

Operations & Engineering Workgroup

March 13, 2024



Agenda

1.1 – Procurement Strategy Update

1.2 – Review Status of CAISO and DSOD Coordination

1.3 – Closeout of 2022-2023 Geotech Report

1.4 – Review CalSim 3 Modeling Results

Engineering and Construction Manager's Report

AB0

Slide 2

ABO

Need to update based on Agenda. No longer including agreements, but looks like CAISO and DSOD have been added.

Angela Bezzone, 2024-03-10T18:24:15.541

Agenda Item 1.1

Procurement Strategy Update

Jeff Kivett

Update on Construction Legal Procurement

- Interviews occurred at end of February.
- Separate firms selected for each service area
 - Civil Works: Best Best & Krieger LLP
 - Environmental Mitigation: Cox, Castle & Nicholson LLP
- Negotiations are in progress. Anticipate bringing forth recommended selections for both contracts at March Board Meeting.

Contractor Outreach Events

- Held Procurement Information event on February 13, 2024
 - Over 100 people CH0 attended
- Next Event: In person at the Maxwe CH1/FW
 - Thursday April 18th, 10am - 12pm
 - Purpose: Continue to collaborate with contractors and provide opportunity to allow potential prime contractors to meet with local contractors and the community.
- Attendance by Sites team:
 - Reservoir Committee/Authority Board Members
 - Local Community Working Group members
 - Project team representatives

Slide 5

CH0 To be populated if we want to explicitly state the purpose
Cheyanne Harris, 2024-03-05T19:06:26.619

CH1 To be confirmed
Cheyanne Harris, 2024-03-05T19:07:27.188

Reservoir CMAR Procurement Update

Defer initiating 1st CMAR procurement RFQ until after CEQA trial court date (June 4, 2024)

Near Term Next Steps

– April

- April 18th Contractor Open House
- April 19th Board Meeting: Procurement Strategy Update

– May

- May 22nd Board Meeting: Check in on B&O Contract, funding, water right ahead of releasing Reservoir CMAR RFQ

Reservoir Package - 2 Step Procurement Process

RFQ + Request for Proposals (RFP)

STEP ONE



Typical Information Requested

- Qualifications and experience
- Capability and capacity
- Past performance

STEP TWO



Typical Information Requested

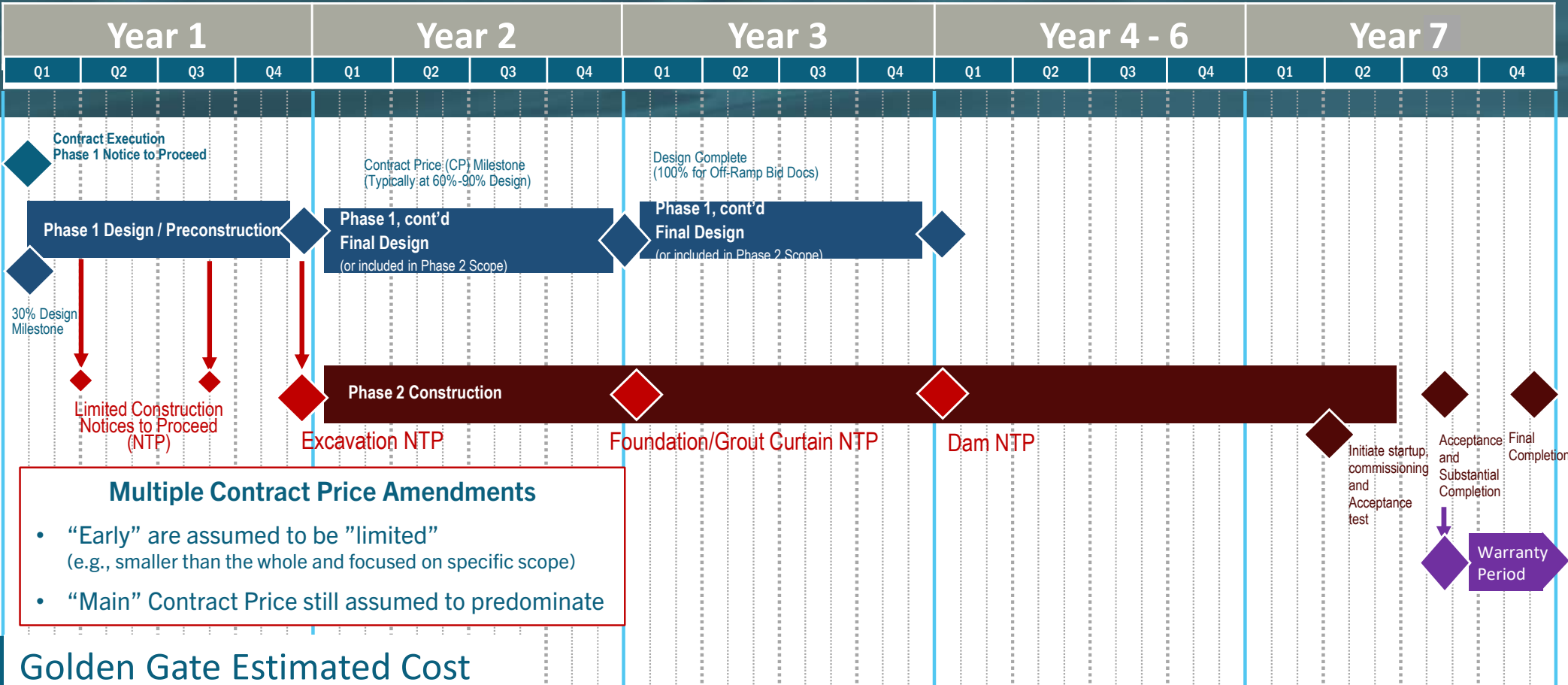
- Qualifications and experience (carry over)
- Project approach and technical solutions
- Pricing information (optional)
- Best value

Initial planning award for first year <\$250k

Anticipating similar process for Conveyance (Maxwell – Sites Pumping Generating) Package.

Process for Mitigation package procurement is to be determined.

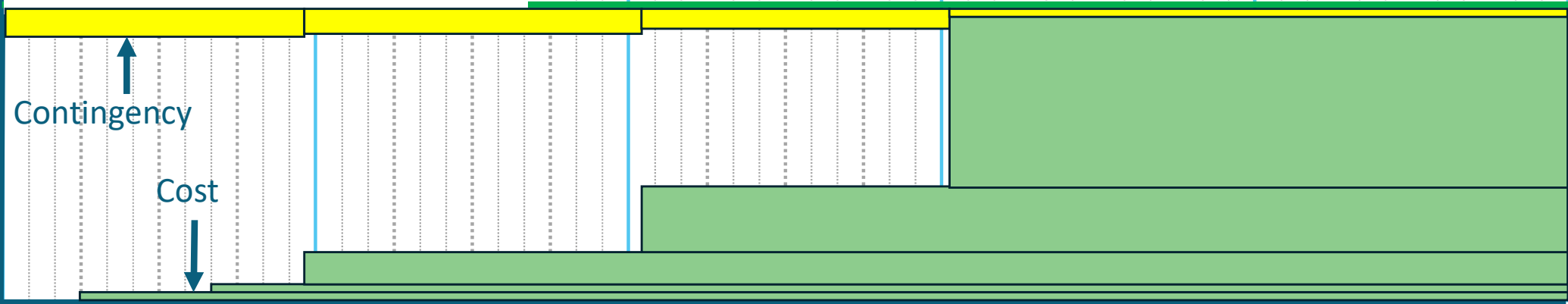
Golden Gate Dam CMAR Project



Multiple Contract Price Amendments

- “Early” are assumed to be “limited” (e.g., smaller than the whole and focused on specific scope)
- “Main” Contract Price still assumed to predominate

Golden Gate Estimated Cost



Questions?



Agenda Item 1.2

Status of CAISO and DSOD Coordination

JP Robinette

CAISO Application Status

- Interconnection Application submitted and deemed complete April 11, 2023 (within Cluster 15)
- Due to the large increase in interconnection requests, the ISO is looking to redesign and optimize its process starting with Cluster 15
 - Stakeholder outreach considering 2023 Interconnection Process Enhancements (IPE) initiative began on June 7, 2023
 - 2023 IPE considers changes to Generator Interconnection and Deliverability Allocation Procedures
 - 2023 IPE scoring criteria will likely screen projects based on its ability to fulfill system needs and commercial interest viability
 - Finalization of 2023 IPE and initiation of Cluster 15 studies is anticipated to begin no sooner than September 2024

2023 IPE Considerations and CAISO Coordination

- Staff continues to monitor and engaged ISO managers to emphasize the uniqueness and importance of the Sites Reservoir Project
 - ISO managers acknowledges the criticality of the Project and is considering IPE evaluation criteria that would allow continued eligibility under Cluster 15
 - Second draft of 2023 IPE, with considerations for projects such as Sites Reservoir, is anticipated to be available for review by the end of this month
- CAISO is not currently on the schedule critical path
 - A potential option to mitigate the schedule float that has been lost due to the 2023 IPE initiative is to prioritize and ensure load (power for pumping and operations) is accommodated before completing deliverability (power generation) assessments
 - CAISO, PG&E, and staff are investigating strategies that could effectively implement both load (PG&E) and deliverability (CAISO) assessments in a parallel process

DSOD Coordination

- Monthly coordination meetings with DSOD leadership
 - Established framework for phasing of dam design, review, and construction approach
 - Mutual understanding to meet CWC Prop 1 requirements for final award
 - The goal being “conceptual acceptance” of 30% designs – no known or expected conditions that would prevent all DSOD requirements from being met
- Ongoing collaboration with DSOD technical staff related to design considerations, criteria, and required support data
- DSOD 30% design oversight review is planned to be initiated by July 2024 and completed before January 2025
- Agreed upon approach for filing fee staged installment payments
 - Initial (July 2024) payment will be 20% of the total filing fee (~\$3M)
 - Prioritization of remaining Amendment 3 work will ensure there is budget available within the timeframe of this expenditure

Questions?



Agenda Item 1.3

Closeout of 2022-2023 Geotech Report

JP Robinette



Amendment 3 - 2022-2023 Geotech Overview

- Collect data and inform updated engineering cost estimates, preliminary design documents, and preparation of permit applications for the proposed Sites Reservoir and associated with project facilities.
- 325 planned locations, of which 191 were “priority”
- Priority locations were identified to maximize the time available for design prior to submittal of the 30% design documents. While all P1 explorations are needed for 30% design, these explorations were determined to be enough to start on design updates.

1. Golden Gate Dam Area
2. Core Borrow Areas
3. Core Borrow Areas
4. Road Improvement Areas
5. Saddle Dam areas
6. Bridge Areas
7. Saddle Dike Areas
8. GCID Headworks
9. Inlet-Outlet Tower Areas
10. Funks Reservoir Area
11. Reservoir Rim Ridge Grouting Areas
12. Terminal Regulating Reservoir Areas
13. Rock Quarry Areas
14. Dunnigan Pipeline Area

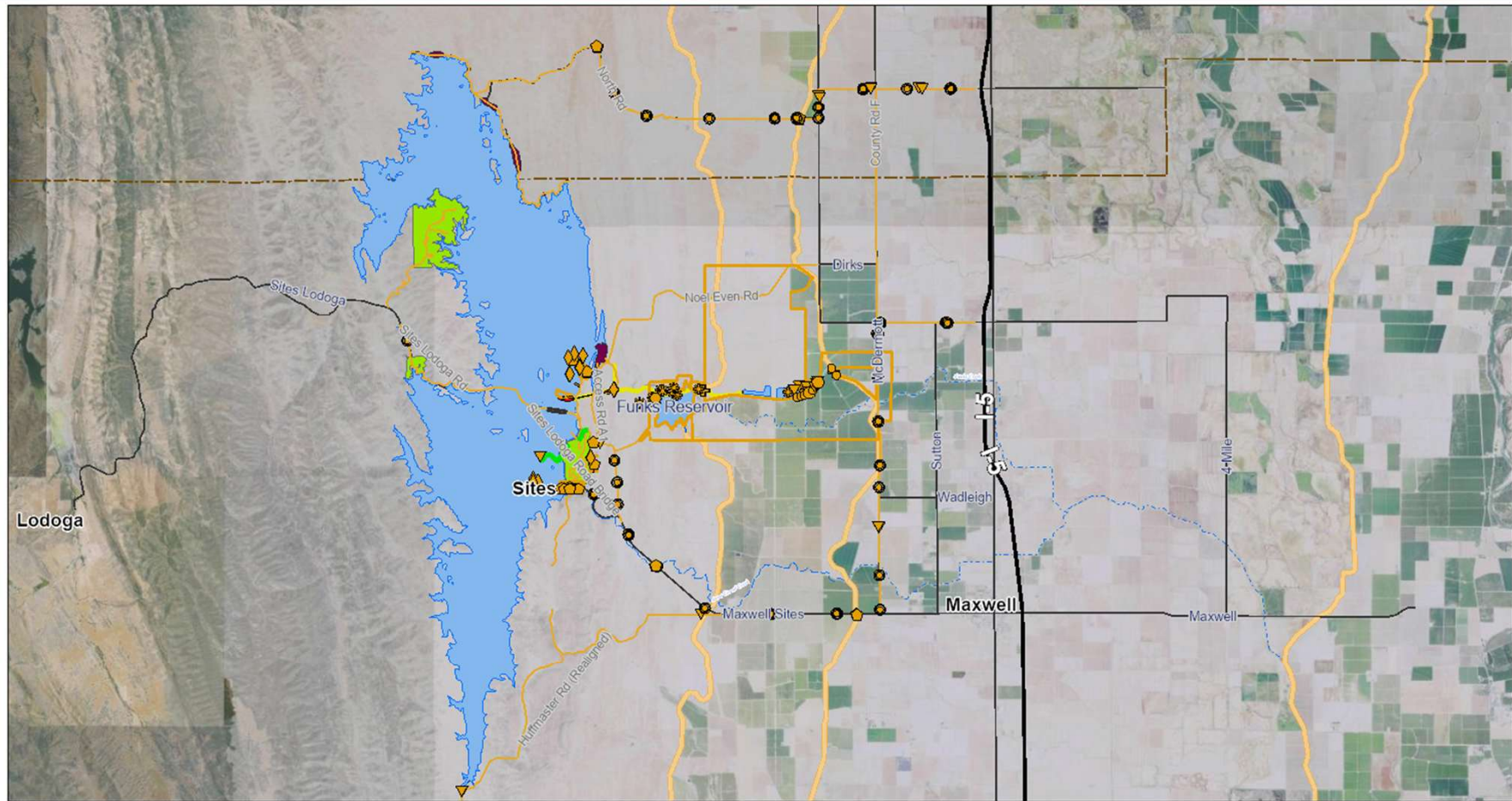
Amendment 3 - 2022-2023 Geotech

What has been accomplished?

Field Activity	Planned Quantity (Priority)	Completed Quantity (Priority)
Pavement Core Areas	31 (9)	28 (4 of 9)
Borings, some with downhole testing and completed as standpipe piezometers	135 (115)	43 (27 of 115)
Cone Penetration Probes	24 (24)	11 (11 of 24)
Seismic Refraction Lines	55 (21)	15 (4 of 21), plus 2 Multichannel Analysis of Surface Waves lines
Resistivity Surveys	2 (2)	1 (1 of 2)
Geologic Mapping Areas	13 (8)	7 (4 of 8)
Test Pits	48 (6)	9 (2 of 6)
Dozer Lines	6 (0)	1
Fault Lines	10 (6)	3 (3 of 6)
Total	325 (191)	118 (57)

Amendment 3 - 2022-2023 Geotech

What has been accomplished?



3/11/2024, 8:59:55 AM

Geotech Points

- P1 - Auger
- P1 - Auger Core
- P1 - Cone Penetration Test
- P1 - Mud Rotary
- P1 - Pavement Core
- P1 - RES
- P1 - Rotary Wash Core
- P1 - Seismic

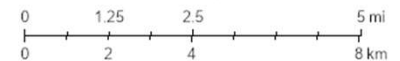
Geotech Lines

- P1 - Dozer
- P1 - Seismic Refraction Survey
- P1 - Trench
- P1 - Test Pit

Geotech Polygons

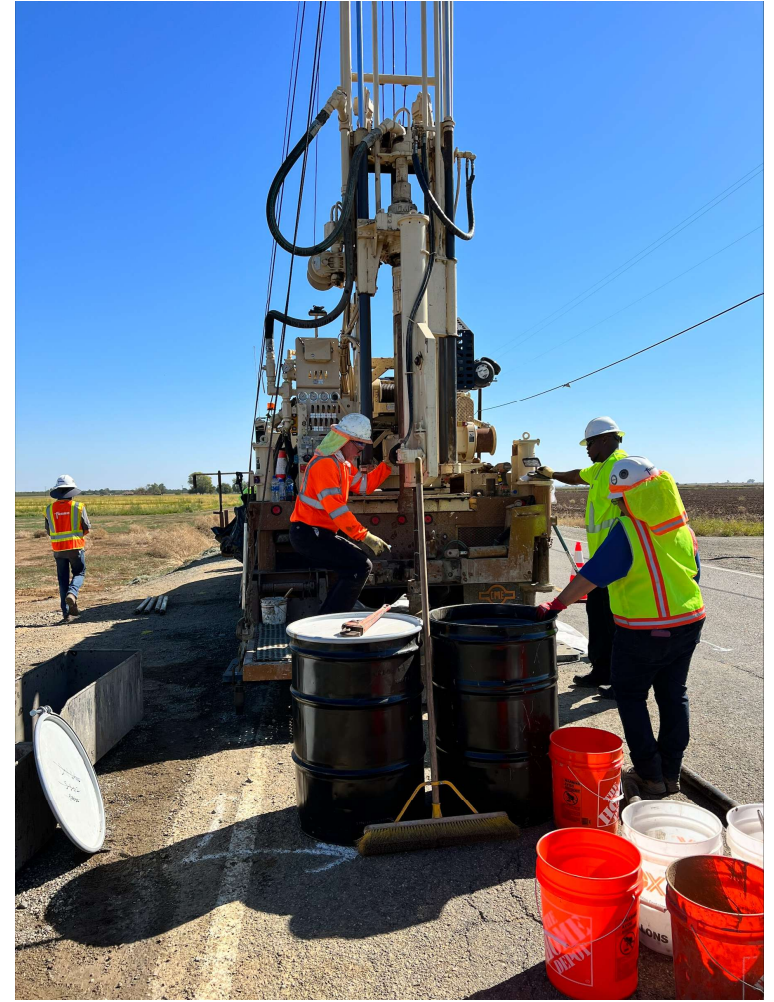
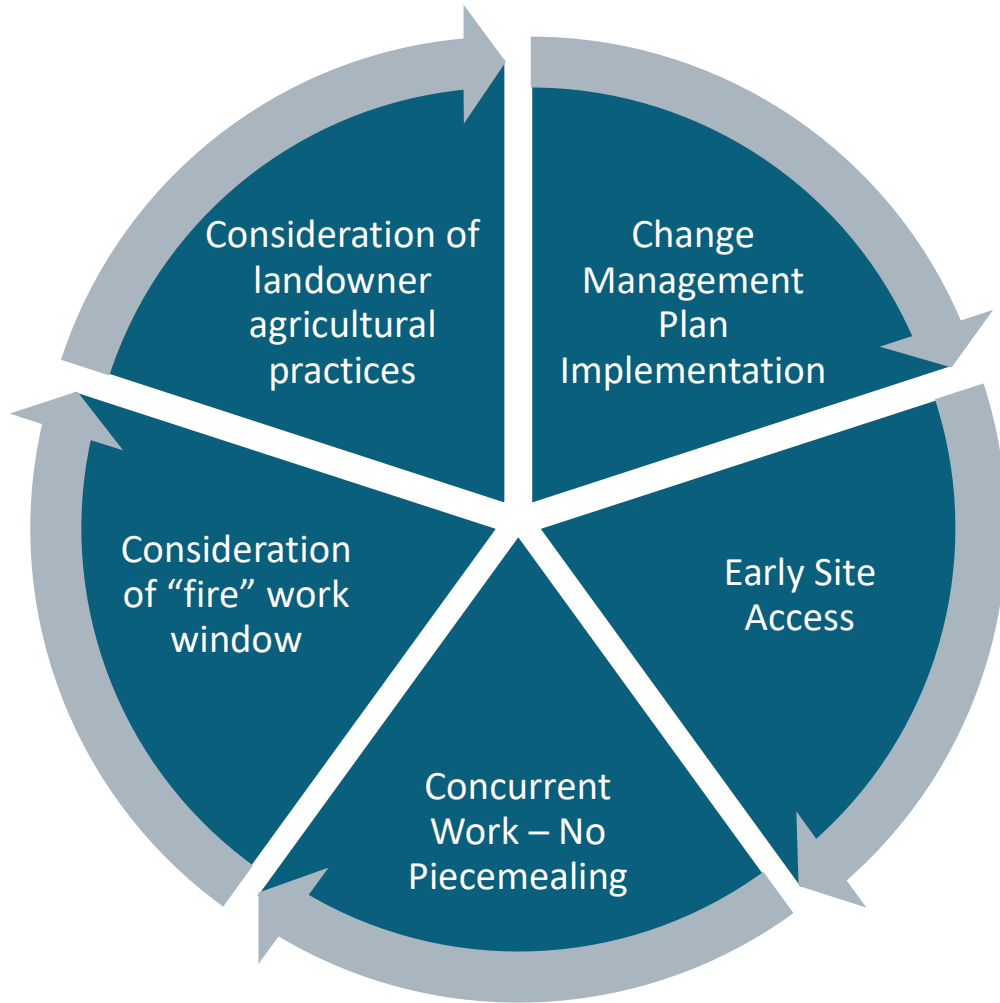
- P1 - Geologic Mapping
- P1 - Other
- Canals

1:135,226



Source: Esri, USDA FSA

Amendment 3 - 2022-2023 Geotech *Lessons Learned*



Amendment 3 - 2022-2023 Geotech *Closure Summary*

Approved Budget as of January 1, 2022:	\$20,250,000
Budget Expended by December 31, 2023:	\$9,700,000
Original Schedule:	Jan 2022 – Dec 2024
Actual Schedule:	Jan 2022 – Jan 2024
Reason for Project Closure:	Late-2023 amendment of A3 Work Plan – Golden Gate Focus

work completed to date has produced results largely consistent with prior assumptions with one important exception, the dam core material, which is currently being evaluated in the development of the Class 3 Cost Estimate.



Questions?



Agenda Item 1.4

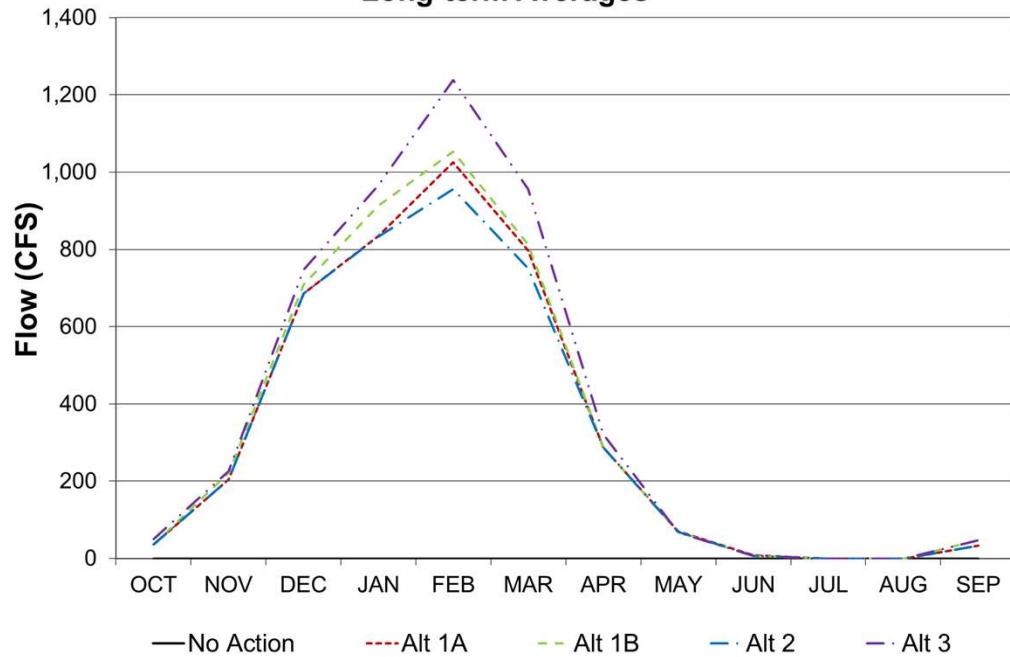
CalSim Results Update

Angela Bezzone

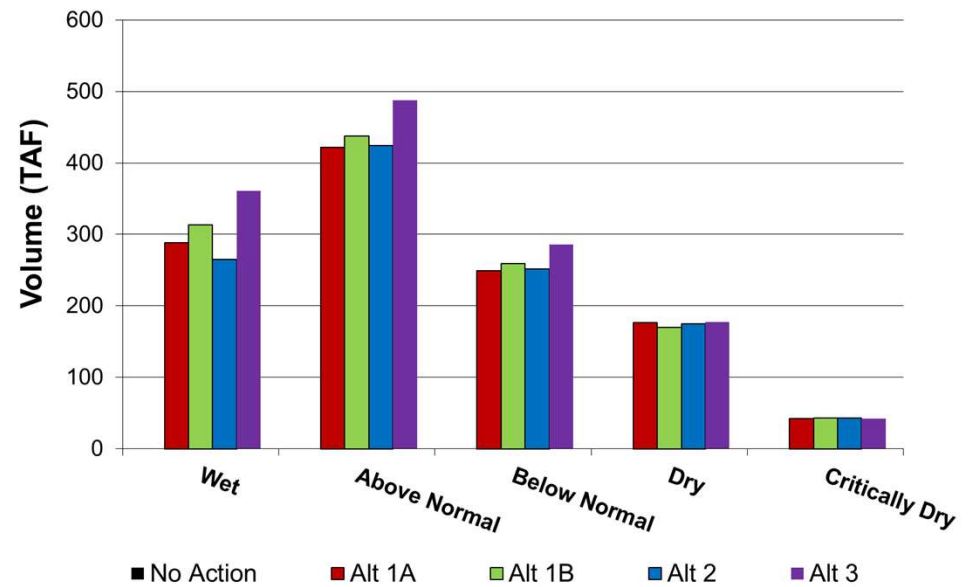
Final EIR/EIS CalSim II Results

Final EIR/EIS Results – Diversions

**Total Sites Diversion to Fill
Long-term Averages**

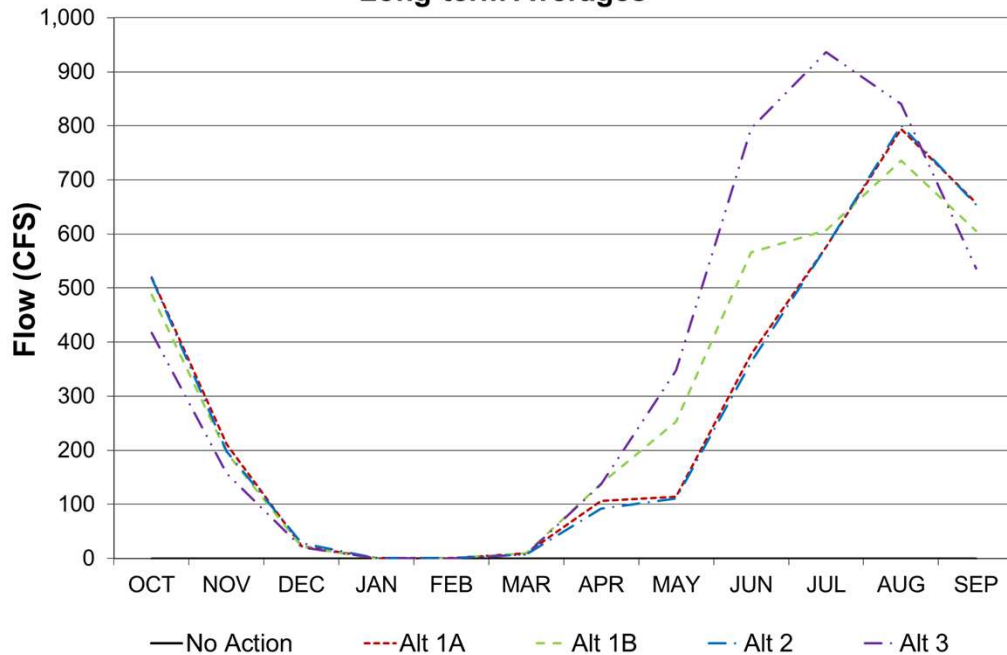


**January-December Total Sites Diversion to Fill
Water-year Type Averages**

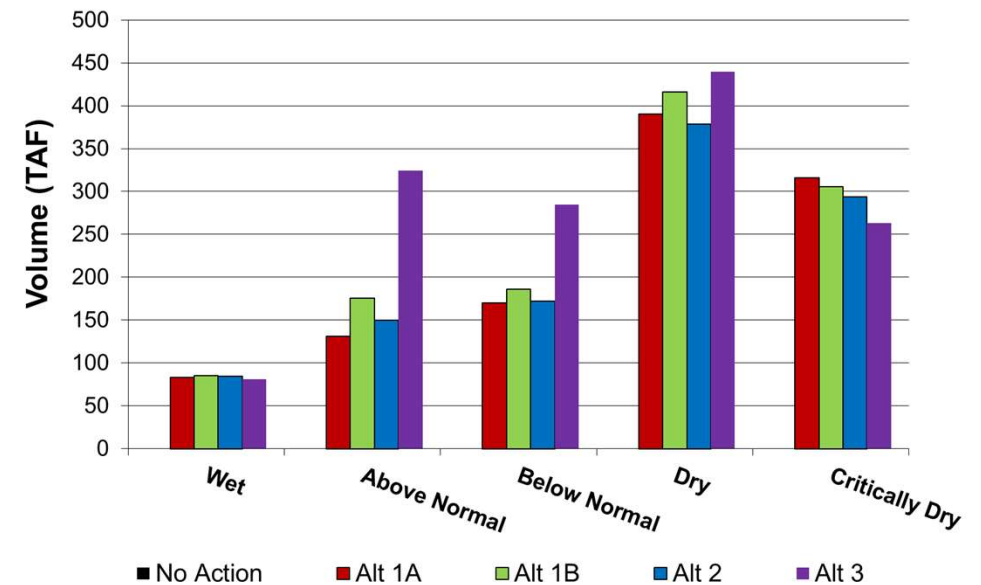


Final EIR/EIS Results – Releases

**Total Sites Release
Long-term Averages**



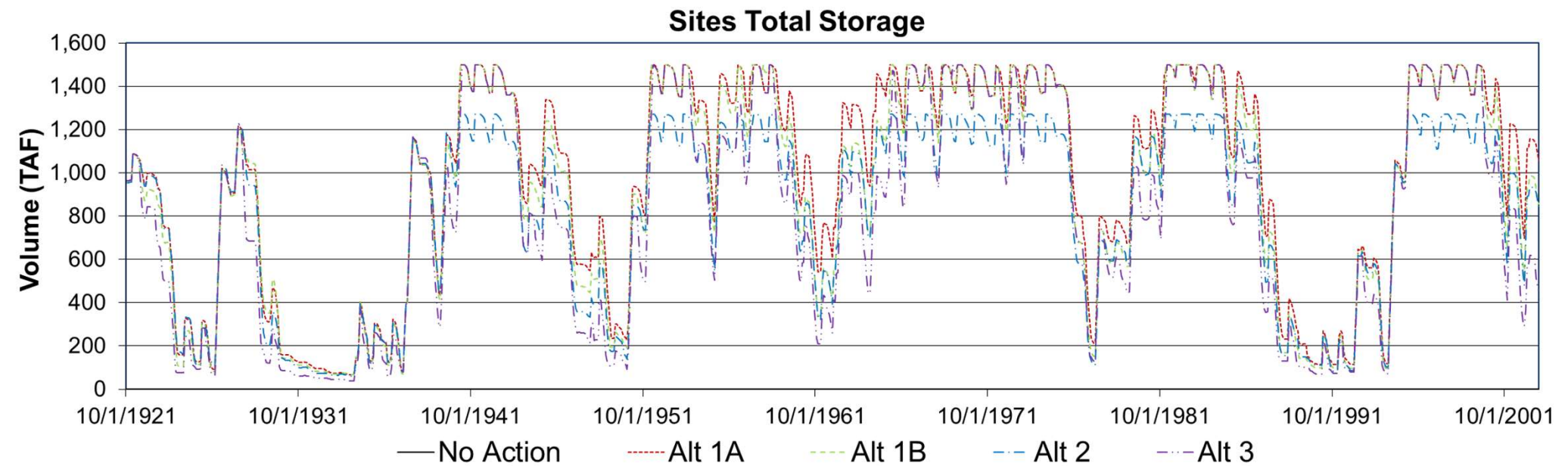
**January-December Total Sites Release
Water-year Type Averages**



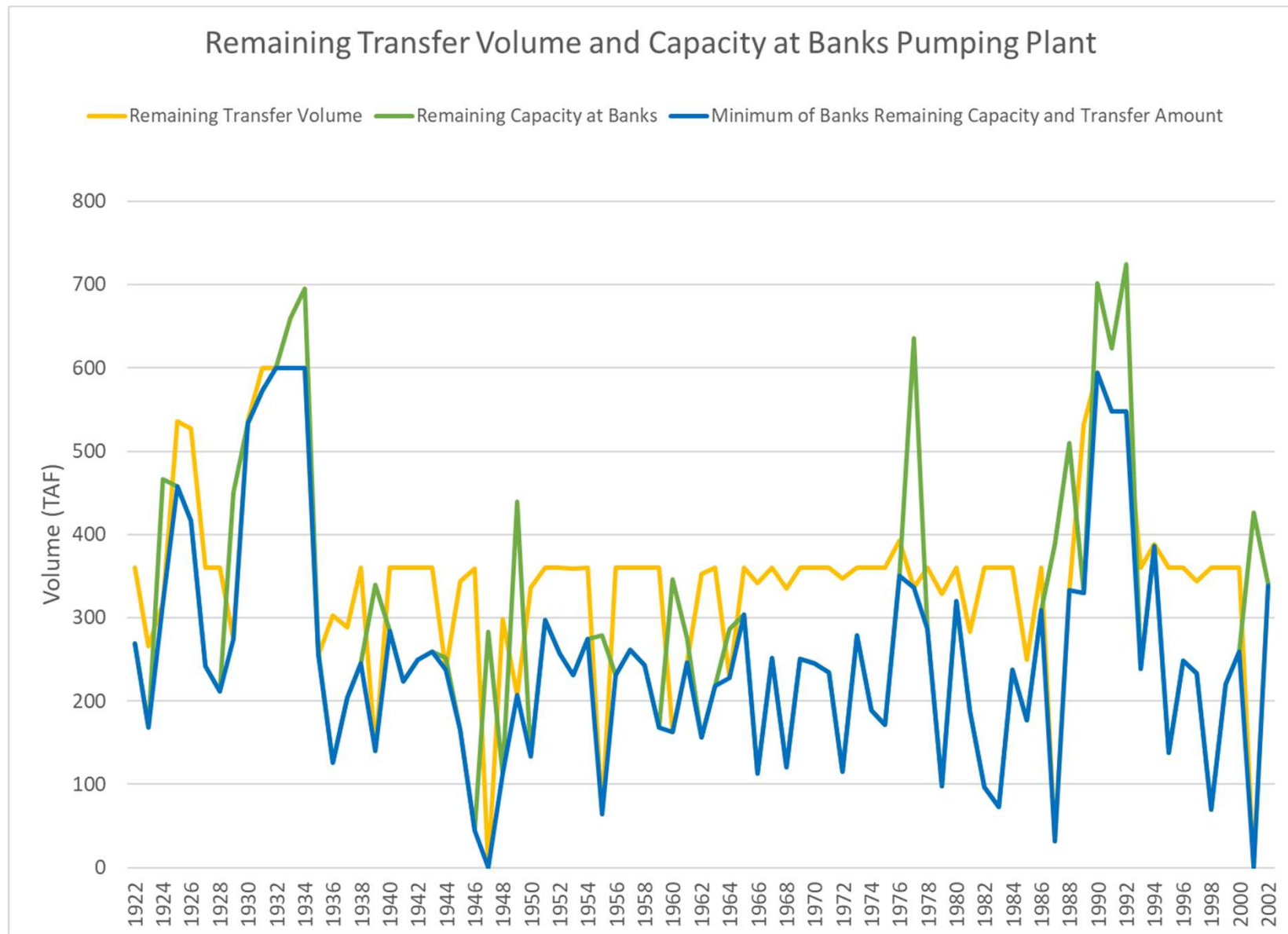
Alternative 3 Average Releases (TAF/year)

Release Category	Average	Dry and Critical
PWA Deliveries – North of Delta	21	37
Assumed transfer from North to South of Delta	5	5
PWA Deliveries – South of Delta	86	191
CVP Deliveries – Operations Flexibility	89	91
Refuge Water Supply	19	33
Yolo Bypass Habitat Water Supply	37	11
Total Releases	256	369

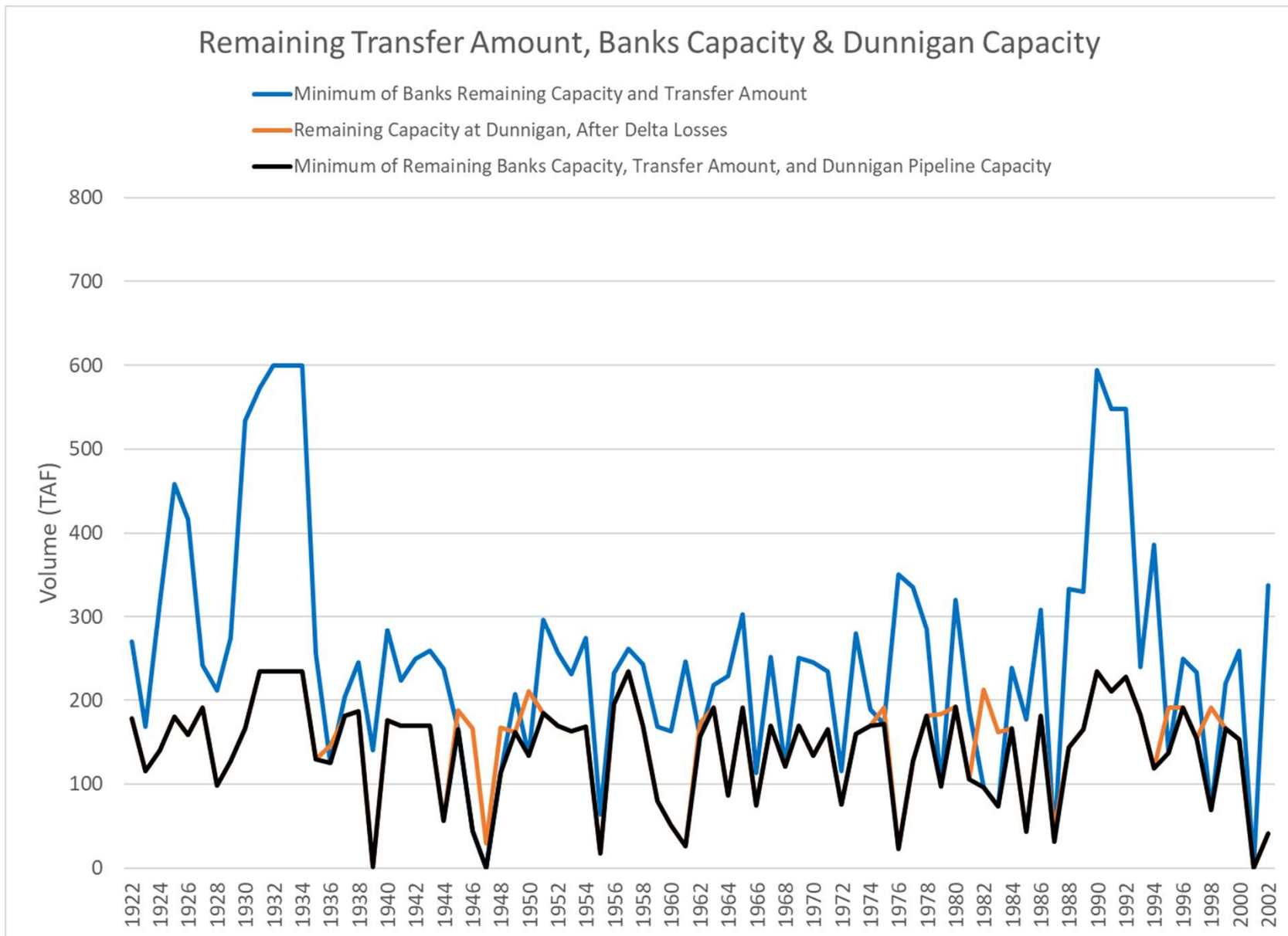
Final EIR/EIS Results – Sites Storage



Ability to Move NOD Member Water to SOD Non-Members



Ability to Move NOD Member Water to SOD Non-Members



Ability to Move NOD Member Water to SOD Non-Members

Water Year Type	Minimum of Remaining Banks Capacity (1) and Transfer Amount (2)	Minimum of remaining Banks Capacity (1), Transfer Amount (2), and Dunnigan Pipeline (3)
Wet	218	161
Above Normal	271	174
Below Normal	142	115
Dry	242	85
Critical	455	171
Long-term Average	253	139

Preliminary CalSim 3 Diversion Results

Baseline Model

- Reclamation's LTO Proposed Action CalSim 3 model (presented to agencies Sep 2023)
 - No Voluntary Agreements
 - Differs from DWR's LTO Proposed Project CalSim 3 model
- Climate condition:
 - 2022±15 median hydrology
 - 15 cm of sea level rise
- Demand condition:
 - Projected land use based on recent historical
 - Projected urban demands based on 2040 estimated in 2020 UWMPs
- Existing facilities

Assumptions

Sites Modeling Diversion Criteria	Monthly vs Daily Constraint	Integrated into CalSim 3 (as of 2/20/24)?
Red Bluff diversion capacity (2,100 cfs)	Daily	Yes
Hamilton City diversion capacity (1,800 cfs & variable winter capacities)	Daily	Yes
GCID Main Canal maintenance (1 week in Jan, 1 week in Feb)	Daily & Monthly	Yes
Wilkins Slough Bypass (10,700 cfs Oct-Jun; 5,000 cfs all other times)	Daily & Monthly	Yes
No diversions when Delta is in Balanced conditions	Monthly	Yes
Fully Appropriated Streamflow (no diversion from Jun 15 to Aug 31)	Monthly	Yes
Bend Bridge Pulse Protection	Daily & Monthly	No
Sites Storage Capacity	Daily & Monthly	Yes

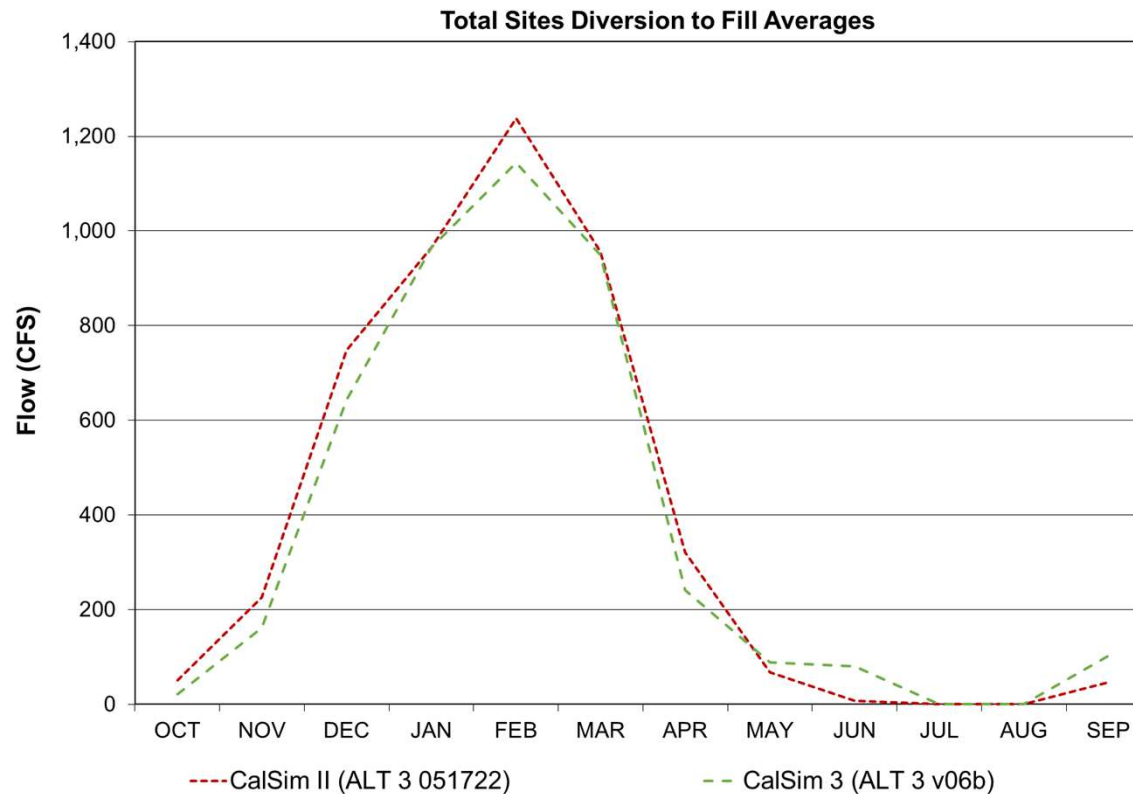
Assumptions (cont.)

Sites Modeling Diversion Criteria	Monthly vs Daily Constraint	Integrated into CalSim 3 (as of 2/20/24)?
Limit diversions to not use first 3,000 cfs of Surplus Outflow (near Excess conditions)	Monthly	No
Red Bluff Bypass (3,250 cfs)	Daily & Monthly	Yes
Hamilton City Bypass (4,000 cfs)	Daily & Monthly	Yes
Shasta Spring Pulse	Monthly	Yes
TCC hydraulic limit (lowest level of pumping: 125 cfs)	Daily	No
GCC hydraulic limit (lowest level of pumping: 100 cfs)	Daily	No

*Other constraints may be added to account for LTO regulatory conditions

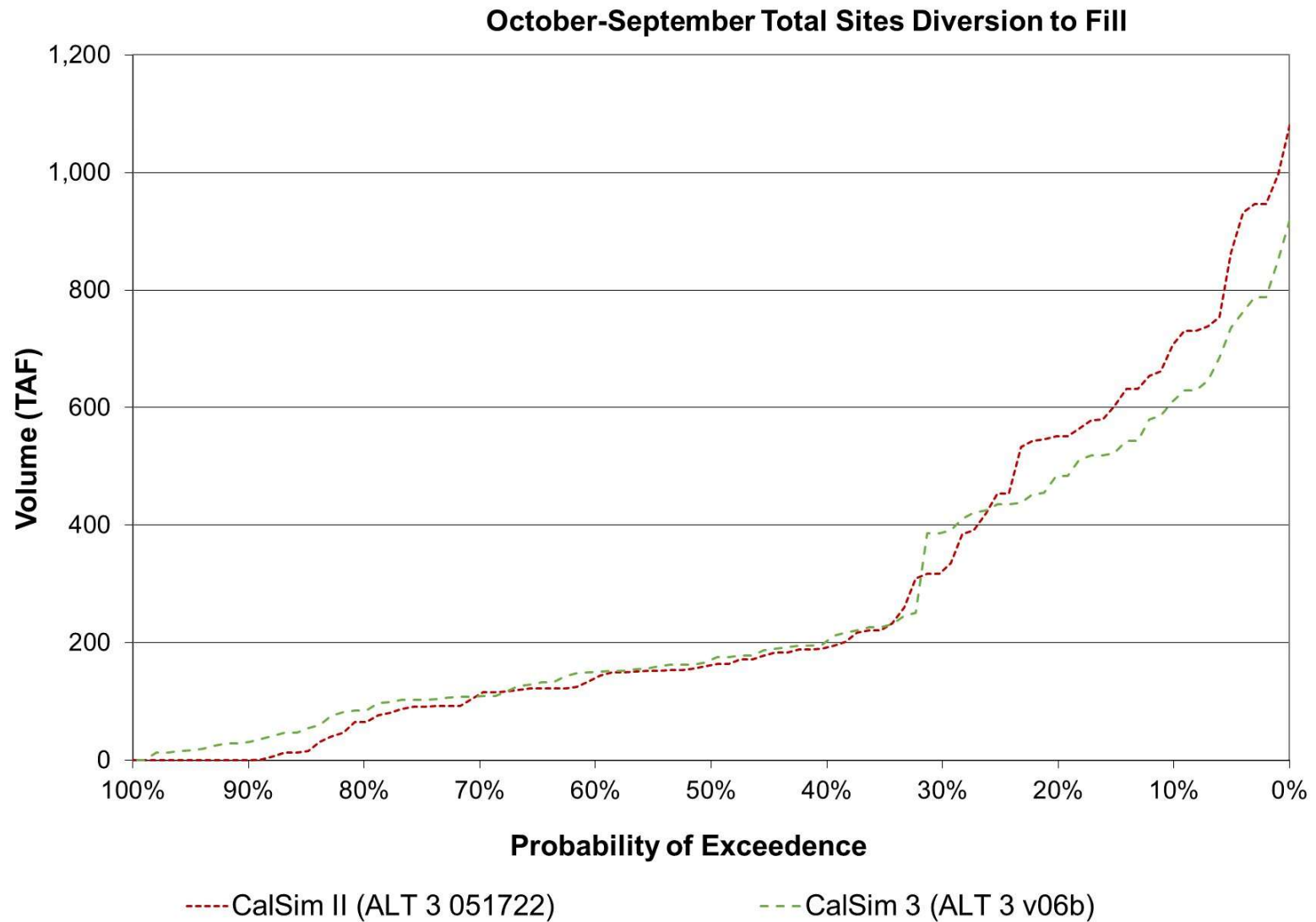
**Testing of monthly vs daily methodologies in-progress. Approach is subject to change

Preliminary Results



Scenario	Long-term Average Diversion (TAF)	Relative Change
CalSim II (ALT 3 051722)	277	-
CalSim 3 (ALT 3 v06b)	263	-14 (-5%)

Preliminary Results



Questions?



Engineering and Construction Manager's Report

JP Robinette

Action Items

#	Action Item	Status
1	Share the slides from the RC/AB meeting that covered the value engineering planned for Golden Gate Dam	Slides were distributed as requested.
2	Value Engineering, add as a topic for next O&E meeting. Include the process, who will be involved (committees, individuals), and the schedule.	Topic anticipated to be on the agenda for May O&E meeting
3	Discuss initial policy and procedure for rate setting for use of downstream facilities a) between Sites Participants and b) outside of Sites Participants.	To be taken up after Ops Plan discussions on prioritization on use of downstream facilities (targeting July 2024).
4	Discuss alternative conveyance between TC Canal and Colusa Basin Drain (CBD)	Discussions have occurred and no alternative conveyance options are being considered.
5	Distribute the slides January O&E Presentation covering the Ops Plan V2 to O&E members and ask for comments by February 1, 2024. Bring any feedback to the March O&E meeting.	Topic anticipated to be on the agenda for May O&E meeting

Future Topics

- Review Operations Plan (Version 2)
- Review Value Engineering Approach
- Review CMAR Step 1 RFQ
- Review assumptions and considerations related to the in-progress updated cost estimate.
- 30% Design Review

Questions?



Thank you!

Next Meeting:

Wednesday, May 8, 2024 (1:30 pm – 3:30 pm)

