



Board of Directors
Michael W. Mobley, President
Bruce E. Dandy, Vice President
Sheldon G. Berger, Secretary/Treasurer
Patrick J. Kelley
Lynn E. Maulhardt
Edwin T. McFadden III
Daniel C. Naumann

General Manager
Mauricio E. Guardado, Jr.

Legal Counsel
David D. Boyer

MINUTES
ENGINEERING & OPERATIONS
COMMITTEE MEETING
Thursday, November 5, 2020, 9:00 A.M.
Board Room

UWCD, 1701 North Lombard Street, Oxnard CA 93030

In addition to its public Engineering and Operations Committee meeting, UWCD provided virtual access to the meeting via the Webex virtual meeting platform.

COMMITTEE MEMBERS

Lynn E. Maulhardt, chair
Edwin T. McFadden III (participated via Webex)
Daniel C. Naumann

STAFF ATTENDING

Mauricio E. Guardado, general manager (participated via Webex)
Anthony Emmert, assistant general manager
Dr. Maryam Bral, chief engineer (participated via Webex)
John Carman, operations and maintenance program supervisor (participated via Webex)
Brian Collins, operations and maintenance manager
Joseph Jereb, chief financial officer (participated via Webex)
Michel Kadah, engineer (participated via Webex)
Murray McEachron, principal hydrologist (participated via Webex)
Craig Morgan, senior engineer
Josh Perez, human resource manager
Zachary Plummer, IT administrator
Linda Purpus, environmental services manager (participated via Webex)
Adrian Quiroz, engineer
Robert Richardson, senior engineer (participated via Webex)
Clayton Strahan, chief park ranger (participated via Webex)
Erik Zvirbulis, GIS analyst (participated via Webex)

PUBLIC PRESENT

Dan Flory (participated via Webex)

OPEN SESSION: 9:00a.m.

Chair Maulhardt called the Engineering & Operations Committee Meeting to order at 9:00a.m.

Committee Members Roll Call

Administrative Assistant Destiny Rubio commenced Roll Call. Committee members: Chair Maulhardt, Director McFadden, and Director Naumann were present.

1. Public Comment

Chair Maulhardt asked if there were any public comments for the Committee. None were offered.

2. Approval of Minutes

Motion to approve the Minutes from the October 1, 2020 Engineering and Operations Committee meeting, Director Naumann; Second, McFadden. Roll call vote, three ayes (McFadden, Naumann, Maulhardt). None opposed. Minutes approved unanimously.

General Manager Mauricio E. Guardado Jr. requested a reorder of the agenda. Project Highlight Item 4.1 be moved to the first item of discussion.

4. Project Highlights

1. Lake Piru Ranger Authorities Encompassed in Ordinance 15

Chief Park Ranger Clayton Strahan discussed revisions to the Lake Piru Park Ranger Authority associated with Ordinance 15. Chief Ranger Strahan stated the Board requested this item be clarified at the committee level. He added that rangers would only be responding to calls regarding District properties within District boundaries. Mr. Guardado stated that the changes provide United's rangers the flexibility to interject if needed, and the language is already stated in the policy, so it does not become a liability to the District in the future. Chair Maulhardt requested that the emphasis remain on Lake Piru and for rangers to use the authority wisely. The committee members agreed to recommend this item go to the full board for approval.

3. November 10, 2020 Board Meeting Motion Agenda Items

3.1 Resolution 2020-22 Authorizing General Manager as signatory for Utility Easement Deeds related to the PTP Replacement Project

Chief Engineer Maryam Bral provided updates and a slide (see attached) on Resolution 2020-22 and asked the Committee to recommend approval of the resolution to the Board, authorizing the General Manager as signatory for Utility Easement Deeds related to the PTP Replacement Project. The committee members agreed to recommend approval of the resolution to the Board.

3.2 Resolution 2020-23 Adopting the Revised Owner's Dam Safety Program

Dr. Bral provided updates and a slide (see attached) on Resolution 2020-23 and asked the Committee to recommend approval of the resolution to the Board, adopting the seventh revision of the Owner's Dam Safety Program. The committee members agreed to recommend approval of the resolution to the Board.

3.3 Authorize General Manager to Execute an Amendment to the Professional Services Agreement with Stantec Inc. to Provide Further Analysis of the Vertical Slot as a Freeman Diversion Fish Passage Facility Alternative

Dr. Bral provided updates and a slide (see attached) on the Amendment to Stantec's Professional Service Agreement and asked the Committee to recommend approval of the motion to the Board, authorizing the General Manager to execute the contract amendment. The committee members agreed to recommend approval of the amendment to the Stantec

agreement and authorize the General Manager to execute the amendment for \$120,600 (bringing Stantec's total contract amount to \$370,182) to the Board.

3.4 Resolution 2020-21 Adopting Direction to the Ventura County Watershed Protection District to Execute the California State Water Project Contract Amendments for Water Supply Management on Behalf of United Water Conservation District.

Operations and Maintenance Manager Brian Collins provided updates and slides (see attached) on Resolution 2020-21. He asked the committee to recommend approval of the Resolution to the Board, adopting direction to the Ventura County Watershed Protection District (VCWPD) to execute California State Water Project Contract Amendments for Water Supply Management on behalf of UWCD. Director Naumann inquired if United is one of three parties to the County's contract. Mr. Collins stated that United is one of three sub-holders of the larger VCWPD. Mr. Collins stated that negotiations with Public Water Agencies (PWA's) have concluded and an Agreement in Principle (AIP) has been put forth. Both sister agencies -- Casitas Municipal Water District and Ventura -- have each recommended this resolution. Mr. Collins added that the new language states that agencies now have the ability to sell Table A water and purchase or transfer Article 21 water or other allocations of water within the same year, allowing for significant flexibility and removing limitations from the existing contract. Director Naumann inquired if the VCWPD has approval to proceed with this or if it needs to go to Board of Supervisors for approval. Mr. Collins responded that it does need approval and is on the agenda for the upcoming December 8 Board of Supervisors' meeting. The committee agreed to recommend approval of the resolution adopting direction to the VCWPD to execute California State Water Project Contract Amendments for Water Supply Management on behalf of UWCD to the Board.

3.5 Resolution 2020-24 Adopting Direction to the Ventura County Watershed Protection District to Execute the Department of Water Resources Funding Agreement for Preliminary Planning and Design Costs Related to a Potential Delta Conveyance Project (DCP) on Behalf of United Water Conservation District.

Mr. Collins provided updates and slides (see attached) on Resolution 2020-24. He asked the committee to consider recommending approval of Resolution 2020-24 to the full Board, adopting direction to the VCWPD to execute the Department of Water Resources Funding Agreement for the Preliminary Planning and Design Costs related to a Potential Delta Conveyance Project (DCP) Agreement in Principle (AIP) on behalf of UWCD. Mr. Collins stated it is a significant planning effort, United's portion will be the representative portion, or 25% of the VCWPA entire allocation. The other portion is made up of Casitas and Ventura. Mr. Collins stated that staff recommends to opt-in for the 100% option which is an estimated \$462,000 cost for United. Director Naumann inquired about the differences between 100% and 100% plus. Mr. Collins stated that there is additional allocation availability with 100% plus. Chair Maulhardt and Director Naumann understood that this resolution is for the design portion of the Delta Conveyance project, and contractors (or PWAs) need to opt-in now as agencies cannot opt in later, and the different options are to opt in at 100%, opt in at 100% plus, or opt out.

Provost and Pritchard's Dan Flory stated that the difference between the two options is the benefit of receiving additional water in January versus February and March. The committee members agreed to recommend to the Board to opt-in to the funding agreement but were not clear whether to opt in at 100% or 100% plus.

Chair Maulhardt recommended there be follow-up committee meeting prior to the Board Meeting for clarification on this item.

Director Naumann left the meeting at 10:15 AM.

4. Project Highlights

4.2 FERC Order regarding the Habitat Improvement Plan for the Santa Felicia Project – Update

Environmental Services Manager Linda Purpus provided updates and slides (see attached) on the Environmental Services Department (ESD) Federal Energy Regulatory Commission (FERC) Order. Director McFadden inquired if the only problem with this item was that FERC did not provide National Marine Fisheries Service (NMFS) the chance to review the order. Ms. Purpus responded that FERC stated they had erred in allowing the implementation of the Habitat Improvement Plan without previously receiving NMFS formal agreement. However, FERC did agree with United's interpretation of the Reasonable and Prudent Alternatives (RPA) from the Biological Opinion that was issued by NMFS. The committee had no further questions on the FERC order.

5. Future Agenda Topics

No future agenda topics were offered.

ADJOURNMENT 10:34 a.m.

Chair Maulhardt adjourned the Engineering and Operations Committee meeting at 10:34 am.

I certify that the above is a true and correct copy of the minutes of the Engineering and Operations Committee Meeting of November 5, 2020.

ATTEST: 
Lynn Maulhardt, Chair



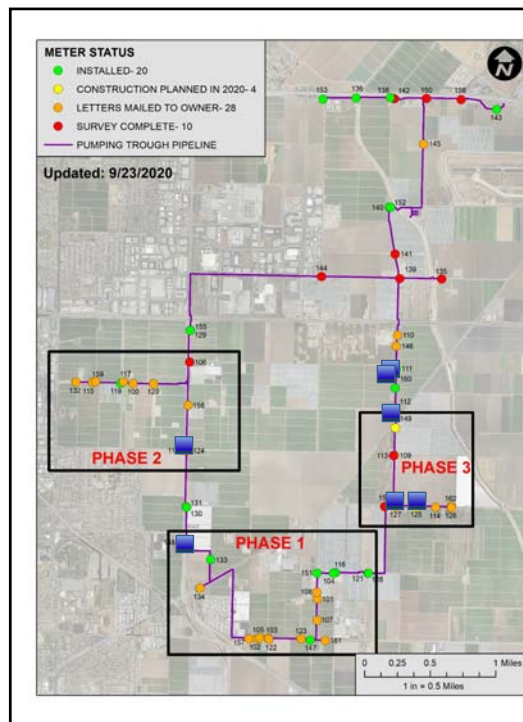
Engineering and Operations
Committee Meeting

November 5, 2020

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Motion Items

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3.1 UTILITY EASEMENT DEEDS FOR THE PTP METER REPLACEMENT PROJECT

- ❑ General Manager to serve as the Board's Agent
- ❑ Easement Acquisition Progress Update:

Utility Easement Deed Acquisition - 41

- Letters to Property Owners - 33
- Status update at PTP Stakeholders meetings
- Bill insert - reminder to Owners
- 7 Owner-Signed Utility Easement Deeds

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3.2 SANTA FELICIA DAM OWNER DAM SAFETY PROGRAM REVISION 7

ODSP

Defines and establishes
dam owner's responsibilities
for a FERC licensed facility

A CEI and live document
requiring periodic updates

Rev. 6 submitted to FERC on
September 20, 2019

Rev. 7 prepared in October 2020 to be submitted to FERC in November 2020



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3.3 CONTRACT AMENDMENT FOR FREEMAN FISH PASSAGE FACILITY DESIGN ALTERNATIVE

Stantec Contract Amendment

Additional Work including:

- ☐ Meetings and Coordination
- ☐ Design drawings and project narratives per regulatory agencies' request
- ☐ CFD Model 2 to address critical design elements
- ☐ Operational support

Amendment Fee: \$120,600

Total Contract Amount: \$370,182



Extension of Contract Term:
November 30, 2020

Water Management Tools Contract Amendment

United Water Conservation District
November 2020

Engineering and Operations Committee
November 5, 2020



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Presentation Outline

- Proposed Committee recommendation/Board Action
- Review Negotiation Objectives
- Review PWAs Issues to be Resolved During Negotiations
- Review Key Provisions in the SWP Water Management Tools (WMT) Contract Amendment

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Committee Recommendation/Board Action

- Approve the execution of the State Water Project Contract Amendment for enhanced Water Management Tools and Actions
- Make appropriate CEQA Findings and adopt CEQA Findings and Statement of Overriding Considerations.

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Negotiated Objective

- **DWR and PWAs Negotiated Objective:**
 - 1) Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area

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PWAs Issues to be Resolved During Negotiations

- Existing contract limits the means (Turnback Pool) by which a PWA can transfer annual Table A Water
- Existing Contract prohibits PWAs from transferring or exchanging project water stored outside of the PWAs service area
- Need for greater certainty and flexibility for annual and multi-year transfers and exchanges between PWAs
- Existing contract prohibits PWAs from storing project water outside the PWAs service area and transferring water in the same year, effectively taking away flexibility for those PWAs entering multi-year transfers from storing a portion of their water during the term of those multi-year transfers
- Contract is vague on determination of exchange ratios, resulting in disagreements between PWAs and DWR

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Key WMT Contract Provisions

- **Outline of Agreement in Principle (AIP):**
 1. Water Transfers
 2. Water Exchanges
 3. Water Transfers & Exchanges, including Transfers and Exchanges of Carryover Water in San Luis Reservoir
 4. PWA Due Diligence (Transparency)
 5. Stored Water/Carryover Water
- **Amended Contract Articles:**
 - Amended current Article 21 and 56
 - Added new Article 57

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Water Transfers

- Eliminates the Turnback Pool
- Non-permanent transfers of project water allowed
- Creates new flexibility for non-permanent transfers, including allowing PWAs to:
 - Determine the duration (single or multi-year agreements)
 - Determine terms of compensation for transfers
 - Execute Transfer Packages (two or more transfer agreements presented to DWR for approval)
 - Transfer water stored outside their service territory directly to other PWAs.

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Water Exchanges

- Establishes clear criteria for exchanges to provide more clarity.
- Permits consideration of hydrology under a bona fide exchange and will include the following criteria for return ratios:
 - For SWP allocations $\geq 50\%$, return ratio is up to 2: 1
 - For SWP allocations > 25 and $< 50\%$, return ratio is up to 3: 1
 - For SWP allocations $>15\%$ and $\leq 25\%$, return ratio is up to 4: 1
 - For SWP allocations $\leq 15\%$, return ratio is up to 5:1
- **SWP allocation** at the time the exchange transaction is executed between the PWAs
- Water must be returned within 10 years (State may approve extension)

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Water Exchanges

Cost Compensation

Sum of PWAs Fixed Charges for Conservation,
Transportation, and CA WaterFix Facilities
(capital and minimum charges including capital surcharges)

$\$/AF =$

Maximum
Compensation

Sum of PWAs Fixed Charges for Conservation,
Transportation, and CA WaterFix Facilities
(capital and minimum charges including capital surcharges)

PWAs allocation of Table A water set by the SWP
allocation which has incorporated the May 1 monthly
Bulletin 120 runoff forecast

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Transfers and Exchanges

- PWAs may be:
 - Both buyer and sellers in the same year
 - Enter into multiple transfers/exchanges in the same year
- Article 21 Transfers
 - Allowable for Tulare Lake Basin Water Storage District, Empire Westside Irrigation District, Oak Flat Water District, and Kings County
 - Allowable for other PWAs with DWR Director Approval

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Transfers and Exchanges

- Basic Criteria Requirement*:

1. Must be transparent
2. Must not harm non-participating PWAs
3. Must not create significant adverse impacts in a PWA service area
4. Shall comply with all applicable laws and regulations
5. Shall be scheduled only if they do not impact normal SWP operations
6. Shall not impact the financial integrity of the SWP

*If requested by the DWR Director with respect to any confirmation of Basic Criteria for Transfers, Exchanges and Carryover Water, the PWA shall cooperate with DWR in providing DWR with information supporting the basis for the confirmation or basic criteria.

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Transfers and Exchanges

- Exceptions

- PWA may petition the Director for an exception in the following cases:
 1. Transfer or exchange does not meet the basic criteria; compelling need to proceed
 2. PWA that has received water in a transfer or exchange cannot deliver all of the water from the transaction in the same calendar year, and wishes to carry over the water in its name

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Transfers and Exchanges

- **Dispute Resolution**
 - **Trigger:** Non-participating PWA claims that transfer/exchange will have a significant adverse impact prior to DWR approving transfer/exchange agreement
 - **Process:**
 1. PWAs attempt to resolve dispute
 2. Not resolved by PWAs, DWR convenes a Group
 3. Two weeks prior to convening Group, submit written documentation to support claim and proposed solution
 4. Not resolved by Group, DWR Director will decide resolution

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Due Diligence (Transparency)

- PWA participating in transfer/exchange of Table A Water or the use of Stored Water/Carryover Water shall confirm in resolution or appropriate document the following:
 1. PWA has complied with all applicable laws for this transfer/exchange and shall specify the notices that were provided to the public agencies and the public regarding the proposed transfer or exchange.
 2. PWA has provided to all State Water Project PWAs and the SWC Water Transfer Committee all relevant terms of the transfer/exchange.
 3. PWA is informed and believes that this transfer/exchange will not harm other SWP PWAs, or impact SWP operations.
 4. PWA is informed and believes that the transfer/exchange will not affect its ability to make all payments, including payments for its share of the financing costs of DWR's Central Valley Project Revenue Bonds, when due, under its water supply contract.
 5. PWA has considered the potential impacts of the transfer/exchange within the PWA's service area.

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Stored Water/Carryover Water

Store and Transfer SWP Water in the Same Year

- Amendment allows PWAs to:
 - Store and transfer Table A water in the same year
 - Transfer or exchange Table A water stored outside of the PWAs service area to another PWA for use in that PWA's service area :
 - [Groundwater Storage Program](#) – any Table A water stored on or after the WMT effective date
 - [Project Surface Conservation Facilities](#) – 50% of the PWAs Article 56 Carryover Water
 - [Non-project Surface Storage Facilities](#) – per the contract executed between PWAs

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Carryover Water Program

Water stored under Article 56 in project surface conservation facilities

Receiving PWA Criteria:

1. Carryover water may only be exchanged or used in single-year transfers
2. PWA purchasing the carryover water must take delivery, in its service areas, unless an exemption is granted
3. PWA may transfer or exchange up to 50% of its carryover water
4. PWA may transfer/exchange greater than 50% of its carryover water, if the PWA demonstrate that the transfer or exchange of carryover water will not prevent it from meeting critical water needs in the current year or the following year and obtain approval by DWR Director
5. All transfer and exchange of carryover water are subject to the "Transparency Process Amongst SWP PWAs for Transfers and Exchanges"
6. PWA receiving the water must confirm that the PWA has a need for that water for use within its service area during the current year unless an exception is granted

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Implementation Language

- Goes into effect on the last day of the month in which 24 or more contractors have executed it
- If a court determines portions are invalid, State and at least 24 contractors must agree that remaining provisions are still in effect
- If 24 contractors have not signed by February 28, 2021, State may waive the 24-contractor requirement and implement
- If a contractor does not execute the amendment within 60 days of the amendment going into effect, then it will not take effect as to such contractor unless DWR subsequently agrees(in its discretion)

United Water Conservation District

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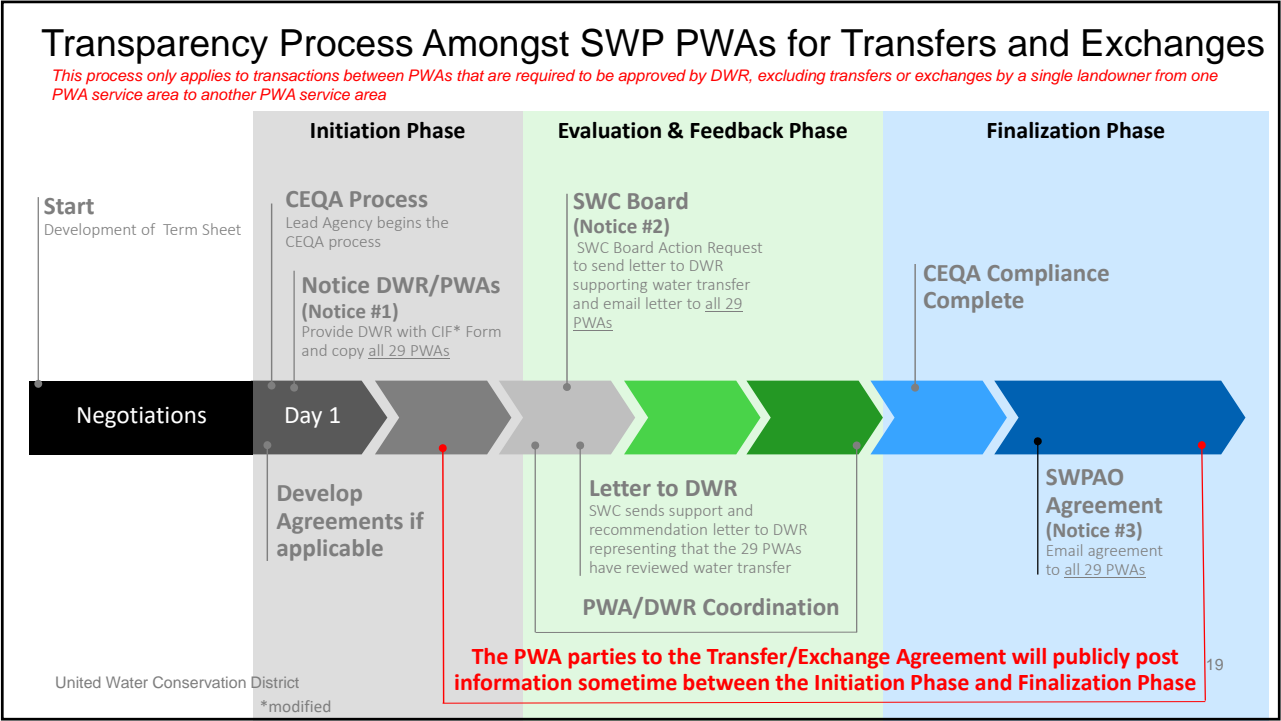
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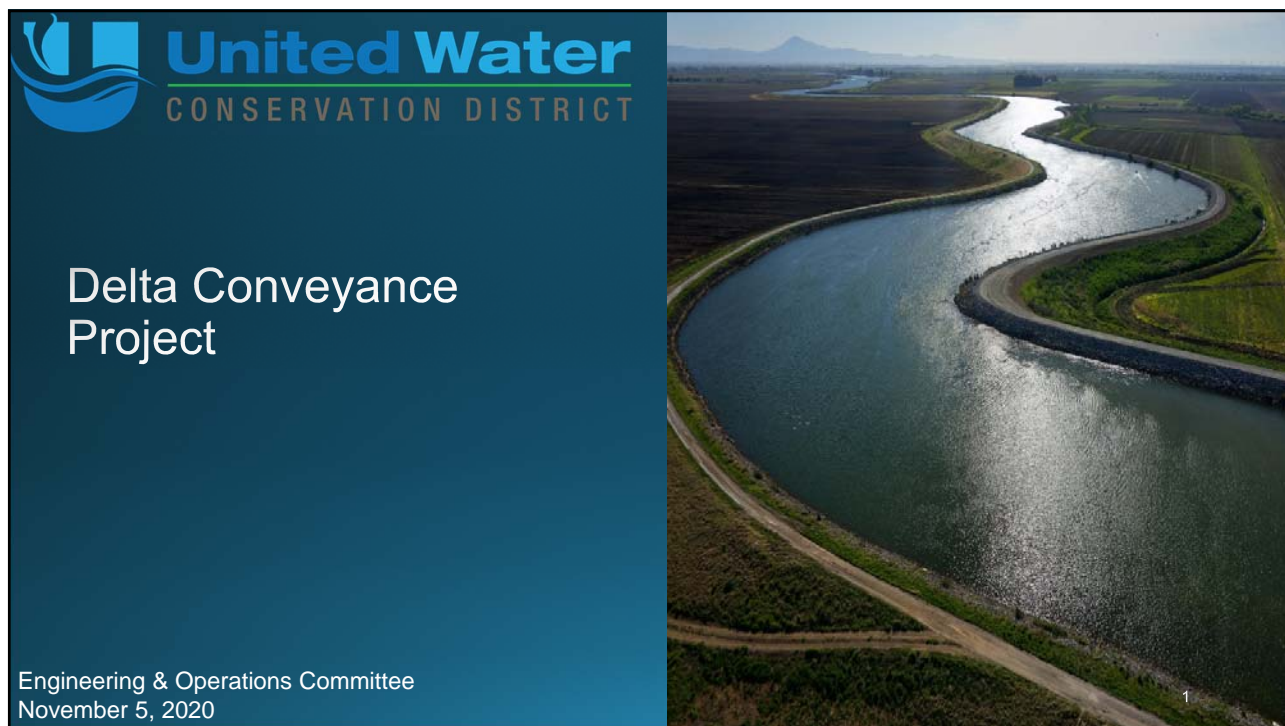
Questions

United Water Conservation District

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The slide has a dark blue background with a vertical orange bar on the left side. The title "Presentation Outline" is in white. Below it is a bulleted list of six items, each preceded by an orange dot. The items are: "Proposed Committee/Board Action", "Previous Board Action and Recent Developments", "Notice of Preparation", "DCP Preliminary Benefits", "DCP Costs and Cost Allocation", and "DCA Governance and Scope Changes". At the bottom, the text "Delta Conveyance Project" is on the left and the number "2" is on the right.

2

Recent Developments

FEB 2019	Governor Newsom State of the State	<ul style="list-style-type: none">Announced he did not support CA WaterFix as configured, but did support a single tunnel
JAN 2020	Department of Water Resources (DWR)	<ul style="list-style-type: none">Released Delta Conveyance NOPSingle Tunnels (6,000 cfs)
APR 2020	Department of Water Resources (DWR)	<ul style="list-style-type: none">Completes DCF AIP negotiations except for contractor participation

Delta Conveyance Project

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Delta Conveyance Objective

To restore and protect ability to deliver SWP Water Supply

- CLIMATE RESILIENCY:** Addresses climate change, extreme weather, and rising sea-levels in the Delta for the SWP
- SEISMIC RESILIENCY:** Minimizes health/safety risk to public from earthquake-caused reductions in water delivery quality and quantity from the SWP
- WATER SUPPLY RELIABILITY:** Restores and protects ability to deliver SWP water in compliance with regulatory and contractual constraints
- OPERATIONAL RESILIENCY:** Provides SWP operational flexibility to improve aquatic conditions and manage risks of additional future constraints

Delta Conveyance Project

4

4

Delta Conveyance – Notice of Preparation

Alternatives:

- Proposed Project: Single tunnel up to 6,000 cfs
- DWR considering alternatives
 - Capacities ranging from 3,000 to 7,500 cfs
 - Varying degrees of involvement of the CVP, including no involvement
- Final choice of potentially feasible alternatives for Draft EIR in process

Delta Conveyance Project

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Preliminary DCP Benefits Analysis

- DWR is currently developing the Delta Conveyance Proposed Project.
- At this time, DWR has not defined the project operations and has not completed regulatory processes that may impact project operations.
- Coarse estimate of water supply changes using CalSim II.
- Estimates may change as Delta Conveyance Project is further defined, permitting is completed and modeling is refined.

Delta Conveyance Project

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DCA Cost Assessment

DCA Program Scope:

Cost assessment based on DWR’s Proposed Project in NOP
Conceptual Engineering Report (CER) is not completed

Purpose:

Early cost assessment to inform PWA’s investment in project planning

DCA Cost Assessment:

\$15.9 billion in non discounted dollars

Included:

Based on preliminary engineering but includes project costs for construction, management, oversight, mitigation, planning, soft costs and contingencies

Delta Conveyance Project

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Delta Conveyance AIP

• Option to opt-out of DCF costs and benefits

• Option to assume additional DCF costs and benefits

• Effective Date will be on or after the contract extension billing transition date

• Costs and DCF water supply are allocated based on the DCF Participation Table

• Adopt “Pay-As-You-Go” Billing Provisions for both the Capital and Minimum Components

Delta Conveyance Project

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DCA Governance Changes

- Change the number of DCA Board of Directors from five (5) to seven (7)
- Convert the existing ‘non-SWP capacity’ and at large SWC seats
 - One (1) seat for Class 2 members, except Santa Clara Valley Water District
 - One (1) seat for Classes 3, 5, and 7
- Add two (2) at large seats for Class 8 members
- Continue one (1) seat each for:
 - Metropolitan Water District of Southern California (State Water Project)
 - Kern County Water Agency
 - Santa Clara Valley Water District
- Reconsideration of budget, some contract items with 70% of contracted proportionate share
- Officers selected by the Board

Delta Conveyance Project

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The VCWPD SWP Contract cost of the DWR study along with United’s assumed portion is outlined in the table below.

	Year 1	Year 2	Year 3	Year 4	Total
VCWPD SWP Contract Amount (100% plus)	\$431,184	\$469,390	\$600,382	\$600,382	\$2,101,339
United’s Share (\$100% plus)	\$107,796	\$117,348	\$150,096	\$150,096	\$525,335
United’s Share (100%)	\$94,847	\$103,165	\$131,994	\$131,994	\$462,000

The DWR can bill these costs through either monthly or semi-annual installments starting in January of 2021. The SWCs are requesting that all funding agreements be executed by the end of November.

List of Pros & Cons:

Pros:

1. Moving forward with the funding agreement allows the District to remain in a position to attain the project’s benefits.
2. The District already has a funding mechanism in place for funding of the funding agreement.
3. Funding partners (City of Ventura and Casitas MWD) appear to support continued participation.

Cons:

1. If the DCP/DCF project conceptualizing process were to restart again, spent funds could be lost.
2. The full cost of the DCP/DCF is not yet fully known.

Date

Delta Conveyance Project
ACP/WP/Subject to Common Interest Agreement

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DCP/DCF PROJECT COST OPTIONS AND ESTIMATES
(BASED ON A \$15,900,000,000 CURRENT PROJECT COST ESTIMATE)

OPTION	COST PERCENTAGE	ESTIMATED FULL VCWPD SWP CONTRACT COST*	UWCD SHARE (25%)	EXPECTED NET EFFECT IN TERMS OF WATER SUPPLY
OPT-OUT	ZERO	NONE	NONE	REDUCTION IN AVERAGE ANNUAL TABLE A ALLOCATION
OPT-IN (100%)	0.48%	\$76 MILLION	\$19 MILLION	MAINTAIN CURRENT AVERAGE ANNUAL TABLE A ALLOCATION OF 60%
OPT-IN (100% PLUS)	0.55%	\$87 MILLION	\$22 MILLION	ADDITIONAL AVERAGE ANNUAL TABLE A ALLOCATION

*Note: The State Water Contract currently shared by Casitas, the City of Ventura, and the United Water Conservation District is in the name of the Ventura County Watershed Protection District. The *Opt-In Plus* option is expected to yield an additional 2,139 Acre-Feet of Equivalent Table A allocation to the full VCWPD SWP contract of which United Water would receive 25% or 535 Acre-Feet, if United elects to the *Opt-in 100% plus* option.

Delta Conveyance Project
ACP/WP/Subject to Common Interest Agreement

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Questions?

Delta Conveyance Project
ACP/WP/Subject to Common Interest Agreement

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Notice of Preparation

Delta Conveyance Project

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Delta Conveyance Objective

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- CLIMATE RESILIENCY: Addresses climate change, extreme weather, and rising sea-levels in the Delta for the SWP
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Delta Conveyance Project

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Delta Conveyance – Notice of Preparation

Alternatives:

- Proposed Project: Single tunnel up to 6,000 cfs
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Delta Conveyance Project

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Delta Conveyance – Notice of Preparation

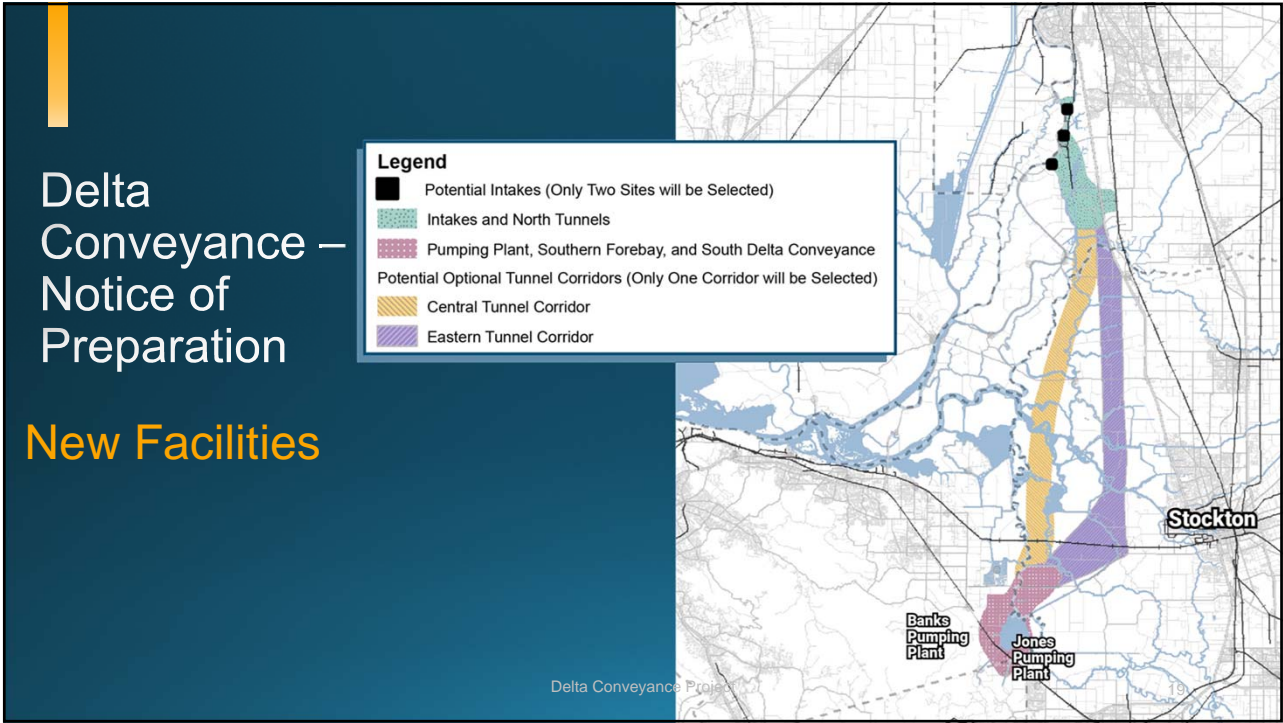
New Facilities:

- Intakes
 - Two intakes (3,000 cfs each)
- Tunnel
 - One underground tunnel
 - Two potential corridors being considered
- Forebays
 - Intermediate and Southern
- Pumping plant
- South Delta conveyance facilities
- Other ancillary facilities

Delta Conveyance Project

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Delta Conveyance Project

Status Update

- CEQA scoping process solicited comments on potential impacts and alternatives
- DWR currently screening project alternatives
 - Reasonable range of potentially feasible alternatives that avoid or substantially reduce potentially significant impacts
- Refine Proposed Project and alternatives
- Develop physical environmental footprint and operational criteria for environmental analysis
- Refine impact analysis approach and methods

Delta Conveyance Project

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DCP Preliminary Benefits

Delta Conveyance Project

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Preliminary DCP Benefits Analysis

- DWR is currently developing the Delta Conveyance Proposed Project.
- At this time, DWR has not defined the project operations and has not completed regulatory processes that may impact project operations.
- Coarse estimate of water supply changes using CalSim II.
- Estimates may change as Delta Conveyance Project is further defined, permitting is completed and modeling is refined.

Delta Conveyance Project

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Water Reliability and Resiliency Benefits

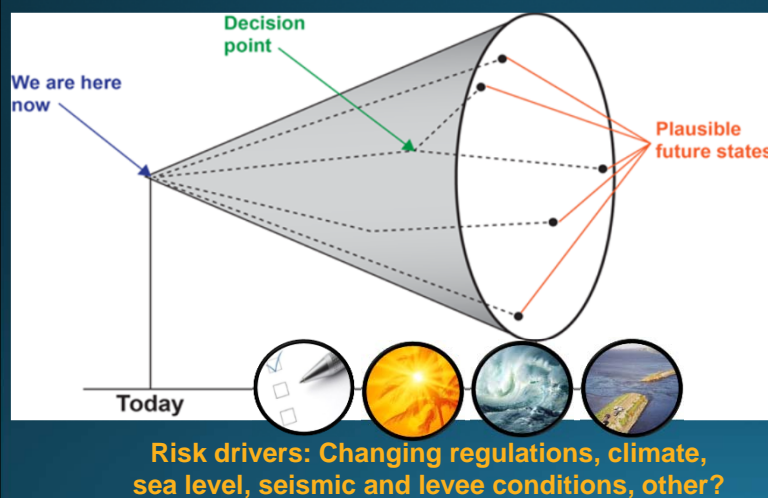
- Water supply reliability and SWP resilience
 - Climate change adaptation/stormwater capture
 - Sea-level rise adaptation
 - Seismic resilience
- South Delta flow pattern improvements for fisheries
- Water transfer capacity and carriage water savings
- Water quality improvements for SWP deliveries

Delta Conveyance Project

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Estimating SWP Exports under Future Conditions and Risks



- DCP will operate under future conditions
- Exact future conditions unknown
- Future likely a combination of climate/hydrology, sea level, regulatory, seismic, and other risk drivers
- Scenarios help explore plausible futures and assess SWP reliability and resilience


Delta Conveyance Project

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Preliminary Water Supply Assessment Scenarios

- 5 plausible combinations of regulatory, climate and sea level, and seismic/levee risk future scenarios
- Each scenario simulated with and without DCP
- DCP operations based on California WaterFix

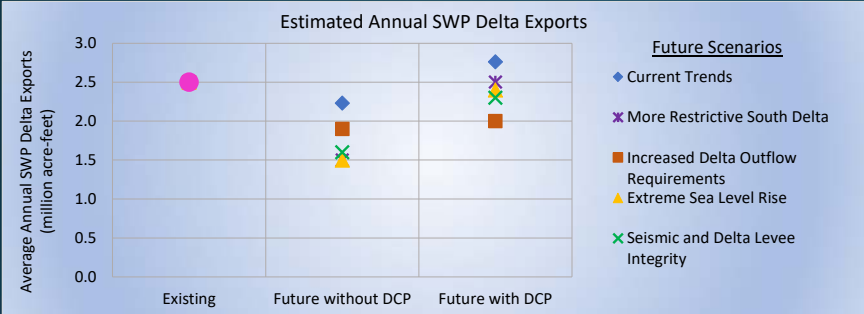


Delta Conveyance Project

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DCP Improves SWP Resilience Under Future Conditions



Estimated Annual SWP Delta Exports

Average Annual SWP Delta Exports (million acre-feet)

Existing Future without DCP Future with DCP

Future Scenarios

- ◆ Current Trends
- ✱ More Restrictive South Delta
- Increased Delta Outflow Requirements
- ▲ Extreme Sea Level Rise
- ✕ Seismic and Delta Levee Integrity

- SWP exports decrease by ~300 to 1000 TAFY under future scenarios without DCP, compared to the existing conditions
- DCP allows similar SWP exports as the existing conditions in the future – **demonstrates improved resilience**

**TAFY: thousand acre-feet per year on average*

System resilience is defined as the capacity to respond, absorb, adapt to, and recover from disruptive events

– Haines 2009, Risk Analysis

“... intended to strengthen the resilience of water systems, thereby helping communities prepare for disruptions, to withstand and recover from shocks, and to adapt and grow from these experiences.”

– California Water Resilience Portfolio 2020

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SWP Reliability Compared to Future Conditions Without DCP

- DCP shows potential to alleviate reductions to SWP reliability under many plausible future risk scenarios
 - ~100 TAFY to 1000 TAFY under greater regulatory restrictions
 - ~700 TAFY under seismic risks and delta island flooding
 - ~900 TAFY under extreme sea level rise
- Exact future likely a combination of climate/hydrology, sea level, regulatory, seismic, and other risks

Preliminary Estimate of Annual SWP Delta Exports

Scenario	Without DCP (million acre-feet)	Increment with DCP (million acre-feet)
2019 BiOp	2.7	0.3
2020 ITP	2.5	0.5
Current Trends	2.2	0.5
More Restrictive South Delta	1.5	1.0
Increased Delta Outflow Requirements	1.8	0.2
Extreme Sea Level Rise	1.5	0.8
Seismic and Delta Levee Integrity	1.5	0.5

*TAFY: thousand acre-feet per year on average

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Preliminary Estimate of Potential SWP Water Supply Change with DCP Under Current Trends

- Current Trends scenario assumes:
 - current Delta regulations
 - projected climate change and sea level rise around year 2040
 - WaterFix operations for DCP
- Estimated SWP export improvement with DCP of ~500 TAFY under the Current Trends scenario
- Most of the export improvement in wetter years
- On average, ~60% increase is Table A and ~40% increase is Article 21
- As DCP Proposed Project is further defined and modeling is refined, water supply estimates may change

Current Trends Future Scenario with DCP

Preliminary Estimate of Annual SWP Delta Exports by Water Year Type

Water Year Type	Without DCP (thousand acre-feet)	Increment with DCP (thousand acre-feet)
Average	2,200	500
Wet	3,200	600
Above Normal	2,500	800
Below Normal	2,200	500
Dry	1,500	200
Critical	1,000	100

*TAFY: thousand acre-feet per year on average

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DCP Preliminary Costs and Cost Allocation

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Timeline of Cost Information

May 2019 CWF Project Withdrawn

Delta Habitat Conservation and Conveyance (DHCCP) Cost Estimate

CA WaterFix Project Cost Estimate

DCA Cost Information

2013	2014	2015	2016	2017	2018	2019	2020
<div>DHCCP Cost Estimate (2012 dollars)<ul style="list-style-type: none">2 Tunnels\$24.78 BillionSWP share \$10.03 Billion</div>		<div>CA WaterFix Cost Estimate (2017 dollars)<ul style="list-style-type: none">2 Tunnels\$16.73 Billion</div>			<div>CA WaterFix Cost Share (2017 dollars)<ul style="list-style-type: none">67% SWP33% Unsubscribed (MWD funding)SWP Share \$11.086 Billion</div>		<div>DCA Cost Estimate August 2020 1 Tunnel</div>

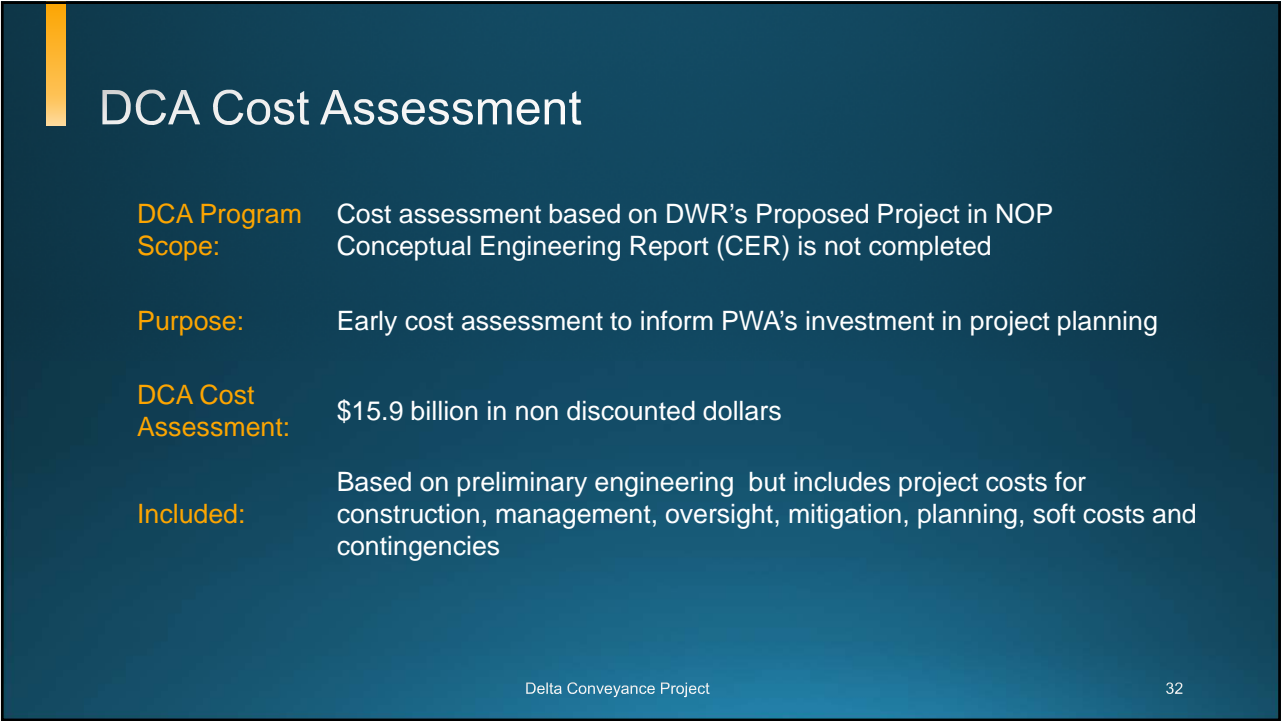
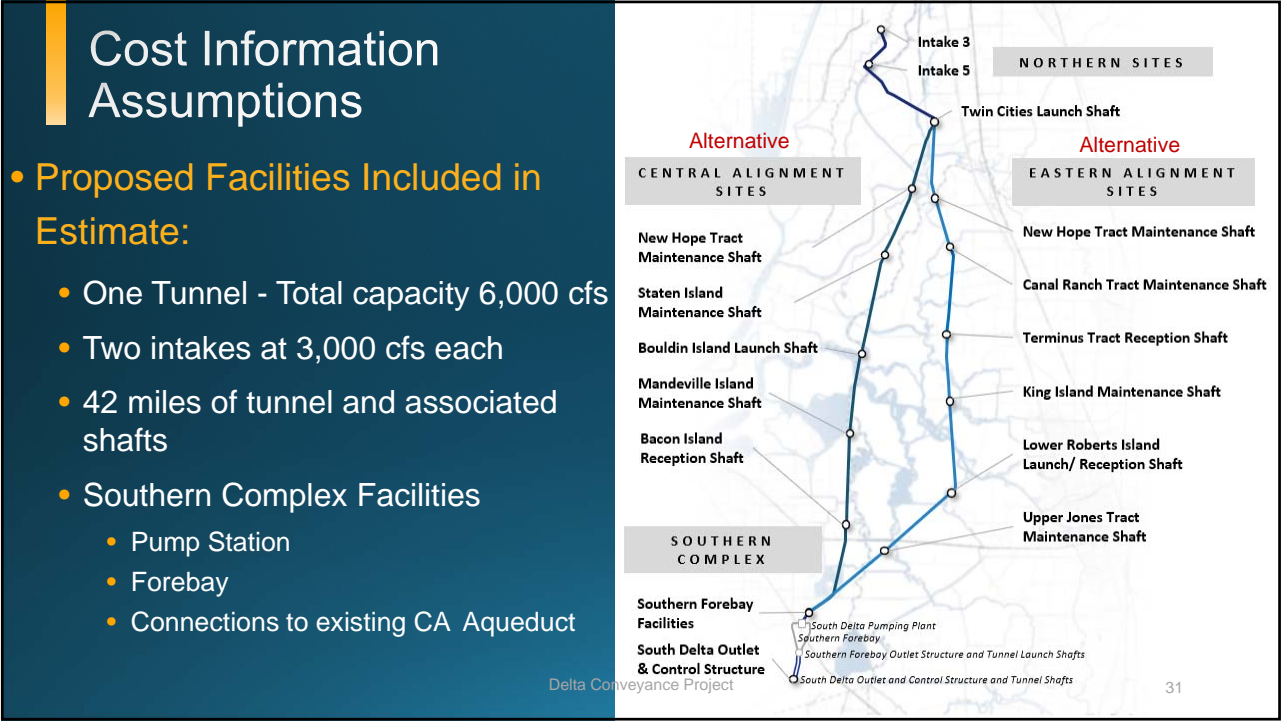
Project had completed Planning Phase, Conceptual Engineering Report (CER), Final Environmental Impact Report (EIR), and Permits

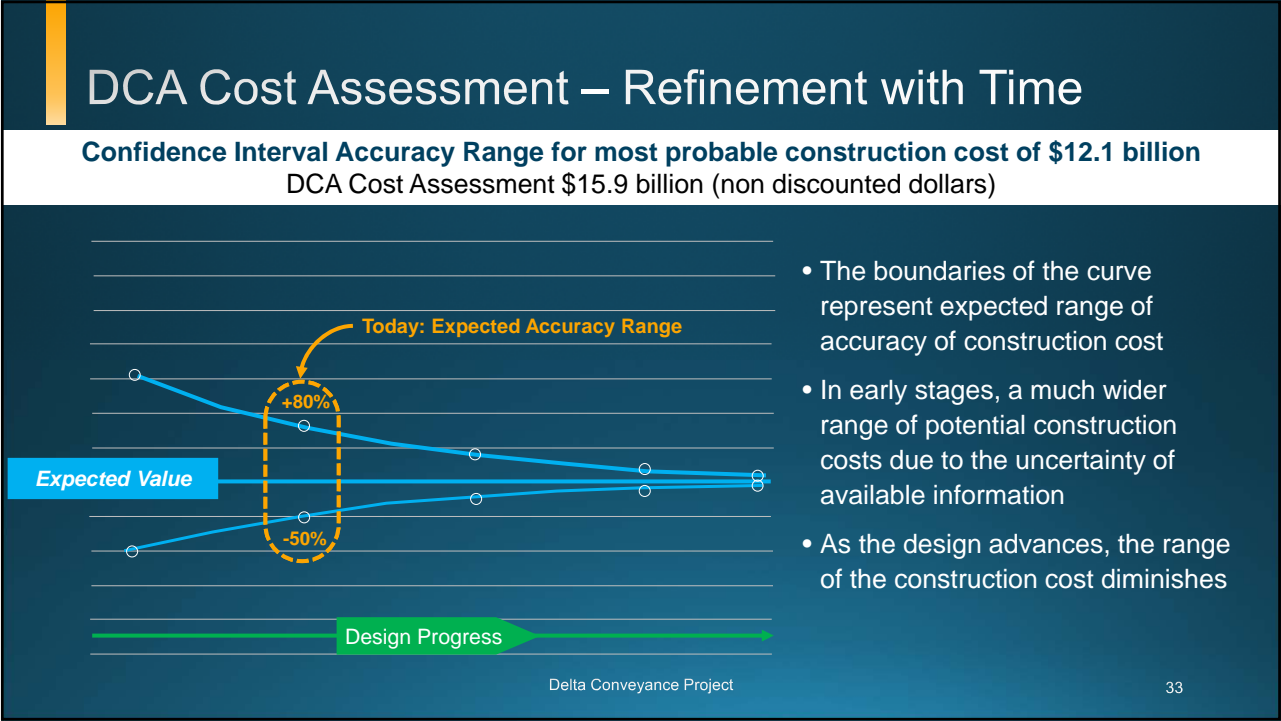
Planning Phase

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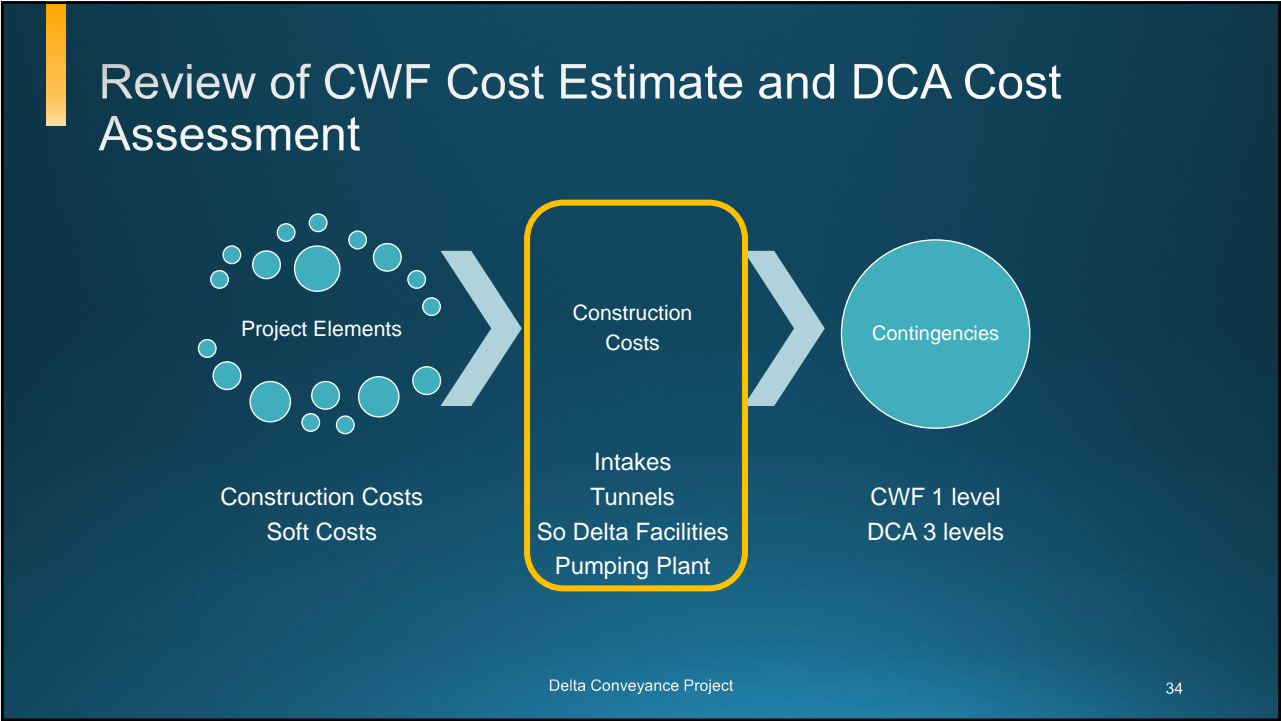
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Construction Costs

Significant Features	(\$ millions in 2020)	
	CWF ¹	DCA
Intakes 3 and 5	814	1,397
Tunnels (North and Main)	4,226	4,302
Clifton Court Forebay & South Delta Connectors and South Tunnels	679	1,357
Pump Plant (CWF to 6,000 cfs)	401	794
Utilities, Power, Roads, and Communication and Controls	454	508
Total	6,574	8,358

1. CWF costs are normalized to represent a single tunnel of smaller diameter and a 6,000 cfs pump plant.



Intakes



Pump Station

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Review of CWF Cost Estimate and DCA Cost Assessment

Project Elements

Construction Costs
Soft Costs

Construction Costs

Intakes
Tunnels
So Delta Facilities
Pumping Plant

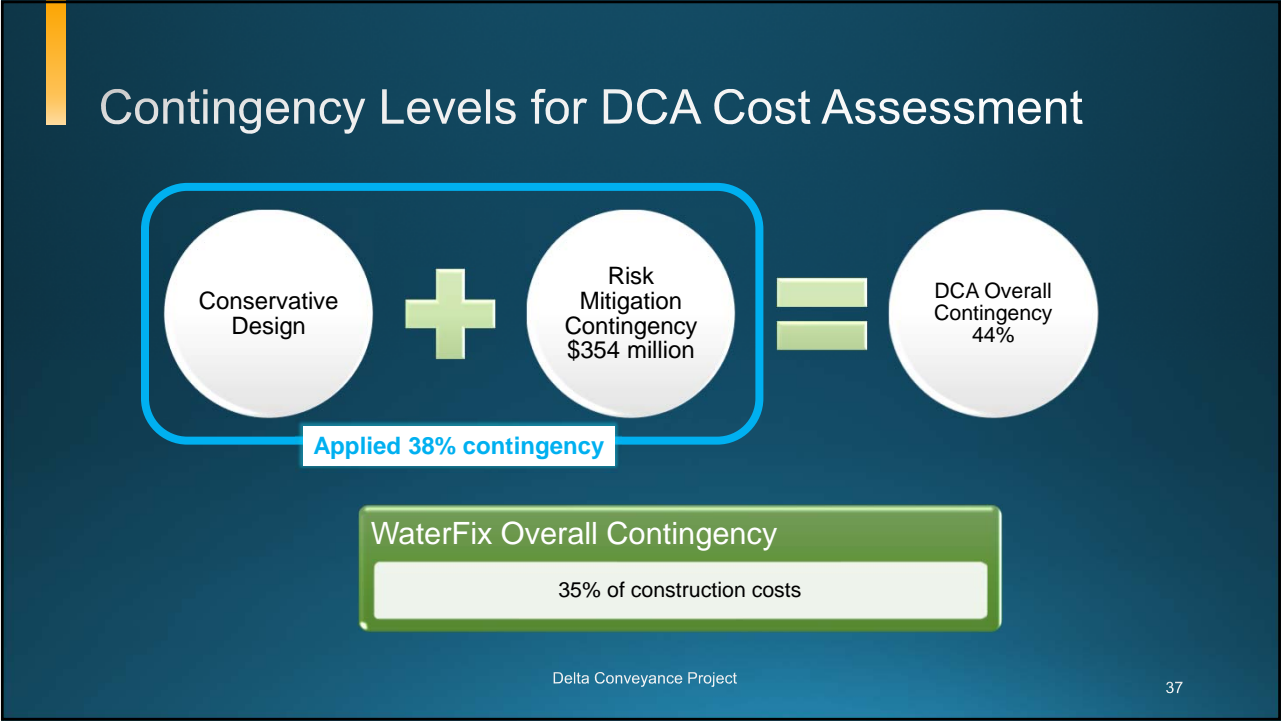
Contingency

CWF 1 level
DCA 3 levels

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Contingency and Soft Cost Variance

Category	DCA Estimate (\$ Billions)	% of Baseline Construction Cost	Industry Range ⁴ (% of Baseline Construction Cost)	Applied Industry Range (\$ Billions)	Variance from Industry Range (\$ Billions)
Baseline Construction	8.37 ¹	100	100	8.37	-
Contingency	3.71 ²	44	10 to 30	0.84 to 2.51	1.20 to 2.87
Program Management	0.42	5	6	0.50	(.08)
Design & CM	2.42	29	10 to 15	0.83 to 1.26	1.16 to 1.59
Subtotal for Variance³	14.92	178	126 to 151	10.55 to 12.64	2.28 to 4.37
DCO oversight, mitigation, land acquisition	.98	n/a	n/a	n/a	n/a
Total Project	15.9	n/a	n/a	n/a	n/a

1. This removes \$354 M from the DCA construction costs since those were line item risk mitigation contingencies.

2. This adds \$354 M to the DCA stated contingency of 3.3 to include risk mitigation contingencies.

3. Does not include DCO oversight, mitigation, land acquisition, capital costs, and O&M costs.

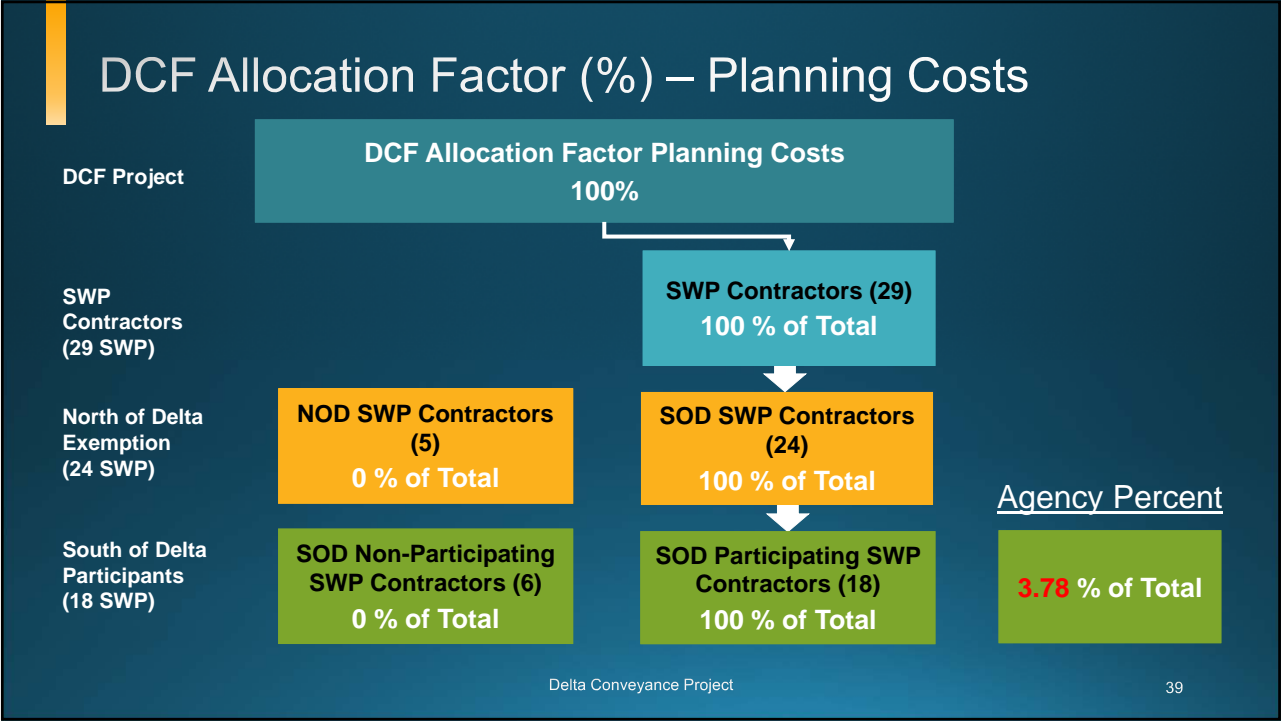
4. Based on level of detail provided in DCA documents and estimate

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Agreements for Board Consideration

1. Agreement in Principle (AIP) for the SWP Delta Conveyance Contract Amendment
 - Agency's DCF Participation Factor = UWCD 0.12%
2. Delta Conveyance Design and Construction Authority (DCA) JPA Agreement
3. Funding Agreement for DCF Planning Costs

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	2019							2020						
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Prior Negotiations ("Opt-In" Approach)	Active													
DWR's Sixth Offer ("Opt-Out" Approach)							Active							
Contractors Respond									Active					
Reached Agreement (AIP)											Active			

Agreement in Principle (AIP) for SWP Delta Conveyance Contract Amendment

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Delta Conveyance AIP

- Option to opt-out of DCF costs and benefits
- Option to assume additional DCF costs and benefits
- Effective Date will be on or after the contract extension billing transition date
- Costs and DCF water supply are allocated based on the DCF Participation Table
- Adopt “Pay-As-You-Go” Billing Provisions for both the Capital and Minimum Components

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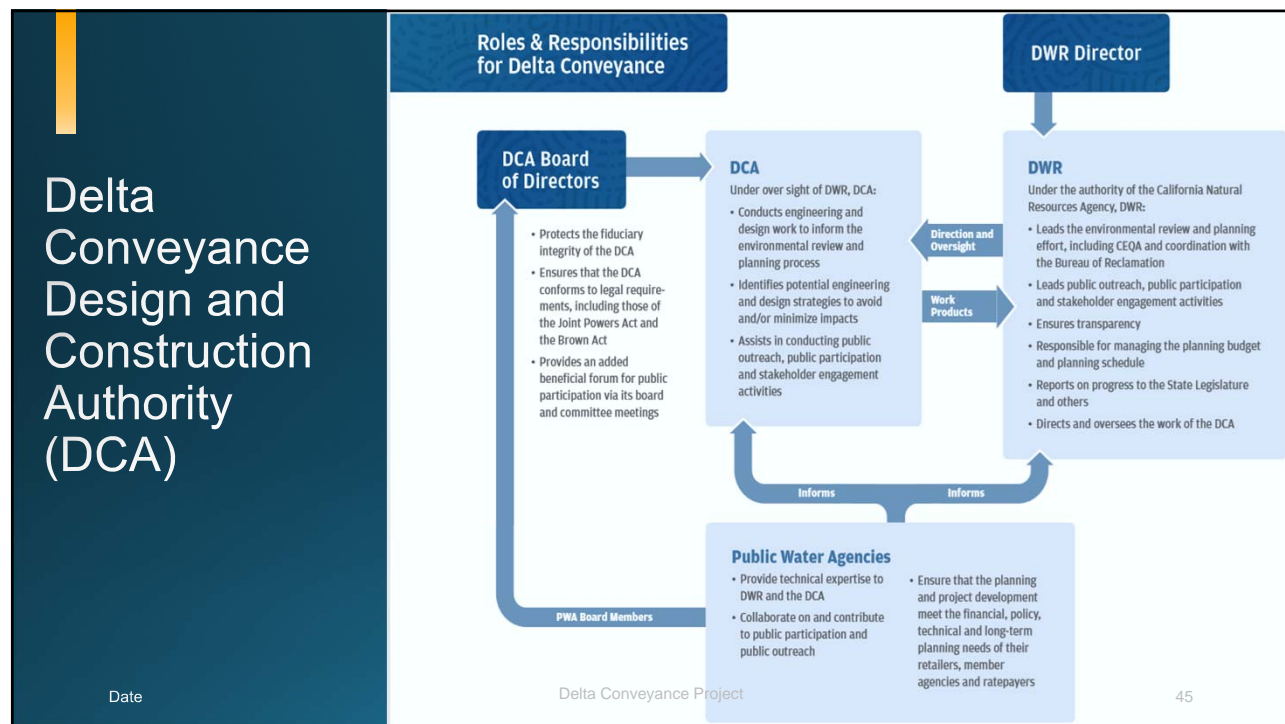
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DCA Governance and Scope Changes

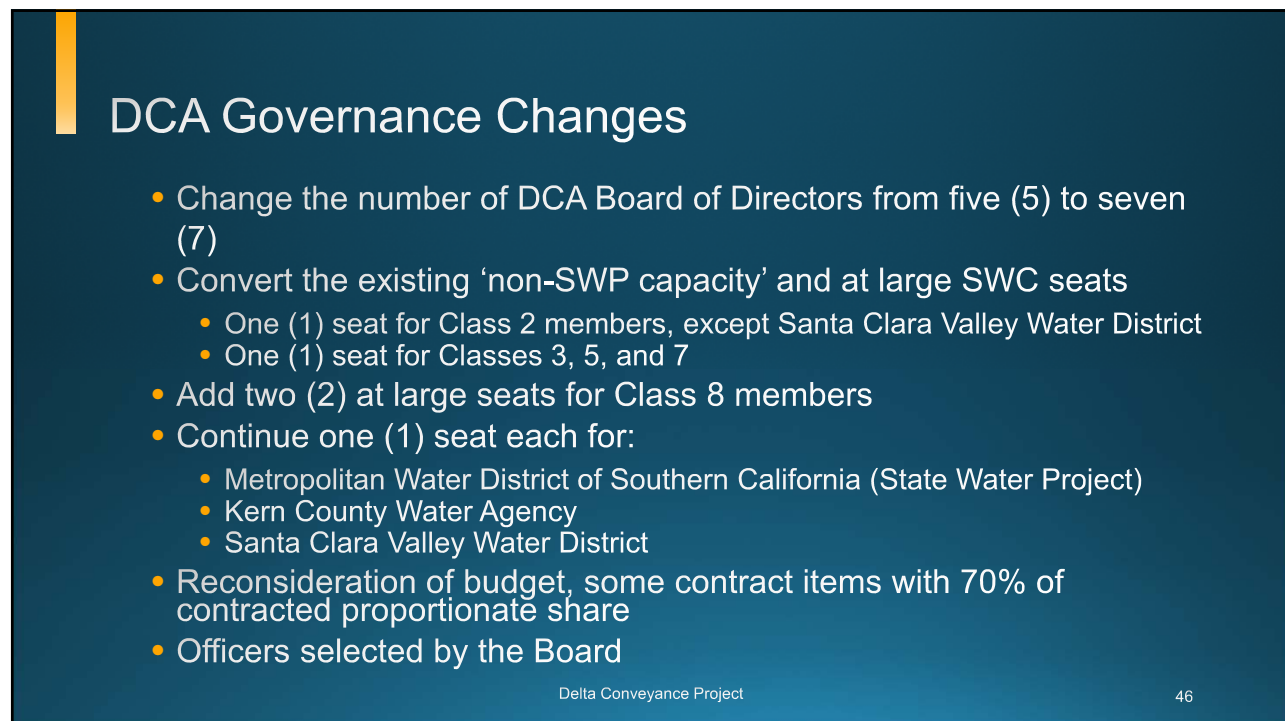
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DCA Focus in Near-Term

- DCA has completed critical work to inform the footprint and analysis needed for the EIR/EIS
- The revised planning schedule is 4 years instead of 2 as originally anticipated
- The Stakeholder Engagement Committee (SEC) is critical and will continue
- The DCA Board will continue to meet periodically

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DCA Near-Term Change in Scope

- The Public Water Agencies providing planning funding need to be prudent with public dollars
- The DCA Scope will be revised to focus on environmental support and the SEC in the near-term
- Once the project is ready for the design and construction phase, the DCA will be fully re-engaged
- Changes do not impact the overall planning schedule

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DCA Budget Reductions for Current Fiscal Year

Savings	Description
\$310,000	Reduce legal, human resource, and treasury services
\$2,030,000	Shift non-critical studies to next fiscal year
\$2,820,000	Shift portion of field work to next fiscal year
\$150,000	Reduce meeting frequency and graphics support
\$920,000	Reduce controls staff and IT system support to reflect reduced workload
\$250,000	Reduce office administration costs to reflect continued at-home work
\$520,000	Reduce available contingency for unanticipated services
\$7,000,000	Reduces Expected Expenditure from \$34Mil to \$27Mil

11/3/2020

Internal Draft - Not for Distribution

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Total Planning Costs 2020-2024 (DCA and DWR)

Year	Total Planning \$M (DCA and DWR)	Total Savings Compared to Previous Estimates (\$M)
2021	\$61.5	\$17.5
2022	\$60	\$26
2023	\$100	\$10
2024	\$110	-
TOTAL	\$331.5	\$53.5

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True-Up Previous DCP Planning Funds

- 4 SWC Agencies provided \$9.2M in advance of the AIP to support DCP planning in 2020
- \$9.2M will be credited to those agencies over the 4-year planning period
- Total needed from DCP participants is:

$$\$331.5 + \$9.2M = \$340.7$$

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Planning Funding Agreements

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Key Provisions

- Funding Agreements for \$340.7 million for planning costs and true-up from 2021-2024
- Authorizes contributed funds to be spent on DCA invoices consistent with the JEPA and DCO environmental planning costs
- Allows for customization of contributed funds
- Provides flexibility to provide additional funds without amendment to the Agreement

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Options:

- Statement of Charges Pay Go or Lump Sum Payments
- Authorization for entire share of \$340.7 million (full 4 years) in planning costs or only first two years (\$126.1 million)
- Will allow for additional funds to be contributed upon showing of Board authorization

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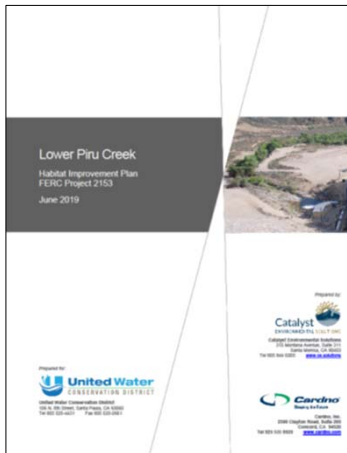
Board Action

- Review Agreement in Principle for SWP Contract Amendment
 - Allocation of Delta Conveyance Project benefits and costs
- Consider funding for environmental planning
- Revise Delta Conveyance Design and Construction Authority governance structure to reflect updated participation

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4.2 Environmental Services FERC Order – Habitat Improvement Plan Update



1

A. The April 27, 2020 Order Erred in Allowing Implementation of the Habitat Improvement Plan Prior to Receiving NMFS's Formal Agreement

"Although NMFS disagrees with **United's and our**
interpretation of the RPA..."

"In order to assist United and NMFS in resolving the
matters at issue, the remainder of this order
discusses other issues raised by NMFS in its request
for rehearing."

2

B. The April 27, 2020 Order Did Not Err in Determining That Habitat Improvement Measures Should Address the Effects Identified in the Findings Report

“We agree with the [Order’s] determination that the mitigation NMFS requests is **outside the parameters of the RPA** and that each measure should compensate for the geomorphic effects...”

“These geomorphic effects were identified through the Commission and NMFS-approved Study Plan.”

“NMFS’s reference...**is taken out of context...**”

“None of the cited language contains a reference to actual study results contained in the Findings Report.”

3

B. Continued...

“Commission staff’s review of the Findings Report did not indicate that the broad array of habitat improvements that NMFS requested **were warranted by the data** contained in the Findings Report.”

“The [Order] **did not find a clear nexus** between RPA 1(c) and the need for channel modifications or supplemental features...”

“Contrary to NMFS’s assertion, ... those **measures were not warranted** by the results of the Findings Report...”

“Thus, NMFS’s ... approving authority should not be interpreted as an opportunity to expand existing requirements beyond those of the RPA.”

“...the [Order] considered NMFS’s proposed measures and determined that **they were outside the scope of the RPA** and Findings Report.”

4

C. The April 27, 2020 Order did not Err in Finding That United Would be unable to Provide Scouring Flows

“United has explained that it is unable to provide the full range of flows requested by NMFS due to the physical limitation of the flow outlet works.”

5

D. The April 27, 2020 Order did not Err in Finding that Installation of Forcing Features is not Supported by the Findings Report

“... NMFS makes no reference to any relevant portions of the Findings Report that recommended improvements to pool frequency, pool quality, or forcing features.”

6

Conclusion

FERC's Order Setting Aside Prior Order

- Validates United's position regarding NMFS's inappropriate consultation practices
- Establishes boundaries for future consultation