OVERVIEW OF VALUE PLANNING PROCESS

MARCH 25, 2020

Value Planning Work Group

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

Key staff/consultants:
Frederiksen, Spesert, Forsythe, Herrin, Tull, Rude, Barnes, Spranza, Arsenijevic, Warner Herson, Heydinger, Grubbs

Ad Hoc Value Planning Work Group

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

Value Planning Appraisal Report

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

Project Objectives

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

Key Components and Approach for Reducing Costs

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

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

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

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

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

Sites Reservoir Releases under Varying Storage and Release Capacities

Storage Capacity (MAF)	Long-term Average		
	1,500 cfs Release Capacity (TAF)	1,000 cfs Release Capacity (TAF)	750 cfs Release Capacity (TAF)
1.5	253	243	236
1.3	243	234	230
1.0	207	195	191

Meets participant demand (193+40=233)

Does not meet participant demand

Annual Repayment Costs per Acre-Foot of Release

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

Value Planning Group Recommended Project and Options

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

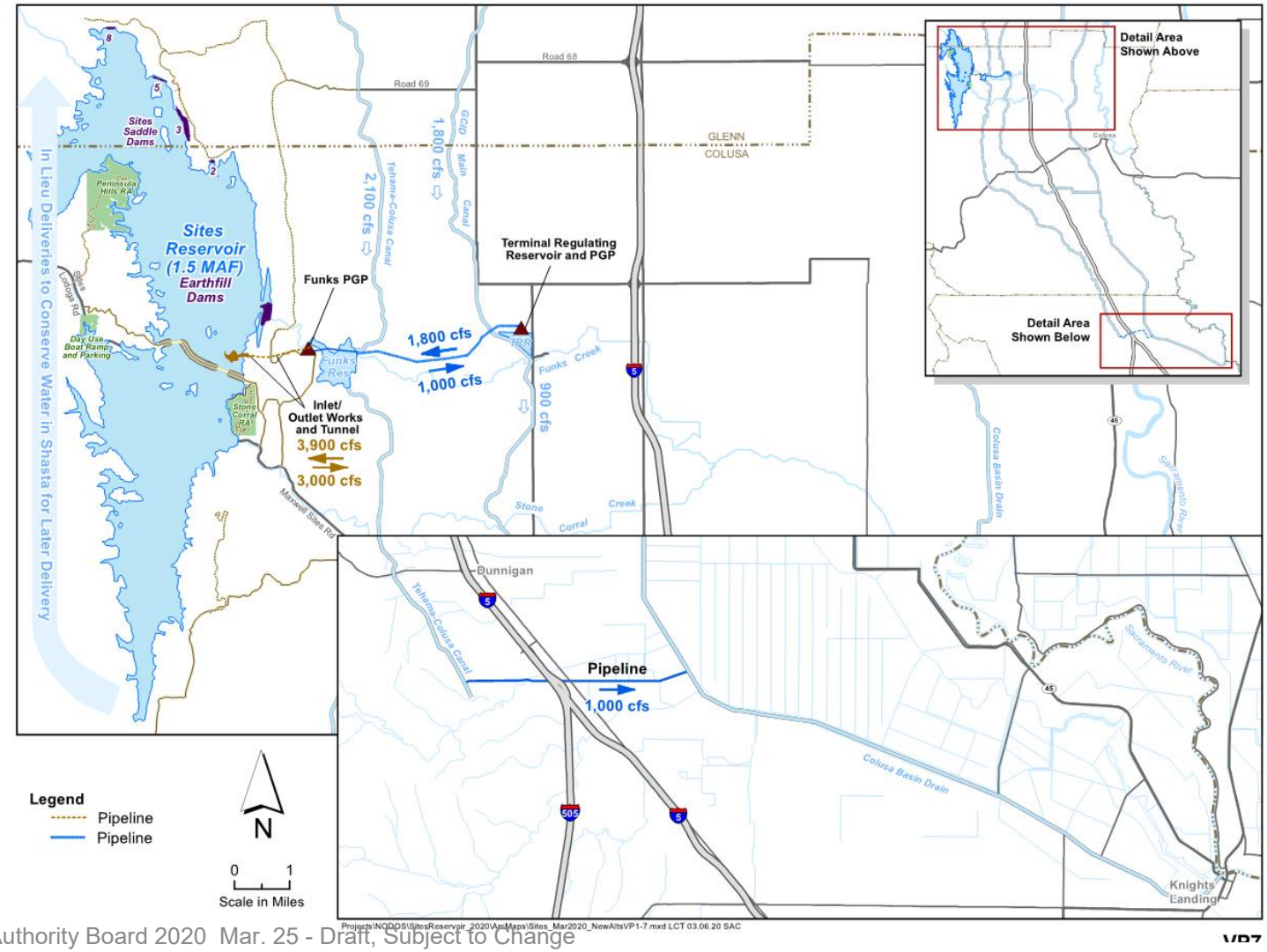
Note: Inclusion of WIFIA loan reduces costs by ~$50/AF

Value Planning Recommended Project and Options

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

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

Recommended Value Planning Alternative (VP7)



END

QUESTIONS?