

• Water Resource Management April 2006 Activity Report

Summary

The following is a summary of Water Resource Management Group key activities for the month of April 2006.

Attachments

[Attachment 1](#) - Historical Evolution of Metropolitan's Local Resources Program

Detailed Report

State Water Project Contract Administration

Lake Perris DEIR - A Public Meeting was held on April 18, 2006 at the Indian Museum at Lake Perris to accept comments on the Draft Environmental Impact Report for the Lake Perris Pollution Prevention and Source Protection Program (Program). The program is one element in the development of a comprehensive long-term plan for Lake Perris that will involve staged decision-making. Since 2000, Metropolitan has been working to develop solutions to a variety of issues that have constrained withdrawals of stored water. Progress has been made and operational guidelines are in place that ensure withdrawals during winter months. The Program would facilitate withdrawals during summer months by reducing the formation of taste-and-odor causing compounds in the lower levels of the reservoir and by reducing pathogen risks associated with swimming in the reservoir. The 45-day public comment period closes May 10, 2006. Plans are to return to the Board July 10-11 to certify the Final EIR and authorize final design.

Conservation

Water and Energy Symposium – Metropolitan participated in a panel discussion on April 6, 2006 that addressed options to improve California's water and energy system efficiency. The California Public Utilities Commission, California Energy Commission, Department of Water Resources and California Independent System Operator sponsored the symposium, which included topics related to statewide perspective on the relationship between water and energy use; partnership opportunities for water and electric utilities; research; and regulatory policies. Metropolitan provided an overview of current water conservation programs and successful partnerships targeting improved water use efficiency with commercial and industrial customers.

Local Resource Program Evolution - In response to a request by the Board at the March 2006 Water Planning, Quality and Resources Committee, staff prepared a summary which describes the evolution of Metropolitan's Local Resources Program (LRP). [Attachment 1](#) provides an overview of the LRP and background information on the Local Projects Program, Groundwater Recovery Program, and incentive levels as water management programs have progressed since 1980.

Alamitos Barrier Reclaimed Water Project - A recent decision by the State Water Resources Control Board deleted overly stringent effluent criteria included in this new recycled water project's discharge permit issued by the Los Angeles Regional Water Quality Control Board. The LA Board permit required effluent limitations based on non-regulatory Department of Health Services' drinking water notification levels, which are advisory and not enforceable, and were so burdensome to achieve that project yield would likely be impaired. A State Board document stated, "...in light of the public policy in favor of water reclamation and the full protection of public health by the project and the other permit limitations and requirements, it was inappropriate for the Los Angeles Water Board to include notification levels as effluent limitations."

The project is expected to provide about 3,000 acre-feet per year of highly treated recycled water for injection wells in the Alamitos Seawater Barrier replacing imported water demand. The project will receive incentive payments for the next 20 years for produced water under Metropolitan's LRP. This regulatory milestone is consistent with efforts by Metropolitan's staff and the WaterReuse Association to create a more reasonable

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regulatory environment that supports development of the regional recycled water yield called for in Metropolitan's Integrated Resource Plan.

Resource and Facility Planning

Integrated Area Studies - Staff continues to hold its monthly Integrated Area Study (IAS) meetings with member agencies in the Central Pool area and the Riverside and San Diego area. As part of the level of service discussion and as requested in the March meetings, staff made a number of additions to the policy matrix. The additions were related to Metropolitan contracts, agricultural water sales, and how firm water is defined. Staff also gave the Member Agency Managers a brief overview of the policy matrix and was invited to give a more detailed presentation at the May Member Agency Managers Meeting. Staff gave presentations on densification, peaking, delivery constraints in Metropolitan's system, and results from the System Reliability and Flexibility Study. The System Reliability and Flexibility Study analyzes the vulnerability of the system due to component failure, and the member agencies have requested additional discussion in future meetings. Staff also outlined a methodology for determining the difference between the existing capacity of the regional and local facilities and facilities needed to meet the predicted future retail demand. The purpose of the IAS is to determine the best mix of facilities that would be able to deliver project future demands. Metropolitan is in the process of compiling lists of regional and local facilities. Once this information has been compiled, staff from Metropolitan and the member agencies will begin to develop portfolios of projects that will be able to deliver projected future demands. Staff from Metropolitan and the member agencies are also finalizing the criteria that will be used to evaluate these portfolios.

Desalination

Seawater Desalination Pilot Research Project - Staff participated in a field inspection on April 12, 2006 of a desalination research project conducted by the Long Beach Water Department located adjacent to LADWP's Haynes Power Generating Station. Research activity will include testing of the dual-pass nano filtration process developed by the Long Beach Water Department that is thought to be 20 to 30 percent more energy efficient than traditional desalination methods. The dual-pass nano filtration process will be compared to the commonly used and energy intensive single-pass reverse osmosis process.

Historical Evolution of Metropolitan’s Local Resources Program April 2006

Overview

Metropolitan has committed to provide financial incentives under its Local Resources Program (LRP) to participating projects developed by local and member agencies. Participating projects under Metropolitan’s programs evolution are expected to produce an ultimate yield of about 365,000 acre-feet per year (AFY) once fully implemented. Financial incentives provided by Metropolitan are listed below:

Financial Incentive Programs			
Local Projects Program	Groundwater Recovery Program	LRP Conversion	LRP Competitive
Fixed at \$154/AF	Variable between \$0 and \$250/AF	Variable between \$0 and \$250/AF	Fixed between \$0 and \$250/AF

The following table summarizes groundwater and recycled water production and incentive payment data:

LOCAL RESOURCES PROGRAM PERFORMANCE SUMMARY			
	Recovered Groundwater	Recycled Water	Total
Projects			
Active Contracts	19	55	74
Operating Projects	18	46	64
Concluded Contracts	5	7	12
Contract Yield (acre-feet per year)	84,110	280,700	364,810
Deliveries (AF)*			
FY 2005/06 (first half)	21,396	45,602	66,998
FY 2004/05	40,706	72,002	112,708
Since Inception	306,089	794,364	1,100,453
Payments (\$ millions)			
FY 2005/06 (first half)	4.7	8.8	13.5
FY 2004/05	7.1	14.0	21.1
Since Inception	54.9	147.0	201.9

* Deliveries and payments are as reported through December 2005; however, not all information is complete and payments are estimated until actual costs are reconciled. Production total includes data for concluded contracts.

Local Projects Program

- 1981** The Local Projects Program (LPP), initiated in 1981, was designed to facilitate the development of water reclamation projects. Under the original program, Metropolitan contributed a negotiated amount to help finance project capital costs. Two projects were constructed under this approach for a collective yield of 3,560 acre-feet per year.
- 1986** In 1986, the program was revised such that Metropolitan contributed its avoided energy costs of State Water Project pumping in the form of a rebate per acre-foot of recycled water delivered to end-use customers. This change was based on the assumption that local projects resulted in the avoidance of water importation pumping costs. Under the 1986 revisions, 17 projects with a combined ultimate yield of 41,000 acre-feet per year were approved for LPP assistance.
- 1990** In 1990, Metropolitan's board increased the LPP contribution to \$154 per acre-foot, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area needs. The goal in 1990 was to achieve an additional 150,000 acre-feet of recycled water use through the LPP by the year 2000.

Attributes of the 1990 LPP included relatively simple program administration, participating agencies can depend on receiving a fixed level of contribution per acre-foot of recycled water delivered, and payments tied to performance. Disadvantages of the LPP are that fixed contribution payments may not provide sufficient incentives during the early years of a project to encourage development of economical projects, and LPP contributions were based on preliminary, feasibility level cost estimates made prior to construction which could result in over payment by Metropolitan.

Groundwater Recovery Program

- 1991** The Groundwater Recovery Program (GRP) was established in 1991. The purpose of the GRP is to improve water supply reliability through the recovery of otherwise unusable groundwater that has been degraded by minerals and other contaminants, and to provide access to the storage assets of that degraded groundwater. An ancillary benefit was maintaining the quality of groundwater resources by reducing the spread of degraded plumes. In 1991, the GRP goal was to implement projects to recover 200,000 acre-feet per year of groundwater for domestic purposes.

The GRP was similar to the LPP in that Metropolitan enters into agreements to pay for water produced by each individual project for 20-year terms. However, the GRP contribution was paid based on a sliding scale from \$0 to a maximum of \$250 per acre-foot. To receive a contribution, project unit costs must have exceeded Metropolitan's non-interruptible treated water rate. When the project unit cost of the GRP project equaled the current applicable Metropolitan water rate, the incentive was zero. Agencies are required to submit annual project costs and production data at the conclusion of each fiscal year of operation in order to determine the appropriate incentive.

The main advantage of the GRP over the LPP was that variable rate contributions provided a greater financial incentive in the early years of project operation, when project unit costs were higher. Further, GRP contributions were based on actual incurred construction, operation and replacement costs, and water production values reported after the end of the fiscal year. These costs and production values are subject to audit. However, program administration under the GRP is more difficult than the LPP because project costs must be verified annually, and discrepancies involving payment adjustments have to be resolved.

LRP Conversion

- 1995** During development of the LRP, Metropolitan's board allowed the immediate conversion of existing projects under the LPP to sliding scale incentive terms similar to those of the GRP. The proposal was made to 40 approved LPP projects at the time, of which 37 projects had already executed agreements and

three were in the process of final execution. Conversion of projects from the existing LPP to LRP was voluntary and accomplished through amendment of existing agreements. The proposal was also extended to seven LPP projects whose applications were under review at the time. By June 1999, new agreements were executed that converted 15 LPP projects to include new LRP terms, which were similar to sliding scale incentives of \$0 to \$250 per acre-foot paid under the GRP.

Integrated Resource Plan (IRP)

1996 Metropolitan's IRP identified goals for a diverse mix of six local and imported water resource elements optimized to meet future supply reliability in a cost-effective manner. The IRP set initial targets for resource development that the region must achieve for water supply reliability through the year 2020. Studies showed reduced long-term costs to the region when local resources are developed due to downsizing or deferral of Metropolitan's capital improvements, reduction in operating costs for importation, treatment and distribution, and reduction in costs for developing alternative regional supplies. Encouraging water recycling and groundwater recovery projects by providing financial assistance was consistent with the IRP goals approved by Metropolitan's board as a strategy to meet future water supply reliability needs of Metropolitan's service area in a cost-effective manner.

LRP Competitive

1998 In 1998, Metropolitan established the competitive Local Resources Program, which encourages local development of recycled water and recovered groundwater through a process that emphasizes cost-efficiency to Metropolitan, timing new production according to regional need, and minimizing administrative cost and complexity. The LRP replaced the LPP and GRP with uniform criteria for financial assistance to local projects that contribute to regional water supply reliability. Under the competitive program, agencies requested fixed financial assistance payments up to \$250 per acre-foot of production for agreement terms up to 25 years. Proposals that requested lower financial assistance and terms scored higher under the competitive process. Under the LRP, Metropolitan issues a request for proposals for a specified regional quantity of water identified under the IRP. A review panel evaluates proposals using scoring criteria adopted by Metropolitan's board and identifies the mix of project proposals that best meet the region's needs consistent with the RFP.

In June 1998, Metropolitan issued a Request for Proposals (RFP) for the development of 53,000 acre-feet per year of new water recycling and groundwater recovery projects under the LRP to help achieve regional water supply reliability goals identified by the IRP. Fourteen projects were selected through the competitive process and agreements were executed with the local agencies by April 2000 to provide financial assistance for up to 25 years.

In April 2003, Metropolitan issued the second competitive RFP for the development of an additional 65,000 acre-feet of new recycled water and recovered groundwater under the LRP. Thirteen projects were competitively selected, and agreements for local projects were executed by December 2005. Three projects did not meet the deadline for inclusion in the LRP.

Under the competitive RFP processes, the weighted average incentive payments for 27 projects are about \$115/AF of yield, below the maximum contribution of \$250/AF. Additionally, some proposals resulted in shorter duration agreements compared to the maximum of 25 years.

IRP Update

2004 In July 2004, the Board approved the IRP Update, which refined regional supply development targets based on the identified changed conditions and provided a long-term resources plan to 2025. These targets, specified in five-year intervals, set development schedules needed to ensure regional supply reliability, allowing for compliance with current applicable water code provisions and growth legislation. The IRP Update also established the concept of a 10 percent water supply planning buffer, which set total

resource development targets above forecasted water demands for planning purposes, and identified resources in advance of need.