

Meeting:

Subject: Sites Reservoir Optimized Initial Phase 3/4 Project Schedule

#### Requested Action:

Reservoir Committee and Authority Board review and comment on the optimized Initial Phase 3/4 Project Schedule.

### Detailed Description/Background:

Advancing the design, financing, and land acquisition of the Sites Reservoir Project (Project) beyond the planning phase and into final design and construction (Phase 3/4) requires a better understanding of the timing, durations, sequencing and dependencies of the more significant activities through the completion of construction.

In Feb 2023, Staff presented an "un-optimized" schedule with an eight-year construction period with operations initiating at the end of 2033. The Board concurred with the goal to develop an "optimized" schedule that initiates operations by the end of 2031. The un-optimized and optimized schedules represent "book-ends" with operations in 2031 and 2033 respectively.

Board adoption of an Initial Phase 3/4 Project Schedule is being deferred a few months to coincide with the consideration of the annual budget and the update of the Amendment 3 work plan, planned for Oct 2023. This is done because the optimized schedule depends on reprioritizing remaining Amendment 3 work activities that require further evaluation. Previewing the optimized schedule is meant to get the Board's feedback on the reprioritization so that the budget and schedule can go forward together.

The development and analysis of the Optimized Initial Phase 3/4 Project Schedule (Attachment A), includes change to near-term work planning. Some of the critical schedule assumptions reflected in the Optimized Initial Phase 3/4 Project Schedule are as follows:

- Early land acquisition (fee title ownership) is implemented, allowing full access to certain critical path features including the Golden Gate Dam, Sites Dam and the Sites Ladoga Road Detour.
- Reprioritizing Amendment 3 design activities to focus on higher priority work related to construction completion while also being able to complete the Level 3 cost estimate prior to investor commitment.
- Reservoir Package Construction Manager At Risk (CMAR) is on-board at the start of 2025. Bringing this CMAR on early will incorporate construction aspects into the project design and validate the cost estimating.

• Benefits and Obligations Contracts are executed by mid-2025 based on the 'conditions precedent' and allow financing to be available at construction start.

Initial observations related to an optimized schedule that may be of most interest to the Boards are:

- Construction commences in late 2025 and is completed in 2031. This is an optimum total duration, mostly from the perspective of the designers. Further refinement would occur from the CMAR.
- The critical path begins with early works preceding the Golden Gate Dam foundation. The critical path runs through the construction of the Golden Gate Dam through completion.
- The Maxwell-Sites Pumping and Generating CMAR can be on-boarded 6-12 months after the Reservoir Package CMAR.
- Further analysis of activities with schedule float is needed, in particular Project power considerations.

As a reminder, the project schedule can dramatically impact affordability. Just with time value of money escalation factored, project construction costs could be around \$80M - \$100M per year of extended time. These considerations will need to be taken in account as changes to the Amendment 3 work plan and development of the 2024-2025 budget occur.

One final note, Staff views the Phase 3/4 Project Schedule as a working document. While the current level of detail is less than what is required at construction, it is sufficient and accurate to guide Staff's actions and coordinate with others on aspects of the project beyond the current Amendment 3 work plan. There will be future revisions of the Phase 3/4 Project Schedule to incorporate further detail and changes as they occur, which will be subject to Board approval.

#### Prior Action:

June 2023: Review and comment on updated Project schedule development findings and recommendations for Amendment 3 work plan update.

#### Fiscal Impact/Funding Source:

The Amendment 3 Work Plan includes sufficient budget to cover required resources and activities to develop the Phase 3/4 Project Schedule.

**<u>Staff Contact</u>**: Marcus Maltby/JP Robinette

#### Primary Service Provider: Brown and Caldwell

#### Attachments:

Attachment A – Optimized Initial Phase 3/4 Project Schedule

# **Sites Reservoir Project**



						Schee	Jule							
#	Activity Name	23 2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
1		Q3 Q4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q	24 Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4			4 Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q4		Q4 Q1 Q2 Q3 (	Q4 Q1 Q2 Q3 Q4
'	Sites Reservoir Project: July 2023						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1				1 1 1	1 1 1	
2	Final EIR CEQA Adoption	Final EIR CEQA	Adoption				1 1 1 1	1 1 1		1 1 1		8 8 8	1	
3	Final EIS NEPA ROD	♦ Final EIS I	NEPA ROD				1 1 1 1	1 1 1 1				1 1 1		
4	NTP for Final Design Data Acquisition	NTP for Fin	al Design D	ata Acquisit	ion		1 1 1 1					5 5 5		
5	Water Right Permit Issued		• Water Rig	ht Permit Iss	sued		1 1 1 1	8 8 8 8		5 5 5		5 5 5 5	1 1 1	
6	Investor Commitment		Investor	Commitmen	t	1 1 1	1 1 1 1	8 8 8 8		5 5 5		5 5 5	1 1 1	
7	Policy Decision - Early Land Acquisition	<ul> <li>Policy Decision</li> </ul>	- Early Lan	d Acquisitio	n	1 1 1	1 1 1 1	1 1 1 1		2 2 2		5 5 5	1 1 1 1	
8	Critical Land Acquisition			Critica	al Land Acqui	sition	1 1 1 1	1 1 1 1		8 8 8		1 1 1 1	1 1 1	
9	Policy Decision - All Land Acquisition		Policy De	ecision - All L	Land Acquisit	ion	1 1 1 1	1 1 1 1				1 1 1		
10	30% Design - Dams	•	30% Design	ı - Dams								5 5 5		
11	CMAR Award: Reservoir Package	•	CMAR Aw	ard: Reservo	oir Package			1 1 1 1				5 5 5		
12	60% Design - Dams			<b>•</b> 6	60% Design - [	Dams		* 2 2 3						
13	100% Design - Dams				♦ 100%	6 Design - Dan	ns	* 2 2 2		- 		* * *	: :	
14	DSOD Approval of 100% Dams Design					DSOD Appr	roval of 100%	Dams Desig	ή			8 8 8		
15	Final Design of Conveyance Features				F	inal Design of	Conveyance	Features				1 1 1 1		
16	Permitting (Biological/Cultural/Mitigation)			1 1 1	1 1 1	Pe	ermitting (Bi	ological/Cult	ural/Mitigat	ion)		5 5 5		
17	Access Roads Construction				1 	1 1 1	1 1 1	Access	Roads Cons	truction		5 5 5	1 1 1	
18	Transmission Powerlines				1 1 1	1 1	1 1 1	1 1 1	Transmiss	ion Powerlin	ies	2 2 2 2	8 8 8 8	
19	Inlet/Outlet Facilities					1 1 1	1	1 1 1	Inl	et/Outlet Fa	cilities	5 5 5 5	8 8 8 8	
20	TRR Complex					1 1 1	1 1 1	1 1 1	TRR C	omplex		8 8 8		
21	Funks Complex					1 	1 1 1	1 1 1	Fu	nks Complex	ĸ			
22	Sites Dam Construction					1		1 1 1	Sites Dan	n Constructi	on	5 5 5		
23	Saddle Dams Construction				[	1 1 1	1 1 1	1 2 1	Saddle Da	ms Construc	tion	5 5 5		
24	Dunnigan Pipeline						Du	nnigan Pipel	ine	2 2 2		5 5 5 5	1 1 1	
25	Sites Lodoga Road & Bridge Construction							•	Sites Lo	doga Road	& Bridge Cons	struction		
26	Golden Gate Dam Construction							•	Gol	den Gate Da	m Constructio	n		
27	Substantial Completion - Dams Ready for Commissioning							1 1 1	♦ Sub	stantial Com	pletion - Dam	ns Ready fo	r Commissio	ning
28	Commissioning Project							• • • •		Commissi	oning Project			

Schedule

## Attachment A