

# **Overview and Summary of the Delta Conveyance Project**



**Kern County Water Agency  
October 2020**

## Introduction

This fall public water agencies (PWAs) south of the Sacramento-San Joaquin Delta (Delta) that contract with the California Department of Water Resources (DWR) for water supplies from the State Water Project (SWP) are being asked to decide whether to participate in the single tunnel Delta Conveyance Project (DCP). To determine the Kern County Water Agency's (Agency) participation in the DCP, Member Units must decide at what level they wish to participate.

Unlike the similar and recent California WaterFix (WaterFix) project, the DCP does not have the required planning and environmental work completed and it is not at the same level of project planning as the WaterFix. Therefore, at this time PWAs are being asked to commit to fund a share of the planning and environmental review costs.

If the DCP moves to construction, PWAs and the Member Units will be asked to make a second decision whether to participate in the project and obligate their district to a share of the construction costs.

The information herein describes the proposed project, yield, estimated costs, and schedule for completion of the planning and environmental review processes. Specifically, this Overview and Summary of the Delta Conveyance Project includes the following sections:

- Background on the Proposed Delta Conveyance Project
- Planning and Environmental Review Schedule
- Estimated Cost of the Planning and Environmental Process
- Preliminary Benefits of the Proposed Project
- Preliminary Estimated Construction Costs of the Project
- Status of Geotechnical Information
- Necessary Agreements
  - Draft Agreement in Principle
  - Funding Agreements
  - Amendment to the Delta Construction Authority Joint Powers Agreement
- Description of Commitment

## OVERVIEW

On July 21, 2017, DWR approved the WaterFix, which would construct two 35-mile long tunnels and associated facilities to move water from the Sacramento River under the Delta to SWP and Central Valley Project (CVP) pumping facilities. The Agency Board of Directors (Board) approved participation in the WaterFix but did not become a member of the Delta Conveyance Design and Construction Authority (DCA). The Agency Board also did not authorize participation in agreements to fund a share of the preconstruction planning activities associated with the WaterFix. However, a small subset of SWP contractors joined the DCA in 2018. At that time, the WaterFix had approvals under the Endangered Species Act, California Environmental Quality Act (CEQA), and California Endangered Species Act and was preparing to begin preliminary engineering design work.

In January 2019, Governor Newsom announced during his State of the State address that he did not support the WaterFix as configured but did support a one tunnel conveyance project. In May 2019, DWR rescinded its

approvals of the WaterFix and began planning for a single tunnel option. Shortly thereafter, DWR began public negotiations with the SWP PWAs to agree on a framework, referred to as an Agreement in Principle (AIP), for the amendment of SWP water supply contracts to allocate costs and benefits in the event that a single tunnel facility was ultimately approved. The AIP will be the basis for a contract amendment only if the DCP is ultimately approved and after all necessary environmental review is completed.

In January 2020, DWR released a Notice of Preparation (NOP) for an Environmental Impact Report (EIR) pursuant to CEQA for a single tunnel project with 6,000 cubic feet per second (cfs) of capacity referred to as the DCP. DWR is currently conducting the planning and environmental review for the DCP with the assistance of the DCA.

After 15 public negotiation sessions, DWR and PWAs developed a draft AIP that contains provisions for the allocation of costs and benefits for the DCP if it successfully completes the required planning and environmental processes. The draft AIP allows PWAs an option to: 1) execute a contract amendment to participate in the DCP at an amount equal to or greater than each PWA's Table A percentage, or 2) opt out of the DCP costs and benefits entirely. Because the Agency holds contracts for both municipal and industrial and agricultural water supplies, the Agency may opt in for one supply and out for the other.

The draft AIP includes an allocation factor table with the name of each PWA and a blank space to fill in the participation percentage they choose as their level of participation in the costs and benefits of the DCP planning and environmental review process based on the options described above. The current proposed project would serve only the SWP. The CVP has not indicated an interest in participating in the DCP at this time.

To complete the AIP and proceed with the planning and the environmental review processes DWR is asking SWP contractors to fill in the allocation factor table in the AIP with the percentage of each SWP contractor's desired participation level in the DCP.

Included in the discussion below is a description of the proposed project, schedule for completion of the planning and environmental review processes, current estimated costs, the DCP's modeled yield, and a description of the AIP. After completion of the environmental processes in mid-2024 the AIP will be converted into contract amendment language and SWP PWAs will consider a formal amendment to their water supply contracts consistent with the AIP.

In addition to making a decision on participation level for the planning and environmental review phase, DWR is requiring that SWP PWAs who choose to participate in the DCP enter into a new funding agreement with DWR for their percentage of the planning and environmental review processes. These funds would support the work of DWR and the DCA. The participating SWP PWAs would be reimbursed or receive a credit for the advanced funds upon the sale of revenue bonds to pay for construction of the DCP. If the DCP does not proceed to construction the advanced funds cannot be recovered.

The SWP PWAs have been discussing amendments to the joint powers agreement that created the DCA to better fit the governance needs of the current project. The proposed amendments would change the governance structure to reflect the CVP's decision to not participate in the DCP but leaves open the possibility of the CVP joining the DCP at a later date.

## Discussion

### BACKGROUND ON THE PROPOSED DELTA CONVEYANCE PROJECT

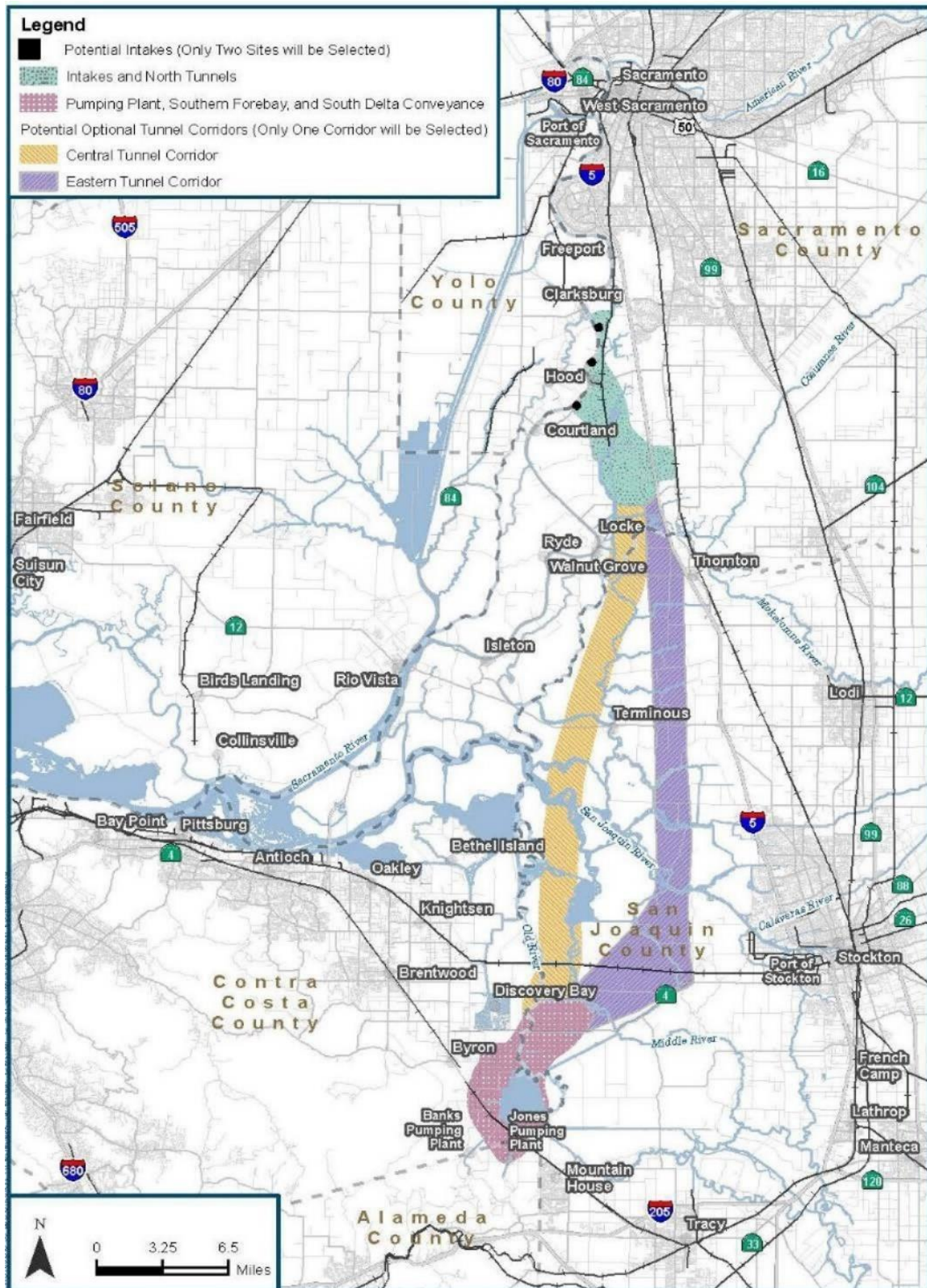
As described in DWR's NOP, the proposed DCP would construct and operate new conveyance facilities in the Delta that would add to, and be operated as part of, the existing SWP. The new facilities would provide an alternate diversion point for the SWP on the Sacramento River and would be operated in coordination with the existing south Delta pumping facilities. Figure 1 shows these facilities with the two possible tunnel alignments currently under consideration.

The new intakes and tunnel are proposed at 6,000 cfs and would include: two 3,000 cfs intakes, one tunnel, intermediate and southern forebays, a new pumping plant and other ancillary facilities. DWR is considering alternatives as part of the environmental review process, with capacities ranging from 3,000 cfs to 7,500 cfs, and with and without participation by the CVP.

DWR's objective in proposing the DCP is to protect the SWP's ability to deliver water south of the Delta.

To achieve this purpose the NOP lists several project objectives:

- Address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events.
- Minimize the potential for public health and safety impacts from reduced quantity and quality of SWP water deliveries, and potentially CVP water deliveries, south of the Delta resulting from a major earthquake that would breach Delta levees and allow brackish water into the areas in which the existing SWP and CVP pumping plants operate in the southern Delta.
- Protect the ability of the SWP, and potentially the CVP, to deliver water when hydrologic conditions result in the availability of sufficient amounts, consistent with the requirements of State and federal law, including the California and federal Endangered Species Acts and Delta Reform Act, as well as the terms and conditions of water delivery contracts and other existing applicable agreements.
- Provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations.



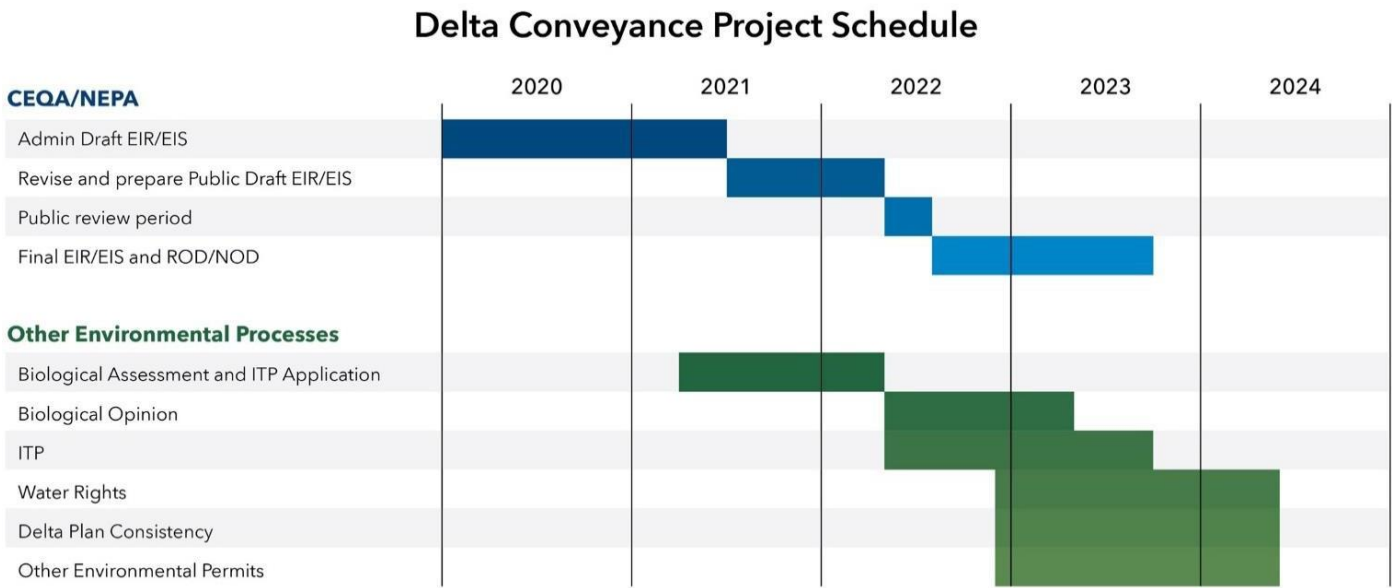
**FIGURE 1: Project Facilities with Alternative Alignments**



**SCHEDULE FOR PLANNING AND ENVIRONMENTAL REVIEW**

DWR’s preliminary schedule will produce a final CEQA Environmental Impact Report (EIR) in mid-2023 and complete other environmental review, permitting and regulatory processes in mid-2024 (Figure 2). If the DCP receives all necessary approvals and permits, it is anticipated that bids for early works could begin in late 2024 and construction could begin immediately following the conclusion of the validation action and issuance of bonds.

At present, DWR is engaged in a CEQA scoping process and has solicited comments on potential impacts and alternatives. DWR is screening and refining project alternatives to establish a reasonable range of alternatives that avoid or substantially reduce potentially significant impacts.



**FIGURE 2:** Delta Conveyance Project Schedule

**ESTIMATED COST OF THE PLANNING AND ENVIRONMENTAL PROCESS**

The costs for the planning and environmental process described in this section are based on the Delta Conveyance Project Schedule in Figure 2. These costs are the best estimates of the total cost of the planning and environmental review work and they are subject to change. Table 1 lists the costs expected to be paid by the PWAs between January 1, 2021 and the end of 2024. These costs include planning and environmental work through the record of decision at the end of 2023 and related preliminary design work through the end of 2024.

<b>PWAs</b> (includes only participating PWAs)	<b>2021</b>		<b>2022</b>		<b>2023</b>		<b>2024</b>	
	<b>Q1/Q2</b>	<b>Q3/Q4</b>	<b>Q1/Q2</b>	<b>Q3/Q4</b>	<b>Q1/Q2</b>	<b>Q3/Q4</b>	<b>Q1/Q2</b>	<b>Q3/Q4</b>
<b>Contractor (6 Month Total)</b>	\$36	\$43	\$43	\$43	\$55	\$55	\$55	\$55
<b>Contractor (12 Month Total)</b>	\$79		\$86		\$110		\$110	
<b>Contractor Totals</b>								\$385

**TABLE 1:** Current and Projected Planning Costs in Millions

### PRELIMINARY BENEFITS OF THE PROPOSED PROJECT

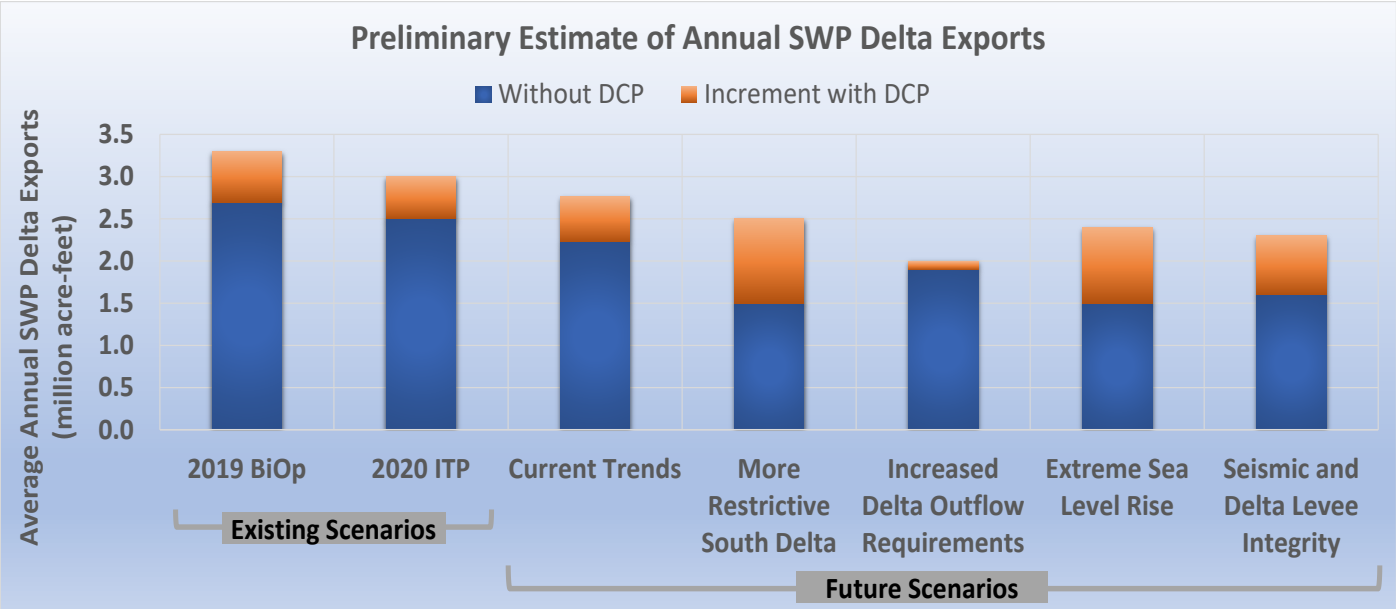
DWR has not yet defined the project operations for the DCP and has not completed the regulatory processes that may impact those operations. As described in the NOP, the primary objective of the DCP is to restore and protect the ability to deliver SWP water supplies to the south-of-Delta PWAs. The DCP also is expected to improve the reliability of the SWP under multiple future risks that may occur with low frequency but can have high impact (e.g. seismic risks in the Delta) or risks with sustained impacts (e.g. climate change and sea level rise or Delta regulations). It is not possible to know the exact future conditions under which the DCP would operate but the conditions are likely a combination of many known and unknown risks.

The SWP PWAs conducted a preliminary modeling analysis of the SWP water supply changes under a range of existing and future scenarios to help assess the DCP's ability to maintain or improve reliability and resiliency of the SWP. The selected range of future scenarios are intended to represent potential SWP operating conditions under future regulations, climate change and sea level rise, and seismic risks.

Each of the selected future scenarios were modeled with and without the DCP. For modeling purposes, the DCP was assumed to have 6,000 cfs diversion capacity and north Delta operations criteria consistent with those approved for the WaterFix<sup>1</sup>. The proposed project that DWR will ultimately select, including its operational criteria, may be different than the project modeled for this analysis. The CalSim II model was used to develop coarse estimates of potential water supply changes with the DCP. As the proposed project is further defined and permitted, and modeling is improved, the estimated water supply benefits available from the DCP may change.

<sup>1</sup>These modeled operations included operations required by the federal biological opinions and CESA incidental take permit developed for the north delta diversion proposed as part of the California WaterFix.

Figure 3 shows preliminary modeled average annual SWP exports under existing and future scenarios and the corresponding increment resulting from the DCP. The Current Trends<sup>3</sup> future scenario, which provides a reasonable representation of the conditions expected at the start of the DCP operations, indicates approximately 500 TAF increase in annual SWP exports per year on average with the DCP, with the greatest increase in the wetter years. On average, about 60% of the increased SWP deliveries are Table A supplies and 40% are Article 21 supplies.



**FIGURE 3:** Estimated Annual SWP Delta Exports

The preliminary modeling results shown in Figure 3 indicate that the DCP would potentially increase SWP export reliability or mitigate losses under many of the plausible future risk scenarios. The modeling of the future scenarios indicates that on average, the DCP is estimated to result in about 100 TAF to 1 MAF per year of increased SWP exports under greater Delta regulations scenarios in the future, about 700 TAF per year under seismic risks and long-term south Delta export disruption due to long-term Delta island flooding, and about 900 TAF per year under extreme sea level rise in the future.

Preliminary water supply estimates also indicate that the DCP would maintain existing water supply reliability under a broad range of future conditions that may occur during the life of the DCP<sup>4</sup>. Without the DCP, SWP exports are estimated to be reduced by about 300 TAF to 1 MAF per year on average under various future scenarios modeled due to regulatory changes, sea level rise in the Delta, and seismic risk. When the DCP was included, estimated annual SWP exports in the future scenarios were similar to the existing export values under most scenarios as shown in Table 2, demonstrating the improved resilience of the SWP with the DCP.

In addition to the water supply benefits estimated above, the DCP is expected to provide additional benefits including improved flow patterns in the south Delta for fisheries, operational flexibility to capture peak storm

<sup>3</sup> The Current Trends scenario assumes operating to the current regulatory requirements including 2019 federal biological opinions for the CVP and SWP, and 2020 incidental take permit for the SWP, the existing Delta levee configuration, and a projected climate change and sea level rise estimated for 2040.

<sup>4</sup> Extreme Sea Level Rise scenario assumes projected sea level rise value of 140 cm at about 2065. The future scenarios selected for this analysis are not intended to fully encompass all the future conditions during the life of the DCP.



flows, water quality improvements for SWP deliveries, conveyance capacity for water transfers and potential carriage water savings. As the DCP is further defined and the modeling is better developed, these water supply estimates will change.

<b>Estimated Annual SWP Exports (MAF/Yr)</b>			
	<b>Without DCP</b>	<b>With DCP</b>	<b>Difference</b>
<b>Existing SWP (ITP)</b>	2.5	3.0	0.5
<b>Current Trends</b>	2.23	2.76	0.53
<b>More Restrictive South Delta</b>	1.5	2.5	1.0
<b>Increased Delta Outflow Requirements</b>	1.9	2.0	0.1
<b>Extreme Sea Level Rise</b>	1.5	2.4	0.9
<b>Seismic and Delta Levee Integrity</b>	1.6	2.3	0.7
<b>Minimum</b>	1.5	2.0	
<b>Maximum</b>	2.23	2.76	
<b>Average</b>	2.0	2.6	

**TABLE 2:** Preliminary Modeled Average Annual SWP Exports Under the Future Scenarios With and Without the DCP Compared to the Existing Scenario

## **PRELIMINARY ESTIMATED CONSTRUCTION COSTS OF THE PROJECT**

The DCA, following industry standards, developed preliminary cost information based on the level of engineering currently available for the DCP. It is important to emphasize that the DCA is still very early in the planning process and the preliminary cost estimate is only a snapshot based on the current status of the proposed project. This snapshot of costs is not representative of the final conceptual design, the final mitigation costs, or other cost items such as the community benefits fund, DWR planning costs, or financing costs. The snapshot includes an estimate for construction costs with contingency, soft costs, and preliminary environmental mitigation costs in undiscounted 2020 dollars.

The proposed project features included in the cost information are as follows:

- Two intakes at 3,000 cfs each, for a total capacity of 6,000 cfs
- 42 miles of tunnels and associated shafts
- Southern Complex Facilities:
  - Pump Station
  - Forebay
  - Connections to existing California Aqueduct

The DCA cost information includes a 38% composite contingency for unforeseeable elements of cost within the construction cost estimate. The DCA has provided its best estimate for unknown items where professional experience indicates that there will likely be additional costs incurred. The DCA identified contingency levels for each feature of the DCP listed above to reflect the uncertainty at the time the cost information was developed. The DCA's contingency reflects its assessment of the DCP's design status, identified risks, and professional

judgment of unforeseeable elements of cost. As the engineering work advances and the unknown elements of the proposed project are revealed or resolved, contingency levels will decrease, and the identified project elements will be included in the construction estimates.

It is the DCA's opinion, based on the information available to the DCA today and the estimated contingency levels, that there is a 50% probability that the DCP will cost \$15.9 billion to construct in 2020 dollars.

AECOM reviewed the DCA estimate and found that based on industry standards the cost range may be reduced between \$2.1 to 4.2 billion. AECOM's assessment did not perform a bottom up estimate of the project but reviewed the cost estimate in light of industry standards, in particular contingencies. The AECOM work found that the DCA estimate assumed a conservative design, included design element risk mitigation, and additionally added a 38 percent contingency. This resulted in roughly a 44 percent contingency for the DCA estimate. The AECOM work serves as a useful guidepost for identifying a possible range of costs but should not be considered as a cost estimate for the DCP.

As the planning and environmental review proceeds, more information will become available to inform potential construction and associated costs allowing the cost information to be updated and refined.

## **STATUS OF GEOTECHNICAL INFORMATION**

Better geotechnical information is often cited as the most important information necessary to improve the design of the DCP and to better estimate its costs. Without adequate geotechnical information, engineers choose conservative methods and cost estimate approaches for construction of facilities such as the intakes on the Sacramento River, and for choosing a tunnel alignment.

Geotechnical information at the intake sites is essential to determine the appropriate ground preparation and accurately assess the cost of the intake structures. Geotechnical information also is critical to the choice of alignments, and to estimate the daily speed of advance, expected materials the tunnel boring machine cutting head will encounter, the expected frequency of repair of the cutting heads and the general conditions in which the tunnel boring machines will be expected to work.

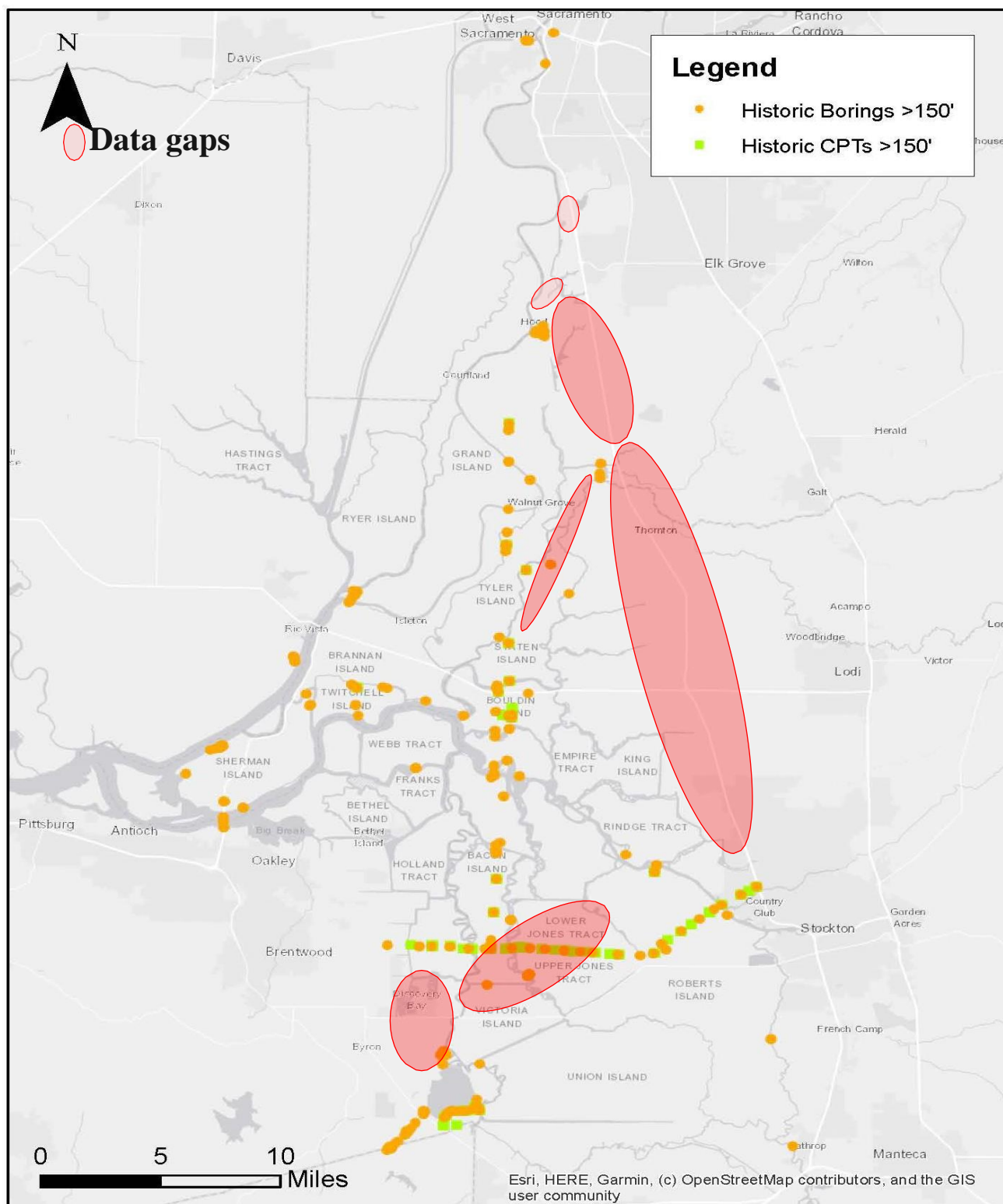
DWR and the DCA have begun their 2020/2021 geotechnical plan under an Initial Study (IS) and Mitigated Negative Declaration (MND). The 2020/21 geotechnical plan focuses on supplementing DWR's existing geotechnical databases, supplementing the data along the two proposed DCP alignments and validating the DCA's geophysical methods.

The 2021 geotechnical plan seeks to fill data gaps described in Figure 5 which describes areas where geotechnical data already exists from a variety of sources and areas where new geotechnical data is needed. The DCA has used existing geotechnical information from Caltrans, USGS, and other agencies for its preliminary work, but that data is insufficient for more advanced design and engineering work.

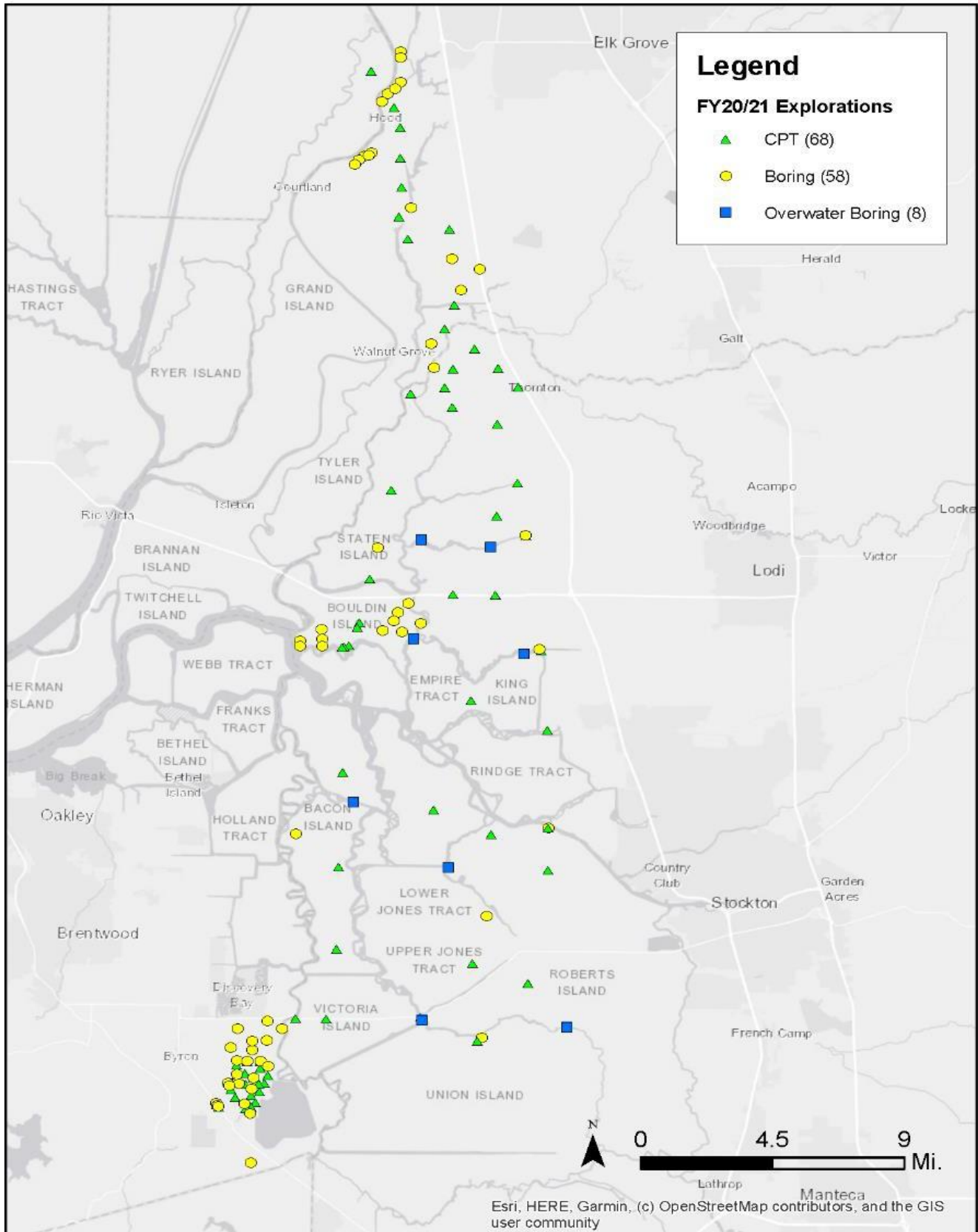
The DCA is working to fill data gaps on both potential alignments and the landside intake locations. The DCA expects to optimize the design of sheet piles at the intakes, validate tunnel reach lengths and tunnel boring advance rates, and gain a better understanding the tunnel material that will be extracted during construction and validate its potential use as construction material for other locations throughout the project.

The 2020/21 geotechnical plan is based on the 2019 IS/MND and is shown in Figure 6. The 2020/21 geotechnical plan includes 8 over-water borings at 200 feet of depth and 58 land borings up to 200 feet in depth and plans to use multiple surface methods for soil investigation and buried object detection. The geotechnical program also

will test the use of satellite data on three Delta islands to determine if it can improve geotechnical information gathering through increased speed or better accuracy.

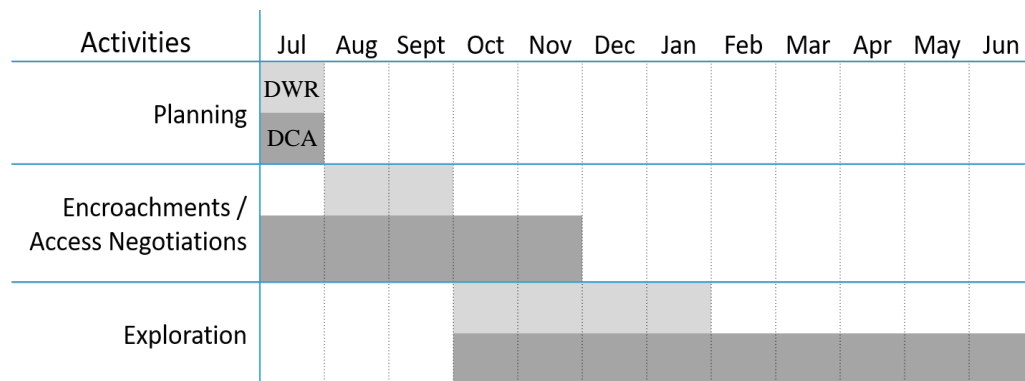


**FIGURE 5: Gaps in Geotechnical Information**



**FIGURE 6: 2020-21 Geotechnical Exploration Program**

The schedule for the 2020-21 geotechnical plan is presented in Figure 7 and includes work that will be performed by DWR and DCA.



**FIGURE 7: 2020-21 Geotechnical Investigation Schedule**

## Necessary Agreements

### DRAFT AGREEMENT IN PRINCIPLE

In 2019, DWR and the SWP PWAs entered the public process of negotiating a proposed amendment to the SWP water supply contracts for the DCP. When concluded, the public negotiation process is expected to result in a final AIP among DWR and the PWAs that describes a conceptual approach to cost allocation and the financial and water management issues related to the DCP. The negotiations have been ongoing and are anticipated to be completed with the population of the Delta Conveyance Facility Allocation Factors table within the AIP which will be based on each PWA's determination of participation in the DCP. This table lists each PWA DCP participation percentage, which is equivalent to their allocation percentage of DCP costs and benefits. Actual water supply contract amendment language will be developed following approval of the AIP. Key elements of the draft AIP include the following:

- An option for SWP PWAs to opt out of the costs and benefits of the proposed project, meaning those who opt out have zero in the AIP allocation table and will not pay any costs or receive any benefits.
- An option for SWP PWAs to opt into the DCP costs and benefits. Participating SWP PWAs must commit to at least 100% of their Table A percentage for either their municipal and industrial and/or agricultural Table A amounts.
- An option for SWP PWAs to opt to participate at a level above 100% of their Table A amount to the extent that other SWP PWAs do not participate and there is unsubscribed Table A percentage available. For example, if an SWP PWA decided to participate in the proposed project at 110% of that SWP PWA's Table A amount, the SWP PWA would be in for a minimum of 100% of its Table A percentage plus the additional 10% only if other SWP PWAs decided to opt out leaving some Table A amounts unsubscribed. Based on discussions among the SWP PWAs during the past year it appears likely that certain SWP PWAs will opt out leaving some amount of Table A unsubscribed and available to other SWP PWAs.

- If approved following environmental review, a description of how the proposed project will be constructed and operated as an integrated component of the SWP and any contract amendment will go into effect no sooner than the transition date in the Contract Extension Amendment.
- A description of how DWR will determine the amount of water attributable to the DCP each year, which will inform what is available for DCP participants.
- A description of the details of how costs will be determined and charged, including that participating SWP PWAs will be responsible for costs equal to each of their proportionate shares of the project.
- A description of the benefits of the project that participants will receive, including water, both Table A and Article 21, attributable to the proposed project, conveyance capacity in the new facility, and other benefits as described above.

A copy of the draft AIP is attached as Appendix A.

## **FUNDING AGREEMENTS**

As indicated above, DWR is requiring that those SWP PWAs who choose to participate in the proposed project enter into a funding agreement to advance funds for planning and environmental review of the DCP through 2024. As described in Table 1 the current estimate for the planning and environmental review costs is \$385 million. The Agency's share of these costs would be based on its level of participation in the DCP. For example, if Member Units' participation equals 40% of the Agency's total Table A amount, the Agency share of the costs would be \$37,310,812 ( $40\% \times 24.22785\% \times \$385M = \$37,310,889$ ). These costs will be allocated to the Member Units based on the percent of their Table 1 amounts they choose to include in DCP participation.

Pursuant to the funding agreement with DWR, the Agency has the option to approve advancing either the entire amount, or the amount for the first two years. Because the costs are not evenly distributed over all four years of the planning and environmental review process, the cost over the first two years is less than half of the total \$385 million. Based on the information presented in Table 1, the cost of the first two years is \$165 million. Using the 40% participation example from above, the Agency's costs for the first two years would be \$15,990,348 ( $40\% \times 24.22785\% \times \$165M = \$15,990,381$ ).

If the Agency chooses the two-year funding option, at the end of two years the Agency would be required to notify DWR in writing of its intent to continue funding the planning and environmental costs for the final two years.

These funds would support the planning and environmental review work of the DCA and DWR. Participating SWP PWAs would be reimbursed or receive a credit for the advanced funds upon the sale of revenue bonds to pay for the DCP. If the DCP does not proceed, the advanced funds cannot be recovered.

## **AMENDMENT TO THE DELTA CONSTRUCTION AUTHORITY JOINT POWERS AGREEMENT**

In May 2018, certain SWP PWAs entered into a Joint Powers Agreement (JPA) and formed the DCA, whose purpose was to participate with DWR in the design and construction of the WaterFix. The DCA subsequently entered into a Joint Powers Agreement with DWR (JEPA) to perform those functions. Shortly after DWR rescinded its approvals of the WaterFix based on the Governor's support for a single tunnel project, the JEPA was amended and its purpose shifted to provide preliminary design, planning and other preconstruction activities to assist the



environmental process for the DCP. Because of the shift to a single tunnel project, issuance of the NOP, and completion of a draft of the AIP, staff for participating SWP PWAs are discussing an update to the JPA that formed the DCA. There is a desire to reorganize the governance structure to better reflect the updated participation levels in the proposed project.

The proposed amendments would increase the number of seats on the DCA Board of Directors from 5 seats to seven as follows.

Kern County Water Agency	1 vote
Metropolitan Water District	1 vote
Santa Clara Valley Water District	1 vote
Class 2 (except Santa Clara)	1 vote
Classes 3, 5 and 7	1 vote
Class 8	2 votes

A majority of the members of the DCA board constitute a quorum for the purpose of conducting business and for most board decisions. Details regarding reconsideration of votes is still under discussion among the SWP PWAs.

## Description of the Commitment

DWR has informed the SWP PWAs that it will not fund the continuing planning and environmental review work for the DCP after December 31, 2020. DWR is asking the SWP PWAs to formally express their desire to participate in the project through an act of their boards of directors by the end of 2020, and to begin funding the planning and environmental review work on January 1, 2021.

The Agency is asking its Member Units to determine whether to participate in the DCP, and at what level, at their October board meetings.

Some Member Units have asked if committing to fund a share of the planning and environmental review costs also commits them to funding the same share of the construction costs. A decision to participate in the construction costs is not possible at this time and cannot be made until the CEQA environmental review process is complete and a record of decision has been issued by DWR. The expectation by other participating SWP PWAs is that unless the EIR/S findings and recommendations result in a project that is substantially different than the project as it is currently understood, participation in construction of the project will be at the same level as the planning phase for the entire term of construction.

# **Appendix A**

## **Agreement In Principle**

## **AGREEMENT IN PRINCIPLE**

April 30, 2020

This Agreement in Principle has been developed from the State Water Contractor Public Water Agencies' offers presented from July 24, 2019 to present, Department of Water Resources' offers presented from July 31, 2019 to present, and information discussed and presented by the technical and legal work groups.

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### **Agreement in Principle for the State Water Project Water Supply Contract Amendment on a Delta Conveyance Project**

This Agreement in Principle (**AIP**) is by and between certain State Water Project Public Water Agencies (**PWAs**) and the State of California through the Department of Water Resources (**DWR**) for the purpose of amending the State Water Project Water Supply Contracts.

#### **AIP Objective:**

1. Develop an agreement between the State Water Project Contractor Public Water Agencies and Department of Water Resources to equitably allocate costs and benefits of a potential Delta Conveyance Facility that preserves operational flexibility such that the Department of Water Resources can manage the State Water Project to meet regulatory requirements, contractual responsibilities, and State Water Project purposes.

#### **AIP Outline:**

- I. Definitions
- II. Objective 1 - Availability of an option to opt out of costs and benefits of Delta Conveyance Facilities of the State Water Project
- III. Objective 2 - Availability of an option to assume, or partially assume, costs and benefits of Delta Conveyance Facilities of the State Water Project
- IV. Objective 3 - Pursuit of State Water Project Delta Conveyance Facilities under the State Water Project Water Supply Contracts
- V. Objective 4 - Delta Conveyance Facility billing
- VI. Objective 5 - Delta Conveyance Facility benefits allocation
- VII. Objective 6 - Affect upon other Water Supply Contract provisions
- VIII. Other Provisions
- IX. Environmental Review Process
- X. Authorized Representative Signatures

- I. Definitions
- a. **Clifton Court Forebay** shall mean the existing State Water Project diversion at Clifton Court Forebay facility through its intake located on Old River in the southern Delta and the associated Skinner Fish Facility.
  - b. **Delta** shall mean the Sacramento-San Joaquin Delta as defined in Section 12220 of the California Water Code on the date of approval of the Bond Act by the votes of the State of California.
  - c. **Delta Conveyance Facility (DCF)** shall mean those facilities of the State Water Project consisting of a water diversion intake structure, or structures, located on the Sacramento River and connected by facilities to Banks Pumping Plant in the southern Delta with a single tunnel that will serve the water supply purposes of the State Water Project.
  - d. **DCF Benefits** shall mean those water supply and capacity benefits attributable to the DCF including but not limited to: (1) Table A water supplies; (2) Article 21 water supplies; (3) carriage water savings; (4) reliable water supply and use of DCF available capacity in the event of a temporary or permanent physical, regulatory, or contractual disruption of southern Delta diversions; and (5) use of DCF available capacity to move non-project water through the proposed DCF.
  - e. **Fair Compensation** shall include but is not limited to capital recovery, operations and maintenance, replacement, and variable charges associated with the use of the DCF capacity.
  - f. **State Water Project (SWP)** shall mean the State Water Resources Development System as described in California Water Code section 12931.
  - g. **State Water Project Contractor Public Water Agencies (PWAs)** shall include the 29 entities holding State Water Project Water Supply Contracts with the Department of Water Resources.
- II. Objective 1 - Availability of an option to opt out of costs and DCF Benefits
- a. This AIP makes available to each PWA an option to opt out of the costs and benefits of the DCF through a contract amendment that establishes a Statement of Charges (SOC) percentage of DCF Benefits based on the percentages in the Delta Conveyance Allocation Factors table to water attributable to the DCF, as described in Section VI of this AIP.
  - b. PWAs indicating an intent to opt out of costs and benefits of the DCF shall be described in Section VI(a) of this AIP.
  - c. An option to opt out of DCF costs and benefits are limited such that a PWA must opt out of at least a minimum 100% of its Municipal and Industrial Table A or 100% of its Agricultural Table A. This provision doesn't prohibit a PWA from taking more than their Table A share, if available, in the Delta Facilities Allocation Factor table.
- III. Objective 2 - Availability of an option to assume additional costs and benefits of the DCF
- a. This AIP makes available to each PWA an option to assume additional costs and benefits of the DCF through a contract amendment that establishes additional costs on the SOC in exchange for DCF Benefits based on the percentages in the Delta Conveyance Allocation Factors table to water attributable to the DCF, as described in Section VI of this AIP.
  - b. PWAs indicating an intent to assume DCF costs and benefits shall be described in Section VI(b) of this AIP.
- IV. Objective 3 - Pursuit of State Water Project Delta Conveyance Facilities under the State Water Project Water Supply Contracts

- a. The DCF shall be constructed and operated as an integrated component of the State Water Project, and DWR will continue to operate the State Water Project at its sole discretion.
- b. The DCF is an authorized component of the State Water Project pursuant to California Water Code sections 11100 et seq. and 12930 et seq.
- c. Effective Date: A contract amendment pursuant to this AIP shall have an effective date no sooner than the billing transition date set forth in State Water Project Water Supply Contract Amendment known as The Contract Extension Amendment.
- d. Administration of DCF: DWR will forecast and account for Project Water attributable to the DCF and DWR will determine whether or not that Project Water would not have been available at Clifton Court Forebay. A whitepaper describing the DWR's and the PWAs' current understanding of the approach on forecasting, administration, and accounting is contained in Attachment 1. Attachment 1 will not be incorporated into contract language.

V. Objective 4 - Delta Conveyance Facility billing

- a. These costs would be billed to and collected from SWP PWAs consistent with the Delta Facilities Allocation Factor table below through their annual SOC.
- b. **Delta Conveyance Facilities Charge Components:** All capital and minimum operations, maintenance, power and replacement (OMP&R) costs associated with the DCF are 100% reimbursable and shall be recovered by DWR from PWAs through their annual SOC's consistent with the Delta Facilities Allocation Factor table. These costs shall be allocated to and billed under two new charges as follows:
  - (1) Delta Conveyance Facilities Capital Charge Component.
  - (2) Delta Conveyance Facilities Minimum OMP&R Component.
- c. **Delta Conveyance Facilities Capital Charge Component Method of Computation**
  1. This computation will recover actual annual debt service created by financing activities (Financing Method) for DCF.
  2. Each Financing Method shall provide an annual repayment schedule, which includes all Financing Costs.
  3. Financing Costs shall mean the following: Principal of and interest on Revenue Bonds, debt service coverage required by the applicable bond resolution or indenture in relation to such principal and interest, deposits to reserves required by the bond resolution or indenture in relation to such Revenue Bonds, and premiums for insurance or other security obtained in relation to such Revenue Bonds.
- d. Financing Method shall be divided into four categories: DCF Capital Costs paid with the proceeds of Revenue Bonds; DCF Capital Costs paid with amounts in the State Water Resources Development System Reinvestment Account; DCF Capital Costs paid annually for assets that will have a short Economic Useful Life or the costs of which are not substantial, and DCF Capital Costs prepaid by the PWAs consistent with the Delta Facilities Allocation table.

- e. DCF Capital Charge Component should be allocated to the PWAs in proportion to the Delta Conveyance Facilities Allocation Factors for each calendar year and consistent with the Delta Facilities Allocation Factor table.
- f. **Delta Conveyance Facilities Minimum OMP&R Charge Component Method of Computation**
  - 1. Recovery will be estimated and/or actual annual OMP&R costs determined for the DCF each year.
  - 2. DCF Minimum OMP&R Charge Component shall be allocated to the PWAs in proportion to the Delta Conveyance Facilities Allocation Factors for each calendar year.
- g. **Delta Conveyance Facilities Energy Charges:** The DCF energy costs are 100% reimbursable by the PWAs and the methodology will be determined by DWR, reviewed in the SWRDS Finance Committee, and approved by the Director.
- h. **Redetermination:** These charges shall be subject to redetermination.
- i. **Step-up:** PWAs that execute a contract amendment to opt out will not be allocated any portion of a step-up required in the event of a default on a DCF Capital Charge.
- j. **Delta Conveyance Facilities Allocation Factors:** The following table is a preliminary allocation of DCF participation percentages. Only PWAs with a greater than 0 percentage would be billed for DCF Charge Components through their annual SOC, using the Delta Conveyance Facility Allocation Factors described in the table. PWAs with a zero allocation factor would not be billed for repayment of costs for construction, operation and maintenance of facilities associated with DCF, except to the extent there is a permanent transfer of Table A which would increase a PWA from a greater than zero allocation factor through a subsequent contract amendment.



<b>Public Water Agency</b>	<b>Delta Conveyance Facilities Allocation Factors</b>
City of Yuba City	0
County of Butte	0
Plumas County FC&WCD	0
Napa County FC&WCD	0
Solano County Water Agency	0
Alameda County FC&WCD, Zone 7	
Alameda County Water District	
Santa Clara Valley Water District	
Dudley Ridge Water District	
Empire-West Side Irrigation District	0
Kern County Water Agency-Total	
County of Kings	0
Oak Flat Water District	0
Tulare Lake Basin Water Storage District	0
San Luis Obispo County FC&WCD	
Santa Barbara County FC&WCD	0
Antelope Valley-East Kern Water Agency	
Santa Clarita Valley Water Agency	
Coachella Valley Water District	
Crestline-Lake Arrowhead Water Agency	
Desert Water Agency	
Littlerock Creek Irrigation District	0
Mojave Water Agency	
Palmdale Water District	
San Bernardino Valley Municipal Water District	
San Gabriel Valley Municipal Water District	
San Geronio Pass Water Agency	
The Metropolitan Water District of Southern California	
Ventura County Watershed Protection District	
Total	100.000%

VI. Objective 5 - Delta Conveyance Facility Benefits Allocation

- a. PWAs that execute a contract amendment to opt out of DCF costs and benefits will agree, within that amendment, to the following:
  - i. Charges as set forth in Section V of this AIP will not appear on its SOC.
  - ii. Forego and waive any contractual rights to the following:
    - a. Right to or delivery of Project Water attributable to the DCF, provided that DWR determines that such water would not have been available for diversion at Clifton Court Forebay. This AIP will not modify the amounts within Table A but will memorialize

this limited reduction for DCF Benefits by adding a footnote to the PWA's Table A to reflect their zero allocation for DCF Benefits.

- b. Any contractual rights to or delivery of Article 21 Interruptible Water prior to the point(s) in time each year DWR determines that a volume of water equal to the volume of current year Project Water for Table A in San Luis Reservoir attributable to DCF in the SWP share of San Luis Reservoir storage will be displaced or evacuated by a quantity of exports equal to the quantity of exports from Clifton Court Forebay that would have been stored in San Luis Reservoir absent the DCF. Provided that, when Article 21 Interruptible Water supply is greater than demand from PWAs with a greater than zero Delta Conveyance Facility Allocation factor, Article 21 Interruptible Water will be made available to all PWAs based on Table A percentage.
  - c. Any contractual rights to or delivery of Article 21 Interruptible Water attributable to the DCF after a volume of water equal to the volume of current year Project Water for Table A in San Luis Reservoir attributable to DCF has been evacuated or displaced by the exports from Clifton Court Forebay that would have been stored in San Luis Reservoir absent DCF. Provided that, when Article 21 Interruptible Water supply is greater than demand from PWAs with a greater than zero Delta Conveyance Facility Allocation Factor, Article 21 Interruptible Water will be made available to all PWAs based on Table A percentage.
  - d. Right to use DCF conveyance capacity unused by DWR for SWP purposes to convey non-project water, except as provided in subsection h.
  - e. Right to use available DCF conveyance capacity to convey Project Water in the event that pumping directly from the south Delta is prevented or impaired by a physical, regulatory or contractual disruption, including but not limited to sea level rise, seismic events, flooding, or other uncontrollable event.
  - f. Right to carriage water savings that DWR determines are realized during its operation of any DCF for purposes of conveying Project Water.
  - g. Right to any credit from Fair Compensation collected by DWR for use of available DCF conveyance capacity.
  - h. Rights to use of the DCF, unless a subsequent contract with DWR is entered that provides for payment of Fair Compensation associated with such use.
- iii. For the North of Delta PWAs, DWR will not change the current administrative process for determining the availability of Article 21 due to the DCF. This process will be documented in the Article 21 administration that is distributed via a Notice to Contractors.
- b. PWAs that execute a contract amendment to assume costs and benefits of the DCF will agree, within that amendment, to the following:
- i. Charges will appear on the SOC as set forth in the table in the percentages shown in Section V of this AIP.
  - ii. DCF Benefits in proportion to the percentage table in Section V of this AIP, including but not limited to:
    - a) Delivery of Table A amounts diverted at and conveyed through the DCF. This AIP will not modify the amounts within Table A but will memorialize this DCF Benefits

by amending the PWA's Table A with a footnote. The footnote will recognize each PWA's DCF Benefits consistent with the Delta Conveyance Facilities Allocation Factors.

- b) Article 21 Interruptible Water attributable to DCF.
  - c) Available DCF conveyance capacity unused by DWR for SWP purposes, to convey non-project water for ultimate use within that PWA's service area.
  - d) Carriage water savings that DWR determines are realized during its operation of any DCF for purposes of conveying Project Water.
  - e) Available DCF conveyance capacity to convey Project Water in the event that pumping in the south Delta is prevented or impaired by a physical, regulatory or contractual disruption, including but not limited to sea level rise, seismic events, flooding, or other uncontrollable event.
  - f) A credit from Fair Compensation collected by DWR for use of available DCF conveyance capacity.
- c. Nothing in this AIP changes Article 18(a) in the existing State Water Project Water Supply Contracts.

VII. Objective 6 - Affect Upon Other Water Supply Contract Provisions

- a. Unless specifically stated in this AIP and incorporated into a subsequent contract amendment, there are no changes to the PWAs' rights and obligations under the existing State Water Project Water Supply Contracts.
- b. Transfers and exchanges are not intended to be modified under this AIP and shall be subject to the provisions of the then existing State Water Project Water Supply Contracts.

VIII. Other Provisions

- a. Clifton Court Forebay Diversion Priority: In the event that DWR uses its discretion to move Project Water through the DCF that could have been moved through Clifton Court Forebay Intake, PWAs with a greater than zero Delta Conveyance Facilities Allocation Factor will be given a first priority of available capacity, as determined by DWR, based on their percentage in section V to move up to that same amount of non-project water at Clifton Court Forebay Intake.

IX. Environmental Review Process

DWR and the PWAs agree that this AIP is intended to be used during the environmental review process for the California Environmental Quality Act (CEQA), to define the proposed project description for the purposes of CEQA, and to permit the next steps of the SWP water supply contract amendment process, including scoping and the preparation of the EIR. The AIP principles are not final contract language and do not represent a contractual commitment by either DWR or the PWAs to approve any proposed project or to sign contract amendments. By concurring with the AIP, DWR and the PWAs express their intent to move forward with the CEQA process with DWR as lead agency and the PWAs as responsible agencies, and ultimately develop a proposed project consisting of contractual amendments consistent with the AIP principles and prepare the EIR for consideration by DWR and the PWAs.

At the end of the CEQA process and in compliance with CEQA, DWR and the PWAs will each individually evaluate the EIR and Contract Amendment, exercise their independent judgment, and determine whether or not to certify the EIR, approve the proposed project and sign the contract amendment or to approve an alternative project. Consequently, even though DWR and the PWAs have agreed to the AIP for the purposes described in the preceding paragraphs, DWR and each PWA retain their full discretion under CEQA to consider and adopt mitigation measures and alternatives, including the alternative of not going forward with the proposed project.

## **Attachment 1: Final White Paper**

### **I. Background**

This white paper describes current understanding of how the Department of Water Resources (DWR) would account for and administer the Delta Conveyance Facility (DCF) Benefits. DWR will include information regarding the accounting and administration of water attributable to DCF in relevant Notice(s) to State Water Project Contractors consistent with prior practice. No legally binding obligations are created by this white paper. This white paper may be updated from time to time by DWR, in consultation with the Public Water Agencies (PWAs), in response to factors including, but not limited to, changes in laws, regulations or permits applicable to DWR and/or the State Water Project (SWP). Capitalized terms not defined herein shall have the meanings ascribed to them in the DCF Agreement in Principle (AIP).

### **II. Draft Delta Conveyance Accounting and Administration Concepts**

The DCF will be integrated into the State Water Project and operated to provide maximum flexibility to meet water supply, regulatory requirements and contractual obligations. There are some PWAs that may opt out of the DCF Benefits and charges. For this reason, it will be necessary to account for DCF Benefits. DCF Benefits are described in the AIP and are “those water supply and capacity benefits attributable to the DCF including but not limited to: (1) Table A water supplies; (2) Article 21 water supplies; (3) carriage water savings; (4) reliable water supply and use of DCF available capacity in the event of a temporary or permanent physical, regulatory, or contractual disruption of southern Delta diversions; and (5) use of DCF available capacity to move non-Project Water through the proposed DCF.” To account for DCF Benefits, DWR will need to determine the amount of water attributable to the DCF. DWR will primarily use two tools: 1) **forecasting** Project Water attributable to the DCF for the coming year; and, 2) **accounting** for Project Water attributable to the DCF in a timely manner. Both are described below.

**A. Forecasting-** DWR will forecast, as shown below, to quantify the amount of Project Water attributable to DCF.

1. DWR anticipates that it will provide three water supply allocation forecasts:
  - a. North of Delta allocation that includes water attributable to the south Delta diversions (similar to current practice).
  - b. South of Delta allocation that includes water attributable to the south Delta diversions (similar to current practice).
  - c. Allocation of water attributable to the DCF.

2. The allocation forecasts will continue to be updated monthly and each forecast will include updated information on hydrology including runoff projections, SWP storage conditions, PWA demands, regulatory requirements, and actual exports attributable to the south Delta diversions and the DCF.

3. DWR will continue to include in the allocation forecasts any potential DCF capacity available for conveyance of non-Project Water.

4. Seasonal Forecast: Should conditions warrant additional forecasts, (i.e. wet hydrological conditions and/or DWR determines that San Luis Reservoir is likely to fill) DWR will provide more frequent forecasts on one or more of the following:

- a. San Luis Reservoir fill projection.
- b. Potential Article 21 availability.

## **B. Accounting**

1. DWR will continue to create operational schedules for the south Delta and the DCF which will include any operational constraints and in accordance with applicable regulatory requirements and contractual obligations in order to account for water attributable to the DCF.
2. DWR will reconcile water exports attributable to DCF and the south Delta facilities in a timely manner.
3. If there is a difference in the amount of water conveyed through the south Delta facilities between the planned operations and actual operations there will be a determination about the cause of any identified differences. If the difference is due to a physical, regulatory, or contractual disruption of south Delta diversions or other south Delta restrictions, then water conveyed through the DCF will be considered water attributable to DCF. If the difference is the result of DWR's discretionary decision to convey Table A water through the DCF instead of south Delta, no charge/credit will occur. However, DWR will estimate the carriage water savings associated with the discretionary use of DCF and carriage water savings will be considered water attributable to DCF.
4. Carriage water savings that DWR determines are realized by conveying Project Water through the DCF that would have otherwise been moved through the south Delta facilities, will be credited to Participants. PWAs with a zero Delta Conveyance Allocation Factor that make arrangements with DWR to pay for use of available capacity in the DCF for non-Project Water may be credited carriage water savings associated with this use.
5. Available DCF capacity, as determined by DWR, to convey transfers and exchanges of Project Water between PWAs with a Delta Conveyance Facility Allocation Factor of zero and PWAs with a greater than zero Delta Conveyance Facility Allocation Factor is interpreted as capacity in the DCF attributed to the PWAs with a greater than zero Delta Conveyance Facility Allocation Factor and no additional capital or minimum operations, maintenance, power and replacement (OMP&R) charges for use of DCF capacity will apply notwithstanding any PWA's interpretation of existing contract language to the contrary. Nothing in this provision shall be construed as altering any party's position regarding the application for use of facility charges in other contexts.
6. **Article 21 attributable to DCF for South of Delta PWAs:** As set forth in the AIP, PWAs opting out of the DCF will influence the administration of water made available pursuant to Article 21. To determine the quantity of Article 21 water that PWAs with a zero Delta Conveyance Facilities Allocation Factor will initially forego and the quantity of Article 21 water those PWAs with a

Delta Conveyance Facilities Allocation Factor greater than zero will receive, it is necessary to determine the amount of water attributable to the DCF in the San Luis Reservoir at Point A. Determining this water quantity will provide the basis upon which DWR can administer the DCF Benefits contained in the contract amendment that results from the AIP.

a. Process (See Table 1):

- i. **Point A:** The point at which DWR determines Article 21 water attributable to DCF will be available. DWR will determine volume of Project Water for Table A attributable to the DCF in San Luis Reservoir.
- ii. DWR will work with PWAs to develop an accounting methodology that considers exports attributed to DCF, exports from south Delta facilities, deliveries to PWAs, San Luis Reservoir fill point and the PWAs DCF allocation factors to determine the volume of Project Water for Table A in San Luis Reservoir attributable to DCF at Point A.
- iii. **Point B:** The point at which DWR determines Article 21 water would have been made available absent Project Water for Table A attributable to DCF in San Luis Reservoir, and/or DWR determines through the accounting process that San Luis Reservoir would have filled absent current year Project Water attributable to DCF. This point is reached when a volume of water equal to the volume of current year Project Water for Table A in San Luis Reservoir attributable to DCF at Point A has been displaced or evacuated by the quantity that would have been exported from Clifton Court Forebay and stored in San Luis Reservoir absent the DCF.

b. Deliveries of Article 21 water attributable to DCF Between Point A and Point B:

- i. PWAs may submit Article 21 requests to DWR prior to point A. DWR will satisfy those requests according to the following priority:
  1. PWAs up to their Delta Conveyance Facility Allocation Factor;
  2. All PWAs based on Table A percentage. Only Variable and DCF Energy charges will apply for those PWAs with a greater than zero Delta Conveyance Facility Allocation Factor. For those PWAs with a zero Delta Conveyance Facility Allocation Factor, Article 21 water will be made available at the following charges:
    - a. the Variable and DCF Energy charges for the amount up to Article 56(c)(1) and Article 56(c)(2) water spilled within the PWAs proportionate share of San Luis Reservoir storage at Point A;
    - b. Fair Compensation for any additional amounts.

c. Deliveries of Article 21 water attributable to DCF After Point B:

- i. PWAs may submit requests to DWR. DWR will satisfy those requests according to the following priority:
  1. PWAs' proportion based upon the Delta Conveyance Facility Allocation Factors;
  2. All PWAs based on Table A percentage. Only Variable and DCF Energy charges will apply for those PWAs with a greater than zero Delta Conveyance Allocation Factor. For those PWAs with a zero Delta



Conveyance Facility Allocation Factor, this water will be provided at Fair Compensation.

TABLE 1: Article 21 Interruptible Water Attributable to the Delta Conveyance Facilities		
PWA	Point A - Point B	At/After Point B
<b>FIRST PRIORITY:</b> PWAs participating in DCF (PWAs with a greater than zero DCF Allocation Factor %)	<ul style="list-style-type: none"> <li>Quantity (AF): Up to DCF Allocation Factor %</li> <li>Charge (\$): Variable and DCF Energy Charges</li> </ul>	<ul style="list-style-type: none"> <li>Quantity (AF): Up to DCF Allocation Factor %</li> <li>Charge (\$): Variable and DCF Energy Charges</li> </ul>
<b>SECOND PRIORITY:</b> All PWAs	<ul style="list-style-type: none"> <li>Quantity (AF): Based on Table A %</li> <li>Charge to DCF Participant (\$): Variable and DCF Energy Charges</li> <li>Charge to DCF Non-Participant for AF ≤ to spilled carryover water (\$): Variable and DCF Energy Charges</li> <li>Charge to DCF Non-Participant for AF &gt; spilled carryover water (\$): Fair Compensation</li> </ul>	<ul style="list-style-type: none"> <li>Quantity (AF): Based on Table A %</li> <li>Charge to DCF Participant (\$): Variable and DCF Energy Charges</li> <li>Charge to DCF Non-Participant (\$): Fair Compensation</li> </ul>

### Collaborative Development of Administrative Procedures

As a subset to the Water Operations Committee, a DCF workgroup will be created similar to the current San Luis Reservoir Workgroup. This group will meet and confer as needed, and may discuss items such as forecasting, operations, accounting, and administration of the DCF. Members may include representatives from DWR (SWPAO and OCO) and PWAs and will report back to the PWA Water Operations Committee.

