

DRAFT
California Water Commission
2015 ANNUAL REVIEW
of the construction and operation of the State Water Project

**CALIFORNIA
WATER COMMISSION**

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Background and Authority

The California Water Commission consists of nine members appointed by the Governor and confirmed by the State Senate. Seven members are chosen for their general expertise related to the control, storage, and beneficial use of water and two are chosen for their knowledge of the environment. The Commission provides a public forum to discuss water issues, advises the Director of the Department of Water Resources (DWR), and takes appropriate statutory actions to further the development of policies that support integrated and sustainable water resource management and a healthy environment.

The roles and responsibilities of the Commission are defined in the Water Code, sections of the Government Code, and the Code of Civil Procedures. The California Water Commission conducts an annual review of the construction and operation of the State Water Project (SWP), and makes a report on its findings to the Department and Legislature, with any recommendations it may have. (WC §165)

KEY ACTIVITIES OF THE WATER COMMISSION'S ANNUAL REVIEW OF THE STATE WATER PROJECT

In 2015, the California Water Commission closely coordinated with the Department of Water Resources to identify issues and challenges, and to ensure the integrity and sound operation of the SWP.

- In February 2015, the Commission considered and adopted updated regulations governing the SWP Encroachment Permit process. Establishing a formalized process for issuing encroachment permits allows DWR to ensure that SWP facilities are adequately protected during activities related to the construction of improvements in or around the SWP right of way, and to ensure that the State's property rights and ability to operate and maintain its facilities are not infringed upon without the State's consent and concurrence. The Commission, which by statute must approve all department regulations, approved the final regulation on February 18, 2015. (Water Code §161)
- In September 2015, SWP Deputy Director Carl Torgersen made a presentation to the Commission on key activities of the SWP. This included updates on the SWP labor contracts process, labor and staffing issues, Federal Energy Regulatory Commission (FERC) relicensing, refurbishments and repairs at SWP facilities, and the use of renewable energy in operations. The Commission's analysis of this information is consistent with the statutory responsibility of the Commission to conduct an annual review of the progress and construction of the Project. (Water Code §165)
- On April 13, 2015 members of the Commission toured SWP facilities in DWR's Oroville Field Division and on October 12, 2015 members of the Commission toured SWP facilities in DWR's Delta Field Division. At these facilities, Commission members had the opportunity to discuss a variety of topics with SWP staff and management, including project operations, construction and maintenance, power and energy, regulatory compliance, staffing, and future opportunities and challenges. These discussions also focused on long term issues including water supply reliability in the face of climate change, population growth, and protection of ecosystems.

Description of sites visited:

- Lake Oroville is the beginning of the SWP system. Winter and spring runoff from the Sierra Nevada mountain range is stored behind Oroville Dam; from there it travels through the Sacramento-San Joaquin Delta and is transported throughout the state. The Oroville complex includes water storage and conveyance facilities as well as power generation facilities. Commission members toured facilities including the Hyatt Powerplant and Oroville Dam. Commission members and SWP staff discussed the impacts to Project operations caused by the current drought and the 2012 fire at the Ronald B. Robie Thermalito Pumping-Generating Plant.
- The California Aqueduct begins in DWR's Delta Field Division, where water is pumped from the Sacramento-San Joaquin Delta into Clifton Court Forebay, and into the Aqueduct. Commission members toured Banks Pumping Plant, Skinner Fish Facility, and Clifton Court Forebay and Intake Structure. Discussions with SWP staff focused on long-term sustainability, the drought's effects on pumping capability, and protections for fish.

FINDINGS AND RECOMMENDATIONS

The California Water Commission was briefed at its monthly public meetings on other key issues related to the State Water Project. From those discussions emerged several key areas of concern and recommendations for action:

Impacts to the State Water Project and Water Deliveries During Severe Droughts

California is in its fourth year of extreme drought conditions. Despite increased precipitation in late 2015, 87% of the state remained in severe, extreme, or exceptional drought conditions at the end of the year. The drought continued to have significant impacts on water deliveries and SWP operations in 2015. The Commission was briefed on drought conditions, impacts, and response actions several times throughout the year. Several consecutive years of below average precipitation and snowpack have left SWP reservoirs at consistently low levels and have prevented DWR from delivering SWP contractors' maximum entitlements. After an initial allocation of 10% and a subsequent increase to 15%, the SWP was able to provide a 20% allocation for State Water Contractors in March 2015. The allocation increases were made possible primarily by runoff from late winter storms that was exported and stored in San Luis Reservoir.

In addition to water deliveries, the drought has also impacted SWP operations. At their site visit to the Delta Field Division, members of the Commission learned that pumping into the California Aqueduct is currently extremely limited. Decreased pumping at SWP facilities has also limited DWR's ability to generate power. Energy generated by the SWP typically powers Project operations, and also helps stabilize California's electrical grid.

The Commission supports activities to fully integrate SWP operations into an overall State drought plan and to prepare for the impacts of a potentially dry 2016 in order to maximize water supply reliability for municipal, agricultural, industrial, and recreational uses and for protecting and enhancing fish and wildlife.

Investments to Maintain and Improve State Water Project Operations and Facilities

DWR provided the Commission with information about its activities to address some of the administrative and procedural challenges of effective operations. DWR continues to consider ways to improve internal and external business practices and processes to reduce costs, increase efficiency, and streamline processes that improve reliability of operations and water deliveries. To meet these changing needs, the Commission supports continued discussion and evaluation of new governance structures that will provide long-term sustainable solutions to administer the operations of the SWP in ways that are more cost effective, more flexible, and more efficient.

Much of the SWP infrastructure is approaching 50 years old and requires upkeep to remain in working condition. To deal with these needs, DWR's developed the Asset Management Program, which is a comprehensive approach to coordinate investments in refurbishment. The program assesses risks associated with the SWP and maintains the schedule for facility refurbishment. The goal of implementing the Asset Management Program is to prevent unexpected problems or failures that could be the result of aging infrastructure.

During a September 16, 2015 briefing the Commission was updated on the status of several maintenance projects. Seismic remediation is currently underway at Perris Dam. A change in seismic requirements necessitated the work, which will strengthen and protect the dam against a maximum credible earthquake. DWR estimates that this work will be

complete in September 2017. DWR has completed clean-up efforts after a 2012 fire at the Ronald B. Robie Thermalito Pumping-Generating Plant and is in the process of refurbishing both the plant and the systems that were damaged. Some mechanical and electrical upgrades are also being made during the refurbishment process, which will be completed in December 2018.

The Commission was also updated on the River Valve Outlet System (RVOS) at Oroville Dam. Following an accident at Oroville Dam's low level outlet works in 2009, DWR concurred in a 2012 Agreement with both CalOSHA and the International Union of Operating Engineers (representing DWR Trades and Crafts staff) not to operate the RVOS until the system was completely refurbished. DWR embarked on an accelerated refurbishment program to respond to concerns about operational needs during the ongoing drought. Personnel from DWR's Division of Operations and Maintenance and Division of Engineering, along with DWR contractors, successfully refurbished, tested, and commissioned the RVOS for 2014 drought emergency operations which commenced in August 2014. DWR is currently utilizing the RVOS for Feather River fishery water temperature management; if the drought continues the RVOS may be the only method available to release cold water into the Feather River.

DWR is also making progress to renew the Federal Energy Regulatory Commission (FERC) licenses for the operation of several SWP facilities. Coordination is occurring with regulatory agencies to complete relicensing of the SWP's hydropower facilities in Oroville. The FERC license for the southern SWP hydropower facilities expires in January 2022. DWR obtained conduit exemptions from FERC for the Alamo and Mojave Siphon Powerplants, which reduces the scope of the relicensing since conduit exemptions are issued in perpetuity. DWR is beginning the relicensing process for the remaining southern SWP hydropower facilities; the Pre-Application Document is due to FERC between August 2016 and January 2017.

These investments are crucial to the continued operation of the SWP. The Commission fully supports DWR's efforts to improve and maintain all SWP facilities.

Ongoing Efforts to Address Long-Term State Water Project Staffing Needs

In 2012 and 2013, the Commission strongly supported action to alleviate the serious staff recruitment and retention crisis facing the SWP, and encourage further consideration of SWP governance solutions. In 2012, the Governor's Office announced wage increases averaging nearly 30% for SWP trades and crafts personnel. The Commission has remained engaged in this issue and has regularly followed up on the progress of SWP recruitment and retention. During their site visit to the Delta Field Division, members of the Commission were informed that Technical Apprentices are now staying with DWR at higher rates following pay increases. At the September 2015 Commission meeting, SWP Deputy Director Carl Torgersen informed the Commission that several of the SWP's labor bargaining units were under contract negotiations and the Engineer and Environmental Scientist bargaining units had reached tentative agreements. Although the salaries for some SWP staff classifications are still below market average, recent pay raises narrowed the disparities and recruitment and retention for Trades and Crafts personnel improved after the increase in compensation. Recruitment and retention continues to be a problem for Environmental Scientists, which has complicated biological opinion compliance for the SWP.

While the Commission recognizes these positive changes, it is also aware of continued challenges to establish pay parity in other critical job classifications that are vitally

important to the success and safety of the SWP to meet operational and regulatory requirements. The Commission will continue to support efforts to ensure the SWP has the appropriate personnel and fiscal resources to safely operate and maintain critical facilities and provide reliable water supplies for California.

Increased Reliability of the SWP and Other Water Systems Through Water Storage Improvements

Since the passage of Proposition 1 in November 2014, the Commission has spent a considerable amount of time and energy developing the Water Storage Investment Program in order to allocate the \$2.7 billion dedicated for the public benefits of water storage projects. One eligibility requirement for the program is that all projects funded by the Commission must improve the operation of the state water system. California's water system is extremely interconnected, and additional water storage will have far-reaching effects. The Commission is encouraging project proponents to consider integration and system-wide benefits when formulating water storage projects.

The Commission has been coordinating with a variety of organizations to help ensure that the Water Storage Investment Program helps achieve all the goals of the Commission, including improved reliability. In 2015, the Commission convened a Stakeholder Advisory Committee comprised of over thirty organizations representing a variety of water interests in California. The Stakeholder Advisory Committee provided Commission members and staff with feedback regarding development of the Water Storage Investment Program and its regulations. Additionally, the Commission received several presentations throughout the year about how to make the biggest impact with Water Storage Investment Program funds.

Water supply reliability is of critical importance to the SWP and the Commission will continue to collaborate with DWR and other organizations and support actions taken to improve reliability, including prioritizing investments in water storage that maximize benefits to California's water supply system.

SWP Contract Extensions

Sound financial management is of critical importance to the operations and long term planning of the SWP. In 2013, DWR started a process with the State Water Project Contractors to negotiate an extension of existing SWP Long Term Water Supply Contracts, most of which are set to expire in 2035. In June 2014, DWR and the Contractors tentatively agreed to extend the contracts to 2085 and reached an Agreement in Principle that primarily addressed financial issues. DWR addressed the Contractors' participation in financial policy discussions and made changes to the billing process. DWR anticipates the amendments will be signed in 2017.

The Commission will continue to monitor the progress and efforts to ensure optimal financial management of the SWP through accountability, cost effectiveness, transparency, and sound management.

Long-Term Sustainability of the SWP

The Commission recognizes the need for focus on the long-term physical, personnel, and resource sustainability of the SWP. The needs of the SWP are broad, and the following are examples of activities that will assist in the achievement of long-term sustainability. DWR's Asset Management Program, addressed above, is an important step toward improving the physical sustainability of SWP infrastructure, and the Commission commends DWR on its efforts. In order to improve resource sustainability, DWR has embarked on a project to increase the use of renewable energy in SWP

operations. The goal is for 50% of the SWP's energy needs to be served by renewable sources. Although there have been improvements in recruitment and retention, it is likely that further action will be necessary to ensure the sustainability of SWP staffing in the future. Adequate staffing resources are integral to the daily and long-term operation of the SWP and DWR must prioritize all forms of sustainability in order for the SWP to continue to serve the needs of millions of Californians.

The Commission will request updates on sustainability on a quarterly basis and will continue to be engaged in many discussions about investment needs and opportunities for the SWP and other improvements to enhance the statewide water management and sustainability of the SWP.

The SWP, some parts of which are now more than 50 years old, will continue to face significant opportunities and challenges to serve the millions of California families, farms, businesses, and communities that rely on it for a safe and reliable water supply. The California Water Commission looks forward to the opportunity to work with DWR, the Brown Administration, the State Legislature, State Water Contractors and water agencies, and the many stakeholders to support this mission.

OVERVIEW OF THE STATE WATER PROJECT

In 1960, California voters approved the Burns-Porter Act which authorized \$1.75 billion to finance construction of the SWP and authorized DWR to design, construct, and operate the SWP. Over the past 50 years, the SWP has adapted to serve California's growing needs. The SWP of today:

- Serves 25 million Californians and 750,000 acres of farmland
- Operates to provide water, water quality benefits, flood control, recreation, and enhance fish and wildlife habitat
- 20 pumping plants, 4 pumping-generating plants, 5 powerplants, 23 dams, 36 storage reservoirs, 700 miles of canals and pipelines
- Is the 3rd largest hydropower generator in California
- Produces about 14% of California's hydroelectric generation

The SWP is the largest state owned and operated water and power utility in the United States. The SWP delivers water to 29 contracting public agencies in Northern California, the San Francisco Bay Area, the Central Coast, the San Joaquin Valley, and Southern California. These water deliveries supplement surface and groundwater resources for most of these agencies. Of the contracted water supply, approximately 70% goes to urban users and 30% goes to agricultural users. The SWP is one of California's largest energy producers and generates approximately 60% of its own energy needs. These energy operations help support and stabilize the state's electrical grid. The SWP also provides flood control, operates to help protect the environment, and provides recreation at SWP lakes and reservoirs.

The SWP's water supply capability depends on rainfall, snowpack, runoff, reservoir storage, pumping capacity from the Delta, and legal environmental constraints on project operations. The SWP water supply comes from storage at Lake Oroville and high runoff flows in the Delta. Water deliveries have ranged from 1.6 million acre-feet in dry years to over 3.5 million acre-feet in wet years.

California's State Water Projects

State Water Project



THE STATE WATER PROJECT - 2015 ANNUAL REVIEW

Water Project Operations

California experienced a fourth consecutive dry year in 2015. Recent years have been some of the driest on record, and SWP allocations reflect those conditions. In March, DWR increased the final 2015 allocation from 15% to 20% of the SWP Contractors' requested Table A amounts, which is approximately 4.2 million acre-feet. Table 1 shows deliveries in recent years.

A drought was declared under the Feather River Settlement Contracts in 2015. This resulted in a 50% cut in applicable water supplies to all Feather River Settlement Contractors for the first time in nearly 25 years.

Table 1. SWP Water Deliveries

Year	Water delivered (acre-feet) ¹
2000	4,932,032
2001	3,293,781
2002	4,053,989
2003	4,223,255
2004	4,380,657
2005	4,732,633
2006	4,828,580
2007	4,061,696
2008	2,838,128
2009	2,913,829
2010	3,500,891
2011	3,553,218
2012	2,836,272
2013	2,103,230
2014	1,078,905
2015 ²	1,094,905

¹Source: Department of Water Resources' State Water Project Analysis Office. (In addition to Table A, reported deliveries include Carryover, Article 21, other SWP deliveries such as Settlement, Permit and Flexible Storage, and other Non SWP deliveries such as Dry Purchase, Temporary Transfer and Water Bank Recoveries.)

²Through September 2015.

In 2015, the SWP generated an estimated 1,380 gigawatt hours (GWh) of energy. During the same period, the SWP used an estimated 2,653 GWh of energy. Nearly 70% of this power is used by the Valley String Pumping Plants (Dos Amigos to Edmonston Pumping Plants) to lift water over 3,000 feet from the southern San Joaquin Valley over the Tehachapi Mountains and into southern California. Table 2 reflects recent years' energy generation and usage.

Table 2. SWP Power Generation and Usage

Year	Power Generated (GWh/year)	Power Used (GWh/year)
2006	7,515	9,109
2007	6,410	9,276
2008	4,100	5,701
2009	4,255	5,438
2010	4,368	7,184
2011	5,258	8,583
2012	4,810	7,404
2013	3,679	5,733
2014	1,438	2,787
2015 ³	1,380	2,653

³Through September 2015.

Status of Construction Projects

This section is intended to highlight key projects and projects of particular interest to the Commission, not to be a comprehensive list of construction projects. The following information has been provided to the Commission by the Department of Water Resources.

East Branch Extension – Phase I Improvements

The East Branch Extension is a cooperative effort among DWR, San Bernardino Valley Municipal Water District (SBVMWD) and San Geronio Pass Water Agency (SGPWA) to deliver SWP water to the east side of SBVMWD and SGPWA's service areas. The project conveys water from the Devil Canyon Powerplant Afterbay to Cherry Valley through a series of existing and new facilities. Construction for Phase I was completed in 2003. Construction of Phase I Improvements, including tree-planting as part of environmental mitigation, is scheduled for completion by December 2017.

The purpose of the Phase I Improvements Project is to provide additional operational flexibility, system reliability, and reduce on-peak energy demands. Phase I Improvements include the enlargement of Crafton Hills Reservoir and construction of the Yucaipa Connector Pipeline. The reservoir's operating storage will increase to 225 acre-feet and the pipeline will consist of approximately one-half mile of 42-inch diameter steel pipe. Completed Phase I Improvements include enlargement of Crafton Hills Reservoir, which began in 2012 and was substantially completed in September 2014 when the reservoir was refilled with water. Construction of the Yucaipa Connector Pipeline began in 2010 and was completed in 2011.

East Branch Extension – Phase II

The East Branch Extension Phase II Project will add facilities that bypass a segment of the East Branch Extension Phase I Project and provide additional pumping capacity to convey the full contracted amount of SWP water (17,300 acre-feet) to the SGPWA. In addition, the project will allow the SBVMWD to increase its distribution system capacity to the Redlands and Yucaipa Valley service areas. Principal features of this project will consist of approximately six miles of a new large diameter pipeline, a new reservoir (Citrus Reservoir) with a capacity of 400 acre-feet, a new 160 cubic feet per second (cfs) pump station (Citrus Pump Station), expansion of the existing Crafton

Hills Pump Station from 60 cfs to 135 cfs, and installation of an additional pump at the existing Cherry Valley Pump Station to increase the capacity from 32 cfs to 52 cfs. Phase II construction is scheduled for completion in 2017.

Various pieces of equipment for the facilities have already been fabricated and are ready for installation, including large diameter valves, transformers, and switchyard equipment. Construction of the Mentone Pipeline, Citrus Reservoir and Pump Station, and Crafton Hills Pump Station Expansion began in 2012.

Future Major SWP Construction Projects

This section is intended to highlight key projects and projects of special interest to the Commission, not be a comprehensive list of planned construction projects.

East Branch Enlargement - Phase II - Postponed

In the mid-1980's through early 1990's, the East Branch of the California Aqueduct was enlarged by 750 cfs. The work consisted of raising the lining of approximately 95 miles of canal, constructing additional barrels at inverted siphons, and enlarging Pearblossom Pumping Plant and Devil Canyon Powerplant. Design and construction lasted for seven years and the project was completed in 1992. Phase II of the enlargement would provide another 750 cfs of capacity to the East Branch. Implementation of Phase II would require improvements to Alamo Powerplant, Pearblossom Pumping Plant, the canal lining and embankment, check structures, siphons, over chutes, and drainage culverts. The administrative draft of the Environmental Impact Report (EIR) was completed in September 2014; its completion was delayed when work on the project was suspended in 2009 due to uncertainties regarding Delta export restrictions and water deliveries. Work directly related to the completion of the administrative draft EIR and other engineering work, such as resolving outage sequencing and innovative design assessments, was completed in June 2015. Work has been postponed indefinitely.

Alamo Powerplant Second Unit - Postponed

DWR has planned for the installation of a second unit at Alamo Powerplant in the Southern Field Division. The new unit will provide additional power generation along the East Branch of the California Aqueduct. As noted in the previous section, final design and construction are planned but postponed due to a reprioritization of mechanical and electrical engineering staff.

North Bay Aqueduct Alternate Intake

The environmental review process is currently underway for the North Bay Aqueduct Alternate Intake Project (NBA AIP), a new facility that will improve water quality and provide reliable delivery of SWP water to the Solano County Water Agency (SCWA) and the Napa County Flood Control and Water Conservation District (Napa County FC&WCD). The NBA AIP will include the construction and operation of an alternate intake that will draw up to 240 cfs (peak capacity) of water from the Sacramento River, and connect to the existing North Bay Aqueduct (NBA) system, near the North Bay Regional Water Treatment Plant. The proposed alternate intake will be operated in conjunction with the existing NBA intake at Barker Slough. The final EIR is expected to be completed by spring 2016. If approval to proceed with construction is granted and permitting and preliminary design starts in early 2017, construction and testing of equipment should be completed in 2025.

Perris Dam Remediation

Lake Perris is located in northern Riverside County. It is the southernmost SWP facility and the southern terminus of the East Branch of the California Aqueduct. In 2005, DWR identified potential seismic safety risks in the foundation of Perris Dam. While there was no imminent threat to life or property, in the interest of ensuring the maximum public safety, DWR lowered the water level of Lake Perris until repairs are made. The Lake Perris State Recreation Area is one of the state's most popular recreation destinations, with an average annual attendance of 1.1 million visitors prior to the reservoir lowering.

The remediation of Perris Dam facilities is a major capital improvement program and is comprised of three projects.

1. The Perris Dam Remediation Project includes design and construction of a stabilizing berm and a system to strengthen the dam's foundation.
2. The Outlet Tower Retrofit Project includes a seismic analysis of the existing outlet facilities and the design and construction of a retrofit or replacement of the structure.
3. The Emergency Outlet Extension Project includes design and construction of improvements to the existing emergency release structure and design and construction of a new outlet extension facility to convey emergency release flows safely into the existing downstream Perris Valley Drain facilities.

The EIR was certified in November 2011 and the first two projects listed were approved to move forward with design. The construction contract for the Perris Dam Remediation Project was advertised in April 2014 and awarded in July 2014. The dam embankment repairs are expected to be completed by the end of 2017. Analysis review is currently underway for the Outlet Tower Retrofit.

The Emergency Outlet Extension project will follow. A Notice of Preparation of the EIR for the Emergency Outlet Extension was filed September 2013.

Bay Delta Conservation Plan and California WaterFix

In 2007, state and federal agencies started pursuing an ambitious and comprehensive conservation plan under Section 10 of the Endangered Species Act (ESA) and California's Natural Community Conservation Planning Act. The approach included new water conveyance facilities and sought to improve reliability of water delivery and contribute to the recovery of listed species under a single regulatory package. A draft Bay Delta Conservation Plan (BDCP) and draft EIR/EIS were released for a public comment period that began in December 2013 and closed in July 2014.

In December 2014, several significant changes were announced by the Brown Administration and its federal partners that would:

- Relocate planned pumping facilities from the east bank of the Sacramento River to Clifton Court Forebay in the south Delta.
- Minimize activity on Staten Island, which provides important sandhill crane habitat, by removing tunnel launch facilities, large reusable tunnel material storage areas, a barge landing site, and high-voltage power lines.
- Increase use of property owned by DWR.

- Eliminate the need for additional permanent power lines to the intake locations in the north Delta, including near Stone Lakes National Wildlife Refuge.
- Eliminate impacts on Italian Slough (near Clifton Court Forebay) by removing an underground siphon.
- Reduce power requirements.
- Allow water to flow from the Sacramento River entirely by gravity at certain river stages.
- Reduce tunnel operation and maintenance costs.

Based on project revisions and in consideration of comments received, state and federal agencies announced in April 2015 a change in their approach to seeking a permit for a project to improve, protect and maintain ecosystem health, water quality, and water supplies so that the SWP and CVP are capable of reliably delivering water within a stable regulatory framework. Rather than pursue the project as a Habitat Conservation Plan (HCP), under Section 10 of the ESA, and a Natural Community Conservation Plan (NCCP), under the state's Natural Community Conservation Planning Act, the state and federal agencies chose to study additional sub-alternatives to achieve the dual goals through implementation of new water conveyance facilities that would be built in compliance with Section 7 of the ESA and Section 2081(b) of the California ESA. The new sub-alternatives focus on the conveyance facility improvements necessary for the SWP and CVP to address more immediate water supply reliability needs in conjunction with ecosystem improvements to significantly reduce reverse flows and direct fish species impacts associated with the existing south Delta intakes.

DWR and the Bureau of Reclamation made available a joint Partially Recirculated Draft EIR/Supplemental Draft EIS on the Bay Delta Conservation Plan/California WaterFix for public review and comment from July 10, 2015 through October 30, 2015. The draft document included analysis of three new sub-alternatives as well as additional analysis and refinement of portions of the previous draft environmental document. The additional sub-alternatives do not include an HCP/NCCP, as was proposed as part of the alternatives analyzed in the previously circulated documents. Instead, the alternative implementation strategy allows for other state and federal programs to address the long-term conservation efforts for species recovery in programs separate from the proposed project. The State is committed to restore more than 30,000 acres of Delta habitat through California EcoRestore, which will be implemented on an accelerated timeline independent of the proposed water conveyance facilities.

DWR identified sub-alternative 4A (California WaterFix) as its preferred alternative under the California Environmental Quality Act (CEQA), and Reclamation has selected Alternative 4A as the preferred alternative under the National Environmental Policy Act (NEPA). If implemented, the preferred alternative would make substantial changes to water operations in the Delta by implementing a dual-conveyance system to serve the existing SWP/CVP pumping plants that focuses on two major components:

1. Construction of new water facilities, including:
 - a. Three proposed north Delta intakes with state-of-the-art fish screens
 - b. Two 30-mile long main tunnels

- c. Three separate northern tunnels totaling 14 miles that connect intake facilities to an intermediate forebay
 - d. New 40-acre intermediate forebay
 - e. New operable gate at the Head of Old River
 - f. New combined pumping plant at Clifton Court Forebay
 - g. Improvements and expansion of Clifton Court Forebay
2. Coordinated operation of both new and existing water conveyance facilities, including:
- a. North Delta intakes
 - b. South Delta export facilities
 - c. Delta Cross Channel gates
 - d. Suisun Marsh facilities
 - e. North Bay Aqueduct intake
 - f. Clifton Court Forebay



Lake Oroville during low water conditions in March 2015.

APPENDIX

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California Water Commission State Water Project Activities

2015

January 21, 2015	Approval of 2014 SWP Review
February 18, 2015	Approval of Revised State Water Project Encroachment Permit Regulations
April 13, 2015	Inspection Tour of SWP Oroville Facilities
September 16, 2015	Update on State Water Project Critical Issues
October 13, 2015	Inspection Tour of SWP Delta Facilities

State Water Project Oroville Field Division Tour Itinerary

Monday, April 13, 2015

- 10:00 am** Meet at Oroville Field Division Administration Building
- 10:30 am** Depart for Hyatt Area Control Center
- 10:45 am** Tour Hyatt Area Control Center
- 11:00 am** Drive Into and Tour Hyatt Powerplant
- 11:45 am** Depart for Oroville Dam Overlook
Lunch will be delivered and eaten on the Oroville Dam Overlook
- 12:30 pm** Drive Across Oroville Dam
- 1:00 pm** Arrive Back at Oroville Field Division Administration Building

State Water Project Delta Field Division Tour Itinerary

Monday, October 12, 2015

- 11:00 am** Meet at Delta Field Division Administration Building
- 11:00 am** Introduction to Delta Field Division and Site Locations with Lobby Exhibits
- 11:30 am** Lunch
- 12:00 pm** Banks Power Plant
- 1:00 pm** Skinner Fish Facility
- 2:00 pm** Clifton Court and Intake Gate Structure
- 2:45 pm** Return to Delta Field Division Administration Building



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