

California Water Commission  
**2011 ANNUAL REVIEW**  
of the construction and operation of the State Water Project

**CALIFORNIA  
WATER COMMISSION**

**Anthony Saracino, Chair**

**Paul Kelley, Vice-Chair**

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***Background and Authority***

The California Water Commission's historical role includes advising the Director of the Department of Water Resources on matters within the Department's jurisdiction, approving rules and regulations, and monitoring and reporting on the construction of the State Water Project. The Commission consists of nine members appointed by the Governor and confirmed by the Senate.

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



Though the California Water Commission was initially established in 1957, it had been inactive for most of the past decade. California's comprehensive water legislation, enacted in 2009, gave the Commission new responsibilities regarding the public benefits of water storage projects, and paved the way for the appointment of its nine members.

In the past year, the Commission has tackled important issues including regulations for increased water conservation in urban, commercial and agricultural industries; two public workshops on the future of water storage in California, overviews of DWR programs including FloodSafe, Water Plan Update 2013, and State Water Project activities, briefings on the future of federal funding and regulatory issues for flood management projects; and considering resolutions of necessity to conduct geotechnical investigations for proposed Delta conveyance and habitat conservation projects. The Commission has also participated in discussions with other organizations on key water management activities including the Delta Stewardship Council, the Delta Vision Foundation and the California Roundtable on Water and Food Supply.

One of the Commission's ongoing responsibilities is to report on the construction and operation of the State Water Project. In 2010, the State Water Project marked an important milestone: the 50th anniversary of passage of the Burns-Porter Act which authorized the planning and construction of the State Water Project (SWP). Since that time, DWR has designed, constructed, operated, maintained, and expanded the SWP into the largest state-owned water and power system in the world and helped transform California into one of the top 10 economies in the world. Today, the SWP faces ever-increasing pressures and constraints from complex regulatory requirements, litigation, state governance, aging infrastructure, drought, and increasing water demands throughout the State. The California Water Commission looks forward to working with DWR, its stakeholders, the Administration, and the Legislature on a strategic vision and a clear plan of action to address these challenges.

Sincerely,

A handwritten signature in black ink that reads "Anthony Saracino". The signature is written in a cursive style with a large, sweeping initial "A".

**Anthony Saracino**  
*Chair, California Water Commission*



## OVERVIEW OF THE STATE WATER PROJECT

The California State Water Project is the largest state-owned and operated water storage and delivery system in the country. In 1960, California voters approved the Burns-Porter Act to finance construction of the State Water Project. The Department of Water Resources was authorized to design, construct, and operate the SWP.

### *The SWP is California's single most-important infrastructure system*

- 24/7/365 Water & Power Utility
- 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

### *The SWP is the largest state-owned and -operated Water & Power Utility in the United States*

- 29 plants, 23 dams, 34 storage reservoirs, 700 miles of canals and pipelines
- Largest single energy consumer in California
- 4th largest electrical power generator in the California
- Produces about 15% of California's hydroelectric generation

### *The SWP annually delivers over 3 million acre-feet of water to Northern California, the Bay Area, San Joaquin Valley, Central Coast, and Southern California*

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, 70 percent goes to urban users and 30 percent goes to agricultural users. The SWP is one of California's larger energy producers and generates approximately 60% of its own energy needs. These energy operations help stabilize the electrical grid. The project also provides flood control; operates to 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. Project water supply comes from storage at Lake Oroville and high runoff flows in the Delta. Water deliveries have ranged from 1.4 million acre-feet in dry years to 4.0 million acre-feet in wet years.

## THE STATE WATER PROJECT - 2011 ANNUAL REVIEW

### Water Project Operations

2011 was California's first wet year since 2006. Years 2007 through 2009 reflected California's most recent drought with 2008 being a critically dry water year. Based on this year's water supply conditions, DWR increased the final 2011 allocation to 80% of the SWP contractors requested Table A amounts, which is over 3.3 million acre-feet. Total SWP water deliveries, including Table A, Article 21, Feather River Diversion, water transfers, etc. are expected to exceed this total in 2011. Table 1 shows deliveries in recent years.

**Table 1. SWP Water Deliveries**

Year	Water delivered (acre-feet) <sup>1</sup>
1985	3,582,008
1986	3,021,464
1987	3,462,204
1988	3,691,921
1989	4,166,941
1990	3,891,299
1991	1,673,959
1992	2,233,982
1993	3,395,287
1994	2,980,933
1995	2,972,500
1996	3,733,767
1997	3,666,564
1998	2,755,335
1999	4,095,269
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	over 3,300,000

<sup>1</sup>Includes Table A, Article 21 and surplus water, Feather River diversions, wildlife/recreation water, water transfers and exchanges. Source: Bulletin 132, Table 9-5 and State Water Project Analysis Office.

In 2011, the SWP is estimated to generate 5,156 gigawatt hours (Gwh) of energy. During the same period of time the SWP is estimated to use 8,527 gigawatt hours 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 year's 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	5,156	8,527

In the past, through many initiatives, DWR has addressed obstacles and challenges by reviewing and improving internal business practices and processes. These changes have reduced costs, increased efficiency, and streamlined processes that resulted in improved reliability of operations and water deliveries. Yet in spite of business practices improvements, the SWP has exhibited decreased reliability over the last decade.

Despite being one of California's largest utilities, the SWP has exhibited decreased reliability over the last decade because of issues directly related to barriers created by State contracting and procurement rules; inability to recruit and retain hydroelectric power trades and crafts personnel due to non-competitive salaries; and employee classification impediments caused by State hiring rules. As a result these impediments, the SWP operates at a competitive disadvantage in the California energy market and hampers DWR's ability to maintain its aging infrastructure and meet utility industry standards and requirements with attendant increases in the cost of water deliveries to SWP customers.

More significantly, over the last decade and as a result of the recruitment and retention issues and the 2008-2010 furlough program, the capacity of individual facilities to move available water declined at an alarming rate as fewer personnel were available to work on scheduled or forced outages.

### **Federal Hydropower Licenses**

The SWP has three hydropower licenses issued by the Federal Energy Regulatory Commission (FERC) with a combined generating capacity of over 2,400 megawatts. The licenses include the: Oroville Facilities, FERC Project No. 2100; South SWP Hydropower, FERC Project No. 2426; and Pine Flat Transmission Line, FERC Project No. 2876. The original 50-year license for the Oroville Facilities expired in January 2007. DWR initiated the relicensing process and held initial collaborative meetings in 2000. Over a thousand highly diverse stakeholders were contacted representing local interests and governments, water and resource agencies, non-governmental organizations, and Native American tribes to help develop proposed terms and conditions for a new license.

DWR filed an application for a new Oroville Facilities license in January 2005 and negotiated a Settlement Agreement with stakeholders in early 2006. The Settlement Agreement identifies over \$1 billion in new actions to be taken by DWR under the new 50-year license that will benefit environmental, recreational, cultural, land use, and engineering, and operations resources. In February 2007, FERC issued an annual license for continued year-to-year operation pending issuance of the new license. DWR anticipates the new Oroville Facilities license will be issued in 2012 after the National Marine Fisheries Service completes the Biological Opinion.

The original 50-year license for the South SWP Hydropower facilities will expire in January 2022. The Pre-application Document and Notice of Intent to file a license application must be filed with FERC by January 2017. Therefore, DWR has initiated preliminary planning for relicensing the South SWP Hydropower facilities. The preliminary planning activities include coordination with DWR's co-licensee, the Los Angeles Department of Water and Power, which operates Castaic Powerplant.

### ***Status of Construction Projects***

#### ***East Branch Extension (EBX) – 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 2013.

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. Construction of Crafton Hills Reservoir will begin early 2012 and should take about two years to complete. Construction of the Yucaipa Connector Pipeline began in 2010 and was completed this year.

#### ***South Bay Aqueduct (SBA) 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 cubic feet per second (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 AF 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 at 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 this year. Canal modifications should conclude next year.

#### *Edmonston Pumping Plant, Pump Replacement*

The Edmonston Pumping Plant, Pump Replacement Project included replacement of the four existing four-stage Allis-Chalmers pumps with new four-stage pumps to increase efficiency at the pumping plant. The 14 pumps at Edmonston account for approximately 45 percent of the total electricity used by the SWP. The original pumps, installed in 1971, were experiencing low efficiency and severe cavitation requiring higher than normal maintenance. The newly installed pumps are 2.7 percent more efficient, which has a large impact on the amount of electricity consumed. In addition, it is anticipated that the new, more efficient pumps will reduce CO<sub>2</sub> emissions by several million tons over a 30 year period. The contract to replace the pumps was awarded to Hitachi America, Ltd. in 2003. Installation of the fourth and final pump was completed in October 2011 at a cost of nearly \$40 million.

#### *Southern Field Division Headquarters Project*

Construction of the new Southern Field Division (SFD) Headquarters in Pearblossom commenced this year. 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 combine staff from several DWR organizations to more effectively address safety, Federal Energy Regulatory Commission relicensing efforts, construction management of projects in SFD, and other operations, maintenance, regulatory, and compliance activities in the southern region of California. The project is expected to be completed in 2012.

## California's State Water Projects



## ***Future Major SWP 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 cubic feet per second. 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 Power Plant. Design and construction lasted for over seven years, with the project being completed in 1992. Phase II of the enlargement would provide another 750 cubic feet per second of capacity to the East Branch. Implementation of Phase II would require improvements to Alamo Powerplant, the Cottonwood Chutes, Pearblossom Pumping Plant, the canal lining and embankment, check structures, siphons, over chutes and drainage culverts. The administrative draft of the EIR is nearly complete, however work on the project was suspended in 2009 due to uncertainties regarding future Delta export restrictions and water deliveries.

### ***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 San Geronimo Pass Water Agency. In addition, the project will allow the San Bernardino Valley Municipal Water District to increase their distribution system capacity to their Redlands and Yucaipa Valley service areas. Principal features of this project will consist of approximately 6 miles of a new large diameter pipeline, a new reservoir (Citrus Reservoir) with a capacity of 400 acre-feet, a new 160 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 2014.

### ***North Bay Aqueduct (NBA) 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 system by a new segment of pipe. The proposed alternate intake will be operated in conjunction with the existing NBA intake at Barker Slough. Construction is expected to be completed in 2016.

### ***Perris Dam Remediation***

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. 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. 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 include design and construction 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. It is anticipated the Environmental Impact Report will be certified in late 2011 with design beginning early 2012 and construction beginning early 2014.

### ***Delta Habit Conservation and Conveyance Program (DHCCP)***

The Bay Delta Conservation Plan (BDCP) is being prepared by a group of local water agencies, environmental and conservation organizations, state and federal agencies, and other interest groups. The BDCP is being developed in compliance with the Federal Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (NCCPA). When complete, the BDCP will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. The plan would be implemented over the next 50 years.

The heart of the BDCP is a long-term conservation strategy that sets forth actions needed for a healthy Delta. The Bay Delta Conservation Plan is designed to achieve the co-equal goals of providing for the conservation and management of aquatic and terrestrial species, including the restoration and enhancement of ecological functions in the Delta, and improving current water supplies and the reliability of delivery of water supplies conveyed through the State Water Project (SWP) and the Central Valley Project (CVP).

### ***Critical Issues***

The Department of Water Resources (DWR) operates the SWP as a state-owned utility by providing water to 25 million Californians and engaging in the sales and purchases of large amounts of energy (several hundred million dollars per year). Despite being one of California's largest utilities, the SWP has exhibited decreased reliability over the last decade because of issues directly related to: barriers created by State contracting and procurement rules; severe retention and recruitment issues for skilled hydroelectric power trades and crafts personnel, and employee classification impediments caused by State hiring rules. As a result, the SWP struggles to maintain its complex and aging infrastructure, meet the continually evolving utility industry standards and requirements, and competes at a competitive disadvantage in the deregulated California energy market. These factors translate into increased costs for water delivery to SWP customers.

DWR recognizes the significance of optimal and cost effective operation of the SWP. Through many initiatives, DWR has addressed obstacles and challenges in the past by reviewing and improving internal business practices and processes. These changes have reduced costs, increased efficiency, and streamlined processes that resulted in improved reliability of operations and water deliveries. Yet in spite of business practices improvements, the SWP has exhibited decreased reliability over the last decade.

More significantly, over the last decade and as a result of the recruitment and retention issues and the 2008-2010 furlough program, the capacity of individual facilities to move available water declined at an alarming rate as fewer personnel were available to work on scheduled or forced outages. Non-competitive salaries, particularly in the skilled hydroelectric power utility trades and crafts classifications, are responsible for the exodus of experienced personnel in these critical O&M classifications. Likewise, non-competitive salaries, furloughs, hiring freezes, and vacancy sweeps create administrative barriers to recruitment of experienced personnel critical to the safe, reliable, and cost-effective operation of the SWP.

*Specific impacts to the SWP resulting from administrative issues include:*

- Decreased reliability of water supply and increased forced outages due to staff shortages, inexperience, and lack of maintenance. In December 2010, \$25 million of water was not exported due to equipment constraints.
- Increased energy costs to operate the project and loss of energy revenue. Energy costs have gone up \$50 million per year and are increasing because of outages.
- Increase operation costs due to contracting delays. Maintenance and repairs to the project are taking more than twice as long to complete.
- Risk of non compliance with regulations resulting in potential fines of \$1 million per day per violation.

It is estimated that last year alone, the disadvantages that State rules put on DWR and the SWP cost nearly \$100 million.

The risk to the SWP is real – water contractors around California pay fees to run the system. These costs are passed onto their ratepayers – California citizens, businesses, and agriculture. Currently, annual delivery costs exceed \$1 billion. Pressures to make the system more efficient are building. In addition, there continues to be ongoing conversations about moving the State Water Project into a separate, independent state-owned water authority that is more capable of meeting its customers' needs. These public conversations are happening at the same time the State is moving forward with the Bay Delta Conversation Plan (BDCP) for habitat restoration and water reliability. This will raise serious concerns about the State's ability to complete and operate that project.

In addition to struggling with administrative and operational challenges, the SWP must prepare for a changing future and aging infrastructure in much of its system. Seismic risks and vulnerabilities also threaten the reliability of the SWP that will require significant investment to adequately address. Climate change has the potential to impact many SWP facilities and renewable energy sources can improve the efficiency and environmental responsibility of SWP operations.

### ***California Water Commission Findings***

No review of the SWP in 2011 would be complete without acknowledging the many challenges facing the system. Some of the most significant, as identified by DWR in its Strategic Plan are:

- Sustaining a qualified workforce with furloughs, threats of reduced pay, and a hiring freeze.
- Depletion of institutional design, construction, operations and maintenance knowledge due to the SWP's inability to recruit and retain experienced personnel.
- Uncertainty of funding for future projects due to Davis-Dolwig Act issues.
- Continuing construction of new projects, and repair, alteration, and enlargement of existing facilities under strict environmental permitting requirements.
- Halting planned design and construction of SWP facilities due to lack of support and funding (i.e. East Branch Enlargement and Delta Habitat Conservation and Conveyance Program).

### ***Source: State Water Project Strategic Plan, 2011***

While DWR has worked diligently to address these issues, it is becoming increasingly difficult to operate the project which is so critical to millions of Californians. The issue of employee recruitment and retention is of particular concern to the Commission. On March 29, the CWC wrote to Natural Resources Secretary John Laird and Department of Personnel Administration Director Ronald Yank, expressing its concern over a serious recruitment and retention crisis that is impacting operations and costs. The Commission noted that “The present situation is not sustainable” and workforce issues “continue to impact the reliability of California’s water systems, the state’s economy, its farms and its people.” (The full letter can be found at the end of this report.)

DWR recently hired a consultant to review and update the list of critical issues facing administration of the State Water Project; identify and evaluate alternatives to resolve critical issues; recommend a course of action; and propose an implementation plan. The CWC supports this activity to have an independent consultant thoroughly evaluate the conditions, and assist SWP in identifying and developing a realistic and workable plan to address the critical issues.

**APPENDIX**

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF WATER RESOURCES  
**CALIFORNIA WATER COMMISSION**  
901 P STREET, P.O. BOX 942836  
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MAR 29 2011

Honorable John Laird  
Secretary for Natural Resources  
California Natural Resources Agency  
1416 Ninth Street, Room 1311  
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Ronald Yank, Director  
Department of Personnel Administration  
1515 S Street, North Building, Suite 400  
Sacramento, California 95811-7258

The California Water Commission is deeply concerned about a workforce recruitment and retention crisis that is impacting the State Water Project (SWP), and its ability to safely operate and maintain critical facilities and provide reliable water supplies to 25 million Californians and over 700,000 acres of farmland.

At our January 19 meeting, the Department of Water Resources (DWR) provided information to the Commission on its inability to recruit and retain necessary numbers of qualified personnel, particularly in the highly specialized hydroelectric power trades and crafts classifications which are responsible for performing the daily operations and maintenance of the SWP infrastructure. Despite a statewide unemployment rate of 12 percent, qualified workers are not applying for these DWR positions, underscoring both the limited talent pool and DWR's non-competitive salaries for these classifications.

The skills required to run the country's largest state-owned water and power utility - such as purchasing power, scheduling water and power deliveries, and operating and maintaining the SWP's complex infrastructure - are in great demand from private and other public utilities. This is especially true since deregulation of California's energy market in the mid-1990s. However, DWR's civil service pay scales simply have not kept pace with other utilities to attract and retain employees with these highly specialized skills. According to recent salary surveys, DWR's total compensation packages for employees in these classifications are by far the lowest among comparable water and power utilities in California. This problem has been compounded in recent years by numerous administrative actions including furloughs, salary cuts, overtime restrictions, and hiring freezes in response to the State's ongoing General Fund deficit, despite the fact that 100 percent of the SWP operations and maintenance costs are borne by the SWP contractors and their ratepayers, not the General Fund. The need for these highly-skilled employees continues to grow, and yet DWR continues to lose people to similar jobs in higher paying utilities.

Honorable John Laird  
Ronald Yank, Director

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DWR conducts an extensive apprentice training program for its hydroelectric trades and crafts classifications. Through the program, apprentices complete three to four years of on-the-job training to reach the journey level. This training represents a significant financial investment for the State, yet many of these employees leave DWR shortly after graduation for significantly higher paying jobs at other utilities.

DWR has been seeking resolution of the pay parity issue with previous administrations for more than 10 years, without success. In the absence of resolution, DWR has been forced to rely heavily on overtime to conduct necessary maintenance and on contracting out millions of dollars of work. The impacts of the recruitment and retention crisis are evident and, if not addressed, will certainly become more severe, perhaps even catastrophic. Staff shortages and inexperience have resulted in a serious backlog of deferred maintenance and increase the probability of operational errors and equipment malfunctions that jeopardize public safety and SWP reliability. For the first time in its 50-year history, the SWP missed water deliveries last fall. Critical equipment was out of service due to the lack of staff needed to perform necessary maintenance and repairs. DWR reported to the Commission that the SWP was unable to export tens of thousands of acre feet from November 2010 through January 2011 due to forced outages at its Delta pumping facilities, increasing the risk that these water supplies may not be available to farms, families and communities later this year. This could result in higher costs passed on to ratepayers for replacement water supplies.

In addition, the decline in operational reliability is increasing the cost of water for SWP customers through higher costs to meet the SWP's electrical power demands. The SWP is the largest single consumer of electricity in California. To reduce energy costs, pumping is generally scheduled "off peak" when energy demands and prices are lowest. However, limited pumping capacity due to the shortage of operations and maintenance staff is restricting the ability to manage power uses efficiently, forcing more pumping loads into the higher priced "on-peak" electricity market. DWR estimates that SWP energy costs will increase between \$25-30 million for 2011 without the ability to optimize the pumping schedules.

DWR has outlined the issues in a letter to the Department of Personnel Administration dated February 18, 2011 (attached). In the last several months, both the Little Hoover Commission and the Public Policy Institute of California have recommended reorganizing SWP governance as a long-term solution to a number of issues. While this may represent a long-term solution, the Commission sees the need for more immediate action on compensation and labor relations issues by the Administration and the Legislature and to address the current recruitment and retention issues and reverse the troubling decline in SWP operational reliability.

Honorable John Laird  
Ronald Yank, Director  
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Consistent with its statutory authority to review the operation of the SWP and report to the Legislature, the Commission is asking Legislature and the Administration to quickly resolve this recruitment and retention crisis. The present situation is not sustainable. California owes its economic development to the forward-thinking leaders of the 1950's and 1960's, and to the employees who operate and maintain the SWP. Yet these workforce issues continue to impact the reliability of California's water system, the state's economy, its farms, and its people.

Sincerely,



Anthony Saracino, Chair  
California Water Commission

California Water Commission Members:

Andrew Ball  
Joseph Byrne  
Dave Cogdill  
Daniel Curtin  
Joe Del Bosque  
Kimberley Delfino  
Luther Hintz  
Paul Kelley  
Sue Sims, Executive Officer

Attachment



Lake Oroville



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**Sue Sims, Executive Officer**  
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