Delta Conveyance Project
July 2022

DRAFT ENVIRONMENTAL IMPACT REPORT EXPLAINED

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INTRODUCTION

About this Document

The Delta Conveyance Project Draft Environmental Impact Report Explained is a companion to the Delta Conveyance Project's Draft Environmental Impact Report (EIR) to help members of the public better understand the proposed Delta Conveyance Project and the requirements for the Department of Water Resources (DWR) in preparing an EIR under the California Environmental Quality Act (CEQA). Although not required by CEQA, this document is intended to acquaint readers with the proposed Delta Conveyance Project and alternatives analyzed in the Draft EIR and provide a short summary of impacts to key resource areas. This document is separate from and not intended to be a substitute or surrogate for the comprehensive summary of the Draft EIR that is being circulated with the Draft EIR. Readers are encouraged to review the Draft EIR Executive Summary and full Draft EIR and provide comments during the public review period.

The Project

The Delta Conveyance Project is a proposal by DWR to restore and protect the reliability of State Water Project (SWP) water deliveries by modernizing SWP infrastructure in the Delta. These facility updates allow DWR to address sea level rise and climate change, minimize water supply disruption due to seismic risk and improve aquatic conditions in the Delta through more flexible SWP water operations.

The proposed project includes the construction and operation of new water intake facilities on the Sacramento River in the north Delta and a single main tunnel to divert and move water entering the north Delta from the Sacramento Valley watershed to existing SWP facilities in the south Delta, which would result in a dual conveyance system in the Delta. A dual conveyance system for SWP Delta conveyance includes a new intake facility in the north Delta operating together with existing south Delta pumping facilities. DWR is not seeking to increase its existing water rights, nor is it proposing any operational changes upstream of the Delta.

All proposed project details are subject to refinement. No final decisions will be made until the conclusion of the environmental review process.

Why the Delta Conveyance Project?

DWR's fundamental purpose in proposing to develop new intake and conveyance facilities in the Delta is to restore and protect the reliability of SWP water deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State's Water Resilience Portfolio in a cost-effective manner. This purpose, in turn, gives rise to the following project objectives.

- To help address anticipated rising sea levels and other reasonably foreseeable consequences of climate change and extreme weather events.
- To 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 as a result of a major earthquake that could cause breaching of Delta levees and the inundation of brackish water into the areas where existing SWP and CVP pumping plants operate in the southern Delta.
- To protect the ability of the SWP, and potentially the CVP, to deliver water when hydrologic conditions result in the availability of sufficient amounts of water, 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.
- To provide operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constraints on project operations.

Central Valley Project Participation in the Delta Conveyance Project

The CVP is one of the state's major water projects, along with the SWP. The U.S. Bureau of Reclamation (Reclamation) oversees operations and maintenance of the CVP and coordinates Delta operations with the SWP. The CVP is operated for flood management; navigation; provision of water for irrigation and domestic uses; fish and wildlife protection, restoration, and enhancement; recreation; and power generation.

Reclamation is a cooperating agency to the U.S. Army Corps of Engineers on the Environmental Impact Statement (EIS) being prepared under the National Environmental Policy Act for the D elta Conveyance Project. Reclamation has not expressed an interest to involve the CVP in the proposed project or alternatives. However, because previous Delta conveyance efforts included various levels of participation from Reclamation and CVP contractors, alternatives that include CVP participation (Alternatives 2a and 4a in this document) are provided as part of the project to provide a comparison of the impacts (and potentially benefits) of possible CVP involvement.

THE ENVIRONMENTAL IMPACT REPORT

CEQA requires a public agency to review and document the potential environmental impacts before a project can be approved and implemented. The Delta Conveyance Project Draft EIR analyzes and discloses the potential impacts on the environment from the proposed project and alternatives. The Draft EIR considers nine project alternatives, including the proposed project, and the no-project alternative.

Resilience and Adaptation Benefits

The proposed project and alternatives are just one component of a suite of federal, state, regional, and local strategies to protect and ensure a safe, adequate water supply under rising sea levels and a changing climate well into the future. The proposed project and alternatives are designed to increase SWP resilience to seismic risks, sea level rise, and other foreseeable consequences of climate change and extreme weather events. Consistent with the California Water Resilience Portfolio the Delta Conveyance Project is intended to restore and protect the reliability of the SWP and, potentially, CVP water deliveries south of the Delta.

DWR considers capture and conveyance in the Delta as important potential adaptations to mitigate potential system losses in other areas due to changing precipitation patterns and seasonal runoff. In addition, the Delta Conveyance Project is expected to allow continued water deliveries and operational flexibility should catastrophic levee failure from seismic activity, extreme weather or pressure from sea level rise, or other disasters that may temporarily disrupt routing or quality of surface water supplies. In addition, the proposed north Delta intake locations are not vulnerable to salinity intrusion from sea level rise. Furthermore, the facilities are designed to withstand 200-year flood flows on top of water level elevations corresponding to 10.2-feet sea level rise.

Changes in temperature and precipitation are expected to significantly alter California's hydrology in the future. Having alternative points of diversion in the north Delta would increase resiliency in managing combined effects of sea level rise and changes in upstream hydrology, including changes to timing and quantity of seasonal runoff patterns.

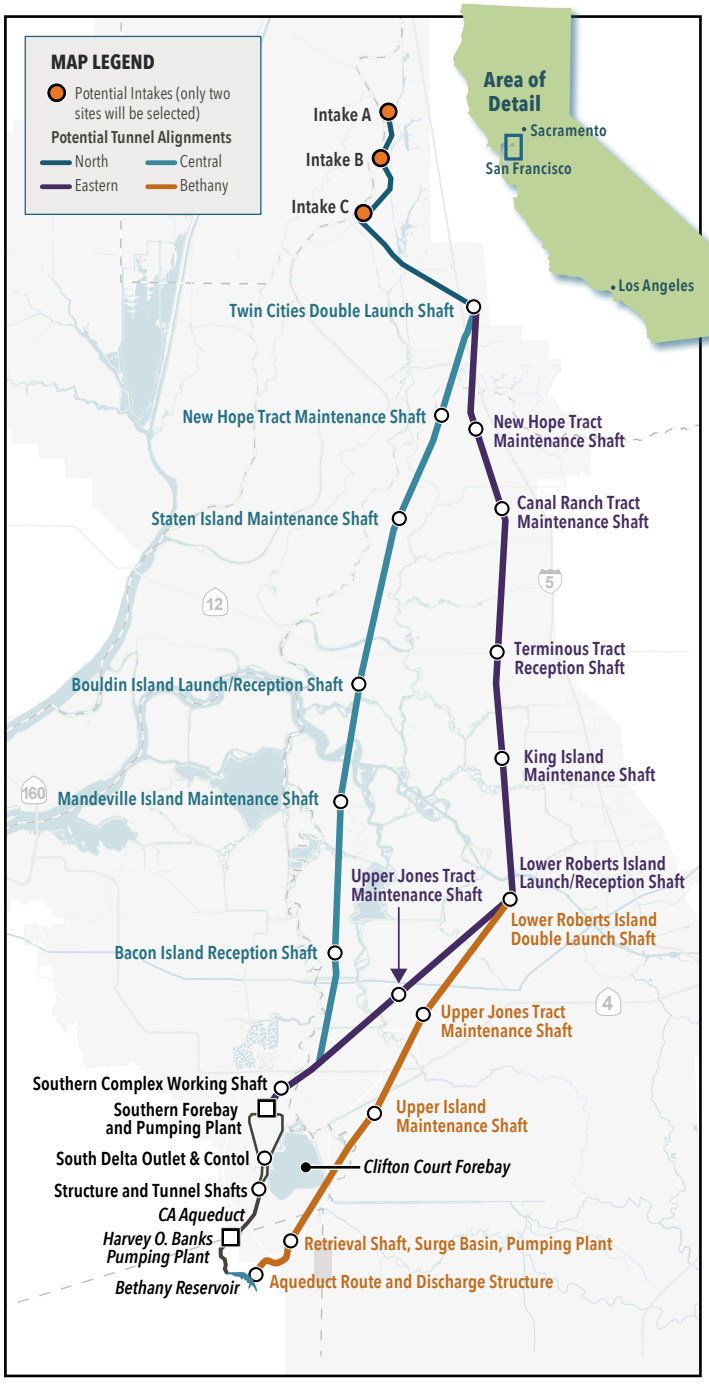
Operating the proposed north Delta intakes would facilitate the capture of inflow when changing precipitation patterns are expected to generate higher inflow than the April–June timeframe, when reservoirs have historically captured runoff. By being able to capture inflow when it is available, overall exports would be more reliable than with the existing south Delta pumps alone.

The alternatives analyzed in the Draft EIR include a combination of water conveyance configurations, capacities, and various mitigation measures. These alternatives were informed by public scoping sessions conducted in 2020 and input from federal, state and local agencies and public comment. The Draft EIR and supporting documentation will inform DWR's decision whether to approve the Delta Conveyance Project or an alternative, decisions by the state and federal agencies about issuing permits including endangered species permits, and decisions by public water agencies to participate in the project.

THE PROPOSED PROJECT AND ALTERNATIVES

Each of the nine project alternatives considered for the Delta Conveyance Project includes the following project elements: intake(s) to divert water in the north Delta, a tunnel to connect to existing facilities in the south Delta, shafts to use during tunnel construction (and later as maintenance access), and facilities in the south Delta to pump water up to the surface and into existing conveyance facilities. The alternatives represent three tunnel alignments combined with the proposed construction of new north Delta intake and conveyance facilities capable of diverting and conveying a range of 3,000 cubic feet per second (cfs) to 7,500 cfs in total. The alternatives are proposed to follow either a Central alignment, Eastern alignment, or Bethany Reservoir alignment, as illustrated in the figure below.

Proposed Project and Alternatives Facilities Map



Proposed Project: The Bethany Reservoir Alignment (Alternative 5)

CEQA requires DWR, as lead agency for preparation of the Delta Conveyance Project Draft EIR, to identify a *proposed project* as it conducts the environmental analysis. At the initial stages of environmental review in early 2020, DWR issued a Notice of Preparation that identified the proposed project as either the central or eastern alignment for a single tunnel connecting to a new forebay located in the south Delta adjacent to the existing SWP facilities with a maximum capacity to divert up to 6,000 cfs. Since that time, and after further evaluation, it became clear that the Bethany Reservoir Alignment, which extends the eastern corridor to the existing Bethany Reservoir and avoids development of a new forebay in the south Delta, was more appropriate as DWR's proposed project for several reasons, including that it would have less impact on agricultural land, cultural resources, and wetlands and waters of the United States. Therefore, DWR is identifying the *Bethany Reservoir Alignment*, or Alternative 5, as the proposed project for the Draft EIR.

The Bethany Reservoir Alignment would divert up to 6,000 cfs of water from two new north Delta intake facilities – Intakes B and C, each with 3,000 cfs capacity – through state-of-the-art fish screens and convey it via a single tunnel on an eastern alignment directly to a new pumping plant and aqueduct complex called the *Bethany Complex* near Byron Highway in the south Delta. The alignment would continue heading south to the existing Bethany Reservoir on the California Aqueduct.

This alternative would provide the same climate resiliency, seismic resiliency, and water supply reliability as the other 6,000 cfs alternatives that follow the central or eastern alignment evaluated in the Draft EIR but would have fewer or substantially reduced environmental impacts.

Identification of the Bethany Reservoir Alignment as the proposed project for the Draft EIR does not indicate that DWR has decided to move forward with the Delta Conveyance Project nor that, if DWR does determine to move forward, the Bethany Reservoir Alignment will be the project that DWR approves. DWR will not decide on the project until after addressing public comments on the Draft EIR as part of preparation and certification of the Final EIR and making all necessary findings, adopting a mitigation monitoring and reporting program and, if necessary, a statement of overriding considerations as part of the CEQA process.

Alternatives

In addition to the Bethany Reservoir Alignment, or proposed project, the Draft EIR examines eight other alternatives that would include new water intake facilities on the Sacramento River in the north Delta and a single tunnel to convey water from the intakes to a new Southern Forebay on Byron Tract. The figures on pages 7 through 9 provide details about each alternative. The end of the Southern Forebay would be connected to the existing SWP Banks Pumping Plant through new facilities based on the pumping capacity of the alternative (3,000 cfs to 7,500 cfs). Two of the eight alternatives would include additional facilities to convey water from the new Southern Forebay to CVP facilities at the Jones Pumping Plant.

The primary distinctions among the alternatives are the number of intake facilities, tunnel alignments and size, project design capacities, and location of the facilities to convey the Delta Conveyance Project water to existing SWP facilities.

Central Alignment Alternatives

Alternatives 1, 2a, 2b, and 2c consider a central tunnel alignment.

- Alternative 1 includes 2 intake facilities (Intakes B and C) with a total pumping capacity of 6,000 cfs.
- Alternative 2a includes 3 intake facilities (Intakes A, B and C) with a total pumping capacity of 7,500 cfs.
- Alternative 2b includes 1 intake facility (Intake C) with a total pumping capacity of 3,000 cfs.
- Alternative 2c includes 2 intake facilities (Intakes B and C) with a total pumping capacity of 4,500 cfs.

Eastern Alignment Alternatives

Alternatives 3, 4a, 4b, and 4c follow an eastern alignment similar to Alternative 5, the Bethany Reservoir Alignment, as far as Lower Roberts Island, then turn farther west towards Byron Tract.

- Alternative 3 includes 2 intake facilities (Intakes B and C) with a total pumping capacity of 6,000 cfs.
- Alternative 4a includes 3 intake facilities (Intakes A, B and C) with a total pumping capacity of 7,500 cfs.
- Alternative 4b includes 1 intake facility (Intake C) with a total pumping capacity of 3,000 cfs.
- Alternative 4c includes 2 intake facilities (Intakes B and C) with a total pumping capacity of 4,500 cfs.

No Project Alternative

The Draft EIR considers a No Project Alternative at the year 2040, which is the timeframe when the Delta Conveyance Project, if approved, is anticipated to be fully constructed and operational. The No Project Alternative considers effects from climate change and sea level rise. It evaluates changes that might occur without approval of the Delta Conveyance Project beyond the 2020 existing conditions and includes ongoing and reasonably foreseeable projects and programs that are assumed to occur in the absence of the Delta Conveyance Project. The No Project Alternative includes the actions water agencies that receive SWP supplies would need to take to address local shortages if the Delta Conveyance Project was not constructed and the resulting environmental effects of those actions, beyond what water agencies are currently planning. Examples of these actions include increases in water conservation programs, water recycling projects, groundwater recovery projects, among others.

Project Facilities

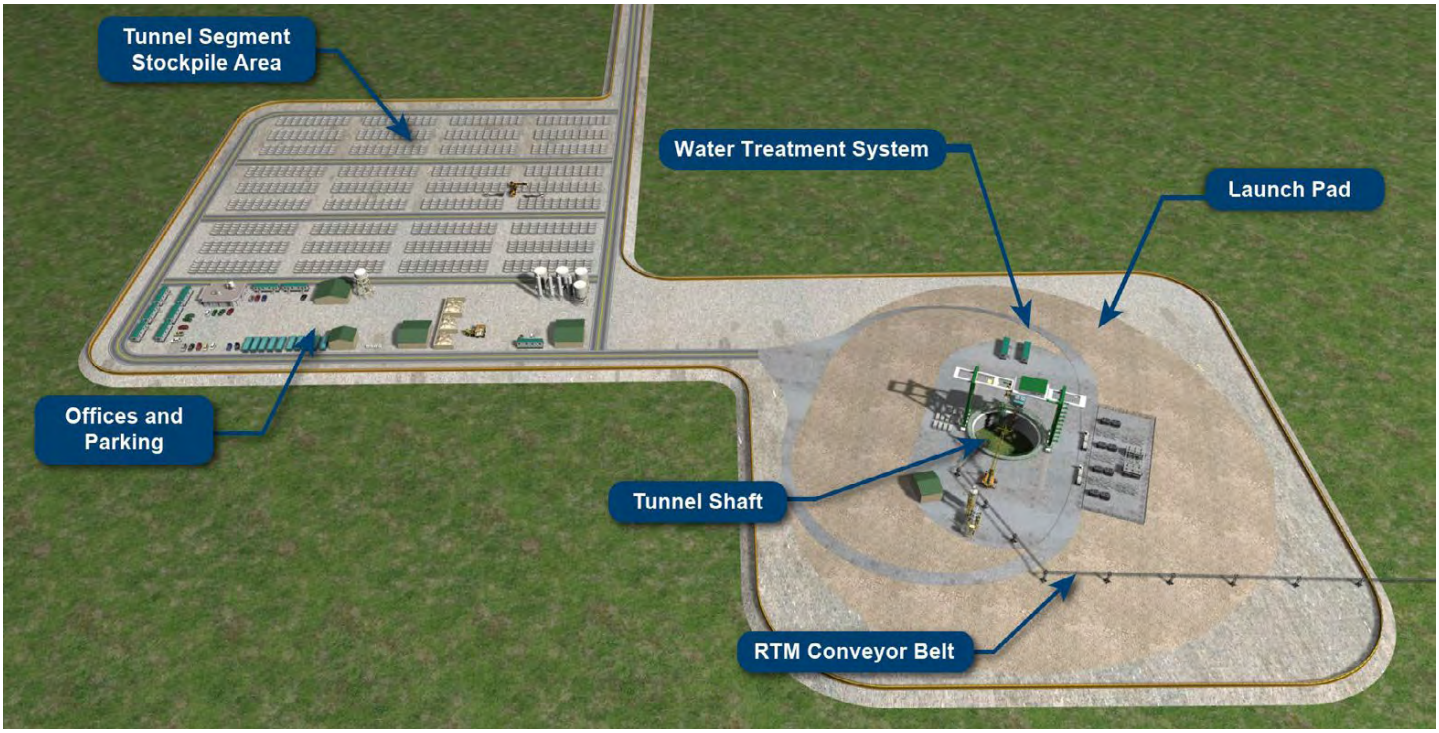
North Delta Water Intake Facilities

The proposed project and eight alternatives include new water intake facilities on the eastern shore of the Sacramento River in the north Delta. Up to three intakes could be constructed, depending on the alternative, with a maximum diversion capacity of 7,500 cfs total. The intake facilities are identified in the Draft EIR as Intakes A, B, and C.

- Intake A would be south of and on the other side of the Sacramento River from Clarksburg
- Intake B would be just north of Hood
- Intake C would be between Hood and Courtland

The water intake facilities would divert water through state-of-the-art fish screens. Other intake facility features include intake structures, sedimentation basins, sediment drying lagoons, flow control structures, intake outlet channel and intake outlet shaft, embankments, and other appurtenant structures and associated facilities to support construction and operations of the intakes. The intake structures do not include pumps; water would flow by gravity into the tunnels towards a pump station in the south Delta.

Water Intake Facility Features Rendering



Launch Shaft Rendering

Tunnels

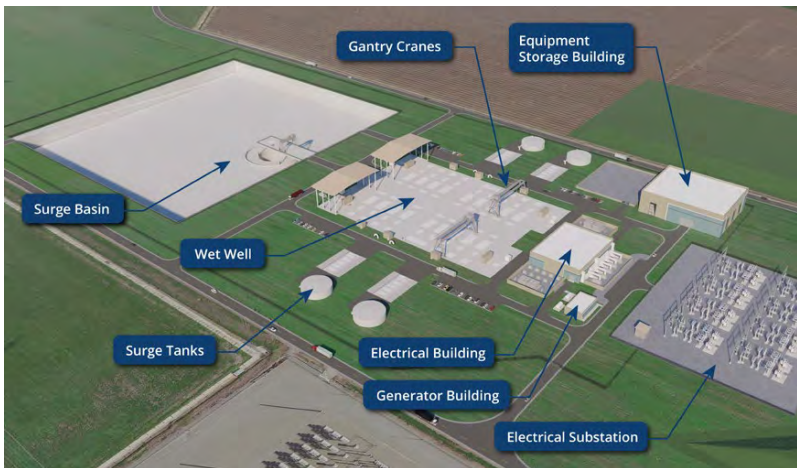
Under Alternatives 1, 2a, 2b, 2c, 3, 4a, 4b, and 4c, the main tunnel would convey water from the intakes to the proposed new Southern Forebay Inlet Structure in the south Delta, to be distributed via the Southern Forebay and additional facilities composing the Southern Complex. At the south end of the Southern Forebay, two ancillary tunnels would connect the Southern Forebay to the Banks Pumping Plant approach channel, a distance of 1.7 miles. The two ancillary tunnels are proposed to allow conveyance of the full design capacity of the Banks Pumping Plant, and secondarily so that one tunnel could be removed from service for inspection and cleaning while maintaining half-capacity service in the other tunnel. Alternatives 2a and 4a would require an additional single tunnel and facilities to convey water to the CVP from the Southern Complex. Under Alternative 5, the main tunnel would go directly to the Bethany Reservoir Pumping Plant from Lower Roberts Island. Alternative 5 does not require construction of a new forebay.

Other Project Facilities

Other project facilities that would be constructed for the project include:

- **Tunnel Shafts** to launch, remove and maintain tunnel boring machines that will bore the tunnels. Most activity will be at the tunnel launch shafts, which would be at the Twin Cities and Lower Roberts sites for all alternatives and the Southern Complex for Alternatives 1-4. Tunnel maintenance and removal shafts would be located at intakes, along the tunnel alignment, and at the Bethany Complex for Alternative 5.
- **Reusable Tunnel Material (RTM) Handling and Storage Facilities** to move, test and store soil removed by tunnel boring machines as tunnels are built.
- **Southern Complex on Byron Tract** to house facilities associated with all alternatives except the Bethany Reservoir Alignment, and includes tunnel shafts, the main tunnel terminus, the South Delta Pumping Plant, a Southern Forebay, an emergency spillway, an electrical switchyard, maintenance buildings, a Southern Forebay outlet structure, RTM handling facilities, emergency response facilities, and a concrete batch plant.
- **Southern Complex West of Byron Highway**, which would include the South Delta Conveyance facilities to connect the Southern Forebay to the Banks Pumping Plant approach channel.
- **Bethany Complex** near Clifton Court Forebay, as part of the Bethany Reservoir Alignment, that includes a pumping plant, a surge basin, aqueduct, aqueduct tunnels, discharge structure, access roads, and equipment and storage facilities.
- **Access Roads** to access intake facilities, tunnel shafts, the Southern Complex and Bethany Complex.
- **Park and Ride Lots,** Park-and-ride lots would be established near major commute routes, where workers could park and ride shuttle buses or vans to construction sites. Trucks arriving late at night could also use these lots to park overnight to minimize nighttime deliveries to construction sites.

Bethany Pumping Plant Rendering

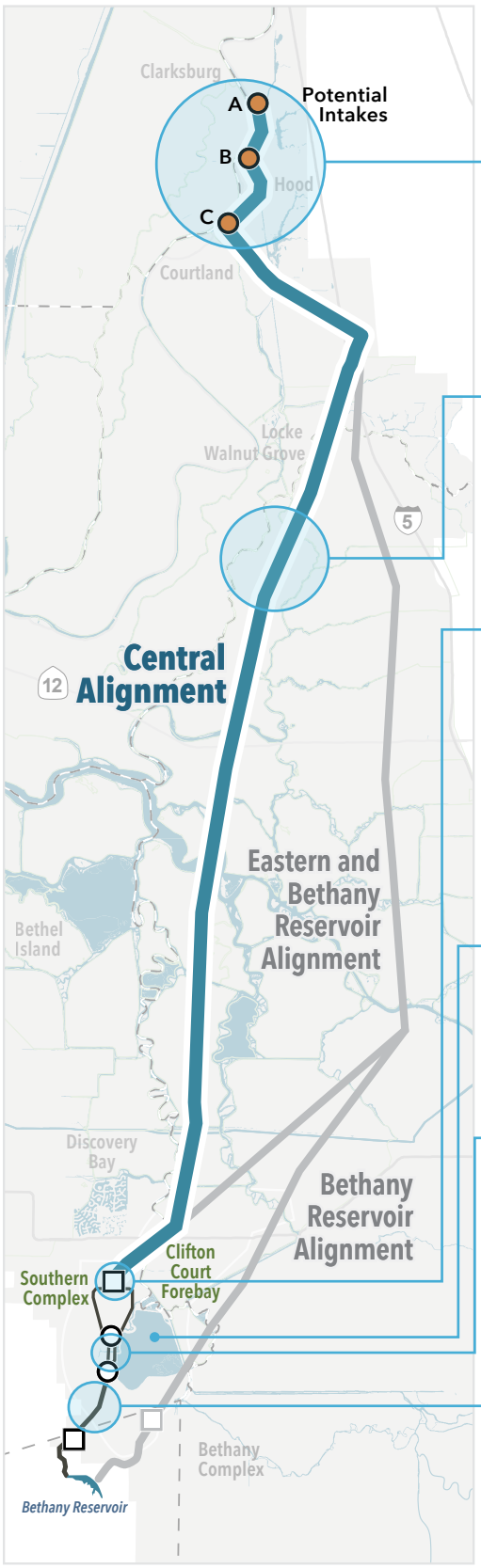


KEY PROJECT FEATURES BY ALTERNATIVE

The proposed project and alternatives have many features in common. This graphic describes major facilities present in multiple alternatives. Not all project alternatives involve all the common features.

Note: Tunnel diameter and length are from intakes to Southern Forebay, except for Alternative 5.

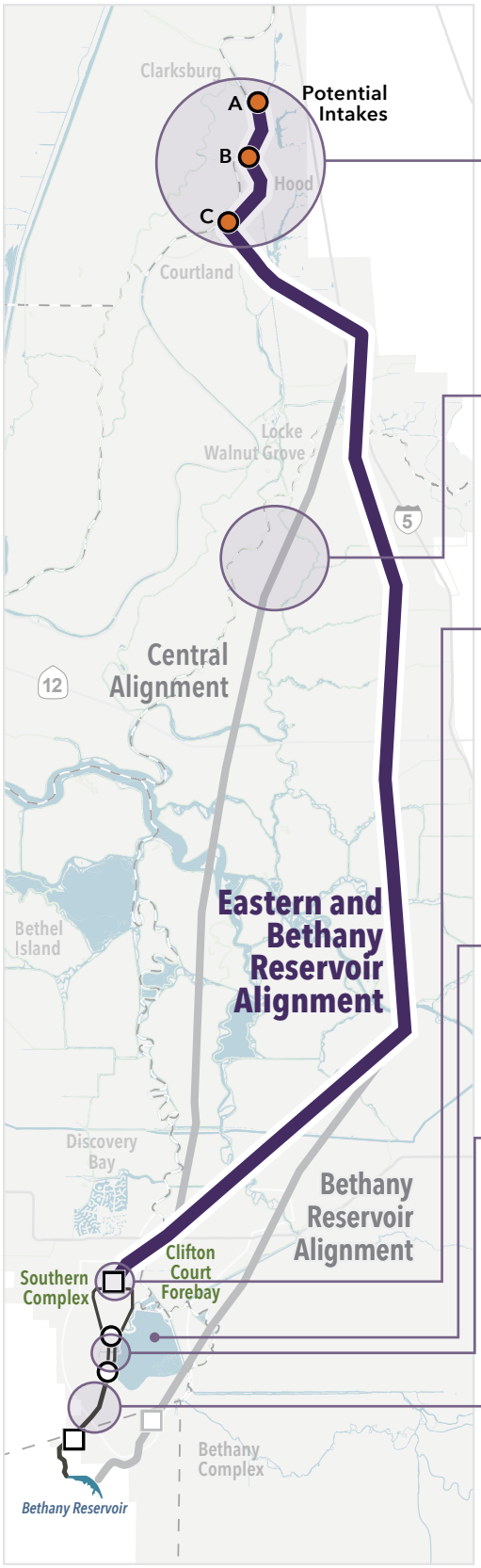
CVP = Central Valley Project; BRPP = Bethany Reservoir Pumping Plant.



Central Alignment

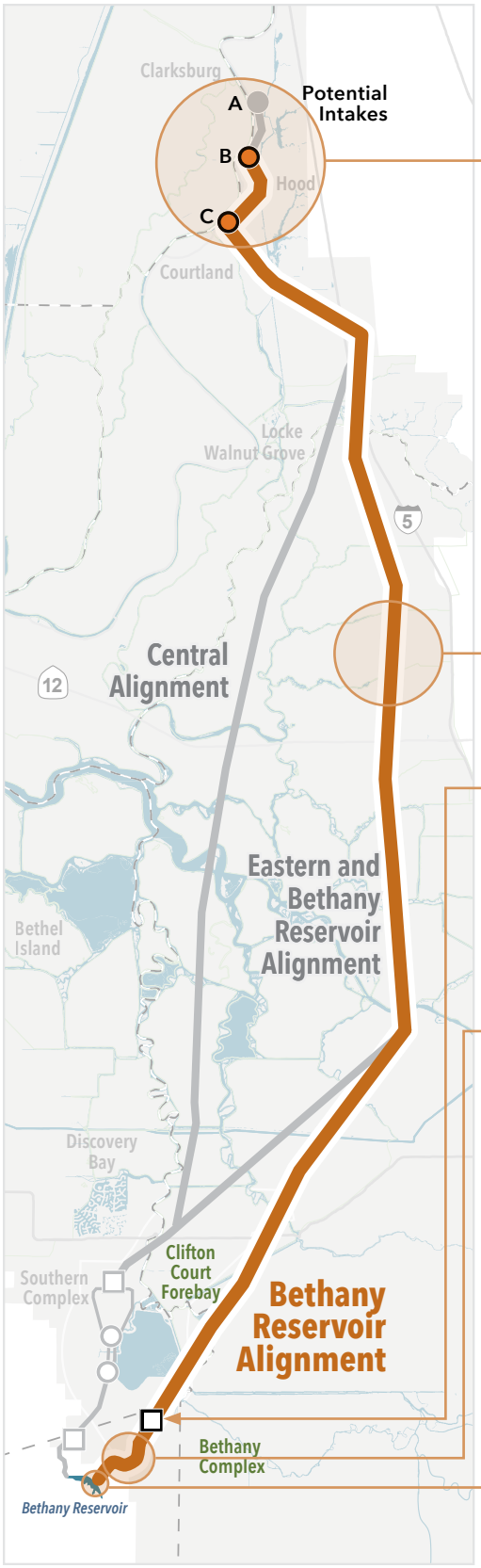
	Alternative 1	Alternative 2a	Alternative 2b	Alternative 2c
Intake facilities and project design capacity (cubic feet of water per second)	Intake B, 3,000 Intake C 3,000	Intake A, 1,500 Intake B, 3,000 Intake C, 3,000	Intake C, 3,000	Intake B, 3,000 Intake C, 1,500
Total CFS	**6,000**	**7,500**	**3,000**	**4,500**
Main tunnel diameter (feet)	36 inside 39 outside	40 inside 44 outside	26 inside 28 outside	31 inside 34 outside
Main tunnel length (miles)	39	42	37	39
South Delta Pumping Plant at the Northern Southern Forebay Embankment	Seven pumps at 960 cfs, each, including two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to dewater tunnel.	Eight pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to dewater tunnel.	Five pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to dewater tunnel.	Six pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to dewater tunnel.
Southern Forebay	Normal operating capacity: 9,000 acre-feet. Surface area: approximately 750 acres. Average surface water elevation: 11.5 feet, or approximately the halfway point within the normal operating elevation range of 5.5 to 17.5 feet. Area: approximately 1,000 acres.			
Dual tunnels at Southern Forebay Outlet Structure, each (feet)	38 inside 41 outside 1.7 miles long	40 inside 44 outside 1.7 miles long	38 inside 41 outside 1.7 miles long	38 inside 41 outside 1.7 miles long
Single Jones Tunnel (diameter in feet/length in miles)	Not applicable	20 inside 22 outside 1.5 miles	Not applicable	Not applicable
Park and Ride Lots	• Hood-Franklin Park-and-Ride. • Rio Vista Park-and-Ride. • Charter Way Park-and-Ride. • Byron Park-and-Ride. • Bethany Park-and-Ride.			

Eastern Alignment



	Alternative 3	Alternative 4a	Alternative 4b	Alternative 4c
Intake facilities and project design capacity (cubic feet of water per second)	Intake B, 3,000 Intake C 3,000	Intake A, 1,500 Intake B, 3,000 Intake C, 3,000	Intake C, 3,000	Intake B, 3,000 Intake C, 1,500
Total CFS	**6,000**	**7,500**	**3,000**	**4,500**
Main tunnel diameter (feet)	36 inside 39 outside	40 inside 44 outside	26 inside 28 outside	31 inside 34 outside
Main tunnel length (miles)	42	44	40	42
South Delta Pumping Plant at the Northern Southern Forebay Embankment	Seven pumps at 960 cfs, each, including two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to de-water tunnel.	Eight pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to de-water tunnel.	Five pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to de-water tunnel.	Six pumps at 960 cfs, each, including up to two standby pumps. Three pumps at 600 cfs, each, including one standby pump. Two portable pumps to de-water tunnel.
Southern Forebay	Normal operating capacity: 9,000 acre-feet. Surface area: approximately 750 acres. Average surface water elevation: 11.5 feet, or approximately the halfway point within the normal operating elevation range of 5.5 to 17.5 feet. Area: approximately 1,000 acres.			
Dual tunnels at Southern Forebay Outlet Structure, each (feet)	38 inside 41 outside 1.7 miles long	40 inside 44 outside 1.7 miles long	38 inside 41 outside 1.7 miles long	38 inside 41 outside 1.7 miles long
Single Jones Tunnel (diameter in feet/length in miles)	Not applicable	20 inside 22 outside 1.5 miles	Not applicable	Not applicable
Park and Ride Lots	• Hood-Franklin Park-and-Ride. • Charter Way Park-and-Ride.		• Byron Park-and-Ride. • Bethany Park-and-Ride.	

Bethany Reservoir Alignment (Proposed Project)



	Alternative 5, Proposed Project
Intake facilities and project design capacity (cubic feet of water per second)	Intake B, 3,000 Intake C, 3,000
Total CFS	**6,000**
Main tunnel diameter (feet)	36 inside 39 outside
Main tunnel length (miles)	From intakes to Bethany Reservoir Pumping Plant: 45
Bethany Reservoir Pumping Plant and Surge Basin	14 pumps at 500 cfs, each, including two standby pumps Four 75-foot diameter by 20-feet high one-way surge tanks connected to the BRPP's discharge pipelines. Two portable 60 cfs pumps to dewater main tunnel for inspection and maintenance. Four rail-mounted 100 cfs pumps to dewater Surge Basin. One 815-foot by 815-foot, 35-foot deep surge basin with surge overflow capacity.
Bethany Reservoir Aqueduct to Bethany Reservoir Discharge Structure	138 acres for construction; 63 acres postconstruction. Four pipelines, each 15-feet inside diameter, 15.2 feet outside diameter. 2.5 miles long. Four tunnels (1 for each pipeline) under CVP Jones discharge pipelines. 4 tunnels (1 for each pipeline) under Bethany Reservoir Conservation Easement. Riser shafts to Discharge Structure.
Bethany Reservoir Discharge Structure	15 acres for construction; 13 acres postconstruction.
Park and Ride Lots	• Hood-Franklin Park-and-Ride. • Charter Way Park-and-Ride.

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ENVIRONMENTAL COMMITMENTS AND BEST MANAGEMENT PRACTICES

The Delta Conveyance Project incorporates environmental commitments (ECs) and best management practices (BMPs) into the engineering or design of the proposed project and alternatives that are generally intended to meet certain regulatory requirements and avoid, reduce, or minimize general environmental impacts. ECs and BMPs either indirectly or generally address potential adverse effects of the proposed project and alternatives but are not proposed as specific mitigation for a potentially significant impact identified in one of the resource chapters. These commitments are considered part of the project description, and if the project is approved, would be incorporated into an enforceable mitigation monitoring and reporting program.

- EC-1: Conduct Environmental Resources Worker Awareness Training
- EC-2: Develop and Implement Hazardous Materials Management Plans
- EC-3: Develop and Implement Spill Prevention, Containment, and Countermeasure Plans
- EC-4a: Develop and Implement Erosion and Sediment Control Plans
- EC-4b: Develop and Implement Stormwater Pollution Prevention Plans
- EC-5: Develop and Implement a Fire Prevention and Control Plan
- EC-6: Conduct Cultural Resources Awareness Training
- EC-7: Off-Road Heavy-Duty Engines
- EC-8: On-Road Haul Trucks
- EC-9: On-Site Locomotives
- EC-10: Marine Vessels
- EC-11: Fugitive Dust Control
- EC-12: On-Site Concrete Batching Plants
- EC-13: DWR Best Management Practices to Reduce GHG Emissions
- EC-14: Construction Best Management Practices for Biological Resources
- EC-15: Sediment Monitoring, Modeling, and Reintroduction Adaptive Management
- EC-16: Provide Notification of Construction and Maintenance Activities in Waterways
- EC-17: Pursue Solar Electric Power Options at Conveyance Facility Sites
- EC-18: Minimize Construction-Related Disturbances to Delta Community Events and Festivals

OPERATIONS

The proposed north Delta intakes would operate in conjunction with the existing SWP and potentially CVP intakes in the south Delta for the proposed project and alternatives. Operations of the existing SWP facilities, and in coordination with CVP operations pursuant to the Coordinated Operations Agreement, will be governed by applicable regulatory requirements and assigned to the SWP in applicable water right decisions, biological opinions, an incidental take permit, and the U.S. Army Corps of Engineers Clifton Court diversion limits. The operations of the proposed north Delta intakes would remain consistent with regulatory requirements.

The proposed project is seeking a new point of diversion, and is not seeking to expand water right quantity. Diversions at the proposed north Delta intakes would be governed by new operational criteria specific to these intakes, including fish screen approach and sweeping velocity requirements, bypass flow requirements, pulse protection, and low-level pumping. These new criteria provide additional protections to the fish species over and above the protections from the state-of-the-art positive barrier fish screens included at the proposed intakes.

The north Delta intakes would operate in conjunction with the existing south Delta intakes. The proposed intakes would augment the ability to capture excess flows and improve the flexibility of the SWP operations such as for meeting the State Water Board D-1641 Delta salinity requirements. The Delta Conveyance Project would not change operational criteria associated with upstream reservoirs. Upstream of Delta facilities will continue to be operated to meet regulatory, environmental, and contractual obligations consistent with existing operations. The Delta Conveyance Project is not proposing to increase the total quantity of water permitted for diversion under existing DWR water rights.

Community Benefits Program

DWR is developing a Community Benefits Program for the proposed Delta Conveyance Project which will ultimately identify and implement commitments, if the Delta Conveyance Project is approved, to help protect and enhance the cultural, recreational, natural resource and agricultural values of the Delta. Development and eventual administration of this program will be a grassroots and collaborative process with the local community. The Community Benefits Program Framework was developed through outreach and input from interested parties and is described in Appendix 3G of the Draft EIR. Potential environmental impacts associated with implementing the Community Benefits Program are evaluated in Chapter 34 of the EIR.

POTENTIAL ENVIRONMENTAL IMPACTS OF THE DELTA CONVEYANCE PROJECT

The Draft EIR examines the potential direct, indirect and cumulative impacts of constructing and operating the Delta Conveyance Project and identifies mitigation that could be used to avoid, reduce, minimize, or compensate for significant environmental effects of the project alternatives.

The CEQA Guidelines are state regulations that include the environmental factors that should be reviewed for potential impacts in an EIR, and a checklist of questions to consider in order to determine if the project would have no impact, a less-than-significant impact, a less-than-significant impact with mitigation implemented, or a potentially significant impact on each resource.

In general, the proposed project and alternatives would have impacts on certain environmental resources due to construction and operation and maintenance activities. For potential impacts that are considered significant to an environmental resource, mitigation is proposed to reduce that impact.

Thresholds of Significance and Determining the Significance of Environmental Effects

DWR is required to prepare an Environmental Impact Report when a proposed project may have significant effects on the environment. CEQA calls for agencies to use thresholds of significance to determine if a project may cause a significant environmental effect. CEQA defines thresholds of significance as an identifiable quantitative, qualitative or performance level of a particular environmental effect. If the effect level is determined to be non-compliant, (e.g., it exceeds a threshold), it would be determined to have a significant impact on an environmental resource, and if it is compliant, it would be determined to have a less than significant impact.

Using environmental standards as thresholds of significance promotes consistency in significance determinations and integrates environmental review with other environmental program planning and regulation. A lead agency may adopt or use an environmental standard as a threshold of significance. In adopting or using an environmental standard as a threshold of significance, a lead agency shall, based on substantial evidence in the administrative record, explain how the particular requirements of that environmental standard address project impacts, including cumulative impacts, to a level that is considered less than significant, and why the environmental standard is relevant to the analysis of the project under consideration.

CEQA directs that agencies evaluate a proposed project's significant effects for direct, indirect and cumulative physical effects on the environment.

- An example of a Direct Physical Effect is noise, dust, or traffic from heavy equipment during construction.
- An example of an Indirect Physical Change is a physical change to the environment that then causes another change to the environment, such as building a new facility that leads to population growth, which results in increased air pollution from that population growth.
- An example of a cumulative impact is a physical change to the environment from two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts, e.g., when two or more projects will impact air quality in the study area. If a cumulative impact is significant, the EIR determines whether the project's contribution is cumulatively considerable.

Each of the resource chapters in the Delta Conveyance Project Draft EIR have a section on the Thresholds of Significance used to determine if the proposed project or alternatives would have a significant effect on the specific resource analyzed. The thresholds of significance are based on questions in CEQA Guidelines Appendix G and the mandatory findings of significance in CEQA Guidelines Section 15065.

The Draft EIR analyzes environmental impacts to many resources:

- Flood Protection
- Groundwater
- Water Quality
- Geology and Seismicity
- Soils
- Fish and Aquatic Species
- Terrestrial Biological Species
- Land Use
- Agriculture
- Recreation
- Socioeconomics
- Aesthetics and Visual Resources
- Cultural Resources
- Transportation
- Public Services and Utilities
- Energy
- Air Quality and Greenhouse Gas Emissions
- Noise
- Hazardous Materials and Wildfire
- Public Health
- Minerals
- Paleontological Resources
- Environmental Justice
- Climate Change
- Growth Inducement
- Tribal Cultural Resources

This document provides information about environmental impacts and mitigation for the following resources, as well as modeling results for surface water reservoir storage and river flows.

- **Air Quality and Greenhouse Gas Emissions**
- **Land Use**
- **Agricultural Resources**
- **Cultural Resources**
- **Tribal Cultural Resources**
- **Noise**
- **Transportation**
- **Fish and Aquatic Species**
- **Terrestrial Biological Species**
- **Water Quality**
- **Flood Protection**
- **Groundwater**
- **Environmental Justice**
- **Socioeconomics**

Mitigation

Mitigation is an action that will avoid, minimize, reduce, or eliminate, rectify, or compensate for a significant effect. Mitigation measures included in the Draft EIR are considered potentially feasible; however, the ultimate determination of feasibility is made by the lead agency as part of the process to certify the Final EIR, adopt findings, and decide whether to approve the project. The mitigation measures identified in the Draft EIR are not considered part of the project description.

Resource-specific mitigation measures are identified for resources within the Draft EIR where impacts are found to be potentially significant. DWR also proposes a Compensatory Mitigation Plan (CMP) to address impacts on habitat for special-status species, aquatic resources, jurisdictional wetlands and other waters.

The CMP would compensate for the loss of natural communities, habitats for species, and aquatic resources by creating habitat for special-status species on lands owned by DWR or their partners and enhancing channel margins and creating tidal wetland habitat for aquatic resources in an area known as the North Delta Habitat Arc. The CMP includes strategies to obtain mitigation bank credits or establish site protection instruments, such as a conservation easement, for mitigation sites.

As required by CEQA, each resource chapter also evaluates the potential indirect environmental impacts associated with implementing the proposed mitigation measures.

AIR QUALITY AND GREENHOUSE GAS EMISSIONS

The Draft EIR analyzes impacts to air quality and increases in greenhouse gas emissions from construction, operation, and maintenance of the proposed project and alternatives.

Air Quality

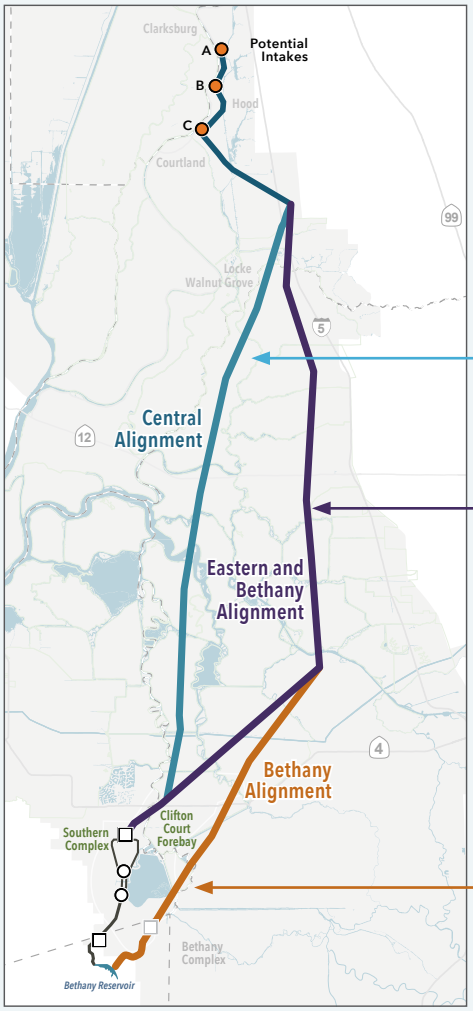
Air Quality impacts are changes from existing conditions that result from the project. The air quality pollutants evaluated in the Draft EIR are ozone precursors, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These emissions would occur mainly from construction activities and materials, and employee transport. Anticipated emissions or concentrations of these pollutants are used to determine if rates would fall below thresholds defined by state and local air resource regulatory agencies.

There is no significant region-wide impact to air quality anticipated from construction of the proposed project or any of the project alternatives. Construction of the proposed project or alternatives would result in localized emissions during construction that would have a significant impact on air quality. The figure below shows significant impacts by alternative. Emissions of nitrogen dioxide and particulate matter around the larger construction areas are estimated to exceed ambient air quality standards during some peak periods of construction. One intake location also shows a potential increase in risk to human health from diesel particulate matter emissions. All other project locations are anticipated to see a negligible increase in risk to human health. The figure below shows the impact exceedances by the central, eastern, and Bethany Reservoir alignments for nitrogen dioxide and diesel particulate matter generation. The greatest emissions during construction would be expected under Alternatives 2a and 4a, where three intakes are proposed for construction.

Mitigation measures and environmental commitments such as dust control plans, use of best available control technologies and, where commercially available, use of electric-powered or alternative fuel construction equipment would be implemented to reduce construction emissions. The human health risk mitigation measure includes the provision of financial assistance for three impacted residential receptors for high-efficiency home filters or relocation during construction. If all three impacted residential receptors accept the assistance, health risks to receptors near the intake would be reduced to less than significant.

Potential impacts from long-term operation and maintenance of the project would be comparable among all project alternatives and would not result in ozone precursor or criteria pollutant emissions above any air district thresholds.

AIR QUALITY EMISSIONS EXCEEDANCES BY ALTERNATIVE



	Nitrogen Oxide Emissions Exceedance	Diesel Particulate Matter Generation
Central Alignment		
Alternative 1	✔ Significant Impact	No Significant Impact
Alternative 2a	✔ Significant Impact	✔ Significant Impact
Alternative 2b	✔ Significant Impact	No Significant Impact
Alternative 2c	✔ Significant Impact	No Significant Impact
Eastern Alignment		
Alternative 3	No Significant Impact	No Significant Impact
Alternative 4a	No Significant Impact	✔ Significant Impact
Alternative 4b	No Significant Impact	No Significant Impact
Alternative 4c	No Significant Impact	No Significant Impact
Bethany Reservoir Alignment (Proposed Project)		
Alternative 5	No Significant Impact	No Significant Impact

Greenhouse Gas Emissions

Construction of the proposed project or alternatives would result in increased greenhouse gas (GHG) emissions. Maintenance activities after project construction would also generate direct and indirect GHG emissions, as would changes in operational pumping associated with the SWP and CVP. These annual emissions would decline over time as improvements in engine technology and regulations to reduce combustion emissions reduce the carbon intensity of equipment, vehicles, and electricity generation.

Emissions generated by project maintenance and changes in operation of the SWP would not conflict with DWR's ability to implement its climate action plan. There would likewise be no long-term GHG impact after mitigation from project construction and displaced purchases of CVP electricity.

DWR is proposing a mitigation measure that includes the development and implementation of a GHG reduction plan to reduce GHG emissions from construction and net CVP operational pumping to net zero. A net zero performance standard represents a conservative assessment of construction emissions considering that the generation of construction-related GHG emissions is generally short term in duration compared to the project's overall lifetime. Regardless, DWR conservatively selected a net zero performance standard to avoid underrepresenting potential impacts.

LAND USE

The Draft EIR analyzes impacts to land use that could result from construction, operation, and maintenance of the proposed project and alternatives.

The Draft EIR discloses that construction of the water conveyance facilities could displace between 61 and 93 permanent structures because they would be located within the project construction footprint. These structures would be residences, recreational structures, storage or support structures, and other structures.

- Construction of Alternative 2a would result in removal of the most structures.
- Alternative 4b would result in the least removal of structures.
- Alternative 5 would remove 71 structures, of which 15 are residences.
- Alternatives 2a and 4a would impact the greatest number of residences, with Alternative 2a displacing 27 residences and Alternative 4a displacing 26 residences.

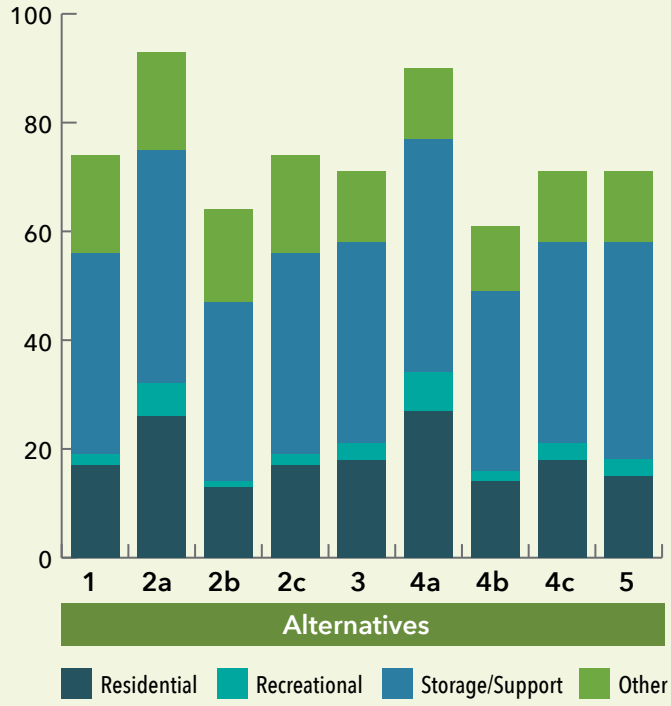
Most of the structures to be removed are in open space and agricultural areas.

The removal of structures caused by the proposed project or alternatives is not found to be a significant land use impact in the Draft EIR because relatively few structures would be removed and they are primarily located in open agricultural areas and not existing communities, and mitigation is not required as a part of CEQA. The state and federal constitutions and California's Relocation Assistance Act authorize the purchase of private property for public use and assure protection of the rights of citizens and property owners and that people displaced are treated fairly, consistently and equitably so that such displaced persons will not suffer injuries as a result of projects designed for the benefit of the public as a whole. Per the CEQA Guidelines,

the environmental impact from removal of structures would only be considered significant if the structures qualified as historical resources or if the removal of structures would lead to physical effects on other resources. The effects of displacement of structures are analyzed in the Agricultural, Cultural Resources, Noise, and Terrestrial Biological resource chapters. The Socioeconomics chapter discusses the social and economic impacts related to housing and displacement.

DWR would provide compensation to property owners for temporary or permanent losses due to implementation of the project where applicable. This compensation would not constitute mitigation for any related physical impact under CEQA; however, it would offset the economic effects.

Structures Displaced Due to Project Construction



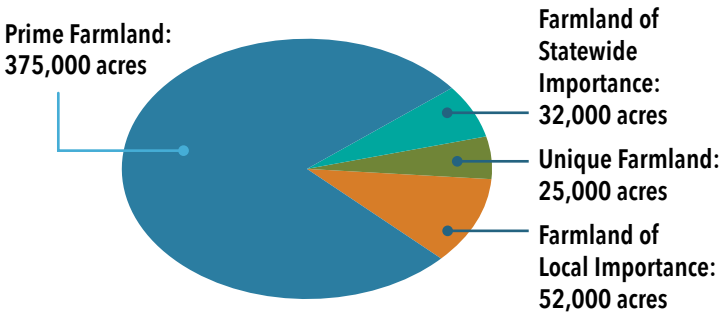
AGRICULTURAL RESOURCES

The Draft EIR analyzes impacts to agricultural resources that could result from construction, operation, and maintenance of the proposed project and alternatives. The project would potentially impact agricultural resources by converting Important Farmland to an incompatible use.

Important Farmland under CEQA is described as:

- **Prime Farmland** – Land that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- **Farmland of Statewide Importance** – Land similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture.
- **Unique Farmland** – Land of lesser quality soils used for the production of the state's leading agricultural cash crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.
- **Farmland of Local Importance** – Land that is of importance to the local agricultural economy, as defined by each county's local advisory committee and adopted by its board of supervisors.

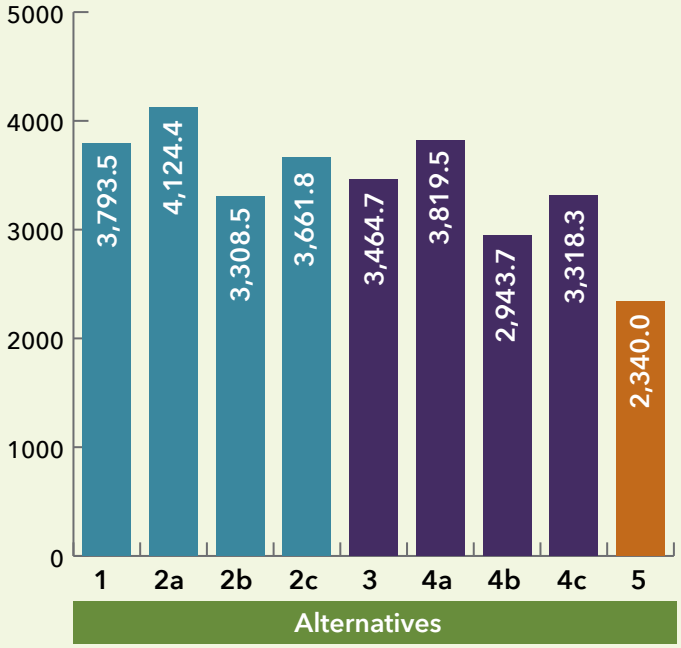
A substantial portion of agricultural land in the study area is designated Important Farmland. In the Delta, there are approximately 432,000 acres of Important Farmland:



The construction of the project's water conveyance facilities would permanently convert Important Farmland out of agricultural use. The Draft EIR conservatively assumes that temporary construction sties would result in permanent conversion of Important Farmland.

- Construction of Alternative 2a and Alternative 4a would permanently convert the highest acreage of Important Farmland. Alternative 2a would convert approximately 4,100 acres of Important Farmland and Alternative 4a would permanently convert approximately 3,800 acres of Important Farmland.
- Construction of Alternative 5 would convert 2,340 acres of important farmland.

Estimated Conversion of Important Farmland as a Result of Construction of Water Conveyance Facilities by Alternative (acres)



A factor influencing the differences in the amount of Important Farmland conversion is the number of intake sites. Alternatives with three intakes along the Sacramento River– such as Alternative 2a and 4a – would have a greater permanent footprint and more temporary construction work areas necessary to support construction of the intake facilities.

The conversion of Important Farmland from the buildout of the project is a significant impact. Mitigation would be implemented to preserve agricultural land at a 1:1 acreage ratio by acquisition and dedication of agricultural land, acquisition of development rights or conservation easements to permanently protect agricultural land, or in-lieu fee payments. Even with mitigation, this impact would remain significant and unavoidable because there would be a net loss of Important Farmland in the study area. In addition, DWR has developed a voluntary, collaborative process to further minimize effects of the project on farmland, which is described in Appendix 15B, *Agricultural and Land Stewardship Considerations*.

CULTURAL RESOURCES

The Draft EIR analyzes impacts to cultural resources from construction, operation, and maintenance of the proposed project and alternatives.

Cultural resources are considered remains or resources left by prehistoric or historic peoples (including Tribes) who inhabited California and can include prehistoric and historical archaeological sites as well as historic resources that exist in the built environment, places, and landscapes.

Construction of the proposed project's water conveyance features could impact *built-environment* historical resources as well as *archaeological resources* that are within the study area.

Under the CEQA Guidelines, construction activities would result in significant impacts on historical resources when they would result in material impairment of the characteristics that qualify it as a historical resource. This can include physical changes ranging from demolition to introduction of incompatible features in the setting of the historical resources. Construction of the proposed project and alternatives would result in significant and unavoidable impacts on built environment cultural resources and archaeological resources. Alternative 2a would impact the most built environment resources and archaeological resources, with 13 and 31 resources impacted, respectively. Alternative 4b would impact the least amount of built environment resources (4) and Alternative 5, the proposed project, would impact the least number of archaeological resources (13).

Mitigation measures would be implemented to mitigate the effects project construction would have on built-environment cultural resources. These measures include preparing and implementing a treatment plan in consultation with interested parties, such as the State Historic Preservation Officer, local historical societies, and interested parties including local preservation organizations. The Draft EIR concludes that even with the implementation of mitigation measures, impacts on built-environment resources would be significant and unavoidable. Similarly, mitigation measures would be implemented to mitigate effects on archaeological resources, including preparing and implementing an archaeological resources management plan to guide studies and treatments prior to and during project construction. Cultural resources sensitivity trainings would be conducted as a mitigation measure to inform all project personnel about cultural resources that could be encountered, and archaeologists would survey areas before any groundwork begins for cultural resources and follow established protocols if resources are exposed.

Built-environment resources are buildings, structures, objects, districts, landscapes, and Traditional Cultural Properties that are eligible for listing in the National Register of Historic Places or the California Register of Historical Resources. Archaeological resources are broadly sorted into two categories: Native American archaeological resources from before European contact, or before around AD 1500 (early Native American resources), and archaeological resources from after European contact (post-contact archaeological resources). Tribal cultural resources are places important to living communities or ethnic groups and can be a built-environment, archaeological resources or a landscape (The Draft EIR includes a separate chapter on Tribal Cultural Resources).

Impacts on Eligible Built-Environment Historical Resources Resulting from Construction and Operation of the Project (After the Application of Mitigation Measures)

	Significant and Unavoidable Impact	Less than Significant Impact	No Impact
Central Alignment			
Alignment 1	10 resources	16 resources	2 resources
Alignment 2a	13 resources	13 resources	1 resource
Alignment 2b	8 resources	17 resources	1 resource
Alignment 2c	10 resources	16 resources	1 resource
Eastern Alignment			
Alternative 3	6 resources	13 resources	0 resources
Alternative 4a	9 resources	11 resources	0 resources
Alternative 4b	4 resources	14 resources	1 resource
Alternative 4c	6 resources	13 resources	0 resources
Bethany Reservoir Alignment (Proposed Project)			
Alternative 5	6 resources	11 resources	0 resources

Impacts on Identified Archaeological Resources Resulting from the Project (After the Application of Mitigation Measures)

	Significant and Unavoidable Impact	Less than Significant Impact	No Impact
Central Alignment			
Alignment 1	30 resources	0 resources	0 resources
Alignment 2a	31 resources	0 resources	0 resources
Alignment 2b	27 resources	0 resources	0 resources
Alignment 2c	28 resources	0 resources	0 resources
Eastern Alignment			
Alternative 3	20 resources	0 resources	0 resources
Alternative 4a	22 resources	0 resources	0 resources
Alternative 4b	18 resources	0 resources	0 resources
Alternative 4c	20 resources	0 resources	0 resources
Bethany Reservoir Alignment (Proposed Project)			
Alternative 5	13 resources	0 resources	0 resources

TRIBAL CULTURAL RESOURCES

The Draft EIR analyzes impacts to Tribal cultural resources due to construction, operation and maintenance of the proposed project and alternatives.

DWR engaged California Native American Tribes (Tribes) regarding Tribal Cultural Resources (TCRs) and incorporated Tribal expertise regarding their histories and cultures and the importance and significance of resources from Tribes' perspectives. A critical Tribal perspective that resulted from government-to-government consultation with Tribes is the importance of the Delta as a whole and its interconnected landscape valued for its interrelated natural and cultural elements. This perspective led DWR to analyze the Delta as a Tribal Cultural Landscape with categories of character-defining features that are part of the whole landscape. DWR used information received during consultation to determine that the Delta Tribal Cultural Landscape (TCL) meets CEQA's definition, and therefore qualifies, as a Tribal Cultural Resource.

The Draft EIR analyzes whether the proposed project and alternatives may materially impair character-defining features of the Delta TCL. Character-defining features include:

- the Delta as a Tribal homeland and place of origin.
- the rivers and waterways within the Delta that are sacred.
- terrestrial and aquatic plant and animal species and habitats that are part of the Delta's ecosystem and Tribal heritage.
- ethnohistorical locations that are sacred places and historically important.
- archaeological sites that are sacred or important historical places.
- views and vistas of and from the Delta that are sacred and important to Tribal heritage.

While no single project component, on its own, results in a significant impact on the Delta TCL, the project as a whole would materially impair character-defining features and result in a substantial adverse change to the significance of the Delta TCL. Some effects would be minimized as a result of proposed mitigation measures to address significant impacts identified in other chapters of the Draft EIR. However, the mitigation measures included in other chapters are not focused on the Tribal or cultural significance of these resources, so the qualities that make these features character-defining features of the Delta TCL may not be mitigated to a less-than-significant level. Therefore, the project would result in a significant impact on the Delta TCL.

Mitigation measures have been identified to avoid and minimize impacts on Tribal cultural resources and to incorporate Tribal knowledge into the preparation and implementation of the Compensatory Mitigation Plan for Special-Status Species and Aquatic Resources and other measures for mitigating impacts on terrestrial biological resources, fish and aquatic resources, and cultural resources. Where avoidance or protection in place is not feasible, there is additional mitigation by way of Tribal cultural resource-specific treatment in consultation with affiliated Tribes.

Some of the key commitments identified include:

- Tribal preconstruction surveys for all ground disturbing activities.
- Tribal monitoring of all ground-disturbing construction activities.
- Setting aside land designated to relocate ancestral remains, cultural artifacts and associated burial items that may potentially be encountered. This land designation, including access rights, would be permanent.
- Tribal involvement in restoration planning efforts and access to designated spaces in the restored areas for ceremonial purposes in perpetuity.

Even with these measures, the project has the potential to materially impair affiliated Tribes' physical, spiritual, and ceremonial experience of character-defining features of the Delta TCL and therefore result in a significant and unavoidable impact on a Tribal cultural resource.

NOISE AND VIBRATION

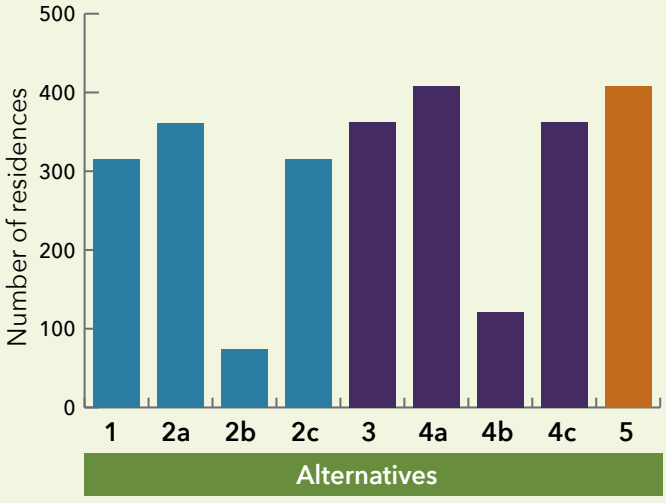
The Draft EIR analyzes impacts to sensitive receptors from noise and vibration due to construction, operation, and maintenance of the proposed project and alternatives. Sensitive receptors are locations that may be sensitive to noise, such as a residence, school or hospital. Noise and vibratory impacts to sensitive fish species are addressed in Chapter 12, Fish and Aquatic Resources. Noise and vibratory impacts to sensitive terrestrial species are addressed in Chapter 13, Terrestrial Biological Resources.

Construction of levee improvement, bridges, access roads, park-and-rides lots, utilities, and compensatory mitigation would exceed noise thresholds at nearby receptors on a temporary basis from the proposed project and alternatives. This would be a significant impact. Truck traffic on haul routes, including new access roads, and train activity on new rail spurs are not expected to exceed noise thresholds. Operation of pumping plants is not expected to be significant source of noise at the nearest receptors. Ground borne vibration or noise from heavy equipment or tunnel boring machines is not expected to result in perceptible levels of vibration within buildings or damage to building structures.

The greatest potential noise impacts from construction occur under Alternative 4a and 5, with heavy equipment noise during construction of permanent project features including intakes, shaft sites, concrete batch plants and a new forebay complex. Under Alternative 4a and 5, construction noise could exceed daytime noise thresholds at 178 residences, and nighttime thresholds at 230 residences.

Mitigation could be implemented to reduce the severity of the noise impact but would require property owners impacted by noise exceedances to participate in a sound insulation program. If property owners elect to participate in the program, noise impacts would be reduced to less-than-significant levels.

Noise Impacts: Locations Exceeding Construction Noise Levels by Project Alternative



Mitigation for Noise Impacts

The Draft EIR includes several mitigation concepts aimed at reducing noise levels through pre-construction actions, a sound-level monitoring, best noise control practices, and the installation of noise barriers.

Pre-construction actions include implementing test pile sound level monitoring at water intake facilities and providing a sound insulation program to qualifying homes and businesses near locations where construction noise would exceed daytime or nighttime noise level criteria.

Sound-level monitoring includes installing sound level meters near facility sites where construction will occur for a long-term period to verify compliance with local daytime and nighttime noise limits, and offering to relocate residents on a short-term basis if noise levels are exceeded.

Best noise control practices includes restricting construction activities to certain hours of the day (7:00 a.m. to 7:00 p.m.), using shrouds – or noise blankets – around pile-driver scaffolding, creating "quiet zones" around work areas to limit truck and equipment idling in certain construction locations, and adding enclosures around noise-generating equipment like generators or pumps.

Temporary Sound Barriers at Work Areas involves the addition of temporary sound barriers around concentrated work areas in case of a noise level exceedance.

TRANSPORTATION

The Draft EIR analyzes the potential impacts on transportation in the study area, which include facility construction areas, as well as the highway system and local roadway segments that could be affected by construction-related activities as well as operations and maintenance employee traffic activities associated with the proposed project.

What is Vehicle Miles Traveled?

Prior to the passage of Senate Bill (SB) 743 in September 2013, transportation impact analyses as part of CEQA used a traffic delay- or congestion-based metric such as level of service. SB 743 required a shift from the LOS metric to using measurements of distance traveled, such as Vehicle Miles Traveled (VMT). VMT is a measurement of the miles driven by vehicles within a specified area over a specific time period. VMT is defined as the amount of travel that occurs in automobiles, and in terms of a project like the Delta Conveyance Project, VMT is defined as the number of miles workers drive in automobiles (including automobiles and light trucks) to and from the work site during the project's construction, operations, and maintenance.

The analysis compares the VMT for the proposed project and alternatives to 22.5 miles as the average regional VMT per employee.

One method to analyze impacts associated with transportation is evaluating vehicle miles traveled (VMT). Construction of the project facilities would result in increased VMT by construction employees associated with employee trips to and from park and ride lots or construction sites. Increases in VMT during construction are substantial because the proposed project and alternatives would generate a higher average employee VMT compared to the regional average employee VMT of 22.5 miles on a daily basis because most employees are assumed to commute from population centers relatively far from the rural construction sites in the Delta. This would be a significant impact. Alternatives 2b and 4b would have the greatest increases in construction-related VMT compared to existing conditions while Alternatives 2c, 3, and 4c would have the smallest increases in VMT compared to existing conditions.

Construction and operation of the park-and-ride lots for all alternatives would reduce employee VMT on Delta roadways and reduce the severity of the project alternatives' increase in the average employee VMT but would not fully offset construction VMT. This increase is considered a significant impact because the average regional VMT would be exceeded.

Operations and maintenance work for the Delta Conveyance Project would happen at the locations where there are permanent facilities and would require a small percentage of employees to travel, compared to project construction. Under all project alternatives, operations and maintenance of the project would not result in the average VMT per operation and maintenance employee to exceed the regional average of 22.5 miles on a daily basis.

Mitigation in the form of site-specific construction transportation demand management plans and transportation management plans would be implemented to reduce impacts associated with increased VMT. These transportation plans would be intended to reduce construction employees' reliance on the use of single occupancy vehicles by incentivizing carpooling and vanpooling, requiring construction workers to use park and ride facilities, and incentivizing alternative travel modes – like transit and bicycling – to park-and-ride facilities for construction employees. Even with mitigation, the impact would be significant and unavoidable because of the uncertainty in achieving the goals of the mitigation plans. This uncertainty includes the level of participation and the challenge of large-scale carpooling and vanpooling in a large region, and the logistics requiring construction workers to carpool and vanpool.

Vehicle Miles Traveled

Alternative	Total Construction Employee VMT	Total Construction Employee Trips	Average VMT per Construction Employee
Alternative 1	91,194,066	3,551,163	25.68
Alternative 2a	107,268,666	4,154,530	25.82
Alternative 2b	77,149,716	2,855,379	27.02
Alternative 2c	90,225,139	3,621,754	24.91
Alternative 3	88,620,022	3,634,764	24.38
Alternative 4a	113,836,244	4,323,780	26.33
Alternative 4b	80,426,419	2,917,499	27.57
Alternative 4c	95,659,067	3,817,013	25.06
Alternative 5	101,945,619	3,956,138	25.77

All Project Alternatives Exceed the Regional Average of 22.50 Miles per Employee

The Draft EIR evaluates the potential for construction of the proposed project and alternatives to substantially increase hazards from geometric design features, such as sharp curves or dangerous intersctions, or from incompatible uses, like farm equipment. Construction of the proposed project would increase the amount of traffic generated by employees using the road system in the project area and this increase could lead to the potential for traffic safety hazards related to increasing the number of trucks and construction equipment operating with commuters, farming operations, and recreational users in areas next to construction sites. This impact would be significant, and would be mitigated through the transportation demand management plans and transportation management plan noted above.

Construction of the proposed project and alternatives could increase the potential for emergency vehicle delays on roadways used to access construction sites. This impact would be significant but would be mitigated to a less-than-significant level through implementation of the transportation demand management plans and transportation management plans, including:

- Coordination with emergency responders to identify routes traditionally used by voluntary responders to access fire stations, and emergency responders to access the communities from the police and fire stations.
- Coordinating on a weekly basis with emergency responders on project road construction and high-volume traffic events.
- Designating construction staff to monitor emergency response calls and communicate with construction staff to facilitate movement of emergency responders near construction sites.
- Posting information in multiple languages on the project website on a weekly basis to alert the public of daily road construction and high-volume traffic events.
- Maintaining one shoulder along existing access roads or providing detours during short-term or overnight closures to allow access for emergency vehicles that may need to travel at high speeds.
- Having steel plates and equipment available at all times to cover trench sites when there is no construction activity, such as after hours or on weekends, to provide access for emergency responders over temporary excavations.

FISH AND AQUATIC SPECIES

The Draft EIR analyzes impacts to fish and aquatic resources from construction, operations, and maintenance activities of the proposed project and alternatives.

The Draft EIR considers 21 different fish and aquatic species which could be potentially affected by the project. Fish and aquatic species evaluated in the Draft EIR were included based on their importance, vulnerability (such as being a federally or state listed as threatened or endangered species), and potential to be impacted by construction activities and changes in operations under the proposed project and alternatives.

The Draft EIR analyzes impacts to fish and aquatic species from construction of the water conveyance facilities and concludes there would be potentially significant impacts on some fish and aquatic species requiring mitigation. Potential effects would be:

- Acoustic effects through underwater noise, particularly pile-driving.
- Sediment disturbance that increases water column turbidity.
- Water quality degradation through accidental spills.
- Direct physical injury from activities (e.g., riprap placement).
- Reduced prey availability (such as zooplankton and small fish).
- Increased predation.
- Reduced habitat extent because of the physical footprint of the intake facilities.

Mitigation and environmental commitments for construction impacts would include:

- Measures to control underwater sound.
- Implementation of a fish rescue and salvage plan.
- Restoring tidal perennial habitat and channel margin habitat.
- Timing work to avoid periods with large numbers of sensitive fish moving through construction areas.

With mitigation in addition to environmental commitments, impacts to fish and aquatic species from construction of the water conveyance facilities would be less than significant.

The analysis also examines impacts from operation and maintenance of the water conveyance facilities. Impacts are analyzed as near-field effects and far-field effects. Near-field effects occur in the immediate proximity of the north Delta water intake facilities. The near-field analysis also considered effects at the existing south Delta export facilities and concluded impacts would be similar to what already exists at those locations.

Far-field effects are focused on factors such as juvenile salmonid survival through the Delta and the suitability of fish habitat. There would be potentially significant impacts due to changes in flow at and downstream of the intakes that have the potential to decrease migration rates, alter migration routing, reduce availability of rearing habitat, and increase exposure to predation for winter-run Chinook salmon, Central Valley spring-run Chinook salmon, and Central Valley steelhead. There would be potentially significant impacts to delta smelt and longfin smelt due to changes in Delta outflow that could affect the species directly or indirectly through changes in factors such as food availability.

Mitigation for operations and maintenance impacts would include:

- Constructing tidal perennial habitat
- Constructing channel margin habitat

This document takes a closer look at overall construction impacts and potential impacts on winter-run Chinook salmon and delta smelt from project operations and maintenance in an effort to simplify and summarize the highly technical and complex analysis provided in the Draft EIR. This document focuses on these species for two main reasons: 1) of the native, listed, fish species occurring in the Delta they are currently the most at-risk of extinction; and 2) their unique behavior, life-history patterns, and habitat needs allow for a broad assessment of potential project impact mechanisms.

Winter-run Chinook Salmon

Winter-run Chinook salmon is a native species that is listed as endangered under the California Endangered Species Act and the federal Endangered Species Act. Juvenile winter-run salmon can occur in the Delta during early rearing phases (usually in the fall), with peak occurrence as they migrate to the ocean as smolts, mainly in the winter (most have left the Delta by April). Winter-run Chinook salmon utilize the Delta for both migration and juvenile rearing habitat.

The Draft EIR examined the potential for winter-run Chinook salmon to be drawn through or pinned against a fish screen at the north Delta water conveyance facilities. The analysis concluded this occurrence would be very limited because:

- The location and design of intake facilities limits the extent to which winter-run Chinook salmon would be exposed to the fish screens.
- The size of the fish screen openings and the velocity – or speed – at which winter-run Chinook salmon could be entrained would be minimal.

The risk of predation on winter-run Chinook salmon near the north Delta intake facilities is not expected to be greatly different than what currently occurs in the area because the available information indicates that unusually high abundance of predatory fish near the intake facilities is not likely. While the impacts are expected to be limited, there is some uncertainty about predation effects, so fishery studies would be conducted to provide information on predatory fish and predation at the intake facilities once they are operating.

Water diversions at the proposed north Delta intake facilities would negatively impact winter-run Chinook salmon through hydrodynamic – or flow-survival – impacts as well as habitat impacts. The Sacramento River is the main migration pathway through the Delta for juvenile winter-run Chinook salmon and therefore a large proportion of the population would potentially be exposed to significant impacts. There would be potential hydrodynamic impacts associated with reduced flows due to north Delta intake facilities under all the project alternatives on migration habitat/corridors in the north Delta. Diversion of flows at the north Delta intake facilities would result in less Sacramento River flow moving downstream. While diversions would generally occur during excess flow conditions to minimize potential effects, the north Delta intake facilities would increase the effect of tides, which would increase travel time for juvenile winter-run Chinook salmon, potentially exposing them to predatory fish for longer periods. There could also be increases in the proportion of flow and therefore juvenile salmon entering the interior Delta through Georgiana Slough, which is a relatively low-survival migration pathway compared to other north Delta pathways. Additionally, water exports by the north Delta intake facilities would reduce the inundation of riparian and wetland bench habitat. This is important rearing and holding habitat for juvenile winter-run Chinook salmon.

Significant impacts on winter-run Chinook salmon would be addressed through mitigation efforts focused on tidal habitat restoration and channel margin habitat restoration to reduce negative hydrodynamic effects such as flow reversals in the Sacramento River at Georgiana Slough and reduced effects from reduced inundation of riparian/wetland benches as a result of north delta intake operations. With mitigation in addition to proposed operational criteria, impacts to winter-run Chinook salmon from operations of the water conveyance facilities would be less than significant.

Delta Smelt

Delta smelt is a native species that only occurs in the Sacramento-San Joaquin Delta and is listed as endangered under the California Endangered Species Act and threatened under the federal Endangered Species Act. Delta smelt are an annual species, meaning most live only one year in the wild, and are known as a semi-anadromous species because they migrate from brackish water to freshwater as adults to spawn, although there is evidence of year-round freshwater residence for a sub-set of the population. Operation and maintenance impacts analyzed for delta smelt include near field effects in the immediate proximity of the north Delta and south Delta export facilities, as well as far-field habitat effects such as food availability.

The delta smelt population is mainly distributed downstream and west (e.g., Sacramento-San Joaquin confluence, Honker and Suisun Bays, Cache Slough complex) of the proposed water intake facilities, so the number of individuals exposed to near-field effects such as entrainment of larvae through the north Delta fish screens would be very small. The north Delta fish screens would be designed to have the very slow water velocity standards required by the state and federal fish agencies to protect delta smelt. At the existing south Delta facilities, water exports under all alternatives are expected to be similar, or slightly lower, because of north Delta exports, and there would be similar levels of delta smelt entrainment risk under the project alternatives and existing conditions.

Water diversions at the north Delta intake facilities have the potential to negatively impact Delta smelt through reduced Delta outflow. Delta outflow is the flow of freshwater leaving the Delta toward the ocean. Operation of the project alternatives could affect delta smelt due to less Delta outflow. There would be somewhat less Delta outflow from the proposed project than existing conditions during spring through fall as a result of less outflow being needed for meeting Delta salinity requirements. Changes in outflow have the potential to modify habitat conditions known to be important for delta smelt, including a possible reduction in food produced in the Delta and transported by Delta outflow to areas where delta smelt are generally more likely to inhabit. While there is a large degree of uncertainty associated with these impacts to delta smelt as a result of Delta outflow reduction, the potential project effects are considered potentially significant given the status of the population.

Although not concluded to be a significant impact because of the relatively limited magnitude, there would be a commitment to assess and if necessary act to address effects on turbidity (the cloudiness of water caused by suspended sediment that is an important element of delta smelt habitat) because of suspended sediment removal in the water diverted at the north Delta intake facilities. Significant impacts on delta smelt would be addressed through tidal habitat restoration mitigation to increase delta smelt habitat and food availability. With this mitigation in addition to other project design features and environmental commitments, impacts to delta smelt would be less than significant.

TERRESTRIAL BIOLOGICAL SPECIES

The Draft EIR analyzes impacts to terrestrial, or land-based, animal and plant resources from construction, operations, and maintenance activities of the proposed project and alternatives.

A total of 38 plants, 75 animals, and 8 different habitats were evaluated.

Constructing the water conveyance facilities would impact areas of natural communities, occurrences and habitat for special-status plants and wildlife species, and aquatic resources in the study area.

- The central alignment alternatives (Alternatives 1, 2a, 2b, and 2c) would generally result in greater impacts on terrestrial biological resources relative to the eastern alignment alternatives (Alternatives 3, 4a, 4b, and 4c) and the Bethany Reservoir alignment (Alternative 5), which is largely due to the improvements on Bouldin Island and road improvements throughout the central alignment.
- Alternative 2a would result in the greatest impacts on terrestrial biological resources, which would be primarily due to construction activities at the Southern Complex.
- Alternative 4b would also have relatively fewer impacts and for some resources would have the fewest quantified impacts of all alternatives (e.g., valley/foothill riparian, greater and lesser sandhill cranes) primarily due to having only one intake, smaller RTM impacts associated with the Twin Cities Complex, and for the eastern and Bethany Reservoir alignments, the smallest RTM footprint on Lower Robert's Island.
- Alternative 5 (the proposed project) would have substantially fewer impacts on state and federally protected terrestrial resources compared to the other alternatives in large measure because it connects directly to Bethany Reservoir and avoids the need to construct a new forebay.

Mitigation actions to compensate for impacts to terrestrial species is included in the Compensatory Mitigation Plan (CMP). The CMP describes several habitat mitigation sites where habitat creation and enhancement could take place to offset losses of aquatic resources and species habitat or otherwise mitigate project impacts. Other avoidance measure identified to minimize impacts include limits to the season of work, time of day of work, and vehicle speeds; creating avoidance buffers or installing exclusion fencing; and employing biological monitors. The types of mitigation identified include conservation banks, conservation easements, habitat protection and habitat creation programs.

WATER QUALITY

The Draft EIR analyzes potential impacts to water quality that could result from construction, operation, or maintenance of the proposed project and alternatives.

The constituents selected as the focus of the chapter were determined through a rigorous screening process and public scoping comments, and include boron, bromide, chloride, electrical conductivity (EC), mercury, nutrients, organic carbon, dissolved oxygen, selenium, pesticides, trace metals, total suspended solids and turbidity, and cyanobacteria harmful algal blooms (commonly known as CHABs).

Construction of the project alternatives has the potential to affect water quality because activities would result in land disturbance and the transport and handling of a variety of hazardous and nonhazardous substances. However, impacts to water quality from construction are minimal due to on-site treatment of runoff and dewatering water prior to discharge and construction-related environmental commitments and best management practices the project would employ.

Operation of project alternatives' facilities has the potential to affect water quality through changes in Delta inflows from the Sacramento River, resulting in changes to the proportions of the other sources of water in the Delta (eastside tributaries, San Francisco Bay, San Joaquin River). Analysis shows facility operations would have minimal effects on most constituents, but showed potential increases in bromide, chloride, and EC in some locations. Those constituent increases would vary with season, and water year type, and not adversely affect the uses of Delta waters, including for agriculture (irrigation).

Analysis also finds that residence time may increase in some areas of the central Delta potentially impacting CHAB formation. However, the increases in residence time would be minor relative to existing conditions and are not expected to adversely affect Delta water uses.

Maintenance activities would have minimal impact on water quality.

Overall, it was determined the project alternatives would lead to no appreciable changes for the other nine constituents, or for parameters like velocity and temperature, and therefore, there would be no significant impacts to Delta waters.

The chapter identifies environmental commitments including Hazardous Materials Management Plans; Spill Prevention, Containment, and Countermeasure Plans; Erosion and Sediment Control Plans; and Stormwater Pollution Prevention Plans.

FLOOD PROTECTION

The Draft EIR analyzes potential impacts on flood protection that could result from construction, operation, and maintenance of the proposed project and alternatives.

The proposed project and alternatives do not change any flood management infrastructure in the Sacramento River Basin or in the Delta. Therefore, the impacts of project alternatives are analyzed for the Sacramento River reach where the drainage of flood water may be affected by the construction and operation of the intakes and localized flood flow impacts by project facilities.

Hydraulic analyses found that water surface elevation increases in the Sacramento River associated with the construction, operation and maintenance of the intakes would result in minimal flood protection impacts except during the construction of Alternatives 2a and 4a, where all three intakes are used. The water surface increases caused by the development of all three intakes could cause a significant impact, but this impact would be mitigated through phased construction of the water intake facilities, which would reduce impacts to a less than significant level.

Outside the Sacramento River, construction of permanent facilities under various project alternatives involve excavation, grading, stockpiling, soil compaction, and dewatering that could result in alterations to runoff, drainage patterns, erosion, stream courses, and surface water elevations during construction of facilities. All project features would be constructed to not increase peak runoff flows into adjacent storm drains, drainage ditches, or rivers and sloughs. All surface water runoff and dewatering flows or additional runoff during construction would be captured, treated, stored, and, if possible, reused on site. If additional stored water is not needed, the treated runoff flows would be released in a manner that would not increase peak surface water elevations in adjacent channels. Shallow flooding has historically occurred at the land-side sites of the proposed north Delta intakes due to natural depressions. Therefore, the project alternatives include drainage and pump enhancements to ensure intake facilities will not be subject to flooding. These sites would be continuously monitored during construction and operation. Because drainage and pump enhancements are included in facility design, the potential impacts of localized flooding at the intakes would be minimized.

GROUNDWATER

The Draft EIR analyzes potential impacts on groundwater that could result from construction, operation, and maintenance of the proposed project and alternatives.

The Draft EIR analyzes the potential impacts on groundwater levels, groundwater storage, and interconnected surface water flows in the study area. A regional scale integrated groundwater and surface water model was used as the analytical tool for quantitative analysis of impacts from project operations. The impacts on groundwater from construction and maintenance are discussed qualitatively.

The model simulation results indicate that no significant groundwater impacts are expected to occur as a result of project operations. There are slight changes in stream losses/gains, groundwater elevations, and groundwater in storage resulting from project operations, but these changes are minimal. However, during project construction and maintenance, there is a potential for impacts due to temporary localized changes in groundwater elevations from dewatering at construction and maintenance sites. These localized impacts could affect water wells near the project sites, cause changes in groundwater elevation that mobilize existing contaminant plumes, or result in the migration of lower-quality groundwater into areas of higher-quality groundwater. Although impacts are determined to be less than significant, mitigation, which includes groundwater-well monitoring, is proposed to further reduce potential localized impacts due to construction and operations.

ENVIRONMENTAL JUSTICE

The Draft EIR analyzes potential disproportionate impacts to minority and low-income communities, also termed environmental justice communities, from construction, operation, and maintenance of the proposed project and alternatives. While an environmental justice analysis is not required by CEQA, state legislation, executive orders, and policies do instruct state agencies to consider the impacts of their actions on environmental justice communities. In addition, the U.S. Army Corps of Engineers is required to prepare an environmental justice analysis for its (EIS) for the Delta Conveyance Project. Therefore, DWR has included an environmental justice analysis that aims to consider environmental justice concerns and disclose potential effects of the Delta Conveyance Project on environmental justice communities to achieve state and federal environmental justice directives.

The environmental justice analysis draws on the analysis from the other resource chapters and focuses on those resources and impacts that are found to be potentially significant or significant and unavoidable. The analysis evaluates whether the potential impacts identified in the resource chapters would affect environmental justice communities disproportionately compared to the effects on non-environmental justice communities impacted by the project. Environmental justice communities are identified using census tract data.

Construction and operation of project facilities could have potential significant impacts on water quality, agricultural resources, cultural resources, transportation, air quality and greenhouse gases, and noise. Most significant impacts would be reduced by implementation of environmental commitments or mitigated to a less-than-significant level by resource-specific mitigation measures.

Because minority and low-income residents meeting or exceeding the respective environmental justice thresholds are present in the study area census tracts, it is assumed that impacts that are determined to be significant and unavoidable would constitute a disproportionately adverse effect on environmental justice communities. Conversely, when mitigation reduces impacts to a less-than-significant level, the mitigation reduces impacts in minority and low-income populations to a less than significant level, too, so the remaining impacts would not exceed those on the general population; therefore, impacts on environmental justice communities would not be considered disproportionate.

Environmental Justice Survey for the Delta Conveyance Project

DWR conducted a survey in 2020 to gather perspectives of members of low-income, minority, indigenous, historically burdened, and otherwise underrepresented or disadvantaged communities (including limited English speakers) who live or work in the Delta. The objective of the survey was to inform DWR through gaining a better understanding of the priorities, values, and needs of Delta's diverse communities. It also aimed to gather perspectives and information about how community members value, experience, and depend on the region's cultural, recreational, natural, agricultural, and economic resources in order to identify how the project may impact those resources or potentially bring benefits to Delta communities. The findings from the survey were used to help inform the environmental justice analysis in the Draft EIR. An overview of the survey is available here.

SOCIOECONOMICS

The Draft EIR evaluates potential effects from construction, operations, and maintenance on socioeconomics, including economic conditions, community character and demographic conditions in the study area. For the purposes of CEQA, social and economic impacts are not considered impacts on the physical environment. While a socioeconomic analysis is not required by CEQA, these topics are important to community members, decision-makers, and is a requirement of the Draft EIS which is being prepared by the U.S. Army Corps of Engineers.

The analysis discloses the following changes that could occur as a result of the proposed project and alternatives but does not make CEQA determinations.

Regional employment and income

- Project construction would create new temporary construction jobs in the region.
- Some agricultural jobs would be lost from removal of agricultural land in the project construction area.
- Project operations and maintenance would create new permanent jobs.

Regional population and housing

- There would be a very small population increase from employment created by project construction activities.
- There would be a very small increase in housing demand from population increase.
- Small increases in population and housing are not expected to cause a physical change to the environment.

Community character in the Delta

Changes to community character could occur from reductions in agricultural acreage and production from project construction. These effects are anticipated to be minimal because the reduction would be less than one percent of agriculture in the Delta.

Recreational economics in the Delta and project area

The Draft EIR examined if and what potential physical changes to recreational facilities or opportunities may occur and how the project might affect the quality of recreation.

- The analysis shows no substantial effects on recreational economics.
- Potential impacts to waterways in areas used for recreational boating would be limited to immediately near intake locations on the Sacramento River and and discharge facility locations on Italian Slough. This would result in a minor impact to recreation economics.

Recreational Events and Festivals

The analysis shows no project construction impacts to impact events and festivals that draw tourism to the region. Most events occur on weekends when there would be little or no construction work. Additionally, DWR's environmental commitments for dust control, noise abatement, installation of visual barriers around construction sites, transportation management plans, and to limit disturbances to community events and festivals would avoid or minimize disruptions.

Agricultural economics in the Delta and project area

Construction of the project would lead to impacts on the value of agricultural production due to losses in production and acreage, but these are not expected to be substantial because they represent less than one percent total important farmland in the Delta for all alternatives.

MODELING

California has complex water management systems with natural features like mountain snowpack, lakes, rivers, and groundwater basins that are managed with engineered features like reservoirs, levees/flood walls, weirs, culverts, bypasses, and canals. Models represent the complex physical interactions between these features in a conceptual way. The Draft EIR uses various models to inform the resource analysis, including CalSim 3, a reservoir-river basin planning model developed by DWR and the U.S. Bureau of Reclamation to simulate the operation of the SWP and CVP over a range of different hydrologic conditions.

Modeling Results

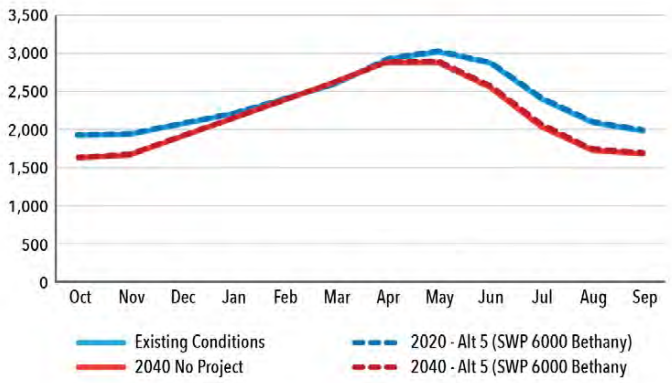
The Draft EIR analyzes potential changes to surface water, including to SWP and CVP storage and to long-term monthly average flows in rivers upstream of the Delta. The surface water study area comprises the Sacramento River Basin and the Delta—located at the confluence of the Sacramento and San Joaquin Rivers. The Draft EIR examines the Trinity, Sacramento, Feather, and American Rivers (and relevant associated reservoirs) in the Sacramento River Basin. These surface waters represent the geographic areas where potential changes could occur to surface waters as a result of the operation of new diversion and conveyance facilities for the SWP and, potentially, the CVP identified in the project alternatives. Surface water resources associated with the San Joaquin River are not expected to be affected and are not discussed in this document but are briefly described in the Draft EIR.

Results in Changes to SWP and CVP Storage

No changes are being proposed in operational rules and water supply allocation procedures for the existing SWP/CVP system, but operation of the proposed north Delta intakes could result in changes in simulated river flows and reservoir storage levels.

Storage volumes at SWP and CVP north-of-Delta reservoirs averaged for all years under the proposed project (Alternative 5) are similar to the existing conditions baseline. Additionally, the modeling effort considered a 2040 No Project condition and simulated Alternative 5 under those conditions, and the modeling indicated only minor changes in reservoir storage. For Trinity Lake, Shasta Lake, Lake Oroville (in the graph shown here as an example), and Folsom Lake, storage changes are minimal, and the changes that do occur are generally minor increases. The minor increases occur because of lower releases for exports (because of diversions at the proposed north Delta intakes) and carriage water savings.

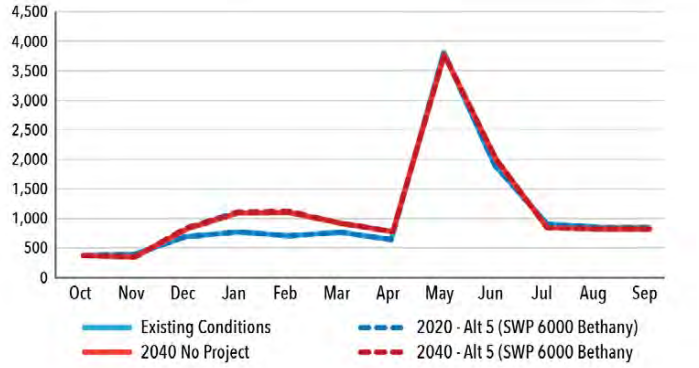
Storage – Oroville Storage – All Years



Results in Changes to Long-term Average Monthly Flows in the Trinity, Sacramento, Feather and American Rivers

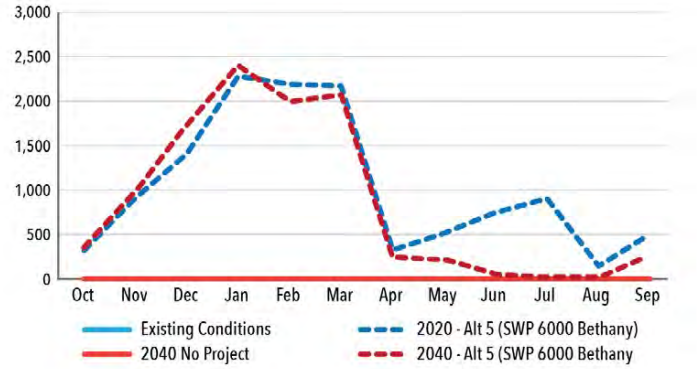
Generally, long-term average monthly flows in the Trinity, Sacramento, Feather and American Rivers at locations north-of-Delta for the proposed project are similar to the baseline under both existing conditions and the 2040 No Project, with some minor differences. During summer and fall months, there are minor flow decreases while there are small increases in flows during the winter and spring on a monthly average basis, as seen in the graph shown for the Trinity River as an example.

Upstream Flows – Release-Trinity – All Years



The figure included below shows monthly average diversions at the proposed north Delta Intakes. During the winter and spring, when there are excess flows in the system, the proposed north Delta intakes would be used to capture additional excess flows when south Delta exports are limited and unable to capture those flows. During the late spring, summer, and fall—when the SWP and CVP are typically operating to meet salinity requirements in the Delta—both the existing south Delta intakes and the proposed north Delta intakes would be operated together. Use of the proposed north Delta intakes, particularly in July through December, can be used to reduce carriage water requirements, which are necessary to move exports through the south Delta when salinity requirements are controlling. During the high flow winter months when north Delta intakes are capturing additional excess flows, there is a decrease in average monthly Delta outflow.

Delta – Total NDD Exports – All Years



HOW TO REVIEW AND EFFECTIVELY COMMENT ON THE DRAFT EIR

Why comment on a Draft EIR?

- The Draft EIR public review process provides an opportunity for the public to provide information to help DWR refine or improve the analysis of environmental impacts and feasible mitigation for those impacts found to be potentially significant. The best way to make the lead agency and all other public agencies proposing to approve a project aware of concerns related to the environmental analysis is to send in comments during the public comment period.
- The public review period for a Draft EIR provides an opportunity to address concerns related to any potential direct or indirect impacts to the physical environment, including impacts to aesthetics, agricultural resources, air quality, noise, traffic, biological resources, water quality, and historic, cultural, and tribal cultural resources.
- All substantive comments on the Draft EIR must be addressed by the lead agency in the Final EIR.

Suggestions for reviewing the Draft EIR

Start with the Executive Summary

- Review chapter(s) and appendices of particular interest
- Review references if needed (these are separate from the EIR)

Considerations

- Is the scope adequate?
- Is the discussion of existing conditions complete?
- Is there analysis to support the conclusions?
- Are the determinations of significance clear?
- Are mitigation measures well defined, feasible, and fully enforceable?
- Is the environmental analysis contained in the EIR technically adequate?

If there are shortcomings, explain what they are, and include any supporting facts and additional evidence not considered by DWR.

When providing comments on the Draft EIR, consider:

- **Substance:** Address specific components of the analysis regarding significant environmental impacts and provide substantive comments that point out errors, inconsistencies, or data emissions.
- **Supporting Evidence:** Back up comments by providing references, evidence, or other factual support.
- **Objectivity:** Provide objective comments instead of personal opinion. While submitting personal views on the proposed project or DWR is not prohibited, these types of non-substantive comments may not receive a specific response in the Final EIR.

Effective Comments

- Are concise, focusing on the environmental analysis in the Draft EIR
- Relate to the project's potential for impacts on the physical environment
- Identify the specific part of the Draft EIR at issue
- Include supporting evidence/facts, such as references or citations to published articles, books or specific webpages where the supporting evidence is presented