

JOINT AUTHORITY/ RESERVOIR COMMITTEE

AUGUST 15, 2019 WORKSHOP



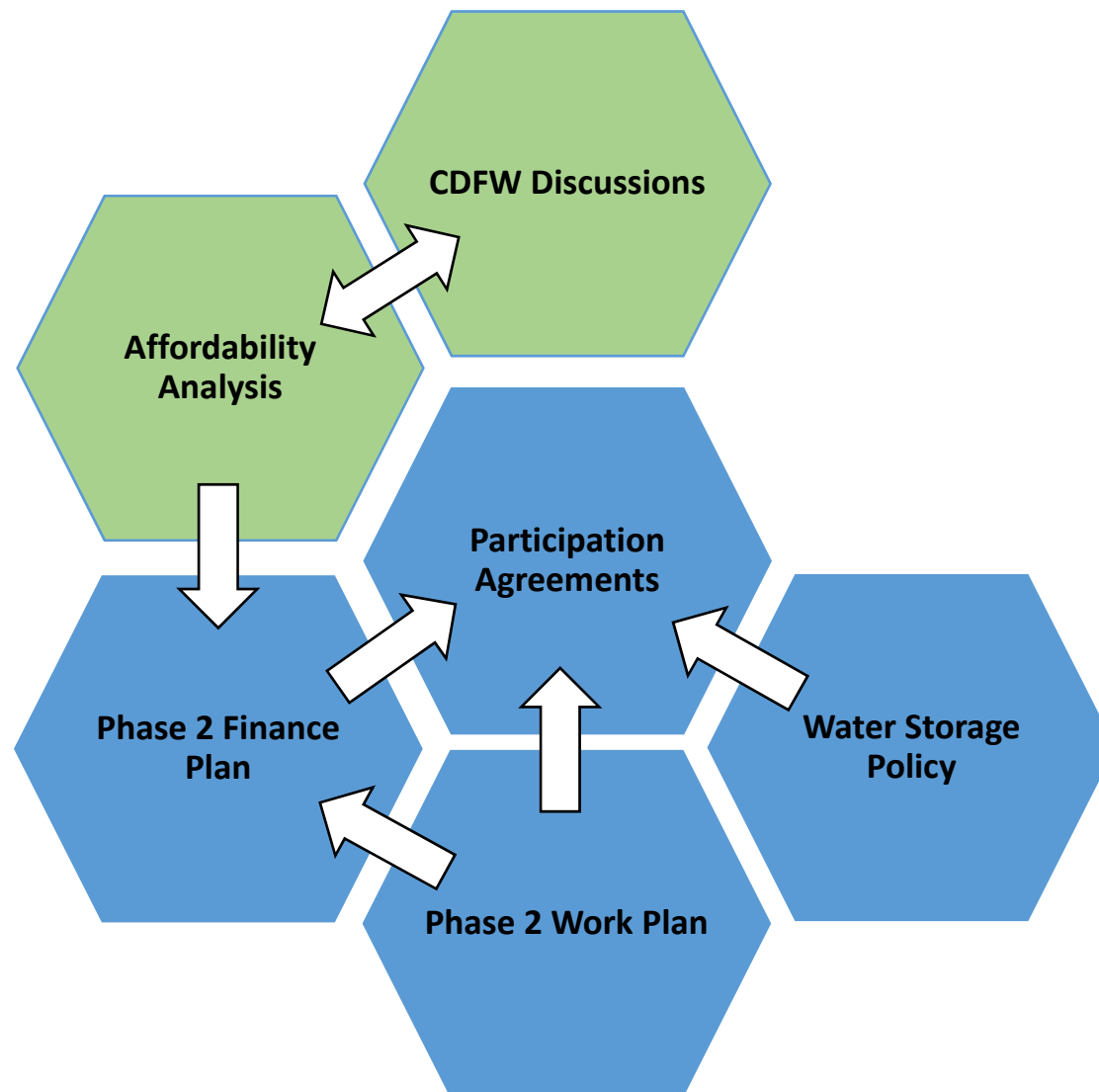
Workshop Agenda

1. Work Plan (2020-2021)
2. Break for Lunch
3. Operations and Repayment
4. Storage Policy

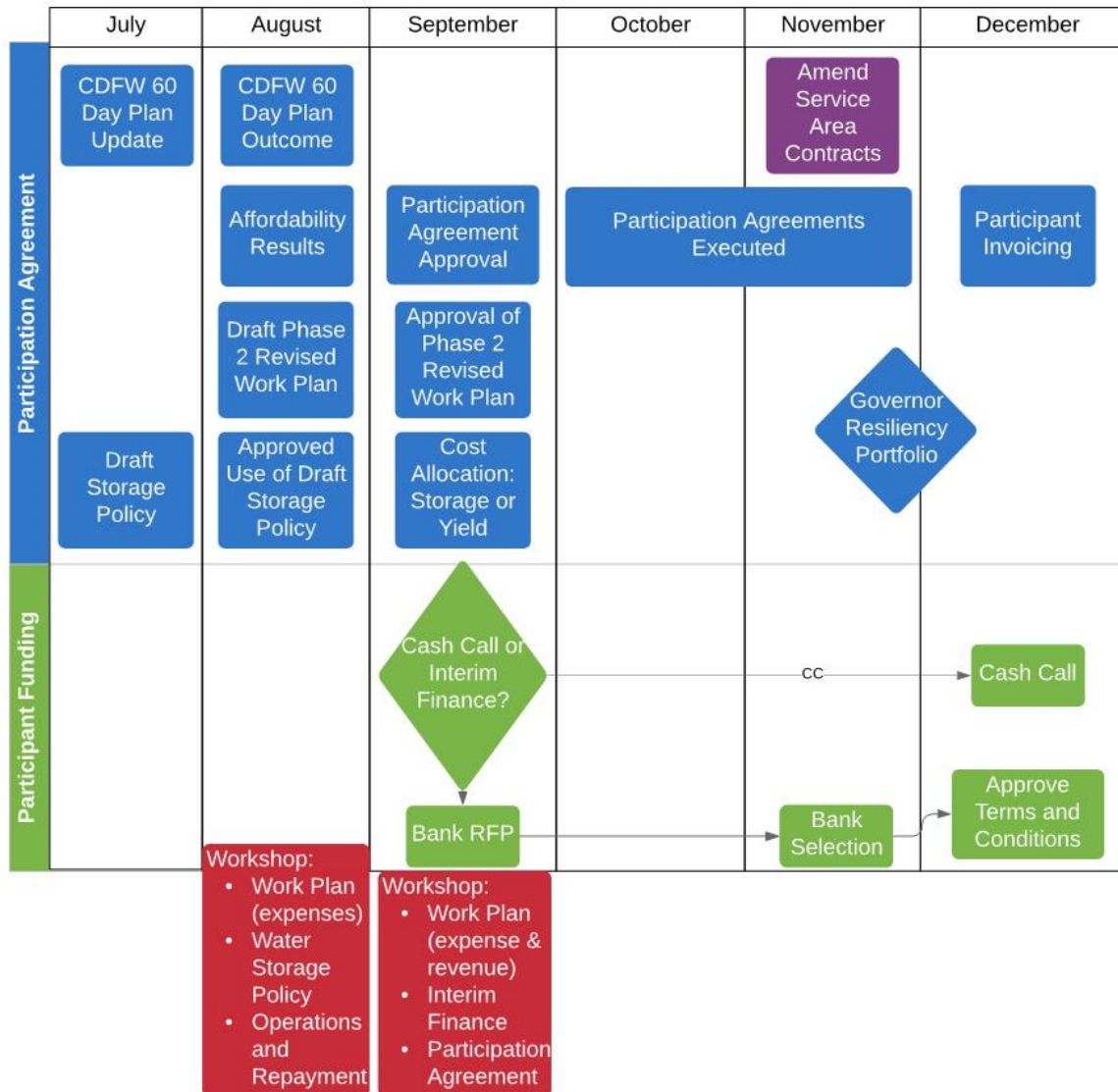
Overview: Workshop Goals

- **Work Plan:** Inform Authority Board and Reservoir Committee of required activities and associated expenses to meet project objectives, preparing for upcoming Phase 2 finance decision
- **Operations & Repayment:** Review the impact that different facilities, operations, and participation have on project affordability
- **Storage Policy:** Overview of how participants can manage and control their share of water diversions to, storage in, and released from Sites Reservoir

Overview: Key Documents



2019 Participation Agreement Schedule



Accomplishments to Date:

1. Significant statewide water industry participation and funding
\$816.3 million Proposition 1 (\$40.8M for early funding)
\$449.2 million USDA Rural Development conditional construction loan
\$4.35 million WIIN Act with additional dollars programmed
2. USBR as a cost-share partner
3. Authority became the CEQA Lead agency
4. Publication and public review of Draft EIR/S
5. State authorization to use alternative delivery (AB 2551)
6. Strong agriculture, business, and labor support
7. Significant landowner and community engagement
8. Strong bipartisan support at federal and state levels

Phase 2 (2020-2021) Work Plan Agenda

- Evolution of Phase 2 Work Plan
- Work Plan Development
- Work Plan Breakdown
- Work Plan Q&A

Evolution of Phase 2 Work Plan

1. Plan A (original)

- ✓ Existing Statutory Schedule Drivers (WSIP & WIIN)
- ✓ 3-year participation agreement
- ✓ Interim finance

2. Offramp to Plan C

- ✓ 2019 participation agreement
- ✓ Cash call funding

3. Plan C Budget reduction (WIIN Act)

Schedule Driver: Prop 1, WSIP

Statutory

Milestones: Achieving them enables federal and state funds to be used to advance the Project

■ **Proposition 1:**

1. Phase 2 Cost-Share: Limited to Environmental analysis and permit acquisition \$ 40.8 million
2. §79755(a)(5)(A): \$776 million can't be encumbered until
 - Public benefits contracts executed
 - Water supply contracts executed
 - Feasibility studies completed
 - Commission determines Project is feasible before **Jan. 1, 2022** (§79757)
 - EIR is complete
 - “all ... approvals, certifications, and agreements have been obtained”*

■ **Risk:** Gap in state funding until all approvals are obtained

Schedule Driver: WIIN Act

Statutory

Milestones: Achieving them enables federal and state funds to be used to advance the Project

- **WIIN Act (§4007):**

1. Phase 2 Cost-Share: Limited to Preconstruction Activities
2. Secretary of Interior deemed Project is feasible before **Jan. 1, 2021**

- Final EIS

- DEC Comments addressed (Cost estimate \geq Class 3)*

- ? Power Generation

3. **Be in construction before Dec 16, 2021** (§4013(2) sunset clause)

Need congressional appropriations, WSIP funds, & permanent finance

- **Risk:** Level of engineering to support class 3 estimate requires significant geotechnical and design equivalent to 50%

State Policy Driver: Resilience Portfolio

Priorities:

1. Develop a water resilience portfolio to water infrastructure
 - Pursue collaborative strategies
 - Reassess the 2016 Water Action Plan
 - Assess water reliability
 - Pursue Voluntary Agreements
 - Single-tunnel WaterFix
 - Provide access to clean, safe, & affordable water
2. Integrate State's Resources (funding, talent, personnel, & policy)
3. Breakdown the Binary

Principles: (EO N-10-19)

- a. **Prioritize multi-benefit approaches**
- b. Utilize natural infrastructure (forests & floodplains)
- c. Embrace innovation & new technologies
- d. **Encourage regional approaches**
- e. Adopt approaches (benchmark)
- f. Integrate state's investments, policies, and programs
- g. **Strengthen partnerships**

August 2018: Offramp to 2019 Cash Call

Goals:

1. To improve operational certainty
2. To reduce investment risk
3. Continue to meet statutory milestones tied to
 - Federal funding (WIIN Act)
 - State funding (Proposition 1)
 - Public Benefits before 2030 (WSIP regulations)

With competing water policy and project schedules

ROC on LTO (New BiOps)

SGMA

Voluntary Agreements

Fremont Weir notch

Delta Conveyance

CA EcoRestore (2008/09 BiOp RPAs)

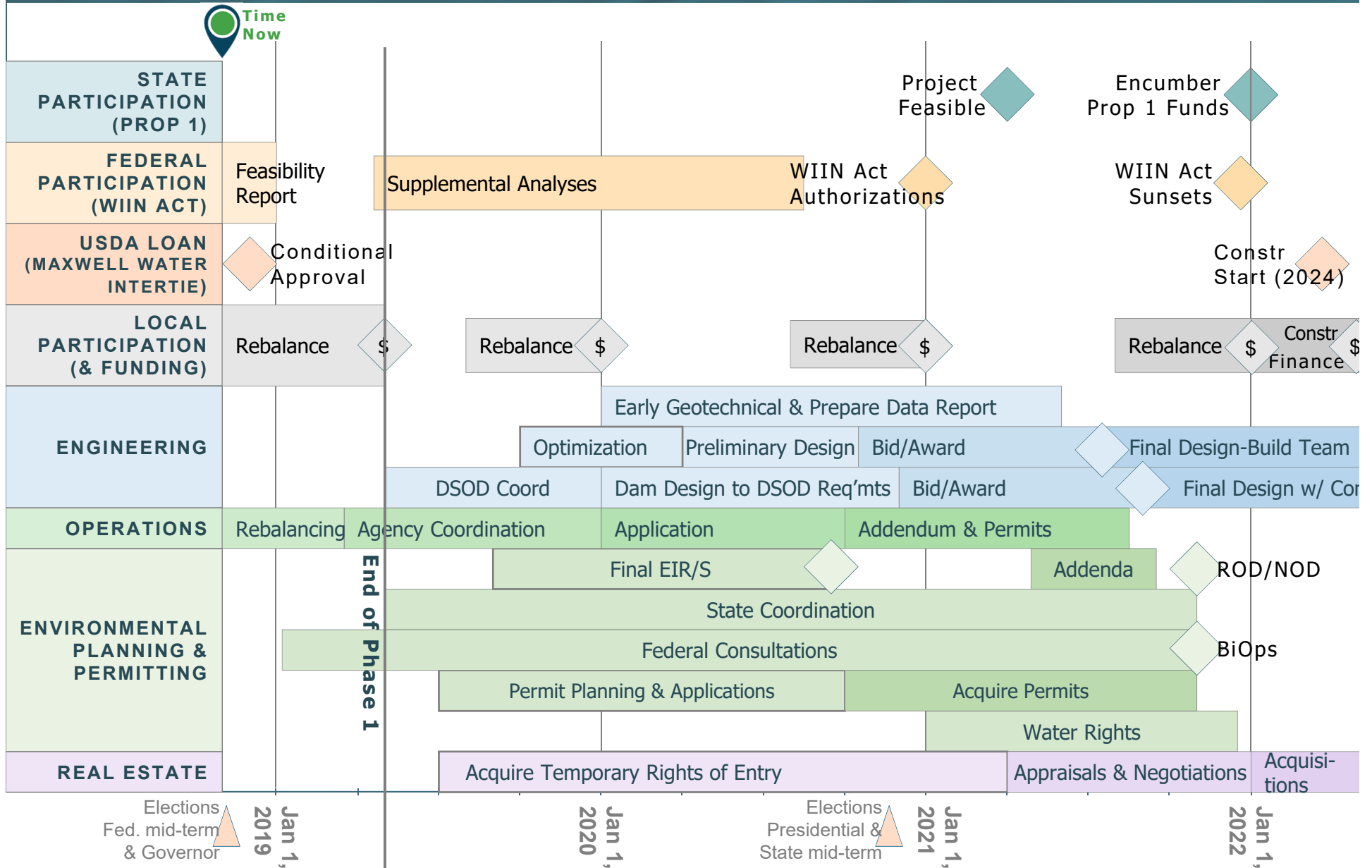
Plan C: Additional funds available

Overview

Scope:

- + Continue to work on targeted activities:
 1. Coordination with agencies to define operations
 2. Advance conversion to storage and develop participant exchanges
 3. Earlier start to finalize the EIR/S
 4. Conversion to storage and develop transfer rules
 5. Start optimization of facilities
 6. Coordination with DSOD
 7. Grid interconnection and hydropower studies
 8. Temporary rights of entry
- + Annual decision points (on- and off-ramps)
- Risk to meeting statutory milestones

Plan C: Additional funds available Schedule



Original Finance Plan

1. Participation

- ✓ State based on WSIP (\$816 m)
- ✓ Federal based on draft Feasibility Report (~ 15% of capital costs)
- ✓ Local based on water agency's annualized deliveries (250,000 AF/yr)

2. Interim Finance Key assumptions

- ✓ Bank line of credit
- ✓ Payments as either interest only or interest and principal
- ✓ 6-months carryover into 2022 to secure permanent finance

3. Permanent Finance Key assumptions

- ✓ USDA Rural Development Loan(\$ 449 m)
- ✓ Either with or without WIFIA
- ✓ Payments as either interest only or amortized interest
- ✓ Reservoir fill in 2 years before repayment

Deferred Interim Finance (Phase 2)

(water agency participation of 250,000 AF/yr)

- “Cash call” for 2019 costs

- Line of Credit beyond 2019

- Jan-Dec 2020 - \$90 million
- Jan 2021-Jun 2022 - \$245 million
- Projected 3% bank interest rate, 0.75% bank commitment fee

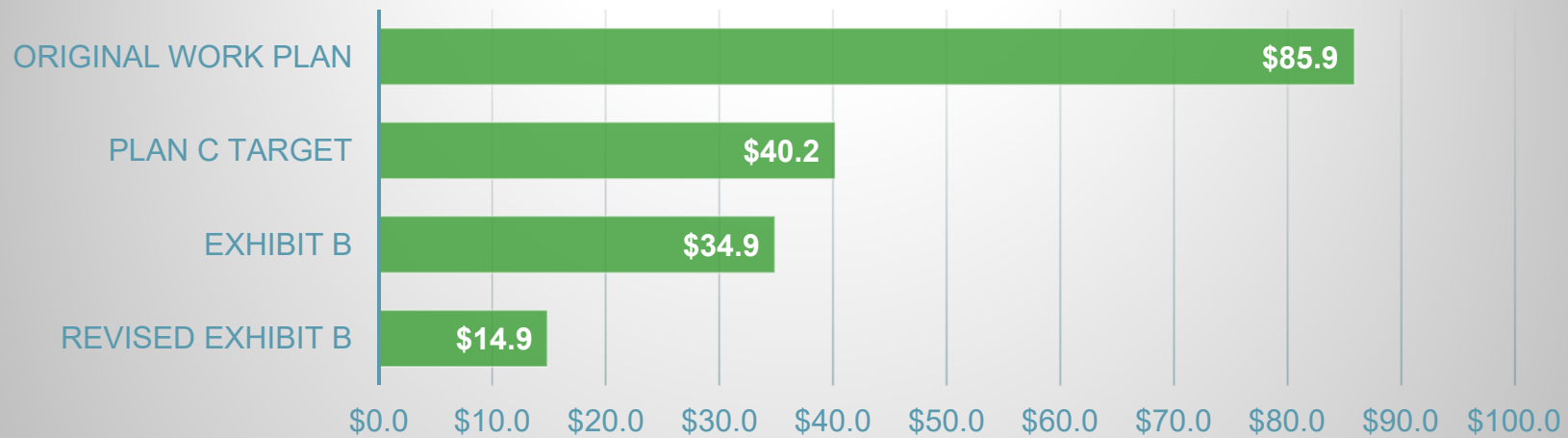
Phase 2 Costs	\$	420 million
less: Participant Pmts	\$	15 million
less: Prop1 Funds	\$	40 million
less: WIIN Act Funds	\$	30 million
Borrowing Required	\$	335 million

	LOC Expense	Cost at 250,000 AF
CY-2019	None - Cash Call	
CY-2020	\$ 1,995,816	\$7.98/AF
CY-2021	\$ 6,047,417	\$24.19/AF
CY-2022	\$ 4,497,644	\$17.99/AF
Total	\$ 12,540,878	\$50.16/AF

- If Project does not proceed, \$335 million would represent
 - \$335 million / 250,000 AF = **\$1,340/AF** debt obligation (lump sum)
 - Amortized over 30 years at \$21.7 million/yr = **\$86.71/AF** (5% rate, level debt)

Phase 2 (2019): Budget History

Budget History, 2019 (Res Comm, Expenses, \$M)

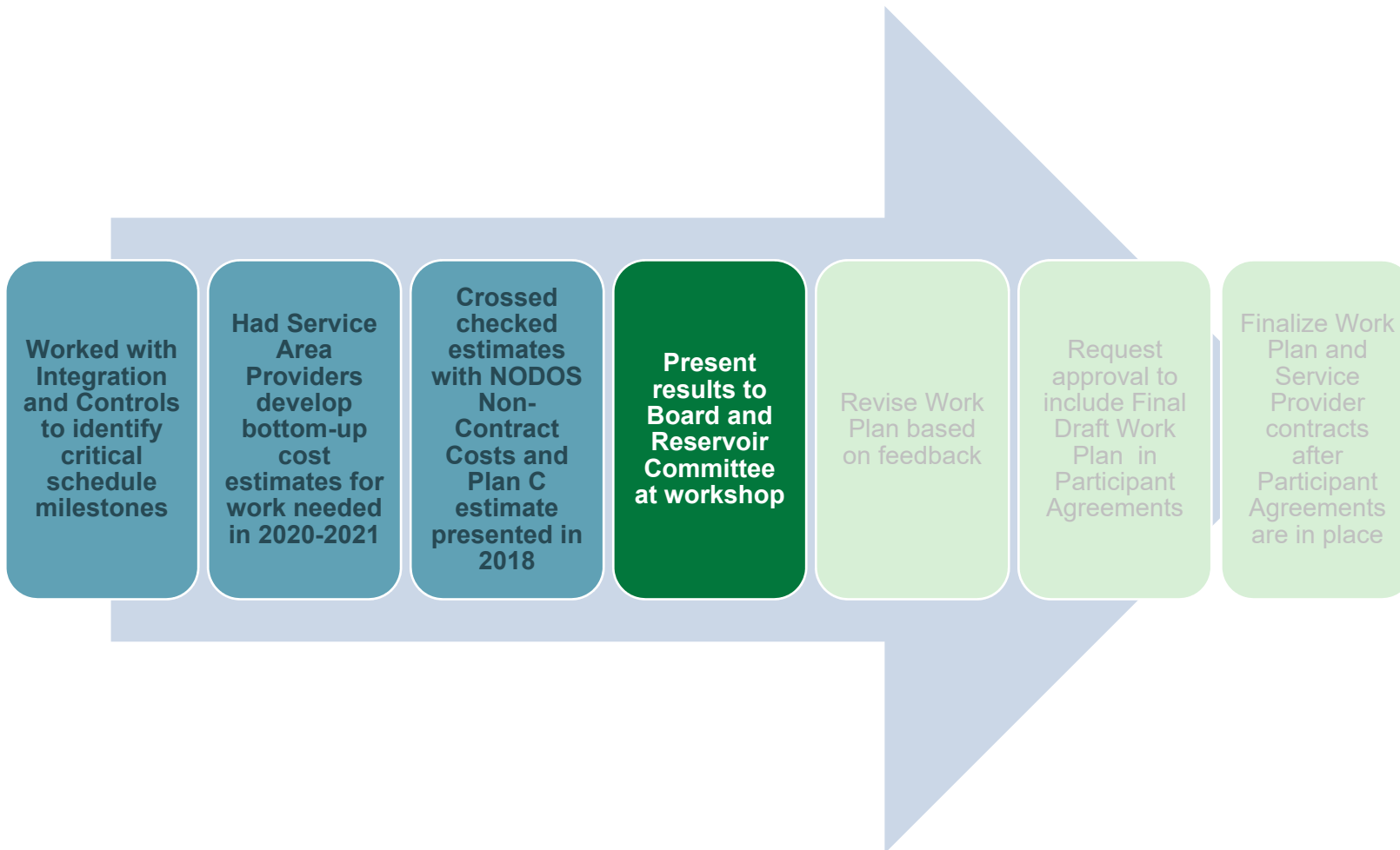


Source	2019 Budget	Notes
Original Phase 2 Work Plan	\$85.9	Conditionally approved July 2018
Plan C Target (Planning)	\$40.2	Planning level target based on priorities
Approved Exhibit B to 2019 Participation Agreement	\$34.9	Scope developed for Plan C
Revised Exhibit B to 2019 Participation Agreement	\$14.9	Reduced PWA participation and WIIN funding, June 2019

Phase 2 (2019): Goals & Accomplishments

- To improve operational certainty
 1. Held pre-application consultations with state and federal agencies
 2. Developed the storage policy
 3. Refined daily modeling
- Affordability
 1. Ranges of facilities (sizes and costs)
 2. Ranges of operations (proposed and expected)
 3. Ranges of participation

Phase 2 (2020-2021) Work Plan: Development



Phase 2 (2020-2021) Work Plan: Drivers

1. Reduced budget in 2019, but schedule milestones are still in place
 - Schedule loss can be made up from 2019, but must move forward with engineering and geotech in 2020 to meet 2021 funding milestones
2. Update Credit Reimbursement Policy
 - Premium for future new participants
3. Political climate
 - Increased water storage is broadly supported
 - Presidential memorandum
 - WSIP early funding is in place
 - Governor's Resiliency Portfolio

Expense Breakdown by Class

By Class	2019 Commitment	2020 Budget	2021 Budget	Phase 2 Budget	% of Total	2022 Carryover	Interim Finance
Service Area Expense	\$ (10,677,249)	\$ (135,198,092)	\$ (152,243,311)	\$ (298,118,653)	84.44%	\$ (57,409,334)	\$ (355,527,986)
Payments and Fees	\$ (116,525)	\$ (5,845,533)	\$ (12,096,533)	\$ (18,058,592)	5.12%	\$ (6,048,267)	\$ (24,106,858)
Purchasing	\$ -	\$ (1,600,000)	\$ (15,300,000)	\$ (16,900,000)	4.79%	\$ (15,500,000)	\$ (32,400,000)
Agents	\$ (1,282,500)	\$ (2,400,000)	\$ (2,400,000)	\$ (6,082,500)	1.72%	\$ (1,200,000)	\$ (7,282,500)
Advisory Services	\$ (852,000)	\$ (1,321,333)	\$ (1,441,333)	\$ (3,614,667)	1.02%	\$ (720,667)	\$ (4,335,333)
Legal Services	\$ (558,000)	\$ (1,494,000)	\$ (1,544,000)	\$ (3,596,000)	1.02%	\$ (772,000)	\$ (4,368,000)
Construction	\$ -	\$ -	\$ (3,500,000)	\$ (3,500,000)	0.99%	\$ (3,500,000)	\$ (7,000,000)
Staff Augmentation	\$ -	\$ (1,000,000)	\$ (1,000,000)	\$ (2,000,000)	0.57%	\$ (500,000)	\$ (2,500,000)
Governmental Affairs	\$ (120,000)	\$ (276,000)	\$ (276,000)	\$ (672,000)	0.19%	\$ (138,000)	\$ (810,000)
Accounting and Admin	\$ (108,000)	\$ (164,000)	\$ (184,000)	\$ (456,000)	0.13%	\$ (92,000)	\$ (548,000)
Office Expenses	\$ (10,475)	\$ (13,967)	\$ (13,967)	\$ (38,408)	0.01%	\$ (6,983)	\$ (45,392)
TOTAL	\$ (13,724,749)	\$ (149,312,926)	\$ (189,999,144)	\$ (353,036,819)	100%	\$ (85,887,251)	\$ (438,924,070)

Expense Breakdown by Service Area

Service Area	2019 Total	2020 Total	2021 Total	Total Budget Phase 2	2022 Carryover	Interim Finance
A - Integration	\$ (2,231,987)	\$ (10,937,000)	\$ (11,165,000)	\$ (24,333,987)	\$ (5,582,500)	\$ (29,916,487)
B - Controls	\$ (1,291,875)	\$ (7,290,000)	\$ (8,470,000)	\$ (17,051,875)	\$ (4,185,000)	\$ (21,236,875)
C - Communications	\$ (462,217)	\$ (745,000)	\$ (800,000)	\$ (2,007,217)	\$ (400,000)	\$ (2,407,217)
D - Reservoir Ops	\$ (1,231,548)	\$ (2,002,000)	\$ (1,332,000)	\$ (4,565,548)	\$ (666,000)	\$ (5,231,548)
E - Environmental	\$ (1,704,112)	\$ (1,347,380)	\$ (654,900)	\$ (3,706,392)	\$ (327,450)	\$ (4,033,842)
F - Permitting	\$ (3,192,705)	\$ (8,437,000)	\$ (8,997,000)	\$ (20,626,705)	\$ (4,498,500)	\$ (25,125,205)
G - Real Estate	\$ (204,805)	\$ (585,000)	\$ (895,000)	\$ (1,684,805)	\$ (447,500)	\$ (2,132,305)
H - Engineering	\$ -	\$ (39,458,686)	\$ (95,033,089)	\$ (134,491,775)	\$ (25,354,223)	\$ (159,845,998)
I - Geotech	\$ (218,000)	\$ (63,809,360)	\$ (21,509,655)	\$ (85,537,015)	\$ (10,754,828)	\$ (96,291,843)
J - Construction Mgmt	\$ -	\$ (200,000)	\$ (3,000,000)	\$ (3,200,000)	\$ (5,000,000)	\$ (8,200,000)
K - Construction	\$ -	\$ (1,600,000)	\$ (18,800,000)	\$ (20,400,000)	\$ (19,000,000)	\$ (39,400,000)
Owner Costs	\$ (3,187,500)	\$ (12,701,500)	\$ (19,142,500)	\$ (35,031,500)	\$ (9,571,250)	\$ (44,602,750)
TOTAL	\$ (13,724,749)	\$ (149,112,926)	\$ (189,799,144)	\$ (352,636,819)	\$ (85,787,251)	\$ (438,424,070)

- CEQA completed in early 2020
- Federal ESA and NHPA completed in mid-2020
- NEPA completed in mid-2021
- Supplemental CEQA/NEPA as needed

F Permits & Agreements

Draft Work Plan

- Complete Biological Assessment
- Obtain all major permits and approvals prior to December 31, 2021
- Complete focused permitting as needed to support geotechnical investigations
- Finalize and begin implementing Section 106 Programmatic Agreement
- Finalize Mitigation and Planning approach & Adaptive Management Plan in 2021 (implement in 2022)

D Reservoir Ops & Water Rights Draft Work Plan

- Support operations evaluations (diversions, storage, system sizing, etc.)
- Support development of principle agreements with USBR and DWR
- Assist with refinement of operations plans
- Support financial evaluations (operations and repayment)

- Perform project optimization of facilities in early 2020
- Develop hydraulic performance model
- Develop Geotechnical Engineering Reports and Project Seismic Study
- Complete design and bridging documents for early construction, permits, and procurement

- Develop engineering designs and drawings to meet permitting team's schedule
- Lead agency coordination efforts for federal, state, and local agencies, including DSOD and USACE
- Technical support for environmental and permitting teams

I Geotechnical

Draft Work Plan

- Provide geotechnical data collection needed to support engineering team's designs
- Prepare Geotechnical Data Reports for each major facility
- Focused geotechnical data collection and TMs covering specific areas, as needed

- Develop Program Right of Way Manual
- Negotiate Rights of Entry to support geotechnical, cultural, and environmental field work
- Plan the acquisition for right of way
- Negotiate early acquisitions of key parcels
- Develop Property Management Program (for Authority-owned properties) as needed

J Construction Management Draft Work Plan

- Contractor selection in late 2020, on boarding in 2021
- Construction Management will support early construction and fabrication

K Construction

Draft Work Plan

- Early design and procurement of pumps
- Early construction to meet statutory requirements (e.g., dredge Funks)

- Provide Integration Leads for each Service Area
- Provide full-time acting EPC Manager and two full-time integration leads for HC and HR
- Continue development of IT systems
- Lead comprehensive risk workshop and manage risk (ongoing)
- Continue development of Quality Management Plan and provide technical quality peer reviews
- Establish a standalone satellite program office

- Support management of WSIP, WIIN Act, and PWA funding; complete future loan and grant applications
- Implement Information Technology systems: Business and Project
- Develop master program schedule reflecting procurement strategy and optimized project
- Provide contract administration and compliance
- Authority AP and AR processes
- Support financial analysis (operations and repayment)