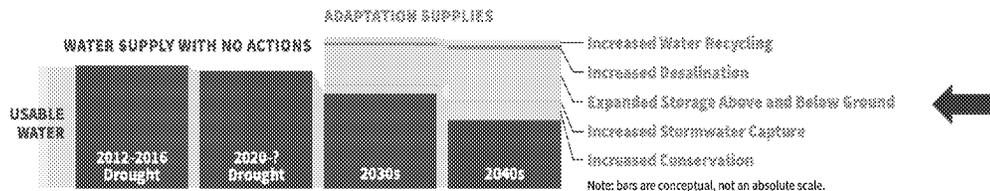
# Questions



# What Problem Does the Sites Project Help Solve?

Over the next 20 years, California could lose 10 percent<sup>1</sup> of its water supplies.

Our climate has changed, and the West continues to get hotter and drier. As it does, we will see on average less snowfall, more evaporation, and greater consumption of water by vegetation, soil, and the atmosphere itself.



In previous droughts the ratio of precipitation to evaporation to runoff has been similar. However, as temperatures rise, evaporation increases, with the consequence of a fall in runoff. As average temperatures continue to increase, the increase in evaporation will continue, with a concurrent drop in runoff.

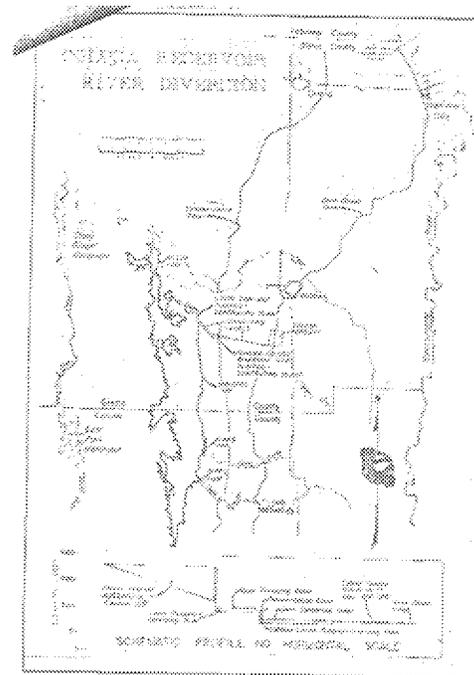
Excerpted from Aug 2022 "California's Water Supply Strategy, Adapting to a Hotter, Drier Future"

## Most Frequently Asked Question

Why is it taking so long to build Sites Reservoir?

## A Walk Down Memory Lane

- **1957** - DWR Bulletin 3 identifies Sites Reservoir "like" in the 1957 California Water Plan
- **1977** - DWR files several applications for water rights related to the Colusa Reservoir River Diversion
- **1997 through 2010** - Reclamation/DWR evaluate "NODOS", part of CALFED program, locals not happy
- **2010** - Sites Joint Powers Authority is formed to serve as the



## Sites Project History

- **2014** – California passes Proposition 1 that provides \$2.7 billion for water storage projects, dams and reservoirs.
- **2016/17** – Sites Project Reservoir Committee formed. Draft EIR/EIS released
- **2018** – Project is awarded \$816 million from Proposition 1 and a \$449 million construction loan from USDA
- **2019** – The Sites Project goes through an extensive value planning process to make the project affordable, permittable, and buildable.
- **2020/21** – Authority establishes its Strategic Plan, Federal and State feasibility certified, Authority releases revised Draft EIR/EIS, (i.e. Sites 2.0)
- **2022** – The Sites Project is invited to apply for a \$2.2 billion EPA WIFIA loan (3X larger than any previous loan amount) and submits its Water Rights Application.

# Overview of Sites Reservoir Project

- The Project is a multi-benefit, beneficiary pays off-stream surface storage project that will help provide needed flexibility, reliability and resiliency to California's water supply.
- **The Project will capture and store stormwater flows from the Sacramento River (after all other water rights and regulatory requirements are met) for release primarily in dry and critical years for California communities, farms, and ecosystems.**
- The Project will use existing intakes with state-of-the-art fish screens. Diversions would only occur when permitted river flows exist that are protective of river and Delta aquatic species.
- The Sites Authority has applied for a new water right to divert water from the Sacramento River at Red Bluff and Hamilton City.
- The Project includes about 180 miles of conveyance. Only about 20 miles is new facilities. The remainder is shared existing infrastructure.
- **Sites water is to be conveyed "through Delta" to southern California participants - not reliant upon the proposed Delta Conveyance Project.**
- The Project is climate resilient; it does not rely on snowmelt but will capture winter river runoff from uncontrolled streams below existing reservoirs in the Sacramento Valley.
  - As such, it will inherently adapt to future climate conditions and will be operated to improve water supply resilience to predicted

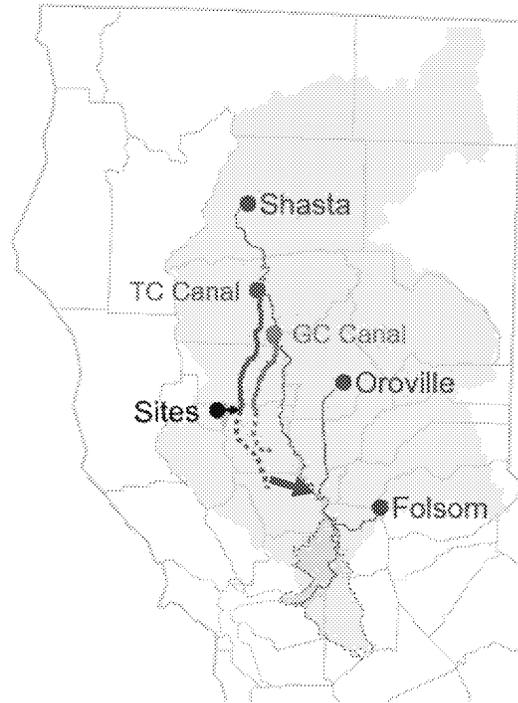
## State Participation Overview

- Prop 1 WSIP – California Water Commission
- 244,000 af of storage and 17.3% of divertable water
- ~\$875M committed to date
- Public Benefits
  - Flood Control ~\$50M
  - Recreation \$225M
  - Ecosystem ~\$600M
- Opportunity to advance Environmental Water Manager concept



## Federal Participation (in progress)

- WIIN/BIL - Bureau of Reclamation
- Has expressed interest in 16% capacity share, currently only 9% available
- ~\$200M committed to date
- Federal Benefits
  - Anadromous Fish temperature control,
  - Refuges,
  - CVP water supply
- WRLCM results demonstrate positive effects for winter run salmon



## Governor Permit Reform Proposal

- Sites will be a requesting certification
- Three areas of primary interest in the package:
  - Executive Order - directive to expedite state permits and approvals, continuing the Strike Team
  - CEQA Trailer Bills - Court resolution of CEQA lawsuits within 270 days, streamlining the admin record
  - Species Designations Trailer Bill - Some of the species changing status possibly occur within the Sites valley.
- Overall Effect - Positive; reduces uncertainty
- Specific - may reduce water rights

# Other Items of Potential Interest



# Overview of Amendment 3 Participants

▪ Participants generally include large urban water wholesalers downstream ("South of Delta") and small agricultural districts primarily located in the Sacramento Valley ("North of Delta")

▪ South of Delta participants comprise 59% of Participants and 76% of total Project subscriptions

▪ North of Delta participants comprise 41% of Participants and 24% of total Project subscriptions

▪ 65% of total Project subscriptions are rated A or higher by S&P

▪ Four Participants (Metropolitan Water District of Southern California, San Bernardino Valley Municipal Water District, Zone 7 Water Agency, and Coachella Valley Water District) are rated AAA/AA+ by S&P and account for 55% of total Project subscriptions

▪ The single largest user of water from Sites is the ecosystem portion of the State's Prop 1 investment.

Sites Amendment 3 Participants	Acre Foot Participation
Antelope Valley-East Kern WA	500
City of American Canyon	4,000
Coachella Valley WD	10,000
Colusa County*	10,000
Colusa County WD*	9,256
Cortina WD*	450
Davis WD*	2000
Desert WA	6,500
Dunnigan WD*	2972
Glenn-Colusa ID*	5000
Irvine Ranch WD	1,000
La Grande WD*	1000
Metropolitan Water District of SC	50,000
Reclamation District 108*	4000
Rosedale-Rio Bravo WD	500
San Bernardino Valley Municipal WD	21,400
San Geronio Pass WA	14,000
Santa Clara Valley WD	500
Santa Clarita Valley WA	5,000
Westside WD*	5375
Wheeler Ridge - Maricopa WSD	3050
Zone 7 WA	10,000
<b>Total</b>	<b>166,503</b>

\*Denotes North of Delta participant

Denotes agricultural participant

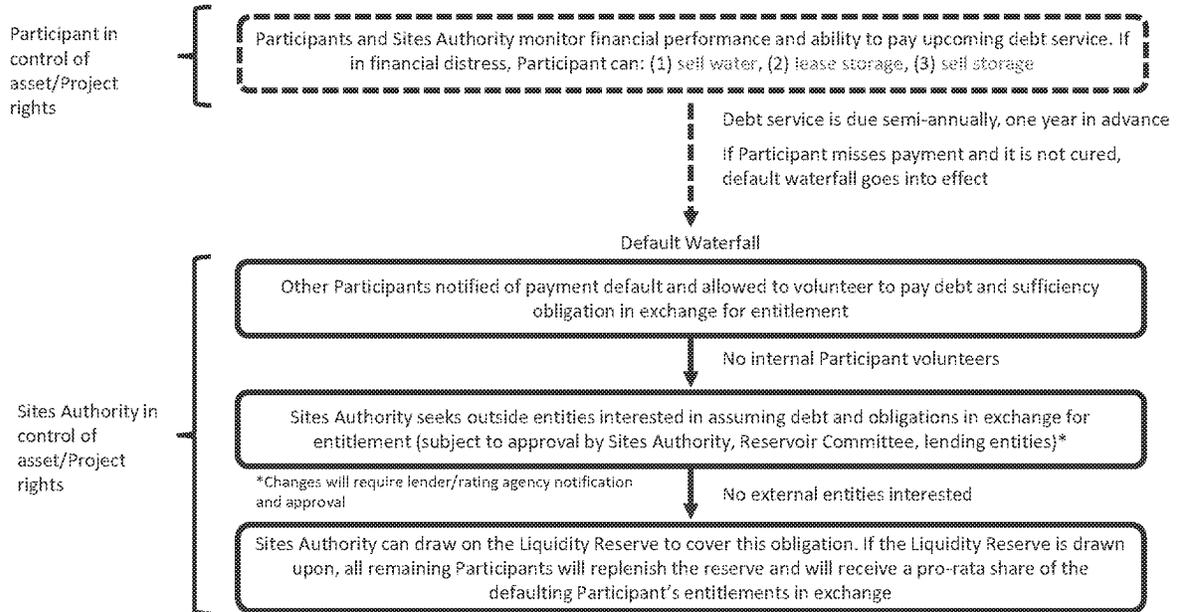
# Securing Revenue to Meet WIFIA Loan Debt Service

- Prior to execution of the WIFIA loan, Sites Authority will enter into a Sites Reservoir Benefits and Obligations Contract (Contract) with Participants that will require Participants to collect revenue sufficient to fund their share of pooled debt service
- Participants have several potential sources of funds that can be used to meet Project financial obligations: (1) include costs on Participant's DWR State Water Project Annual Statement of Charges; (2) levy benefit assessments or other land-based charges; (3) incorporate costs into water rates and charges; or (4) pay-go their share of costs

Rates and Charges or Benefit Assessment (with or without Prop 218)	Land-Based Charges	State Water Project Statement of Charges (through property taxes)
City of American Canyon	Colusa County <sup>4</sup>	Antelope Valley-East Kern
Glenn Colusa Irrigation District	Colusa County WD	Coachella Valley WD
Irvine Ranch Water District <sup>3</sup>	Cortina WD	Desert WA
MWD of Southern California	Davis WD	San Bernardino Valley MWD
Santa Clara Valley WD	Dunnigan WD	San Geronio Pass WA
Santa Clarita Valley WA	La Grande WD	
Reclamation District 108 <sup>1</sup>	Reclamation District 108 <sup>1</sup>	
Rosedale-Rio Bravo WSD	Westside WD	
Zone 7 WA	Wheeler Ridge Maricopa WSD <sup>2</sup>	
Notes:		
1. Still to be determined whether using Rates and Charges or District-wide land-based charges		
2. Land-based charges imposed via recorded Benefits and Obligations Contracts on Certain Lands		
3. Irvine Ranch Water District is exploring funding its share of capital costs separately from the group participating in the pooled Loan borrowing, but is currently included in the group financing for purposes of the pro forma		
4. Colusa County is exploring funding its share of capital costs as a General Fund obligation		

## Summary of Key Security Covenants/Terms

- Contract will also include a default “waterfall” process that will be utilized if a Participant fails to pay by the due date. If Participant efforts outlined below are not successful, the Authority will have the right to suspend or terminate the Contract, including selling water and storage



Discuss JPA rights in case of default

## Summary of WRLCM Results

- The Project has a slightly positive effect on winter-run with the potential to increase the overall population
- Benefits to winter-run are associated with periodic reductions in late summer water temperatures that decreases salmon egg mortality
  - Likely driven mostly by Reclamation’s investment and exchanges with Reclamation
- Model runs included Alternative 3 with Reclamation investment at both a 25% (Alt 3A) and 16% (Alt 3B)
  - Alt 3A has slightly greater benefits than Alt 3B

Draft - Predecisional Working Document - For Discussion Purposes Only

28

Speaker: Ali

Draft - Predecisional Working Document - For Discussion Purposes Only

# Summary of Water Availability Results

Approach	Result Take-away	Annual Average Available (AFY)	Max Water Available (AF)
Historical	Water available in all year types* and 18 of 22 years	748,000	3,879,000
<b>CalSim II</b>			
Historical hydrology	Water available in all year types and 74 of 82 years	1,448,000	5,249,000
Climate change -- 2035 Central Tendency	Water available in all year types and 73 of 82 years	1,518,000	5,330,000
Climate change -- 2070 Central Tendency	Water available in all year types and 70 of 82 years	1,455,000	5,176,000
Unimpaired Flow -- Based on Reclamation's Alternative 4 in their 2019 Reconsultation EIS	Water available in all year types and 73 of 82 years	1,518,000	5,330,000
Face Value	Water available mainly in wet and above normal years and 55 of 93 years	1,118,000	8,681,000

\*Based on the Sacramento Valley Water Year Index (40-30-30 Index)

## Project Next Steps/Goals: 2022 - 2024

- ✓ Secure Final Prop 1 Funding award with CWC
- ✓ Execute Final Operations Agreement
- ✓ Secure WIIN and BIL Federal Funding
- ✓ Complete WIFIA/USDA Loan Agreements
- ✓ Execute Benefits and Obligations Contracts
- ✓ Complete Final EIR/EIS
- ✓ Obtain Critical Environmental Permits (BO, ITP, 404)
- ✓ Receive Water Right Order and Permit
- ✓ Obtain Local Agency Agreements and Permits
- ✓ Execute Benefits Contracts with DWR and 

## Project Next Steps/Goals: 2022 - 2024

- ✓ Develop Mitigation Acquisition Master Plan
- ✓ Initiate Application for DSOD Permit to Construct
- ✓ Advance Engineering Design to achieve Level 3 cost estimate
- ✓ Determine Procurement and Delivery Strategy
- ✓ Determine Overall Project Schedule
- ✓ Develop and Implement Land Acquisition Master Plan
- ✓ Conduct Geotech Investigations and Evaluations
- ✓ Perform Geotech Evaluation of all "Willing Seller" Properties
- ✓ Determine Organization Structure and Governance



# Site Visit Summary and Commercial Aggregate Sources Technical Memorandum



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**To:** Sites Project Authority (J.P. Robinette)  
**CC:** Henry Luu, P.E. (HDR)  
**Date:** July 14, 2023  
**From:** Mike Forrest, P.E., G.E. (AECOM)  
**Quality Review:** Mike Smith, P.E., G.E., Bill Davis (AECOM)  
**Authority Agent Review:** Henry Luu, P.E. (HDR)  
**Subject:** Site Visit Summary and Commercial Aggregate Sources  
Task HR24.08, Task Order No. 4

---

## 1.0 Introduction

This technical memorandum (TM) summarizes visits to Teichert’s Western Aggregates near Marysville on June 21, and Orland Sand & Gravel (OSG) near Orland and another OS&G material source near Artois on June 22. The Artois site is currently not producing materials. The information gained from these visits will be used in construction planning and cost estimating of the filter, drain, road base, and concrete aggregate materials for the reservoir facilities, especially for the dams and roads.

The locations of Teichert’s Western Aggregates and OSG’s Orland and Artois sites are shown in Figure 1.



Figure 1. Locations of Teichert’s Western Aggregates and OSG’s Orland and Artois sites

## 2.0 Participants

The site visit participants are listed below:

### Teichert Visit (6/21/23):

Authority	Consultants	Teichert
J.P. Robinette	Mike Smith (AECOM)	Nathan Rinaldi
	Mike Forrest (AECOM)	Stephan Buol
<b>HDR</b>	David Hughes (AECOM)	
Henry Luu	Dave Schug (AECOM)	
	Bill Davis (AECOM)	
	Alberto Pujol (GEI)*	
	Isabelle Rawlings (GEI)*	
	Dan Hertel*	
	Mike Pauletto*	
	Eric Bennett*	
	Phil Martin*	

\*Subconsultant to AECOM

### Orland Sand & Gravel Visit (6/22/23):

Authority	Consultants	Orland Sand & Gravel
---	Mike Smith (AECOM)	D.R. "Doc" Bogart
	Mike Forrest (AECOM)	
<b>HDR</b>	David Hughes (AECOM)	
Henry Luu	Dave Schug (AECOM)	
	Bill Davis (AECOM)	
	Dan Hertel*	
	Mike Pauletto*	
	Eric Bennett*	
	Phil Martin*	

\*Subconsultant to AECOM

## 3.0 Preliminary Material Requirements

The critical materials for dam construction are the downstream (of the core zone) filter sand and drain gravels. In summary, these are clean materials with very little fines (less than 3% passing the No. 200 sieve after placement and compaction in the dams). The top size of the filters is about 3/8-inch and 1-inch for the drains. The full preliminary material gradations and durability requirements are presented at the end of the Material Source Survey forms in Appendices A to C.

The preliminary material quantity requirements are summarized in Table 1 below.

**Table 1. Preliminary Material Quantity Requirements**

Location	Import - Max. Rough Qty (M tons)	Import - Min. Rough Qty (M tons)
Zone 2A – Downstream Filter	1.5	1.5
Zone 2A – Downstream Drain	1.6	1.6
Zone 2A – Downstream Transition	0.3	
Zone 2B – Upstream Filter	0.6	
Zone 2B – Upstream Transition	0.6	
Class 4 Aggregate Subbase	0.3	
Class 2 Aggregate Base	0.5	
Concrete Aggregate	0.6	0.6
<b>Total</b>	<b>6.0</b>	<b>3.7</b>
Borrow and process on site		
TPD, for 800 days	7,500	4,625
TPD, for 1200 days	5,000	3,083

We are evaluating the potential to produce the less critical zones (upstream filter and transition materials and road base) from on-site processing of sandstone, thus reducing the import requirement from 6.0 million tons to 3.7 million tons as shown in Table 1.

#### **4.0 Summary of Commercial Aggregate Supplier Visits**

Information from the aggregate suppliers is summarized below with details in survey sheets in the appendices. The attached Material Source Survey sheets (Appendices A to C) were sent to Teichert and Orland Sand & Gravel following the June 21 and June 22 visits.

##### **4.1 Teichert**

On June 21, we visited Teichert’s Western Aggregates operation near Marysville. Teichert also has several other operations as indicated in Appendix A. Teichert produces a full spectrum of sand and gravel materials. They provided material specifications and costs (Appendix A). Their total productivity was stated to be 750 tons/hour (TPH), 2.8 million tons per year; this productivity can be increased on demand. Teichert can also set up off-site processing plants. Photos of Teichert’s Western Aggregates operation are included in Appendix A.

Teichert has the capacity to produce the required materials. Their operations are some 50-55 miles from Sites Reservoir by road. There are potential rail options at their Hallwood facility and the nearby Beale Airforce Base, which will be further evaluated.

##### **4.2 Orland Sand and Gravel**

On June 22, we visited Orland Sand & Gravel operations near Orland and Artois. The OS&G Orland site can produce 475,000 tons per year sand and gravel from both on-land and in-river deposits near Orland;

however, their permit can be modified to increase capacity. They provided material specifications and costs (Appendix B) [specs to come]. The OS&G plant has a California-Northern rail siding at their plant with capacity for 20 railcars (100 tons per car). Photos of OS&G's Orland operation are included in Appendix B.

OS&G also has a 78-acre source near Artois, six miles south of the Orland site that is currently not in operation, but has produced road base. That operation could produce 500,000 cubic yards/year. Appendix C provides information on the Artois site. Photos of OS&G's Artois operation are included in Appendix C.

OS&G's current aggregate processing operation does not appear by itself to be able to produce the required filter and drain materials. Other operations in the area would be needed to supplement OS&G materials to meet the Project demands. OS&G operations are about 30-35 miles from Sites Reservoir, and a rail siding is available at the Orland site for haul to a rail siding near Delevan Road.

## 5.0 Meetings / Discussions

In addition to the commercial aggregate suppliers discussed above, the Sites team also discussed other items related to on-site sandstone rock construction materials as summarized in the notes below.

- Transition Zones 4A and 4B (new concept), between the upstream rockfill shell and the clay core, could be produced concurrently from fresh sandstone using a jaw crusher and screening operation.
- Zone 4 "random" fill would be placed in 18-inch lifts and Zone 3 rockfill would be placed in 36-inch lifts. The dam section is shown in Figure 2 below.

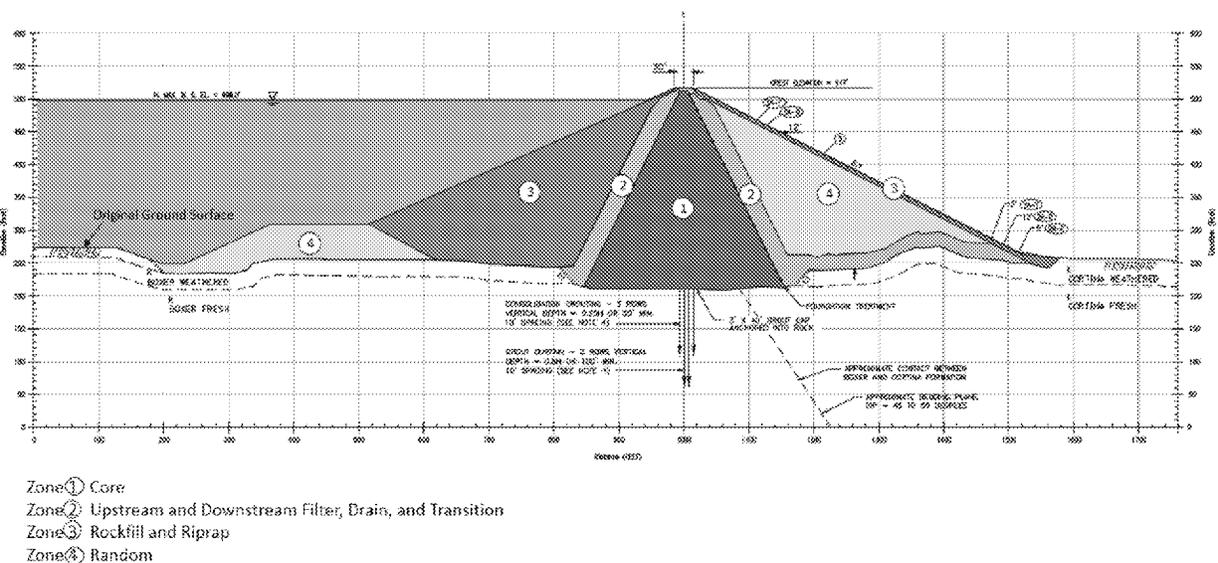


Figure 2. Typical Dam Section (Feasibility-level)

- Photos of the Brownstone and Thompson Venado sandstone quarries, located downstream of the Sites Dam site, are presented in Appendix D. It is not proposed to re-open these two quarries that have been used for Venado sandstone in the past. Rather, based on geology, these former quarries are good examples of the sandstone rock quality anticipated (from the

proposed new quarries nearby). Sandstone is proposed for use in Zone 3 and riprap, and potentially for transition zones in the dam and for road base as mentioned in Section 3.0.

- Zone 3 rockfill and riprap would be produced from the same blasting operation. Riprap would be separated out from the Zone 3. Rock breakers (hoe-rams) would be used as needed to reduce rock sizes. This source will require test blasts and test fills to inform expected material gradations and placement and compaction requirements.
- For the quarry working and staging areas, a 200 to 300-foot-wide pad that spans the length of the toe of the quarry area would be required. This pad would be constructed of quarry surface stripping materials.
- The sandstone quarry should be sized for twice the required rock materials.
- The EIR should be checked to confirm the limits of the quarries, the working pad and Limits of Work.
- For blasting in the vicinity of roadways, typically there will need to be a 30 minute road shutdown; traffic would be kept back at least 1500 feet from the blast site. We should figure on one quarry shot per day, and this would occur between the day and night shifts.
- Quarry work is done in three parts: (1) drill – double shift; (2) blast – single shift, and (3) excavate - double shift. A 4-inch drill may be used; the actual drill hole diameter will be determined for estimating purposes.
- Blasting in the quarries would involve 20-foot-wide benches at 40-foot vertical intervals. Slopes between benches may be 1H:4V (to be confirmed). The actual bench heights, slopes, and bench widths will be determined for quarry layout purposes.
- There will be overbuild for the chimney filter and drain zones. For our cost estimating purposes, we should increase the quantities of the chimney zones over the neat-line quantities to account for the overbuild. However, for bidding purposes, we should provide neat-line quantities; the contractor will be responsible to estimate its own overbuild quantities.
- Direct haul of the imported materials to the embankment dam fill may not be feasible because the trucks could get stuck. Instead, a transfer station could be used for site trucks to haul to the fill.
- Portable plants can typically produce 150 to 200 tons per hour. The crusher plant will need feed materials that are less than 2-foot size. We can assume about 2 MW would be required for portable crusher plants.

## 6.0 Conclusions

The information contained in this TM will be considered in our future construction planning and cost estimation. Additional commercial aggregate sites will be surveyed, some of which are listed in AECOM's Final Feasibility-Level Cost Estimate TM (May 20, 2021).

We informed the commercial aggregate suppliers that they would enter into agreements with the general contractor to supply the required filter and drain materials and concrete aggregates.

**APPENDIX A**  
**COMMERCIAL BORROW SOURCE SURVEYS**  
**TEICHERT**

**SITES RESERVOIR PROJECT  
COMMERCIAL BORROW SOURCE SURVEY**

**BORROW SOURCE NAME:** Teichert Rock Products, near Marysville

**NAME OF CONTACT:** Nathan Rinaldi PE, Director of Alternative Procurement; Stephan Buol, Accounts Manager

**CONTACT PHONE/EMAIL:** [nrinaldi@teichert.com](mailto:nrinaldi@teichert.com) / M: 559-259-9213; [SBuol@teichert.com](mailto:SBuol@teichert.com) / 530-906-7180

**DATE OF CONVERSATION/CONTACT:** 6/21/23 – site visit

1. Types of materials produced (ASTM C33 sand and pea gravel (1" MSA); concrete aggregates?)
AB; drain gravel; can produce <3% finer than #200
Products: #4 to #200; 3/8" to #4; 1/2" to 3/8"; 3/4" to 1/2"; can blend these products
3/4" pipe bedding
2. Available technical specification sheets/lab certifications (durability, gradation, petrographic analysis, LA rattler, R value, etc.). Can we get copies?
TR will provide on request. Attached.
3. At-plant costs (not a bid)
TR will provide on request, FOB plant. Attached.
4. Productivity rates (differences with seasons/material types?)
Total productivity: 750 TPH, 2.8 million tons per year. Can increase productivity on demand.
Dredge for 8" minus feedstock, 300 TPH on site
5. Quarry location, source material type (alluvium, hard rock, soft rock, etc.)
Alluvial, rounded, washed material; crushing used to produce products. Three cone crushers and one VSI (vertical shaft impact) crusher on site.
Sand and concrete aggregates are washed and screened. Oversize aggregates are conveyed to a crushing plant to produce crushed aggregates for AC and base materials.
~ 55 miles to Sites Project.
6. Processing facility location
Near Marysville; same as material source.
Also: Cache Creek (near Woodland, on I-505) – Hallwood close to main site; Perkins (Sac); Town of Cool by Auburn; see website. Sand source is near Woodland.
Bear River Aggregate is a riprap material source.
7. Available material remaining/duration of permitted operation
Essentially unlimited
8. Other
Can set up portable plants at jobsite; > 400 TPH.
Haul units: 26.5 to 27.5-ton double-belly-bottom dumps; by trucking vendor contracts
\$150/hr for hauling.

Haul to site, but may not drive on embankment fill. Would off load to a drive-over grizzly facility, and then material would be picked up by on-site trucks to the fill. Teichert would prefer to haul and place directly, to limit double handling. However, as an option, we could off load to a drive-over radial stacker and then load to on-site trucks.
Could use rail haul part way to site; siding at Beale AFB and West Side near Hallwood.
Could use a separate scale for materials for Sites Project.

**Project requirements for filter and drain materials (preliminary):**

Durability:

Test Type	Acceptability Standard	Criteria
Specific Gravity	ASTM C127	Greater than 2.6
Abrasion Resistance	ASTM C131	10 percent maximum loss of weight at 100 revolutions, and 40 percent maximum loss of weight at 500 revolutions
	ASTM C535	40 percent maximum loss of weight at 1000 revolutions
Sodium Sulfate Soundness	ASTM C88	10 percent maximum weighted average loss by weight, after five cycles

Gradations (in-place in dam after placement and compaction):

Downstream Filter Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
3/8 inch	100
No. 4	95-100
No. 8	65-95
No. 16	40-65
No. 30	20-45
No. 50	5-25
No. 100	0-10
No. 200	0-3

Downstream Drain Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1 inch	100
3/4 inch	85-100
3/8 inch	30-98
No. 4	5-45
No. 8	0-5
No. 200	0-3

**Sites Reservoir**

**Processed Materials - Rough Quantity Estimate**

Location	Import - Max. Rough Qty (M tons)	Import - Min. Rough Qty (M tons)	
Zone 2A – Downstream Filter	1.5	1.5	
Zone 2A – Downstream Drain	1.6	1.6	
Zone 2A – Downstream Transition	0.3		
Zone 2B – Upstream Filter	0.6		
Zone 2B – Upstream Transition	0.6		
Class 4 Aggregate Subbase	0.3		
Class 2 Aggregate Base	0.5		
Concrete Aggregate	0.6		0.6
<b>Total</b>	<b>6.0</b>		<b>3.7</b>

Borrow and process on site

TPD, for 800 days	7,500	4,625
TPD, for 1200 days	5,000	3,083



Teichert historical dredge



Teichert dredging operation for 8-inch minus material



Teichert plant operation - overview



Teichert plant operation showing crusher

**Teichert Material Specifications - Western Site (near Marysville)**



April 3, 2023

**MATERIAL EVALUATION SHEET**

**Western Aggregates #4 x #100 Crushed Fines**

Fine Aggregate Gradation	
US Standard Sieve Size	*Gradation Result
3/8"	100
#4	99
#8	64
#16	42
#30	26
#50	16
#100	11
#200	6.4

Fine Aggregate Properties	
Test Method	Test Result
Clay Lumps & Friable ASTM C 142	1.0
Crush Count - AASHTO T335 1-Face / 2-Face / 3-Face	100 / 100 / 98
Dry Rodded Unit Weight ASTM C 29	98.20 PCF
Dry Loose Unit Weight ASTM C 29	88.20 PCF
JIG ASTM C 29 (pcf)	106.44
LA Rattler 100 / 500 Revs Loss % ASTM C 131	3.5 / 18
Material Finer Than No. 200 Sieve C 117	1.9
Max Dry Density – ASTM D 1557	134.3 (Optimum Moisture = 8.9)
Max Wet Density – CTM 216	145.4 (Optimum Moisture = 8.0)
Plasticity Index – ASTM D 4318	Non-Plastic
R-Value – CTM 301	81
Sand Equivalent – CT 217	73
Sodium Soundness ASTM C 88	5.4
Specific Gravity ASTM C 128 (Bulk SSD)	2.648
Specific Gravity ASTM C 128 (Bulk Dry)	2.576
Specific Gravity ASTM C 128 (Apparent)	2.861
Absorption% ASTM C 127	2.8
SMARA #	91-58-0001
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

\*Updated Quarterly



April 3, 2023

**MATERIAL EVALUATION SHEET**

**Western Aggregates 1" x #4 CA**

Coarse Aggregate Gradation	
US Standard Sieve Size	*Gradation Result
1 1/2"	100
1"	100
3/4"	87
1/2"	30
3/8"	10
#4	1
#8	1

Coarse Aggregate Properties	
Test Method	Test Result
Clay Lumps & Friable ASTM C 142	0.35
*Cleanness Value - CTM 227	89
Crush Count 1-Face / 2-Face ASTM D 5821	15.0 / 8.3
Rodded Unit Weight ASTM C 29	107.3
Durability Index ASTM D 3744	80
LA Rattler 100 / 500 Revs Loss ASTM C 131	6.0 / 19.0
Material Finer Than No. 200 Sieve C 117	0.5
Reactivity Alkali-Silica ASTM C 1293	Innocuous
Sodium Soundness ASTM C 88/ CTM 214	5.0
Specific Gravity ASTM C 127(Bulk SSD)	2.793
Absorption% ASTM C 127	0.8
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

\*Updated Quarterly



April 3, 2023

**MATERIAL EVALUATION SHEET**

**Western Aggregates 1/2"MA**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
3/4"	100
1/2"	96
3/8"	23
#4	8
#8	1
#200	0.5

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.35
*Cleanness Value - CTM 227	91
Crush Count 1-Face / 2-Face ASTM D 5821	99 / 95
Dry Rodded Unit Weight ASTM C 29	104.3
Durability Index ASTM D 3744	79
Flat & Elongated (3:1) / (5:1) ASTM D 4791	3.5
LA Rattler 100 / 500 Revs Loss ASTM C 131	3.2 / 16.4
Material Finer Than No. 200 Sieve C 117	1.5
Sodium Soundness ASTM C 88 / CTM 214	2.5
Specific Gravity ASTM C 127(Bulk Dry)	2.822
Absorption% ASTM C 127	0.9
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

**\*Updated Quarterly**



April 3, 2023

**MATERIAL EVALUATION SHEET**

**Western Aggregates 3/4" MA**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
1"	100
3/4"	91
1/2"	16
3/8"	3
#4	1
#200	0.5

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.35
*Cleanness Value - CTM 227	81
Crush Count 1-Face / 2-Face ASTM D 5821	98 / 95
Dry Rodded Unit Weight ASTM C 29	103.5 PCF
Durability Index ASTM D 3744	81
Flat & Elongated (3:1) / (5:1) ASTM D 4791	3.6
LA Rattler 100 / 500 Revs Loss ASTM C 131	3.3 / 13.2
Material Finer Than No. 200 Sieve C 117	0.9
Sodium Soundness ASTM C 88	2.832
Specific Gravity ASTM C 127(Bulk Dry)	2.810
Absorption% ASTM C 127	0.6
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

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April 3, 2023

**MATERIAL EVALUATION SHEET**

**Western Aggregates 3/4" Pipe Bedding**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
1"	100
3/4"	98
1/2"	41
3/8"	15
#4	2
#200	0.5

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.35
*Cleanness Value - CTM 227	77
Crush Count 1-Face / 2-Face ASTM D 5821	95 / 90
Dry Rodded Unit Weight ASTM C 29	103.1 PCF
Durability Index ASTM D 3744	80
Flat & Elongated (3:1) / (5:1) ASTM D 4791	3.6
LA Rattler 100 / 500 Revs Loss ASTM C 131	3.6 / 15.4
Material Finer Than No. 200 Sieve C 117	0.9
Sodium Soundness ASTM C 88	2.832
Specific Gravity ASTM C 127(Bulk Dry)	2.810
Absorption% ASTM C 127	0.6
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

\*Updated Quarterly



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**MATERIAL EVALUATION SHEET**

**Western Aggregates 3/8"MA**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
1/2"	100
3/8"	93
#4	11
#8	1
#16	1
#200	0.5

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.3
*Cleanness Value - CTM 227	89
Crush Count 1-Face / 2-Face ASTM D 5821	100 / 95
Dry Rodded Unit Weight ASTM C 29	95.9 PCF
Durability Index ASTM D 3744	82
Flat & Elongated (3:1) / (5:1) ASTM D 4791	4.2
LA Rattler 100 / 500 Revs Loss ASTM C 131	4.3 / 19.2
Material Finer Than No. 200 Sieve C 117	0.5
Sodium Soundness ASTM C 88 / CTM 214	2.3
Specific Gravity ASTM C 127(Bulk Dry)	2.765
Absorption% ASTM C 127	1.3
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

**\*Updated Quarterly**



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**MATERIAL EVALUATION SHEET**

**Western Aggregates 3/8” CA (Pea Gravel)**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
1/2"	100
3/8"	94
#4	22
#8	1
#16	1

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.5
*Cleanness Value - CTM 227	88
Constant Head Permeability ASTM D 2434	2.50 (cm /sec)
Crush Count 1-Face / 2-Face ASTM D 5821	10% / 5%
Dry Loose / Rodded Unit Weight ASTM C 29	102.8 / 108.4
Durability Index ASTM D 3744	65
LA Rattler 100 / 500 Revs Loss ASTM C 131	3.1 / 19.5
*Material Finer Than No. 200 Sieve C 117	0.5
Reactivity Alkali-Silica ASTM C 1293	Innocuous
Sodium Soundness ASTM C 88	5.0
*Specific Gravity ASTM C 127(Bulk SSD)	2.710
*Absorption% ASTM C 127	1.7
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

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**MATERIAL EVALUATION SHEET**

**Western Aggregates Concrete Sand**

<b>Fine Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
3/8"	100
#4	100
#8	82
#16	57
#30	34
#50	17
#100	7
#200	2.6

<b>Fine Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.40
Dry Loose / Rodded Unit Weight ASTM C 29	97.2 /105.4 lbs./ft <sup>3</sup>
Durability Index ASTM D 3744	60
*Fineness Modulus ASTM C 136	3.04
*Material Finer Than No. 200 Sieve C 117	2.5
Organic Impurities ASTM C 40	Satisfactory
Plasticity Index – ASTM D 4318	Non-Plastic
Reactivity Alkali-Silica ASTM C 1567	Innocuous
*Sand Equivalent – ASTM D 2419	81
Sodium Soundness ASTM C 88	2.58%
*Specific Gravity ASTM C 127(Bulk SSD)	2.650
*Absorption% ASTM C 127	2.60
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregate QA Supervisor	<b>Western Aggregates</b> 4711 Hammonton Road Marysville, CA 95901

\*Updated Quarterly



April 3, 2023

This Material Evaluation Sheet is to certify that Western Aggregates 3/4" Virgin Aggregate Base Class 2 meets Caltrans 2022 Standard Specifications Section 26.

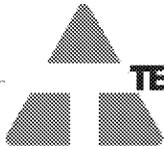
**Western Aggregates 3/4" Virgin Aggregate Base Class 2**

Aggregate Gradation		
US Standard Sieve Size	*Proposed Aggregate Gradation	Operating Range Specifications 26-1.02B
1"	100	100
3/4"	99	90 – 100
1/2"	84	-
3/8"	69	-
#4	43	35 – 60
#8	28	-
#16	18	-
#30	13	10 – 30
#50	10	-
#100	7	-
#200	5.8	2 – 9

Aggregate Properties		
Test Method	Test Result	Specification 26-1.02B
Crush count 1-Face / 2-Face CTM 205	97 / 90	
*Durability Index CTM 229	62	35 min.
Max Dry Density ASTM D 1557	143.0 PCF	-
Max Wet Density CTM 216	145.0 PCF	-
LA Rattler 100/500 Revs % Loss ASTM C-131	3.0 / 15.2	
Optimum Moisture CTM 216	Approx. 7.6	-
Plasticity Index ASTM D 4318	Non-Plastic	-
R Value CTM 301	80	78 min.
*Sand Equivalent CTM 217	59	25 min.
SMARA #	91-58-0001	-
Western Aggregate Representative: <i>Jon Blumer</i> Western Aggregates QA Supervisor	Western Aggregates 4711 Hammonton Road Marysville, CA 95901	

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**Teichert Material Specifications – Woodland Site**



**TEICHERT MATERIALS**

April 1, 2023

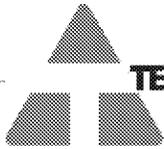
**MATERIAL EVALUATION SHEET**

**Woodland 1/2" MA**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
3/4"	100
1/2"	80
3/8"	22
#4	2
#8	1

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable - ASTM C 142	0.3
*Cleanness Value - CTM 227	75
Crush Count - AASHTO T335 1-Face / 2-Face	95 / 76
Dry Rodded Unit Weight - ASTM C 29	97.5
Durability Index - ASTM D 3744	90
Flat & Elongated (3:1)	2.3
LA Rattler 100 / 500 Revs Loss % - ASTM C 131	5.4 / 20.4
Material Finer Than No. 200 Sieve - C 117	0.9
Sodium Soundness - ASTM C 88	1.8
Specific Gravity - ASTM C 127(Bulk Dry)	2.659
Specific Gravity - ASTM C 127(Bulk SSD)	2.690
Absorption% - ASTM C 127	1.4
SMARA #	91-57-0002
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor	<b>Teichert Woodland Facility</b> <b>35030 County Road 20</b> <b>Woodland, CA 95695</b>

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**TEICHERT MATERIALS**

April 1, 2023

MATERIAL EVALUATION SHEET

Woodland 3/4" MA

Coarse Aggregate Gradation	
US Standard Sieve Size	*Gradation Result
1"	100
3/4"	98
1/2"	13
3/8"	4
#4	3

Coarse Aggregate Properties	
Test Method	Test Result
Clay Lumps & Friable - ASTM C 142	0.5
*Cleanness Value - CTM 227	73
Crush Count 1-Face/2-Face/3-Face AASHTO T335	83 / 69 / 43
Dry Rodded Unit Weight - ASTM C 29	99.2
Durability Index - ASTM D 3744	85
Flat & Elongated (3:1) - ASTM D 4791	3.8
LA Rattler 100/500 Revs Loss % - ASTM C 131	3.3 / 16.9
Material Finer Than No. 200 Sieve - C 117	0.7
Sodium Soundness - ASTM C 88	1.4
Specific Gravity - ASTM C 127(Bulk Dry)	2.678
Specific Gravity - ASTM C 127(Bulk SSD)	2.704
Absorption% - ASTM C 127	1.0
SMARA #	91-57-0002
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor	Teichert Woodland Facility 35030 County Road 20 Woodland, CA 95695

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**TEICHERT MATERIALS**

April 1, 2023

MATERIAL EVALUATION SHEET

Woodland 3/4" Pipe Bedding

<b>Coarse Aggregate Gradation</b>		
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>	<b>Gradation Requirement</b>
1"	100	100
3/4"	98	90-100
1/2"	23	20-50
3/8"	3	-
#4	2	0-5

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Crush Count 1F / 2F / 3F – AASHTO T335	91 / 78 / 56
Clay Lumps & Friable - ASTM C 142	0.4
*Cleanness Value - CTM 227	79
Dry Rodded Unit Weight - ASTM C 29	98.0
Durability Index - ASTM D 3744	84
LA Rattler 100/500 Revs Loss % - ASTM C 131	3.5 / 17.9
Material Finer Than No. 200 Sieve - C 117	0.8
Sodium Soundness - ASTM C 88	0.8
Specific Gravity - ASTM C 127(Bulk Dry)	2.660
Specific Gravity - ASTM C 127(Bulk SSD)	2.690
Absorption% - ASTM C 127	0.8
SMARA #	91-57-0002
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor	<b>Teichert Woodland Facility</b> <b>35030 County Road 20</b> <b>Woodland, CA 95695</b>

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**TEICHERT MATERIALS**

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**MATERIAL EVALUATION SHEET**

**Woodland 3/8" CA (Pea Gravel)**

<b>Coarse Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>*Gradation Result</b>
1/2"	100
3/8"	97
#4	25
#8	1
#16	0

<b>Coarse Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable ASTM C 142	0.4
*Cleanness Value - CTM 227	87
Constant Head Permeability ASTM D 2434	2.90 (cm /sec)
Crush Count 1-Face / 2-Face ASTM D 5821	9.0 / 5.0
Dry Loose / Rodded Unit Weight ASTM C 29	103.4 / 109.2
Durability Index ASTM D 3744	85
LA Rattler 100 / 500 Revs Loss ASTM C 131	3.6 / 18.4
*Material Finer Than No. 200 Sieve C 117	0.4
Reactivity Alkali-Silica ASTM C 1293	Innocuous
Sodium Soundness ASTM C 88 / CTM 214	0.8 / 0.6
*Specific Gravity ASTM C 127(Bulk SSD)	2.658
*Absorption% ASTM C 127	1.2
SMARA #	91-57-0002
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor	<b>Teichert Woodland Facility</b> <b>35030 County Road 20</b> <b>Woodland, CA 95695</b>

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**TEICHERT MATERIALS**

April 1, 2023

This Material Evaluation Sheet is to certify that Woodland 1" x #4 Concrete Aggregate meets Caltrans 2018 Standard Specifications Section 90.

**Woodland 1" x #4 CA**

<b>Aggregate Gradation 90-1.02C(4)(b)</b>		
<b>US Standard Sieve Size</b>	<b>Proposed Aggregate Gradation</b>	<b>Caltrans Section 90-1.02C(4)(b) Specification Operating Range</b>
1 1/2"	100	100
1"	100	88 - 100
3/4"	86	70 - 100 / X=85
1/2"	42	-
3/8"	14	0 - 30 / X=15
#4	1	0 - 16
#8	0	0 - 6

<b>Coarse Aggregate 90-1.02C(2)</b>		
<b>Test Method</b>	<b>Test Result</b>	<b>Specification Operating Range</b>
Cleanness Value - CTM 227	88	75 Min.
Fineness Modulus - ASTM C 136	6.99	-
LA Rattler 500 Revs Loss % - CTM 211	21.0	45% Max.
Reactivity Alkali-Silica - ASTM C 1293	Innocuous	Caltrans Innocuous List
Sodium Soundness - CTM 214	0.9	10% Max.
Specific Gravity - ASTM C 127 (Bulk SSD)	2.680	-
Absorption % - ASTM C 127	1.2	-
SMARA #	91-57-0002	-
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor		Teichert Woodland Facility 35030 County Road 20 Woodland, CA 95695

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**TEICHERT MATERIALS**

April 1, 2023

This Material Evaluation Sheet is to certify that Woodland 3/4" Virgin Aggregate Base Class 2 meets Caltrans 2022 Standard Specifications Section 26.

**Woodland 3/4" Virgin Aggregate Base Class 2**

<b>Aggregate Gradation</b>		
<b>US Standard Sieve Size</b>	<b>*Proposed Gradation Result</b>	<b>Gradation Requirement</b>
1"	100	100
3/4"	97	90-100
1/2"	87	-
3/8"	78	-
#4	55	35-60
#8	34	-
#16	22	-
#30	16	10-30
#50	12	-
#100	9	-
#200	6.4	2-9

<b>Aggregate Properties</b>		
<b>Test Methods</b>	<b>Test Result</b>	<b>Specification Limits</b>
Crush Count 1-Face / 2-Face/ 3-Face ASTM D 5821	50 / 25/ 10	-
Dry Rodded Unit Weight ASTM C 29	122.9 PCF	-
Durability Index CTM 229	58	35 Minimum
Expansion Index ASTM D 4829	Non-Expansive	-
LA Rattler 100/500 Revs % Loss ASTM C 131	5.1 / 23.9	-
Max Dry Density ASTM D 1557	140.6 PCF / Moisture = 6.0	-
Max Wet Density CTM 216	149.1 PCF / Moisture = 6.3	-
Min. Resis. Ohm-cm (x1000) CTM 643	7770	-
Plasticity Index CTM 204	Non-Plastic	-
R-Value CTM 301	79	78 Minimum
*Sand Equivalent CTM 217	38	25 Minimum
Specific Gravity ASTM C 127 - Bulk SSD/Dry	2.655/2.620	
Absorption% ASTM C 127	1.3	
SMARA#	91-57-0002	-
Teichert Representative: <i>Trenton Crouse</i> Woodland QA Supervisor	Teichert Woodland Facility 35030 County Road 20 Woodland, CA 95695	

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**TEICHERT MATERIALS**

April 1, 2023

**MATERIAL EVALUATION SHEET**

**Woodland Concrete Sand**

<b>Fine Aggregate Gradation</b>	
<b>US Standard Sieve Size</b>	<b>* Gradation Results</b>
3/8"	100
#4	100
#8	82
#16	54
#30	33
#50	13
#100	4
#200	1.9

<b>Fine Aggregate Properties</b>	
<b>Test Method</b>	<b>Test Result</b>
Clay Lumps & Friable - ASTM C 142	0.6
Dry Loose / Rodded Unit Weight - ASTM C 29	100.9 / 112.2
Durability Index - ASTM D 3744	60
*Fineness Modulus - ASTM C 136	3.15
Material Finer Than No. 200 Sieve - C 117	1.5
Max Dry Density - ASTM D 1557	121.4 (Optimum Moisture = 13.0)
Max Wet Density - CTM 216	135.4 (Optimum Moisture = 8.0)
Organic Impurities - ASTM C 40	Satisfactory
Plasticity Index - ASTM D 4318	Non-Plastic
Reactivity Alkali-Silica - ASTM C 1293	Innocuous
*Sand Equivalent - ASTM D 2419	72
SMARA #	91-57-0002
Teichert Representative: <u>Trenton Crouse</u> Woodland QA Supervisor	<b>Teichert Woodland Facility</b> 35030 County Road 20 Woodland, CA 95695

\*Updated Quarterly

## Teichert Materials - Cost Data

Teichert Aggregate & Asphalt Pricing - A Price Lists

Fiscal Year 4/1/23 - 3/31/24

Updated 4/1/23 - Prices effective 4/1/23

Products	Codes	Perkins 201	Grantline 204	Vernalis 202	Martis 205	Cool Cave 208	Truckee 212	Woodland 206	Esparto 207	Hallwood 209	Western 280
<b>Concrete Aggregates</b>											
1 1/2" x 3/4" CA	1002	\$31.25								\$26.00	\$17.00
1" x #4 CA	1003	\$31.25		\$21.50		\$31.50		\$31.50	\$31.50	\$26.00	\$16.00
3/4" x #4 CA	1004	\$32.25				\$31.50		\$31.50	\$31.50	\$26.00	\$16.00
3/8" Pea gravel	1005	\$32.00		\$18.95	\$28.50			\$25.75	\$25.75	\$25.75	\$15.75
1" Concrete Mix	1006	\$33.00	\$31.00	\$20.95				\$30.00	\$30.00	\$27.00	\$18.50
3/8" Concrete Mix	1007	\$33.00		\$20.95				\$30.00	\$30.00		\$18.50
1/2" CA	1009							\$31.00	\$31.00		
1/2" Concrete Mix	1021			\$20.95							
<b>Processed Sand</b>											
Concrete Sand	1101	\$32.50		\$21.35	\$33.00			\$29.25	\$29.25	\$25.75	\$18.25
Washed #2	1102	\$25.50	\$25.50	\$21.70		\$36.75		\$29.25	\$29.25	\$19.50	\$18.25
Slate Spec Sand	1104			\$19.40							
Mortar Sand	1107							\$32.75	\$32.75		
Plaster Sand	1109	\$22.00		\$21.70				\$32.75	\$32.75		
Rod Mill Sand	1113			\$21.70							
<b>Crushed Rock</b>											
1 1/2" x 3/4" MA	1201	\$32.75		\$21.40	\$32.00					\$26.75	\$17.50
3/4" MA	1202	\$31.50	\$28.50	\$21.60	\$31.50	\$34.00		\$31.50	\$31.50	\$26.50	\$17.50
1/2" MA	1203	\$32.00	\$30.00	\$21.40	\$36.50	\$34.00		\$32.50	\$32.50	\$25.50	\$17.50
3/8" MA	1204	\$33.00	\$31.00	\$21.40	\$36.50			\$32.75	\$32.75	\$26.50	\$17.50
Pipe Bedding	1207	\$33.00				\$34.00		\$27.50	\$27.50	\$26.50	\$17.50
#4 Crusher Dual	1208	\$32.50	\$32.00	\$23.80				\$32.75	\$32.75	\$26.50	\$18.00
1/2" x #4 MA	1209									\$26.50	\$17.50
3/4" x 3/8" MA	1215			\$21.60							
1/2" x 3/8" MA	1216					\$34.00					
<b>Seal Coat Aggregate</b>											
3/8" x #8	1302	\$36.00		\$25.45	\$36.50			\$33.00	\$33.00	\$29.75	\$15.75
5/16" x #8	1303	\$36.00						\$33.00	\$33.00	\$29.75	
Slurry Seal Type II	1305				\$37.00						\$18.00
<b>Aggregate Base</b>											
1 1/2" Class II	1403	\$30.00		\$18.45		\$29.50		\$27.50	\$27.50	\$25.25	\$15.25
3/4" Class II	1404	\$29.50	\$28.50	\$18.95	\$23.75	\$28.00		\$27.00	\$27.00	\$25.75	\$15.25
1 1/2" SPAB	1405					\$21.50		\$24.50	\$24.50		
3/4" SPAB	1406					\$21.00	\$13.50				
Shoulder Backing	1416			\$20.20		\$31.50					
Recycled AB	1417	\$29.50		\$19.95	\$21.25			\$27.00		\$25.75	
<b>Limestone</b>											
Limestone Grit Sand	1601					\$38.50					
AG Lime	1602					\$38.50					
Limestone Pond Fines	1604					\$38.50					
3/4" Limestone AB	1605					\$36.00					
3/4" Limestone	1606					\$36.50					
1/2" X #4 Lime Landscape Rock	1607					\$36.00					
3/8" X #4 Lime Landscape Rock	1608					\$36.00					
1 1/2" Limestone	1783					\$35.25					
<b>Misc. Processed Agg</b>											
Permeable Material	1701	\$33.00		\$24.45				\$31.50	\$31.50	\$26.75	
Bedding Sand	1702				\$21.75						
1 1/2" Drain Washed	1704					\$34.75	\$25.50				\$17.00
Cobbles	1707	\$35.00		\$26.70						\$28.25	\$19.50
Rip Rap	1708				\$52.50		\$41.50				
Boulders	1709		\$39.00	\$21.70	\$52.50	\$40.00	\$35.50				
Cushion Sand	1713			\$18.95				\$25.50	\$25.50	\$22.75	
1/4 Ton - 1 Ton Rip Rap	1714		\$39.00			\$40.50					
Birdseye	1718			\$20.20	\$24.50			\$30.00	\$30.00		
1" X 3/8" Washed	1719			\$19.95							
De-icing Sand	1720				\$25.50	\$31.50					
Pit Run	1721			\$17.70				\$23.00	\$23.00		\$13.50
USGA Pea gravel	1723			\$23.20							
Engineered Fill/Ton	1726				\$16.50	\$20.50					
Grit Sand	1729			\$18.70							
Crushed Utility Sand	1734										\$18.25
3-6" Cobbles	1737									\$29.25	
3/4" Clean Washed	1747	\$27.50									
1" Natural Washed	1748		\$28.50							\$29.25	
3" Minus Rock	1752	\$31.00	\$38.50	\$23.70							\$19.50

1/4" Minus	1764									\$26.50	
4" Drain Rock	1761		\$47.75			\$32.50					
Crusher Run	1762					\$31.75					
Backing #2	1784					\$37.50					
Facing/Backing #1	1785		\$38.50			\$37.50					
Backing #3	1786					\$35.50					
2 Ton Class Rip Rap	1787					\$44.50					
4 Ton Class Rip Rap	1788					\$44.50					
Screened Soil	1789										\$19.50
Class III RSP	1770					\$37.50					
Light B	1773					\$37.50					
Decorative Boulders	1774					\$73.00					
8-12" Cobbles	1775										\$29.25
3/4" Cinder	1782						\$24.50				
1/2" Cinders	1783						\$79.00				
3/4" Drain Rock - Class C BF	2702				\$31.50						
1 1/2" Drain Rock - Class D BF	2704				\$32.00						
1" x 2" Washed Rock	2707				\$35.50						
Class 150 Rip Rap	2715				\$39.00						
2" x 4" Crushed Rock	2722				\$33.00						
1" x 4" Cobbles	2736				\$37.25						
4" x 10" Cobbles	2737				\$37.25						
<b>Misc. Processed Agg/Non Prime</b>											
Fill Dirt	1803			\$12.50	\$13.00	\$19.50	\$12.50	\$27.50	\$27.50		\$14.50
Screened Soil	1808	\$25.50									
Misc. Fill/Non Prime	1811	\$21.00	\$18.00								
Dir/Non-Prime / Load	1812			\$158.50							
Asphalt Grindings	1832	\$29.00		\$28.50				\$29.00		\$29.00	
Unprocessed Recycle AB	1828			\$11.75	\$3.00						
<b>Other</b>											
Minimum Cash Sale	1931				\$35.00	\$32.50	\$35.00				
Weight Certification Fee	1935		\$32.50	\$29.25	\$30.00	\$32.00	\$30.00	\$32.00	\$32.00		

**Asphaltic Concrete:**

Oil surcharges for this price list will be based on a liquid asphalt rack rate for PG 64-10 of \$730.00. An increase of \$.60 per ton for every \$10.00 increase in liquid asphalt will be reflected in your price for all asphalt products as the time you pave. Visit [www.teichert.com](http://www.teichert.com) for the most current rack rates.

Products	Coofas	Perkins 301	Grantline 304	Vernalis 302	Martis 305	Woodland 306	Hallwood 308	Perkins 321			
Spilled Asphalt	40000800	\$101.50	\$101.50	\$100.25				\$101.50			
3/4" 64-10 HMA	40331100	\$87.50	\$87.50	\$86.25		\$88.00	\$82.00	\$87.50			
3/4" 64-10 HMA RAP	40331107	\$87.50		\$88.25		\$88.00	\$82.00	\$87.50			
1/2" 64-10 HMA	40341100	\$91.50	\$91.50	\$90.25		\$92.00	\$86.00	\$91.50			
1/2" 64-10 HMA RAP	40341107	\$91.50		\$90.25		\$92.00	\$86.00	\$91.50			
3/8" 64-10 Berm Mix	40350500	\$109.50	\$109.50	\$108.25		\$110.00	\$104.00	\$109.50			
3/8" 64-10 HMA	40351100	\$101.50	\$101.50	\$100.25		\$102.00	\$96.00	\$101.50			
3/4" 64-16 HMA	40431100	\$87.50	\$87.50			\$88.00	\$82.00	\$87.50			
3/4" 64-18 HMA RAP	40431107	\$87.50			\$94.00	\$88.00	\$82.00	\$87.50			
1/2" 64-18 HMA	40441100	\$91.50	\$91.50			\$92.00	\$86.00	\$91.50			
1/2" 64-18 HMA RAP	40441107	\$91.50			\$97.00	\$92.00	\$86.00	\$91.50			
3/8" 64-18 HMA	40451100	\$101.50	\$101.50			\$102.00	\$96.00	\$101.50			
3/8" 64-18 HMA RAP	40451107				\$105.00						
3/8" 64-18 Berm/Dike Mix	40450500	\$109.50	\$109.50	\$104.50	\$105.00	\$110.00	\$104.00	\$109.50			
3/8" 64-28 HMA	40751100				\$108.00						
3/4" 70-10 HMA	40931100	\$88.10	\$88.10								
1/2" 70-10 HMA	40941100	\$92.10						\$92.10			
3/8" 70-10 Berm/Dike Mix	40950500	\$110.10	\$110.10					\$110.10			
<b>Cutback (Cold Mix)</b>											
3/8" Cold Mix	41850800	\$121.50	\$121.50		\$125.00			\$121.50			
<b>Emulsified Asphalt</b>											
SS-1 (5 Gal. Bucket)	41700050	\$24.25			\$6.00						
SS-1H	41700051	\$24.25	\$24.25		\$7.75	\$20.30					
SS-1H (Over 50 Gallons)	41700052	\$24.05	\$24.05		\$7.50	\$20.05					

All materials subject to availability. Teichert Standard Terms and Conditions apply to all sales.

Prices for Woodland and Esparto include a Yolo County fee of \$.53/ton. This fee will increase 4% each year.

An Environmental fee of \$6.50 a load will be assessed on all aggregate and asphalt sales at all locations.

Effective 4/1/23 all products from the Vernalis Plant are subject to an additional fee for the Hwy 132 and Bird Rd. interchange of \$.24/ton. This fee is subject to change annually.

All price lists are subject to change without notice, pricing will remain fixed and valid unless Teichert's cost for asphalt oil or Teichert's energy cost (cost for natural gas, propane, electricity) increases more than 10%, or Teichert's combined material, production, delivery and/or other costs of performance increase by more than 15%, then Teichert reserves the right to adjust the agreed prices for all remaining deliveries in an amount sufficient to cover the increased costs.

**APPENDIX B**  
**COMMERCIAL BORROW SOURCE SURVEYS**  
**ORLAND SAND & GRAVEL – ORLAND SITE**

**SITES RESERVOIR PROJECT  
COMMERCIAL BORROW SOURCE SURVEY**

**BORROW SOURCE NAME:** Orland Sand & Gravel

**NAME OF CONTACT:** D.R. "Doc" Bogart

**CONTACT PHONE/EMAIL:** [drdochogart@gmail.com](mailto:drdochogart@gmail.com) / 530-624-

8755

**DATE OF CONVERSATION/CONTACT:** 6/22/23 – site visit

1. Types of materials produced (ASTM C33 sand and pea gravel (1" MSA); concrete aggregates?)
Feedstock: 8" max.; durable.
Concrete batch plant at OS&G; cement and pozzolan silos.
OS&G will provide.
2. Available technical specification sheets/lab certifications (durability, gradation, petrographic analysis, LA rattler, R value, etc.). Can we get copies?
OS&G will provide.
3. At-plant costs (not a bid)
OS&G will provide on request, FOB plant. Some June 2022 prices FOB plant without tax are:
<ul style="list-style-type: none"> <li>• Sand (minus ¼"): \$35/ton</li> <li>• Base rock (AB): \$30/ton</li> <li>• Pea gravel (minus ½"): \$25/ton</li> <li>• Concrete: \$200/cy</li> </ul>
May double wash materials to get clean; additional cost.
If max. size of filter materials can be increased from 3/8" to ½", production would increase.
4. Productivity rates (differences with seasons/material types?)
Generally 200,000 to 250,000 cy/year. Could increase for big jobs.
Need additional plants to help furnish materials.
475,000 cy/year total; can be modified.
275,000 cy/year from creek, regulated by CA Fish & Game; use paddle wheel scrapers to excavate from creek. Potential for additional material upstream or downstream.
5. Quarry location, source material type (alluvium, hard rock, soft rock, etc.)
Orland, Stony Creek alluvium. Subrounded-subangular material in creek.
6. Processing facility location
Orland
Artois location, see separate survey sheets.
7. Available material remaining/duration of permitted operation
160-acre site
Reserves since 1920.
Glenn County regulates site. CA Fish and Game regulates creek excavation.

20M tons in reserve; however, the river keeps refilling the aggregate supply.
8. Other
<u>Railroad haul:</u>
Railroad siding at plant. Railroad haul to Delevan Road, 30 miles from plant. Then use transfer station to haul materials to job site. Local RR is California Northern (C-N)
20 railcars @ 100 tons/car. May need >40-50 railcars/day to keep up with demand. (Need 3.7 million tons in 3 years.)
Has taken ~30 days to install RR track switch.
Have contact for C-N RR.
Can set up portable plants at jobsite.
OS&G can do early works grading, paving also; e.g., roads.
Can haul at night.
Truck haul is \$150-\$175/hr. in Glenn County, at ~26 tons/load.
Slower work in winter; can stop material production in winter, or continue to produce and stockpile on jobsite.
Has asphalt concrete grinder on site to make recycled AC for pavements.
Does road work earthwork and paving work.

**Project requirements for filter and drain materials (preliminary):**

Durability:

Test Type	Acceptability Standard	Criteria
Specific Gravity	ASTM C127	Greater than 2.6
Abrasion Resistance	ASTM C131	10 percent maximum loss of weight at 100 revolutions, and 40 percent maximum loss of weight at 500 revolutions
	ASTM C535	40 percent maximum loss of weight at 1000 revolutions
Sodium Sulfate Soundness	ASTM C88	10 percent maximum weighted average loss by weight, after five cycles

Gradations (in-place in dam after placement and compaction):

Downstream Filter Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
3/8 inch	100
No. 4	95-100
No. 8	65-95
No. 16	40-65
No. 30	20-45
No. 50	5-25
No. 100	0-10
No. 200	0-3

Downstream Drain Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1 inch	100
3/4 inch	85-100
3/8 inch	30-98
No. 4	5-45
No. 8	0-5
No. 200	0-3

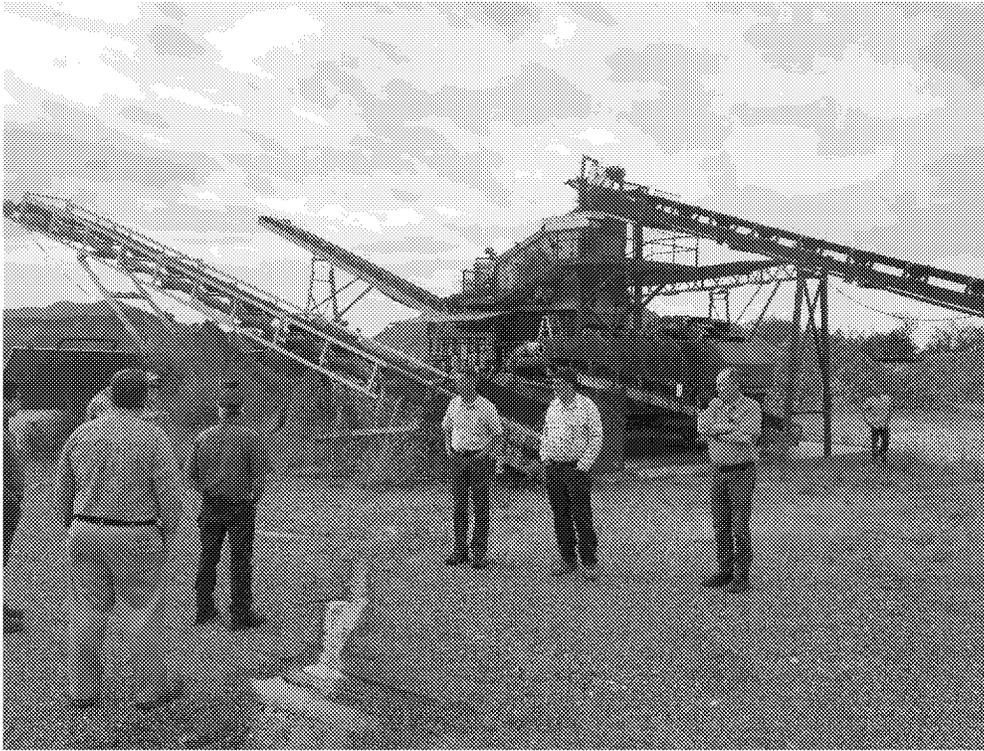
**Sites Reservoir**

**Processed Materials - Rough Quantity Estimate**

<u>Location</u>	<u>Import - Max. Rough Qty (M tons)</u>	<u>Import - Min. Rough Qty (M tons)</u>	
Zone 2A – Downstream Filter	1.5	1.5	
Zone 2A – Downstream Drain	1.6	1.6	
Zone 2A – Downstream Transition	0.3		
Zone 2B – Upstream Filter	0.6		
Zone 2B – Upstream Transition	0.6		
Class 4 Aggregate Subbase	0.3		
Class 2 Aggregate Base	0.5		
Concrete Aggregate	0.6		0.6
<b>Total</b>	<b>6.0</b>		<b>3.7</b>

Borrow and process on site

TPD, for 800 days	7,500	4,625
TPD, for 1200 days	5,000	3,083



Orland Sand & Gravel plant operation



Orland Sand & Gravel river deposit gravel source, adjacent to plant operation



Orland Sand & Gravel gravel stockpile



Orland Sand & Gravel rail siding for California Northern RR, adjacent to plant operation



Orland Sand & Gravel stockpile at plant

**APPENDIX C**  
**COMMERCIAL BORROW SOURCE SURVEYS**  
**ORLAND SAND & GRAVEL – ARTOIS SITE**

**SITES RESERVOIR PROJECT  
COMMERCIAL BORROW SOURCE SURVEY**

**BORROW SOURCE NAME:** Orland Sand & Gravel - Artois

**NAME OF CONTACT:** D.R. "Doc" Bogart

**CONTACT PHONE/EMAIL:** [drdocbogart@gmail.com](mailto:drdocbogart@gmail.com) / 530-624-8755

**DATE OF CONVERSATION/CONTACT:** 6/22/23 – site visit

1. Types of materials produced (ASTM C33 sand and pea gravel (1" MSA); concrete aggregates?)
AB source, with sand and gravel with some silt/clay, crushed product. 3" max. size. About 10 to 15% ¾" plus gravel.
Old stream channel – Stony Creek Alluvial Fan.
This source can be processed to provide clean filter and drain materials. (Also, there are other sources just to the south.)
2. Available technical specification sheets/lab certifications (durability, gradation, petrographic analysis, LA rattler, R value, etc.). Can we get copies?
OS&G will provide.
3. At-plant costs (not a bid)
OS&G will provide on request.
May double wash materials to get clean; additional cost.
4. Productivity rates (differences with seasons/material types?)
500,000 cy/year.
5. Quarry location, source material type (alluvium, hard rock, soft rock, etc.)
Road 30 and "M", ~6 miles south of OS&G site.
Artois location is a developed pit, but no active operation.
6. Processing facility location
Artois at quarry location.
7. Available material remaining/duration of permitted operation
78 acre property.
8. Other
Can set up portable plants, including wash plants, at jobsite.
Truck haul is \$150-\$175/hr. in Glenn County, at ~26 tons/load.
Has water connection.

**Project requirements for filter and drain materials (preliminary):**

Durability:

<b>Test Type</b>	<b><i>Acceptability Standard</i></b>	<b>Criteria</b>
Specific Gravity	ASTM C127	Greater than 2.6
Abrasion Resistance	ASTM C131	10 percent maximum loss of weight at 100 revolutions, and 40 percent maximum loss of weight at 500 revolutions
	ASTM C535	40 percent maximum loss of weight at 1000 revolutions
Sodium Sulfate Soundness	ASTM C88	10 percent maximum weighted average loss by weight, after five cycles

Gradations (in-place in dam after placement and compaction):

Downstream Filter Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
3/8 inch	100
No. 4	95-100
No. 8	65-95
No. 16	40-65
No. 30	20-45
No. 50	5-25
No. 100	0-10
No. 200	0-3

Downstream Drain Zone:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
1 inch	100
3/4 inch	85-100
3/8 inch	30-98
No. 4	5-45
No. 8	0-5
No. 200	0-3

**Sites Reservoir**

**Processed Materials - Rough Quantity Estimate**

Location	Import - Max. Rough Qty (M tons)	Import - Min. Rough Qty (M tons)
Zone 2A – Downstream Filter	1.5	1.5
Zone 2A – Downstream Drain	1.6	1.6
Zone 2A – Downstream Transition	0.3	
Zone 2B – Upstream Filter	0.6	
Zone 2B – Upstream Transition	0.6	
Class 4 Aggregate Subbase	0.3	
Class 2 Aggregate Base	0.5	
Concrete Aggregate	0.6	0.6
<b>Total</b>	<b>6.0</b>	<b>3.7</b>

**Borrow and process on site**

TPD, for 800 days	7,500	4,625
TPD, for 1200 days	5,000	3,083



Orland Sand & Gravel – Artois – road base

**APPENDIX D**  
**BROWNSTONE AND THOMPSON QUARRIES**  
**PHOTOS**



Brownstone Quarry (downstream of Sites dam site)  
(Note east dipping Venado sandstone beds.)



Thompson Quarry (downstream of Sites Dam site)  
(Note east dipping Venado sandstone beds.)





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**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/17/2023 12:39:47 PM  
**To:** Conner McDonald [conner@cmdwest.com]; Kevin Spesert [kspesert@sitesproject.org]  
**Subject:** Re: Sites - Landowner Meeting - Holthouse Ranch

Conner,

How would you feel about sharing this with the Lee's once we confirm the County doesn't have any major corrections?

cc'ing Kevin, but I know he might be in Grand Jury mode.

JP

---

**From:** JP Robinette <jrobinette@sitesproject.org>  
**Sent:** Monday, July 17, 2023 12:11 PM  
**To:** Conner McDonald <conner@cmdwest.com>; gevens@countyofcolusa.com <gevens@countyofcolusa.com>; GEvens@countyofcolusa.org <GEvens@countyofcolusa.org>; Michael Azevedo <mjazevedo@countyofcolusa.com>; mjazevedo@countyofcolusa.org <mjazevedo@countyofcolusa.org>; Kevin Spesert <kspesert@sitesproject.org>; Jerry Brown <jbrown@sitesproject.org>  
**Cc:** Marcia Kivett <MKivett@sitesproject.org>; Luu, Henry <henry.luu@hdrinc.com>  
**Subject:** Re: Sites - Landowner Meeting - Holthouse Ranch

Team,

I appreciate everyone's attendance and participation in the July 13 meeting. I wanted to share my takeaways from an engineering perspective and make sure I have characterized them correctly. I am focused on those things that impact design and the Landowner should continue to work through Conner on the access agreement, any appraisals, etc.

- 1. Confine the TRR to the Eastern Cell Only:** Proposed exploration work of the Eastern Cell of the Terminal Regulating Reservoir and the associated pipeline are acceptable to the Landowner. The Western cell of the proposed Terminal Regulating Reservoir presents problems from a Landowner perspective. Concerns on the Western Cell relate to a desire to minimize construction interaction and impacts with the gas line running through the property and the additional footprint required. Should additional storage be needed, Landowner suggestion is to look to other properties to the North or Northeast.
  - 2. Consider realigning the temporary site access road closer to other construction activities:** The proposed temporary construction road alignment referred to as "the Dirks Road alignment" presents problems from a Landowner perspective. These problems include the construction traffic through the area during construction, and during and post-construction concerns of using the road to trespass on the property. Landowner suggests looking at an alternative alignment to try to consolidate project features around the proposed Terminal Regulating Reservoir.
  - 3. Future opportunities for mutually beneficial work:** Future opportunities discussed at a high level relate to shared access for future development of the property for the benefit of the Landowner (i.e. solar, cattle ranching), shared electrical or other infrastructure, and others. More discussion is needed.
- Once again a big thank you to everyone involved in the meeting. I hope we can all meet again soon.

JP Robinette, P.E.

**From:** Conner McDonald  
**Sent:** Thursday, July 6, 2023 8:54 AM  
**To:** Conner McDonald <conner@cmdwest.com>; gevens@countyofcolusa.com <gevens@countyofcolusa.com>; GEvans@countyofcolusa.org <GEvans@countyofcolusa.org>; Michael Azevedo <mjazevedo@countyofcolusa.com>; mjazevedo@countyofcolusa.org <mjazevedo@countyofcolusa.org>; Kevin Spesert <kspesert@sitesproject.org>; Jerry Brown <jbrown@sitesproject.org>; JP Robinette <jrobinette@sitesproject.org>  
**Cc:** Marcia Kivett <MKivett@sitesproject.org>  
**Subject:** Sites - Landowner Meeting - Holthouse Ranch  
**When:** Thursday, July 13, 2023 9:00 AM-10:30 AM.  
**Where:** Sites Project Office - 122 Old Highway 99 West

Morning Folks,

Web Link below, for anyone who might need it...

-thanks!

## Microsoft Teams meeting

**Join on your computer, mobile app or room device**

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~~~~~

**Afternoon Folks,**

This is a Landowner Meeting with Mr and Mrs Ron & Cerena Lee of the Holthouse Ranch.

We plan to chitchat with M/M Lee regarding...

-Current Design of the TRR

-Contemplated TRR Geotechnical Field Activities

-Dirks Road Extension Concept

Should you have any questions, please feel welcome to reach out – 530-750-9912

-thanks!

---

**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/18/2023 8:26:52 AM  
**To:** Jeff Kivett [JKivett@BrwnCald.com]  
**Subject:** Fw: Executive Summary for Construction Water Draft TM for HR Facilities (HR 27.01)

FYI

---

**From:** Herrin, Jeff <jeff.herrin@aecom.com>  
**Sent:** Tuesday, July 18, 2023 6:04 AM  
**To:** JP Robinette <jrobinette@sitesproject.org>; Luu, Henry <Henry.Luu@hdrinc.com>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Aldridge, Benjamin <Benjamin.Aldridge@aecom.com>; Forrest, Mike <michael.forrest@aecom.com>  
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There are uncertainties with all of the local sources of water that could be used for construction. All available water resource options should be considered and prioritized for use to maximize the available supply and provide contingency against shortages.

- Existing and new groundwater wells can provide water for construction. This is the primary existing water supply within the inundation area. Existing wells in the valley have an estimated yield of about 86,400 gallons/day. Local groundwater wells may not be able to produce sufficient water for an extended time, and the quality of local groundwater may not be suitable for some activities (e.g., concrete and grouting).
- Potential surface water supplies within the inundation area include Funks and Stone Corral Creek and captured stormwater. These supplies are seasonal and weather dependent. Water will be impounded behind the cofferdams during construction and may be used for construction purposes.
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ridge. Water is generally present (but can still be expensive and will require agreements) on the east side of the ridge. Significant quantities of water will need to be hauled or piped to the west.

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Jeff  
916.432.0956

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**Sent:** Monday, July 17, 2023 4:59 PM  
**To:** Herrin, Jeff <jeff.herrin@aecom.com>; Luu, Henry <Henry.Luu@hdrinc.com>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Aldridge, Benjamin <Benjamin.Aldridge@aecom.com>; Forrest, Mike <michael.forrest@aecom.com>  
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Henry,

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**Jeff Herrin**

VP, Water Resources Planner - Northern California Region, US West Water  
M +1-916-432-0956  
[jeff.herrin@aecom.com](mailto:jeff.herrin@aecom.com)

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ADMIRABLE  
COMPANIES

---

**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/18/2023 8:32:48 AM  
**To:** jeff.herrin@aecom.com; Luu, Henry [Henry.Luu@hdrinc.com]  
**CC:** Smith, Michael (orange) [michael.g.smith@aecom.com]; Aldridge, Benjamin [Benjamin.Aldridge@aecom.com]; Forrest, Mike [michael.forrest@aecom.com]; Jeff Kivett [JKivett@BrwnCald.com]  
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**From:** Herrin, Jeff [jeff.herrin@aecom.com]  
**Sent:** 7/18/2023 9:08:57 AM  
**To:** JP Robinette [jrobinette@sitesproject.org]; Luu, Henry [Henry.Luu@hdrinc.com]  
**CC:** Smith, Michael (orange) [michael.g.smith@aecom.com]; Aldridge, Benjamin [Benjamin.Aldridge@aecom.com]; Forrest, Mike [michael.forrest@aecom.com]; Jeff Kivett [jkivett@brwnald.com]  
**Subject:** RE: Executive Summary for Construction Water Draft TM for HR Facilities (HR 27.01)

JP,

That sounds like a good activity for the CMAR and I will add it to the recommendations. You may want them to provide/disclose their strategy for construction water in their proposal.

Jeff

---

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**Sent:** Tuesday, July 18, 2023 11:33 AM  
**To:** Herrin, Jeff <jeff.herrin@aecom.com>; Luu, Henry <Henry.Luu@hdrinc.com>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Aldridge, Benjamin <Benjamin.Aldridge@aecom.com>; Forrest, Mike <michael.forrest@aecom.com>; Jeff Kivett <jkivett@brwnald.com>  
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916.432.0956

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# Agenda Item 3.3:

## Local Community Working Group



## Local Community Working Group

- The LCWG established in the Fall of 2022
- Forum for efficient, effective and meaningful local community engagement
- Consistent with the values adopted in the 2020 Strategic Plan
- Serves as the Authority's liaison to the local community
- Five meetings have been conducted
  - October 2022
  - January, March, May and July 2023
  - Held a project site tour for the LCWG in November 2023

## Community Participation

- Broad cross-section of regional local government agencies, business organizations, and community associations
- Includes county government, public safety agencies, school districts, farm bureaus, chambers, community organizations, and business owners
- Federal and State Elected Official's staff
- Staff actively identifying and inviting additional participants

## Local Community Working Group

- Meetings focused on Project Development topics and planning activities
- Have provided vital insight into local community concerns
- Have identified several areas of shared interest between the local community and the Authority
- Development of LCWG Issues & Opportunities Matrix
  - Recreation Development
  - Socioeconomic effects of the project
  - Workforce Development
  - Construction activities
  - Roadway & Traffic considerations

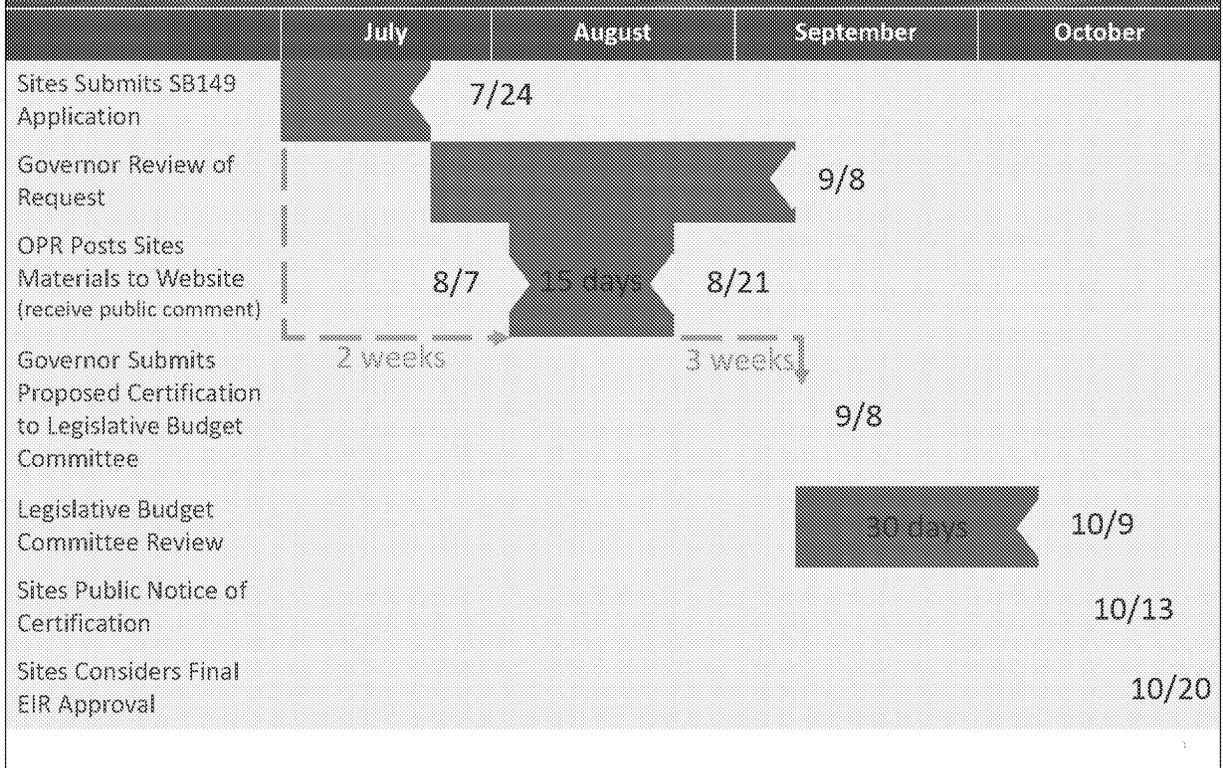
## Next Steps

- Two additional meetings planned for 2023 (September and November)
- Staff in collaboration with LCWG will develop a list of potential policy recommendations for AB/RC consideration
- LCWG meetings were planned only through the end of 2023
- Staff will look to facilitate additional LCWG into 2024

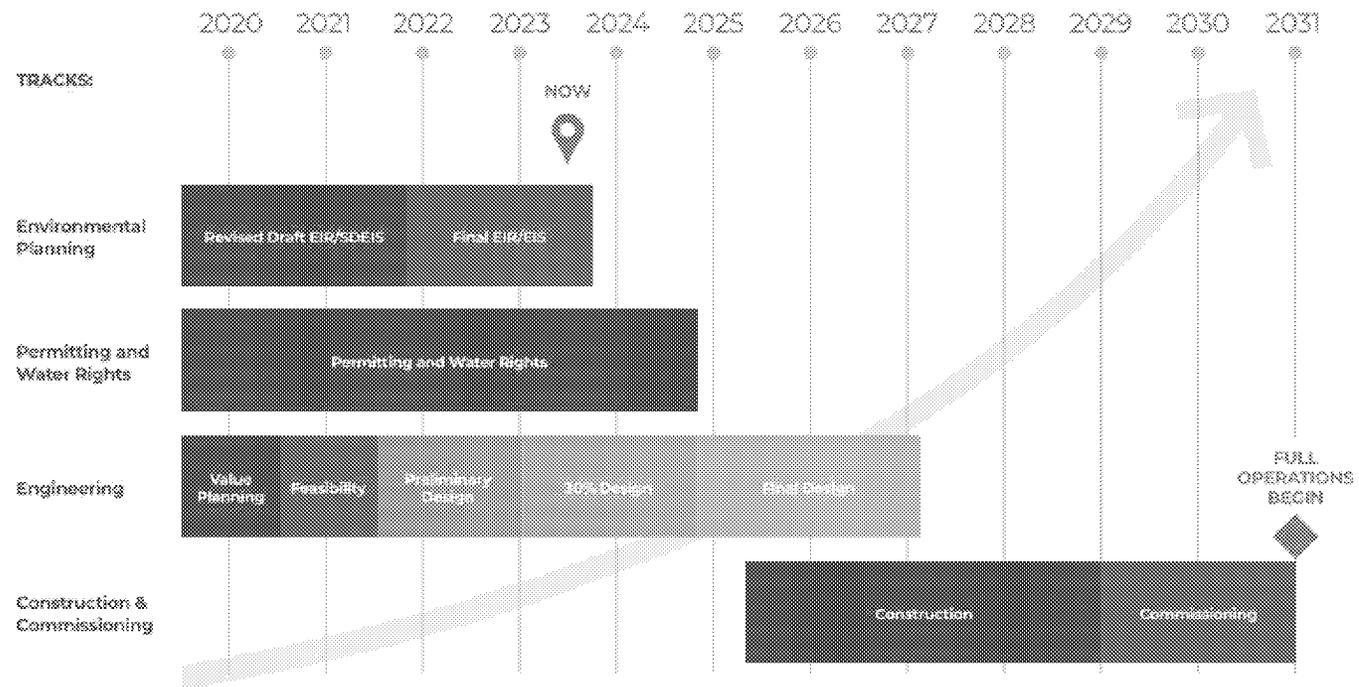
# Questions



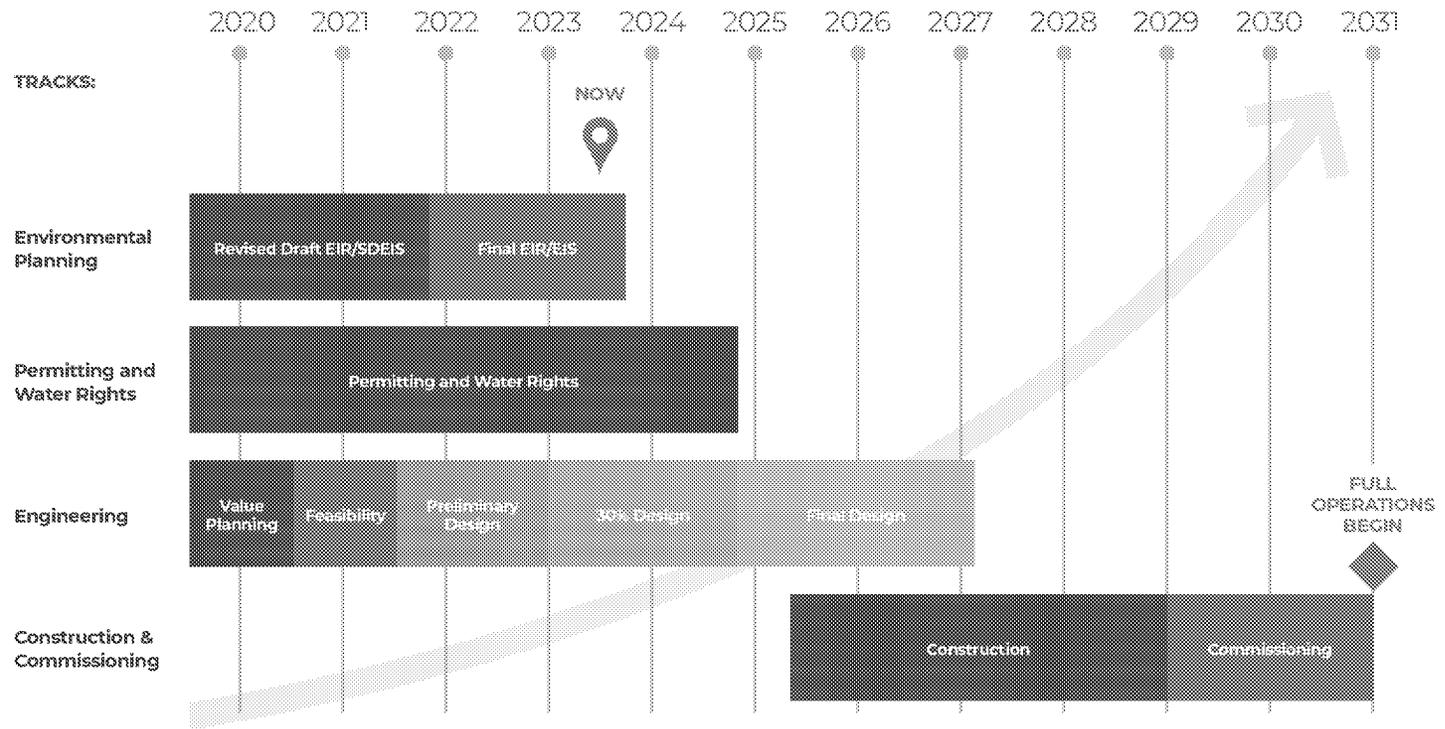
# Sites SB149 Timeline



## Sites Reservoir Project Schedule



## Sites Reservoir Project Schedule



---

**From:** Herrin, Jeff [jeff.herrin@aecom.com]  
**Sent:** 7/24/2023 5:06:15 AM  
**To:** Jerry Brown [jbrown@sitesproject.org]; Kevin Spesert [kspesert@sitesproject.org]  
**CC:** Smith, Michael (orange) [michael.g.smith@aecom.com]; Carlson, Nik [nik.carlson@aecom.com]; Luu, Henry [Henry.Luu@hdrinc.com]; Marcia Kivett [MKivett@sitesproject.org]; JP Robinette [jrobinette@sitesproject.org]  
**Subject:** RE: Community Impacts and Benefits

Jerry,

Thank you for the feedback. I'm glad the memo was helpful. Please feel free to share the memo with others to encourage additional suggestions.

One additional idea we came up with is the possibility of converting the heavy vehicle hauling route from the quarries to the dams into a permanent air strip. This would be on the east side of the ridge in close proximity to the quarries. We continue to look at a helipad location for emergency use on Sites Reservoir per an earlier request, but it could be co-located with the airstrip or at the nearby Stone Corral Recreation area.

Jeff  
916.432.0956

---

**From:** Jerry Brown <jbrown@sitesproject.org>  
**Sent:** Friday, July 21, 2023 8:01 PM  
**To:** Herrin, Jeff <jeff.herrin@aecom.com>; Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Carlson, Nik <nik.carlson@aecom.com>; Luu, Henry <Henry.Luu@hdrinc.com>; Marcia Kivett <MKivett@sitesproject.org>; JP Robinette <jrobinette@sitesproject.org>  
**Subject:** Re: Community Impacts and Benefits

Jeff – I wanted to circle back with you on this and let you know we discussed these suggestions with our local community working group yesterday in summary form attached. The material was well received and the group much appreciated the work your team put in to create this for them.

I empowered and assigned the LCWG to come to our Sept LCWG meeting with suggestions from this list and others as to what policy actions they wish to recommend that they would like to see the Authority Board put in place for the project to address these issues and any others as we go forward. An example might be including a LCWG member on the evaluation panel for the CMARs. We'll see what they come back with but this list definitely got them going in a good direction.

I wanted to ask if you would be okay if I transmitted your memo to our Principals group (my kitchen cabinet) and asked them to provide any other suggestions from the experience they or their firms have in this regard. Please confirm is okay or not.

Thanks  
Jerry

---

**From:** "Herrin, Jeff" <jeff.herrin@aecom.com>  
**Date:** Friday, July 7, 2023 at 5:32 AM  
**To:** Jerry Brown <jbrown@sitesproject.org>, Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** "Smith, Michael (orange)" <michael.g.smith@aecom.com>, "Carlson, Nik" <nik.carlson@aecom.com>,

"Luu, Henry" <[Henry.Luu@hdrinc.com](mailto:Henry.Luu@hdrinc.com)>

**Subject:** Community Impacts and Benefits

Jerry and Kevin,

I've attached our preliminary assessment of community impacts and benefits. We held a brainstorming session to reach out to senior staff with relevant experience. We don't have a single project where we coordinated the community interactions, but our team has seen a lot of approaches. Some of these are currently being used on the Glade Project and by Manitoba Hydro.

Annual labor trips were developed with input from Jacobs.

There are a couple of takeaways from our session.

1. Be careful what you promise the community because the Contractors can't control everything. They will be constrained by labor laws. One example is the use of a company rig to transport workers to and from the work area to reduce traffic. Labor laws typically require overtime for workers both ways if the Contractor is providing transport.
2. Providing specific information to the Contractor about the community and its constraints (including during the procurement phase) will be beneficial. They can take this into account during their planning process.

The scoring criteria for the CMAR procurement to properly weight these issues will be challenging.

**Jeff Herrin**

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**Sent:** 7/24/2023 8:32:28 AM  
**To:** Jeff Kivett [JKivett@BrwnCald.com]  
**Subject:** Fw: Community Impacts and Benefits

FYI

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**Sent:** Monday, July 24, 2023 5:06 AM  
**To:** Jerry Brown <jbrown@sitesproject.org>; Kevin Spesert <kspesert@sitesproject.org>  
**Cc:** Smith, Michael (orange) <michael.g.smith@aecom.com>; Carlson, Nik <nik.carlson@aecom.com>; Luu, Henry <Henry.Luu@hdrinc.com>; Marcia Kivett <MKivett@sitesproject.org>; JP Robinette <jrobinette@sitesproject.org>  
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**Subject:** Re: Community Impacts and Benefits

Jeff – I wanted to circle back with you on this and let you know we discussed these suggestions with our local community working group yesterday in summary form attached. The material was well received and the group much appreciated the work your team put in to create this for them.

I empowered and assigned the LCWG to come to our Sept LCWG meeting with suggestions from this list and others as to what policy actions they wish to recommend that they would like to see the Authority Board put in place for the project to address these issues and any others as we go forward. An example might be including a LCWG member on the evaluation panel for the CMARs. We'll see what they come back with but this list definitely got them going in a good direction.

I wanted to ask if you would be okay if I transmitted your memo to our Principals group (my kitchen cabinet) and asked them to provide any other suggestions from the experience they or their firms have in this regard. Please confirm is okay or not.

Thanks  
Jerry

---

**From:** "Herrin, Jeff" <[jeff.herrin@aecom.com](mailto:jeff.herrin@aecom.com)>

**Date:** Friday, July 7, 2023 at 5:32 AM

**To:** Jerry Brown <[jbrown@sitesproject.org](mailto:jbrown@sitesproject.org)>, Kevin Spesert <[kspesert@sitesproject.org](mailto:kspesert@sitesproject.org)>

**Cc:** "Smith, Michael (orange)" <[michael.g.smith@aecom.com](mailto:michael.g.smith@aecom.com)>, "Carlson, Nik" <[nik.carlson@aecom.com](mailto:nik.carlson@aecom.com)>, "Luu, Henry" <[Henry.Luu@hdrinc.com](mailto:Henry.Luu@hdrinc.com)>

**Subject:** Community Impacts and Benefits

Jerry and Kevin,

I've attached our preliminary assessment of community impacts and benefits. We held a brainstorming session to reach out to senior staff with relevant experience. We don't have a single project where we coordinated the community interactions, but our team has seen a lot of approaches. Some of these are currently being used on the Glade Project and by Manitoba Hydro.

Annual labor trips were developed with input from Jacobs.

There are a couple of takeaways from our session.

1. Be careful what you promise the community because the Contractors can't control everything. They will be constrained by labor laws. One example is the use of a company rig to transport workers to and from the work area to reduce traffic. Labor laws typically require overtime for workers both ways if the Contractor is providing transport.
2. Providing specific information to the Contractor about the community and its constraints (including during the procurement phase) will be beneficial. They can take this into account during their planning process.

The scoring criteria for the CMAR procurement to properly weight these issues will be challenging.

**Jeff Herrin**

VP, Water Resources Planner - Northern California Region, US West Water  
M +1-916-432-0956  
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**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/25/2023 6:54:48 AM  
**To:** Jeff Kivett [JKivett@BrwnCald.com]; Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]; Luu, Henry [henry.luu@hdrinc.com]; Cheyanne Harris [CHarris@BrwnCald.com]  
**CC:** Lee Lambert [LLambert@BrwnCald.com]  
**Subject:** Re: Project Schedule

Thanks for putting this together, Jeff. As you say, it will be important for our board to have options, and I agree with what you have laid out below.

### Get Outlook for iOS

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**From:** Jeff Kivett <JKivett@BrwnCald.com>  
**Sent:** Monday, July 24, 2023 3:55:56 PM  
**To:** Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>; Luu, Henry <henry.luu@hdrinc.com>; Cheyanne Harris <CHarris@BrwnCald.com>  
**Cc:** Lee Lambert <LLambert@BrwnCald.com>; JP Robinette <jrobinette@sitesproject.org>  
**Subject:** RE: Project Schedule

Hi Jelica, Henry and Cheyanne,

Once we have not been able to find a time (unfortunately I am in workshops most of this week) I at least wanted to get to you what our next steps are based on feedback from the Board meeting Friday.

At a high level (if they accept the revised schedule) it basically means that lands for the GG and Sites Dams will be purchased early 2024, 100% Geotech for these dams and Lodoga Rd Reroute to the temporary road in 2024 and cost certainty with CMAR first half of 2025 to allow funding and construction start end of 2025.

For the work plan and budget to be approved in October we will need to provide an options list of items for consideration that either follows the current path of an end of 2033 for reservoir completion or a revised work plan getting us to an end of 2031 for reservoir completion. During the next two months we will need to do the following planning:

#### Geotechnical:

Continue the current plan through the end of 2023.

2033 – Continue Geotech plan as currently planned into 24/25.

2031 – Revise the Geotech work plan to stay in the same 24/25 year budget but plan on expenditures of completing 100% of geotechnical investigation for the Golden Gate Dam, Sites Dam and Rerouting of Sites Lodoga Rd from the east side to the turnoff of the Sho-fly temporary road (does not include the future crossing within the reservoir). Slow down on getting information on the borrow sites, other features, and roads not on the critical path. If there are still available funds above these efforts, we will need to work with the Designers to focus on what are the most critical information for cost certainty.

#### HR Design:

2033 - Continue to get to 30% design on all features

2031 – Develop boundary within the parcels to be acquired for what will be disturbed in getting 100% Geotech information for the three features above. Continue work on establishing a 30% design for the rest of the features. Start 60% design at the completion of 30% design for the three components with a goal of the road being 100% completed by end of 2024 and no pause in the dam designs of GG and Sites. The remaining features will have a pause or slowdown in development.

#### HC Design:

2033 – Continue path currently on

2031 – Clearly define land access needed to move discussion and land acquisition on incoming power forward. Develop a draft process flow diagram for the complete project including complete hydraulic profile of the system. Complete draft P&ID for entire project and potential communication architecture. Develop minimal information on 30% design of facilities for cost certainty.

Other items we need to get implemented:

Traffic counters on Sites Lodoga Road on East side of the canyon. May also want one in Maxwell to get a baseline before construction to determine how much increase in traffic on Oak St there is and at Delevan Rd where we most likely will be having majority of construction traffic. I would be very interested in AECOM and Jacobs thoughts on this.

Monthly design leadership meeting with JP, Jelica, Henry, 2 people from AECOM and 2 people from Jacobs, Cheyanne and myself. Henry, do you think you could get this set up for early August and the four of us can develop an agenda for it.

I am interested in any testing that has been done to produce a concrete mix design for onsite PS and other structures. It would be good to start to understand limitations of on-site materials and benefits of the non-Dam material that will be produced by the CMAR crushers.

Is there individual weekly or bi-weekly design meetings with AECOM and Jacobs? I would like to start attending some of them.

Start developing potential location criteria for the main office and control room, maintenance yard.

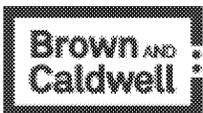
I will also start moving forward with getting the CMAR for Dams on board. My hope is to have a RFQ for attorney to JP in the next three weeks and while getting a contract together also get the RFQ moving forward.

Let me know if I missed anything,

Jeff

**Jeffrey R. Kivett**  
Vice President – Owners Advisor  
Brown and Caldwell

Sunrise, FL  
[jkivett@brwncald.com](mailto:jkivett@brwncald.com)  
T 925.210.2236 | C 925.322.3717



---

**From:** Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>  
**Sent:** Friday, July 21, 2023 12:23 PM  
**To:** Luu, Henry <henry.luu@hdrinc.com>; Jeff Kivett <JKivett@BrwnCald.com>  
**Cc:** Cheyanne Harris <CHarris@BrwnCald.com>  
**Subject:** Re: Project Schedule

Monday 9 to 10 works for me too

Get [Outlook for iOS](#)

---

**From:** Luu, Henry <[Henry.Luu@hdrinc.com](mailto:Henry.Luu@hdrinc.com)>  
**Sent:** Friday, July 21, 2023 10:58:48 AM  
**To:** Jeff Kivett <[JKivett@BrwnCald.com](mailto:JKivett@BrwnCald.com)>; Arsenijevic, Jelica <[jelica.arsenijevic@hdrinc.com](mailto:jelica.arsenijevic@hdrinc.com)>  
**Cc:** Cheyenne Harris <[CHarris@BrwnCald.com](mailto:CHarris@BrwnCald.com)>  
**Subject:** RE: Project Schedule

Hi Jeff, I have an emergency and am no longer able to make this timeslot. I may be able to get back online by 3pm, but I can't guarantee at the moment. My availabilities for next week are as follows:

- Monday 9-10am, 2-3pm
- Tuesday looks really good after 10am
- Wednesday 11-noon or 3-4pm
- Thursday 9-11am

Henry H. Luu, PE  
D 916.679.8857 M 916.754.7566

[hdrinc.com/follow-us](https://hdrinc.com/follow-us)

-----Original Appointment-----

**From:** Jeff Kivett <[JKivett@BrwnCald.com](mailto:JKivett@BrwnCald.com)>  
**Sent:** Thursday, July 20, 2023 12:48 PM  
**To:** Jeff Kivett; Luu, Henry; Arsenijevic, Jelica  
**Cc:** Cheyenne Harris  
**Subject:** Project Schedule  
**When:** Friday, July 21, 2023 12:00 PM-1:00 PM (UTC-08:00) Pacific Time (US & Canada).  
**Where:** Microsoft Teams Meeting

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.

Talk over potential resentencing of schedule activities

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# Sites Benefits and Obligations Contract Draft 1

Participant Workshops

July and August 2023



Trademark Working Document - For Approval Purposes Only

JP

Introductions:  
Authority Board Members  
Reservoir Committee Members  
Staff, consultants, counsel

## The Benefits & Obligations Contract

- Will serve as the long-term commitment of the Sites Authority to provide the Participant with its capacity rights in the Sites Reservoir system
- Represents what each Participant will need to take to its respective home board to secure the necessary authority to commit to its capacity share in the Sites Project

I am excited to speak to be at a point in the development of a Benefits and Obligations contract where we are ready to receive input on key issues for your agency and any missing components that might be important to your Participation decision.

The format of this meeting is meant to be highly informal and we have a panel of experts here from legal, finance, and engineering. It is important that we hear from you and your agencies on issues. This document impacts every Participant involved, and we are working this through a bit of a different process than our normal committee and workgroup. We are hosting four of these workshops.

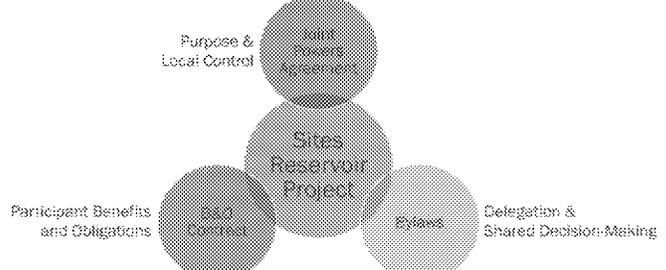
## Topics to be covered today

- Basic Rights and Obligations
- Billing and Related Matters
- Defaults and Remedies
- Termination of the Project
- Financing Provisions

Others???

# Forthcoming Topics

feedback to be addressed in the coming months

|                                            |                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Governance</b></p>                   |                                                                                                                                                                                                                                                                                     |
| <p><b>Operations Plan</b></p>              | <ul style="list-style-type: none"> <li>○ Operations Description based on Final EIR/EIS and/or Water Right application</li> <li>○ Update references to refer to Alternative 3</li> <li>○ Incorporate table of Preliminary Final Allocation of Sites Reservoir Available Storage</li> <li>○ System Losses</li> <li>○ Primary and Secondary Point of Delivery</li> </ul> |
| <p><b>State and Federal Agreements</b></p> |                                                                                                                                                                                                                                                                                                                                                                       |

# Basic Rights and Obligations



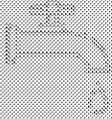
Trade Area Working Document - For Approval Purposes Only

# Basic Rights and Obligations



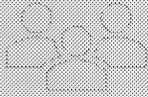
The Participants own a Capacity Interest in Sites Owned Facilities (Section 3.5).

# Basic Rights and Obligations



Participants have a right to receive proportionate share of water  
(Section 5)

# Basic Rights and Obligations



Sites Authority will operate the Project in accordance with a Sites Authority and Reservoir Committee approved Operations Plan, as modified from time to time by the Sites Authority and the Reservoir Committee (Sections 4.1 and 4.2)

# Basic Rights and Obligations



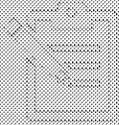
**Sites Authority will enter into Conveyance Agreements as necessary for Project operations (Section 3.2);**

# Basic Rights and Obligations



Participants can lease and sell their Capacity Interest (Section 8.1), with limited review and approval by the Sites Authority (Section 8.1) subject only to preserving tax exempt status of Sites Authority debt (Section 8.3)

# Basic Rights and Obligations



Participants can sell Sites Water (Section 8.2);

# Billing and Related Matters



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# Billing and Related Matters



**All Participants pay Financing Obligations (Section 6.4) unless the Participant elected to Self Fund its entire share of capital cost of the Project (Sections 5.4 and 5.5);**

# Billing and Related Matters



**Fixed O&M Costs, Fixed Project Costs and Financing Obligations will be billed one year in advance (Section 6.3.2(a)) and Variable O&M will be billed six months in advance (Section 6.3.2(b));**

# Billing and Related Matters



**Sites Authority has right to provide supplemental bills (Section 6.12)**

# Billing and Related Matters



Discretionary capital improvements which provide additional benefits only undertaken with approval of Sites Authority and Reservoir Committee, provided however a Participant can opt out of the obligation to pay for (and right to receive benefits of) such capital improvement. (Section 9.1)

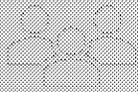
# Defaults and Remedies



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# Defaults and Remedies



**Default waterfall from Guiding Principles is included in Section 10, including the transfer of defaulting Participant's Capacity Interest and right to receive water service;**

# Termination of the Project



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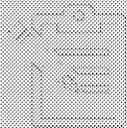
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# Termination of the Project



Project can be terminated prior to commencement of construction by determination of Sites Authority and Reservoir Committee (Section 11.1.1);

# Termination of the Project



After commencement of construction and before completion, Project can only be terminated if Sites Authority and Reservoir Committee each make a finding of infeasibility (Section 11.1.2);

# Financing Provisions



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# Financing Provisions



**Sites Authority is responsible for financing the cost of the Project (Section 5.1), subject to the right of each Participant to Self Fund (Section 5.4 and 5.5);**

# Financing Provisions



The nature of each Participant's payment obligation is set forth in the Annexes (either Rates and Charges (Annex 7A), SWP Statement of Charges (Annex 7B) or Land Based Charges (Annex 7C to come pending outcome of discussions with Colusa County Flood Control and Water Conservation District)

# Next Steps



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## Near Term Next Steps

July and August 2023

- Interactive walk-through sessions/workshops
  
- By August 11: Participants provide substantive issues list to staff

Questions?



Bullpen



## Relationship to supporting documents

### Foundation for Drafting

- ⑩ Final Adopted Guiding Principles
- ⑩ Master Resolution
- ⑩ WIFIA Reserve Policy

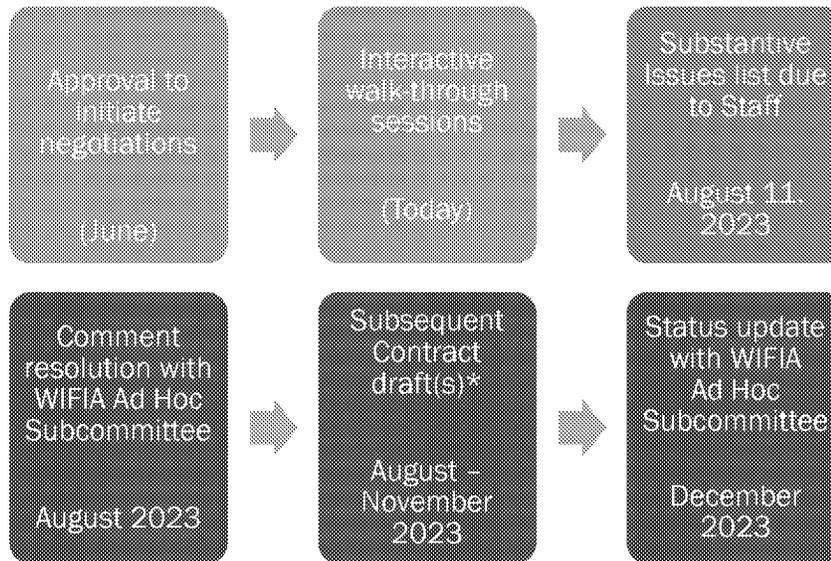
### Materials to be developed alongside Contract

- ⑩ Operations Plan (Version 2)
- ⑩ Amended Governance Documents (JPA Agreement, Bylaws)
- ⑩ Finance policies/documents (WIFIA Master Agreement and WIFIA Loan 1)

Maybe Cheyanne

# Contract development activities

target final form of Contract and supporting documents by mid-2024



\* Will include draft amendments to JPA Agreement and Bylaws. Ongoing development Operations Plan Version 2 and financing documents

## Governance: Proposed Agreements Structure

as presented at June Joint Meeting

- Continue with the “three-legged stool” of the governing documents for future phases: JPA Agreement; Bylaws; B&O Contract.
- JPA Agreement will outline the governance structure and retain overall AB ownership and authority for the project.
- Bylaws will reflect the delegation of decision-making by the AB to the RC subject to revision only by a supermajority of both boards.
- The B&O Contract will commit capacity rights from AB to each Participant and obligate Participants to pay debts.
- AB will have the ability to unilaterally overturn an RC decision under limited conditions: e.g., if an RC decision violates a law, permit, or agreement condition.
- The B&O Contract, JPA, and Bylaws will be a “package” deal — to be reviewed concurrently.

## Operations Plan Elements in support of the Benefits & Obligations Contract

as presented at June Joint Meeting, slide 1 of 2

### Operations

- Update all descriptions of all operations (including diversions, exchanges, storage, and releases) to be consistent with current criteria as presented in Final EIR/EIS and/or water right application.

### Project Facilities

- Update all Project facilities and modeling references to refer to Alternative 3 as described in the Final EIR/EIS.

### Diversions

- Incorporate information regarding diversions to storage from Funks and Stone Corral creeks.

## Operations Plan Elements in support of the Benefits & Obligations Contract as presented at June Joint Meeting, slide 2 of 2

### Available Storage

- Incorporate table of Preliminary Final Allocation of Sites Reservoir Available Storage including capacity interest for each Participant and describe how this is applied to diversions, storage, and releases.
- Add standard approach for release limitations due to Water Quality concerns.

### Losses

- System losses along Sites Water flow path, including current model assumptions and concepts for actual measurement/assessment.
- Tracking a quantity of water from point of diversion to point of delivery showing estimated losses.

### Point of Delivery

- Identify primary point of delivery, incorporate information regarding process for identifying and changing a secondary point of delivery, identify obligations for Sites Authority and Participants on secondary point of delivery

## Schedule Assumptions for B&O Contract Execution Predecessors as presented at June Joint Meeting, slide 1 of 3

### Contract and Supporting Documents

- Final form of B&O Contract (for execution)
- Phase 3, 4, and 5 Bylaws
- Amended Joint Exercise of Powers Agreement
- Sites Reservoir Operations Plan (Version 2)

### Actions

- CEQA Notice of Determination
- NEPA Record of Decision
- Adopted updated cost estimate and updated Plan of Finance forecast tables

## Schedule Assumptions for B&O Contract Execution Predecessors as presented at June Joint Meeting, slide 2 of 3

### Permits and Approvals

- Water Right decision by SWRCB
- State Construction and Operations Incidental Take Permits
- Federal Construction Biological Opinion
- Federal Programmatic Operations Biological Opinion (Step one)
- DSOD Confirmation of Dam Design Criteria

### Executed Agreements

- Facilities Use Agreements – TC Canal System
- Facilities Use Agreements – GCID System
- Agency Agreements – Lower Colusa Basin Drain System
- Operating Agreement with DWR and Reclamation

**Schedule Assumptions for B&O Contract Execution Predecessors  
as presented at June Joint Meeting, slide 3 of 3**

**Conditions Subsequent for the Contract to take Effect**

- B&O Contract executed by all parties
- Executed Public Benefit Agreements with CDFW and DWR
- Prop 1 Final Award by CWC and executed funding agreement
- Reclamation Participation Benefits and Obligations Contract executed
- Execution of Loan Agreements for Project Financing
- Final Biological Opinion for project level operations (Step Two)
- Final written water right permit and order by SWRCB

# Sites Reservoir Project Overview

Redding Rotary  
Sites Reservoir

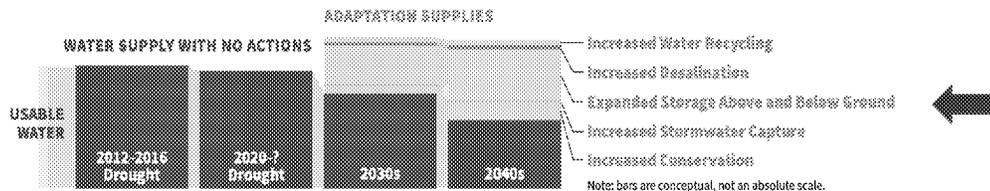
July 27, 2023



# What Problem Does the Sites Project Help Solve?

Over the next 20 years, California could lose 10 percent<sup>1</sup> of its water supplies.

Our climate has changed, and the West continues to get hotter and drier. As it does, we will see on average less snowfall, more evaporation, and greater consumption of water by vegetation, soil, and the atmosphere itself.



In previous droughts the ratio of precipitation to evaporation to runoff has been similar. However, as temperatures rise, evaporation increases, with the consequence of a fall in runoff. As average temperatures continue to increase, the increase in evaporation will continue, with a concurrent drop in runoff.

Excerpted from Aug 2022 "California's Water Supply Strategy, Adapting to a Hotter, Drier Future"

## 'What if we had Sites?' – most recent storms update

- Estimate for January 2023 storms - ~250,000af
- Estimate for March-April 2023 ~250,000af
- Forecasted for May-June 2023. ~200,000af
- Total for 22/23 Season – **700,000af** (almost ½ of the reservoir)
- Estimates are based on operations simulation tool that monitors actual and forecasted river/Delta conditions
- This real-time analysis shows that the Project is capable of delivering the expected diversion performance

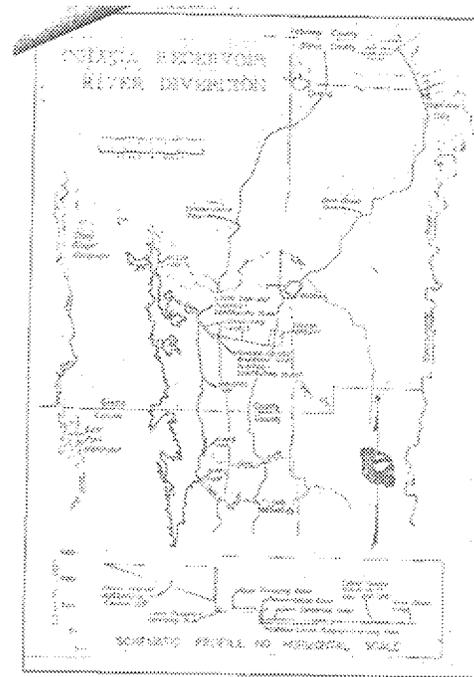


## Most Frequently Asked Question

Why is it taking so long to build Sites Reservoir?

## A Walk Down Memory Lane

- **1957** - DWR Bulletin 3 identifies Sites Reservoir "like" in the 1957 California Water Plan
- **1977** - DWR files several applications for water rights related to the Colusa Reservoir River Diversion
- **1997 through 2010** - Reclamation/DWR evaluate "NODOS", part of CALFED program, locals not happy
- **2010** - Sites Joint Powers Authority is formed to serve as the



## Sites Project History

- **2014** – California passes Proposition 1 that provides \$2.7 billion for water storage projects, dams and reservoirs.
- **2016/17** – Sites Project Reservoir Committee formed. Draft EIR/EIS released
- **2018** – Project is awarded \$816 million from Proposition 1 and a \$449 million construction loan from USDA
- **2019** – The Sites Project goes through an extensive value planning process to make the project affordable, permittable, and buildable.
- **2020/21** – Authority establishes its Strategic Plan, Federal and State feasibility certified, Authority releases revised Draft EIR/EIS, (i.e. Sites 2.0)
- **2022** – The Sites Project is invited to apply for a \$2.2 billion EPA WIFIA loan (3X larger than any previous loan amount) and submits its Water Rights Application.

## Sites Project Authority

*'the Sites Project is a local led project'*

- Joint Powers Authority established under California law
- Authority member agencies located in the Sacramento Valley
- Reservoir Committee made up statewide agencies investing in the Sites Project
- The Sites Project Authority will own and operate Sites Reservoir

### Board of Directors:

Colusa County  
Colusa County Water District  
Glenn County  
Glenn-Colusa Irrigation District  
Placer County Water Agency/City of Roseville  
Reclamation District 108  
Sacramento/Sac County Water Agency  
Tehama-Colusa Canal

**Our Strength is in Our  
Broad Statewide Participation**  
*'the Sites Project is Beneficiary  
Days!'*

**Sacramento  
Valley**

City of American Canyon  
Colusa County  
Colusa County Water Agency  
Cortina Water District  
Davis Water District  
Dunnigan Water District  
Glenn County  
Glenn-Colusa Irrigation District  
LaGrande Water District  
Placer County Water Agency  
Reclamation District 108  
City of Roseville  
Sacramento County Water Agency  
City of Sacramento  
Tehama-Colusa Canal Authority  
Westside Water District  
Western Canal Water District

**Bay Area**

Santa Clara Valley Water District  
Zone 7 Water Agency

**San Joaquin Valley**

Wheeler Ridge-Maricopa Water Storage  
District  
Rosedale-Rio Bravo Water Storage  
District

**Southern California**

Antelope Valley - East Kern Water  
Agency  
Coachella Valley Water District  
Desert Water Agency  
Irvine Ranch Water District  
Metropolitan Water District  
San Bernardino Valley Municipal Water  
District

**Waiting List**

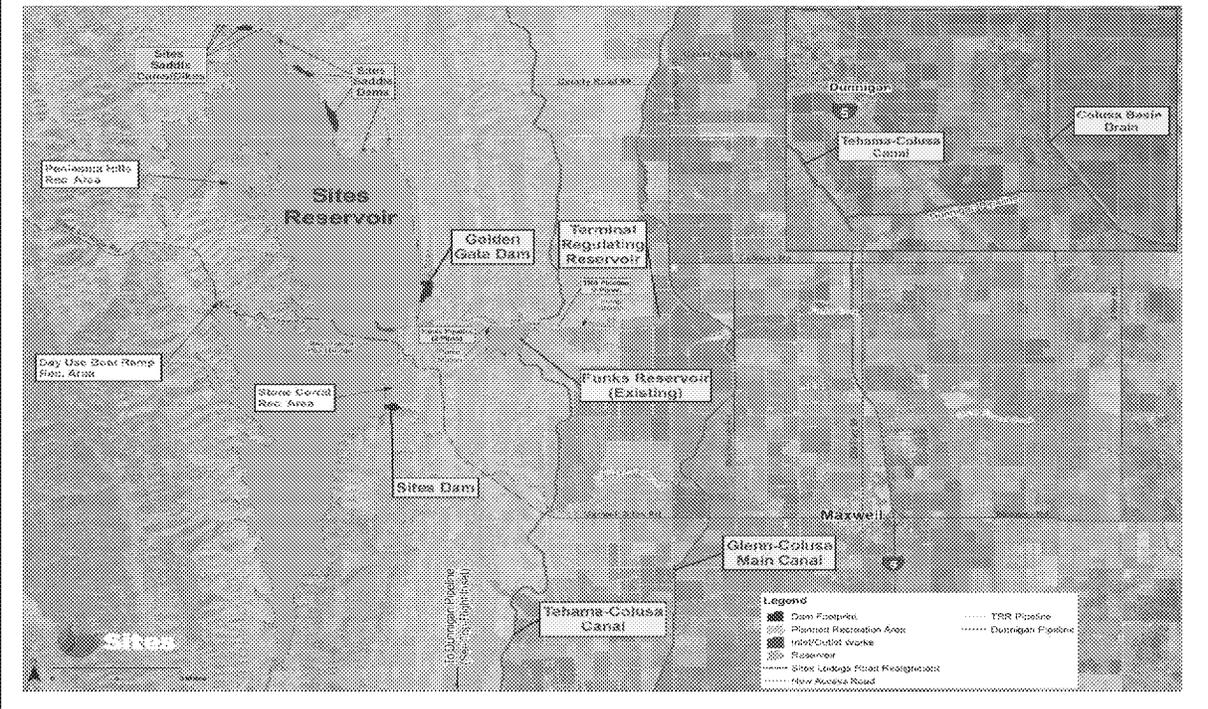
Cal-Am Sacramento  
City of Napa  
Delta View WDA  
Glenn County  
La Cumbre MWC  
Madera County  
Pacific Resources MWC  
Palmdale WD  
Santa Clara Valley WD  
Western Municipal WD  
Westlands WD  
Wheeler Ridge Maricopa WSD  
Woodland Davis CWA



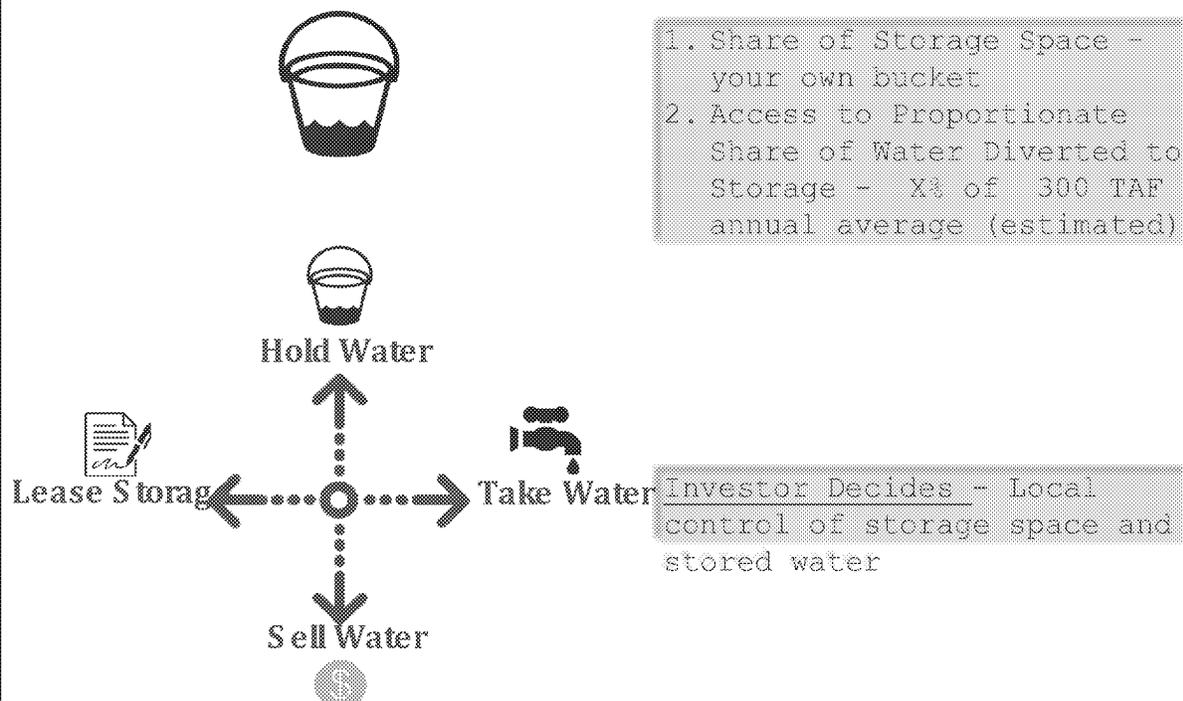
# Overview of Sites Reservoir Project

- The Project is a multi-benefit, beneficiary pays off-stream surface storage project that will help provide needed flexibility, reliability and resiliency to California's water supply.
- **The Project will capture and store stormwater flows from the Sacramento River (after all other water rights and regulatory requirements are met) for release primarily in dry and critical years for California communities, farms, and ecosystems.**
- The Project will use existing intakes with state-of-the-art fish screens. Diversions would only occur when permitted river flows exist that are protective of river and Delta aquatic species.
- The Sites Authority has applied for a new water right to divert water from the Sacramento River at Red Bluff and Hamilton City.
- The Project includes about 180 miles of conveyance. Only about 20 miles is new facilities. The remainder is shared existing infrastructure.
- **Sites water is to be conveyed "through Delta" to southern California participants - not reliant upon the proposed Delta Conveyance Project.**
- The Project is climate resilient; it does not rely on snowmelt but will capture winter river runoff from uncontrolled streams below existing reservoirs in the Sacramento Valley.
  - As such, it will inherently adapt to future climate conditions and will be operated to improve water supply resilience to predicted

# Project Facilities



# What Do You Get With Your Investment in Sites Reservoir?

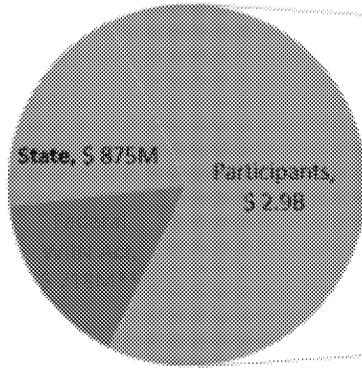


# Project Funding Sources

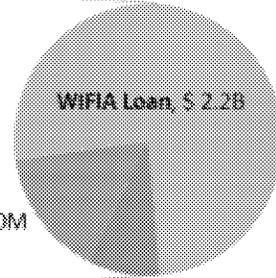
## 'State/Federal Interest in the Sites Project'

Project Investors

Participant Funding Sources



USDA Loan, \$ 450M



Bonds/Cash, \$ 250M

\*\*WIFIA Act funding is based on 16% Reclamation investment under Alternative 3 (Preferred Project) and is reported in future dollars.

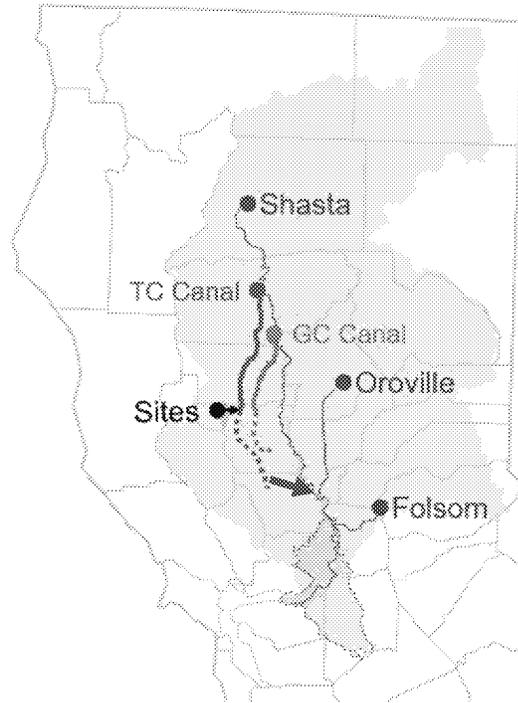
## State Participation

- Prop 1 WSIP – California Water Commission
- 244,000 af of storage and 17.3% of divertable water
- ~\$875M committed to date
- Public Benefits
  - Flood Control ~\$50M
  - Recreation \$225M
  - Ecosystem ~\$600M
- Opportunity to advance Environmental Water Manager concept



## Federal Participation (in progress)

- WIIN/BIL - Bureau of Reclamation
- Has expressed interest in 16% capacity share, currently only 9% available
- ~\$200M committed to date
- Federal Benefits
  - Anadromous Fish temperature control,
  - Refuges,
  - CVP water supply
- WRLCM results demonstrate positive effects for endangered winter run salmon

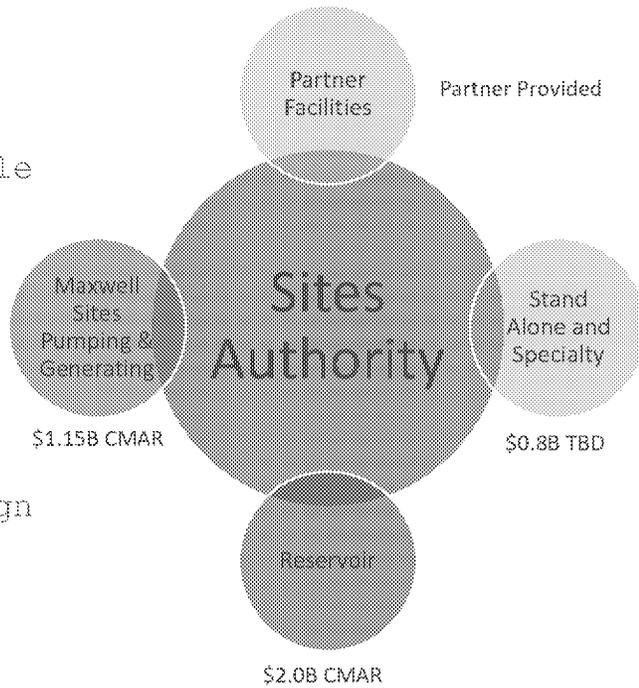


## Environmental Planning & Permitting Update

- Environmental Impact Report
  - 2017 Draft Document
  - 2021 Revised Draft document
    - Released for public review in November 2021
    - Comment period closed in January 2022
  - 2023 Final document
    - Expected in September–October 2023
    - All concerns evaluated
    - Revisions to 2021 draft included
    - Response to comments
- Water Right Permit
  - Submitted application to State Board in May 2022
  - 60-day public review of complete application in progress

# Engineering Update

- **2021** – Completed the Feasibility Analysis
  - The California Water Commission Determined the Project is Feasible
- **2022-2024** – Conducting Field Studies
  - Survey Mapping & Geotechnical Investigations to Inform Preliminary Engineering Analysis and Design
- **2024** – Complete 30% Design
  - Update Project Cost Estimate
- **2024 and Beyond** – Key Agency Reviews and Approvals



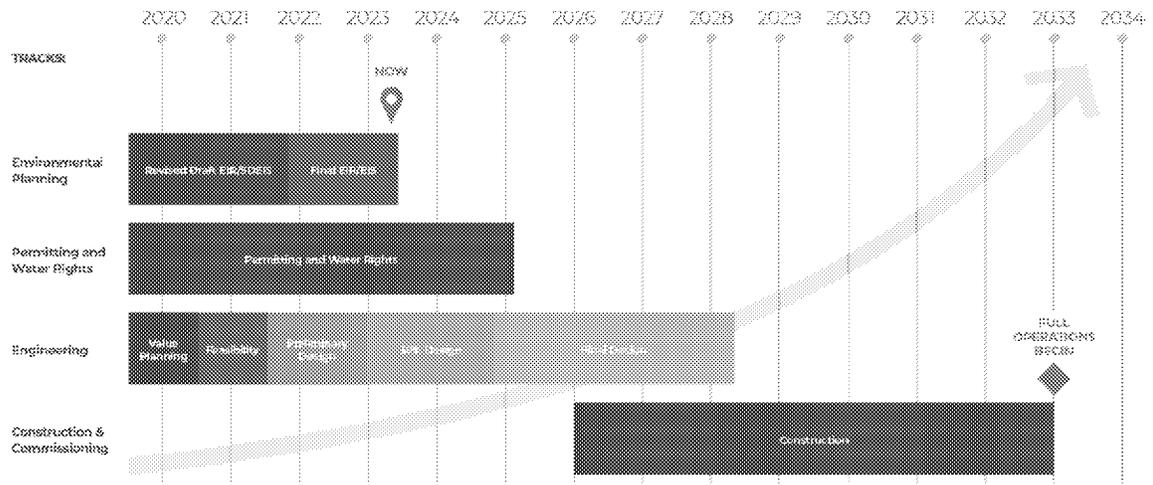
# Real Estate Update

- Coordinating with Landowners on project design. Two most frequently asked questions:
  - anticipated land needs and
  - timing for acquisition
- Securing Temporary Rights of Entry (TROE) and other agreements to conduct necessary technical field activities
- Having acquisition discussions on key project parcels or parcels associated with major project infrastructure
- Land Acquisition anticipated to start in 2024.



# Project Schedule

## Sites Reservoir Project Schedule



# Questions

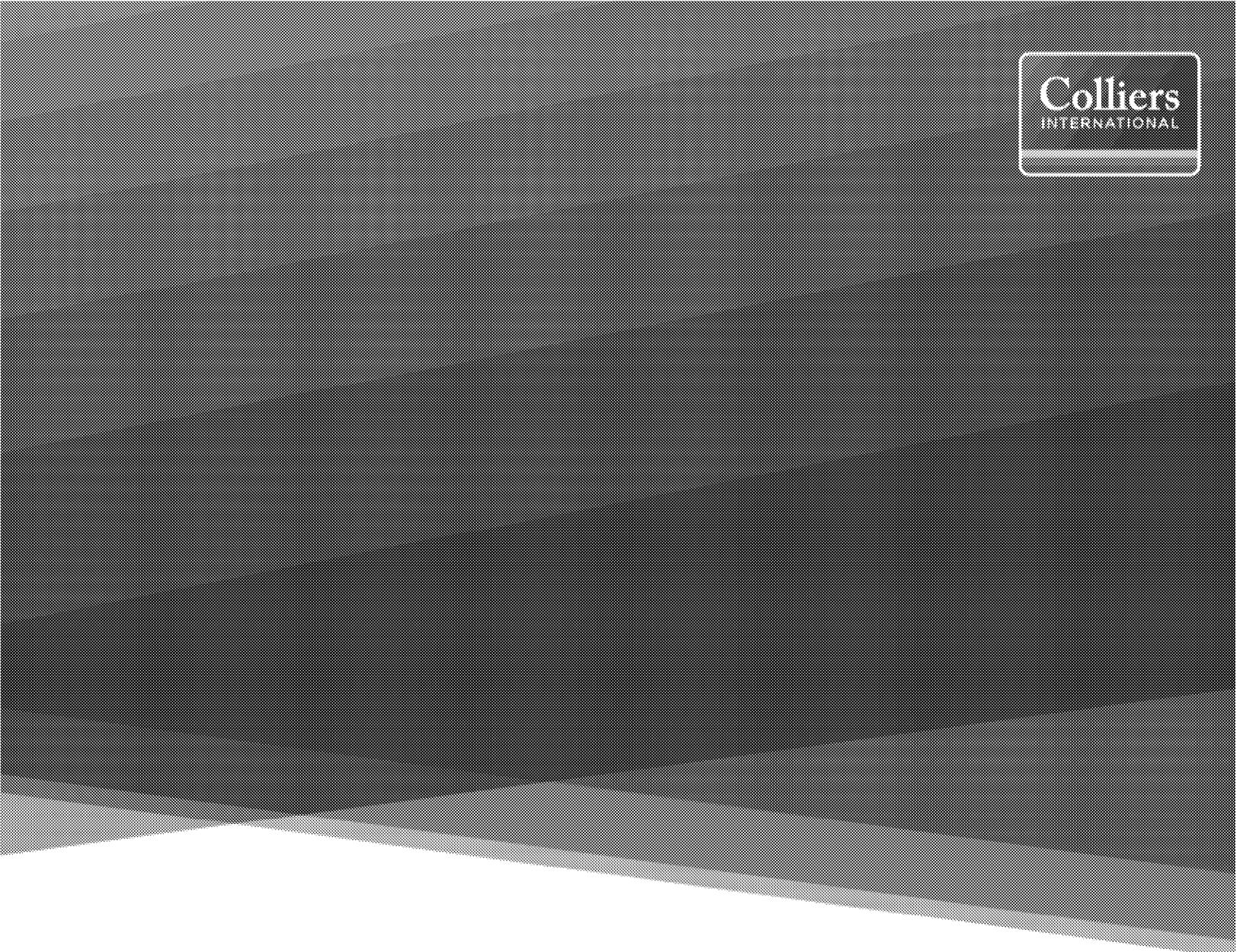
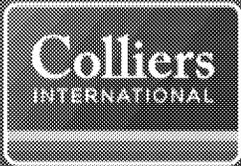


# Sites Reservoir Project - 3 Month Look Ahead

| Primary                                                                                                                                                                                                                              | Assigned To                                                 | Governing Body                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|
| <b>August 2023</b>                                                                                                                                                                                                                   |                                                             |                                               |
| <b>Consent Items</b>                                                                                                                                                                                                                 |                                                             |                                               |
| Minutes                                                                                                                                                                                                                              |                                                             | Joint Authority Board & Reservoir Committee   |
| Treasurer's Report                                                                                                                                                                                                                   | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| 2nd Quarter 2023 Financial Report                                                                                                                                                                                                    | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| Amend Contract with BGT Consulting to increase contract authority from \$100,000 to \$260,000                                                                                                                                        | Jerry Brown                                                 | Joint Authority Board & Reservoir Committee   |
| Placeholder: Maxwell Fire Department Sole Source Contract                                                                                                                                                                            | Joe Trapasso, Kevin Spesert                                 | Joint Authority Board & Reservoir Committee   |
| <b>Action Items</b>                                                                                                                                                                                                                  |                                                             |                                               |
| Facility Partner Cooperative Agreement with RD 108                                                                                                                                                                                   | JP Robinette                                                | Joint Authority Board & Reservoir Committee   |
| <b>Discussion and Informational Items</b>                                                                                                                                                                                            |                                                             |                                               |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Joint Authority Board & Reservoir Committee   |
| Biological Mitigation - Approach for Contracting                                                                                                                                                                                     | aforsythe@sitesproject.org                                  | Joint Authority Board & Reservoir Committee   |
| B&O - Overview of JPA/Bylaws                                                                                                                                                                                                         | Jerry Brown                                                 |                                               |
| Conditions Precedent Reporting (Ali/JP to discuss)                                                                                                                                                                                   | Ali Forsythe, JP Robinette                                  |                                               |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                                                                                                                                                   | All                                                         | Joint Authority Board & Reservoir Committee   |
| <b>Closed Session</b>                                                                                                                                                                                                                |                                                             |                                               |
| Water Rights - Protests Status Update Briefing                                                                                                                                                                                       | Ali Forsythe                                                | Joint Authority Board & Reservoir Committee   |
| <b>Committees/Workgroups</b>                                                                                                                                                                                                         |                                                             |                                               |
| WIFIA Ad Hoc Subcommittee discussion of comments on Draft 1 of Benefits & Obligations Contract                                                                                                                                       | JP Robinette                                                | WIFIA Ad Hoc Subcommittee                     |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Budget & Finance Committee                    |
| 2nd Quarter 2023 Financial Report                                                                                                                                                                                                    | Joe Trapasso                                                | Budget & Finance Committee                    |
| Placeholder: Maxwell Fire Department Sole Source Contract                                                                                                                                                                            | Joe Trapasso                                                | Budget & Finance Committee                    |
| Placeholder: Procurement Strategy, principles of how the Sites Authority will manage design, construction, and operations                                                                                                            | Cheyenne Harris, Jeffrey Kivett, JP Robinette               | Reservoir Operations & Engineering Workgroup  |
| Update on TRR sizing and considerations                                                                                                                                                                                              | Henry Luu, JP Robinette                                     | Reservoir Operations & Engineering Workgroup  |
| Placeholder - Cost estimate and risk overview                                                                                                                                                                                        | Henry Luu, JP Robinette                                     | Reservoir Operations & Engineering Workgroup  |
| Landowner Meetings - Maxwell & Dunnigan                                                                                                                                                                                              | Kevin Spesert                                               |                                               |
| Comms Team Update                                                                                                                                                                                                                    | Kevin Spesert                                               | Legislative & Outreach Committee              |
| Federal/State Legislative Update                                                                                                                                                                                                     | Kevin Spesert                                               | Legislative & Outreach Committee              |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Legislative & Outreach Committee              |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Environmental Planning & Permitting Workgroup |
| Biological Mitigation - Approach for Contracting                                                                                                                                                                                     | aforsythe@sitesproject.org                                  | Environmental Planning & Permitting Workgroup |
| <b>September 2023</b>                                                                                                                                                                                                                |                                                             |                                               |
| <b>Consent Items</b>                                                                                                                                                                                                                 |                                                             |                                               |
| Minutes                                                                                                                                                                                                                              |                                                             | Joint Authority Board & Reservoir Committee   |
| Treasurer's Report                                                                                                                                                                                                                   | Joe Trapasso                                                | Authority Board & Reservoir Committee         |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Authority Board & Reservoir Committee         |
| <b>Action Items</b>                                                                                                                                                                                                                  |                                                             |                                               |
| Adopt commitments of the Sites Authority with regards to the Sites Project's use of Lower Colusa Basin Drain and Knights Landing Ridge Cut (Lower CBD System) including map of geographical/jurisdiction extents of Lower CBD System | JP Robinette                                                | Joint Authority Board & Reservoir Committee   |
| <b>Discussion and Informational Items</b>                                                                                                                                                                                            |                                                             |                                               |
| Placeholder: Discuss how the Sites Authority will manage design, construction, and operations for the purpose of implementing a Procurement Strategy                                                                                 | Cheyenne Harris, Jeffrey Kivett, Joe Trapasso, JP Robinette | Joint Authority Board & Reservoir Committee   |

| Primary                                                                                                       | Assigned To                                 | Governing Body                               |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------|
| Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve              | Joe Trapasso, Marcus Maltby                 | Joint Authority Board & Reservoir Committee  |
| Placeholder - Draft 2 of Benefits & Obligations Contract including updated JPA and Bylaws                     | JP Robinette                                | Joint Authority Board & Reservoir Committee  |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                            | All                                         | Joint Authority Board & Reservoir Committee  |
| <b>Closed Session</b>                                                                                         |                                             |                                              |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                                | Joint Authority Board & Reservoir Committee  |
| <b>Committees/Workgroups</b>                                                                                  |                                             |                                              |
| Conveyance Ad Hoc Subcommittee                                                                                | JP Robinette                                | Conveyance Ad Hoc Subcommittee               |
| Payment of Claims                                                                                             | Joe Trapasso                                | Budget & Finance Committee                   |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve | Joe Trapasso, Marcus Maltby                 | Budget & Finance Committee                   |
| <b>No O&amp;E or EPP Workgroup This Month</b>                                                                 |                                             |                                              |
| Local Community Working Group (Bi-Monthly)                                                                    | Kevin Spesert                               |                                              |
| <b>October 2023</b>                                                                                           |                                             |                                              |
| <b>Consent Items</b>                                                                                          |                                             | Joint Authority Board & Reservoir Committee  |
| Minutes                                                                                                       |                                             | Authority Board & Reservoir Committee        |
| Treasurer's Report                                                                                            | Joe Trapasso                                | Authority Board & Reservoir Committee        |
| Payment of Claims                                                                                             | Joe Trapasso                                | Authority Board & Reservoir Committee        |
| <b>Action Items</b>                                                                                           |                                             |                                              |
| Final EIR/EIS - Approval of Project                                                                           | Ali Forsythe, Laurie Warner Herson          | Joint Authority Board & Reservoir Committee  |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve | Joe Trapasso, Marcus Maltby                 | Joint Authority Board & Reservoir Committee  |
| Approve 2024 Authority Board and Reservoir Committee Meeting Calendar                                         | Jerry Brown                                 | Authority Board & Reservoir Committee        |
| <b>Discussion and Informational Items</b>                                                                     |                                             |                                              |
| Placeholder - Lower Colusa Basin Drain System Initial Assessment                                              | JP Robinette                                | Joint Authority Board & Reservoir Committee  |
| Clean Water Act 404 and 401 Permit Applications                                                               | Ali Forsythe, Jelica Arsenijevic            | Joint Authority Board & Reservoir Committee  |
| Participant Soft Call - Request participant response within 60 days                                           | Brian Thomas, Cheyanne Harris, JP Robinette | Joint Authority Board & Reservoir Committee  |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                            | All                                         | Joint Authority Board & Reservoir Committee  |
| <b>Closed Session</b>                                                                                         |                                             |                                              |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                                | Joint Authority Board & Reservoir Committee  |
| Placeholder Clean Water Act 404 and 401 Permit Applications                                                   | Ali Forsythe, Jelica Arsenijevic            | Joint Authority Board & Reservoir Committee  |
| ED Performance Evaluation                                                                                     | Jerry Brown                                 | Authority Board & Reservoir Committee        |
| <b>Committees/Workgroups</b>                                                                                  |                                             |                                              |
| Placeholder: WIFIA Ad Hoc Subcommittee discussion of comments on Draft 2 of Benefits & Obligations Contract   | JP Robinette                                | WIFIA Ad Hoc Subcommittee                    |
| Informational Report out from WIFIA Ad Hoc Subcommittee meeting                                               | JP Robinette                                | Budget & Finance Committee                   |
| Payment of Claims                                                                                             | Joe Trapasso                                | Budget & Finance Committee                   |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserv  | Joe Trapasso, Marcus Maltby                 | Budget & Finance Committee                   |
| Consider re-prioritization of Amendment 3 Engineering activities                                              | Henry Luu, JP Robinette                     | Reservoir Operations & Engineering Workgroup |
| Placeholder: Consider alternative Reservoir Emergency Drawdown flow allocation                                | Henry Luu, JP Robinette                     | Reservoir Operations & Engineering Workgroup |
| Governance Adhoc                                                                                              | Jerry Brown                                 | Joint Authority Board & Reservoir Committee  |
| Clean Water Act 404 and 401 Permit Applications - Approval to Submittal                                       | Ali Forsythe, Jelica Arsenijevic            | Joint Authority Board & Reservoir Committee  |
| <b>Closed Session</b>                                                                                         |                                             |                                              |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                                | Joint Authority Board & Reservoir Committee  |
| Local Community Working Group (Bi-Monthly)                                                                    | Kevin Spesert                               |                                              |
| <b>Closed Session</b>                                                                                         |                                             |                                              |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                                | Joint Authority Board & Reservoir Committee  |
| Local Community Working Group (Bi-Monthly)                                                                    | Kevin Spesert                               |                                              |

| Primary                                    | Assigned To   | Governing Body |
|--------------------------------------------|---------------|----------------|
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
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| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |



**JENSEN RANCH**

Colusa County, California

**APPRAISAL REPORT**

Date of Report: July 20, 2023  
Client File #: RE-2023-01-01  
Colliers File #: FCH230056



PREPARED FOR  
Conner McDonald  
CMD West  
122 Old Highway 99  
Maxwell, CA 95955

PREPARED BY  
COLLIERS INTERNATIONAL  
VALUATION & ADVISORY SERVICES  
*Agriculture*

# LETTER OF TRANSMITTAL

COLLIERS INTERNATIONAL  
VALUATION & ADVISORY SERVICES

*Appraisal*

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Fresno, CA 93711 USA  
MAIN 559 221 1271  
FAX 559 222 8744  
WEB [www.colliers.com](http://www.colliers.com)



July 20, 2023

Conner McDonald  
CMD West  
122 Old Highway 99  
Maxwell, CA 95955

Re: Jensen Ranch  
Colusa County, California  
Colliers File #: FCH230056  
Client File #: RE-2023-01-01

Dear Conner:

Pursuant with our engagement, the above captioned property was appraised utilizing best practice appraisal principles for this property type. This appraisal report is intended to satisfy the scope of work and requirements agreed upon by CMD West and Colliers International Valuation & Advisory Services (CIVAS).

At the request of the client, this appraisal is presented in an appraisal format as defined by *USPAP* Standards Rule 2-2(a). This format provides a description of the appraisal process, subject and market data and valuation analyses.

As you requested, presented are the findings in the matter of the proposed project on the "Jensen Ranch" property, formally identified as Colusa County Assessor's Parcel(s) 011-130-004, 011-150-020, 011-150-017, 011-150-018 & 011-130-011.

In terms of identifying the "larger parcel," contiguous parcels surrounding the affected parcels have been considered. The subject property has perimeter fencing and its existing grazing operation is separated from surrounding parcels, which have their own grazing operations. Therefore, the subject's five contiguous parcels are defined as the larger parcel.

| SUMMARY OF PROPERTY & ACQUISITION                              |                      |               | % OF         |
|----------------------------------------------------------------|----------------------|---------------|--------------|
| Jensen Ranch                                                   | SQ. FT.              | ACRES         | PROPERTY     |
| Total Property Size                                            | 54,683,481.60        | 1,255.36      | 100%         |
| Contemplated Project Footprints:                               |                      |               |              |
| Reservoir Footprint; Golden Gate Dam; Project Buffer; Remnants | 12,636,756.00        | 290.10        | 23.1%        |
| Stockpile Area; Project Buffer; Remnants                       | 5,360,929.20         | 123.07        | 9.8%         |
| Quarry                                                         | 1,322,917.20         | 30.37         | 2.4%         |
| TRR Pipeline                                                   | 300,564.00           | 6.90          | 0.5%         |
| Funks Creek Pipeline                                           | 98,010.00            | 2.25          | 0.2%         |
| Haul Route                                                     | 217,800.00           | 5.00          | 0.4%         |
| <b>TOTAL AREA PERMANENTLY IMPACTED</b>                         | <b>19,936,976.40</b> | <b>457.69</b> | <b>36.5%</b> |
| Rights to be acquired by: Site Project Authority               |                      |               |              |
| Purpose of project: Sites Reservoir                            |                      |               |              |
| Existing use of area impacted: Rangeland                       |                      |               |              |
| Effective date of appraisal: March 3, 2023                     |                      |               |              |
| <b>Fair Market Value of Entire Property: \$1,681,865</b>       |                      |               |              |
| <b>Total Just Compensation: \$594,000</b>                      |                      |               |              |

The purpose of the project is to develop Sites' Reservoir, the construction of which would necessitate the purchase of land associated with the construction, operation, and maintenance of the Golden Gate Dam and other project features contemplated to affect the Subject. The conceptual pipeline alignments are contemplated as non-exclusive easements, allowing the Grantor only limited use of the area. As contemplated, the permanent easement areas would preclude permanent improvements like structures or any other agricultural, commercial, or residential activities. The landowner would be allowed to cross these easements. At this time, the specific terms of the anticipated easements are not known, so the easement areas have been valued at 95% of fee for the purposes of this assignment. Curative costs were not seen as applicable to the analysis of the easement areas.

The **Sales Comparison Approach** is considered to be the most reliable indicator of value and is given the most weight in the reconciliation process. Based on the most current market evidence, the highest probable market value per acre for the subject's rangeland is \$1,300 per acre. The sales utilized included five recent rangeland sales and one rangeland listing.

The **Cost Approach** was completed for the older farm support structures, a copy which is retained in the work file.

The **Income Approach** was not utilized, because the income producing capabilities of this property type is usually not typically used when determining the value of similar type properties.

A summary of the "Just Compensation" calculations are seen here.

| SUMMARY OF OFFSET RULE                                           |             |    |             | Before/After | Just Comp. |
|------------------------------------------------------------------|-------------|----|-------------|--------------|------------|
| Value of the whole BEFORE acquisition                            |             |    |             | \$1,681,865  |            |
| Value of the part acquired as part of the whole                  |             |    |             |              | \$594,077  |
| Curative measures                                                | without     | or | with        |              |            |
| Value of the remainder                                           | \$1,087,788 | or | \$1,087,788 |              |            |
| LESS: Costs to cure                                              | \$0         | or | \$0         |              | \$0        |
| Value of the remainder AFTER acquisition and costs is greater of | \$1,087,788 | or | \$1,087,788 | \$1,087,788  |            |
| Severance Damages: (Before - After with cure - part acquired)    |             |    |             |              | \$0        |
| LESS: Benefits                                                   |             |    |             |              | \$0        |
| PLUS: Temporary Easements                                        |             |    |             |              | \$0        |
| Final estimate of Just Compensation (rounded)                    |             |    |             |              | \$594,000  |

Details of "Just Compensation" Analysis are found in the following pages.

The analyses, opinions and conclusions communicated within this appraisal report were developed based upon interpretation of the requirements and guidelines of the current Uniform Standards of Professional Appraisal Practice (USPAP), the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the American Society of Farm Managers and Rural Appraisers (ASFMRA).

This appraisal has been prepared in compliance with the *Uniform Standards of Professional Appraisal Practice* (USPAP).

The report, in its entirety, including all assumptions and limiting conditions, is an integral part of, and inseparable from, this letter. *USPAP* defines an Extraordinary Assumption as, "an assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions. *USPAP* defines a Hypothetical Condition as, "that which is contrary to what is known by the appraiser to exist on the effective date of the assignment results but is used for the purpose of analysis."

The Extraordinary Assumptions and/or Hypothetical Conditions that were made during the appraisal process to arrive at the opinion of value are fully discussed below. The client is advised to consider these issues carefully given the intended use of this appraisal, as this use might have affected the assignment results.

#### Extraordinary Assumptions

- Various easement areas and overlaps were measured, but we relied upon client-provided files, figures, and documents and are assumed to be reasonably accurate for the purpose of this assignment, but they are not claimed to be survey-accurate.
- The subject property does not have fee simple access and requires an ingress/egress easement over privately owned or government owned lands to provide access. This appraisal is based upon the extraordinary assumption that there are ingress/egress easements in place that provide access to the property. A change to this assumption could alter the conclusions of this assignment.

#### Hypothetical Conditions

- The opinion of fair market value of the property in the before condition is based on the hypothetical condition that the project does not exist. This condition is used in order to eliminate the consideration of project influence in the before condition, as required by state and federal law.

- The opinion of fair market value of the property in the after condition is based on the hypothetical condition that the easements are acquired as of the effective date of value. This is a hypothetical value and is intended to capture the value of the property as if the proposed easements were acquired as of the current date of value. The easements are not acquired as of the date of this report, and it should not be construed as such. The value is contingent on the assumption that the rights acquired, and areas encumbered are in conformity with the documents included in the addendum of this report.

The opinion of value reflects conditions and the likely actions of market participants as of the date of value. It is based on the available information gathered and provided, as presented in this report, and does not predict future performance. Changing market or property conditions can and likely will have an effect on value.

The signature below indicates assurance to the client that the development process and extent of analysis for this assignment adhere to the scope requirements and intended use of the appraisal. If you have any specific questions or concerns regarding the attached appraisal report, please contact the individuals listed below.

Sincerely,

**COLLIERS INTERNATIONAL  
VALUATION & ADVISORY SERVICES**



---

**James W. Herrman**  
Senior Valuation Specialist | Agriculture  
California Certified General Appraiser: AG022197  
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**Ben Slaughter, ARA**  
Managing Director | Agriculture Valuation Leader  
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## AUTHORIZATION

Colliers International Valuation & Advisory Services was authorized by Conner McDonald of CMD West to perform this assignment.

## PURPOSE

The purpose of this appraisal is to formulate and present an opinion of the current market value As-Is of the fee simple interest in the real property known as the Jensen Ranch.

## CLIENT IDENTIFICATION

This appraisal report is completed for the sole use and benefit of the client and intended user, CMD West.

## INTENDED USE

The intended use of this appraisal is for the assistance and support of the Sites' Project Authority with their efforts in achieving the plan goals and objectives set forth in the 2020 Strategic Plan. This report is not intended for any other use.

## INTENDED USERS

No other parties other than those named are intended to use this report.

## PREVIOUS APPRAISAL

The appraiser(s) have not performed services on the property as an appraiser(s) within three years. No services have been performed in any other capacity.

## ASSIGNMENT DATES

Date of Report: July 20, 2023  
Date of Observation: May 10, 2023  
Valuation Date "As Is": May 10, 2023, a current date

## SCOPE OF WORK

The scope of the appraisal required collecting primary and secondary data relative to the subject property. Physical information was collected and obtained from appropriate governmental agencies/ sources and a physical site observation. The physical observation included the specific gathering of any items which may impact value, either positively or negatively. Observation of the property is limited to those things readily observable without the use of special testing or equipment.

Physical observation of property:

- The property was visited by James Herrman and Ben Slaughter

Identification of property:

- County assessor records and maps
- Legal description
- Aerial photography
- Physical observation

## Land use and physical data:

- Zoning, general plan, and land use maps and documents
- County assessor and tax collector records
- FEMA flood maps
- Fault hazard maps
- Topographic maps
- Road and area maps
- Farm demographics
- Soil survey maps
- Population demographics
- Physical observation

## Data specific to use of property:

- Trade publications and articles
- Correspondence with growers, managers, ranchers, and crop advisors
- Water district maps, descriptions, and cost structures

## Types of comparable sales discovered, considered, and analyzed:

- Rangeland

## Locations of comparable sales considered:

- Colusa County
- Glenn County
- Tehama County

## Valuation approaches utilized:

- Sales Comparison
- Cost (the farm support structures were valued with use of the Cost Approach, a copy of which is retained in the work file)

## Valuation approaches deemed not relevant or necessary:

- The Income Approach was not considered relevant to the valuation of the property, because these property types are not typically bought and sold, based upon their rental income.

This data has been analyzed and confirmed whenever possible, leading to the value conclusion set forth in this appraisal. All data considered material to the appraisal was reported. The valuation process involved utilizing all techniques and procedures considered appropriate to the assignment. The approaches utilized were considered to yield a credible opinion of value of the specific use of the intended user of this report.

**DEFINITION OF VALUE**

(a) The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available.

(b) The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable.  
(California Code of Civil Procedure, Section 1263.320.)

**GENERAL AREA DESCRIPTION, LIMITING CONDITIONS**

An integral part of this appraisal report is the Limiting Conditions, which are located in the addendum. The reader must review these items before proceeding in order to understand the process and limitations of this appraisal

report. The client is advised that these contingent and limiting conditions may materially affect the value opinion, other conclusions, and analyses set forth in the appraisal report.

The reader is also urged to visit the section in the addendum outlining the basic general area data for the subject property, which touches on the general physical and geographical characteristics, as well as the social, economic and governmental considerations impacting the subject market.

Unless otherwise explained or defined in this report, all terms and concepts are to be taken at their common meaning or as defined in accepted appraisal textbooks.

Before continuing on with the discussion of the physical characteristics of the subject property, a brief neighborhood analysis of the subject market is warranted.

### MARKET AREA SUMMARY

The subject property is located within the foothills of the northwestern Central Valley. The area consists of large rangeland holdings with some ranches having thousands of acres in size. As one moves west the parcels generally get bigger in size. As one moves west from the subject property, parcel sizes generally get larger in size, and when one moves east, parcel sizes generally get smaller in size, and there are a greater number of rural homesites.

|       | Adjoining Property Use  |
|-------|-------------------------|
| North | Rangeland               |
| East  | Rangeland & a reservoir |
| South | Rangeland               |
| West  | Rangeland               |

Colusa County is located in Northern California and in the westside of the Sacramento Valley.

Neighboring counties include Yolo, Sutter, Butte, Glenn and Lake. Interstate 5 traverses the county south to north, serving as the principal road system through California connecting beyond to Oregon and the US / Mexico border. Highway 20 travels east and west and connects the communities of Yuba City, Colusa, Williams and beyond through Lake County. Lastly, State Route 45 travels north and south on the east side of the county, serving the rural communities of Hamilton City, Glenn, Princeton, Colusa, Grimes, and Knights Landing.

According to the 2010 census, the population of Colusa County was 21,419 with its largest town and county seat being Colusa. Colusa County remains a sparsely populated county.

Agriculture is a large contributor to the county's economy. This area is rural and historically farmed to row crops and primary rice. Over the past several decades and accelerating over the past several years, farmers have begun planting walnut and almond orchards, particularly in the western edge of the Valley and along the Sacramento River where the soil quality is better. The quality of the orchards vary considerably, depending on input intensity, management skill and the underlying soil quality.

The 2017 value of agriculture production is estimated to be \$901,778,000. It is ranked 16th amongst the counties in the State in gross value of agricultural products. The top crops produced in the county (by value) include almonds, rice, walnuts, and processing tomatoes.

The following map shows the relative location of the property.

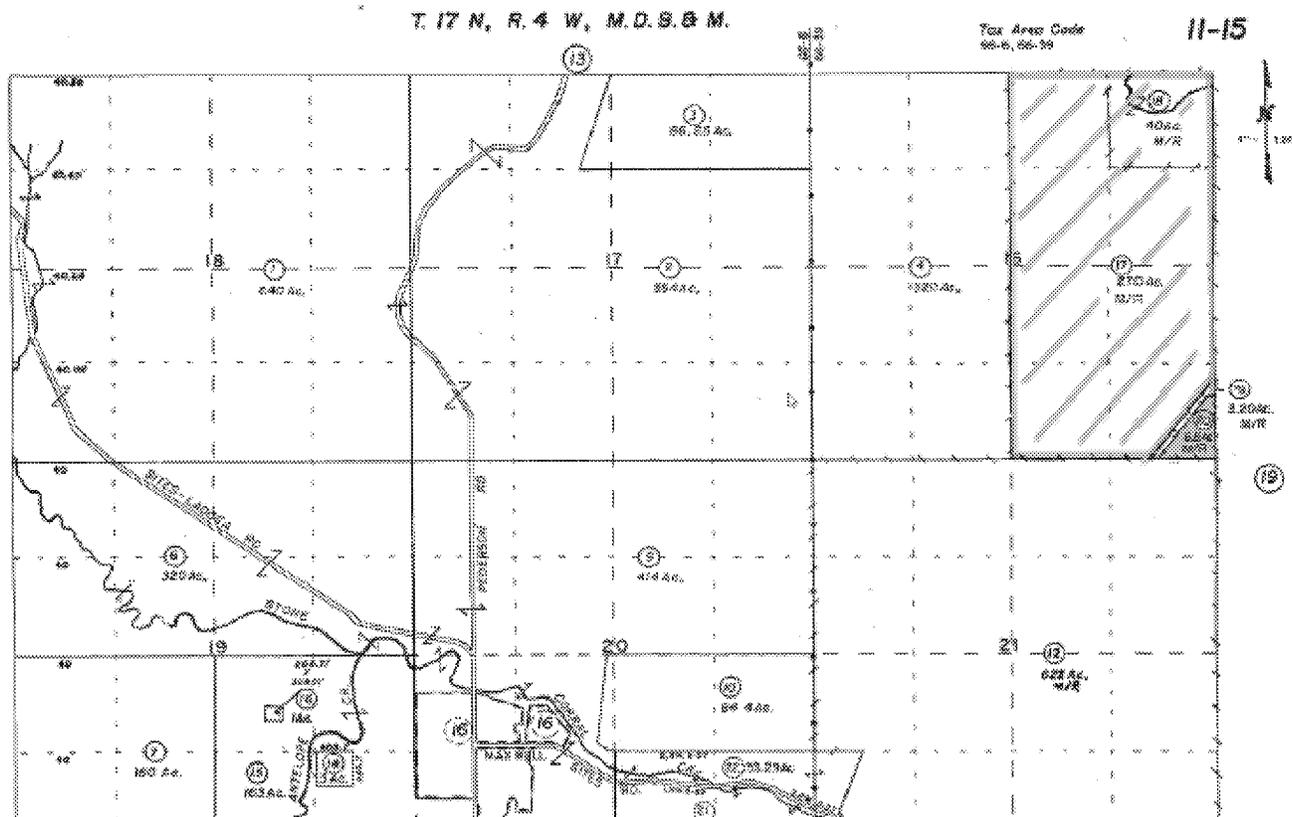


IDENTIFICATION

The property is commonly identified as follows:

| Assessor's Parcel Number | Assessed Acreage | Section | Township  | Range   | Census Tract |
|--------------------------|------------------|---------|-----------|---------|--------------|
| 011-130-004              | 300.50           | 16      | 17, North | 4, West | 4.00         |
| 011-150-020              | 6.80             | 16      | 17, North | 4, West | 4.00         |
| 011-150-017              | 270.00           | 16      | 17, North | 4, West | 4.00         |
| 011-150-018              | 40.00            | 16      | 17, North | 4, West | 4.00         |
| 011-130-011              | 638.06           | 16      | 17, North | 4, West | 4.00         |
| <b>Total:</b>            | <b>1,255.36</b>  |         |           |         |              |

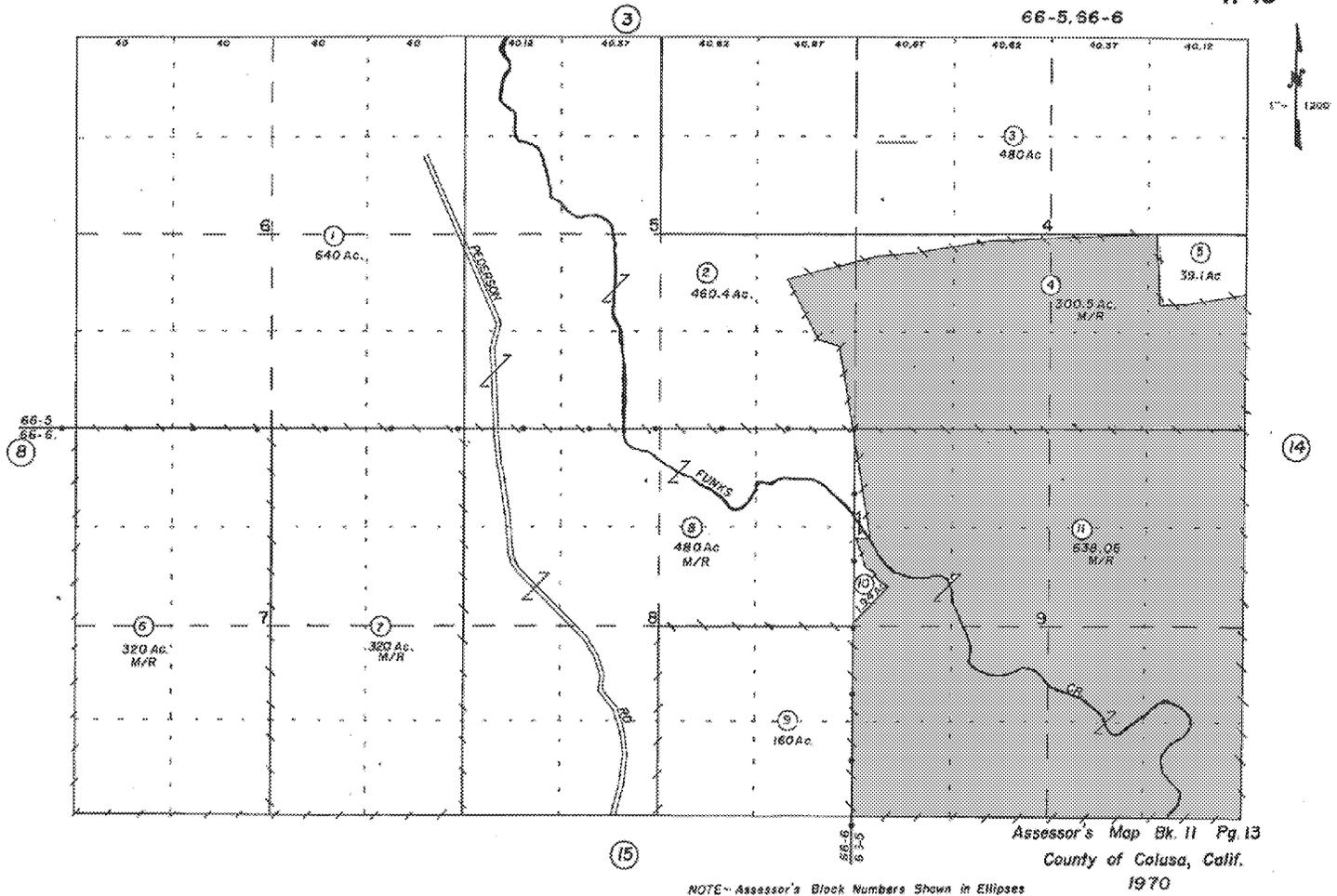
A complete legal description can be found in the addendum.



T. 17 N, R. 4 W, M.D.B. & M.

Tax Area Code  
66-5, 66-6

11-13



LOCATION & ACCESS

The property does not have a physical site address, but it is located in Colusa County, California 95955.

The approximate center of the property can be found at Latitude: 39.32588°; Longitude: -122.28554°.

The property is accessed via easement over the adjacent parcel to the south owned by Red Stick Farms Colusa, LLC (APN: 011-150-012) and via easement over government owned parcels to the east and southeast along the reservoir and district water canals. The access roads are a combination of dirt and gravel covered.

The property has its primary point of access just south of where Funks Creek flows into the Reservoir. Access around the property is provided by typical dirt farm avenues. In order to access the northern reaches of the property one must cross through Funks Creek, which requires a four-wheel drive vehicle. At the time of the property's observation the water flows were too high to cross.

The following is a map of the portions of the property that are currently anticipated to be affected by the proposed project:



The following table provides a breakdown of the areas that are anticipated to be affected by the proposed project:

| <b>SUMMARY OF PROPERTY &amp; ACQUISITION</b>                   |                      |               |                      |
|----------------------------------------------------------------|----------------------|---------------|----------------------|
| <b>Jensen Ranch</b>                                            | <b>SQ. FT.</b>       | <b>ACRES</b>  | <b>% OF PROPERTY</b> |
| Total Property Size                                            | 54,683,481.60        | 1,255.36      | 100%                 |
| Contemplated Project Footprints:                               |                      |               |                      |
| Reservoir Footprint; Golden Gate Dam; Project Buffer; Remnants | 12,636,756.00        | 290.10        | 23.1%                |
| Stockpile Area; Project Buffer; Remnants                       | 5,360,929.20         | 123.07        | 9.8%                 |
| Quarry                                                         | 1,322,917.20         | 30.37         | 2.4%                 |
| TRR Pipeline                                                   | 300,564.00           | 6.90          | 0.5%                 |
| Funks Creek Pipeline                                           | 98,010.00            | 2.25          | 0.2%                 |
| Haul Route                                                     | 217,800.00           | 5.00          | 0.4%                 |
| <b>TOTAL AREA PERMANENTLY IMPACTED</b>                         | <b>19,936,976.40</b> | <b>457.69</b> | <b>36.5%</b>         |

**TITLE HISTORY**

Title to the property is vested in “Shirley Jean Jensen Trust”.

The parcels were not known to have been sold or listed within the last 3 years.

**OCCUPANCY**

The property is occupied and operated under the control by one rancher tenant. The tenant reportedly pays \$34 per acre, per year, on a year-to-year lease term. It was reported that the ownership intends to increase the rental rate next year.

**EASEMENTS AND ENCUMBRANCES**

Typical easements for the area are for utility power lines which are generally overhead structures. Telephone line easements are overhead or underground. Irrigation districts often have easements for canals or underground pipelines. In some areas the county maintains easements for roads while other roadways are owned in fee by the county. These types of easements are typical in rural areas.

A Preliminary Title Report, produced by Placer Title Company, dated November 30,2022 was provided to the appraisers and was reviewed as part of this assignment. Existing easement and encumbrances were found to be customary to similar properties.

**ZONING AND TRENDS**

The zoning ordinances governing the property is F-A Foothill Agriculture. The purpose of the zoning as described in the ordinance is:

The purpose of the F-A zone is to protect, support, and maintain a viable, long-term agricultural sector in areas of the County with soil types that are not optimal for crop production. The F-A zone is intended to be applied in areas where agricultural activities such as grazing, orchards, and vineyards are the natural and desirable primary land use, and where the protection of agriculture from the encroachment of incompatible land uses is essential to the general welfare and economic prosperity of the County.

The property appears to be in compliance with the zoning ordinance.

**UTILITIES**

The property does not have access to electricity, telephone services or a potable water source. The property has a small bungalow that has an older septic system and propane tank. The utilities improved on the property include:

|                          |                          |                                     |                          |                          |                          |                          |                                     |                          |                          |  |               |  |                 |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--|---------------|--|-----------------|
|                          | Electrical               |                                     | Propane                  |                          | Natural Gas              |                          | Domestic Well                       |                          | Municipal Water          |  | Septic System |  | Municipal Sewer |
| Service at building site | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |               |  |                 |

**Surface Water:**

The property has riparian water rights associated with Funks Creek, which is a year-round waterway. Funks Creek flows through the middle of the property, generally flowing from the west to the southeast and flows into the 222+/- acre Funks Reservoir that is used to regulate water flows within the local district canal. The reservoir backs up into Funks Creek along the eastern edge of the subject property, which provides deep pools of water on the subject property. The deep pools provide reliable stock water for cattle grazing.

There are two small stocking ponds within the farmstead envelope and the property has multiple small springs. There are water tanks located on a small hill on the edge of the farmstead. Water was historically pumped from Funks Creek up to the holding tanks providing the farmstead gravity fed water for domestic use.



***View of Funks Creek looking northwest on the east side of the property***



***View of Funks Creek looking southeast on the east side of the property***



***View of water tanks on edge of farmstead envelope***



***View of Funks Creek looking northwest towards the Golden Gate gap***



***View of stock ponds within building envelope***

## SOILS

The soil information included in this report is based on the *Web Soil Survey*<sup>1</sup>, maintained by the United States Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS). Specific soil types found on the property are shown on the following soil map and description:

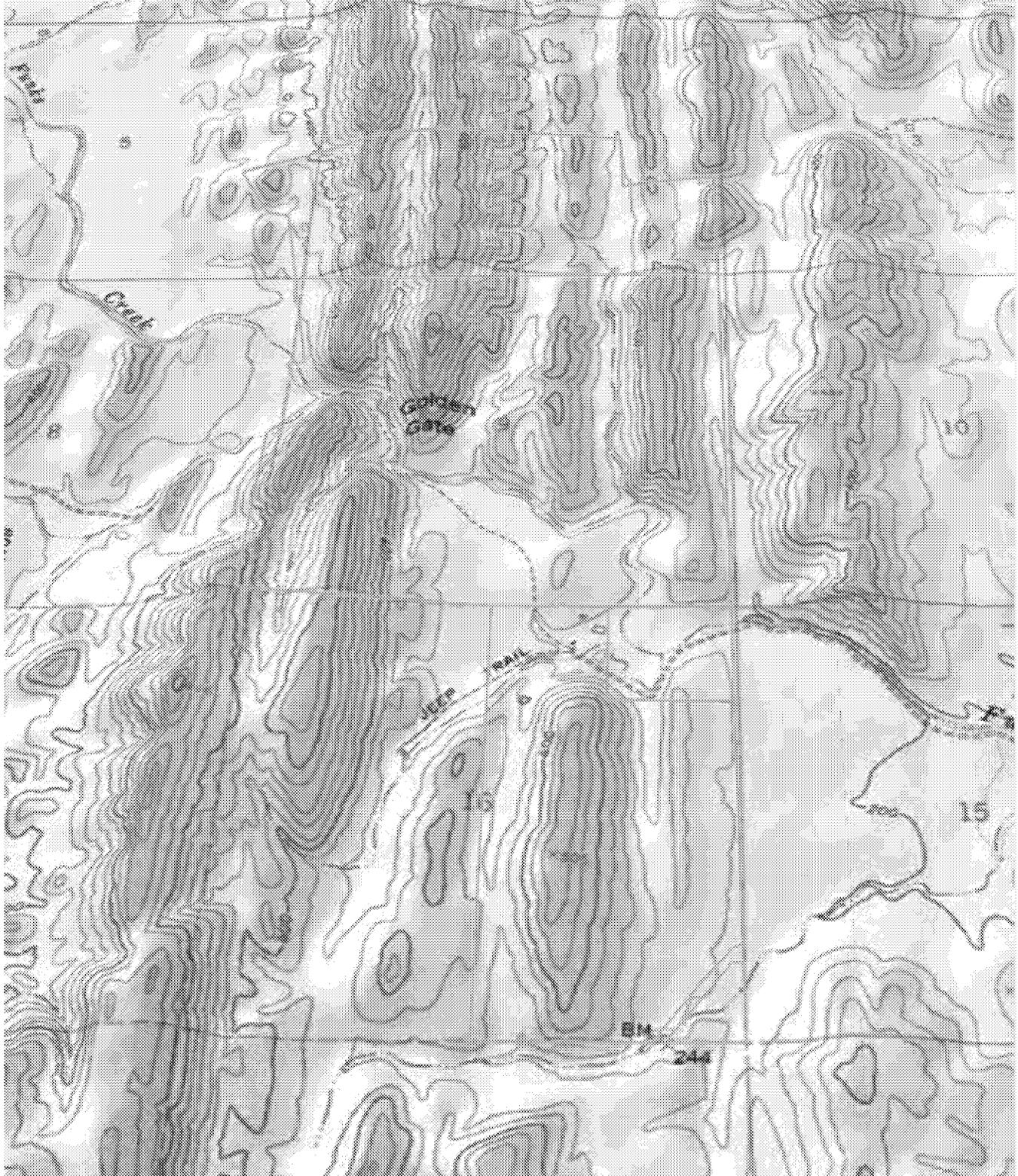
<sup>1</sup> <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>



The subject soils are typical of the surrounding area.

#### PROPERTY DESCRIPTION AND LAND USE

Gross Acres: 1,255.36  
Shape: Irregular  
Topography: Level; Sloping; Undulating; Steep  
Slope (min – avg – max): 0 – 22.1 – 75  
Elevation (low – high): 200 to 652 feet above sea level  
View: Local  
Viewshed: Foothills & valley floor  
Native Land Cover: Native grasses and a few native trees  
Water Bodies: Funks Creek  
Recreational Use: Limited – Hiking; Camping; Horseback Riding





*Typical view of rangeland*



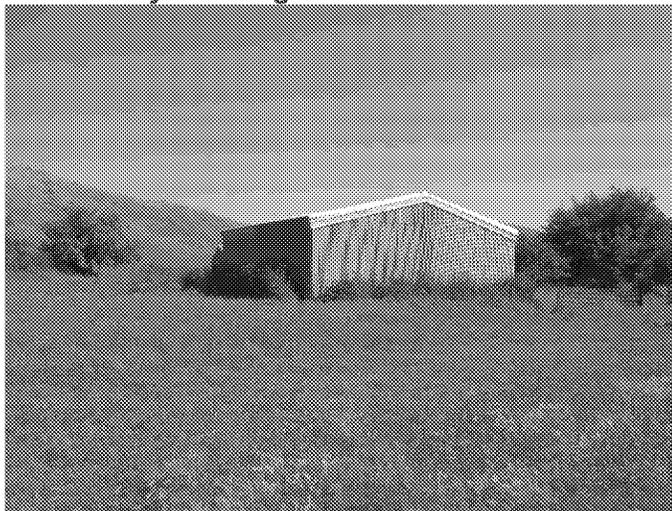
*Typical view of rangeland*

**BUILDING IMPROVEMENTS**

The property is improved with three structures: a shop building; a feeder barn; and a cottage. The cottage has reached the end of its economic life and has no contributory value. The three buildings are described below as follows:

| Building      | Size          | Build Date | Actual Age | Effective Age | Stories | Quality  | Condition |
|---------------|---------------|------------|------------|---------------|---------|----------|-----------|
| Calving Barn  | 7,780 sq. ft. | 1980       | 43         | 30            | 1       | Low Cost | Fair      |
| Farm Utility  | 1,725 sq. ft. | 1980       | 43         | 25            | 1       | Low Cost | Average   |
| Cottage       | 665 sq. ft.   | 1980       | 43         | 40            | 1       | Cheap    | Poor      |
| <b>10,170</b> |               |            |            |               |         |          |           |

**Farm Utility Building**



The 1,725 square-foot farm utility building is a wood-framed structure with metal siding, a metal roof and a dirt floor. The building has a clear height ranging from 14' to 16'. The building had a newer roof put on it a few years back.

The building has an overall low cost building quality and an average building condition.

**Calving Barn**

The 7,780 square-foot calving barn is a wood-framed structure with metal siding (2-sides), a metal roof and a dirt floor.

The building has an overall low cost building quality and a fair building condition.



***Cottage (No contributory value)***

**PROJECT DESCRIPTION AND IMPACTS**

The Sites Reservoir Project is a proposed 1.5-Million-Acre-Foot, off-stream, water storage effort to provide additional water storage capacity and flexibility to the overall water infrastructure of the State. The reservoir would capture excess water from major storms, and store it for drier periods, providing an additional, flexible water supply for California's farms, businesses, and cities, when other sources are low.

To deliver the project would require the construction of two primary dams -- the Golden Gate Dam and the Sites Dam. The contemplated Golden Gate Dam is located in the northwestern portion of the Subject Property, where Funks Creek passes through the local ridgeline. In addition to contemplated Golden Gate Dam, to construct and operate the proposed reservoir would require the development of a local quarry, haul road, pipelines, and stockpile areas. The nature and location of these proposed project features create the potential for remnant remainder parcels on the Subject, and these areas have also been included in, and considered, with regard to project impacts.

**HIGHEST & BEST USE**

The property is zoned for agricultural use and only a few of legally permissible agricultural uses are physically possible. The property's sloping and lack of reliable water resources makes permanent crops like almonds and pistachios non-viable. The property has historically been used for the grazing of sheep and cattle. Funks Creek and surrounding springs provide a reliable water source for animal grazing. The subject's farm utility and calving barn improvements are close to ideal, because they provide adequate support buildings for an animal grazing use. The maximally productive use of the property is continued use as animal grazing.

The Sales Comparison Approach was deemed to be a reliable indicator of value for the subject property.

- *The subject property consists of a rangeland property with 1,255.36 acres.*

Several purchases of similar properties have been observed. Unfortunately, no sales were discovered that contained similar enough improvements of similar sizes that the value estimate could be done on an overall (total price) basis. Thus, we turn to a unit analysis which measures value on the basis of price per unit.

Rural properties in the region can be complex as some properties contain multiple assets (mixed use), all of which are recognized as having different values by market participants. Permanent crops are typically measured on a per-acre basis, with "acres" being the net planted acreage. Similarly, farmable (plantable) land is also measured on a per-acre basis. Rural residences and farm buildings are typically measured on a square-foot or lump-sum basis depending on the characteristics of the improvements. Processing facilities are the most complex assets and they are viewed on several units of size and capacity or a lump sum.

As parcel sizes in the area are not uniform and each improvement on each property tends to be unique, measurement of total value on a single-unit basis (ex: total price ÷ total acres) often yields misleading ranges. For instance, measuring a farm that is planted with half permanent crops and half field crops this way would yield a misleadingly low indicator for permanent crops and a misleadingly high indicator for field crops. Similarly, not properly handling a large custom home would yield a misleading high indicator.

Recognizing these factors, the market has evolved to recognize each asset of a property on an individual basis drawing from puritan sales of each asset whenever possible. In this process, market participants are ever mindful of the total price and that the sum-of-the-parts may or may not equal the whole. The characteristics of one asset may impact the value of another. A single dominant asset such as a large facility, a large farm tract, or large home may render the considerations paid for other assets as secondary.

## SALE ALLOCATIONS

Thus, attempting to reflect the views of the market, sales were selected that contain assets most similar to the subject. Attempts were made to identify transactions that contain a similar mix of assets to the subject property. The sales prices of each comparable transaction are carefully allocated using puritan sales and matched pairs whenever possible, with strong consideration given to the contribution of each asset to the whole. The sale allocation process generally follows the procedure below.

- Identify the most "pure" transactions in the market, i.e., those that have only one use
- Apply the "puritan" indicators to sales with only one improvement type or second use
- Apply derived indicators to sales with third (etc.) improvement or use type
- Test resulting allocations against other known data when available
- Test results against allocations made by buyers and sellers
- Consider the contribution of each asset to the whole

## OPEN LAND VALUATION: RANGELAND

The following transactions were considered to be the best examples of properties that are comparable to the subject. The sale price attributed to the Land have been isolated and measured on a per-acre basis. The sales are summarized as follows:

| Land Sales Summation Table          |                                  |                             |                        |                         |                    |                    |
|-------------------------------------|----------------------------------|-----------------------------|------------------------|-------------------------|--------------------|--------------------|
| Sale Number                         | L1                               | L2                          | L3                     | L4                      | L5                 | L6                 |
| <b>Property Name</b>                | Shintaffer Farms,<br>1,000 acres | Red Stick Colusa<br>Maxwell | Indian Valley<br>Ranch | Hartill Ranch           | Holzappel Ranch    | Keegan Ranch       |
| <b>Grantor</b>                      | Shintaffer Farms<br>Inc          | Olney Trust                 | Simpson                | Red Stick Farms         | Baker              | Keegan             |
| <b>Grantee</b>                      | Michael Lagrande                 | Red Stick Colusa<br>LLC     | Martin                 | Butte Creek<br>Property | Holzappel          | BRL Holdings LLC   |
| <b>State</b>                        | California                       | California                  | California             | California              | California         | California         |
| <b>County</b>                       | Colusa                           | Colusa                      | Colusa                 | Colusa                  | Glenn              | Colusa             |
| <b>City</b>                         | Maxwell                          | Maxwell                     | Maxwell                | Maxwell                 | Willows            | Williams           |
| <b>Recorded Date</b>                | 6/1/2018                         | 5/17/2019                   | 5/15/2020              | 8/27/2020               | 3/1/2022           | 4/14/2023          |
| <b>Doc Number</b>                   | 2018-0001869                     | 2019-0001390                | 1363                   | 2509                    | 858                | 939                |
| <b>Parcel Number</b>                | 011-140-001+                     | 011-150-004+                | 014-160-021+           | 011-210-022+            | 018-110-017+       | 016-180-009+       |
| <b>Total Sales Price</b>            | <b>\$1,200,000</b>               | <b>\$19,626,500</b>         | <b>\$1,600,000</b>     | <b>\$1,848,000</b>      | <b>\$1,837,000</b> | <b>\$2,700,000</b> |
| <b>Adjustments</b>                  | \$0                              | \$0                         | \$0                    | \$0                     | \$0                | \$0                |
| <b>Adjusted Sales Price</b>         | <b>\$1,200,000</b>               | <b>\$19,626,500</b>         | <b>\$1,600,000</b>     | <b>\$1,848,000</b>      | <b>\$1,837,000</b> | <b>\$2,700,000</b> |
| <b>Total Acres</b>                  | 1000.00                          | 5417.36                     | 1416.03                | 1231.80                 | 1837.00            | 2607.19            |
| <b>Price per Acre</b>               | <b>\$1,200</b>                   | <b>\$3,623</b>              | <b>\$1,130</b>         | <b>\$1,500</b>          | <b>\$1,000</b>     | <b>\$1,036</b>     |
| <b>ALLOCATION OF PURCHASE PRICE</b> |                                  |                             |                        |                         |                    |                    |
| <b>Farm Support Buildings</b>       |                                  |                             | \$10,000               | \$50,000                |                    |                    |
| <b>Residential, Single-Family</b>   |                                  |                             |                        |                         |                    |                    |
| <b>Other Open Land</b>              |                                  | \$16,089,744                | \$648,969              | \$875,000               | \$240,000          | \$305,500          |
| <b>Total Other Assets</b>           | \$0                              | \$16,089,744                | \$658,969              | \$925,000               | \$240,000          | \$305,500          |
| <b>Net to Open Land</b>             | \$1,200,000                      | \$3,536,756                 | \$941,031              | \$923,000               | \$1,597,000        | \$2,394,500        |
| <b>Net Acres</b>                    | 1000.00                          | 3929.36                     | 941.03                 | 981.80                  | 1637.00            | 2372.18            |
| <b>Land Price per Acre</b>          | <b>\$1,200</b>                   | <b>\$900</b>                | <b>\$1,000</b>         | <b>\$940</b>            | <b>\$976</b>       | <b>\$1,009</b>     |

- Sale L2's Other Open Land category consists of 1,488 acres of irrigated crop land, L3 has 475 acres of meadow pasture, L4 has 250 acres of dry farm, L5 has 200 acres of meadow pasture and L6 has 235 acres of meadow pasture.
- Sale L3 has two small shop buildings with a total of 952 square feet, with a contributory value of \$10,000.
- Sale L4 has a 10,000 square foot hay barn, with a contributory value of \$50,000.
- Sale L4 represents a portion of sale L2.
- Listing L6 previously sold on 7/8/16 for \$2,500,000 or \$959 per acre.

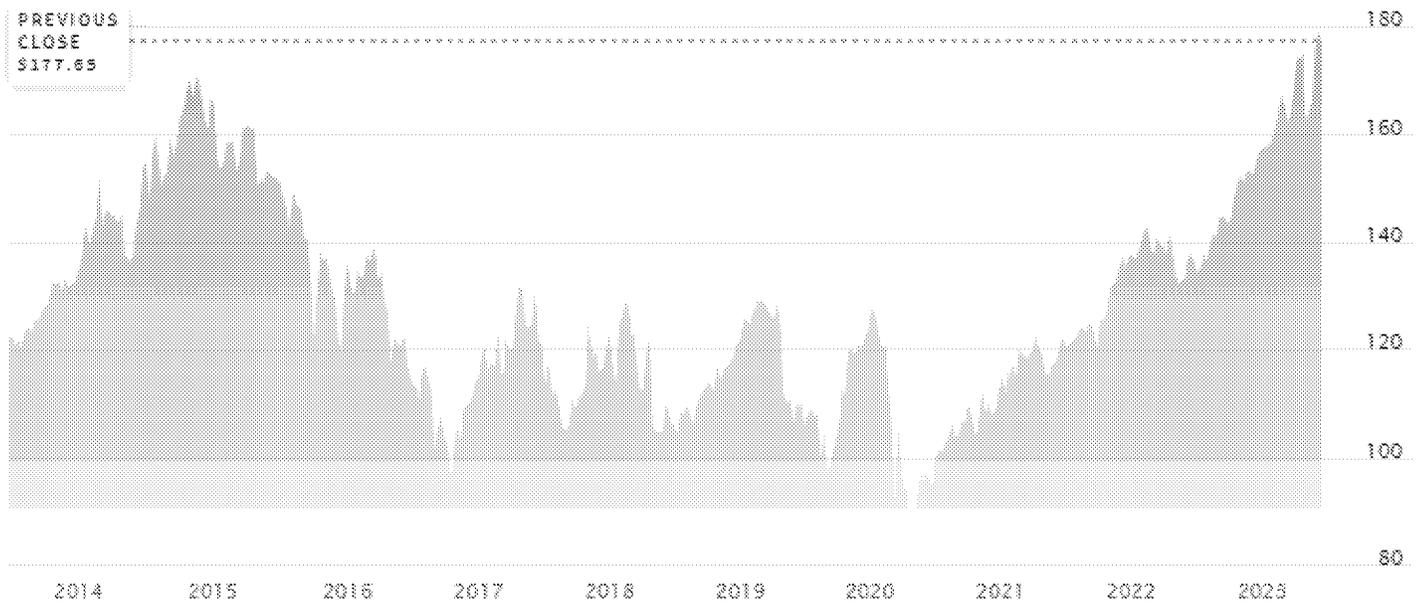
Reviewing the 10 basic elements of real property comparison<sup>2</sup>, unless otherwise stated, all of the sales are seen as equal and no adjustments are deemed necessary in terms of **real property rights transferred (1)**, **financing terms (2)**, **sale conditions (3)**, and **immediate expenditures made (4)**. The fee simple rights have transferred in all cases, consideration were paid in cash or its equivalent (including conventional financing), all sale conditions are seen as typical for the market, and no extraordinary immediate expenditures are known.

**Market Conditions (5)** can have a large impact on value. Estimating changes in market conditions can be challenging for large cattle ranches. There are so few sales that statistical trend or match pair analysis do not provide any meaningful insight.

Like most agricultural land, cattle ranch prices are influenced by the product raised on that land. In the specific case, the price of live cattle must be considered.

<sup>2</sup> The Appraisal of Real Estate, 13th Edition, page 309

Jun 23, 2023

1M 6M YTD 1Y 5Y **MAX**

<https://www.nasdaq.com/market-activity/commodities/le>

As can be seen in the graph, live cattle prices are currently up from the COVID induced crash from lack of restaurant sales and in a similar range observed since 2015. Peaks were seen in the 2014-2015 period which is highly correlated with a weak US Dollar fueling export demand. The recent spike in commodities, including corn, are a major concern for cattle feeders as these commodities are the major input in to finishing beef. The US beef herds are near all-time lows as an industry. Further decoupling cattle price and beef price is the fact that the meat processing industry is mostly controlled by an oligopoly of large companies (Tyson, JBS, Cargill, and Smithfield). This factor has caught the attention of both cattle suppliers and the Federal Government.

Beef consumption in the US declined from highs near 80 pounds per capita in the 1970s down below 60 pounds in recent years and saw much of its market share replaced by chicken. On the world stage, rising middle class incomes in China and India boosted demand for animal proteins in the early 2000s. Most of these changes have stabilized in the most recent decade, although general economic principles hold that more affluence leads to more meat consumption. Like most agriculturalists, cattle ranchers are optimists, and are perhaps the ultimate example. Despite low prices and flagging beef consumption, ranchers soldier on, and often see expansion of their operations as their salvation.

- *The fundamentals of beef production indicate stagnate or softer prices for ranches as higher cattle prices are offset by low herd number and high feed costs.*

Increasing consumer interest in organically, sustainably, grass finished, or regeneratively raised beef could buoy the market for the traditional cattle ranch. However, these market segments are still relatively small and do not yet have a direct bearing on the broader market for ranch properties.

Cattle operators are not the only buyers for ranches (although they often wind up as the tenant). The high-net-worth individual is sometimes seen as a most likely buyer as they live out their own personal Kevin Costner or John Wayne roles on their trophy ranches. These buyers usually value natural beauty over forage production and are attracted to ranches with amenities like those where a river runs through it. Hunting and fishing potential can indeed be a driver in trophy ranch demand and pricing. In some places, landowner tags for hunting large game can be an attraction and provide a supplemental source of income to what is otherwise scant rentals to a cattle operator. The high-net-worth individual's buying power and appetite has little to do with cattle prices and is correlated to success in places like Wall Street, Hollywood, or Silicon Valley. Most recently, there have been more of these types of trophy ranches offered for sale in the American West than is typical, including large ranches for sale in California and Wyoming. It is yet to be seen if subsequent generations will share in the Baby Boomers' appetite for trophy ranch holdings.

- *The subject ranch does not have the amenities, aesthetics, or location that would be typically associated with a trophy ranch.*

Other buyers on the periphery include land trusts, mining companies, renewable energy companies, and Native American tribes. Land trusts, miners, and energy companies have other tools to use than buying ranches and often use conservation easements and leases to accomplish their goals. The ranches that these entities are attracted to are site specific and have to have the resources that are to be protected or utilized. Land trusts largely depend on government grants that were largely sequestered during the Trump administration and have not yet opened up under Biden. While demand for renewable energy projects is ever-present in the 2020s, COVID-19 suppressed energy prices around the world and squelched demand for all but the most beneficial projects.

- *Given current trends in the land preservation and energy sectors, little influence from these potential buyers is detected.*
- *The property could be attractive to local Native American tribes, although this influence is site and buyer specific.*
- *No market conditions adjustment is applied given the behavior of the market.*

**Location (6)** is often the primary factor in the price paid for land. Large-scale cattle ranches are mostly a phenomenon of the American West. Cow-calf operations are common in the Midwest, but the moisture in the summer leads to pastures rich with forage and high carrying capacity. There are many smaller operators in the Midwest, Southeast, and East Coast. The arid west is generally a very different story. Limited precipitation means limited grass and forage growth. This means that land can generally support far fewer animals than wetter parts of the country. The lowest carrying capacities are found in the desert regions in places like Arizona, Nevada, New Mexico, West Texas, and Southern California. Moving north into the Rocky Mountains means higher elevations which can increase precipitation and cooler temperatures can also mean longer growing seasons. Many cattle operations are nomadic, following the grass as it grows in different latitudes and elevations.

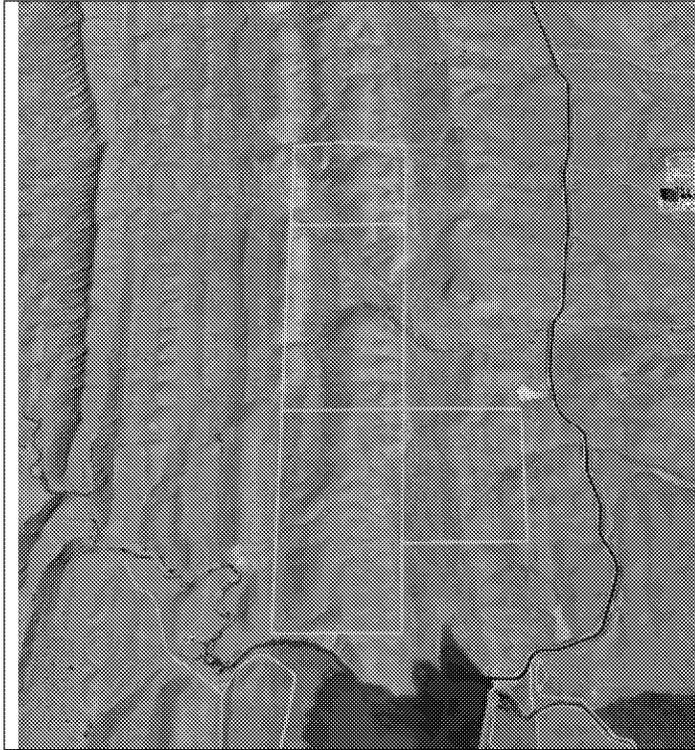
For recreational ranches, proximity to urban services can make a difference and those properties that are "close in" attract a lot more attention than remote locations.

Ultimately, this means that location is a priority in selecting comparable ranch sales as some locations may have far too different forage capacities to make accurate comparisons without major adjustments.

- *All sales were selected from Colusa and Glenn Counties.*

The location of the sales and the subject property are summarized on the following map.





**Land Sale 1**



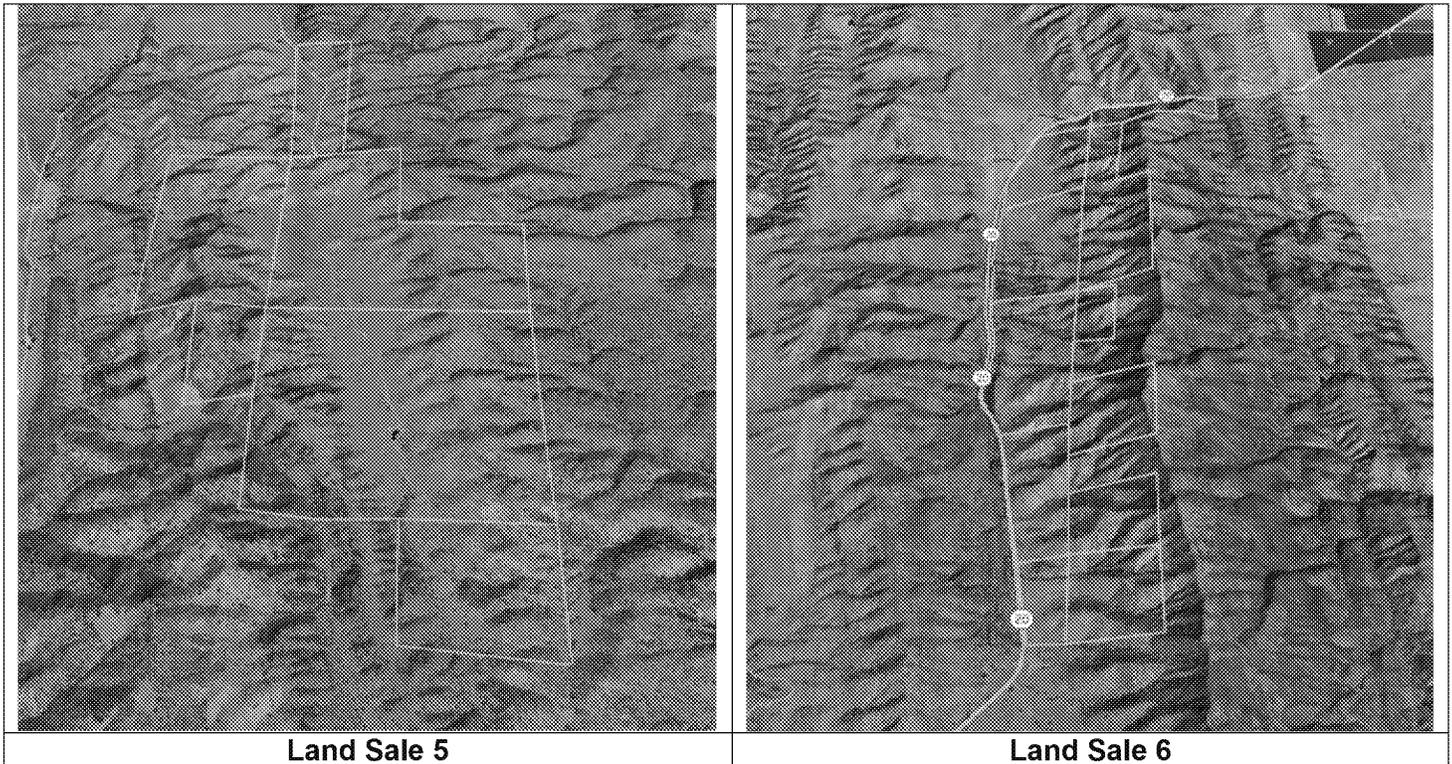
**Land Sale 2**



**Land Sale 3**



**Land Sale 4**



Land Sale 5

Land Sale 6

The **Physical Characteristics (7)** of ranch land can also be quite important. The factors considered relevant are access, size, elevation, annual precipitation, water supply, utilities, and building improvements.

Access is a somewhat important characteristic to buyers of ranches. Properties that are located closer to primary roads are desired for ease of access. With many nomadic cattle operations, moving animals is done by gathering into corrals and loading into trucks to chase the next patch of green grass. With ranches attractive as trophy properties access is even more important to buyers who like privacy, but still like to go to town. Perhaps just as important, finding permanent and temporary labor for ranches in remote locations can be difficult and more costly.

Smaller ranch holdings are attractive to a greater pool of buyers and often command premium prices. The size of a property that is actually an economic unit is highly variable and depends on location. In most places in the west, an economic unit is measured in thousands of acres, if not tens of thousands of acres. Again, the low carrying capacities of the arid west necessitates vast tracks of land to support cattle. Smaller tracts in these areas may be considered "add on" units to a larger economic unit. When they are too small to be economic units, they may also just be best used as recreational properties or homesites to non-ranching buyers while the land is leased to the neighboring cattle rancher. Land with better precipitation and carrying capacity can result in smaller tracts considered economic units.

- *The six comparables bracket the subject's size, but R2 and R6 both had much larger sizes and are considered to have inferior site sizes.*

Elevation and annual precipitation are important characteristics as they impact the type of natural forage and grazing conditions. As discussed, these factors are linked to location. Also, large variances in a property's elevation is a sign of varied topography which can impact access and usability. Elevation and annual precipitation impact the carrying capacity of the ranch, another important element of comparison.

Year-round stock water is very important for a successful cattle operation. Ranches in arid regions usually use an all-of-the-above approach to collecting and storing water used for drinking by cattle. Collection systems can range from rainwater capture reservoirs, to wells with tanks and troughs, to developed springs. Natural creeks, streams,

ponds, and rivers can play a vital role in providing stock water. Those ranches with more developed water systems and more reliable water sources are obviously more desirable to keep cattle happy, cool, and gaining weight.

- *We have considered the water supply, distribution systems, and overall adequacy for each of the comparables and the subject.*

Access to utilities in rural areas is a very important element of comparison as some water systems may require pumping of water. Most ranches are located in remote areas and may not have electrical service. In the old days, windmills pumped water. Today solar panels have largely replaced windmills. Some ranches in areas with more moisture and runoff can capture and store stock water without power needs.

Lastly, we have considered building improvements such as the extent and condition of homes and other building improvements. Most building improvements provide utility to the operation, such as homes for employees, or barns, corals, shops, and hay storages which aid the cattle operation. These improvements contribute negligible value when compared to the underlying land value, particularly on the larger ranches with thousands of acres. However, the absence of a critical component like corrals used for gathering, separating, doctoring, branding, and ultimately shipping cattle can be a detriment. Large custom homes can provide significant value but often suffer from obsolescence with limited buyers. On occasion, the home is the focus of the purchase particularly on smaller ranches, and nearly by definition, this factor puts the ranch into a category other than an economic, working ranch, pushing it toward a recreational property, a homesite, or a trophy property.

- *Relevant elements of comparison are analyzed on a qualitative basis.*

The **Economic Characteristics (8)** of cattle ranches are most directly linked to their carrying capacity. We have not compared the total animal unit capacity for each comparable with the subject as they are all located in close proximity had likely have similar capacities.

**Zoning (9)** can be important if it allows for alternative uses, particularly if the alternative uses are higher order uses. The subject's zoning is F-A (Foothill Agriculture).

The comparables all have similar zonings.

Lastly, we have considered **Non-Realty Components (10)**, to capture any inclusions in the sale, such as equipment or chattel which may have been included in the sale but are not real estate.

With these elements of comparison providing the foundation of the analysis, the comparable transactions are viewed in light of the elements. The relevant characteristics of the sale and subject properties are summarized as follows:

| Land Elements of Comparison: |                          |                          |                                                                  |                          |                                               |                                               |                          |
|------------------------------|--------------------------|--------------------------|------------------------------------------------------------------|--------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------|
| Sale Number                  | Jensen Ranch             | L1                       | L2                                                               | L3                       | L4                                            | L5                                            | L6                       |
| 1. Real Property Rights      | Fee Simple               | Fee Simple               | Fee Simple                                                       | Fee Simple               | Fee Simple                                    | Fee Simple                                    | Fee Simple               |
| 2. Financing                 | Cash                     | Conventional             | Cash                                                             | Conventional             | Conventional                                  | Cash                                          | Cash                     |
| 3. Sale Conditions           | Arm's-Length             | Assemblage               | Arm's-Length                                                     | Arm's-Length             | Arm's-Length                                  | Arm's-Length                                  | Arm's-Length             |
| 4. Immediate Expenses        | none                     | none                     | none                                                             | none                     | none                                          | none                                          | none                     |
| 5. Mkt Conditions (time)     | Mar-23                   | Jun-18                   | May-19                                                           | May-20                   | Aug-20                                        | Mar-22                                        | Apr-23                   |
| 6. Location                  | Maxwell                  | Maxwell                  | Maxwell                                                          | Maxwell                  | Maxwell                                       | Willows                                       | Williams                 |
| distance from subject        |                          | 1.6 miles NW             | 2.2 miles SW                                                     | 12.3 miles SW            | 3.1 miles S                                   | 14.4 miles NW                                 | 17.1 miles S             |
| 7. Physical Characteristics  |                          |                          |                                                                  |                          |                                               |                                               |                          |
| Access                       | Fee Simple               | Fee Simple               | Fee Simple                                                       | Fee Simple               | Fee Simple                                    | Fee Simple                                    | Fee Simple               |
| Size                         | 1,255.36                 | 1,000.00                 | 5,417.36                                                         | 1,416.03                 | 1,231.80                                      | 1,837.00                                      | 2,607.19                 |
| Topography:                  | Variable to Steep        | Variable to Steep        | Variable to Steep                                                | Variable to Steep        | Variable to Steep                             | Level                                         | Variable to Steep        |
| Min Slope                    | 0                        | 0                        | 0                                                                | 0                        | 0                                             | 0                                             | 0                        |
| Wtd Avg Slope                | 22.1                     | 24.6                     | 19.3                                                             | 7                        | 32.7                                          | 0                                             | 47.2                     |
| Max Slope                    | 75                       | 75                       | 75                                                               | 75                       | 75                                            | 2                                             | 75                       |
| Elevation:                   | 200 - 652                | 280 - 605                | 130 - 600                                                        | 1,300 - 1,900            | 170 - 800                                     | 600 - 1,317                                   | 583 - 2,100              |
| Flood Potential:             | Zone X (no hazard)       | Zone X (no hazard)       | Zone X (no hazard); Zone A (1% annual chance)                    | Zone X (no hazard)       | Zone X (no hazard); Zone A (1% annual chance) | Zone X (no hazard); Zone A (1% annual chance) | Zone X (no hazard)       |
| Soils:                       |                          |                          |                                                                  |                          |                                               |                                               |                          |
| Wtd Avg Capability Unit      | 5.9                      | 5.2                      | 4                                                                | 3.3                      | 5.7                                           | 5.1                                           | 6.5                      |
| Wtd Avg Productivity Index   | 25                       | 30.6                     | 37.7                                                             | 51.6                     | 28.8                                          | 32.6                                          | 22                       |
| Water:                       |                          |                          |                                                                  |                          |                                               |                                               |                          |
| Water District               | None                     | None                     | Glenn-Colusa I.D.                                                | None                     | None                                          | None                                          | None                     |
| Surface Water Supply         | No                       | No                       | Yes                                                              | No                       | No                                            | No                                            | No                       |
| Number of Livestock Wells    | 1                        | 0                        | 0                                                                | 0                        | 2                                             | 0                                             | 3                        |
| 8. Economic Characteristics  |                          |                          |                                                                  |                          |                                               |                                               |                          |
|                              | F-A Foothill Agriculture | F-A Foothill Agriculture | E-A (Exclusive Agriculture) Zoned EA and FA. See listing package | F-A Foothill Agriculture | F-A Foothill Agriculture                      | AE-40                                         | F-A Foothill Agriculture |
| 9. Use (Zoning)              |                          |                          |                                                                  |                          |                                               |                                               |                          |
| Farm Use Tax Exemption       | Yes                      | Yes                      | Yes                                                              | Yes                      | Yes                                           | Yes                                           | Yes                      |
| 10. Non-realty components    | none                     | none                     | none                                                             | none                     | none                                          | none                                          | none                     |
| Price per Acre               |                          | \$1,200                  | \$900                                                            | \$1,000                  | \$940                                         | \$976                                         | \$1,009                  |

The most relevant elements are compared to the subject property as follows. Categories that are omitted are done so because they have no observed influence on the valuation, or all sales are similar to the subject.

| Land Sales Adjustment Table |                          |              |                    |                    |            |                    |                    |
|-----------------------------|--------------------------|--------------|--------------------|--------------------|------------|--------------------|--------------------|
| Sale Number                 | Jensen Ranch             | L1           | L2                 | L3                 | L4         | L5                 | L6                 |
| 1. Real Property Rights     | Fee Simple               | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| 2. Financing                | Cash                     | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| 3. Sale Conditions          | Arm's-Length             | Sl. Superior | Similar            | Similar            | Similar    | Similar            | Similar            |
| 4. Immediate Expenses       | none                     | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| 5. Mkt Conditions (time)    | 3/3/2023                 | Adjust: 0%   | Adjust: 0%         | Adjust: 0%         | Adjust: 0% | Adjust: 0%         | Adjust: 0%         |
| 6. Location                 | Maxwell                  | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| 7. Physical Characteristics |                          |              |                    |                    |            |                    |                    |
| Access                      | Fee Simple               | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| Size                        | 1,255.36                 | Similar      | Inferior           | Similar            | Similar    | Similar            | Sl. Inferior       |
| Wtd Avg Productivity Index  | 25                       | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| Surface Water               | None                     | Similar      | Superior           | Similar            | Similar    | Similar            | Similar            |
| Number of Livestock Wells   | 1                        | Sl. Inferior | Sl. Inferior       | Sl. Inferior       | Similar    | Sl. Inferior       | Similar            |
| 8. Economic Characteristics |                          |              |                    |                    |            |                    |                    |
| 9. Use (Zoning)             | F-A Foothill Agriculture | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
| 10. Non-realty components   | none                     | Similar      | Similar            | Similar            | Similar    | Similar            | Similar            |
|                             | Overall Comparison       | Similar      | Sl. Inferior       | Sl. Inferior       | Similar    | Sl. Inferior       | Sl. Inferior       |
|                             | Indicator for Subject    | Similar to   | Slightly more than | Slightly more than | Similar to | Slightly more than | Slightly more than |
| Price per Acre              |                          | \$1,200      | \$900              | \$1,000            | \$940      | \$976              | \$1,009            |

While the data is less than perfect, and rigid comparisons are not always simple, the overall observations are:

- The comparable sales have price per acre indicators ranging from \$900 to \$1,200 per acre and are all inferior to the subject.
- The subject property has a unique year-round water source that backs up from Funks Reservoir onto the subject property into Funks Creek.
- A price per acre value indicator slightly above the range is used.

Considering the characteristics of the subject as compared to the sales data, a unit value of **\$1,300** per acre is applied.

## BUILDING IMPROVEMENT VALUATION

In order to derive the value of the subject's ancillary buildings, the contributory values of similar buildings were observed in comparable sales. The buildings summarized below are located on the sale properties used elsewhere in this report or retained in the file.

| Comparable Building Contribution   |               |        |           |         |  |
|------------------------------------|---------------|--------|-----------|---------|--|
| Comp Name                          | Building Type | Size   | Value     | Price/F |  |
| Indian Valley Ranch, Maxwell, CA   | Shop          | 952    | \$10,000  | \$11    |  |
| Harthill Ranch, Maxwell, CA        | Hay Barn      | 10,000 | \$50,000  | \$5     |  |
| Menne Farms, Fort Jones, CA        | Pole Barns    | 90,370 | \$451,850 | \$5     |  |
| Menned Farms, Fort Jones, CA       | Shops         | 10,860 | \$162,900 | \$15    |  |
| Ponderosa Farms, Dorris, CA        | Pole Barns    | 13,268 | \$66,340  | \$5     |  |
| Red Rock Valley Ranch, MacDoel, CA | Pole Barns    | 4,400  | \$20,000  | \$5     |  |

These data points, and other data retained in the file and database were used to derive the value of the buildings on the subject property, which will be summarized at the end of this chapter. A price per square foot indicator of \$5 per square foot is used.

## SALES COMPARISON APPROACH CONCLUSION

With the above information in hand, the estimate of market value by the Sales Comparison Approach is summarized here.

| Sales Comparison Approach            |                 |                |                |                    |
|--------------------------------------|-----------------|----------------|----------------|--------------------|
| Buildings                            | Units           |                |                | Value              |
| Calving Barn                         | 7,780           | sq. ft.        |                | \$38,900           |
| Equipment Storage                    | 1,725           | sq. ft.        |                | \$10,997           |
| Storage                              | 665             | sq. ft.        |                | \$0                |
| <b>SubTotal, Buildings</b>           | <b>10,170</b>   |                | <b>\$5</b>     | <b>\$49,897</b>    |
| Land & Farmlands                     | Unit            |                | \$ / Unit      | Value              |
| Rangeland                            | 1,255.36        | acres          | \$1,300        | \$1,631,968        |
| <b>SubTotal Land &amp; Farmlands</b> | <b>1,255.36</b> | <b>acres @</b> | <b>\$1,300</b> | <b>\$1,631,968</b> |
| <b>Total Indicated Value</b>         | <b>1,255.36</b> | <b>acres @</b> | <b>\$1,340</b> | <b>\$1,681,865</b> |

**Note: Totals may not be exact due to rounding.**

The Cost and Income approaches were also completed, and the calculations support the value conclusion in the Sales Comparison Approach. These calculations are retained in the appraisal file.

The final calculations for just compensation are summarized here. First is the value of the whole property, before any consideration of the project.

| 1. VALUE OF THE WHOLE BEFORE ACQUISITION     |   |                |                   |                 |                                            |                    |
|----------------------------------------------|---|----------------|-------------------|-----------------|--------------------------------------------|--------------------|
| Rangeland                                    | = | \$1,300.00     | per acre x        | 1,255.36        | \$1,631,968                                |                    |
| Building Contributory Value                  |   |                |                   |                 | \$49,897                                   |                    |
| <b>Value of the Whole Before Acquisition</b> |   | <b>\$1,340</b> | <b>per acre x</b> | <b>1,255.36</b> | <b>acres =</b>                             | <b>\$1,681,865</b> |
|                                              |   |                |                   |                 | Total Relavent Acres, Before Acquisition   | 1,255.36           |
|                                              |   |                |                   |                 | Overall Value Per Acre, Before Acquisition | \$1,340            |

The main pipeline, access roads and discharge structure are permanent easements, and they restrict the property's use, not allowing any agricultural or possible future commercial or residential activities. It is assumed that the landowner will be allowed to cross these easement to continue to conduct normal practices on the ranch and not create damages to the remainder. As such, the permanent easement areas are valued at 95% of the fee simple value of land. The rock hauling easement will be in place ~8 years, but it will be used extensively during this period of time. As such, the rock hauling easement area is also valued at 95% of the fee simple value of land. The remaining value to the landowner is attributed to only the ability to cross the easements and use these areas for building and lot density calculations as may be needed sometime in the future.

| 2. VALUE OF THE PORTION ACQUIRED                               |                |                   |               |                |                  |
|----------------------------------------------------------------|----------------|-------------------|---------------|----------------|------------------|
| Reservoir Footprint; Golden Gate Dam; Project Buffer; Remnants | \$1,300        | per acre x        | 290.10        | acres =        | \$377,130        |
| Stockpile Area; Project Buffer; Remnants                       | \$1,300        | per acre x        | 123.07        | acres =        | \$159,991        |
| TRR Pipeline                                                   | \$1,300        | per acre x        | 6.90          | acres =        | \$8,970          |
| Funks Creek Pipeline                                           | \$1,300        | per acre x        | 2.25          | acres =        | \$2,925          |
| Quarry                                                         | \$1,300        | per acre x        | 30.37         | acres =        | \$39,481         |
| Haul Route                                                     | \$1,300        | per acre x        | 5.00          | acres =        | \$6,500          |
| <b>Value of the Part Acquired as Part of the Whole</b>         | <b>\$1,300</b> | <b>per acre x</b> | <b>437.69</b> | <b>acres =</b> | <b>\$594,997</b> |

After the project impacts, the property is valued as follows.

| 3. VALUE OF THE REMAINDER AS PART OF THE WHOLE BEFORE CURATIVE MEASURES |                |                   |               |                |                    |
|-------------------------------------------------------------------------|----------------|-------------------|---------------|----------------|--------------------|
| Remainder of rangeland                                                  | \$1,300        | per acre x        | 797.67        | acres =        | \$1,036,971        |
| TRR Pipeline                                                            | \$65           | per acre x        | 6.90          | acres =        | \$449              |
| Funks Creek Pipeline                                                    | \$65           | per acre x        | 2.25          | acres =        | \$146              |
| Haul Route                                                              | \$65           | per acre x        | 5.00          | acres =        | \$325              |
| Building contributory value                                             |                |                   |               |                | \$49,897           |
| <b>Value of the Remainder as Part of the Whole:</b>                     | <b>\$1,340</b> | <b>per acre x</b> | <b>811.82</b> | <b>acres =</b> | <b>\$1,087,768</b> |

The costs to cure these issues are estimated here.

| 4. COST TO CURE          |     |
|--------------------------|-----|
| Total Cost To Cure Items | \$0 |

There is no cost to cure, and the property is valued as follows.

| 5. VALUE OF THE REMAINDER AFTER ACQUISITION & CURATIVE MEASURES |         |            |        |         |                              |             |
|-----------------------------------------------------------------|---------|------------|--------|---------|------------------------------|-------------|
| Remainder of rangeland                                          | \$1,300 | per acre x | 797.67 | acres = | \$1,036,971                  |             |
| TRR Pipeline                                                    | \$65    | per acre x | 6.90   | acres = | \$449                        |             |
| Funks Creek Pipeline                                            | \$65    | per acre x | 2.25   | acres = | \$146                        |             |
| Haul Route                                                      | \$65    | per acre x | 5.00   | acres = | \$325                        |             |
| Building contributory value                                     |         |            |        |         | \$49,897                     |             |
|                                                                 |         |            |        |         | Total Value of the Remainder | \$1,087,768 |

As a test of reasonableness, the net damages are \$0.

|                                                                                |             |
|--------------------------------------------------------------------------------|-------------|
| Damages if uncured (Step 1 - Step 2 - Step 3)                                  | \$0         |
| Damages if cured (Step 1 - Step 2 - Step 5)                                    | \$159,534   |
| Net Damages if uncured                                                         | (\$159,534) |
| Cost to cure                                                                   | \$0         |
| Curative measures are warranted (if net damages are greater than cost to cure) | No          |

Severance damages are \$0.

## 6. SEVERANCE DAMAGES

|                                                             |             |
|-------------------------------------------------------------|-------------|
| Value of the Whole, Before Acquisition (Step 1)             | \$1,681,865 |
| LESS: Value of the Remainder After The Acquisition (Step 5) | \$1,087,788 |
| LESS: Value of portion acquired (Step 2)                    | \$594,077   |
| Severance Damages                                           | <b>\$0</b>  |

No benefits to the property, as a result of this project, are observed.

## 7. BENEFITS

*No special benefits have been derived for this condemnation action.*

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| Value of the Remainder After The Acquisition and Before Consideration of Benefits | \$1,087,788 |
| Value of the Remainder After The Acquisition and After Consideration of Benefits  | \$1,087,788 |
| Net Benefits                                                                      | <b>\$0</b>  |

Value of temporary easements is \$0.

## 8. VALUE OF TEMPORARY EASEMENTS

\$0

The calculations above are summarized here.

## 9. FINAL ESTIMATE OF JUST COMPENSATION

|                                                          |                  |
|----------------------------------------------------------|------------------|
| Value of the Part Acquired as Part of the Whole (Step 2) | \$594,077        |
| Plus: Cost to Cure (Step 4)                              | \$0              |
| Plus: Severance Damages (Step 6)                         | \$0              |
| Less: Benefits (Step 7)                                  | \$0              |
| Plus: Temporary Construction Easement Value (Step 8)     | \$0              |
| Final Estimate of Just Compensation                      | \$594,077        |
| Final Estimate of Just Compensation (Rounded)            | <b>\$594,000</b> |

The signor(s) certify that, to the best of their knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial and unbiased professional analyses, opinions and conclusions.
- The signors have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.
- The signors have no bias with respect to the property that is the subject of this report, or to the parties involved with this assignment.
- Engagement in this assignment was not contingent upon developing or reporting predetermined results.
- Compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice (USPAP)* and the code of ethics of the *American Society of Farm Managers and Rural Appraisers (ASFMRA)* or the *Appraisal Institute (AI)*. This report is subject to confidential peer review for standards and ethics compliance.
- The *ASFMRA* and *AI* maintain continuing education programs requirement for designated appraisers. Designated signors are currently certified under this program.
- This appraisal assignment was not based on a requested minimum valuation, a specific valuation, or any approval of a loan.
- Jim Herrman and Ben Slaughter have made a personal observation of the property that is the subject of this report
- The appraiser(s) have not performed services on the property as an appraiser(s) within three years. No services have been performed in any other capacity.
- this appraiser(s) is/are certified by the state as Certified General Real Estate Appraiser(s) with certificates and expiration dates seen below.
- No other person provided significant real property appraisal assistance to the signatories of this certification.





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This appraisal is subject to the following assumptions and limiting conditions:

- A survey of the subject property may or may not have been provided. County parcel maps and legal descriptions in the public record are assumed to accurately reflect the boundaries of the property. If further verification is required, a survey by a registered surveyor is advised.
- No responsibility for matters legal in character have been assumed. No opinion has been rendered as to title, which is assumed to be marketable. All existing liens, encumbrances, and assessments have been disregarded, unless otherwise noted, and the property is appraised as though free and clear, under responsible ownership, and competent management.
- The exhibits in this report are included to assist the reader in visualizing the property. No survey of the property has been made and no responsibility is assumed in connection with such matters.
- Unless otherwise noted herein, it is assumed that there are no encroachments, zoning, or restrictive violations existing in the subject property.
- No responsibility has been assumed for determining if the property requires environmental approval by the appropriate governing agencies, nor if it is in violation thereof, unless otherwise noted herein.
- Information presented in this report has been obtained from reliable sources, and it is assumed that the information is accurate.
- This report shall be used for its intended purpose only, and by the party to whom it is addressed. Possession of this report does not include the right of publication.
- The appraiser may not be required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless prior arrangements have been made therefore.
- The statements of value and all conclusions shall apply as of the dates shown herein.
- There is no present or contemplated future interest in the property by the appraiser which is not specifically disclosed in this report.
- Without the written consent or approval of the author neither all, nor any part of the contents of this report shall be conveyed to the public through advertising, public relations, news, sales, or other media. This applies particularly to value conclusions and to the identity of the appraiser and the firm with which the appraiser is connected.
- This report must be used in its entirety. Reliance on any portion of the report independent of others, may lead the reader to erroneous conclusions regarding the opinions expressed herein. Unless approval is provided by the author, no portion of the report stands alone.
- The valuation stated herein assumes professional and competent management and operation of the property throughout the lifetime of the improvements, with an adequate maintenance and repair program in conformance with typical industry standards for the use of the property.
- The liability of the appraiser, its principals, agents, and employees is limited to the client. Further, there is no accountability, obligation, or liability to any third party. If this report is placed into possession of anyone other than the client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. The appraiser is in no way responsible for any costs incurred to discover or correct any deficiency in the property.

- The appraiser is not qualified to detect the presence of toxic or hazardous substances or materials which may influence or be associated with the property or any adjacent properties, has made no investigation or analysis as to the presence of such materials, and expressly disclaims any duty to note the degree of fault. The appraiser, shall not be liable for any costs, expenses, assessments, or penalties, or diminution in value, property damage, or personal injury (including death) resulting from or otherwise attributable to toxic or hazardous substances or materials, including without limitation hazardous waste, asbestos material, formaldehyde, or any smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, solids or gasses, waste materials or other irritants, contaminants or pollutants.
- The appraiser assumes no responsibility for determining if the subject property complies with the Americans with Disabilities Act (ADA). The appraiser, shall not be liable for any costs, expenses, assessments, penalties or diminution in value resulting from non-compliance. This appraisal assumes that the subject meets an acceptable level of compliance with ADA standards; if the subject is not in compliance, the eventual renovation costs and/or penalties would negatively impact the present value of the subject. If the magnitude and time of the cost were known today, they would be reduced from the reported value conclusion.
- An on-site observation of the subject property was conducted. No evidence of asbestos materials on-site was noted. A Phase 1 Environmental Assessment was not provided for this analysis. This analysis assumes that no asbestos or other hazardous materials are stored or found in or on the subject property. If evidence of hazardous materials of any kind occurs, the reader should seek qualified professional assistance. If hazardous materials are discovered and if future market conditions indicate an impact on value and increased perceived risk, a revision of the concluded values may be necessary.
- A detailed soils study was not provided for this analysis unless noted in the main body of the report. The subject's soils and sub-soil conditions are assumed to be suitable for structures based upon a visual observation, which did not indicate evidence of excessive settling or unstable soils. No certification is made regarding the stability or suitability of the soil or sub-soil conditions.
- This analysis assumes that the financial information provided for this appraisal, including historical income and expense statements; accurately reflect the current and historical operations of the subject property.
- This analysis assumes that the physical information provided for this appraisal accurately reflects the improvements on the property. These items may include, but are not limited to, varieties, rootstocks, and age of permanent crops, yields of crops grown, depth and productivity of wells, water quality and capacities of reservoirs, size and age of structures. Only a visual surface observation has been performed. While attempts are made to identify and verify such improvements, many true verifications can only be done by third-party experts or laboratory testing. Such testing is beyond the scope of this assignment.
- Unless otherwise noted in the report, crops grown on the property are assumed to be free of maladies that could impact productivity, economic life, and value. While the appraiser(s) are trained to observe obvious and apparent defects, many maladies, such as virus or root diseases are difficult to detect from a surface observation. Some maladies can only be observed at certain periods of the growing season. Third-party experts in plant health should be consulted if further investigation is needed.

## LEGAL DESCRIPTION

EXHIBIT "A"Parcel No. 1:

All that real property situate in the County of Colusa, State of California, described as follows:

The North half of Fractional Section 4, the Northeast quarter of Fractional 5, Township 17 North, Range 4 West.

The Southwest quarter and the West half of the Southeast quarter of Section 29, the South half of Fractional Section 30, the North half of Fractional Section 31, and the North half and the Southeast quarter of Section 32, and the South half of Section 33, Township 18 North, Range 4 West.

The Southeast quarter and the South half of the Southwest quarter of Section 25, and the Whole of Section 36, Township 18 North, Range 5 West, all of Mount Diablo Base and Meridian.

All that real property situate in the County of Glenn, State of California, described as follows:

The West half of the Northeast quarter, the East half of the Northwest quarter and the Southwest quarter of the Northwest quarter of Section 29; the South half of the North half and so much of the Northwest quarter of the Northwest quarter as lies Southwest of a line running from the Northwest corner to the center of the Southern line thereof of Section 30 in Township 18 North, Range 4 West, Mount Diablo Base and Meridian.

ALSO the Northeast quarter, the East half of the Northwest quarter and the Southwest quarter of the Northwest quarter of Section 25, in Township 18 North, Range 5 West.

Parcel No. 2:

The South half of Fractional Section 4, the South half and the Northwest quarter of Fractional Section 5, the Whole of Fractional Section 6, the West half of Fractional Section 7, the West half and the Northeast quarter of Section 8, the Whole of Section 9, Township 17 North, Range 4 West, M.D.B. & M., the South half of Fractional Section 31, and the Southwest quarter of Section 32, Township 18 North, Range 4 West, M.D.B. & M.

EXCEPTING the portion thereof described in deed of Neita Peterson to County of Colusa, dated November 18, 1944, recorded January 6, 1945, Book 119 Official Records, page 53.

ALSO EXCEPTING the following described parcel of land, to-wit:

BEGINNING at the Southeast corner of Section 9, Township 17 North, Range 4 West, M.D.B. & M., and running thence Northerly along a fence marking the East line of said Section 9, N. 0° 44' 50" W. 5277.15 feet to the Northeast corner of said Section 9, thence Northerly along a fence marking the East line of Section 4, N. 0° 44' 50" W. 1829.42 feet to a fence intersection; thence following a fence line Westerly S. 79° 44' 40" W. 834.13 feet and S. 87° 30' 00" 366.86 feet to a fence running Northerly and Southerly; thence Northerly along said fence line N. 3° 50' 10" W. 952.56 feet to a fence running Westerly; thence Westerly along said fence line the following courses and distances, S. 86° 56' 10" W. 2100.42 feet, S. 87° 08' 20" W. 220.38 feet, S. 80° 01' 50" W. 908.46 feet, S. 83° 17' 30" W. 630.26 feet and S. 74° 53' 00" W. 202.61 feet to the West line of said Section 4; thence continuing along said fence line S. 74° 53' 00" W. 955.43 feet to a fence running Northwesterly and Southeasterly; thence Southeasterly along said fence line the following courses and distances: S. 28° 16' 30" E. 492.18 feet, S. 28° 57' 10" E. 386.30 feet, S. 72° 36' 40" E. 298.12 feet and S. 10° 27' 00" E. 1155.12 feet to the North line of Section 8 from which point the Northwest corner of Section 9, bears N. 89° 56' 20" E. 33.20 feet distant; thence continuing Southeasterly along said fence line, S. 10° 27' E. 171.08 feet to the West line of Section 9 from which point the Northwest corner of said Section 9 bears N. 0° 44' 20" E. 168.30 feet distant; thence continuing Southeasterly along said fence line S. 10° 27' 00" E. 1353.52 feet to a fence corner; thence continuing along said fence, N. 70° 31' 40" W. 70.40 feet to a point on the East bank of Funk Creek; thence following said fence line and crossing said Funk Creek, N. 89° 58' 40" W. 143.75 feet to a point on the Westerly bank of said Funk Creek; thence continuing along said fence line the following courses and distances, S. 22° 57' 20" E. 138.29 feet, S. 20° 32' 00" E. 79.39 feet, S. 15° 45' 00" E. 141.60 feet, S. 44° 54' 10" E. 65.27 feet, S. 76° 41' 10" E. 78.84 feet, S. 33° 40' 30" E. 91.44 feet, S. 47° 40' 30" E. 185.78 feet and S. 43° 24' 50" W. 724.49 feet to a point on the West line of Section 9, said point being N. 0° 44' 20" E. 29.16 feet distant from the West quarter corner of said Section 9; thence along said West line of Section 9, S. 0° 44' 20" W. 2664.15 feet to a fence intersection at the Southwest corner of said Section 9; thence Easterly along a fence line N. 89° 40' 40" E. 5420.59 feet, more or less, to the place of beginning and being portions of Sections 4, 5, 8 and 9 T. 17 N., R. 4 W., M.D.B. & M.

Parcel No. 3:

BEGINNING at the Southeast corner of Section 9, Township 17 North, Range 4 West, M.D.B. & M., and running thence Northerly along a fence marking the East line of said Section 9, N. 0° 44' 50" W. 5277.15 feet to the Northeast corner of said Section 9, thence Northerly along a fence marking the East line of Section 4, N. 0° 44' 50" W. 1829.42 feet to a fence intersection; thence following a fence line Westerly S. 79° 44' 40" W. 834.13 feet and S. 87° 30' 00" 366.86 feet to a fence running Northerly and Southerly; thence Northerly along said fence line N. 3° 50' 10" W. 952.56 feet to a fence running Westerly; thence Westerly along said fence line the following courses and distances, S. 86° 56' 10" W. 2100.42 feet, S. 87° 08' 20" W. 220.38 feet, S. 80° 01' 50" W. 908.46 feet, S. 83° 17' 30" W. 630.26 feet and S. 74° 53' 00" W. 202.61 feet to the West line of said Section 4; thence continuing along said fence line S. 74° 53' 00" W. 955.43 feet to a fence running Northwesterly and Southeasterly; thence Southeasterly along said fence line the

following courses and distances: S. 28° 16' 30" E. 492.18 feet, S. 28° 57' 10" E. 386.30 feet, S. 72° 36' 40" E. 298.12 feet and S. 10° 27' 00" E. 1155.12 feet to the North line of Section 8 from which point the Northwest corner of Section 9, bears N. 89° 56' 20" E. 33.20 feet distant; thence continuing Southeasterly along said fence line, S. 10° 27' E. 171.08 feet to the West line of Section 9 from which point the Northwest corner of said Section 9 bears N. 0° 44' 20" E. 168.30 feet distant; thence continuing Southeasterly along said fence line S. 10° 27' 00" E. 1353.52 feet to a fence corner; thence continuing along said fence, N. 70° 31' 40" W. 70.40 feet to a point on the East bank of Funk Creek; thence following said fence line and crossing said Funk Creek, N. 89° 58' 40" W. 143.75 feet to a point on the Westerly bank of said Funk Creek; thence continuing along said fence line the following courses and distances, S. 22° 57' 20" E. 138.29 feet, S. 20° 32' 00" E. 79.39 feet, S. 15° 45' 00" E. 141.60 feet, S. 44° 54' 10" E. 65.27 feet, S. 76° 41' 10" E. 78.84 feet, S. 33° 40' 30" E. 91.44 feet, S. 47° 40' 30" E. 185.78 feet and S. 43° 24' 50" W. 724.49 feet to a point on the West line of Section 9, said point being N. 0° 44' 20" E. 29.16 feet distant from the West quarter corner of said Section 9; thence along said West line of Section 9, S. 0° 44' 20" W. 2664.15 feet to a fence intersection at the Southwest corner of said Section 9; thence Easterly along a fence line N. 89° 40' 40" E. 5420.59 feet, more or less, to the place of beginning and being portions of Sections 4, 5, 8 and 9 T. 17 N., R. 4 W., M.D.B. & M.

Parcel No. 4:

The East one half of Section 16, Township 17 North, Range 4 West, M.D.B.&M.

APN:

11-020-04 & 08  
 11-030-01, 02, 06 & 07  
 11-130-01, 02, 03, 04, 05, 06, 08 & 11  
 11-150-17, 18, 19 & 20

## QUALIFICATIONS



## Ben Slaughter, ARA

SENIOR VALUATION SERVICES DIRECTOR  
AGRICULTURAL VALUATION LEADER

Valuation & Advisory Services



ben.slaughter@colliers.com

Mr. Benjamin "Ben" K. Slaughter, has been in the real estate valuation and consulting of businesses for over twenty years. Mr. Slaughter holds the professional designation of Accredited Rural Appraiser, ARA, the highest appraisal designation of the American Society of Farm Managers and Rural Appraisers (ASFMRA). Mr. Slaughter is certified by the state of California as a Certified General Real Estate Appraiser, Certificate Number AG033069. Mr. Slaughter is also certified by the state of Oregon as a Certified General Real Estate Appraiser, Certificate Number C001375 and the state of Washington, Certificate Number 1102581.

Ben currently leads the Agriculture specialty practice group for Colliers. The group regularly covers rural and agricultural valuation and consulting in California, Oregon, Washington, Arizona, Hawaii, Colorado, and Utah with specialty projects in several other regions of the US and Canada.

## PROFESSIONAL EDUCATION

- **Bachelor of Science Degree:** Agriculture Business, California State University Fresno, 2000, cum laude
- Successfully Completed the following professional courses:
  - **American Society of Farm Managers and Rural Appraisers (ASFMRA):** Fundamentals of Rural Appraisal A-10, Ethics A-12, Principles of Appraisal Practice A-20, Eminent Domain A-25, Income Capitalization A-27, Highest and Best Use A-29, Advanced Rural Appraisal A-30, Uniform Appraisal Standards for Federal Land Acquisition (Yellow Book), Permanent Plantings in Changing Markets, Fair Value Accounting, Best Practices for Rural Appraisal, Valuation of Conservation Easements and other Partial Interests
  - **Appraisal Institute:** Report Writing and Valuation Analysis II540
  - **American Society of Appraisers (ASA):** Uniform Standards of Professional Appraisal Practice (USPAP) SE-100
- Other general appraisal courses include Land and Site Valuation and Construction Details and Trends.

## PROFESSIONAL INSTRUCTION

Mr. Slaughter has revised, authored, and instructed numerous seminars offered at various locations, all of which were approved for continuing education by the California Bureau of Real Estate Appraisers (BREA). Including:

- *Appraisal of Permanent Plantings in Changing Markets*, March 2021
- *Appraisal of Permanent Plantings in Changing Markets*, March 2017
- *Appraisal of Permanent Plantings in Changing Markets*, October 2016
- *Rural Valuation Case Studies*, October 2013
- *Appraisal of Permanent Plantings in Changing Markets*, August 2010
- *Vineyard Valuation & Ag Symposium*, July 2009
- *Efficient Use of MSWord & Excel in Evaluating Property Economics*, October 2007 and May 2008.
- *Vineyard Valuation V*, May 2006.
- Developed the course materials for *Vineyard Valuation*, *Efficient Use of MSWord & Excel*, and *Appraisal of Permanent Plantings in Changing Markets* (2010, 2016, 2017, and 2021).
- Instructed the session on Real Estate Appraisal at The Agricultural Lending Institute held at the Craig School of Business – California State University, Fresno on June 18, 2009.
- Substitute instructor for the undergraduate Real Estate Appraisal course offered by the Department of Agriculture Economics at CSU Fresno.

## APPRAISAL EXPERIENCE

Properties appraised include all types of agricultural properties, including many large and complex. Appraisal assignments completed include extensive vineyards, wineries, orchards, irrigated open land, livestock facilities, range land, and related facilities. Mr. Slaughter also has experience in appraising conservation easements, utility easements, rural subdivisions, condemnations, leasehold interests, and leased fee interests. Mr. Slaughter spent the first part of his professional career associated with Correia-Xavier, Inc., starting while still attending CSUF.

Mr. Slaughter has extensive experience in the valuation of wine grape vineyards and winery facilities, having valued vineyards and wineries all over California, Oregon, Washington, and the US East Coast, including many of the highest valued ag properties on the West Coast in the Napa Valley. Appraisals have been completed in nearly all the traditional farming areas of California's Central Valley, North Coast, Sierra Foothills, and Central Coast as well as Western Oregon's Willamette Valley, southwestern Oregon, and Washington's Columbia Basin and Puget Sound. In addition to extensive experience in the wine space, Ben has practice with a whole host of other permanent crops such as almonds, pistachios, walnuts, hazelnuts, stone fruit, table grapes, olives, pomegranates, citrus, apples, cherries, pears, and blueberries and other farm and rural uses such as plant nurseries, irrigated field crops, dryland field crops, pasture, grazing land, native open space. Processing facility projects include wineries, greenhouses, cold storage and packing facilities, dehydrators, nut processing, apple processing, olive oil mills, olive brining, livestock facilities, feed mills, grain and feed handling/storage facilities, etc.

## APPRAISAL CLIENTS

Mr. Slaughter has appraised properties, on a fee basis, for a broad spectrum of clients, including federal, state, and local government agencies, major local, national and international banks, major insurance companies, pension funds, pension fund advisors, endowment funds, and numerous attorneys, accountants, corporations, and individuals. Mr. Slaughter has qualified as an **expert witness** in Fresno County Superior Court.

Work is regularly performed for major commercial and local community banks including Wells Fargo, RaboAgrifinance, Umpqua, Bank of America, Silicon Valley Bank, Columbia State Bank, Exchange Bank, First Republic, multiple Farm Credit associations, etc. Appraisals are often performed for insurance companies like MetLife, Prudential, and Manulife, or institutional investors such as UBS, Nuveen (Westchester), AgIS, Sixth Street, Gladstone, and CalPERS. Analyses are completed for agencies like PG&E, CalTrans, and the Internal Revenue Service. In addition, many local and national accounting and legal firms use Ben's services for a myriad of purposes like estate taxation, AVA valuation, partnership dissolution, litigation, divorce, tax appeal, eminent domain, lease negotiation, etc.

## PUBLIC SPEAKING

- **North Coast Wine Industry Expo**, Santa Rosa, CA, December 2, 2021, Mergers & Acquisitions
- **San Joaquin Valley Wine Industry Forum**; Fresno, CA, 2014, 2015, 2016, 2017, 2018, 2020, 2021
- **Agricultural Market Update**, Appraisal Institute 2014 Annual Spring Conference; Modesto, CA; March 2, 2015
- **Trends in Land and Lease Values**, Spring Meeting of the California Chapter ASFMRA, Fresno, CA, March 20 2014
- **Agricultural Market Update**, Appraisal Institute 2014 Annual Spring Conference; Modesto, CA; March 10, 2014
- **Almonds vs. Winegrapes**, San Joaquin Valley Wine Industry Forum; Fresno, CA; December 4, 2013
- **Ag Life Weekend**, half-hour radio segment on PowerTalk 96.7 FM, Fresno, November 2013.
- **Rapid Fire Sessions**, "Valuing the Dream", ASFMRA 2013 National Conference, Reno, NV, November 2013
- **Agricultural Market Update**, Appraisal Institute 2013 Annual Spring Conference; Modesto, CA; March 25, 2013
- **The Deal Makers**, 19<sup>th</sup> Annual Central Coast Insights; San Luis Obispo, CA; March 14, 2013
- **Why Vineyard?**, Unified Wine & Grape Symposium, Sacramento, CA; January 30, 2013
- **Vineyard Values & Grapes Prices**, San Joaquin Valley Wine & Grape Industry Forum, Fresno, CA; November 29, 2012
- **Trends in Land Values and Valuation Insights**, Ultra Gro Plant Foot, Madera, CA, March 29, 2012
- **Trends in Land and Lease Values**, Spring Meeting of the California Chapter ASFMRA, Madera, CA, April 2, 2012
- **Bubble Economics in the Almond Market**, 48<sup>th</sup> Annual Meeting of the Central California Almond Growers Association, Fresno, CA, June 28, 2011
- **Permanent Planting Investments**, AgriLand Farming Company, Chowchilla, CA, April 14, 2011
- **Vineyard Values & Grapes Prices**, San Joaquin Valley Wine & Grape Industry Forum, Fresno, CA; November 19, 2010
- **Bubble Economics & Valuation Implications**, 2009 Vineyard Valuation & Ag Symposium, ASFMRA, Lodi, CA; July 1, 2009
- **Bubble Economics**, San Joaquin Valley Wine & Grape Industry Forum, Fresno, CA; December 4, 2008
- **Vineyard Valuation V**, Appraisal Institute, Napa, CA; May 12, 2006

- **San Joaquin Valley Land Values and Trends**, 2005 Farmers Tax and Accounting Conference, California CPA Education Foundation, Fresno, CA; October 18, 2005
- **Sales Database and Geodatabase Integration**, 2005 Annual Spring Meeting, Real Estate Appraisers Microcomputer Users Group (REAMUG), San Diego, CA; April 1, 2005
- **Geographic Information Systems (GIS) Technology in the Appraisal Process**, International Right of Way Association (IRWA), Fresno, CA; February 11, 2005
- **Geographic Information Systems (GIS) Technology in the Appraisal Process**, 2004 Annual Spring Meeting, Real Estate Appraisers Microcomputer Users Group (REAMUG), San Diego, CA; March 26, 2004
- **Geographic Information Systems (GIS) Technology in the Appraisal Process**, 2002 Annual Fall Meeting, California Chapter of ASFMRA, Yosemite, CA; October 18, 2002

Mr. Slaughter has been interviewed and quoted by several media outlets such as AgAlert, Western Growers, and Farm Press magazines, and KMJ 580 AM and PowerTalk 96.7 FM radio (Fresno).

## PUBLICATIONS

- **Ag Markets Summary**, *Trends in Agricultural Land and Lease Values*, California Chapter ASFMRA, April 2015
- **"Wine Grapes"**, *Agribusiness Management Conference Commodity Outlook*, Center for Agricultural Business at CSUFresno, November of 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, and 2017
- **"California Wine Industry"**. *Trends in Agricultural Land and Lease Values*, California Chapter ASFMRA, April 2007
- **"The High Tech 21st Century Appraiser."** April 27, 2003. *Appraisal Buzz* (Article)

## SUPPLEMENTARY INFORMATION

Mr. Slaughter has developed and worked with geographic information systems (GIS) in analyzing property economics. This includes developing shapefiles of all the major American Viticultural Areas (AVAs) in California and Oregon. He has collaborated with, and has been acknowledged in publications by major universities, including the University of Southern Oregon, Oregon State University, and Harvard in studies of spatial and economic characteristics of wine grape vineyards. One study was published in 2010 in the *American Journal of Enology and Viticulture* (61:3), and additional studies are ongoing.

Mr. Slaughter currently owns and operates an almond orchard in Madera County. He redeveloped the property after purchasing and operating it as a vineyard. He is a member of the Madera County Farm Bureau. While struggling with an unknown decline in his almond orchard, Ben was ultimately led to the fact that his orchard was suffering from an infestation of a newly identified root rotting fungus named "Ganoderma adspersum". Ben worked closely with researchers from UC Davis in their early studies of the fungus, was the first successful applicant for Ganoderma to the USDA's Tree Assistance Program (TAP) and has written letters of recommendation that aided in securing grant money for continuing Ganoderma research.

Mr. Slaughter's family, at one time, co-owned and operated over three hundred acres of tree fruit orchards in Fresno County, on which he worked in his youth and while attending school. During high school he was an active participant in the FFA, winning team and individual state championships in deciduous fruit tree pruning and judging. Mr. Slaughter was later a judge at these same contests held at CSU Fresno. Ben also won FFA public speaking contests, raised market hogs, and managed the school farm's greenhouses raising rootstock seedlings.

Mr. Slaughter is a fourth-generation agriculturalist. His father is a farmer, nurseryman, and plant breeder developing new varieties of stone fruit and almonds in California and around the world. His grandfather was a farmer, cattleman, and biology and vocational ag teacher in Missouri. His great-grandfather managed and rehabilitated farms in the Midwest during the Depression.

### Ben Slaughter, ARA

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Suite 250  
Roseville, CA 95661  
United States

#### Education or Qualifications

Bachelor of Arts Degree:  
Economics, California State  
University Sacramento, 1993

#### State Certifications

California

## James W. Herrman

#### Area of Expertise

Mr. James Herrman, has been in the real estate appraisal and consulting of businesses for over twenty five years. Mr. Herrman has substantial experience with a broad mix of residential, commercial and agriculture property types. Mr. Herrman is certified by the state of California as a Certified General Real Estate Appraiser, Certificate Number AG022197.

Properties appraised have included simple and complex properties in most Northern and Central California Counties and parts of Nevada. Types of analysis include highest and best use, absorption, feasibility study, discounted cash flow (Excel) and various types of market studies. Property types appraised include orchards, vineyards, winery's, quarries, row/field crop properties, ranch properties, land (all types), retail, office, restaurant, industrial, multi-family, lodging properties, mixed-use, special-purpose and residential properties. Appraisals have been completed for regulated lenders, real estate brokers, the internal revenue service and all types of litigation support.

Mr. Herrman has appraised properties, on a fee basis, for a broad spectrum of clients, including federal, state, and local government agencies, major local, national and international banks, major insurance companies and numerous attorneys, accountants, corporations, and individuals.

Work has been regularly performed for major commercial and local community banks including Wells Fargo, Rabobank, Bank of America, Silicon Valley Bank, American Ag. Credit, American Ag. Finance, Redding Bank of Commerce, USDA, Sacramento Bank of Commerce, Yolo Federal Credit Union, Yosemite Farm Credit, Golden Pacific Bank, First Northern Bank of Dixon, Bank of Marin, American River Bank, etc.

Appraisals have also been performed for PG&E, Yolo County Housing Authority and the United States Postal Service. In addition, many local and national accounting and legal firms use Jim's services for a myriad of purposes like estate taxation, partnership dissolution, litigation, divorce, tax appeal, lease negotiation, etc.

#### Experience

1993 The Property Sciences Group, Inc. -- Residential Staff Appraiser  
1995-1998 The Property Sciences Group, Inc. -- Commercial Staff Appraiser  
1998-1999 The Property Sciences Group, Inc. -- Assistant Vice President  
1999-2012 Pony Express Appraisal Owner/President  
2012-2013 CBRE -- Commercial Staff Appraiser  
2013-2020 JWH Valuation Services Owner/President  
2020-Present Colliers International Valuation & Advisory Services Senior Valuation Specialist

#### Related Courses

Successfully Completed the following professional courses:

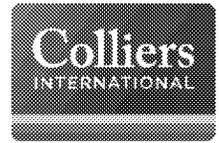
- **American Society of Farm Managers and Rural Appraisers (ASFMRA)** Valuation of Conservation Easements and other Partial Interests.

Other general appraisal courses include Real Estate Investment Analysis, Appraising the Oddball, Income Capitalization, Ad Valorem Tax Consultation, Introduction of Expert Witness Testimony, Complex Residential Appraisal and Case Study in Complex Appraisal.

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*Unless specified otherwise, these definitions were extracted from the following sources or publications:*

*The Dictionary of Real Estate Appraisal, Sixth Edition, Appraisal Institute, Chicago, Illinois, 2015 (Dictionary).*

*Uniform Standards of Professional Appraisal Practice, 2020-2021 Edition (USPAP).*

*The Appraisal of Real Estate, Fourteenth Edition, Appraisal Institute, Chicago, Illinois, 2013 (14th Edition).*

### **Absolute Net Lease**

A lease in which the tenant pays all expenses including structural maintenance, building reserves, and management; often a long-term lease to a credit tenant. (Dictionary)

### **Ad Valorem Tax**

A real estate tax based on the assessed value of the property, which is not necessarily equivalent to its market value. (14th Edition)

### **Aggregate of Retail Values (ARV)**

The sum of the separate and distinct market value opinions for each of the units in a condominium; subdivision development, or portfolio of properties, as of the date of valuation. The aggregate of retail values does not represent the value of all the units as sold together in a single transaction; it is simply the total of the individual market value conclusions. Also called sum of the retail values. (Dictionary)

### **Arm's-length Transaction**

A transaction between unrelated parties who are each acting in his or her own best interest. (Dictionary)

### **As-Is Market Value**

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Dictionary)

### **Assessed Value**

The value of a property according to the tax rolls in ad valorem taxation; may be higher or lower than market value, or based on an assessment ratio that is a percentage of market value. (14th Edition)

### **Average Daily Room Rate (ADR)**

In the lodging industry, the net rooms revenue derived from the sale of guest rooms divided by the number of paid occupied rooms. (Dictionary)

### **Band of Investment**

A technique in which the capitalization rates attributable to components of an investment are weighted and combined to derive a weighted-average rate attributable to the total investment. (Dictionary)

### **Cash-Equivalent Price**

The price of a property with nonmarket financing expressed as the price that would have been paid in an all-cash sale. (Dictionary)

### **Common Area**

The total area within a property that is not designed for sale or rental but is available for common use by all owners, tenants, or their invitees, e.g., parking and its appurtenances, malls, sidewalks, landscaped areas, recreation areas, public toilets, truck and service facilities. (Dictionary)

### **Contract Rent**

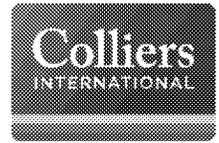
The actual rental income specified in a lease. (14th Edition)

### **Cost Approach**

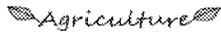
A set of procedures through which a value indication is derived for the fee simple interest in a property by estimating the current cost to construct a reproduction of (or replacement for) the existing structure, including an entrepreneurial incentive; deducting depreciation from the total cost; and adding the estimated land value. Adjustments may then be made to the indicated fee simple value of the subject

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property to reflect the value of the property interest being appraised. (14th Edition)

### **Curable Functional Obsolescence**

An element of depreciation; a curable defect caused by a flaw in the structure, materials, or design, which can be practically and economically corrected. (Dictionary)

### **Debt Coverage Ratio (DCR)**

The ratio of net operating income to annual debt service, which measures the relative ability of a property to meet its debt service out of net operating income; also called debt service coverage ratio (DSCR). (Dictionary)

### **Deferred Maintenance**

Items of wear and tear on a property that should be fixed now to protect the value or income-producing ability of a property. (Dictionary)

### **Depreciation**

In appraisal, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date. (Dictionary)

### **Direct Costs**

Expenditures for the labor and materials used in the construction of improvements; also called hard costs. (Dictionary)

### **Discounted Cash Flow (DCF) Analysis**

The procedure in which a discount rate is applied to a set of projected income streams and a reversion. The analyst specifies the quantity, variability, timing, and duration of the income streams and the quantity and timing of the reversion, and discounts each to its present value at a specified yield rate. (Dictionary)

### **Discount Rate**

A rate of return on capital used to convert future payments or receipts into present value; usually considered to be a synonym for yield rate. (Dictionary)

### **Disposition Value**

The most probable price that a specified interest in property should bring under the following conditions:

1. Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
2. The property is subjected to market conditions prevailing as of the date of valuation.
3. Both the buyer and seller are acting prudently and knowledgeably.
4. The seller is under compulsion to sell.
5. The buyer is typically motivated.
6. Both parties are acting in what they consider their best interests.
7. An adequate marketing effort will be made during the exposure time.
8. Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.
9. The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

This definition can also be modified to provide for valuation with specified financing terms. (Dictionary)

### **Easement**

The right to use another's land for a stated purpose. Access or right-of-way easements may be acquired by private parties or public utilities. Governments may be the beneficiaries of easements placed on privately owned land that is dedicated to conservation, open space, or preservation. (14th Edition)

### **Economic Life**

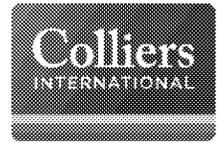
The period over which improvements to real property contribute to property value. (Dictionary)

### **Effective Age**

The age of property that is based on the amount of observed deterioration and obsolescence it has sustained, which may

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be different from its chronological age. (Dictionary)

### **Effective Date**

The date on which the appraisal or review opinion applies (SVP) (Dictionary)

### **Effective Gross Income (EGI)**

The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income. (Dictionary)

### **Effective Gross Income Multiplier (EGIM)**

The ratio between the sale price (or value) of a property and its effective gross income. (Dictionary)

### **Effective Rent**

The rental rate net of financial concessions such as periods of free rent during the lease term and above or below-market tenant improvements (TIs). (14th Edition)

### **Eminent Domain**

The right of government to take private property for public use upon the payment of just compensation. The Fifth Amendment of the U.S. Constitution, also known as the takings clause, guarantees payment of just compensation upon appropriation of private property. (Dictionary)

### **Entrepreneurial Incentive**

The amount an entrepreneur expects to receive for his or her contribution to a project. Entrepreneurial incentive may be distinguished from entrepreneurial profit (often called developer's profit) in that it is the expectation of future profit as opposed to the profit actually earned on a development or improvement. (Dictionary)

### **Entrepreneurial Profit**

A market-derived figure that represents the amount an entrepreneur receives for his or her contribution to a project and risk; the difference between the total cost of a property (cost of development) and its market value (property value after completion), which represents the

entrepreneur's compensation for the risk and expertise associated with development. An entrepreneur is motivated by the prospect of future value enhancement (i.e., the entrepreneurial incentive). An entrepreneur who successfully creates value through new development, expansion, renovation, or an innovative change of use is rewarded by entrepreneurial profit. Entrepreneurs may also fail and suffer losses. (Dictionary)

### **Excess Land**

Land that is not needed to serve or support the existing improvement. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and is valued separately. (Dictionary)

### **Excess Rent**

The amount by which contract rent exceeds market rent at the time of the appraisal; created by a lease favorable to the landlord (lessor) and may reflect unusual management, unknowledgeable or unusually motivated parties, a lease execution in an earlier, stronger rental market, or an agreement of the parties. Due to the higher risk inherent in the receipt of excess rent, it may be calculated separately and capitalized or discounted at a higher rate in the income capitalization approach. (14th Edition)

### **Expense Stop**

A clause in a lease that limits the landlord's expense obligation, which results in the lessee paying any operating expenses above a stated level or amount. (Dictionary)

### **Exposure Time**

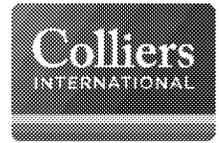
An opinion, based on supporting market data, of the length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. (USPAP)

### **External Obsolescence**

A type of depreciation; a diminution in value caused by negative external influences and

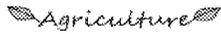
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generally incurable on the part of the owner, landlord, or tenant. The external influence may be temporary or permanent. (Dictionary)

### Extraordinary Assumption

An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions. Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis. An extraordinary assumption may be used in an assignment only if:

- It is required to properly develop credible opinions and conclusions;
- The appraiser has a reasonable basis for the extraordinary assumption;
- Use of the extraordinary assumption results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions. (USPAP)

### Fair Market Value

In nontechnical usage, a term that is equivalent to the contemporary usage of market value.

As used in condemnation, litigation, income tax, and property tax situations, a term that is similar in concept to market value but may be defined explicitly by the relevant agency. (Dictionary)

### Feasibility Analysis

A study of the cost-benefit relationship of an economic endeavor. (USPAP)

### Fee Simple Estate

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power and escheat. (Dictionary)

### Floor Area Ratio (FAR)

The relationship between the above-ground floor area of a building, as described by the

zoning or building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area. (Dictionary)

### Functional Obsolescence

The impairment of functional capacity of improvements according to market tastes and standards. (Dictionary)

### Functional Utility

The ability of a property or building to be useful and to perform the function for which it is intended according to current market tastes and standards; the efficiency of a building's use in terms of architectural style, design and layout, traffic patterns, and the size and type of rooms. (Dictionary)

### Furniture, Fixtures, and Equipment (FF&E)

Business trade fixtures and personal property, exclusive of inventory. (Dictionary)

### Going-concern

An established and operating business having an indefinite future life. (Dictionary)

### Going-concern Value

An outdated label for the market value of all the tangible and intangible assets of an established and operating business with an indefinite life, as if sold in aggregate; more accurately termed the market value of the going concern or market value of the total assets of the business. (Dictionary)

### Gross Building Area (GBA)

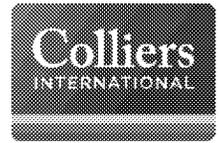
Total floor area of a building, excluding unenclosed areas, measured from the exterior of the walls of the above-grade area. This includes mezzanines and basements if and when typically included in the market area of the type of property involved. (Dictionary)

### Gross Leasable Area (GLA) - Commercial

Total floor area designed for the occupancy and exclusive use of tenants, including basements and mezzanines; measured from

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the center of joint partitioning to the outside wall surfaces. (Dictionary)

### **Gross Living Area (GLA) - Residential**

Total area of finished, above-grade residential area; calculated by measuring the outside perimeter of the structure and includes only finished, habitable, above-grade living space. (Finished basements and attic areas are not generally included in total gross living area. Local practices, however, may differ.) (Dictionary)

### **Highest & Best Use**

The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity. The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use or for some alternative use. This is determined by the use that a market participant would have in mind for that asset when formulating the price that it would be willing to bid (IVS). (Dictionary)

### **Hypothetical Condition**

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis. Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis. (USPAP)

### **Income Capitalization Approach**

In the income capitalization approach, an appraiser analyzes a property's capacity to generate future benefits and capitalizes the income into an indication of present value. The principle of anticipation is fundamental to this approach. Techniques and procedures from this approach are used to

analyze comparable sales data and to measure obsolescence in the cost approach. (14th Edition)

### **Incurable Functional Obsolescence**

An element of depreciation; a defect caused by a deficiency or superadequacy in the structure, materials, or design that cannot be practically or economically corrected as of the effective date of the appraisal. (Dictionary)

### **Indirect Costs**

Expenditures or allowances for items other than labor and materials that are necessary for construction, but are not typically part of the construction contract. Indirect costs may include administrative costs, professional fees, financing costs and the interest paid on construction loans, taxes and the builder's or developer's all-risk insurance during construction, and marketing, sales, and lease-up costs incurred to achieve occupancy or sale. Also called soft costs. (Dictionary)

### **Insurable Replacement Cost**

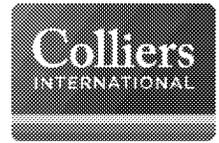
The cost estimate, at current prices as of the effective date of valuation, of a substitute for the building being valued, using modern materials and current standards, design and layout for insurance coverage purposes guaranteeing that damaged property is replaced with a new property (i.e., depreciation is not deducted). (Dictionary)

### **Interim Use**

The temporary use to which a site or improved property is put until a different use becomes maximally productive. (Dictionary)

### **Investment Value**

The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market. (Dictionary)



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### Liquidation Value

The most probable price that a specified interest in real property should bring under the following conditions:

1. Consummation of a sale within a short time period.
2. The property is subjected to market conditions prevailing as of the date of valuation.
3. Both the buyer and seller are acting prudently and knowledgeably.
4. The seller is under extreme compulsion to sell.
5. The buyer is typically motivated.
6. Both parties are acting in what they consider to be their best interests.
7. A normal marketing effort is not possible due to the brief exposure time.
8. Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.
9. The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

This definition can also be modified to provide for valuation with specified financing terms. (Dictionary)

### Leased Fee Interest

The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversion right when the lease expires. (Dictionary)

### Leasehold Interest

The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease. (Dictionary)

### Legally Nonconforming Use

A use that was lawfully established and maintained, but no longer conforms to the use regulations of its current zoning; also known as a grandfathered use. (Dictionary)

### Market Area

The geographic region from which a majority of demand comes and in which the majority of competition is located. Depending on the market, a market area may be further subdivided into components such as primary, secondary, and tertiary market areas. (Dictionary)

### Market Rent

The most probable rent that a property should bring in a competitive and open market reflecting the conditions and restrictions of a specific lease agreement, including the rental adjustment and revaluation, permitted uses, use restrictions, expense obligations, term, concessions, renewal and purchase options, and tenant improvements (TIs). (Dictionary)

### Market Study

An analysis of the market conditions of supply, demand, and pricing for a specific property type in a specific area. (Dictionary)

### Market Value (Most Common Non-FRT)

The most probable price, as of a specific date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue distress. (Dictionary)

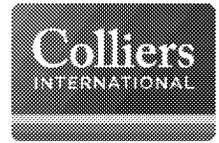
### Market Value (Interagency Guidelines)

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated;
2. both parties are well informed or well advised, and acting in what they consider their own best interests;

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3. a reasonable time is allowed for exposure in the open market;
  4. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.
- (Interagency Appraisal and Evaluation Guidelines, December 10, 2010, Federal Register, Volume 75 Number 237, Page 77472)

### **Marketability Analysis**

The study of how a specific property is expected to perform in a specific market. A marketability analysis expands on a market analysis by addressing a specific property. (Dictionary)

### **Neighborhood Analysis**

The objective analysis of observable or quantifiable data indicating discernible patterns of urban growth, structure, and change that may detract from or enhance property values; focuses on four sets of considerations that influence value: social, economic, governmental, and environmental factors. (Dictionary)

### **Net Operating Income (NOI)**

The actual or anticipated net income that remains after all operating expenses are deducted from effective gross income but before mortgage debt service and book depreciation are deducted. Note: This definition mirrors the convention used in corporate finance and business valuation for EBITDA (earnings before interest, taxes, depreciation, and amortization). (14th Edition)

### **Obsolescence**

One cause of depreciation; an impairment of desirability and usefulness caused by new inventions, changes in design, improved processes for production, or external factors that make a property less desirable and valuable for a continued use; may be either functional or external. (Dictionary)

### **Off-site Costs**

Costs incurred in the development of a project, excluding on-site costs such as grading and construction of the building and other improvements; also called common costs or off-site improvement costs. (Dictionary)

### **On-site Costs**

Costs incurred for the actual construction of buildings and improvements on a particular site. (Dictionary)

### **Overage Rent**

The percentage rent paid over and above the guaranteed minimum rent or base rent; calculated as a percentage of sales in excess of a specified breakeven sales volume. (14th Edition)

### **Overall Capitalization Rate (OAR)**

The relationship between a single year's net operating income expectancy and the total property price or value. (Dictionary)

### **Parking Ratio**

The ratio of parking area or parking spaces to an economic or physical unit of comparison. Minimum required parking ratios for various land uses are often stated in zoning ordinances. (Dictionary)

### **Potential Gross Income (PGI)**

The total income attributable to property at full occupancy before vacancy and operating expenses are deducted. (Dictionary)

### **Potential Gross Income Multiplier (PGIM)**

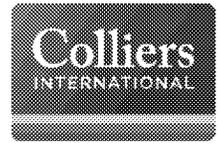
The ratio between the sale price (or value) of a property and its annual potential gross income. (Dictionary)

### **Present Value (PV)**

The value of a future payment or series of future payments discounted to the current date or to time period zero. (Dictionary)

### **Prospective Opinion of Value**

A value opinion effective as of a specified future date. The term does not define a type of value. Instead, it identifies a value opinion as effective at some specific future date. An



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opinion of value as of a prospective date is frequently sought in connection with projects that are proposed, under construction, or under conversion to a new use, or those that have not achieved sellout or a stabilized level of long-term occupancy. (Dictionary)

#### **Qualitative Adjustment**

An indication that one property is superior, inferior, or the same as another property. Note that the common usage of the term is a misnomer in that an adjustment to the sale price of a comparable property is not made. Rather, the indication of a property's superiority or inferiority to another is used in relative comparison analysis, bracketing, and other forms of qualitative analysis. (Dictionary)

#### **Quantitative Adjustment**

A numerical (dollar or percentage) adjustment to the indicated value of the comparable property to account for the effect of a difference between two properties on value. (Dictionary)

#### **Rentable Area**

The amount of space on which the rent is based; calculated according to local practice. (Dictionary)

#### **Replacement Cost**

The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout. (Dictionary)

#### **Reproduction Cost**

The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building. (Dictionary)

#### **Retrospective Value Opinion**

A value opinion effective as of a specified historical date. The term retrospective does

not define a type of value. Instead, it identifies a value opinion as being effective at some specific prior date. Value as of a historical date is frequently sought in connection with property tax appeals, damage models, lease renegotiation, deficiency judgments, estate tax, and condemnation. Inclusion of the type of value with this term is appropriate, e.g., "retrospective market value opinion." (Dictionary)

#### **Sales Comparison Approach**

The process of deriving a value indication for the subject property by comparing sales of similar properties to the property being appraised, identifying appropriate units of comparison, and making adjustments to the sale prices (or unit prices, as appropriate) of the comparable properties based on relevant, market-derived elements of comparison. The sales comparison approach may be used to value improved properties, vacant land, or land being considered vacant when an adequate supply of comparable sales is available. (Dictionary)

#### **Scope of Work**

The type and extent of research and analysis in an appraisal or appraisal review assignment. Scope of work includes, but is not limited to:

- The extent to which the property is identified;
- The extent to which tangible property is inspected;
- The type and extent of data researched; and
- The type and extent of analysis applied to arrive at opinions or conclusions. (USPAP)

#### **Superadequacy**

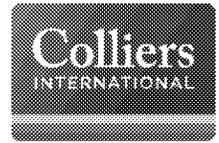
An excess in the capacity or quality of a structure or structural component; determined by market standards. (Dictionary)

#### **Surplus Land**

Land that is not currently needed to support the existing use but cannot be separated from the property and sold off for another

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use. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel. (Dictionary)

holding period, value change, and yield rate. (Dictionary)

### **Tenant Improvements (TIs)**

1. Fixed improvements to the land or structures installed for use by a lessee.
2. The original installation of finished tenant space in a construction project; subject to periodic change for succeeding tenants. (Dictionary)

### **Triple Net Lease**

An alternative term for a type of net lease. In some markets, a net net net lease is defined as a lease in which the tenant assumes all expenses (fixed and variable) of operating a property except that the landlord is responsible for structural maintenance, building reserves, and management. Also called NNN, triple net lease, or fully net lease. (Dictionary)

### **Usable Area**

The area that is actually used by the tenants measured from the inside of the exterior walls to the inside of walls separating the space from hallways and common areas. (Dictionary)

### **Useful Life**

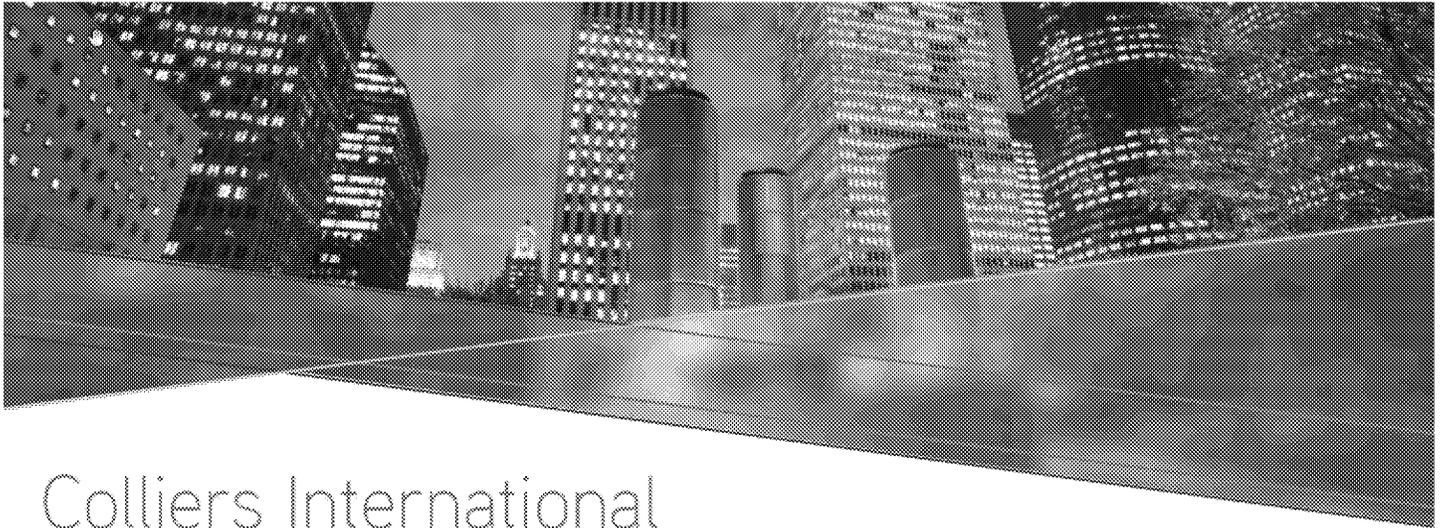
The period of time over which a structure or a component of a property may reasonably be expected to perform the function for which it was designed. (Dictionary)

### **Vacancy and Collection Loss**

A deduction from potential gross income (PGI) made to reflect income deductions due to vacancies, tenant turnover, and non-payment of rent; also called vacancy and credit loss or vacancy and contingency loss. (Dictionary)

### **Yield Capitalization**

A method used to convert future benefits into present value by 1) discounting each future benefit at an appropriate yield rate, or 2) developing an overall rate that explicitly reflects the investment's income pattern,



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Real estate valuations play a pivotal role in today's business climate. An accurate and well supported opinion of property value can mean the difference between reaching a critical goal—securing a loan, closing a sale, reporting to investors, choosing the best asset—or failing to achieve it altogether.

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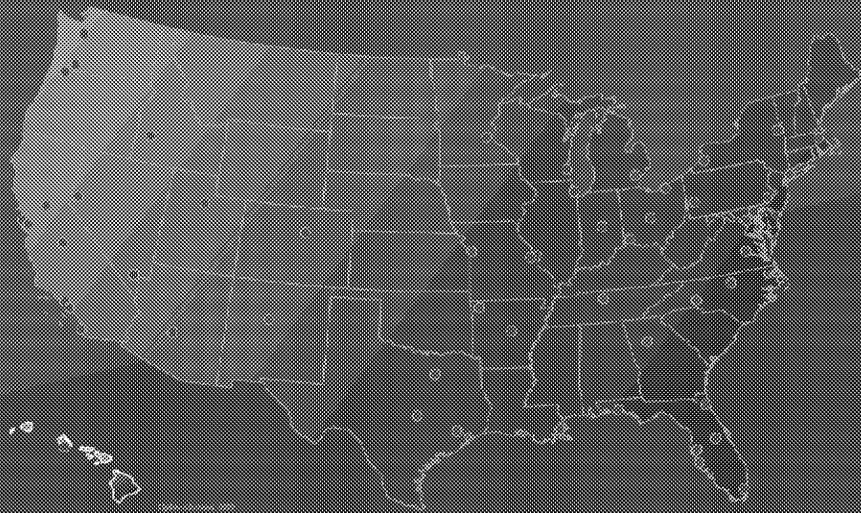
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**NATIONAL OPERATIONS**

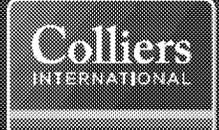
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Accelerating success.

Sites Reservoir Project - 3 Month Look Ahead

| Primary                                                                                                                                                                                                                              | Assigned To                                                 | Governing Body                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|
| <b>August 2023</b>                                                                                                                                                                                                                   |                                                             |                                               |
| <b>Consent Items</b>                                                                                                                                                                                                                 |                                                             |                                               |
| Minutes                                                                                                                                                                                                                              |                                                             | Joint Authority Board & Reservoir Committee   |
| Treasurer's Report                                                                                                                                                                                                                   | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| 2nd Quarter 2023 Financial Report                                                                                                                                                                                                    | Joe Trapasso                                                | Joint Authority Board & Reservoir Committee   |
| Amend Contract with BGT Consulting to increase contract authority                                                                                                                                                                    | Jerry Brown                                                 | Joint Authority Board & Reservoir Committee   |
| Placeholder: Maxwell Fire Department Sole Source Contract                                                                                                                                                                            | Joe Trapasso, Kevin Spesert                                 | Joint Authority Board & Reservoir Committee   |
| <b>Action Items</b>                                                                                                                                                                                                                  |                                                             |                                               |
| Facility Partner Cooperative Agreement with RD 108                                                                                                                                                                                   | JP Robinette                                                | Joint Authority Board & Reservoir Committee   |
| <b>Discussion and Informational Items</b>                                                                                                                                                                                            |                                                             |                                               |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Joint Authority Board & Reservoir Committee   |
| Biological Mitigation - Approach for Contracting                                                                                                                                                                                     | aforseythe@sitesproject.org                                 | Joint Authority Board & Reservoir Committee   |
| B&O - Overview of JPA/Bylaws                                                                                                                                                                                                         | Jerry Brown                                                 | Joint Authority Board & Reservoir Committee   |
| Conditions Precedent Reporting                                                                                                                                                                                                       | Ali Forsythe, JP Robinette                                  | Joint Authority Board & Reservoir Committee   |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                                                                                                                                                   | All                                                         | Joint Authority Board & Reservoir Committee   |
| <b>Closed Session</b>                                                                                                                                                                                                                |                                                             |                                               |
| Water Rights - Protests Status Update Briefing                                                                                                                                                                                       | Ali Forsythe                                                | Joint Authority Board & Reservoir Committee   |
| <b>Committees/Workgroups</b>                                                                                                                                                                                                         |                                                             |                                               |
| WIFIA Ad Hoc Subcommittee discussion of comments on Draft 1 of Benefits & Obligations Contract                                                                                                                                       | JP Robinette                                                | WIFIA Ad Hoc Subcommittee                     |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Budget & Finance Committee                    |
| 2nd Quarter 2023 Financial Report                                                                                                                                                                                                    | Joe Trapasso                                                | Budget & Finance Committee                    |
| Placeholder: Maxwell Fire Department Sole Source Contract                                                                                                                                                                            | Joe Trapasso                                                | Budget & Finance Committee                    |
| Placeholder: Procurement Strategy, principles of how the Sites Authority will manage design, construction, and operations                                                                                                            | Cheyenne Harris, Jeffrey Kivett, JP Robinette               | Reservoir Operations & Engineering Workgroup  |
| Update on TRR sizing and considerations                                                                                                                                                                                              | Henry Luu, JP Robinette                                     | Reservoir Operations & Engineering Workgroup  |
| Placeholder: Cost estimate and risk overview                                                                                                                                                                                         | Henry Luu, JP Robinette                                     | Reservoir Operations & Engineering Workgroup  |
| Landowner Meetings - Maxwell & Dunnigan                                                                                                                                                                                              | Kevin Spesert                                               | Legislative & Outreach Committee              |
| Comms Team Update                                                                                                                                                                                                                    | Kevin Spesert                                               | Legislative & Outreach Committee              |
| Federal/State Legislative Update                                                                                                                                                                                                     | Kevin Spesert                                               | Legislative & Outreach Committee              |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Legislative & Outreach Committee              |
| Final EIR/EIS - Public Roll Out Process and Admin Record                                                                                                                                                                             | Ali Forsythe, Laurie Warner Herson                          | Environmental Planning & Permitting Workgroup |
| Biological Mitigation - Approach for Contracting                                                                                                                                                                                     | aforseythe@sitesproject.org                                 | Environmental Planning & Permitting Workgroup |
| <b>September 2023</b>                                                                                                                                                                                                                |                                                             |                                               |
| <b>Consent Items</b>                                                                                                                                                                                                                 |                                                             |                                               |
| Minutes                                                                                                                                                                                                                              |                                                             | Joint Authority Board & Reservoir Committee   |
| Treasurer's Report                                                                                                                                                                                                                   | Joe Trapasso                                                | Authority Board & Reservoir Committee         |
| Payment of Claims                                                                                                                                                                                                                    | Joe Trapasso                                                | Authority Board & Reservoir Committee         |
| <b>Action Items</b>                                                                                                                                                                                                                  |                                                             |                                               |
| Adopt commitments of the Sites Authority with regards to the Sites Project's use of Lower Colusa Basin Drain and Knights Landing Ridge Cut (Lower CBD System) including map of geographical/jurisdiction extents of Lower CBD System | JP Robinette                                                | Joint Authority Board & Reservoir Committee   |
| <b>Discussion and Informational Items</b>                                                                                                                                                                                            |                                                             |                                               |
| Placeholder: Discuss the Sites Authority's management of the Sites Project's use of Lower Colusa Basin Drain and Knights Landing Ridge Cut (Lower CBD System) Procurement Strategy                                                   | Cheyenne Harris, Jeffrey Kivett, Joe Trapasso, JP Robinette | Joint Authority Board & Reservoir Committee   |

APPROVE SUPPLEMENTAL FIRE PROTECTION SERVICES FOR SUMMER/FALL GEOTECH TESTING PER TRR RPT -

(KEEP THIS IN)

REVISIT PER ABOVE

NEED BETTER DESCRIPTION - CLARIFY WHAT WAS TALKING ABOUT

ADD: COMMUNICATING OUTRAN PROJECT SCHEDULE

ALAN DOWD

LAND MGMT

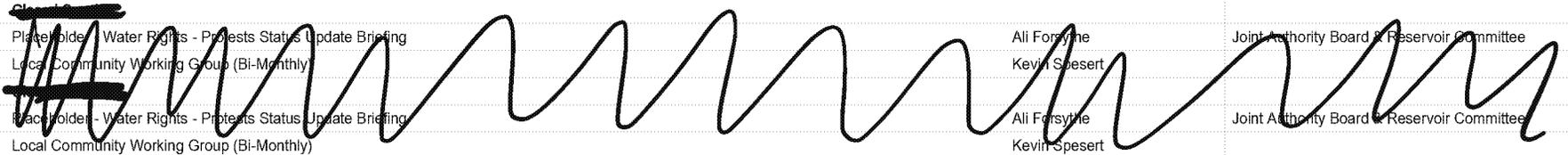
ADJUST TO

| Primary                                                                                                       | Assigned To                               | Governing Body                                             |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------|
| Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve              | Joe Trapasso, Marcus Maltby               | Joint Authority Board & Reservoir Committee                |
| Placeholder - Draft 2 of Benefits & Obligations Contract including updated JPA and Bylaws                     | JP Robinette                              | Joint Authority Board & Reservoir Committee                |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                            |                                           | Joint Authority Board & Reservoir Committee                |
| <b>Closed Session</b>                                                                                         |                                           |                                                            |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                              | Joint Authority Board & Reservoir Committee                |
| <b>Committees/Workgroups</b>                                                                                  |                                           |                                                            |
| Conveyance Ad Hoc Subcommittee                                                                                | JP Robinette                              | Conveyance Ad Hoc Subcommittee                             |
| Payment of Claims                                                                                             | Joe Trapasso                              | Budget & Finance Committee                                 |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve | Joe Trapasso, Marcus Maltby               | Budget & Finance Committee                                 |
| <b>No O&amp;E or EPP Workgroup This Month</b>                                                                 |                                           |                                                            |
| Local Community Working Group (Bi-Monthly)                                                                    | Kevin Spesert                             |                                                            |
| <b>October 2023</b>                                                                                           |                                           |                                                            |
| <b>Consent Items</b>                                                                                          |                                           | Joint Authority Board & Reservoir Committee                |
| Minutes                                                                                                       |                                           | Authority Board & Reservoir Committee                      |
| Treasurer's Report                                                                                            | Joe Trapasso                              | Authority Board & Reservoir Committee                      |
| Payment of Claims                                                                                             | Joe Trapasso                              | Authority Board & Reservoir Committee                      |
| <b>Action Items</b>                                                                                           |                                           |                                                            |
| Final EIR/EIS - Approval of Project                                                                           | Ali Forsythe, Laurie Warner Herson        | Joint Authority Board & Reservoir Committee                |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve | Joe Trapasso, Marcus Maltby               | Joint Authority Board & Reservoir Committee                |
| Approve 2024 Authority Board and Reservoir Committee Meeting Calendar                                         | Jerry Brown                               | Authority Board & Reservoir Committee                      |
| <b>Discussion and Informational Items</b>                                                                     |                                           |                                                            |
| Placeholder - Lower Colusa Basin Drain System Initial Assessment                                              | JP Robinette                              | Joint Authority Board & Reservoir Committee                |
| Clean Water Act 404 and 401 Permit Applications                                                               | Ali Forsythe, Jelica Arsenijevic          | Joint Authority Board & Reservoir Committee                |
| Participant Soft Call - Request participant response within 60 days                                           | Brian Thomas, Cheryl Harris, JP Robinette | Joint Authority Board & Reservoir Committee                |
| Monthly Reporting (Monthly Status Report, Work Plan, Action Items)                                            | Ali Forsythe                              | Joint Authority Board & Reservoir Committee                |
| <b>Closed Session</b>                                                                                         |                                           |                                                            |
| Placeholder - Water Rights - Protests Status Update Briefing                                                  | Ali Forsythe                              | Joint Authority Board & Reservoir Committee                |
| Placeholder Clean Water Act 404 and 401 Permit Applications                                                   | Ali Forsythe, Jelica Arsenijevic          | Joint Authority Board & Reservoir Committee                |
| ED Performance Evaluation                                                                                     | Jerry Brown                               | Authority Board & Reservoir Committee                      |
| <b>Committees/Workgroups</b>                                                                                  |                                           |                                                            |
| Placeholder: WIFIA Ad Hoc Subcommittee discussion of comments on Draft 2 of Benefits & Obligations Contract   | JP Robinette                              | WIFIA Ad Hoc Subcommittee                                  |
| Informational Report out from WIFIA Ad Hoc Subcommittee meeting                                               | JP Robinette                              | Budget & Finance Committee                                 |
| Payment of Claims                                                                                             | Joe Trapasso                              | Budget & Finance Committee                                 |
| Placeholder: Workplan Status Update - Draft 2024 Expense/Revenue Budget, Cash Flow/Call, Unrestricted Reserve | Joe Trapasso, Marcus Maltby               | Budget & Finance Committee                                 |
| Consider re-prioritization of Amendment 3 Engineering activities                                              | Henry Luu, JP Robinette                   | Reservoir Operations & Engineering Workgroup               |
| Placeholder: Consider alternative Reservoir Emergency Drawdown flow allocation                                | Henry Luu, JP Robinette                   | Reservoir Operations & Engineering Workgroup               |
| Governance Adhoc                                                                                              | Jerry Brown                               | Joint Authority Board & Reservoir Committee                |
| Clean Water Act 404 and 401 Permit Applications - Approval to Submittal                                       | Ali Forsythe, Jelica Arsenijevic          | Joint Authority Board & Reservoir Committee                |
| <del>Placeholder - Water Rights - Protests Status Update Briefing</del>                                       | <del>Ali Forsythe</del>                   | <del>Joint Authority Board &amp; Reservoir Committee</del> |
| <del>Local Community Working Group (Bi-Monthly)</del>                                                         | <del>Kevin Spesert</del>                  | <del></del>                                                |
| <del>Placeholder - Water Rights - Protests Status Update Briefing</del>                                       | <del>Ali Forsythe</del>                   | <del>Joint Authority Board &amp; Reservoir Committee</del> |
| <del>Local Community Working Group (Bi-Monthly)</del>                                                         | <del>Kevin Spesert</del>                  | <del></del>                                                |

ADD LAND MGMT - Follow up ON LANDOWNERS (MTB)

ADD Ad Hoc Governance CMs MTB IN OCT (Oct 4 I think)

PLACE HO call



| Primary                                    | Assigned To   | Governing Body |
|--------------------------------------------|---------------|----------------|
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |
| Local Community Working Group (Bi-Monthly) | Kevin Spesert |                |

---

**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/26/2023 2:47:21 PM  
**To:** Arsenijevic, Jelica [Jelica.Arsenijevic@hdrinc.com]  
**Subject:** Re: Project Schedule

Hi Jelica,

I would like Jeff there on Monday if he can make it. Can you check to see if he can join?

Thanks,  
JP

---

**From:** Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>  
**Sent:** Tuesday, July 25, 2023 9:08 AM  
**To:** JP Robinette <jrobinette@sitesproject.org>; Jeff Kivett <JKivett@BrwnCald.com>; Luu, Henry <henry.luu@hdrinc.com>; Cheyanne Harris <CHarris@BrwnCald.com>  
**Cc:** Lee Lambert <LLambert@BrwnCald.com>  
**Subject:** RE: Project Schedule

Thanks Jeff!

I do have questions for JP. We have a prioritization meeting this coming Monday with the agents and will poke around for some clarity. For example, borrow areas associated with Golden Gate are on property that are on a non-willing landowner.

**Jelica Arsenijevic**  
*Environmental Project Manager*



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[hdrinc.com/follow-us](https://hdrinc.com/follow-us)

---

**From:** JP Robinette <jrobinette@sitesproject.org>  
**Sent:** Tuesday, July 25, 2023 6:55 AM  
**To:** Jeff Kivett <JKivett@BrwnCald.com>; Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>; Luu, Henry <henry.luu@hdrinc.com>; Cheyanne Harris <CHarris@BrwnCald.com>  
**Cc:** Lee Lambert <LLambert@BrwnCald.com>  
**Subject:** Re: Project Schedule

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Thanks for putting this together, Jeff. As you say, it will be important for our board to have options, and I agree with what you have laid out below.

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Draft\_0026082

---

**From:** Jeff Kivett <JKivett@BrwnCald.com>

**Sent:** Monday, July 24, 2023 3:55:56 PM

**To:** Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>; Luu, Henry <henry.luu@hdrinc.com>; Cheyanne Harris <CHarris@BrwnCald.com>

**Cc:** Lee Lambert <LLambert@BrwnCald.com>; JP Robinette <jrobinette@sitesproject.org>

**Subject:** RE: Project Schedule

Hi Jelica, Henry and Cheyanne,

Once we have not been able to find a time (unfortunately I am in workshops most of this week) I at least wanted to get to you what our next steps are based on feedback from the Board meeting Friday.

At a high level (if they accept the revised schedule) it basically means that lands for the GG and Sites Dams will be purchased early 2024, 100% Geotech for these dams and Lodoga Rd Reroute to the temporary road in 2024 and cost certainty with CMAR first half of 2025 to allow funding and construction start end of 2025.

For the work plan and budget to be approved in October we will need to provide an options list of items for consideration that either follows the current path of an end of 2033 for reservoir completion or a revised work plan getting us to an end of 2031 for reservoir completion. During the next two months we will need to do the following planning:

**Geotechnical:**

Continue the current plan through the end of 2023.

2033 – Continue Geotech plan as currently planned into 24/25.

2031 – Revise the Geotech work plan to stay in the same 24/25 year budget but plan on expenditures of completing 100% of geotechnical investigation for the Golden Gate Dam, Sites Dam and Rerouting of Sites Lodoga Rd from the east side to the turnoff of the Sho-fly temporary road (does not include the future crossing within the reservoir). Slow down on getting information on the borrow sites, other features, and roads not on the critical path. If there are still available funds above these efforts, we will need to work with the Designers to focus on what are the most critical information for cost certainty.

**HR Design:**

2033 - Continue to get to 30% design on all features

2031 – Develop boundary within the parcels to be acquired for what will be disturbed in getting 100% Geotech information for the three features above. Continue work on establishing a 30% design for the rest of the features. Start 60% design at the completion of 30% design for the three components with a goal of the road being 100% completed by end of 2024 and no pause in the dam designs of GG and Sites. The remaining features will have a pause or slowdown in development.

**HC Design:**

2033 – Continue path currently on

2031 – Clearly define land access needed to move discussion and land acquisition on incoming power forward. Develop a draft process flow diagram for the complete project including complete hydraulic profile of the system. Complete draft P&ID for entire project and potential communication architecture. Develop minimal information on 30% design of facilities for cost certainty.

**Other items we need to get implemented:**

Traffic counters on Sites Lodoga Road on East side of the canyon. May also want one in Maxwell to get a baseline before construction to determine how much increase in traffic on Oak St there is and at Delevan Rd where we most likely will be having majority of construction traffic. I would be very interested in AECOM and Jacobs thoughts on this.

Monthly design leadership meeting with JP, Jelica, Henry, 2 people from AECOM and 2 people from Jacobs, Cheyanne and myself. Henry, do you think you could get this set up for early August and the four of us can develop an agenda for it.

I am interested in any testing that has been done to produce a concrete mix design for onsite PS and other structures. It would be good to start to understand limitations of on-site materials and benefits of the non-Dam material that will be produced by the CMAR crushers.

Is there individual weekly or bi-weekly design meetings with AECOM and Jacobs? I would like to start attending some of them.

Start developing potential location criteria for the main office and control room, maintenance yard.

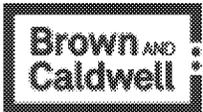
I will also start moving forward with getting the CMAR for Dams on board. My hope is to have a RFQ for attorney to JP in the next three weeks and while getting a contract together also get the RFQ moving forward.

Let me know if I missed anything,

Jeff

**Jeffrey R. Kivett**  
Vice President – Owners Advisor  
Brown and Caldwell

Sunrise, FL  
[jkivett@brwncald.com](mailto:jkivett@brwncald.com)  
T 925.210.2236 | C 925.322.3717



---

**From:** Arsenijevic, Jelica <Jelica.Arsenijevic@hdrinc.com>  
**Sent:** Friday, July 21, 2023 12:23 PM  
**To:** Luu, Henry <henry.luu@hdrinc.com>; Jeff Kivett <JKivett@BrwnCald.com>  
**Cc:** Cheyanne Harris <CHarris@BrwnCald.com>  
**Subject:** Re: Project Schedule

Monday 9 to 10 works for me too

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---

**From:** Luu, Henry <Henry.Luu@hdrinc.com>  
**Sent:** Friday, July 21, 2023 10:58:48 AM  
**To:** Jeff Kivett <JKivett@BrwnCald.com>; Arsenijevic, Jelica <jelica.arsenijevic@hdrinc.com>  
**Cc:** Cheyanne Harris <CHarris@BrwnCald.com>  
**Subject:** RE: Project Schedule

Hi Jeff, I have an emergency and am no longer able to make this timeslot. I may be able to get back online by 3pm, but I can't guarantee at the moment. My availabilities for next week are as follows:

- Monday 9-10am, 2-3pm

- Tuesday looks really good after 10am
- Wednesday 11-noon or 3-4pm
- Thursday 9-11am

Henry H. Luu, PE  
D 916.679.8857 M 916.754.7566

[hdrinc.com/follow-us](http://hdrinc.com/follow-us)

-----Original Appointment-----

**From:** Jeff Kivett <[JKivett@BrwnCald.com](mailto:JKivett@BrwnCald.com)>

**Sent:** Thursday, July 20, 2023 12:48 PM

**To:** Jeff Kivett; Luu, Henry; Arsenijevic, Jelica

**Cc:** Cheyanne Harris

**Subject:** Project Schedule

**When:** Friday, July 21, 2023 12:00 PM-1:00 PM (UTC-08:00) Pacific Time (US & Canada).

**Where:** Microsoft Teams Meeting

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Talk over potential resentencing of schedule activities

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A Brown and Caldwell Teams meeting has been created for this event.

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---

**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/27/2023 8:19:48 AM  
**To:** Cheyanne Harris [charris@brwncald.com]  
**Subject:** Fwd: Review Sites description  
**Attachments:** 03-01 Biological Assessment State ITP Ops Update.pdf

Cheyanne, can you please address Lilian's questions? I have a few other things to attend to this morning.

JP

Get Outlook for iOS

---

**From:** Xie, Lillian <lxie@zone7water.com>  
**Sent:** Wednesday, July 26, 2023 4:20:23 PM  
**To:** JP Robinette <jrobinette@sitesproject.org>  
**Subject:** Review Sites description

Hi JP,

Zone 7 is going to be issuing bonds soon to finance one of our CIP projects. As part of the process, we have to write a document that tells the "story" of our agency, including future projects we're looking at. Sites is one of the projects that will be included in this document.

Can you please confirm if this description below is accurate and OK to publish? I got the annual yield from the attached staff report – Table 1, Alt 3B. Note that "The Agency" refers to Zone 7.

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Thanks,

Lillian Xie  
Associate Engineer  
Zone 7 Water Agency  
P: (925) 454-5031  
[www.zone7water.com](http://www.zone7water.com)

---

**From:** JP Robinette [jrobinette@sitesproject.org]  
**Sent:** 7/27/2023 8:55:17 AM  
**To:** Xie, Lillian [lxie@zone7water.com]  
**CC:** Cheyenne Harris [charris@brwncaled.com]; Alicia Forsythe [aforsythe@sitesproject.org]  
**Subject:** Re: Review Sites description  
**Attachments:** 03-01 Biological Assessment State ITP Ops Update.pdf

Hi Lillian,

This description looks good to me, but I will let Ali confirm the average releases is current (I believe it is). Thanks for checking and good luck with your financing!

JP

---

**From:** Xie, Lillian <lxie@zone7water.com>  
**Sent:** Wednesday, July 26, 2023 4:20 PM  
**To:** JP Robinette <jrobinette@sitesproject.org>  
**Subject:** Review Sites description

Hi JP,

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Meeting: Reservoir Committee Agenda Item 3.1

April 22, 2022

Subject: Biological Assessment/State Operations ITP Modeling Update

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**Requested Action:**

Receive an update on the status of the operations modeling completed in support of the Project's Biological Assessment and State Incidental Take Permit (ITP) application.

**Detailed Description/Background:**

Staff has advanced the modeling needed to support the Biological Assessment and Operations ITP application. Results from the modeling also help inform participants on anticipated Project benefits under updated operations. Several revisions to the model have been made since the modeling effort completed for the Revised Draft EIR/Supplemental Draft EIS:

- Updated diversion criteria based on the criteria approved by the Authority Board in March 2022
- Shifted to Alternative 3 based on changes approved by the Authority Board in March 2022
- Reduced deadpool size to 60TAF from 120TAF to reflect the assimilative nature of the preferred conveyance associated with the rightsized project. Further refinements of dead pool assumptions will continue as engineered reservoir release features and reservoir modeling are considered.
- Expanded exchanges with the Bureau of Reclamation (Reclamation) to improve anadromous fish benefits through more flexible operating criteria (requested by Reclamation) to achieve improved Shasta Lake coldwater pool management, fall river flow stability for salmon habitat protection, and spring pulse actions to support improved conditions for salmon migration.
- Updated baseline hydrology to include 2035 Central Tendency (climate change) and sea level rise. This was done at the request of Reclamation.
- To accommodate increased Reclamation investment, simplifying assumptions were made about Local PWAs storage accounts being adjusted.
- Other minor modifications, updates, and model improvements

Results from CalSim II, along with temperature, Upper Sacramento River daily operations, temperature-based egg mortality, and chinook salmon population modeling are being developed. This modeling will support the Biological Assessment and Operations ITP applications.

Two iterations of Alternative 3 were run to represent a range of federal investment. Because Alternative 3 includes federal investment of up to 25 percent, one run was completed with a federal storage allocation of 25 percent active storage (Alternative 3A), and a second run was completed with a federal storage allocation of 16 percent active storage (Alternative 3B). The storage allocation for each run was developed in accordance with the Approach for Allocating Reservoir Storage, approved by the Authority in April 2021.

***Modeling Takeaways for Participants***

While the full impact evaluation for the Biological Assessment and Operations ITP application are still under development, modeling completed to date can help participants evaluate how revisions to Project operations and shifting to Alternative 3 affects anticipated costs and benefits.

**Takeaway #1: More federal investment results in less cost for local participants and more efficient reservoir operations.**

Modeling results indicate that greater storage allocation results in more efficient reservoir operations, or greater reservoir releases on average over the long-term. A summary of long-term average releases under climate change hydrology is provided in Table 1, below.

**Table 1. Modeled Long-term Average Releases from Sites**

|                     | <b>Alternative 1B<br/>Historic Hydrology<br/>(TAF)</b> | <b>Alternative 3A<br/>2035 CT<br/>(TAF)</b> | <b>Alternative 3B<br/>2035 CT<br/>(TAF)</b> |
|---------------------|--------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| <b>Wet</b>          | 82                                                     | 103                                         | 108                                         |
| <b>Above Normal</b> | 132                                                    | 390                                         | 318                                         |
| <b>Below Normal</b> | 222                                                    | 354                                         | 322                                         |
| <b>Dry</b>          | 449                                                    | 443                                         | 451                                         |
| <b>Critical</b>     | 338                                                    | 288                                         | 290                                         |
| <b>Average</b>      | <b>234</b>                                             | <b>284</b>                                  | <b>274</b>                                  |

Alternative 3A = Reclamation at 25% storage allocation; Alternative 3B = Reclamation at 16% storage allocation.

CT = Central tendency; a modeling future baseline that considers future climate change conditions based on a 30-years of change assuming a “central tendency” of 2035 (so considers conditions from 2020 to 2050, with 2035 in the middle of this 30-year span).

**Takeaway #2: Benefits for local participants do not substantially change with model updates and increased federal investment.**

Despite revised diversion criteria and less storage allocated to local participants under Alternatives 3A and 3B, releases do not substantially decrease as compared to Alternative 1B. In the case of Alternative 3B, releases to participants south of the Delta increase over the long-term over Alternative 1B, though this is likely due incorporating a climate change hydrology. Table 2 summarizes releases by participant type.

**Table 2. Modeled Long-term Average Releases from Sites by Participant Type**

|                       | <b>Alternative 1B<br/>Historic Hydrology<br/>(TAF)</b> | <b>Alternative 3A<br/>2035 CT<br/>(TAF)</b> | <b>Alternative 3B<br/>2035 CT<br/>(TAF)</b> |
|-----------------------|--------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| <b>North of Delta</b> | 29                                                     | 26                                          | 27                                          |
| <b>South of Delta</b> | 111                                                    | 109                                         | 127                                         |
| <b>State</b>          | 65                                                     | 61                                          | 63                                          |
| <b>Reclamation</b>    | 28                                                     | 88                                          | 58                                          |
| <b>Average</b>        | <b>234</b>                                             | <b>284</b>                                  | <b>274</b>                                  |

Alternative 3A = Reclamation at 25% storage allocation; Alternative 3B = Reclamation at 16% storage allocation.  
CT = Central tendency; a modeling future baseline that considers future climate change conditions based on a 30-years of change assuming a “central tendency” of 2035 (so considers conditions from 2020 to 2050, with 2035 in the middle of this 30-year span).

**Takeaway #3: Changes in modeling and federal storage result in greater overall anadromous fish benefits.**

Based on the modeling efforts to date, expanding exchanges with Reclamation at Shasta Lake as well as supporting operations for spring pulse flow actions and fall flow stability result in greater benefits to anadromous fish than seen under the Revised Draft EIR/Supplemental Draft EIS. Demonstrating anadromous fish benefits/environmental benefits is part of the Authority’s Vision and Mission and is one of Reclamation’s NEPA Purpose and Needs for the Project. Quantifying these benefits allows Reclamation to demonstrate continued feasibility, improving the likelihood of additional future federal funding. Additional analyses are underway to confirm and build upon the revised modeling efforts conducted to date.

**Next Steps**

There are additional analyses that are being conducted to support the development of the Biological Assessment and Operations ITP application. From

these efforts, the Project is expected to complete the submittal of these two documents before the end of May 2022.

Results from the modeling will be used by Reclamation to finalize the federal feasibility and assess the possible federal benefits from Sites. This analysis is expected to be completed in approximately June of 2022.

Concurrently, the Authority will need to evaluate risks, benefits, and capacity availability associated with accommodating increased participation by Reclamation and/or new participants on the “waiting list”. With Local PWA subscriptions following the Amendment 3 rebalancing at near full capacity, voluntary reductions will be needed to accommodate Reclamation and new participants. Informally, there have been expressions of interest to reduce, but over the next two months, the Authority will need to firm these up so that “offer letters” can be distributed by the end of June 2022. Substantial completion of the participation mix for the project in the near term is needed to ensure the long lead financing tasks of securing revenues to pay cost shares can be completed in time for a mid 2024 start of Phase 3, followed immediately by groundbreaking before end of 2024.

**Prior Action:**

September 2021: Receive an update on the status of resolution of discussions with Reclamation on how Project operations will be addressed in the Biological Assessment.

July 2021: Received update on the status of permitting activities as compared against the Amendment 2 Work Plan.

**Fiscal Impact/Funding Source:**

Efforts on the Biological Assessment and Operations ITP application are covered in the Amendment 3 Work Plan and the current efforts are anticipated to remain within the budget in the Work Plan.

**Staff Contact:**

Ali Forsythe

**Primary Service Provider:**

Jacobs, ICF, and HDR

**Attachments:**

None

## **DRAFT PRIORITIES FOR THE REMAINDER OF THE AMENDMENT 3 WORK PLAN**

### **AECOM HR**

1. Advance critical access road design (Dirks, Temporary detour + segment of Sites Lodoga, construction access roads)
2. Advance main dam design (Sites and Golden Gate) with a focus on foundation package
  - a. Golden Gate Dam value engineering – evaluate option to adjust dam axis and shorten dam length
3. Advance Preliminary Engineering (about 30% level of design) with available data for DSOD input and to inform an updated cost estimate

### **CH HC**

1. Coordination/collaboration with CAISO
  - a. Fulfill site exclusivity requirement – TRR & Funks
2. Advance Preliminary Engineering of DSOD jurisdictional facilities (pipelines and dissipation structures) to about 30% level of design
3. System Hydraulics Analysis (confirm conveyance operability)
4. Advance Preliminary Engineering (up to 30% level of design) with available data to inform an updated cost estimate

### **Fugro**

1. Geotech investigations/data acquisition to inform design progression of critical access roads (Dirks, Temporary detour + segment of Sites Lodoga, construction access roads), Sites Dam, and Golden Gate Dam.
  - a. Including data to evaluate Golden Gate Dam axis value engineering option
2. Geotech investigation/data acquisition of Sites and Golden Gate dam onsite borrow sources
3. Geotech investigation/data acquisition for design of Saddle dams and other DSOD jurisdictional facilities (conveyance pipelines and dissipation structures)

### **ICF**

1. Water Right
2. Final EIR/EIS, BA/BO
3. Permitting for geotech investigation activities
4. Survey for critical path construction area/activities

### **CH Ops**

1. Ops Plan

### **HDR**

1. Risk Assessment/Management
2. Environmental Mitigation Plan for critical activities
3. Real estate temporary right of entry and/or acquisition for critical activities

**BC**

1. Benefits & Obligations
2. CMAR Procurement (Reservoir/Roads-2024 & Conveyance-2025)
3. Program Schedule & Budget

**Real Estate**

1. Early Acquisition Program
2. Options/access for key properties

---

**From:** Xie, Lillian [lxie@zone7water.com]  
**Sent:** 7/27/2023 11:48:12 AM  
**To:** Alicia Forsythe [aforsythe@sitesproject.org]  
**CC:** Cheyanne Harris [charris@brwncald.com]; JP Robinette [jrobinette@sitesproject.org]  
**Subject:** RE: Review Sites description  
**Attachments:** 03-01 Biological Assessment State ITP Ops Update.pdf

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Please let me know if the 270,000 AF per year is the correct long-term average yield to use.

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**Sent:** Thursday, July 27, 2023 8:55 AM  
**To:** Xie, Lillian <lxie@zone7water.com>  
**Cc:** Cheyanne Harris <charris@brwncald.com>; Alicia Forsythe <aforsythe@sitesproject.org>  
**Subject:** Re: Review Sites description

CAUTION – This email came from outside of Zone 7 Water Agency. Do not open attachments or click on links in suspicious emails.

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**For Immediate Release:**

July 28, 2023

**Contact: Ann Newton**

(310) 774-7639

## **Sites Reservoir Awarded \$30 Million in New Federal Funding**

*Investment through the Bipartisan Infrastructure Law Underscores Federal Commitment to New Water Storage in the West*

Sacramento, CA – Sites Reservoir was awarded an additional \$30 million in federal funding from the Bureau of Reclamation through the Infrastructure Investment and Jobs Act. With this new investment, the total contribution from the United States Bureau of Reclamation to Sites Reservoir is \$244 million.

“We are grateful for the ongoing support of our federal partners,” said Fritz Durst, chairman of the Sites Project Authority. “These investments exemplify the spirit of collaboration that’s been a hallmark of Sites Reservoir. We have local, state and federal interests working together to create a new, resilient water supply for people, the environment, farms and businesses.”

Sites Reservoir is being paid for by the beneficiaries of the project, who represent millions of Californians, thousands of acres of farmland, and agencies collaborating to increase water resiliency while protecting the environment. Federal and state partners have invested through federal infrastructure laws and through California’s Proposition 1 to ensure public benefits are included in the project, such as water dedicated to the environment and recreation.

“Water is essential to every community – for feeding families, growing crops, powering agricultural businesses and sustaining wildlife,” said Bureau of Reclamation Commissioner Camille Calimlim Touton. “Our investment in these projects will increase water storage capacity and lay conveyance pipeline to deliver reliable and safe drinking water and build resiliency for communities most impacted by drought.”

Sites Reservoir will increase California’s water supply by providing 1.5 million acre-feet of additional water storage capacity, which will make our statewide water management system more flexible, reliable, and resilient. Sites is an off-stream reservoir that would capture and store stormwater flows from the Sacramento River – after all other water rights and regulatory requirements are met – for use by California communities, farms, and businesses when it is so desperately needed. Specifically, Sites can provide water during drought years by saving it when it’s abundant from wet years and major storm events.

Sites Reservoir has broad statewide support from cities, counties, water agencies, and irrigation districts throughout the Sacramento Valley, San Joaquin Valley, Bay Area, and Southern California which are working together to advance the project. The Sites Reservoir Project is locally led by the Sites Project Authority which is made up of Sacramento Valley water districts, cities, and counties.

*Sites is an off-stream reservoir proposed north of the Sacramento-San Joaquin Delta, where it would provide unique water supply and environmental benefits during dry periods, especially during extended drought. Additional information can be found at [www.sitesproject.org](http://www.sitesproject.org) or on Facebook and Twitter at @SitesProject.*

---

**From:** Kevin Spesert [kspesert@sitesproject.org]  
**Sent:** 7/31/2023 11:36:07 AM  
**To:** Marcia Kivett [MKivett@sitesproject.org]; Keith Dunn (keithdunn@me.com) [keithdunn@me.com]; Jeff Sutton [JSutton@tccanal.com]; mitchbutler@naturalresourceresults.com  
**CC:** mlimbaugh@tfgnet.com; kmore@tfgnet.com; Jerry Brown [jbrown@sitesproject.org]; Garrett Durst [garrett@naturalresourceresults.com]; Roger Gwinn [rgwinn@tfgnet.com]; NHawk@mwdh2o.com; ckearney@tfgnet.com  
**Subject:** Sites Gov. Affairs Biweekly Call

Topics for today's Government Affairs Team....please feel free to add any other additional topics

#### **General Items**

Landowner Meetings Aug 16<sup>th</sup> & 17<sup>th</sup>  
Geotech field work resuming  
Redding Rotary feedback  
Colusa Tribe next steps

#### **State**

Keith Update  
SB149 Application Update  
MWD/Montna Farm event debrief  
Sec CNRA meeting on September 25<sup>th</sup>  
Consider a State Legislative tour in the Fall

#### **Federal**

Roger/Garrett Update  
LTO BA – where is Sites  
Reclamation B&O/Denver  
Timing of WIIN allocation

Thanks!

Kevin

---

**From:** MKivett@sitesproject.org  
**When:** 1:00 PM - 2:00 PM July 31, 2023  
**Subject:** Sites Gov. Affairs Biweekly Call  
**Location:** Microsoft Teams Meeting

Moving the Biweekly call to the MS Teams platform.

---

## Microsoft Teams meeting

**Join on your computer or mobile app**

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**Or call in (audio only)**

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[\(888\) 404-2493,887918989#](#) United States (Toll-free)

Phone Conference ID: **887 918 989#**

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A Brown and Caldwell Teams meeting has been created for this event.

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