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Call to Order

Board of Directors Workshop - Engineering
Tuesday, April 14, 2020

Chairperson – Director Kielhold
Vice-Chair – Director Hayes



Introductions

Following the introduction of Directors and District staff, participants may use this time to state their name and agency/affiliation in order to be included in the formal record of attendees.

Public Comment

Any person may address the Board on matters within its jurisdiction.

- *Please use the chat feature on the Zoom toolbar or digitally raise your hand to let the moderator know you would like to make a comment.*



Summary of Previous Meeting (Pg. 3)

Board of Directors Workshop – Engineering
March 10, 2020

Discussion Item 4.1 (Pg. 7)

Bob Tincher, Deputy General Manager - Resources

Update on State Water Project and Sites Reservoir Project

Staff Recommendation
Receive and file.



Update on State Water Project and Sites Reservoir



Overview

SWWP

Operations

Delta
Conveyance

Sites

Current contract
expires 6/30

Revised Project

Next Contract

State Water
Project

Delta
Conveyance

Operations

Operations

- Operation of the State Water Project is constrained by:

- **Facilities**

- Reduced flows (7%) in the East Branch due mostly to settlement
 - **Truing up costs for previous East Branch Enlargement**
 - **Develop project to restore some, or all, of the flow reduction**

- **Contract**

- **“Management Tools” (essentially eliminates the Monterey Amendment)**

- **Regulations**

- Water Quality (SWRCB)
 - SWRCB recommended “unimpaired flow” criteria
 - **SWP and CVP requested Voluntary Agreement approach**
- Species
 - Recent Federal Biological Opinion (BiOP)
 - Based on science
 - Supported by SWC
 - **Opposed by State of California (SWC intervened)**
 - Recent California Incidental Take Permit (ITP)
 - Not justified by science
 - Opposed by SWC and members of the legislature
 - Is estimated to cost the SWCs about 200,000 AF per year

State Water Contractors, Inc.
Objections to CA Endangered Species Act Permitting
for Long-Term Operations of the State Water Project

On March 31, the California Department of Fish and Wildlife (CDFW) issued an Incidental Take Permit (ITP) for the long-term operation of the State Water Project (SWP). The ITP is required under state law to protect endangered and threatened fish species like Longfin Smelt, Delta Smelt, Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon. The **State Water Contractors (SWC) object to the California Endangered Species Act (CESA) permitting** of the SWP because the Department of Water Resources (DWR) agreed to changes in the project description that were in excess of CESA requirements. In addition to the changes in the project description, CDFW imposed **significant** permit conditions that **far exceed legal standards**.

While the **SWC continue to support adaptive management** activities that help better understand and manage the Delta ecosystem and water supplies, including testing Delta outflow hypotheses, the ITP imposes requirements **in excess of existing law and conditions** unrelated to the magnitude and nature of the impacts associated with the SWP, such as:

- Requirement that the SWP mitigate for purported effects that are upstream of the SWP and that occur at the Central Valley Project's diversion facilities. **Mitigation for these non-SWP effects** result in more than **\$20 million dollars** of new actions, in addition to SWP export delivery reductions.
- Assertion that the ITP provides benefits to SWP water users and the environment in wet years. In fact, in wet years, the ITP allows for minor relaxation of SWP operational requirements, up to 150,000 acre feet, but requires the SWP pay back those supplies under certain water years thus **negating any export benefits** of wet hydrology and calls into question why the requirement even exists, since it is unclear what flow actions are contemplated and for the benefit of which species.
- Requirement that is unrelated to the "take" and unrelated to mitigation for an effect of the SWP. For example, the SWP and federal Central Valley Project (CVP) already supplement Delta flows through reservoir releases during the summer to meet in-Delta water quality requirements. The Project does not affect summer flows so **there is no degradation, yet the SWP is required to provide an additional 100,000 acre feet in summer outflow**.
- Imposition of further cuts to Delta exports even when multiple levels of operational controls have not been triggered, thereby **giving CDFW full authority over real-time operational decision-making** resulting in even **further export reductions** than required to meet legal obligations.
- Requirement for an **additional \$18 million annually, above the \$54 million annually** to meet current obligations, some of which is **outside the SWP impact area**.

Although still assessing options, the SWC and its member agencies are disappointed DWR is moving forward with a project that **fails to incorporate best available science, burdens ratepayers** with obligations far **exceeding the impacts of water operations** and that will make compliance with the Sustainable Groundwater Management Act and climate change adaptation substantially more difficult.

Delta Conveyance

- Provides an intake north of the Delta
 - Reduces impacts on fish
 - Mitigates the effects of seawater intrusion and/or levee failure
 - Eliminates losses across the Delta
- Current Tasks
 - Engineering Design
 - Environmental
 - Contract
 - Agreement-in-Principle (AIP) or term sheet
 - Agreement

Sites Reservoir

Next
Contract

New Project

Current
Contract



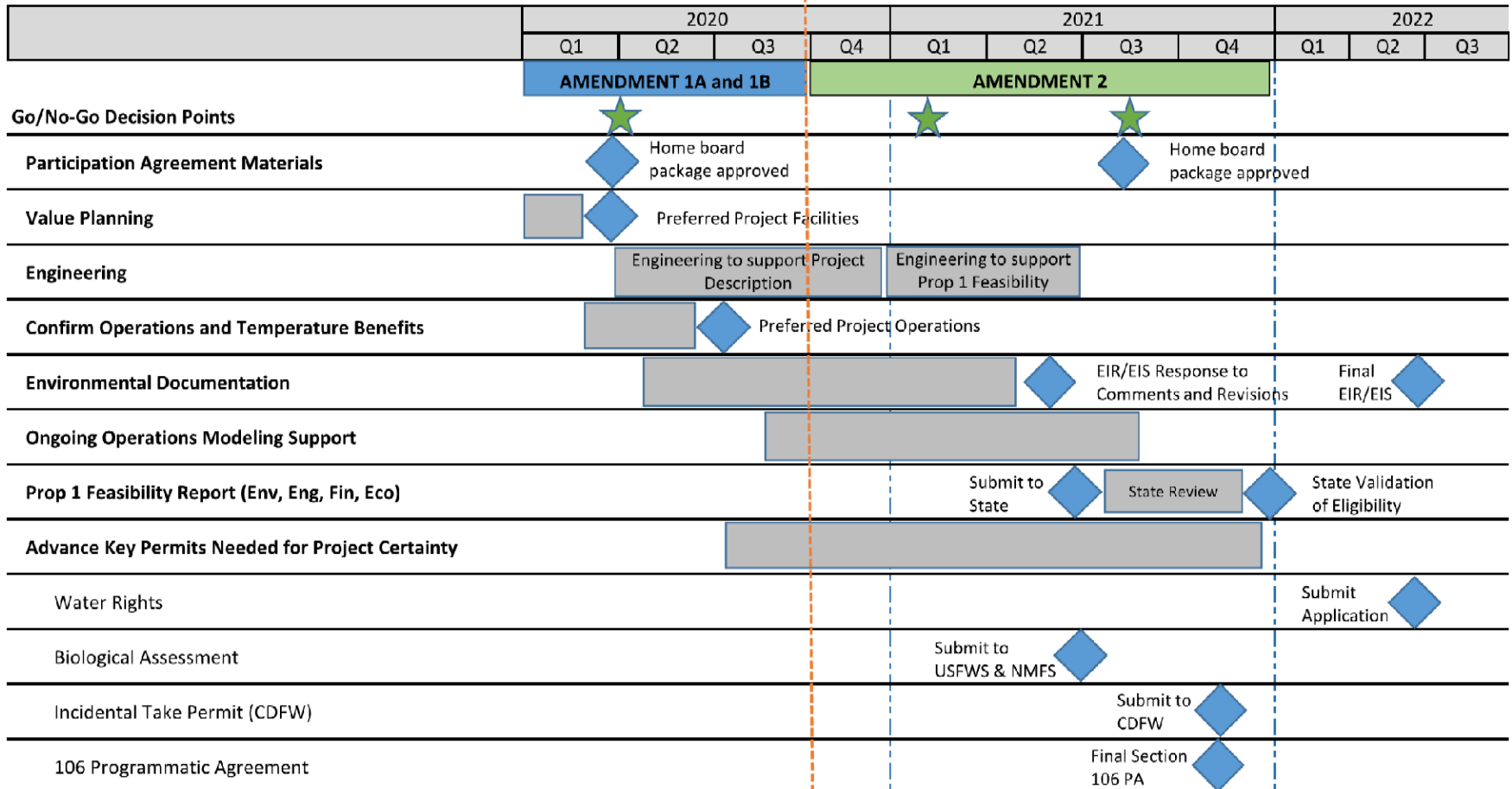
Current Contract

- **Permitting**
 - Discussions with California Fish & Wildlife
 - Needed a project description
- **Project refinement**
- **Grant Funding**
- **Staffing**
 - Consulting
 - New Executive Director

Schedule Targets (No Change)



September 1, 2020



NOTE: This graphic includes schedule drivers only and does not include all activities/deliverables.

This work plan is based on current participation commitments.

Revised Project



Project: Range of Construction Costs

Previous cost,
2016

Reservoirs and Dams:	\$1. B - \$1.5 B
Pumping and Generating Plants:	\$1. B - \$1.4 B
Pipelines:	\$1. B - \$1.5 B
Total:	\$3. B - \$4.4 B

- Unescalated
- w/o finance cost
- Includes contingency

Excerpt

OVERVIEW OF VALUE PLANNING PROCESS

MARCH, 2020



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.

Key Components and Approach for Reducing Costs

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

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

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

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

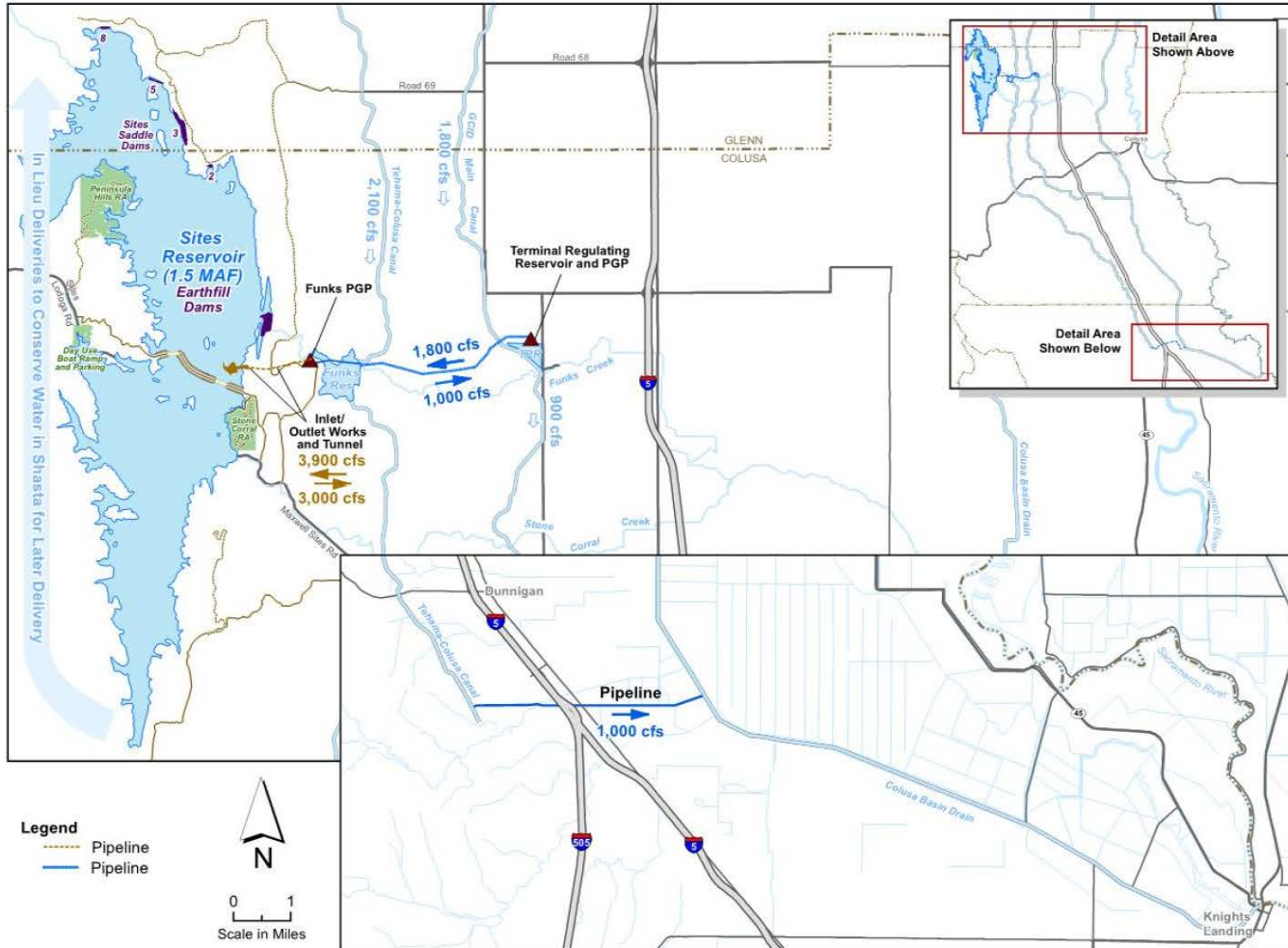
Elimination of Unsupported Components – Pump back hydropower has no apparent investors at this time.

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

Recommended Value Planning Alternative (VP7)





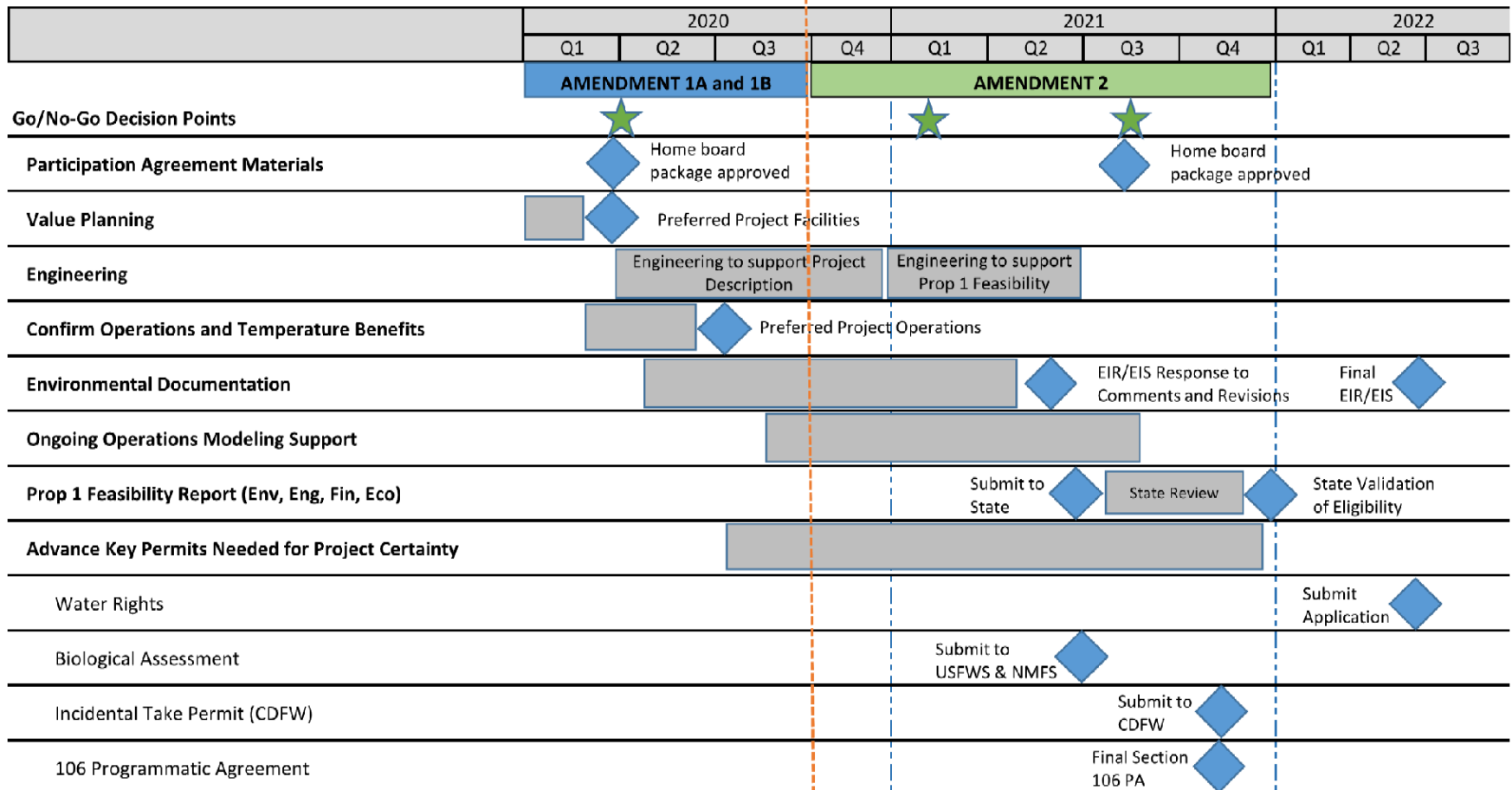
Next Contract

- In Development, will return to the Board for approval
- Will cover period 7/1/20 to 12/31/21
- General goal: provide the information necessary for agencies to decide whether they will participate in the project.
- Contract after 2021 will require greater financial participation

Schedule Targets (No Change)



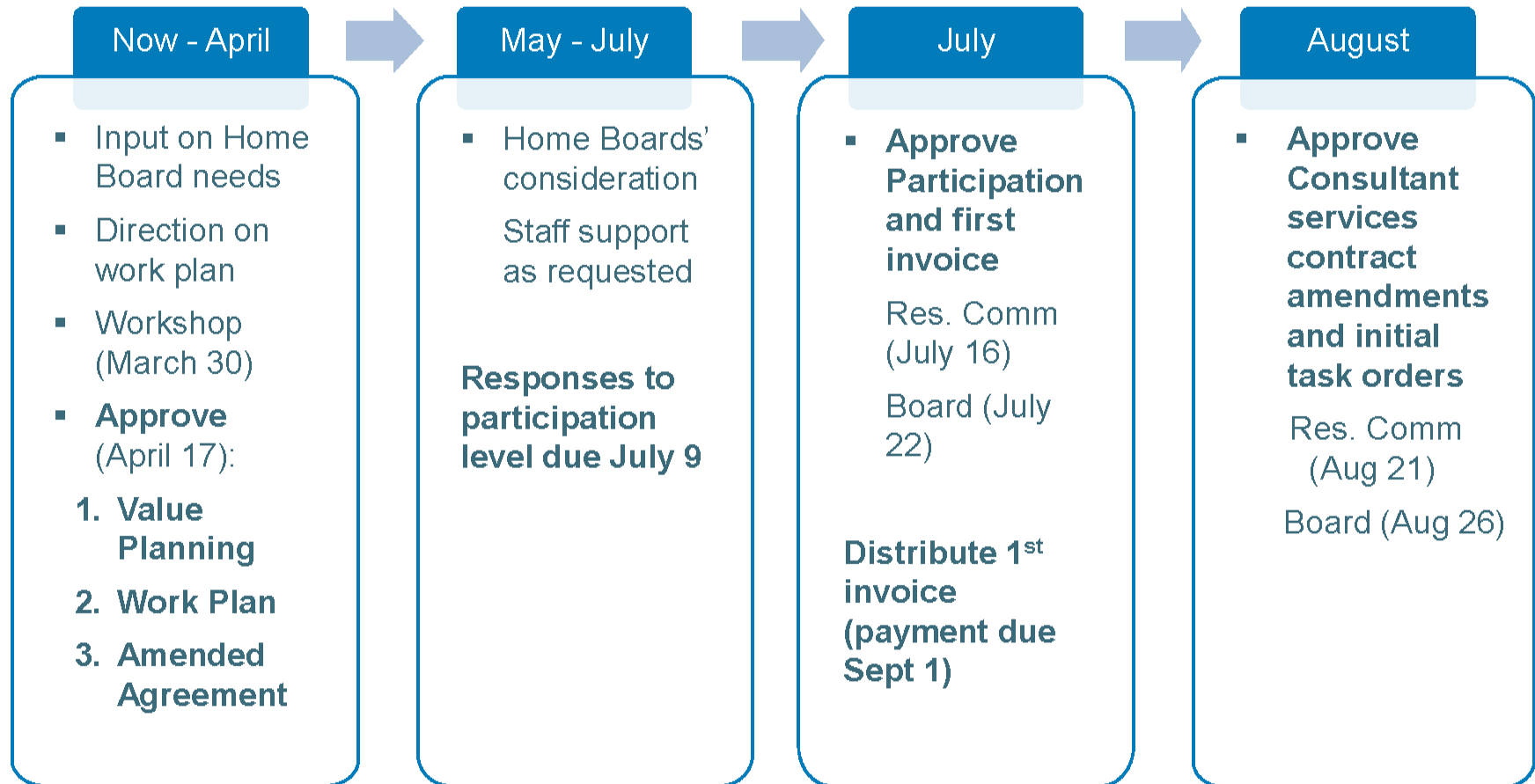
September 1, 2020



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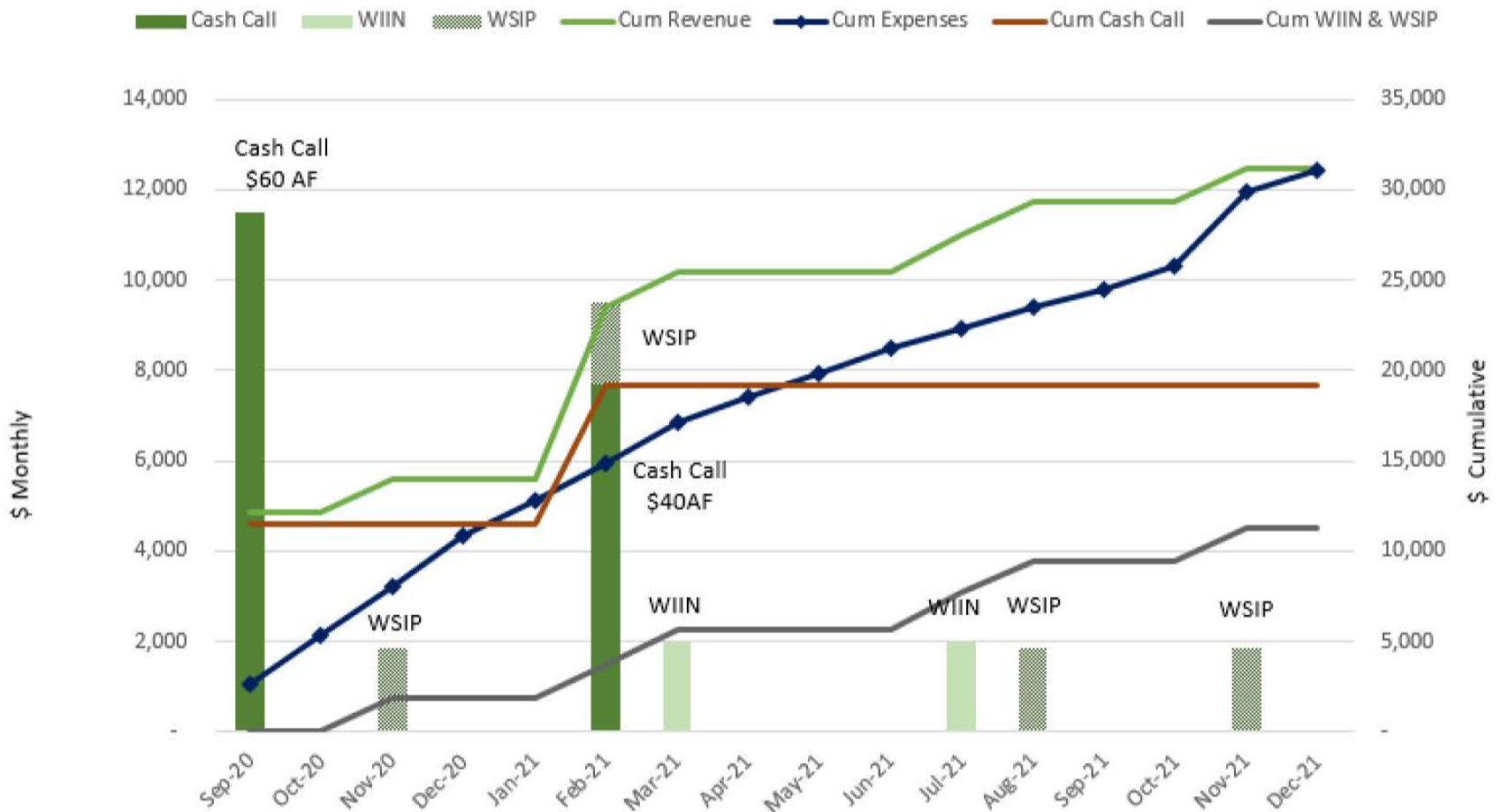
This work plan is based on current participation commitments.

Discussion: Scope and Deferred Work

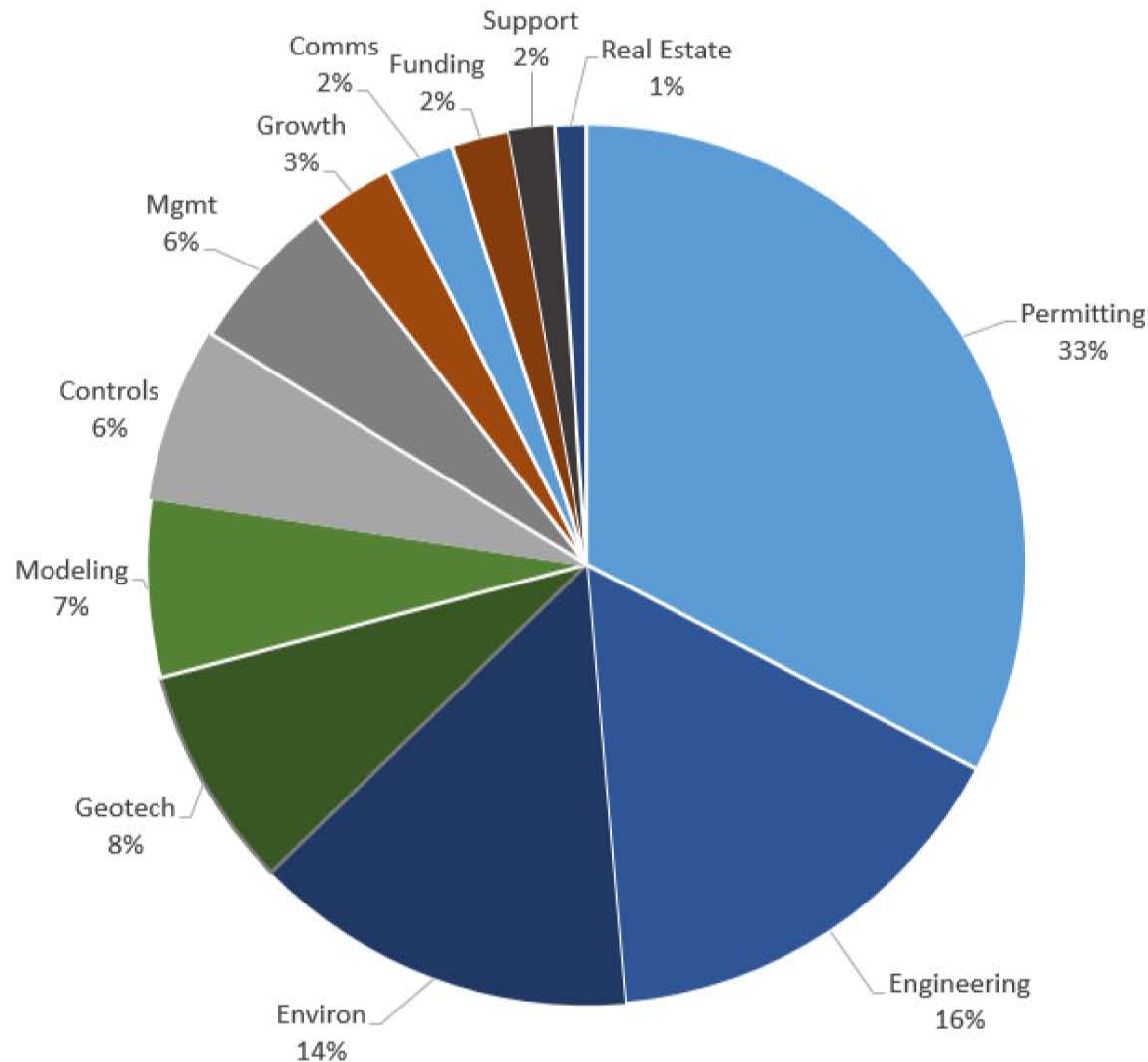


Preliminary Cash Flow – Reservoir Committee

Cash Flow - Reservoir Committee Amend 2
Revenue vs Expenses
(x000s)



Preliminary Cost Allocation by Subject (Reservoir Committee Funded)



Preliminary Cash Call Invoice Schedule

Objective:

- Maintain cash positive position and avoid delays
- Leverage Prop 1 and WIIN Act funds

Participant Invoice Schedule:

\$60/AF, Due September 1, 2020

\$40/AF, Due February 1, 2021

Questions

SWWP

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Revised Project

Next Contract

Director Comments and Discussion



**T. Milford
Harrison**
President



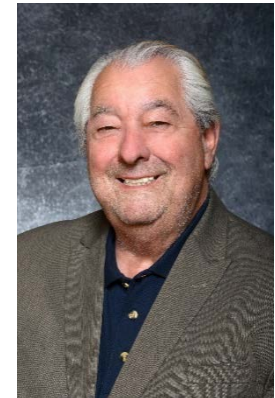
**Paul
Kielhold**
Vice President



**Susan
Longville**
Treasurer



**June
Hayes**
Director



**Gil
Navarro**
Director

Staff Recommendation
Receive and file.

Discussion Item 4.2 (Pg. 31)

Aaron Jones, Assistant Engineer

Consider Scope Enhancement with NLine Energy for
Engineering Design Services – Cactus Connector Pipeline

Staff Recommendation

Direct Staff to forward the scope enhancement with NLine Energy to an upcoming Board meeting for consideration.

Cactus Connector Pipeline Alignment



Director Comments and Discussion



**T. Milford
Harrison**
President



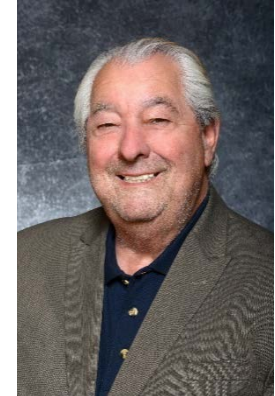
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**June
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Director

Staff Recommendation

Direct Staff to forward the scope enhancement with NLine Energy to an upcoming Board meeting for consideration.

Discussion Item 4.3 (Pg. 50)

Mike Esquer, Senior Project Manager

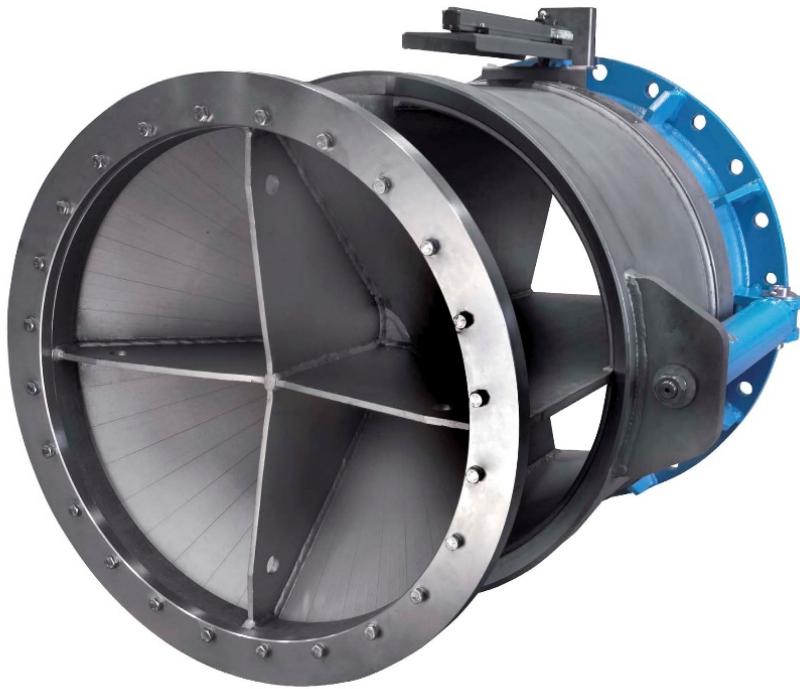
Consider Procurements of Fixed Cone Valves for the Santa Ana Low Turnout Project

Staff Recommendation

Staff recommends the Board of Directors forward the procurement of the fixed cone valves from Orbinox for the estimated cost of \$321,215 to the next Board of Directors' meeting for consideration.

Orbinox Fixed Cone Valve

ESTIMATED TOTAL COST OF \$321,215



Director Comments and Discussion



**T. Milford
Harrison**
President



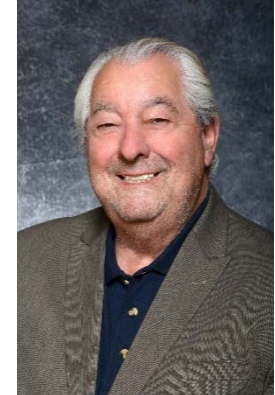
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Director



**Gil
Navarro**
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Staff Recommendation

Staff recommends the Board of Directors forward the procurement of the fixed cone valves from Orbinox for the estimated cost of \$321,215 to the next Board of Directors' meeting for consideration.



Future Business



Adjournment
