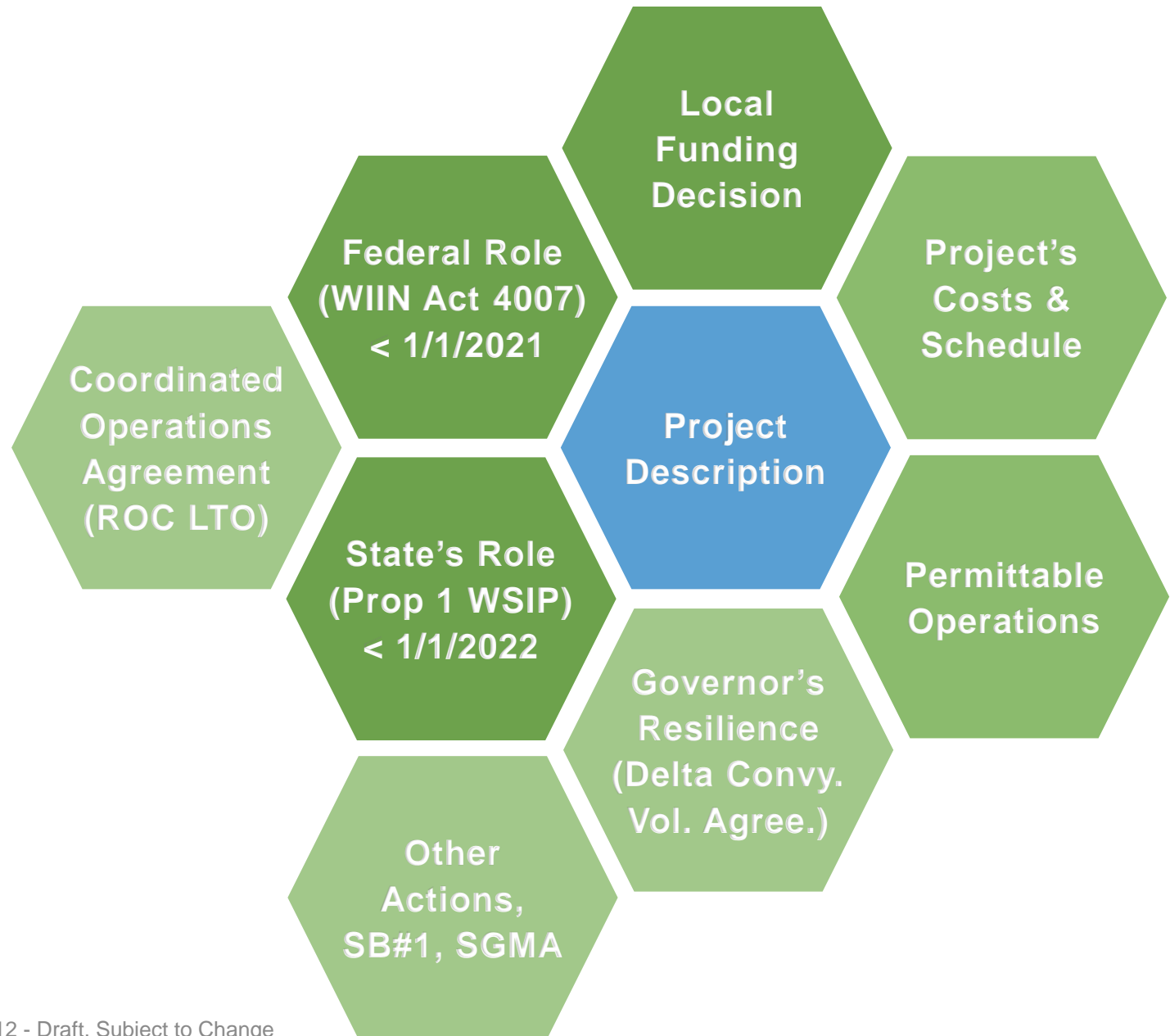


JOINT AUTHORITY/RESERVOIR COMMITTEE WORKSHOP

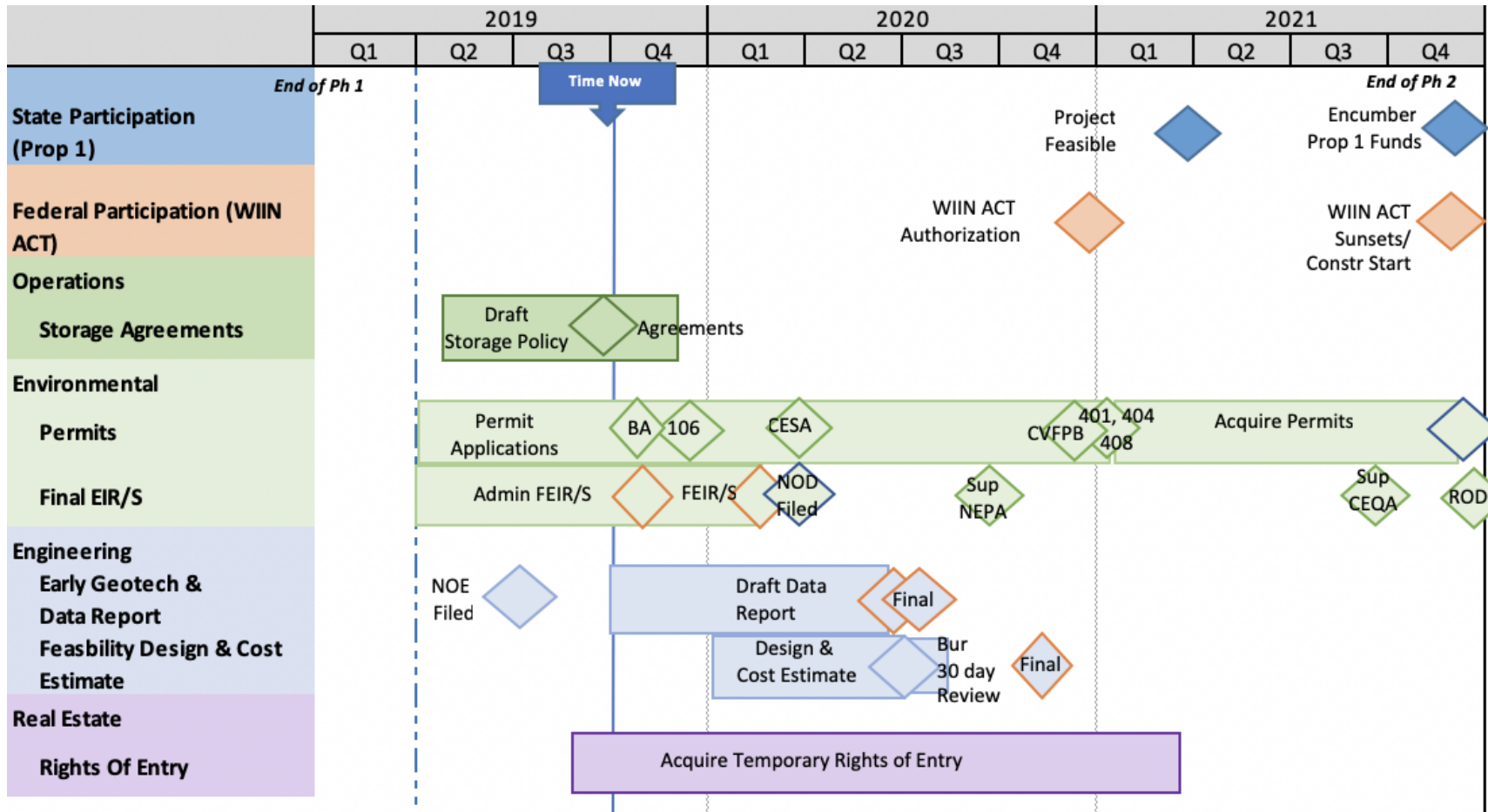
SEPTEMBER 12TH



What's Important



Key Milestones to Maximize State, Federal Investments



Workshop Objectives

Define a path forward for the project related to:

- Schedule
- Cost after December 31st (Work Plan)
- Participation agreement
- Plan of finance

Recommend a project description:

- Affordable
- Permittable

Prepare to make decisions at the September meetings

Decisions at the September Meetings

1. Stay the course or implement a delay
 - If stay the course:
 - Work Plan
 - Plan of Finance
 - Bank RFP
 - Participation Agreement
 - If delay:
 - Direction on a revised Work Plan
 - Revisions to the Plan of Finance and Participation Agreement
2. Approve updates to the preferred project
3. Approve Feasibility Study Framework

Participant Feedback

Which decision driver is most critical for you today?

- Decision-making timeline
- Affordability
- Financing
- Permitability
- Governance
- Other

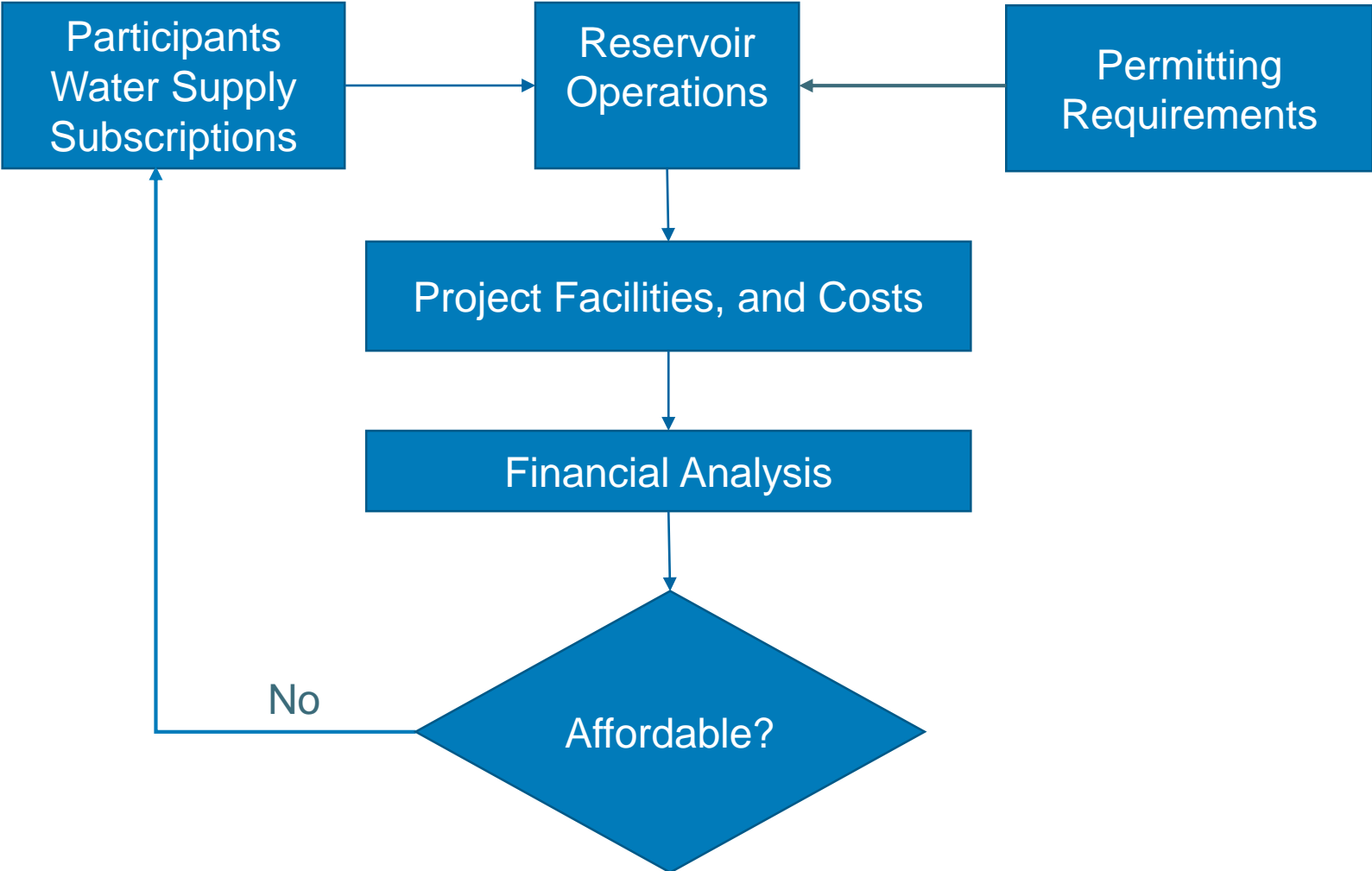
OPERATIONS AND REPAYMENT (PROJECT AFFORDABILITY)



Purpose and Scope of the Affordability Study

1. Evaluate scenarios to assess relationships between water subscriptions, permitting, project features, project costs and the reliability and cost of water
2. Provide information regarding the cost of water in terms of annual repayment and operational costs to participants
3. Participants will consider the results of the affordability study in making their upcoming key decisions

Affordability Study Process



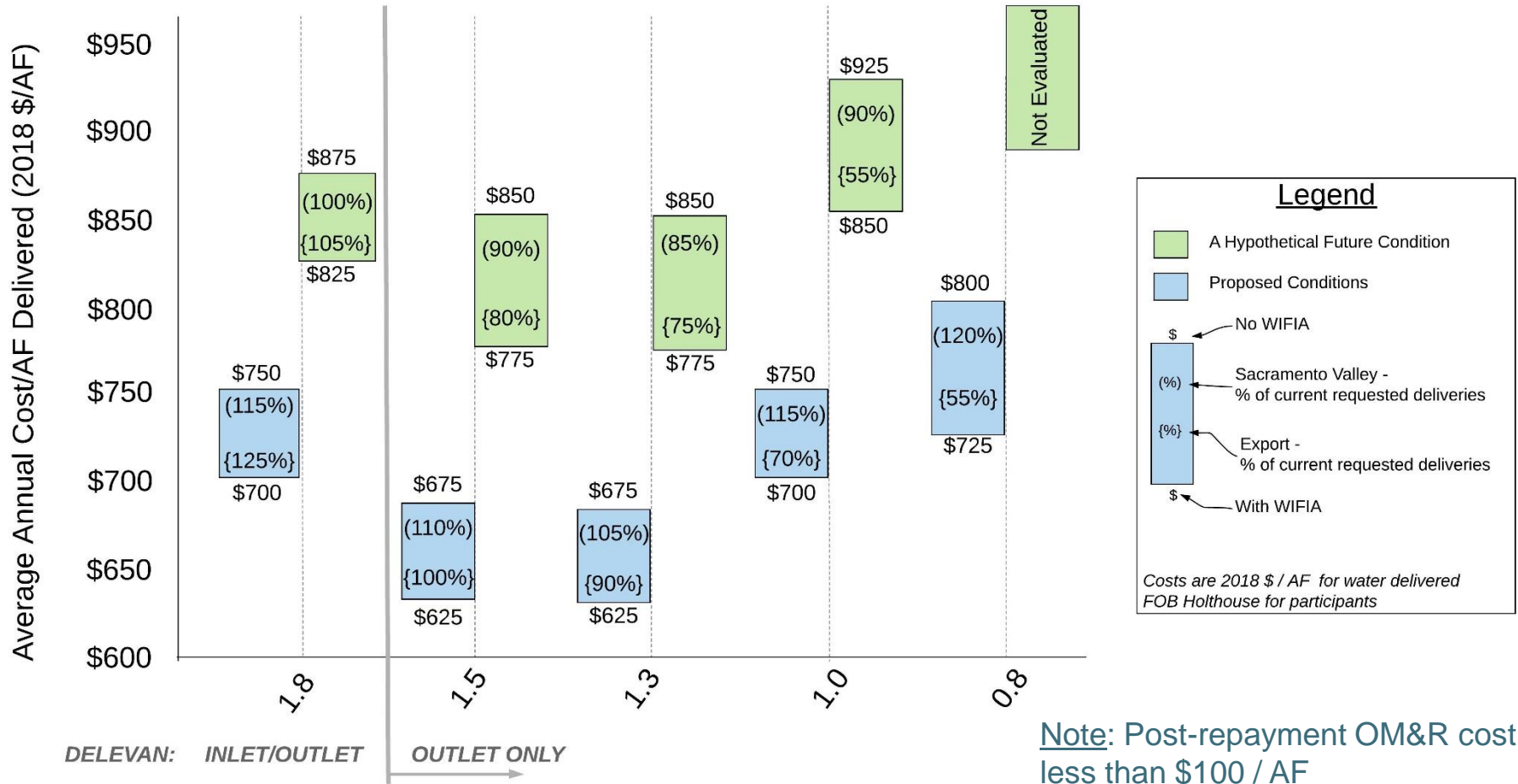
Key Assumptions

Flexibility built in for scenario analysis:

- Range of participation
- Range of future operations (including uncertainty)
- Cost based on facility size and options
- Interest rate
- WIFIA / RIFIA funding amount
- \$/AF value based on water releases (not storage)

Results 1a: Current Local, State, & Federal (Average Year Affordability Scenarios)

Participating Water Agencies Long Term Average \$/AF Deliveries (not drier year)



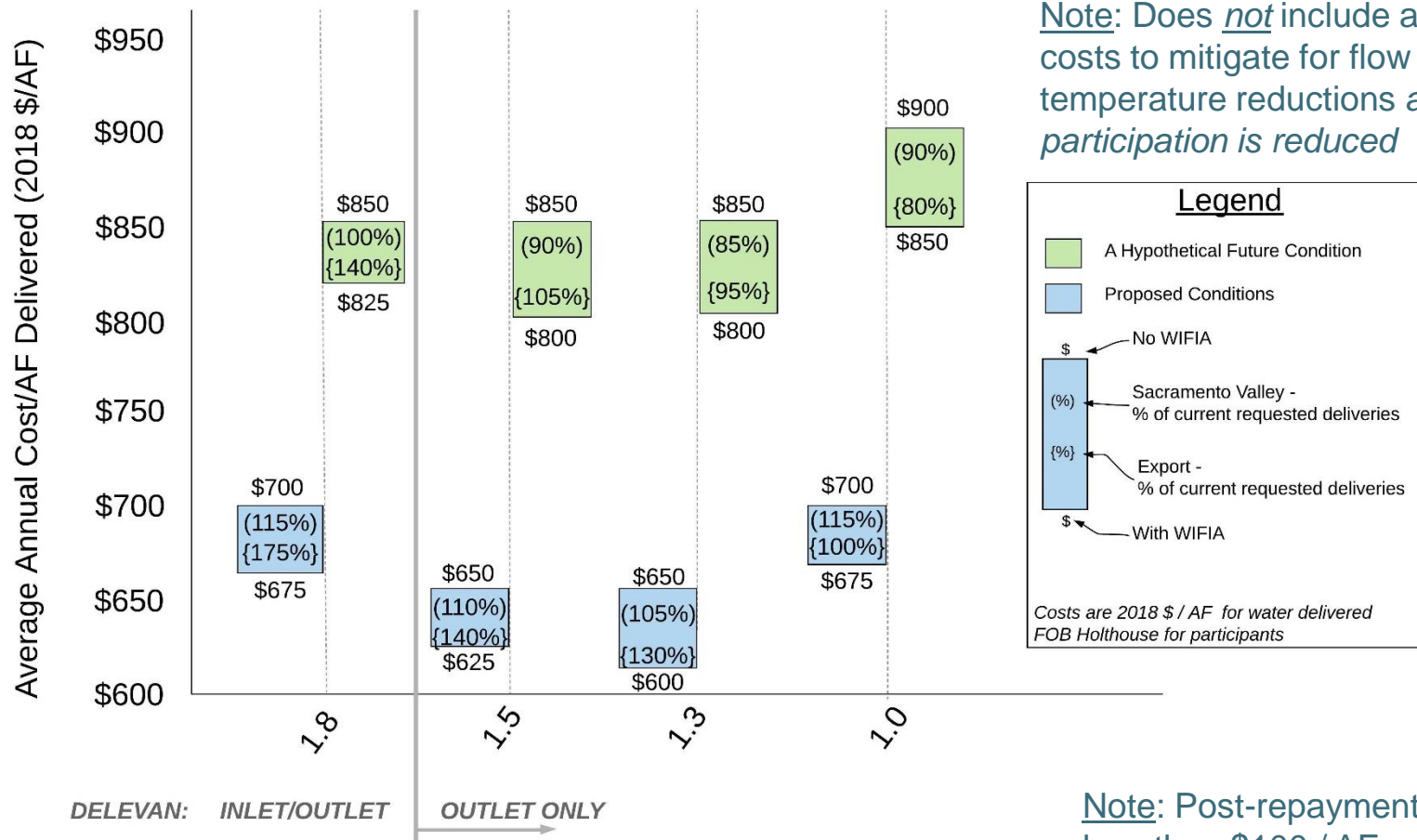
Note: Post-repayment OM&R cost less than \$100 / AF

Update: Changed assumptions on bond staging / maturation and WIFIA

Results 2a: Increased Exports & Reduced Federal (Average Year Affordability Scenarios)

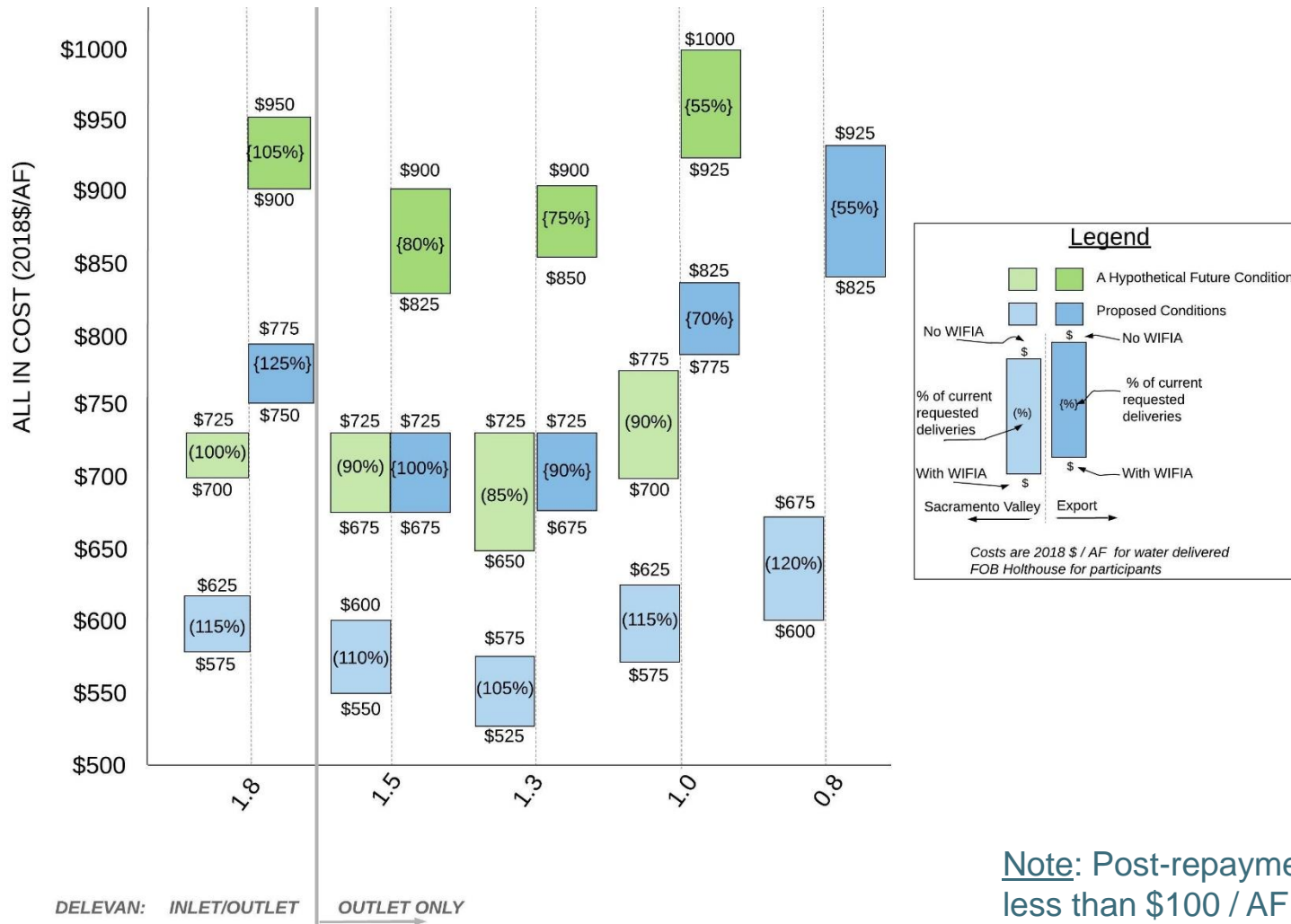
Federal Participation and Reduced Investment

Note: Does *not* include additional costs to mitigate for flow and temperature reductions as federal participation is reduced



Update: Changed assumptions on bond staging / maturation and WIFIA

Results 3a: Current Local, State, & Federal; Use of Delevan Facilities (Average Year Affordability Scenarios)



Note: Post-repayment OM&R cost less than \$100 / AF

Affordability Analysis: General Take Aways (1 of 2)

1. Finance: WIFIA loan reduces cost on average by ~\$60 / AF. Staging bond maturity dates and increasing WIFIA term reduces costs on average by ~\$25 / AF.
2. Changing Operations: Hypothetical future conditions increases repayment cost by ~\$130 / AF.
3. Value Engineering: Reducing project cost has biggest impact on reducing repayment (up to \$110 / AF).
4. Delevan Pipeline: Is key to maximize deliveries south of Delta.
5. Delevan Outlet vs. I/O: Outlet only decreases cost by \$25 / AF, but increases expected mitigation costs (not yet quantified).

Affordability Analysis: General Take Aways (2 of 2)

6. Use of Facility: Reduces Sacramento Valley by \$75-125/ AF but increases export by \$50-100/ AF.
7. Participation: For a given project size, reduced State or Federal funding creates an opportunity for additional participation, but the shift in capital cost to participants increases IDC and repayment on \$ / AF.
8. Storage Policy: Value is not included. This establishes a flexible asset that facilitates flexible water management.

Operational Considerations

- **Pulse Flow Protection (September through May)**
 - Protects migratory flows and cues, activate off-channel habitat
- **Operational Ramping Criteria**
 - Minimizes potential for fish stranding
- **Weir Spill/Bypass Inundation Protection**
 - Protects bypass/floodplain rearing habitat and food production/export processes
- **Fremont Weir Notch Flow Prioritization**
 - Priority to Yolo Bypass Restoration Project
- **Minimum Bypass Flows for Project Diversions**
 - September through December - rearing protection - Keswick to Delevan
 - January through May - rearing and outmigration protection - downstream of Colusa (Delevan)

Permit Discussions

- Continued permit discussions on both construction and operational effects of the project to listed and fully-protected species.
- Continued development of analysis tools for daily operations, bypass criteria, floodplain inundation and other operational effects.
- Held Aquatic Meeting No. 17 on 9/11. Review of modeling results for scaled operational plan scenario with and without Delavan diversion.
- Continued preparation of a project operations and environmental commitment framework package for Executive Meeting on Sept 26th.

FEDERAL PARTICIPATION



Participation

- Local
- State
- Federal

Federal (Interior) Participation

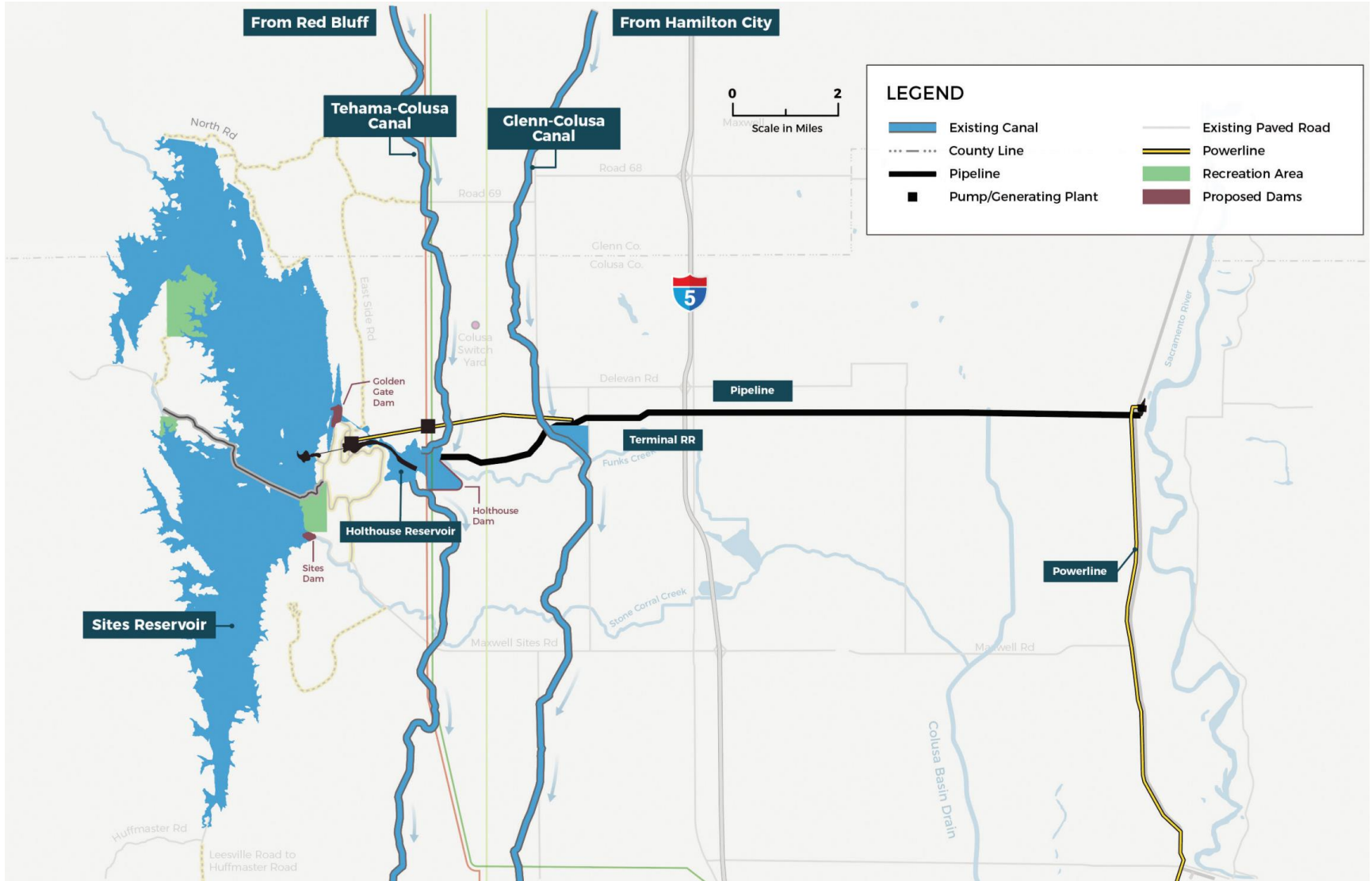
1. Participation plus WIIN Act at 25% investment
2. Participation plus WIIN Act at <25% investment
3. Participation with no WIIN Act investment
4. Warren Act and no WIIN Act investment

Feasibility Analysis

Depends on the ability to meet the following components of feasibility:

- Technical – Can project meet objectives within costs and schedule
- Environmental – Can significant environmental issues be mitigated
- Economic – Do expected benefits equal or exceed costs
- Financial – Are sufficient funds available to cover design, construction, operation and maintenance

Project Description



Project Description

Based on ongoing affordability analyses and Agency discussions a more refined project description is required to advance the permitting and environmental documents.

Major Components Outstanding:

1. Clarify Federal participation and schedule
2. Operational scenario
 - Use of Delevan as an outfall only vs. I/O
 - Diversion location, rates and timing
 - Bypass criteria
 - Floodplain and pulse protection

Pros and Cons of Delevan as Discharge Only

Pros

- \$200M cost savings
- Reduced 408 requirements
- Reduced terrestrial footprint

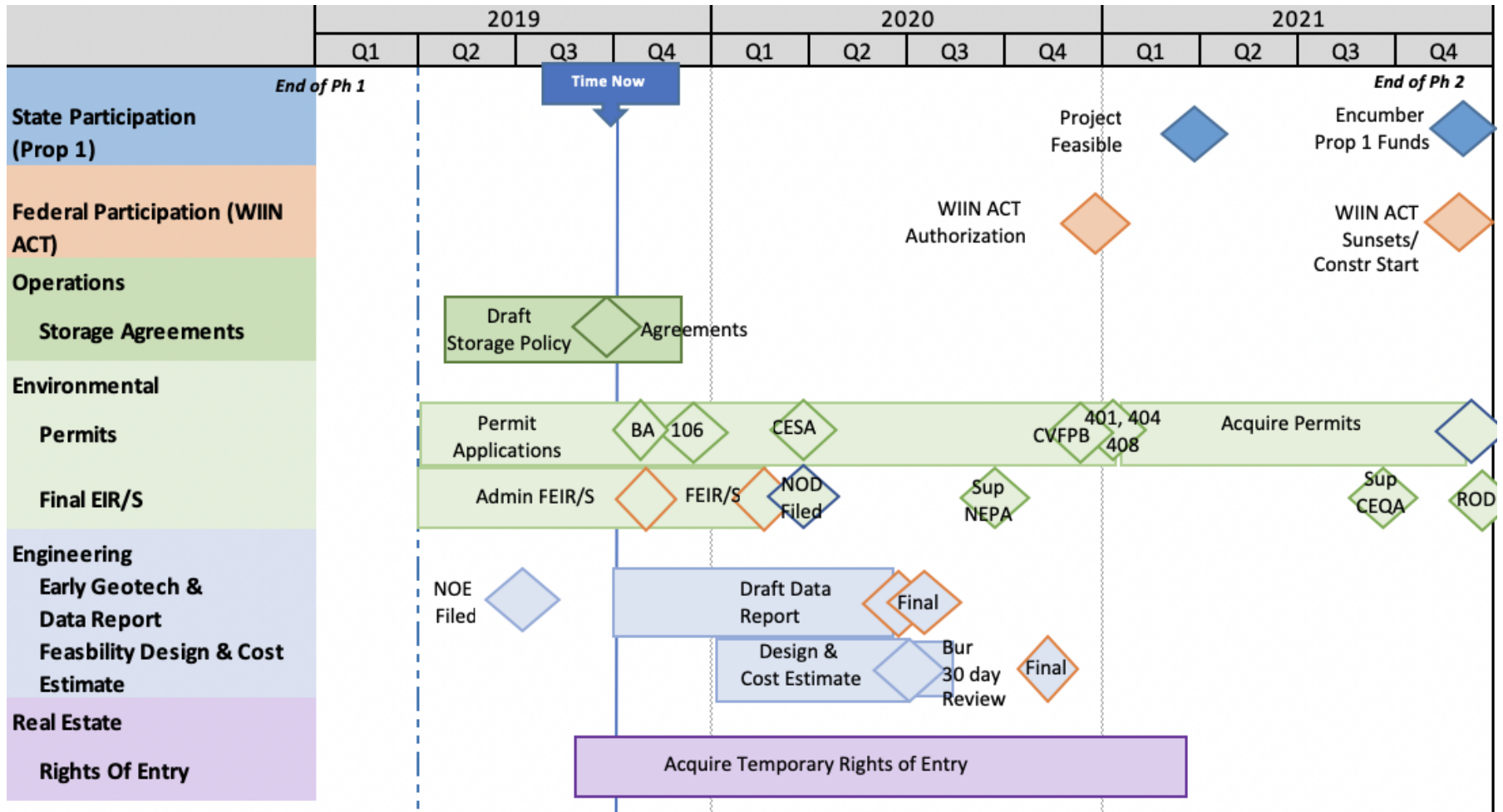
Cons

- Increased aquatic impacts
- Decreased diversion volumes

WORK PLAN



Key Milestones to Maximize State and Federal Investments



Funding Milestones

State Funding (WSIP)

- All approvals, certifications, and agreements have been obtained by Jan 1, 2022
- Up to \$816M (\$40.8M Early Funding)
- Public Benefits before 2030

Federal Funding (WIIN)

- Up to 25% of Project Cost
- Be in construction before Dec 16, 2021

Progress in 2019

Improve Operational Certainty

- ~50 meetings/ negotiation sessions with permitting agencies
- New modeling tools
- Adopted a unique Water Storage Policy

Improve Affordability Certainty

Evaluated ranges of:

- Participation
- Operations (current and future)
- Facilities (sizes and costs)

Current Work Plan Deliverables (2020-2021)

All approvals, certifications, and agreements (permits) by Jan. 1, 2022

- 30 to 65% level of design, depending on facility
 - Requires geotechnical and rights of entry work
- Final EIR/EIS
- Significant coordination with permitting agencies

Construction before Dec. 16, 2021

- 100% design for early-construction facility
- Procurement of contractor/design-builder

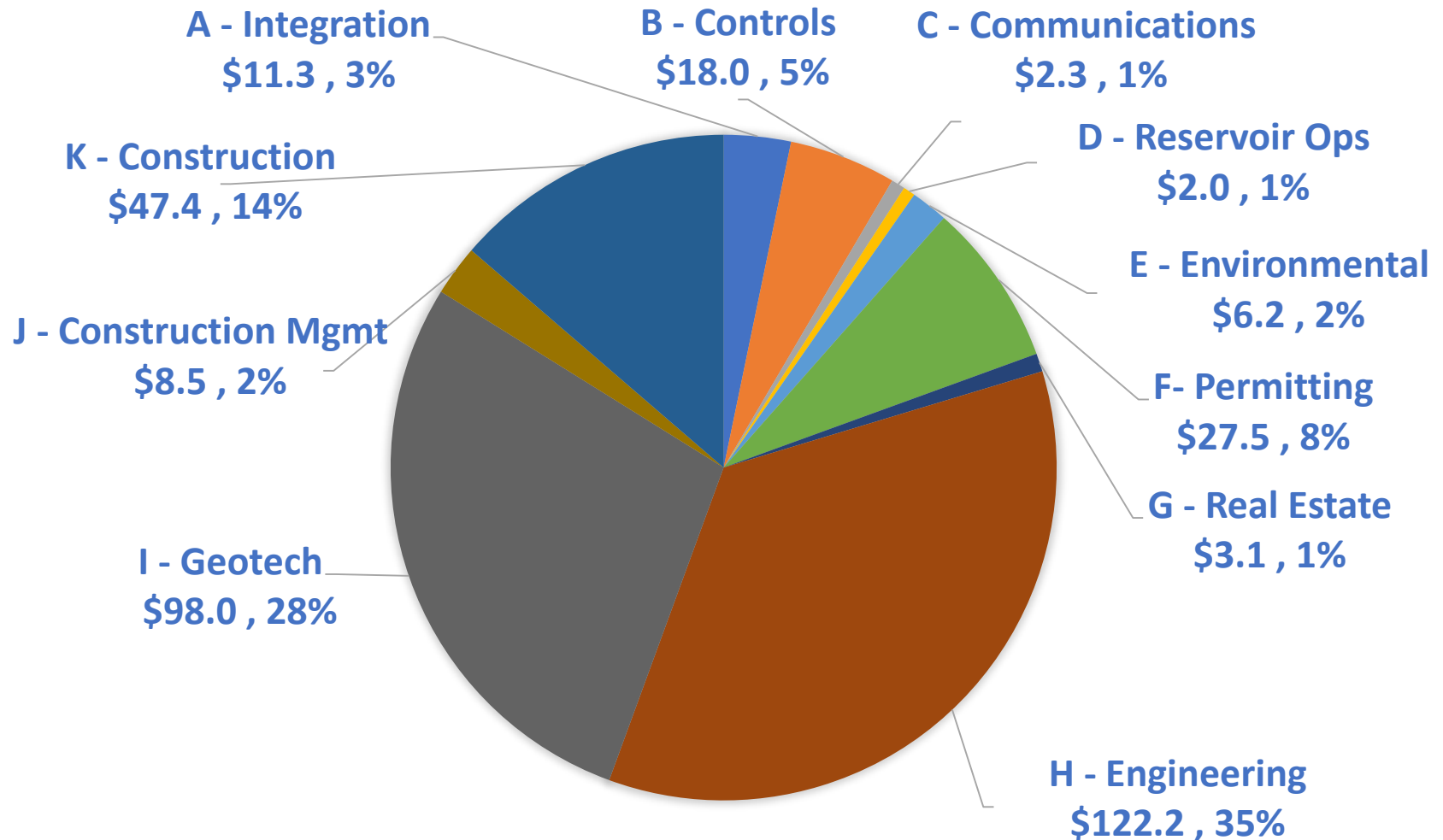
Updates from August Work Plan

Changes to address risks identified by participants:

- Added DWR and USBR Staff Support to Address Resource Concerns
- Enhanced Environmental Mitigation
- Independent Cost Estimator
- Repayment of Contributed Credit

Developed alternate work plan approaches

Work Plan Summary by Deliverable



Work Plan Outcomes

By Class	2020 Budget	2021 Budget	2020+2021 Budget	% of Total	2022 Carryover	Interim Finance
Service Area Expense	\$ (141,165,437)	\$ (113,935,709)	\$ (255,101,146)	79.06%	\$ (91,610,923)	\$ (346,712,069)
Payments and Fees	\$ (20,974,867)	\$ (17,306,533)	\$ (38,281,400)	11.86%	\$ (6,203,017)	\$ (44,484,417)
Purchasing	\$ (1,600,000)	\$ (10,300,000)	\$ (11,900,000)	3.69%	\$ (5,500,000)	\$ (17,400,000)
Agents	\$ (2,400,000)	\$ (2,400,000)	\$ (4,800,000)	1.49%	\$ (1,200,000)	\$ (6,000,000)
Advisory Services	\$ (1,605,333)	\$ (1,750,333)	\$ (3,355,667)	1.04%	\$ (875,167)	\$ (4,230,833)
Legal Services	\$ (1,494,000)	\$ (1,544,000)	\$ (3,038,000)	0.94%	\$ (772,000)	\$ (3,810,000)
Construction	\$ -	\$ (3,500,000)	\$ (3,500,000)	1.08%	\$ (3,500,000)	\$ (7,000,000)
Staff Augmentation	\$ (1,000,000)	\$ (1,000,000)	\$ (2,000,000)	0.62%	\$ (500,000)	\$ (2,500,000)
Governmental Affairs	\$ (138,000)	\$ (138,000)	\$ (276,000)	0.09%	\$ (69,000)	\$ (345,000)
Accounting and Admin	\$ (174,400)	\$ (199,400)	\$ (373,800)	0.12%	\$ (99,700)	\$ (473,500)
Office Expenses	\$ (13,967)	\$ (13,967)	\$ (27,933)	0.01%	\$ (6,983)	\$ (34,917)
TOTAL	\$ (170,566,004)	\$ (152,087,942)	\$ (322,653,946)	100%	\$ (110,336,790)	\$ (432,990,736)

Work Plan Outcomes – by Service Area

Service Area	2020 Total	2021 Total	2020+2021 Total	2022 Carryover	Interim Finance
A - Integration	\$ (11,267,000)	\$ (12,061,475)	\$ (23,328,475)	\$ (6,208,738)	\$ (29,537,213)
B - Controls	\$ (7,910,000)	\$ (10,120,000)	\$ (18,030,000)	\$ (5,185,000)	\$ (23,215,000)
C - Communications	\$ (745,000)	\$ (800,000)	\$ (1,545,000)	\$ (400,000)	\$ (1,945,000)
D - Reservoir Ops	\$ (2,002,000)	\$ (1,332,000)	\$ (3,334,000)	\$ (666,000)	\$ (4,000,000)
E - Environmental	\$ (1,347,380)	\$ (654,900)	\$ (2,002,280)	\$ (327,450)	\$ (2,329,730)
F - Permitting	\$ (8,437,000)	\$ (8,997,000)	\$ (17,434,000)	\$ (4,498,500)	\$ (21,932,500)
G - Real Estate	\$ (664,000)	\$ (970,000)	\$ (1,634,000)	\$ (485,000)	\$ (2,119,000)
HC - Engineering	\$ (32,447,203)	\$ (24,664,602)	\$ (57,111,805)	\$ (5,311,420)	\$ (62,423,225)
HR - Engineering	\$ (11,967,068)	\$ (26,490,305)	\$ (38,457,373)	\$ (9,252,908)	\$ (47,710,281)
I - Geotech	\$ (63,809,360)	\$ (21,509,655)	\$ (85,319,015)	\$ (10,754,828)	\$ (96,073,843)
J - Construction Mgmt	\$ (200,000)	\$ (3,000,000)	\$ (3,200,000)	\$ (5,000,000)	\$ (8,200,000)
K - Construction	\$ (1,782,760)	\$ (16,949,105)	\$ (18,731,865)	\$ (52,427,747)	\$ (71,159,612)
Permit Fees	\$ (5,098,833)	\$ (4,600,500)	\$ (9,699,333)	\$ -	\$ (9,699,333)
Loan Fees	\$ (6,700,000)	\$ (700,000)	\$ (7,400,000)	\$ -	\$ (7,400,000)
Fed/State Support	\$ (4,750,000)	\$ (4,750,000)	\$ (9,500,000)	\$ (2,375,000)	\$ (11,875,000)
Property Owners	\$ (5,250,000)	\$ (7,750,000)	\$ (13,000,000)	\$ (3,875,000)	\$ (16,875,000)
Overhead	\$ (6,188,400)	\$ (6,738,400)	\$ (12,926,800)	\$ (3,569,200)	\$ (16,496,000)
TOTAL	\$ (170,566,004)	\$ (152,087,942)	\$ (322,653,946)	\$ (110,336,790)	\$ (432,990,736)

REVISED WORK PLAN



An Alternative Work Plan

Evaluate 90-day and 180-day extension

- Allows Participants additional time to consider investment decision
 - Participation depends on individual circumstances, risk tolerance, affordability, and operations
- Provides better assurances on permitability and affordability through ongoing conversations with the State and Federal Agencies

Approach to Alternative Schedule

Prioritize

- Agency consultations
- Critical Environmental Analyses
- Refine the Federal Role
- Refine Project Description
- Project Optimization
- Affordability

Delay

- Real Estate and Geotechnical Exploration → Engineering
- Alternative Delivery Procurements
- Policies, Procedures, and Systems
- Water Rights Application

Risk Associated with Schedule Delay

- x Delays planned delivery of required deliverables
- x Risks eligibility for federal and state funding
- x Results in higher project costs
- x Creates uncertain resource availability
- x Reduces likelihood Sites is operable by next drought
- x Complicates uncertain political climate

90-Day Delay Work Plan Scenario

- Extends existing budgets by 90 days with no additional cash call.
- Delays receipt of permits and agreements.
- Compromises state and federal funding due to missing statutory milestones.

180-Day Delay Work Plan Scenario

- Extends existing budgets by 180 days and requires a cash call of \$25/AF (\$4.8M).
- Further delays receipt of permits and agreements.
- Further compromises the timing of state funds to be dispersed.
- Unlikely to remain eligible for any WIIN Act funding.
- Probably forfeits the USDA construction loan.

NEXT STEPS



Decisions at the September Meetings

1. Stay the course or implement a delay
 - If stay the course:
 - Work Plan
 - Plan of Finance
 - Bank RFP
 - Participation Agreement
 - If delay:
 - Direction on a revised Work Plan
 - Revisions to the Plan of Finance and Participation Agreement
2. Approve updates to the preferred project
3. Approve Feasibility Study Framework