

DRAFT

California Water Commission

2013 ANNUAL REVIEW

of the construction and operation of the State Water Project

**CALIFORNIA
WATER COMMISSION**

Joseph Byrne, Chair

Joe Del Bosque, Vice-Chair

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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 for discussing 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)

FINDINGS AND RECOMMENDATIONS

In 2013, the California Water Commission continued its support of efforts by DWR and the Administration to ensure the integrity and sound operation of the SWP. In April, California Water Commission members toured Delta and Central California SWP facilities including the Delta Field Division Headquarters, Skinner Fish Facility, Clifton Court Forebay, Banks Pumping Plant, and Gianelli Pumping-Generating Plant. In September, the Commission held a monthly public meeting at the Oroville Field Division Offices focusing on SWP issues at the Oroville Facilities and in other parts of Northern California. The Commission members toured and inspected the Hyatt Powerplant and the Feather River Fish Hatchery, and were briefed on fire damage and repair work at the Ronald B. Robie Thermalito Pumping-Generating Plant. At these facilities, California Water Commission members had the opportunity to talk with SWP staff and management about project operations, construction and maintenance, power and energy, regulatory issues, staffing, and future opportunities and challenges.

Throughout the year, the Commission was briefed at its monthly public meetings on key SWP issues. In April 2013, the Commission held a public hearing on the SWP recruitment and retention crisis at which the SWP Deputy Director, labor representatives, and SWP Field Division staff discussed the issues, challenges, and potential solutions.

From those discussions emerged several key areas of concern and recommendations for action.

Findings: Operations and Administration

Recruitment and Retention Issues

The Commission would like to commend the Brown Administration for taking action to address the staff recruitment and retention crisis facing the SWP, and encourage further consideration of SWP governance solutions.

In a July 3, 2012 letter to California Secretary for Natural Resources John Laird, the California Water Commission stated that recruitment and retention for SWP personnel in the specialized hydroelectric power trades and crafts classifications had continued to deteriorate, posing a potential threat to the SWP's ability to meet its obligations to deliver water, produce energy, operate safely, and meet other regulatory requirements. In an April 23, 2013 letter, following a public hearing on SWP recruitment and retention issues, the Commission again raised these concerns, supported the Administration's work to address long standing salary disparities for SWP staff, and encouraged the Administration to evaluate options for organizational changes and improvements in business practices that will enhance the long term reliability of the SWP.

Examples of the impact of the recruitment and retention crisis to the SWP include:

- Decrease in operational availability (OA) from 92.6% in 2004 to 66.6% in March 2013.
- Historically, the SWP has been able to reduce energy and conveyance costs by pumping during off-peak times. Decreased OA has limited the ability of the SWP to use this flexibility, resulting in additional direct energy costs of \$68 million in 2011 and 2012 due to decreased OA.

Members of the Commission had the opportunity to see some of these issues first-hand during their April and October 2013 Facilities Inspection Tours.

On July 3, 2013, following months of negotiation with labor unions, the Governor's office announced a salary increase averaging nearly 30% for SWP trades and crafts personnel. The Commission commends the work of the Administration, DWR, and labor representatives to reach this important agreement. Addressing the salary inequity of many of the trades and crafts positions was an essential step towards resolving the current recruitment and retention issues and recovering the reliability of the SWP.

Governance/Organizational Issues

While the recent compensation increase for SWP trades and crafts employees provides benefits to the workers and the system in the short term, DWR cannot lose sight of the need to ensure greater sustainability of the SWP in the future. Future challenges include constraints that stem from being a part of the State government such as contracting requirements, labor negotiations, and civil service classifications.

The Public Policy Institute of California and Little Hoover Commission have previously proposed alternate governance structures for the SWP. Recently, other studies reviewed many of these issues and made a series of recommendations, including creating and contracting the operation of the SWP to a Joint Powers Authority (JPA).

The Commission will continue to review these and other strategies for addressing the long-term issue of SWP organization.

Oroville FERC Relicensing

The original Federal Energy Regulatory Commission (FERC) license for the Oroville Facilities was effective February 1, 1957 and expired in 2007. DWR began the relicensing process in 1998. DWR chose an alternative licensing process in order to more fully collaborate with the community and stakeholders. The process began with plenary workgroup meetings, and scoping began in 2000-2002. The next phase was to develop protection, mitigation, and enhancement features to become part of the settlement agreement (SA). The SA was reached with a majority of the stakeholders and submitted to FERC as a basis for license conditions. DWR filed the license application in 2005 and the SA was signed in 2006.

There were 53 signatories to the Final SA including state, federal, and local agencies, NGOs, a local Native American tribal government, and 24 State Water Contractors. The total cost is expected to be \$1 billion and includes funding for land use and management, recreation, local projects, cultural resources, and the environment.

The Oroville facilities currently operate under an annual license that is renewed every year. FERC is waiting for the National Oceanic and Atmospheric Administration to issue a final biological opinion before the new 50-year license can be finalized.

Several outstanding issues remain:

- During the design and construction of the Oroville Dam, Native American ancestral remains were moved from the area. DWR has been working to return them to the appropriate tribal interests, but where to return the remains is still under discussion.
- Cold water availability is also an ongoing issue. Rice growers in the area have senior water rights. However, requirements that the Oroville Facilities maintain colder water for fisheries means that the rice growers receive colder water. DWR completed a study quantifying how much rice yield has been lost due to changes in water temperature, and has made equivalent payments to the rice farmers.

- Local officials have noted that there is a long history of controversy about the economic impacts of Oroville Dam and other SWP facilities in the community, and maintain that the value of recreation from the reservoir does not offset the costs the county incurs because of the SWP facilities. Butte County has provided the Commission with a study that estimates a negative cash flow of \$5.7 million associated with the Dam.

Safety and Emergency Response

Through the Commission's continued discussion regarding the Robie Pumping-Generating Plant Fire which occurred in 2012, as well as safety briefings, the Commission examined SWP safety and emergency response procedures.

DWR plans to take the recommendations from the investigation of the Robie fire, evaluate them, and apply the information and findings to other SWP facilities and operations. It has also begun a similar evaluation process of civil features. Additionally, DWR has hired a Chief Safety Officer as part of its commitment to develop a department-wide, world class safety program.

DWR also serves as a support agency under the Emergency Services Act and can be called upon by the Office of Emergency Services to assist in emergency response activities. DWR's Emergency Management Program takes an 'all hazards approach' which encourages effective and consistent response to any disaster or emergency, regardless of the cause, and focuses on training. DWR trains first responders and staff by holding workshops, and participating in tabletop, functional, and full-scale internal and external emergency exercises. The Commission looks forward to future updates of the progress of these activities.

SWP Water Supply Contract Extension Negotiations

SWP water supply contracts were originally signed in the 1960s and provide the basis for financing the SWP. Most of the current contracts terminate in 2035. Therefore, the SWP cannot sell revenue bonds with terms extending beyond 2035. DWR has begun working with water contractors on a contract extension negotiation process to extend the contract terms, increase cash reserves, and simplify the SWP billing process. This has included public negotiation sessions which should result in agreements in principle which will be the basis for the contracts. The goal is to complete the contract extensions in 2016.

Drought Response

For many parts of California, 2013 was the driest year on record. In June 2013, the Commission was briefed on the impacts of dry conditions. At a joint meeting of the California Board of Food and Agriculture and the California Water Commission in September, Food and Agricultural Board Members and Commission members discussed the impacts of drought on agriculture and encouraged DWR to streamline the water transfer process. In November 2013, the SWP announced an initial allocation to SWP contractors of 5% of requested amounts for 2014.

In December 2013, DWR acknowledged drought concerns raised by the Commission and other entities by taking strong actions to address this issue. These actions included appointing a Drought Manager and Deputy Drought Manager, conducting statewide drought management and outreach, and technical activities to monitor conditions and assess risks.

Findings: Facilities

Ronald B. Robie Thermalito Pumping-Generating Plant

The Commission has been closely following the status of the investigation and clean-up of the Ronald B. Robie Thermalito Pumping-Generating Plant following a major fire on November 22, 2012. The Commission was briefed on the status in April and September 2013.

Following the fire, DWR began a massive clean-up project. Initial clean-up efforts, mostly hazmat, utilized between 60-100 personnel and lasted through September 2013. The next phase consists of disassembly, cleaning, and inspection of the generating units. Clean-up is expected to cost \$67 million. A value engineering analysis undertaken by DWR recommends that the plant should be restored. The estimated cost to restore the plant to its pre-fire condition is \$74 million to \$100 million.

Simultaneously, DWR implemented a three-step root cause analysis that includes an investigative analysis, a forensic analysis, and documentation of the fire investigations and lessons learned report.

Because so much evidence was incinerated by the fire, the cause could not be determined conclusively, although investigators did find a suspect circuit.

While the fire did not affect water supply, lost energy that would have been generated at the facility is valued between \$7-12 million for 2013.

To protect against similar events in the future, DWR has begun a SWP Fire Systems Enhancement and Implementation Plan. The plan will review and rank lessons learned from the fire, address risks in other plants, and modernize fire protection systems statewide to meet current fire codes. Following the completion of the Plan, DWR will begin the SWP Fire Systems Design and Construction Project.

Dos Amigos Pumping Plant

In April 2013, the Commission was briefed by SWP personnel on critical repairs to a discharge line at the Dos Amigos Pumping Plant near Los Banos, the second pumping plant on the California Aqueduct.

A sinkhole was discovered on January 23, 2013 above the pumping plant near the siphon house. Staff conducted dive inspections for all six discharge lines. Separations were found at multiple invert, most likely caused by settlement. DWR and the U.S. Bureau of Reclamation conducted geotechnical investigations and made the necessary repairs. All operational units were brought back online within a time frame that allowed for no interruptions in water deliveries.

During its inspection of this facility, the Commission was also briefed on growing concerns regarding subsidence in the Central Valley, its impacts on the SWP, and broader implications for sustainable water management in the San Joaquin Valley and throughout the state.

Gianelli Pumping-Generating Plant

Members of the Commission toured Gianelli Pumping-Generating Plant, part of the San Luis Field Division, on their April 2013 inspection tour. Gianelli was designed to pump continuously, with units turned on and off a few times a year. Because of

higher energy prices, the system is now operated for maximized off-peak pumping and the pumps are started and stopped a few times a day. This is creating significant wear and tear on the motors. These operational issues will require attention and future investments for repair or replacement of outdated equipment.

SWP staff also demonstrated for the Commission the precision and coordination necessary to lift valves out of the plant with a crane for maintenance or repair work.

Alamo Powerplant

In 2012, following an inspection tour, the Commission made a recommendation for the installation of a second unit at Alamo Powerplant on the East Branch of the California Aqueduct in northern Los Angeles County. The project would generate a significant amount of additional hydropower. DWR's Division of Engineering and DWR's Power and Risk Office have completed a cost-benefit analysis, and a program management plan for the design and construction of the project is currently being prepared.

As of late 2013, however, this recommendation has been postponed due to reprioritization of mechanical and electrical engineering staff work.

The Commission encourages the SWP to move forward with this project as soon as feasible.

Recommendations

Safety

DWR is currently assessing lessons learned from the Robie Pumping-Generating Plant fire and plans to implement the resulting recommendations and bring all facilities to current fire code. While all SWP facilities were built in accordance with fire code at the time of construction, updates to comply with current fire code are required when facilities undergo major improvements. While the Commission commends DWR on its current efforts, it also recommends that DWR implement a system to continue to review compliance with fire and other safety codes and update facilities on a regular basis in the future.

Emergency Response

The Commission recommends DWR conduct studies and continue its efforts on SWP resiliency, and supports DWR's continued participation in the Golden Guardian Program and All Hazards Emergency Program.

Organizational Issues

Long-term sustainability of the SWP will require organizational and administrative changes. The Commission continues to encourage thoughtful consideration of strategies for addressing the long-term issues of SWP organization and governance. Additionally, the SWP should look to other agencies with similar financing structures for appropriate operational model, and consult agencies that have made similar transitions, such as San Luis Delta Mendota Water Authority, for ways to address organizational challenges.

FERC Relicensing

The Commission commends DWR for taking the inclusive, collaborative alternative licensing process approach and encourages DWR to continue implementation of the settlement agreement and ongoing development of community relations, despite the lack of a final license. Additionally, the Commission encourages DWR to use lessons learned from this project to inform the relicensing at other SWP facilities.

Water Supply Contract Extensions

The Commission supports the work of DWR to extend the current water supply contracts in order to ensure stable water prices.

Drought

DWR and the SWP should consider mechanisms to alleviate drought impacts including working with other agencies to streamline water transfers, promote water conservation, and make necessary investments to maintain and improve the state's water management systems.

Power and Energy

As one of the largest producers and consumers of energy in California, it is essential that the SWP continue to improve energy efficiency, reduce on-peak energy use, increase on-peak energy generation, and reduce greenhouse gas emissions.

Investments in Infrastructure

Ongoing investments are needed to maintain and update SWP infrastructure, upgrade equipment, and increase operational flexibility and system sustainability. 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 Commission looks forward to the opportunity to work with DWR, the Brown Administration, the State Legislature, and the many stakeholders to support these efforts.

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:

- Two-thirds of California's \$1.7 trillion economy is generated within the SWP service area
- Serves 25 million Californians and 750,000 acres of farmland
- Operated to provide 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
- Largest single energy consumer in California

- 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 agencies in Northern California, San Francisco Bay Area, Central Coast, 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 electrical grid. The project 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.

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Water Project Operations

California experienced a second consecutive dry year in 2013. While there was significant precipitation in late 2012, January and February 2013 were the driest on record. In March, DWR lowered the final 2013 allocation from 40 to 35% of the SWP contractors' requested Table A amounts, which is approximately 4.2 million acre-feet. Table 1 shows deliveries in recent 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	2,001,072

¹Source: Department of Water Resources' State Water Project Analysis Office.

²Through November 2013.

California's State Water Projects

State Water Project



In 2013, the SWP is estimated to generate 3,595 gigawatt hours (GWh) of energy. During the same period of time the SWP is estimated to use 5,661 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	7,320	9,109
2007	6,222	9,276
2008	3,925	5,700
2009	4,201	5,438
2010	4,362	7,184
2011	5,258	8,583
2012	4,807	7,402
2013	3,595	5,661

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 for Phase I Improvements is scheduled for completion in 2014.

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. Enlargement of Crafton Hills Reservoir began in 2012 and is currently under way. 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 2016.

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.

South Bay Aqueduct Enlargement

The South Bay Aqueduct (SBA) conveys water from the Sacramento - San Joaquin Delta through over 40 miles of pipelines and canals to the Zone 7, Alameda County, and Santa Clara Valley Water Districts, which in turn provide service to the cities of Livermore, Dublin, Pleasanton, San Ramon, Fremont, Newark, Union City, Milpitas, Santa Clara and San Jose. The SBA is the first conveyance facility constructed for the SWP and was designed for a capacity of 300 cfs. Recent flow tests and studies have shown that the actual capacity is 270 cfs. The purpose of the Project is to increase the capacity of the SBA to 430 cfs to meet Zone 7 Water Agency's future needs and provide operational flexibility to reduce SWP on-peak power consumption. The project is comprised of the following principal features:

1. Addition of four 45 cfs pumps to the South Bay Pumping Plant, including expansion of the existing plant structure, a new service bay, and a new switchyard.
2. Construction of a third (Stage 3) Brushy Creek Pipeline and surge tank parallel to the existing two barrels.
3. Construction of a 500 acre-foot reservoir (425 acre-feet of active storage) to be served by the Stage 3 Brushy Creek Pipeline.
4. Raising the height of the canal embankments, canal lining, and canal over crossing structures and bridges along the Dyer, Livermore, and Alameda canals and the Patterson Reservoir.
5. Modification of check structures and siphons along the Dyer, Livermore, and Alameda canals.
6. Construction of new drainage over crossing structures to eliminate drainage into the canals.

Construction began in 2007 and most of the work was completed in 2012. All four new 45 cfs pumps were fully operational by the end of 2013.

Southern Field Division Headquarters Project

Construction of the new Southern Field Division (SFD) Headquarters in Pearblossom began in 2011. The new 20,000-square-foot building was designed and will be operated such that it attains a LEED (Leadership in Energy and Environmental Design) Gold rating, exceeding the requirement for new State buildings. The building will include state-of-the-art energy and water saving features such as ground source heat pumps using the ground's thermal mass to provide heating and cooling, sophisticated thermostat controls that better identify heating and cooling needs, low flow plumbing fixtures, and use of recycled building products. The building

will house staff from several DWR organizations to more effectively address safety, FERC relicensing efforts, construction management of projects in SFD, and other operations, maintenance, regulatory, and compliance activities. The project was completed in early 2013, and the Commission's Executive Officer toured the facility in June 2013.

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

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) is nearly complete, however work on the project was suspended in 2009 due to uncertainties regarding Delta export restrictions and water deliveries. Minor wrap-up work is being done on the administrative draft EIR, and construction outage and work sequencing plans in order to avoid the need to start over if the project receives authorization to proceed in the future. This work will be completed by July 2014.

Alamo Powerplant Second Unit

Installation of a second unit is planned at Alamo Powerplant in 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 water from the Sacramento River, and connect to the existing North Bay Aqueduct (NBA) system by a new segment of pipe. 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 summer 2015. If approval to proceed with construction is granted upon completion of the EIR, construction should be completed in 2021.

Perris Dam Remediation

Lake Perris is located in northern Riverside County, and 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 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. The Perris Dam Remediation Project includes design and construction of a stabilizing berm and a system to strengthen the dam's foundation. 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. 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 two projects were approved to move forward with design. The construction contract for the dam embankment remediation is expected to be advertised in spring 2014 and awarded in summer 2014 with completion in early 2017. The analysis review is currently underway for the Outlet Tower. A Notice of Preparation of the EIR for the Emergency Outlet Extension was filed September 2013.

Bay Delta Conservation Plan and Delta Habitat Conservation and Conveyance Program

The proposed Bay Delta Conservation Plan (BDCP) is a part of California's overall water management portfolio. It is being developed as a 50-year habitat conservation plan with the goals of restoring the Sacramento-San Joaquin Delta ecosystem and securing California water supplies. The BDCP would secure California's water supply by building new water delivery infrastructure and operating the system to improve the ecological health of the Delta. The BDCP also would restore or protect approximately 145,000 acres of habitat to address the Delta's environmental challenges.

The BDCP is made up of specific actions, called Conservation Measures, to improve the Delta ecosystem. The BDCP includes 22 conservation measures aimed at improving water operations, protecting water supplies and water quality, and restoring the Delta ecosystem within a stable regulatory framework. As the Delta ecosystem improves in response to the implementation of the conservation measures, water operations would become more reliable.

The proposed Bay Delta Conservation Plan and companion Draft EIR/EIS are the result of more than seven years of collaboration, scientific analysis, policy review and public input to address the Delta's ecosystem and water management challenges.

The Delta Habitat Conservation and Conveyance Program (DHCCP) is a program managed by DWR to conduct the engineering and scientific studies required to prepare the BDCP and associated Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The Draft BDCP and Draft EIR/EIS were released to the public on December 13, 2013 for a 120-day review period. The public comment period is effective December 13, 2013 through April 14, 2014. The Draft EIR/EIS describes and analyzes the proposed project/preferred alternative, 14 action alternatives, and the No Project Alternative. 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. New 40-acre intermediate forebay
 - d. New operable gate at the Head of Old River
 - e. Improvements and expansion of Clifton Court Forebay
2. 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 salinity control gates
 - e. North Bay Aqueduct intake
 - f. Clifton Court Forebay



Commission members Danny Curtin, Joseph Byrne, Luther Hintz, Joe Del Bosque, Adán Ortega, and David Orth touring SWP Facilities in September 2013.

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California Water Commission State Water Project Activities 2013

January 16, 2013	Approval of 2012 SWP Review
February 20, 2013	Briefing on Portfolio-Based Conceptual Alternative for the Bay Delta Conservation Plan
March 20, 2013	Briefing on Bay Delta Conservation Plan by California Natural Resources Agency Deputy Secretary, Dr. Jerry Meral
April 17, 2013	Update on SWP Facilities: Ronald B. Robie Thermalito Pumping-Generating Plant and Dos Amigos Pumping Plant
April 17, 2013	Briefing on SWP Recruitment and Retention Issues
April 24, 2013	Central California State Water Project Tour
May 17, 2013	Briefing on State Water Project Tour
June 19, 2013	Initial Consideration of SWP Encroachment Regulations
July 17, 2013	Update on SWP Issues
August 14, 2013	Update on SWP Water Supply Contract Extensions
September 18, 2013	Tour of Oroville SWP Facilities
September 18, 2013	Discussion with Oroville Area Elected Officials
September 18, 2013	Briefing on SWP Organizational Structure
September 18, 2013	Update on SWP Facilities
September 18, 2013	Briefing on Oroville FERC Relicensing

Central California State Water Project Tour Itinerary

Wednesday, April 24, 2013

- 9: 00 am** Meet at Delta Field Division Offices (1), Byron, CA
Tour Skinner Fish Facility (2), Banks Pumping Plant (3), Clifton Court Forebay (4)
- 10:45 am** Depart for Santa Nella/ San Luis Field Division Offices
- 11:45 am** Lunch in Santa Nella
- 12:15 pm** Meet at San Luis Field Division Offices, Gustine, CA
Tour Gianelli Pumping-Generating Plant (5), Dos Amigos Pumping Plant (6)
- 2:00 pm** Depart for Del Bosque Farms, Firebaugh, CA
- 2:30 pm** Arrive and tour Del Bosque Farms (7)
- 3:30 pm** Depart for Delta Field Division

Central California State Water Project Tour

April 24, 2013



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April 23, 2013

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 Secretary for Natural Resources
 1416 Ninth Street, Suite 1311
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Daniel Curtin
 Member

Kimberley Delfino
 Member

RE: State Water Project Recruitment and Retention

Luther Hintz
 Member

Dear Secretary Laird:

Anthony Saracino
 Member

At its April 17, 2013 meeting, the California Water Commission heard presentations from the Department of Water Resources (DWR), State Water Project (SWP) employees, and labor representatives detailing more examples of how the long-standing workforce recruitment and retention crisis continues to threaten the ability of the SWP to operate safely and deliver reliable water supplies to millions of Californians.

Sue Sims
 Executive Officer

The Commission wishes to reiterate our strong support for action to resolve the salary compensation inequities between the SWP and other public and private utilities that are contributing to problem of maintaining a highly skilled and experienced workforce. We are greatly encouraged by reports that, thanks to your leadership on this issue, productive discussions to address these critical issues are taking place.

The salary gap between many SWP job classifications and their counterparts in other utilities continues to grow. For example, salaries for the Senior Water and Power Dispatcher classification are currently 65% below the median for other comparable positions in the industry. This pay disparity has numerous negative impacts on SWP operations and maintenance, some of which were presented to Commission at its April 2013 meeting:

- **State Water Project Reliability:** Since 2004, there has been a steady decrease in the Operational Availability of the State Water Project, due in large part to limited staff resources to perform maintenance and optimize operations. This directly reduces the SWP's ability to deliver water to agricultural and urban customers, particularly in light of pumping restrictions during certain times of the year to protect fragile ecosystems. The decreased flexibility also increases energy

The Honorable John Laird
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costs that are then passed on to consumers and businesses. Between 2011 and 2012, the SWP incurred an additional \$70 million in energy costs through missed opportunities to pump water during less expensive, non-peak hours.

- SWP Apprentice Program: DWR conducts an extensive apprentice training program for its hydroelectric trades and crafts classifications at an average cost of \$300,000-\$400,000 for three to four years of on-the-job training. Currently, many, if not most of these individuals, leave DWR shortly after completing the program for significantly higher paying jobs at other utilities, effectively rendering DWR's investment worthless.
- Outside Contracts: There are many instances in which the SWP has entered into contracts with private companies to perform work that could be done by its own workforce. Addressing the recruitment and retention issue would allow the SWP to reduce contracting out in some areas, resulting in a savings to ratepayers.
- Thermalito Pumping Generating Plant Fire: While not a direct result of the actions of SWP staff, it is worth noting that damage from the fire which destroyed the plant in November 2012 will cost millions of dollars in lost power generation in 2013 and potentially hundreds of millions in clean-up costs and reconstruction. These impacts may have been significantly minimized with on-site staffing of the pumping plant, had adequate personnel resources been available.

The discussions at the Commission's April meeting, in addition to previous concerns that have been presented to us, present a compelling case that the inability to maintain the level of skill required to effectively operate and maintain the SWP has increased the risk of catastrophic infrastructure loss and requires immediate action. Failure to address these challenges will exacerbate a problem already costing water users millions of dollars annually in added costs for energy, water supplies, maintenance and repair, and contracting for services that could be performed by SWP employees.

We further recognize the need to evaluate options for organizational changes and improvements in business practices that will enhance the long term reliability of the SWP. These may include new governance models such as those proposed by the Little Hoover Commission in 2010 and the Public Policy Institute of California in 2011, as well as management changes that are expected to be identified in an administrative issues study being prepared for DWR.

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The Commission thanks you for your leadership and commitment to improve the SWP's critical mission capability and to protect public and employee safety, natural resources, and the reliable delivery of water to California homes, farms and businesses.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Byrne", is centered on a light gray rectangular background.

Joe Byrne, Chair
California Water Commission

cc: Mark Cowin, Director, Department of Water Resources
Carl Torgersen, SWP Deputy Director, Department of Water Resources

Meeting and Tour Schedule

Oroville, CA

Wednesday, April 24, 2013

8: 30 am

Depart

Oroville is approximately 1.5 hours from Sacramento. We're happy to arrange accommodations in Oroville the night before the meeting or assist with any other travel arrangements.

10:00 - Noon

Meeting of the California Water Commission, Oroville Field Division, Conference Room

Items for discussion may include current water conditions, SWP Governance Issues, an update on the Thermalito Fire, Oroville FERC relicensing and community relations. Meeting will be open to the public.

Noon – 1:00 pm

Lunch, Oroville Field Division, Conference Room

Boxed lunches will be delivered. Please fill out our order form and send it back to us (or let us know your selection) by Friday, September 13.

1:00 pm – 3:00 pm

Tour SWP Facilities

Tour of SWP facilities including Hyatt Powerplant and the Oroville Fish Hatchery. Since some of these facilities are not open to the public, tours will take place in small groups in order to comply with Bagley-Keene Open Meeting Act.

3:00 pm

Return Home

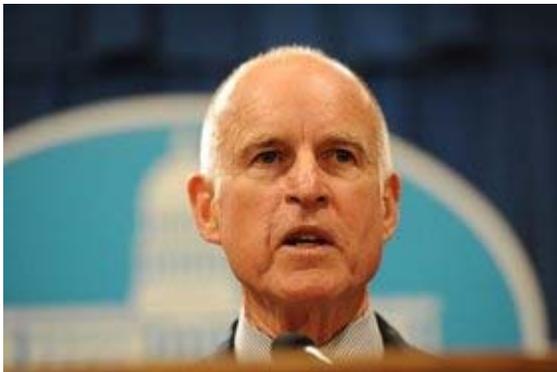
Option to visit Thermalito Pumping-Generating Plant on the return trip. This facility is still undergoing HAZMAT clean-up and can only be viewed from the outside.



Chronicling civil-service life for California state workers

July 3, 2013

Jerry Brown grants raises for some water department workers



Gov. **Jerry Brown** has agreed to increase pay by up to 37 percent for water department workers in positions the state has had difficulty staffing.

Brown and representatives from International Union of Operating Engineers (IUOE) finalized an addendum to the union's contract Wednesday to raise the pay by 17.9 percent to 37.4 percent for 741 employees for 34 job classifications in the Department of Water Resources. The raises are effective immediately and are estimated to cost the state \$18.3 million.

State and union officials have said the raises are needed to prevent the drain of State Water Project employees to other higher-paying jobs. The vacancy rate in jobs responsible for running and operating the vast project has run between 10 percent and 15 percent for the last two years.

The agreement comes after California Water Commission Chairman **Joseph Byrne** warned of a staffing "crisis" in the department. In a April 23 letter to Resources Secretary John Laird, he noted some employees were being paid "65 percent below the industry's median."

In some cases, the state has spent \$300,000 to \$400,000 to train employees, only to see them lured away from state service by higher salaries elsewhere, department officials have said.

In effort to retain existing staff in the short term, the agreement prevents workers from immediately using the extra pay to bump up their retirement. The deal says workers cannot apply any of the raise toward their pension calculation if they retire before July 1, 2014 and only half of it if they retire before July 1, 2015. After that, their full salary could be used for pension calculations.

The agreement will affect 19 rank-and-file classes, three manager classes and 12 supervisor classes.

"As one of the largest utilities in the world, it is vitally important that the Department of Water Resources retain highly skilled professionals to ensure timely, efficient deliveries of water to 25 million Californians

and thousands of farms and ranches," Richard Stapler, deputy secretary of the Natural Resources Agency, said in a prepared statement. "California's economy relies on a secure, reliable supply of water, and a loss of these professionals to other utilities could also cost the state millions of dollars in missed water deliveries."

PHOTO: Gov. Jerry Brown in 2012. The Sacramento Bee/Hector Amezcua



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Sue Sims, Executive Officer
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