

• Semiannual Report on State Water Project Strategic Initiatives

Detailed Report

Introduction

The State Water Project is faced with a growing number of changing conditions with respect to water supplies, costs, and operations. This report discusses those challenges, how staff is preparing for them as well as progress achieved in other areas. Staff is addressing Metropolitan's State Water Contract rights and benefits in five strategic areas: costs, energy, infrastructure reliability, supplies, and water quality. Key changed conditions and initiatives to control cost and increase value contained in the report are highlighted below.

- ❖ Tolling agreement executed on 2008 SWP Statement of Charges (see page 2).
- ❖ Increasing SWP costs, along with reduced supplies, are trending unit costs upward (see Figure 1). Below-average power generation on the SWP in 2007 is the major contributor to the increase for fiscal year 07/08.

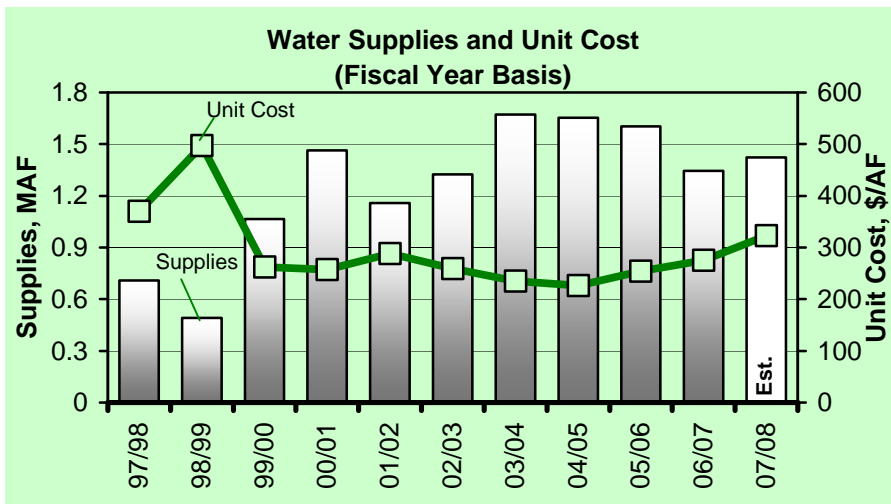


Figure 1. Total annual MWD SWP supplies in million acre-ft (left) and unit cost in \$/AF (right)

- ❖ Gorman Creek Improvement Channel and Santa Ana Valley Pipeline repairs completed (page 4).
- ❖ Stockpiling of rock for Delta levee emergency preparedness (page 7).
- ❖ Recent SWP operations constrained by federal court decision on Delta smelt and the state Fish and Game Commission decision on Longfin smelt (page 7).

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Ensure Costs are Accurate and Reasonable and Promote Efficient Business Processes

Metropolitan repays the State for the costs of developing and transporting water. Because of significant cost exposure and need for reliable supplies, Metropolitan strives to influence efficiency of operations and equity of benefits provided.

Metropolitan is taking actions to ensure that costs are appropriate for the benefits received. Key goals are:

- DWR obtaining a cost-effective Federal power license for Lake Oroville power generation complex that protects water supplies;
- Ensuring that DWR billings are accurate and reasonable;
- Maintaining the value of the investment in Hyatt-Thermalito power generation facilities; and
- Improving use of management tools and disclosing relevant business information to the State Water Contractors.



Figure 2. Thermalito Forebay and Power Plant (DWR Photo.)

MILESTONE:

OROVILLE FEDERAL ENERGY REGULATORY COMMISSION (FERC) RELICENSING

DWR finalized settlement with Feather River Service Area rice growers regarding the impact of cold water from the Oroville facilities on rice production in the FRSA. This action was an important milestone with respect to issuance of the Final EIR by DWR (expected in April 2008) and processing of the Clean Water Act Section 401 certification by the State Water Resources Control Board.

MILESTONE

AUDIT REPORT AND TOLLING AGREEMENT ON 2008 STATEMENT OF CHARGES

In response to Metropolitan's request, DWR has committed to resolving errors in the 2008 SWP Statement of Charges and has hired four new staff members to focus on correcting the charges. Metropolitan's audit identified 16 new computational errors that were in addition to the 27 unresolved errors from the previous SOC. In addition, to account for the time to make corrections, DWR extended the deadline to file protests on the 2008 SOC. Metropolitan and other contractors subsequently worked with DWR and executed a tolling agreement to further extend the deadline to December 31, 2008.

Tolling provides an opportunity for Metropolitan and DWR to resolve as many issues as possible through administrative processes, rather than through expensive litigation.

EMERGING CHALLENGE

SWP CASH FLOW ISSUE

Recent growth in recreation-related obligations associated with the relicensing of the Oroville power facilities, Delta planning activities, and the SWP in general is rapidly reducing DWR's reserves. Recreation and fish and wildlife enhancement have always been an integral part of the SWP and the State's obligation to pay for those costs is spelled out in the Davis Dolwig Act and the water code. The legislature has never identified a secure source of funding for its Davis Dolwig obligations. Until a secure source of funding is identified, the Department of Finance is unwilling to make new funding available. This cash flow issue has the potential to impact rate management credits. Metropolitan, other contractors and DWR are working to resolve the funding issue with the Department of Finance and the Administration.

Ensure Cost Effective Reliable Energy Sources

With the expiration of long-standing contracts and radical changes in energy market regulations, the SWP is experiencing increased exposure to energy and fuel price fluctuations, credit risk, and power plant reliability risk.

Metropolitan influences and supports DWR to provide a reliable supply of energy at an affordable and predictable cost for the SWP. Metropolitan staff actions are focused on the following goals:

- Increasing attention to evolving green-house gas and renewable policies;
- Developing a strategic plan and IRP-like power portfolio that reduces risk; and
- Ensuring reliable infrastructure that supports the ability to use cost-effective off-peak energy for pumping.

MILESTONE:

NORTHERN CALIFORNIA POWER AGENCY (NCPA) PARTICIPATION AGREEMENT

Metropolitan initiated discussion with NCPA in late 2006 regarding the potential for DWR’s participation in planning and development of a new natural gas-fired power plant in the Lodi area. With support by the State Water Contractors (SWC), DWR recently signed a participation agreement with NCPA and 13 other project partners for this proposed power plant. Under the agreement, DWR would receive 60 megawatts (MW) of energy from the 255-MW plant – an important step in managing the future cost and “carbon footprint” of the SWP energy portfolio.

EMERGING CHALLENGE

REID GARDNER ARBITRATION/LITIGATION

DWR has protested payment of certain capital costs billed by Nevada Power Company for the 2003 through 2006 period and formally requested that NPC enter into arbitration to resolve the dispute. NPC recently offered a reasonable capital improvement approach in-lieu of arbitration.

DWR has a 68 percent ownership interest in Unit 4 of NPC’s Reid Gardner coal-fired plant. In response to California’s active support for reduction of carbon emissions, DWR notified NPC that it does not intend to seek extension of its ownership position under the contract when it expires in 2013. The State Water Contractors assembled a team, including

Metropolitan staff, at DWR’s request to help guide the contract closeout process.

Metropolitan and other state water contractors are closely monitoring the financial exposure for Reid Gardner and support DWR’s efforts to reverse charges amounting to tens of millions of dollars.



Figure 3. Reid Gardner power plant. (Photo courtesy of Nevada Department of Conservation and Natural Resources.)

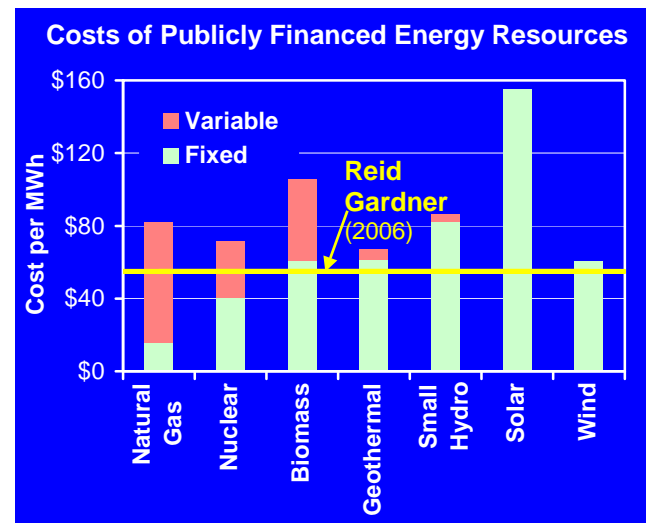


Figure 4. DWR’s Reid Gardner contract expires in 2013. Estimates made by the California Energy Commission in 2007 show that the publicly financed alternative resources to replace Reid Gardner energy will cost more. Acquisition of privately financed energy would cost even more.

Ensure Sufficient Infrastructure Reliability

Metropolitan and other contractors' water delivery schedules are forcing the SWP system to move more water through its aging infrastructure, requiring increased focus on maintaining infrastructure reliability.

To ensure that DWR is operating, maintaining and repairing SWP facilities with Metropolitan's interests in mind, staff is pursuing the following goals:

- Monitoring and influencing key projects; and
- Providing DWR shop-services to support operations and maintenance.

MILESTONE:

GORMAN CREEK IMPROVEMENT CHANNEL REPAIR

Inspections of the Gorman Creek Improvement Channel lining revealed that the welded wire mesh reinforcement was exposed in many locations. DWR completed an emergency repair to prevent catastrophic failure of the channel. The repair included the removal and replacement of 11,000 feet of the channel lining. The channel enables deliveries of up to 700 cfs to Pyramid Lake, and provided critical backup and supplemental flows to the Peace Valley Pipeline during 2007 and 2008.



Figure 5. Gorman Creek Improvement Channel liner replacement. (DWR Photo.)

MILESTONE:

SANTA ANA VALLEY PIPELINE REPAIRS

DWR repaired three deteriorated sections of the Santa Ana Valley Pipeline, a prestressed concrete pipe, using concrete encasement to prevent emergency outages. All three sections were located downstream of the Box Springs Feeder. To facilitate both repairs and deliveries to our Mills filtration plant,

a bulkhead was installed. Metropolitan coordinated with DWR to ensure that these activities did not adversely impact deliveries. These repairs benefit Metropolitan by reducing the risk of catastrophic failure of this high-pressure pipeline.



Figure 6. Installation of bulkhead to isolate the northern portion of the SAVP. (MWD Photo.)

EMERGING CHALLENGE

REMEDIATION OF LAKE PERRIS DAM

DWR has identified potential seismic safety risks in the foundation of Perris Dam and is initiating a repair program.

Metropolitan's General Manager, along with the General Managers of other stakeholder contractors met with the DWR Director and stated that the costs of recreation and fish and wildlife enhancement should be paid by the State, not the contractors. The State should pay a higher percentage than currently estimated by DWR.

Charges for some initial costs related to recreation and fish and wildlife enhancement were included on Metropolitan's 2008 SWP SOC. Staff is taking steps to have the charges removed.

EMERGING CHALLENGE***SISK DAM CORRECTIVE ACTION STUDY***

As a result of new seismic analyses, the U.S. Bureau of Reclamation (Reclamation) is conducting a Corrective Action Study to address potential dam safety issues at B.F. Sisk Dam (San Luis Reservoir). Sisk Dam, a joint-use facility, was constructed by Reclamation and is maintained by DWR. The dam is located in a seismically active area with a fault crossing under the reservoir. Reclamation and DWR are partnering in the study, which is expected to take two to four years. The study will identify and evaluate risk reduction alternatives. Potential implications include lowered water surface elevations with reduced reservoir storage. Metropolitan staff is participating in the study.

EMERGING CHALLENGE***DWR STAFF RETENTION***

DWR is currently having difficulty maintaining skilled and qualified staff. DWR employees are retiring or leaving for higher paying jobs. Turnover is high in the trades and crafts, as well as with energy dispatchers and schedulers. Metropolitan is increasingly concerned that staffing shortfalls could affect system reliability. Metropolitan is meeting with DWR to understand the extent of the problem and identify possible solutions.



Figure 7. San Luis Reservoir with B.F. Sisk Dam in foreground. (DWR Photo.)

Ensure Cost-Effective Water Supplies

Staff participates in activities to optimize Metropolitan's water supply benefits, including protection of its contract rights.

Metropolitan is working with other SWP Contractors and State agencies to ensure cost-effective water supplies. Key goals are:

- Monitoring current water supply conditions;
- Developing water management actions; and
- Preserving access to flexible storage.

MILESTONE:

BAY DELTA PROGRESS

In January 2008 the Governor's Blue Ribbon Task Force released the final Delta Vision, a set of twelve recommendations related to development of a long-term Delta solution. An implementation plan is scheduled for completion by October 2008. The Task Force recommended assessment of a dual-conveyance system "focused on understanding the optimal combination of through-Delta and isolated facility improvements."

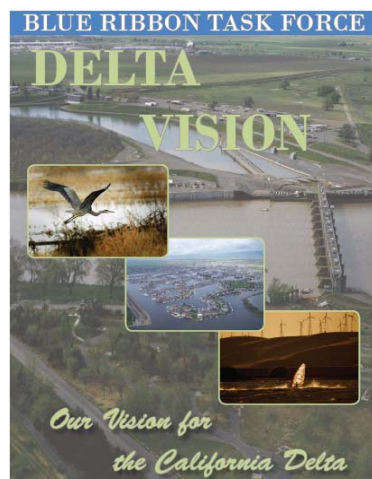


Figure 8. – Delta Vision Final Report (DWR).

In November 2007, the Steering Committee for the Bay Delta Conservation Plan published Points of Agreement for moving forward with the planning process. The committee agreed that "the most promising approach for achieving the BDCP conservation and water supply goals" involves a new conveyance facility around the Delta with new point(s) of diversion on the Sacramento River in the North Delta. BDCP planning efforts will continue throughout 2008, after which the plan will be used to seek take authorizations of critical species.

Long-term solutions developed within the Delta Vision and BDCP have the potential to significantly improve the reliability of SWP deliveries to Metropolitan.

MILESTONE:

MONTEREY AMENDMENT ANALYSIS

Metropolitan coordinated with the SWC to provide comments in January on DWR's Draft Environmental Impact Report on the 1994 Monterey Amendment and 2003 Settlement Agreement. Some parties have suggested that Metropolitan would be better off without the Monterey Amendment because of changed supply conditions after the federal smelt decision. Analysis by Metropolitan staff indicates that the amendment has provided water management and financial benefits in the past and will continue to provide benefits in the future, although to a lesser extent with fish actions.

MILESTONE:**DELTA LEVEE EMERGENCY PREPAREDNESS AND RESPONSE PLAN**

In April 2007 the Board directed staff to work with the SWC, DWR and other stakeholders to develop a plan to implement a post-levee failure strategy of creating an emergency freshwater pathway to export pumps. Metropolitan has been working with DWR to expedite a program to acquire emergency-response equipment and materials. Initial construction contracts are underway to pre-position rock in the Delta and to construct loading and storage facilities at the Port of Stockton. These efforts will help minimize the disruption of SWP deliveries in the event of a levee emergency.



Figure 9. Stockpiling activities for emergency preparedness near Rio Vista in 2008. (DWR Photo.)

EMERGING CHALLENGE**2007 SWP PROJECT DELIVERY RELIABILITY REPORT**

DWR released a draft of its bi-annual report required by a 2000 court settlement. The Draft Report includes estimates of current and future Table A and Article 21 delivery reliability that incorporates recent SWP Delta pumping restrictions under a 2007 federal court order and projected effects due to climate change. The Draft Report shows that average annual Table A deliveries are eight percent lower (approximately 110 TAF for Metropolitan) than the 2005 estimate for current conditions and up to 14 percent lower (approximately 220 TAF for Metropolitan) for future conditions with climate change assumptions. Article 21 (surplus) average deliveries were reduced 67 percent (approximately 90 TAF for Metropolitan) under current conditions

and 75 percent (approximately 45 TAF for Metropolitan) under future conditions.

Staff will consider the final report's findings in drought management planning and water supply reports. A major concern was the uncertainty in projecting the effects of climate change. Metropolitan requested that the final report include a future conditions analysis without the climate change assumptions, so that refined projections of climate change can be applied as they become available.

EMERGING CHALLENGE**ACTIONS TAKEN TO PROTECT DELTA SMELT AND LONGFIN SMELT IMPACT SUPPLIES**

Since the end of 2007 SWP export operations have been constrained by measures to protect Delta smelt put forth in a federal court order issued on December 14. These measures will be in effect until the U.S. Fish and Wildlife Service issues a new Biological Opinion, due by September 15, 2008. DWR, operating under the court order, estimates that the SWP lost up to 465,000 AF through mid-March.

In February the Fish and Game Commission accepted the longfin smelt as a candidate species for listing under the California Endangered Species Act (CESA) and adopted an emergency regulation that authorizes incidental take of longfin by the projects provided that they comply with certain monitoring and flow criteria. These longfin flow criteria are in addition to the flow criteria contained in the federal court order for Delta smelt during certain periods of the year. Depending upon how the California Department of Fish and Game implements the longfin incidental take regulation, it could trigger additional significant water supply impacts.



Figure 10. Longfin smelt. (Contra Costa Times Photo.)

EMERGING CHALLENGE

2008 STATE WATER PROJECT ORDER

Figure 11 summarizes Metropolitan’s projected water orders through December that reflects DWR’s 2008 SWP allocation of 35 percent as of the printing of this report. Total scheduled deliveries for the year are 1.48 MAF, which includes Table A supplies and supplemental supplies from exchange programs with other SWP contractors, purchase agreements, and groundwater storage programs along the California Aqueduct. In the absence of an increase in the Table A allocation, Metropolitan plans to acquire additional supplies through short-term transfers and utilize flexible storage in Castaic and Perris Reservoirs.

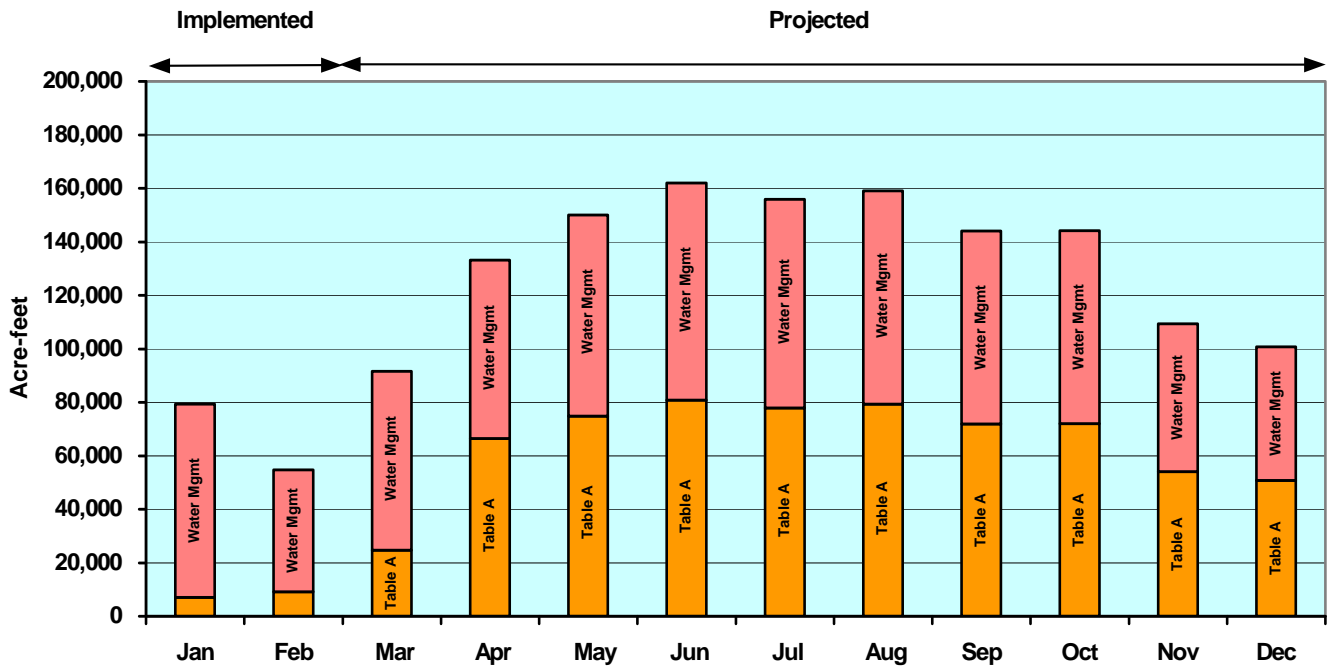


Figure 11. – Metropolitan’s SWP 2008 Water Order. Water management actions include deliveries of surplus water and withdrawals from groundwater storage and surface water programs along the California Aqueduct. The determination of such actions occurs on a weekly basis depending on water supply and demand conditions.

Protect and Improve Water Quality

The quality of SWP water is highly variable, creating challenges in meeting drinking water standards, integrating various water supply sources, and supporting service area needs for groundwater and recycling.

Metropolitan is pursuing SWP water quality needs by:

- Promoting projects to protect and improve water quality in the Bay-Delta watershed and SWP system;
- Implementing the Municipal Water Quality Investigations program; and
- Supporting DWR in administering appropriate criteria for the introduction of non-project water into the California Aqueduct.

MILESTONE:

MUNICIPAL WATER QUALITY INVESTIGATIONS REVEAL IMPACTS FROM COURT ORDERED ACTIONS TO PROTECT DELTA SMELT

Under the new comprehensive MWQI monitoring program, staff at DWR informed State Water Project contractors of potential water quality impacts associated with the recent court actions to protect Delta smelt.

Model results considered modified Delta operations based on a range of high and low pumping restrictions and indicate:

- A higher percentage of San Joaquin River water will be delivered than has historically been exported at Banks Pumping Plant.
- Increases in bromide from March through September are expected.
- Slightly higher concentrations of carbon are projected to occur from January through July.

Water Resource Management and Water Systems Operations staffs are evaluating these results and are developing a projection of how these changes will affect Metropolitan's treatment plant operations.

EMERGING CHALLENGE

WESTLANDS WATER DISTRICT PUMP-IN PROPOSAL

In October 2007, Westlands Water District requested that DWR consider allowing WWD to use the

California Aqueduct to convey their groundwater on an interim basis from north to south within their service area. WWD proposes to use a series of wells located along the California Aqueduct to pump groundwater into the California Aqueduct. Their pump-in project would convey a maximum of 150,000 AF of groundwater to the California Aqueduct in any single year.

Metropolitan expressed concerns about this proposal to DWR. Metropolitan noted concerns about salt load, including service-area impacts to infrastructure, household appliances, and industrial processes. Metropolitan has requested that WWD provide a full Title 22 water quality analysis of the groundwater sources that may be pumped into the Aqueduct. Additionally, Metropolitan noted concerns that aqueduct subsidence could be caused by increased groundwater pumping near the California Aqueduct, as well as the potential degradation of the quality of our SWP supplies.



Figure 12. California Aqueduct in the San Joaquin Valley. (DWR photo.)



Figure 13. Pearblossom Pumping Plant. (MWD photo.)

Acronyms

AF	– Acre-Feet
BDCP	– Bay Delta Conservation Plan
CARB	– California Air Resources Board
CESA	– California Endangered Species Act
CEQA	– California Environmental Quality Act
CVP	– Central Valley Project
DEIR	– Draft Environmental Impact Report
DFG	– California Department of Fish and Game
DWR	– California Department of Water Resources
FEIR	– Final Environmental Impact Report
FERC	– Federal Energy Regulatory Commission
FRSA	– Feather River Service Area
GCIC	– Gorman Creek Improvement Channel
MAF	– Million Acre-Feet
MRTU	– Market Redesign Technology Upgrade
MW	– Megawatt
MWQI	– Municipal Water Quality Investigations
NCPA	– Northern California Power Agency
NPC	– Nevada Power Company
SAVP	– Santa Ana Valley Pipeline
SOC	– Statement of Charges
SWC	– State Water Contractors, Inc. (includes Metropolitan)
SWP	– State Water Project
WWD	– Westlands Water District