



### ● **Integrated Water Resources Plan Implementation**

#### **Summary**

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The Report on Integrated Water Resources Plan Implementation (Report) provides an update on the progress made towards implementing the 2010 Integrated Water Resources Plan Update (2010 IRP Update) during fiscal year 2011/12. The Report includes summaries of Metropolitan's progress by resource area in achieving the implementation goals of the 2010 IRP Update.

#### **Attachments**

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#### **[Attachment 1: Metropolitan Water District Long Term Conservation Plan 2012 Accomplishments](#)**

#### **Detailed Report**

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#### **Background**

In 2010, the Board adopted the IRP Update, resulting in a new IRP strategy that enables Metropolitan and its member agencies to manage future challenges while balancing investments with water reliability benefits. The 2010 IRP Update set forth an adaptive management approach that guides Metropolitan towards its water resource development targets to maintain water supply reliability over the next 25 years.

#### **Reporting by Area**

During 2012, Metropolitan took specific actions under its IRP Approach and as part of its Foundational Actions to ensure the continued implementation of the 2010 IRP Update. Presented below are reports on actions by resource area under the IRP Approach and the Foundational Actions. The actions are reported under the following four resource areas:

- **Colorado River Aqueduct** – Metropolitan's goal under the 2010 IRP Update is to develop programs that will maintain a full Colorado River Aqueduct during dry years. The Report presents a summary of Metropolitan's efforts to build and maintain partnerships and programs with Colorado River interests and Basin States to develop dry-year supplies.
- **State Water Project** – In accordance with the 2010 IRP Update, Metropolitan will pursue improvements in the Sacramento – San Joaquin Delta (Delta) to restore supplies to historic levels of reliability. The Report presents actions carried out under Metropolitan's Bay-Delta Initiatives Program to advance water supply recovery efforts in the Delta supporting board-adopted policies including both near-term and long-term Delta goals.
- **Storage and Transfers** – The 2010 IRP Update includes storage and transfers as an integral part of achieving Metropolitan's future reliability goals. Though the 2010 IRP Update did not set specific goals for storage and transfers, they are an essential part of the success of the IRP Approach. The Report presents a summary Metropolitan storage balances from 2006 through 2011, with the trends for 2012. Though Metropolitan did not pursue transfers in 2012, the Report presents ongoing staff activities in this area.
- **Managing Demands** – Metropolitan manages its water demand through a combination of water use efficiency and local resource augmentation. The Report presents the 2012 actions for these resource areas in light of the 2010 IRP Update and the Water Conservation Act of 2009 that seeks a statewide 20 percent reduction in per capita water use by 2020 (20x2020) with efficiencies achieved through a combination of conservation savings and/or recycled water savings. Additionally, the Report includes a summary of the accomplishments under the five strategies of Metropolitan's recently adopted Long Term Conservation Plan.

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### **Colorado River Aqueduct**

Under the 2010 IRP update, Metropolitan's goal is to develop programs that will maintain a full Colorado River Aqueduct during dry years. To achieve this goal requires Metropolitan must build and maintain partnerships with Colorado River interests and Basin States.

For fiscal year 2011/12, such cooperative relationships between Metropolitan and other Colorado River interests resulted in greater dry-year storage reserves on the Colorado River, improvements to an existing water storage agreement, continued discussions with Mexico on potential binational water management projects, and successful completion of study evaluating long-term supply and demand options in the Colorado River. These are described below.

- **Dry-Year Storage** – In 2011, Metropolitan stored a record amount of Intentionally Created Surplus (ICS) water in Lake Mead, leaving about 150,000 acre-feet of conserved water in Lake Mead for future use. As in past years, the conserved water included agricultural conservation projects along the Colorado River. In 2011, for the first time Metropolitan received approval to store water generated from local groundwater desalination projects. These projects reduce demand for Colorado River water, providing Metropolitan greater flexibility to store water in Lake Mead in future years. By the end of 2012, Metropolitan is projected to have more than 500,000 acre-feet of ICS water stored in Lake Mead. Water stored in Lake Mead ICS can be drawn out in future years to supplement dry-year supplies and achieve full Aqueduct deliveries if needed.
- **Revising Nevada Storage Agreement** – The existing storage agreement with Southern Nevada Water Authority (SNWA) was amended so that over the next five years, for every three acre-feet of water Metropolitan stores, two acre-feet would be returned to SNWA in a future year. The revised agreement also provides that Metropolitan will store between 200,000 acre-feet and 400,000 acre-feet of Nevada water over the next five years, depending upon Metropolitan's operational needs.
- **Binational Water Management Discussions** – Metropolitan, along with the other Colorado River Basin states, worked with the governments of the United States and Mexico to continue to explore development of a binational water management proposal, which would include conditions in which Mexico would take shortages, have access to surplus, and be able to store water in Lake Mead. Of importance to Metropolitan, the proposal also contains a pilot project for water agencies in the United States to partner with agencies in Mexico to implement water conservation programs, with the conserved water being made available to both countries. Mexico could be a potential long-term partner with Metropolitan to develop future conservation projects.
- **Completion of Colorado Basin Supply and Demand Study** – Metropolitan staff and representatives from the other Colorado River Basin States participated with the Bureau of Reclamation (USBR) to complete the Colorado River Basin Study which evaluates options to meet the long-term supply and demand imbalance in the Colorado River. The options identified in the study were to be developed over the next 50 years, and were assumed to be brought on-line as the Basin's demands grows so as to avoid future water shortages. Following completion of the study, the states will be working with USBR to consider implementation of the most promising options. These options could help Metropolitan maintain a full aqueduct when needed in the long-term future.

### **State Water Project**

Based on the 2010 IRP Update target for State Water Project (SWP) supply development, Metropolitan will pursue improvements in the Delta to restore SWP supplies to historical levels of reliability before recent fisheries restrictions. Metropolitan's Bay-Delta Initiatives Program carried out actions throughout the year to advance water supply recovery efforts in the Delta that support the Board's policies including both near- and long-term Delta goals.

- **Regulatory Issues** – Metropolitan supported work resulting in a partial settlement agreement for 2012 operations for salmon. No agreement was reached on 2012 operations for Delta smelt actions. The court has set deadlines of December 2013 and 2016 for new U.S. Fish and Wildlife Service and National

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Marine Fisheries Services biological opinions, respectively. Staff participated with the state and federal contractors to provide input to the federal government regarding the preparation of a new biological assessment and biological opinions for Delta smelt and salmon required as a result of the recent federal court decision to remand the documents back to the federal fish agencies.

- Emergency Preparedness – Metropolitan continued to provide input and ongoing consultation with the State Water Contractors and California Department of Water Resources on the preparation of the draft Delta Flood Emergency Preparedness, Response and Recovery Program. Working in a lead role with the contractors for the SWP and Central Valley Project (CVP), Metropolitan continued to facilitate and expedite plans for stockpiling material in the Delta region. In addition, Metropolitan continued work with state and federal agencies on Bacon Island levee improvements to support the “Pathway” project for allowing timely resumption of water operations following a major earthquake and widespread levee failures in the Delta.
- Habitat Restoration – Metropolitan staff supported efforts to restore habitat through the Lower Yolo Habitat Restoration Project and the Suisun Marsh Tule Red Project. Both of these projects are located in areas of the Delta ecosystem that make them a high priority for providing near-term fishery benefits. On the Lower Yolo project, a Public Draft Environmental Impact Report (EIR) is being developed with an anticipated release for public comment by the end of 2012 and a Final EIR released in early 2013. Construction on the restoration project could begin as early as mid-2013.
- Science Program – Metropolitan continued development and funding of three scientific studies. The first evaluated the relationship between changing nutrient loading into the Delta and historical changes in the populations of key Delta species. The second developed lifecycle models of endangered Delta smelt and longfin smelt populations. Finally, Metropolitan financed a study to evaluate the statistical methods used to justify the Fall X2 measures in the United States Fish and Wildlife Services ESA biological opinion. These studies support Metropolitan’s ongoing efforts to use science-based analysis in the development of new Delta policies.
- Bay Delta Conservation Plan (BDCP) – The overall objective of the BDCP is to restore and protect Delta water supply, water quality, and ecosystem health. The BDCP represents a joint effort of state, federal, regional, and local water agencies, state and federal fish agencies and environmental organizations. Metropolitan provided input on key BDCP issues, including the BDCP effects analysis, the administrative draft BDCP, and the Environmental Impact Report/Environmental Impact Statement. Metropolitan provided engineering support on Delta conveyance assessments, including independent risk assessments, pipeline/tunnel optimization studies, evaluation of intake facilities, geotechnical exploration program, and project management.
- Delta Habitat Conservation and Conveyance Program (DHCCP) – The goal of the DHCCP is to evaluate the potential environmental impacts of new water conveyance options that support and enhance the health of the Delta and increase the reliability of export water supplies. Metropolitan provided essential ongoing engineering support to the DHCCP.
- Delta Stewardship Council (Council) – The mission of the Council is to support the State’s Delta policy for coequal goals of providing a more reliable water supply for California, and protecting, restoring, and enhancing the Delta ecosystem. Metropolitan participates in Council meetings, and coordinates with other water contractors to review draft Council documents including its Delta Plan, which would be the roadmap toward contributing to the coequal goals. Comments on draft versions of the Delta Plan were provided to support Metropolitan’s Board policies.
- Water Quality – Staff participated in regulatory and planning processes at the State and regional water boards to advocate for water quality improvement and protection in the Bay-Delta, related to nutrients and drinking water constituents. Metropolitan continued to monitor and participate in the State Water Resources Control Board’s (SWRCB) process to review the Sacramento Regional County Sanitation District’s discharge permit and petitions challenging the adopted permit. Improved regulatory requirements on discharge could have a significant beneficial impact to the ecosystem. Progress continued in the development of a drinking water policy for surface waters in the Delta watershed. The

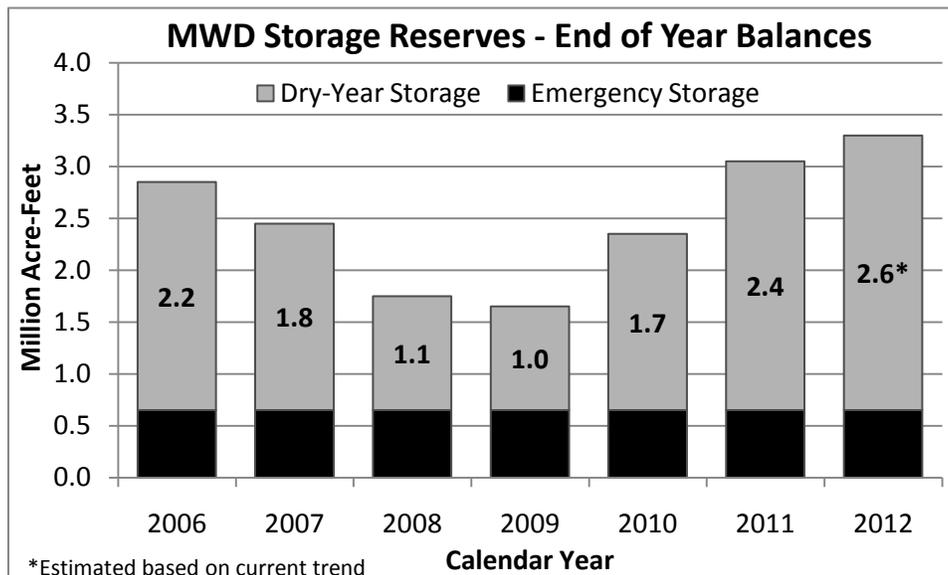
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SWRCB initiated a process to develop a nutrient policy for inland surface waters. Staff coordinated with other water contractors to submit scoping comments and continues to participate in this process.

### Storage and Transfers

Storage and transfers play an integral role in achieving Metropolitan's future reliability goals under the IRP Update. Although the 2010 IRP update did not set specific goals for storage and transfers, they are essential in ensuring the success of the IRP Approach. Storage and transfers will continue to help Metropolitan remain flexible and manage variations in supplies and demands that occur from year-to-year.

The following chart shows the actual end of year balances in Metropolitan storage from 2006 through 2011, and the current trend estimate for the end of 2012. Metropolitan maintains roughly 600 TAF of emergency storage (shown in black) in all years. Emergency storage is reserved solely for emergency purposes, and is not considered to be available to meet dry-year demands. Looking only at the reserves available for dry-year use (shown in grey), this chart provides a good illustration of how storage can and has been used to manage annual differences between supplies and demands. At the end of 2006, following a sequence of above average and wet conditions on the SWP, Metropolitan's dry-year storage reserves were at 2.2 MAF. From 2007 through the end 2009, Metropolitan withdrew 1.2 MAF from its storage reserves to help mitigate the shortfalls between supplies and demands. These shortfalls were due in large part to low SWP deliveries; a result of new fisheries restrictions and a sequence of dry hydrologic conditions. From 2010 through the end of 2011, improved hydrologic conditions on the SWP combined with low demands, allowed Metropolitan to store 1.4 MAF and fully recover from the previous years' withdrawals. Based on current trend estimates of supplies and demands, Metropolitan is planning to store an additional 246 TAF in 2012. With about 2.6 MAF of storage reserves going into next year, Metropolitan is well positioned to ensure water supply reliability for 2013 and beyond.



In addition to the storage actions described above, Metropolitan also participated in a number of short-term dry-year transfer opportunities over the past several years. While a complete listing of Metropolitan's recent transfer activities can be found in the November 2011 Report on 2008-2010 Water Transfer and Exchange Transactions, a few examples include: the State Water Contractor Buyers Group, the Governor's Drought Water Bank, and a 3-for-2 exchange with Westlands Water District.

Metropolitan did not pursue water transfer supplies in 2012 due to a high initial State Water Project (SWP) allocation of 60 percent. Metropolitan staff did, however, work with other SWP Contractors and the Department of Water Resources to explore new programs to manage SWP supplies. One of the more promising programs under discussion is a Multi-Year Market Pool that would allow SWP Contractors to sell and purchase Table A

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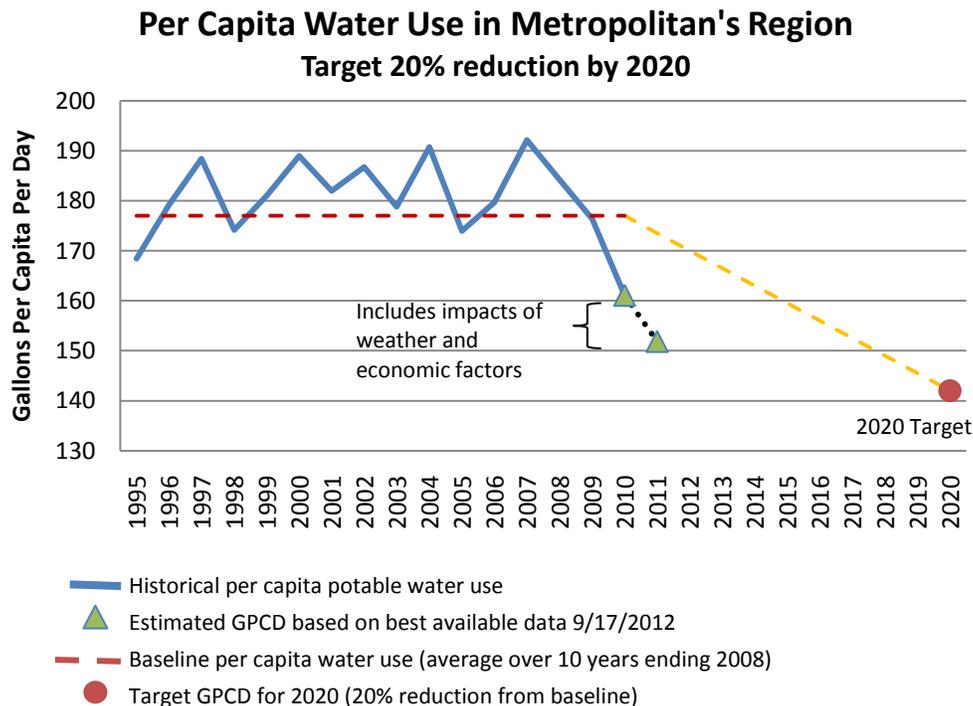
supplies within the SWP contractor family. A 2-year pilot program is being considered for 2013/14 to evaluate this program.

### Managing Demands

Demand management has been an essential part of Metropolitan's approach to water supply planning since the Board approved the first Local Projects Program in 1982. This program provided financial assistance to develop local recycled water supply projects. Thereby promoting efficient use of water and encouraging development of additional local supplies provides as an effective approach to managing demands. In fact, the 2010 IRP Update sets conservation goals that go beyond what would be achieved through minimum retail-level compliance with 20x2020. A strong indicator of the success of water use efficiency programs and local resources augmentation programs is the tracking of historical per capita water use within Metropolitan's service area. Presented below is a summary of the tracking of per capita water use, followed by summaries on actions in water use efficiency and local resources augmentation.

### **Per Capita Water Use**

Metropolitan's historic per capita water use within its service region since 1995 is presented in the graph below, along with its 2020 target of 142 gallons per capita per day. The 2020 target is a 20 percent reduction of the calculated baseline per capita water use. The baseline per capita water use is 177 GPCD, which is the average per capita water use over the ten years ending in 2008. The 2020 target will be achieved through a combination of conservation savings and increased use of recycled water. Water use for 2011 is estimated at 152 GPCD, which falls below the trend line needed to reach the 2020 target. The 2011 GPCD is estimated using preliminary data, which shows a continued decline in water use.



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### Water Use Efficiency

In August 2011, Metropolitan's Board adopted the Long Term Conservation Plan (LTCP), which was developed in collaboration with its member agencies, retailers, and other stakeholders. The plan provides a framework of goals and strategies to help achieve the water savings target in the IRP Update. The goals of the LTCP are to: 1) achieve the conservation target in the IRP Update, 2) pursue innovation that will advance water use efficiency and conservation, and 3) transform the public's perception of the value of water within the region.

The LTCP is being implemented through five strategies that seek to increase water savings. Descriptions of the five strategies and a full listing of the accomplishments within each of these strategies are included as

[Attachment 1](#) to this report.

- [Strategy 1](#) – Use catalysts for market transformation
- [Strategy 2](#) – Encourage action through outreach and education
- [Strategy 3](#) – Develop regional technical capability
- [Strategy 4](#) – Build strategic alliances
- [Strategy 5](#) – Advance water efficiency standards

In addition to the LTCP, Metropolitan is pursuing a number of Foundational Actions for water efficiency; including changes in program administration, grants to enhance incentives, research, and legislation.

- [Program Administration](#) – Metropolitan is taking a new approach with its region-wide residential and commercial programs by implementing a combined region-wide program. Starting in October 2012, both the residential and commercial region-wide programs will be administered through one vendor, Electric and Gas Industries Association (EGIA). EGIA will be able to combine administrative and marketing efficiencies to create an overall more effective water savings program.
- [Research](#) – Metropolitan is collaborating on a variety of research efforts to help guide program development and implementation:
  - With a \$150,000 grant from USBR, Metropolitan is conducting a conservation market study to analyze the commercial and large landscape markets. This information may be used to target future programs.
  - With a \$60,000 grant from USBR, Metropolitan is conducting research on landscape water use efficiency, including water savings for smart controllers and residential customer awareness of outdoor water use.
  - Metropolitan assisted with data collection and review of a USBR study on retail water rates.
  - Metropolitan provided data to USBR for a study on consumer response to various incentive levels and incremental water savings potential.
  - Through a Memorandum of Understanding, Metropolitan and USBR will begin an economic analysis of water conservation policies and programs.
  - Metropolitan is participating in a demonstration study of a new water demand/conservation forecasting technology for a retail agency.
- [Grants to Enhance Incentives](#) – Metropolitan has received two grants for turf removal. A \$2 million grant from the California Department of Water Resources and a \$1 million grant from USBR are allowing Metropolitan to provide an incentive of \$1 per square foot for replacing turf with climate appropriate landscapes. Metropolitan was also awarded a \$500,000 grant from USBR to provide an incentive of \$4 per efficient sprinkler nozzle.
  - The technology models the behavior of individual consumers to forecast water demand and conservation behavior.
- [Legislation](#) – Metropolitan supported two state bills to advance water use efficiency. AB 2230 (Gatto) would require new car washes to use at least 60 percent recycled water. AB 1750 (Solorio) would enact

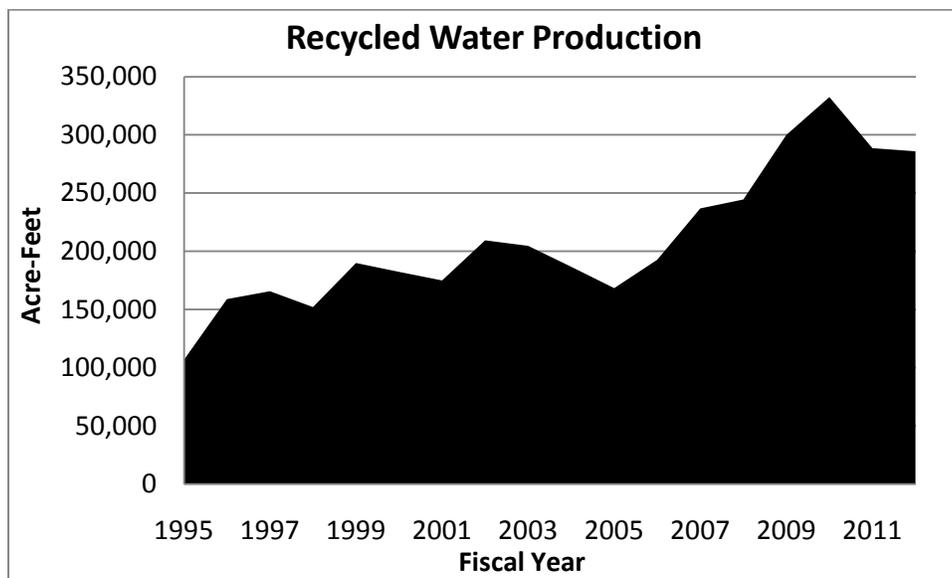
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the Rainwater Capture Act of 2012 to encourage the capture and use of rainwater for landscape irrigation and indoor nonpotable uses consistent with changes to the California Building Code. Both bills have been signed into law by the Governor.

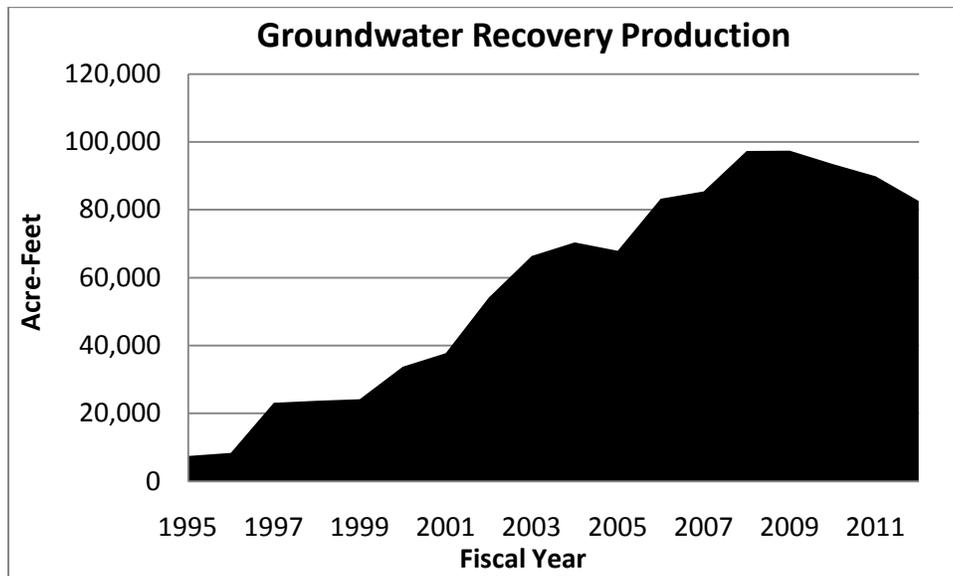
### Local Resource Augmentation

Metropolitan promotes the increased development of local water supplies by its member agencies through a financial incentive program. These programs currently support agencies that pursue local water recycling, groundwater recovery, and seawater desalination. Although recycling can be used to meet the 20x2020 goals, additional recycling production beyond the 20x2020 target will help meet Metropolitan's local resource augmentation goals. Current local resource augmentation contracts, activities, and Foundation Actions are described below.

Metropolitan's Local Resources Program (LRP) is a performance-based incentive program designed to expand water recycling and the recovery of degraded groundwater. In FY 2011/12, Metropolitan provided incentives through the LRP program to support 64 recycled water projects which yielded an estimated 171,000 acre-feet, and 21 groundwater recovery projects which produced almost 41,000 acre-feet. In addition, another estimated 114,000 acre-feet recycled water and 42,000 acre-feet of recovered groundwater was produced by local agencies without Metropolitan funding. The charts below show the total recycled water and groundwater recovery production in Metropolitan's service area, including both Metropolitan and local agency funded projects.



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In 2012, Metropolitan’s Board approved seven additional LRP programs with a total annual contract yield of 24,300 acre-feet. Throughout the year, Metropolitan also pursued a number of Foundational Actions to advance the development of local resources, these actions include the following:

- Local Resources Development Strategy (LRDS) Task Force –Metropolitan and its member agencies are collaborating in this effort to review alternative local resource strategies, identify LRP improvements, and examine alternative mechanisms to support development of local resources consistent with the IRP.
- WaterReuse Association – Metropolitan is an active member of the Association that participated in a variety of legislative/regulatory activities. Staff serves as the Los Angeles Chapter Vice President and provides regular legislative and regulatory updates.
- WaterReuse Research Foundation – Staff serves on the Board, which conducts applied research on behalf of the water and wastewater community for the purpose of advancing the science of water reuse, recycling, reclamation, and desalination.
- Legislation – Staff works with Metropolitan’s legislative staff and WaterReuse in analyzing and promoting legislation that increases the use of recycled water within our service area and the State of California.
- CalDesal – CalDesal is a state-wide organization devoted to advancing seawater desalination in California. Metropolitan is a founding member, holds the treasurer position, and actively participates in CalDesal’s programs.
- Ocean Protection Council’s (OPC) Five-Year Strategic Plan: The OPC was created in 2004 to coordinate California’s ocean policy and regulations and prioritizes its activities through Five-Year Strategic Plans. Early drafts of the OPC’s 2012 Strategic Plan update included unusually specific actions which would have negatively impacted member agency projects. These actions included adopting positions of “no open-intakes for ocean desalination” and “no co-location” with coastal power plants. In response, Metropolitan partnered with CalDesal and the member agencies to promote less specific actions for seawater desalination. The OPC ultimately adopted a plan that incorporated many of Metropolitan’s and CalDesal’s recommendations.
- State Water Resources Control Board’s (SWRCB) Ocean Plan Update: Every three years the SWRCB updates California’s Ocean Plan, which sets water quality standards and discharge limits for the State’s oceans and coasts. Establishing new regulations for seawater desalination is a high priority for the 2012 Update. In coordination with CalDesal and the member agencies, Metropolitan pushed for an open and

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participatory process and has provided both written and oral testimony during Ocean Plan hearings. This includes urging the SWRCB to consider member agency studies as well as to recognize site-specific factors in developing new regulations. The regulatory process will continue through 2013 and is scheduled to be completed in early 2014.

- Assembly Bill 2595: Staff worked with CalDesal, the member agencies, and Assemblyman Isadore Hall to advance permitting legislation for seawater desalination. AB 2595 would have required the Ocean Protection Council to convene a task force to develop recommendations to the legislature for improving the State's permitting process. This was identified as a key issue by the member agencies in the 2010 IRP and was a legislative priority for Metropolitan in 2012. As a result of Metropolitan's and CalDesal's efforts, AB 2595 was passed by the Assembly and by several key Senate committees. It is now being pursued through administrative channels.
- Seawater Desalination Integration Survey Report: Metropolitan completed a report summarizing a survey of international seawater desalination system integration practices. The report summarized the integration practices of 10 projects spanning seven countries. Topics included water quality, corrosion, blending requirements, intertie location, operations and other related considerations. Survey findings will help guide future investigations and included the importance of pilot testing, water quality studies, and performing hydraulic analysis prior to design and construction to ensure successful integration. A presentation on the report won best paper at a recent AWWA/AMTA conference.
- West Basin MWD Integration Study: Metropolitan participated in a joint study with West Basin to evaluate the potential for integrating desalinated seawater into Metropolitan's regional distribution system. Results of the study will be included in West Basin's Ocean Desalination Master Plan (Master Plan). West Basin is considering a 20 to 60 MGD project and is considering potential sites in either El Segundo or Redondo Beach. Metropolitan worked with West Basin staff and consultants on technical memos that assess regional system integration opportunities and constraints relative to demands, distribution system factors, water quality, as well as pumping requirements and alignments. The Master Plan report is due to be released by West Basin in the near future.

### Summary

Throughout 2012, Metropolitan continued to take actions and develop programs in support of achieving the long-term goals of the 2010 IRP Update. At the same time, Metropolitan used its existing resource portfolio to effectively manage current water supplies and demands; and position itself for continued reliability in the near-term. Metropolitan also took steps towards developing a process that will help manage future uncertainties. As a result of all the efforts described in this report, Metropolitan is more reliable, and will continue to be so in the future.

### Next Steps

Metropolitan will continue to take actions to support the region's reliability, and ensure that the goals of the 2010 IRP Update are achieved. In accordance, staff will continue to provide the Board with annual updates on the implementation status of the 2010 IRP Update.

## **Metropolitan Water District Long Term Conservation Plan 2012 Accomplishments**

Metropolitan's Long Term Conservation Plan (LTCP) is being implemented through five strategies that seek to transform markets to increase water savings. Following are accomplishments within each of these strategies.

**Strategy 1: Use catalysts for market transformation.** Metropolitan is encouraging market transformation through two primary catalysts: 1) incentives to influence consumer preferences for water efficient products and services; and 2) encouraging innovation and the development of new water efficient technologies. For fiscal year 2011/12, Metropolitan's incentive programs saved over 8,200 acre-feet of water. Metropolitan offers incentives through several programs:

- Region-wide Residential Program – Launched in 2008, SoCal WaterSmart provides rebates to residential customers to reduce the cost of water-efficient products. Current program rebates include high efficiency clothes washers, multi-stream rotary sprinkler nozzles, and weather based irrigation controllers. Recent refinements such as online applications and automatic email notifications to customers have streamlined operations resulting in quicker processing times and increased customer satisfaction, while enhancing budget controls.
- Region-wide Commercial Program – The Save Water, Save A Buck (Save A Buck) program provides rebates that improve cost-effectiveness for businesses. Rebates are offered for water-saving plumbing fixtures, landscaping equipment, food-service equipment, cleaning equipment, HVAC (heating, ventilating, air conditioning) controllers and medical equipment for commercial customers.
- Local Programs – Metropolitan provides funding to member agencies for locally-administered water conservation programs tailored to meet the needs of their customers. Member agencies receive Metropolitan incentives for qualified retrofits and water-saving activities. Qualifying residential projects have included turf removal projects, toilet distribution and replacement programs, clothes washer direct-installation programs, and residential water audits.
- Agricultural Conservation Program – This program offered incentives to growers to perform physical improvements to their irrigation systems in order to increase overall system efficiency. Incentives are based on the calculated water savings seen from the increased irrigation system efficiency, up to half of the cost of the new installed equipment. Since program inception, 35 projects have been approved with an expected lifetime savings of 8,400 acre-feet.
- Water Savings Incentive Program – In May 2012, Metropolitan's Board approved a regional pay-for-performance program administered by Metropolitan. The new Water Savings Incentive Program was launched in September 2012 and provides incentives for customized water efficiency projects for businesses, agriculture, and large landscapes throughout Metropolitan's service area.

Metropolitan is encouraging the development and introduction of new water efficient technologies through the following:

- Innovative Conservation Program – Metropolitan's Innovative Conservation Program (ICP) is a competitive program to evaluate water savings and reliability of new water savings devices, technologies, and strategies. Delivered in cooperation with USBR, approximately \$250,000 of funding is available bi-annually for research. Eight projects were selected in 2011 including a return on investment calculator, school irrigation audit tool, plant selector application, graywater irrigation treatment, real-time water use evaluations, and a demand elasticity and revenue stability study.

- Water Use Efficiency Research Symposium – In May, Metropolitan partnered with USBR to host a one-day research symposium on water efficiency. The symposium featured presentations on research projects funded through the ICP as well as information to assist entrepreneurs and innovators in bringing new technologies to market. Delivered in collaboration with Metropolitan’s Business Outreach Program, participants were able to discuss innovative water savings strategies and projects and to network with other attendees.
- World Water Forum – Metropolitan is partnering with USBR and the Sanitation Districts of Los Angeles County to provide grants to southern California community colleges and universities to conduct research on innovative water conservation strategies. The competitive grant program provides up to \$10,000 per project to encourage students to create cost-effective prototype projects. Current projects include a communication strategy to reduce outdoor water use and an evaluation of an incentive program for landscape efficiency

**Strategy 2: Encourage action through outreach and education.** Metropolitan worked with its member and retail agencies to develop a focus for outreach and education for water use efficiency. The workgroup selected the theme of “proper irrigation control.” In support of this theme, the following were accomplished:

- Metropolitan created an online resource toolbox to assist member and retail agencies in sharing outreach materials and ideas.
- Metropolitan developed a one page fact sheet and a sample bill insert with quick tips for a California-Friendly® garden. The fact sheet and sample bill insert were made available to member agencies. The fact sheets were also distributed at local events.
- Metropolitan provided water use efficiency information at 15 community events related to gardening during May and June.
- Several member and retail agencies advertised in local newspapers and included bill inserts encouraging residents to “Take Control of Your Controller”.
- Metropolitan promoted Smart Irrigation Month in July and encouraged member and retail agencies to participate as well.
- Metropolitan collaborated with water agencies and the irrigation industry to provide hands-on training on how to set sprinkler timers at Spring Green.
- In May, Metropolitan’s Board approved offering landscape irrigation efficiency training for residential customers.

**Strategy 3: Develop regional technical capability.** Metropolitan encouraged information sharing and training through the following:

- Metropolitan conducted restaurant audit training at the So Cal Gas Energy Resource Center. There were approximately 50 attendees from member and retail agencies.
- Metropolitan hosts monthly meetings for member and retail agency water use efficiency coordinators where agencies share lessons learned through local program implementation. In September 2011, the entire meeting focused on landscape programs.
- Metropolitan and the member and retail agencies are coordinating with irrigation manufacturers and distributors to provide online and in-person training for contractors and homeowners on proper irrigation control.
- Metropolitan assists with landscape efficiency workshops sponsored by SoCal Gas.
- In May, Metropolitan’s Board approved providing landscape irrigation audits for large landscape customers.

**Strategy 4: Build strategic alliances.** Metropolitan is developing strategic alliances with a number of entities to help encourage market transformation:

- Metropolitan is implementing pilot programs with irrigation manufacturers to encourage earlier adoption of smart controller and nozzle technologies.
- Metropolitan strengthened our relationship with USEPA WaterSense®. Staff organized and facilitated a conference call with WaterSense and water agencies in Arizona, Texas, and Georgia on how to advance landscape water use efficiency. Metropolitan staffed a WaterSense booth at the kickoff event in Glendale for the National Mayor's Challenge for Water Conservation.
- Metropolitan hosted a forum for the California Landscape Contractors Association and water agencies to discuss ways to advance landscape water use efficiency.
- Metropolitan is working with Southern California Edison and Southern California Gas to promote the commercial incentive program and the new Water Savings Incentive Program.
- Metropolitan participates in the California Urban Water Conservation Council as a board member and on committees.

**Strategy 5: Advance water efficiency standards.** Metropolitan pursued opportunities to advance water efficiency standards through the following:

- Metropolitan participated in development of EPA WaterSense specifications for new devices.
- Metropolitan participated on the Department of Water Resources Commercial, Industrial, and Institutional (CII) Task Force to develop a report to the legislature on potential CII sector water use efficiency improvements.
- Metropolitan participated in the Irrigation Association's Smart Water Application Technology (SWAT) technical work group to develop testing protocols for controllers and nozzles.
- Metropolitan participated in a number of codes and standards committees, including:
  - International Association of Plumbing and Mechanical Officials (IAPMO)
  - American National Standards Institute (ANSI) where standards are being developed for commercial high-efficiency toilets and pre-rinse spray valves.
  - International Code Council (ICC) working on standards for sprinklers.
- Metropolitan worked with the California Municipal Utilities Association (CMUA) to have water efficiency expertise included on two code advisory committees for the California Building Standards Commission. Water efficiency is now included on the Green Building and Plumbing, Electrical, Mechanical, and Energy Committees.