



### ● **Overview of Metropolitan's Efforts to Encourage Local Resources Development**

#### **Summary**

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This report provides background on Metropolitan's historical approaches to encourage development of local resources in its service area. This includes the incentive based approaches like the Local Resources Program, non-incentive based programs, legislative efforts and regional coordination.

#### **Purpose**

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Informational

#### **Attachments**

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Attachment 1 – March 27, 1986 Board Letter titled "Proposed Revisions to the Local Projects Program"

Attachment 2 – February 27, 1990 Board Letter titled "Local Projects Program Financial Contribution"

Attachment 3 – March 26, 1991 Board Letter titled "Proposed Groundwater Recovery Program"

Attachment 4 - August 8, 1995 Board Letter titled "Advance Conversion of existing projects under the Local Projects Program to the Local Resources Program"

Attachment 5 – October 14, 2014 Board Letter titled "Authorize refinements to the Local Resources Program"

#### **Detailed Report**

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##### **The Regional Benefits of Local Resources Development**

Metropolitan has long been involved in encouraging the development of local resources in its service area. Decades ago, it was recognized that demand management would be an important part of balancing imported supplies and demands. By reducing the demand for imported water, development of local supplies was seen as a way to reduce the need to increase imported supplies and offset the need to transport or store additional imported water into or within the Metropolitan service area.

Local supply development takes place at the local agency level. Regional approaches to encourage the development of local supply have proven to be effective at increasing the amount of local supply production over time. Regional investments in demand management programs, of which local supply development is a key part along with conservation programs, benefit all member agencies regardless of project location. These programs help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all system users. Thus, the Local Resources Program, as a demand management program, contributes to transportation infrastructure savings for all users of the regional water system.

Metropolitan's initial Integrated Water Resources Plan (IRP) adopted in 1996 included an analysis of future demand scenarios and their effect on infrastructure requirements. A comparison of capital infrastructure costs with and without demand management programs showed a difference of about \$2 billion. In other words, the ability to meet demand through local demand management programs resulted in an anticipated \$2 billion in capital cost savings. A sensitivity analysis further showed that a 5 percent increase or decrease in demand had a correlative effect on when Metropolitan would need to incur capital infrastructure costs. Since then, Metropolitan has seen such benefits materialize. Metropolitan has been able to defer the need to build additional infrastructure such as the Central Pool Augmentation Project tunnel and pipeline completion of San Diego Pipeline No. 6, the West Valley Interconnection and the completion of the State Water Project East Branch Expansion. Overall, the decrease in water demand, which is due in part to the effect of demand management programs, is estimated to have deferred the need for these projects between four and twenty five years at an estimated cost savings of \$2.7 billion (in 2015 dollars).

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Since 1996, the IRP has been updated three times in 2004, 2010 and 2015. In each update, the importance and commitment to demand management programs including local resource development has been a major component of the region's resource development plan, reaffirming long-term sustainability of the region's water supply through implementation of local resource development and conservation.

In 1999, the California Legislature and Governor recognized the regional benefit of local resource development and conservation by enacting Senate Bill 60, codified in Section 130.5 of the Metropolitan Water District Act, which states: "It is the intent of the Legislature that the Metropolitan Water District of Southern California expand water conservation, water recycling, and groundwater recovery efforts" and "The Metropolitan Water District of Southern California shall place increased emphasis on sustainable, environmentally sound, and cost-effective water conservation, recycling, and groundwater storage and replenishment measures."

### **Metropolitan's Integrated Water Resources Planning**

#### *1996 Integrated Resource Plan (IRP)*

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 were developed due to downsizing or deferral of Metropolitan's capital improvements. Encouraging water recycling and groundwater recovery projects by providing financial assistance was consistent with the IRP goals, and was 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.

#### *2004 IRP Update*

The Board approved the 2004 IRP Update that 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 and allow compliance with 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.

#### *2010 IRP Update*

The Board approved the 2010 IRP Update that refined regional supply development targets based on the identified changed conditions and provided a long-term resources plan to 2035. This update increased the focus on the development in local supplies in three areas. First, the update recognized that recycled water development counted toward local agency progress in meeting their "20 by 2020" water use efficiency targets. Second, the Local Supply Augmentation component of the IRP specifically targeted growth in the development of local supplies. Third, additional investments in recycled water and conservation that would move the entire region toward a true 20 percent reduction in potable per capita water use could provide the component of a supply buffer to guard against shorter-term risks to water supply reliability. The update also included an adaptive management component called "Foundational Actions" which has the purpose of preparing less-developed supplies, mostly local, for future implementation.

#### *2015 IRP Update*

The most recent 2015 IRP Update continued the long history of recognizing the regional benefits of local supply development. Agencies will continue to pursue the implementation of recycled water projects and programs as they move towards the 2020 compliance date for "20 by 2020" water use efficiency targets. The update also recognizes the need for the region to maintain its base of existing local supplies against future challenges and losses of supply while increasing that local supply base over time. The adaptive management component of the IRP known as "Foundational Actions" was maintained and renamed "Future Supply Actions" to more clearly define the importance of preparing less-developed supplies, mostly local, for future implementation.

### **Overview of Metropolitan's Role in Regional Demand Management**

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Metropolitan's role in improving local water supplies has been guided by its IRP and strategic planning efforts to ensure adequate regional water supply through a diverse resource mix to meet the current and future demand while increasing the region's water supply reliability, and is also authorized by legislation such as Senate Bill 60. Over the years, Metropolitan developed policy principles to encourage development of local resources including recycled water, groundwater recovery, enhancing total groundwater production, and seawater desalination.



As Southern California's regional supplier of water, Metropolitan encourages local resources development in a number of ways including financial incentive programs, non-incentive programs and activities. Metropolitan's financial incentive programs provide financial assistance to local agencies and their customers toward local project construction and operation. Non-incentive programs fund joint-regional studies and research that will help increase local projects development and production. Metropolitan also supports regional studies to improve the quality and quantity of local supplies. Metropolitan contributes to the research and technological advancement by being a member of and providing funding

to various research organizations such as Water Environment & Reuse Foundation.

Metropolitan collaborates with its member agencies, various state and federal agencies, and trade organizations to help overcome obstacles that challenge local projects development. Cost and cumbersome permitting requirements are often a major obstacle to local projects development. Metropolitan works with its member agencies and other trade organizations such as WateReuse, Association of California Water Agencies (ACWA) and California Urban Water Agencies (CUWA) to advocate for legislation that would streamline regulations and permitting process, provide grants or low-interest rate loans for project construction, funding for feasibility studies, research and development, and launching public education and awareness programs.

### **Incentive Programs**

The cost of developing and producing local water supplies, including up-front capital and ongoing operation and maintenance, remains a main constraint to local resources development. A cost constraint in the development of recycled water is specifically the costs associated with on-site retrofit of potable water systems to recycled water. To assist agencies and the users of recycled water with project cost, Metropolitan established the Local Resources Program, Seawater Desalination Program, Public Sector Program, and On-site Retrofit Pilot Program.

#### *Local Resources Program*

Since 1982, Metropolitan provided financial incentives for the development of water recycling and groundwater recovery projects through the Local Resources Program (LRP). Staff periodically reviews the LRP criteria and its role in development of local resources including LRP incentive approaches and alternative ways Metropolitan can assist in the development of local resources. The attachments to this report are the historical Board Letters showing the changes in the financial incentives for local resources over time.

The LRP accelerates the development of local projects to reduce demands for imported water supplies and increase water supply reliability in the region. Consistent with its purpose, the LRP has effectively and efficiently encouraged agencies to develop projects and increased local supply production to achieve water supply reliability in the region. Today, almost one-half of the total recycled water and groundwater recovery production in the region is developed by LRP supported projects.

The LRP was updated several times to reflect the Metropolitan service area's water supply conditions and economics landscape. The LRP evolved throughout the years with regard to project selection and incentive amount (Table 1).

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Table 1

LRP Evolution Over Time	
<b>Capital Funding</b>	
• 1982 LPP	MWD sells the water
<b>Pay for performance incentives</b>	
• 1986 LPP	Variable (\$75-\$113/AF)
• 1990 LPP	Fixed (\$154/AF)
• 1991 GRP	Variable (up to \$250/AF)
• 1995 LRP Conversions	Variable (up to \$250/AF)
• 1998 Competitive LRP	Scheduled (avg. \$115/AF)
• 2007 LRP	Variable (up to \$250/AF)
• 2014 LRP	Three payment options

### 1981 Local Projects Program

With the drought conditions of the 1970s, the region realized the need for developing local projects by expanding the use of recycled water. In the early 1980s, Metropolitan joined with Los Angeles County Sanitation District and several other agencies to conduct the Orange and Los Angeles Counties Reuse Study. The study identified potential for increased use of recycled water and provided a list of about 60 projects that could be locally developed. The study also recognized Metropolitan’s role in providing co-funding for project implementation. Metropolitan concluded that recycled water would provide regional benefits throughout its service area by increasing water supply reliability.



Subsequently, in 1981, Metropolitan established the Local Projects Program (LPP) to facilitate development of water recycling projects. The LPP was originally designed to provide up-front capital (i.e. co-ownership or equity partnership) up to one-half of the project construction, not to exceed \$300/AF to a participating agency for equal ownership in project water. The participating agency would build and operate the project. Metropolitan would recover its capital contributions through sale of its share of water to the participating agency. Metropolitan entered into two co-ownership agreements but soon realized that the program was not financially sustainable as a large amount of capital was needed to support the other identified projects in the region. As a result, the LPP was halted while staff reviewed and developed another funding approach.

In 1986, the LPP was revised from providing an up-front capital to a pay-for-performance program providing financial incentives for project production. This approach continues today. Under this approach, an agency is responsible for construction and operation of the project, and Metropolitan pays the agency for project water deliveries. The LPP incentive amount, in dollar per acre-foot, was originally set equal to avoided energy costs of State Water Project pumping with a floor amount of \$75/AF. The incentive amount varied from year to year, which provided an uncertainty for the participating agency as it relied on this incentive to pay for a portion of the project costs. Subsequently, agencies requested Metropolitan to consider a fixed incentive rate for LPP projects.

In 1990, the Board adopted changes to the LPP that increased the incentive to a fixed amount of \$154/AF. This rate was calculated based on Metropolitan’s cost to convey, treat, and distribute water at that time, and included a factor for reliability and service area needs.

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### *1991 Groundwater Recovery Program*

With the early 1990s drought, the region needed to develop other local water resources beside recycled water. In 1991, Metropolitan conducted the Brackish Groundwater Reclamation Study, which identified significant amounts of degraded groundwater in the region that were not being used. Metropolitan decided to encourage local agencies to treat the degraded groundwater for potable purposes.



In 1991, Metropolitan established a program known as the Groundwater Recovery Program (GRP) to provide financial incentives for treatment of degraded groundwater for potable purposes (Attachment 4). The purpose of the GRP was to improve water supply reliability through treating the unusable degraded groundwater, and to increase groundwater storage for regional benefit. Since some groundwater recovery projects required reverse osmosis and other expensive treatment options, the LPP incentive was not enough to encourage agencies to develop those projects. The GRP incentive was set on a sliding scale basis up to \$250/AF, calculated annually based on actual project costs exceeding Metropolitan's prevailing water rate.

### *1995 LRP Conversion*

As mentioned earlier, the LPP incentive was set at \$154/AF for recycled water projects. Generally, it takes several years for a recycled water project to reach project capacity while more retail-level recycled water customers are connected to the system. Therefore, the unit cost of a typical recycled water project is effectively much higher during the first few years of project operation. The original incentive of \$154/AF was not enough to help agencies to overcome the higher project unit cost in early years. Also, since the LPP rate was based on the estimated project cost and yield, it could result in over- or under-payment by Metropolitan. In that light, during development of the LRP in 1995, the Board authorized staff to amend the existing LPP agreements, if requested by participating agency, to the proposed LRP terms, which provided incentives up to \$250/AF similar to the GRP (Attachment 5).



### *1998 LRP Competitive Process*

In 1998, based on the Rate Refinement Participants' recommendation, the LPP and GRP were discontinued and combined in to a newly established LRP. At first, the LRP was set to be a competitive process, which encouraged local development of recycled water and recovered groundwater through a process that emphasized cost-efficiency to Metropolitan, timing new production according to regional need, and minimizing administrative cost and complexity.

Under the LRP competitive process, Metropolitan would issue a request for proposals for a specified regional quantity of water to achieve production targets identified under the IRP. A review panel would evaluate proposals using scoring criteria adopted by Metropolitan's board and identify the mix of project proposals that best met the region's needs consistent with the RFP. Agencies could request fixed financial assistance payments of up to \$250 per acre-foot of production for agreement terms of up to 25 years, but proposals that requested lower financial assistance generally scored higher under the RFP process. Under the LRP competitive process Metropolitan issued two RFPs in 1998 and 2003. The program struggled with setting scoring criteria that were universally agreed upon which led to numerous complaints from member agencies.

### *2007 LRP*

In July 2006, Metropolitan established a task force comprised of member agency representatives to identify and recommend program improvements. In April 2007, Metropolitan updated its recycled water policy principles and established the 2007 LRP with a goal of 174,000 acre-feet per year of local water resource development. The new

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LRP principles allowed for an open application process and eliminated the competitive process. The 2007 LRP offered sliding scale incentives up to \$250/AF, calculated annually based on actual project costs exceeding Metropolitan's prevailing water rate.

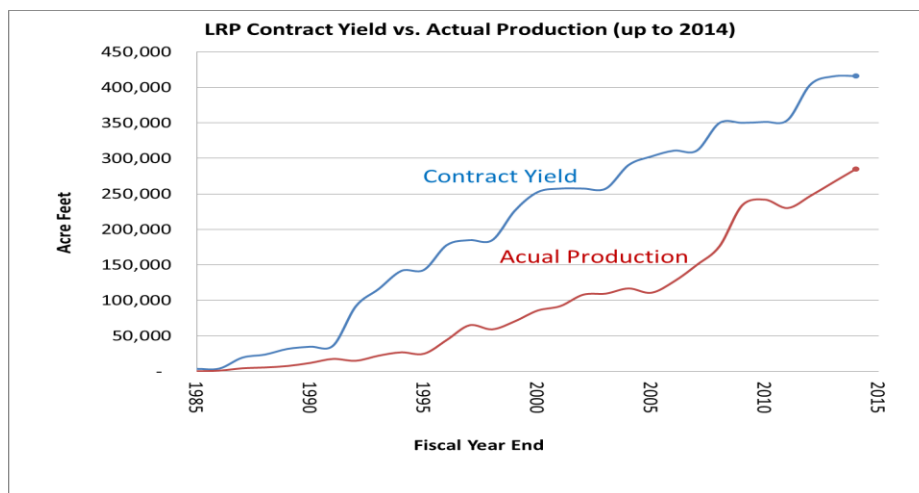
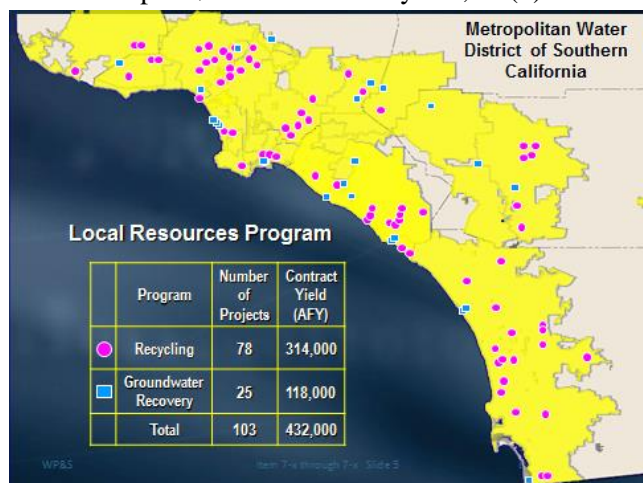
### 2014 LRP (current program)

Metropolitan periodically reviews and updates the LRP to accommodate member agencies' needs and encourage more recycled water production to meet regional demand. The last review was in 2014, the impetus for which was the fact that no LRP applications were received in 2013. Metropolitan held a series of workgroup meetings with our member agencies to identify constraints to local project development and explore effective strategies to increase local resource production. Agencies indicated that the \$250/AF incentive was no longer enough to incentivize new projects.

Subsequently, the Board authorized the LRP refinements in October 2014 that are in effect today. Under the current program, there are three LRP incentive payment structure options to choose from: (1) sliding scale incentives up to \$340/AF over 25 years, (2) sliding scale incentives up to \$475/AF over 15 years, or (3) fixed incentive up to \$305/AF over 25 years.

### LRP Status

Since its inception, the Board has approved 78 water recycling and 25 groundwater recovery projects that are expected to produce about 432,000 acre-feet per year when fully implemented. Since program inception, Metropolitan has provided about \$425 million in incentives for the development of approximately 2,500,000 acre-feet of recycled water and \$146 million for about 855,000 acre-feet of recovered groundwater.



As shown in the above graph, there is a lag between total LRP projects contractual yield and actual production. In general, the lag between the LRP total contract yield and actual production is mainly due to:

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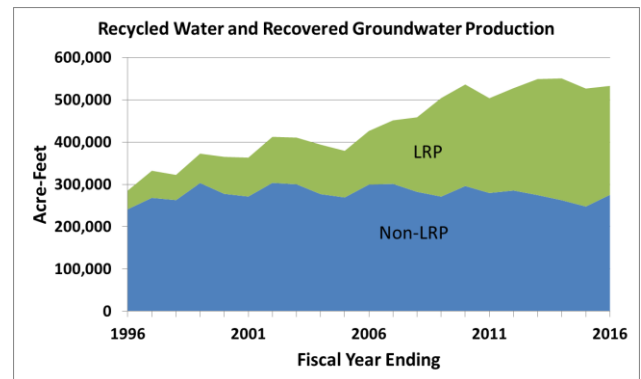
1. Projects being in various stages of development and not all currently in operation or operating to full capacity.
2. A typical recycled water project usually takes about 8 to 10 years to achieve its contractual capacity due to the time required to negotiate and hookup customers along the distribution pipeline.
3. A typical groundwater recovery project takes about two years to achieve its capacity but the production could be restricted by the Groundwater Basin Managers or other issues such as unexpected water quality or well problems.
4. Some projects' scope changes and the local agency may not implement the full capacity identified in the contract.
5. Recycled water projects may require on-site retrofit of potable water system.

LRP production has been increasing over years as more projects come on line and increase usage over time. In general, LRP production in each year may be impacted by the following factors:

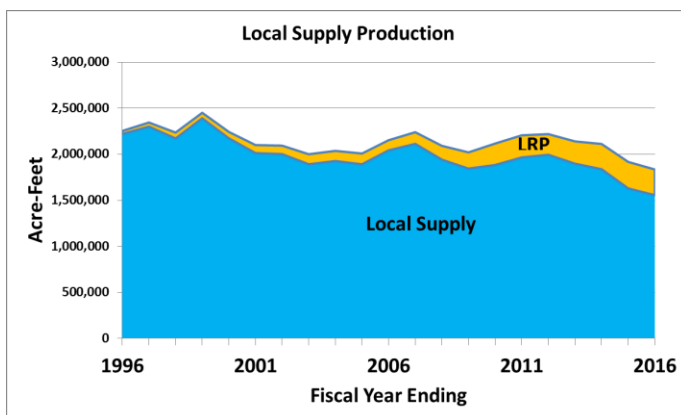
1. Conservation – Recent aggressive conservation measures have not only reduced the amount of water usage by consumers, but also reduced the flows to wastewater treatment plants significantly in some areas.
2. Drought - Prolonged drought reduces natural recharge of the local groundwater basins, which impacts the groundwater production including LRP projects.
3. Shutdowns - Project shutdown could happen either for maintenance and repair purposes or for expansion of the current capacity.

### LRP Regional Benefit

The LRP helps encourage and expedite development of local resources that reduce demand for Metropolitan imported water supplies and increase water supply reliability in the region. About half of the total recycled water and groundwater recovery production in the region is achieved through the LRP.



The purpose of demand management is to reduce water consumption through conservation, which reduces the amount of water that must otherwise be transported through Metropolitan's system. Demand management programs decrease and avoid operating and capital maintenance and improvement costs, such as costs for repair of and construction of additional or expanded water conveyance, distribution and storage facilities. The programs also free up capacity in Metropolitan's system to convey both Metropolitan water and water from other non-Metropolitan sources. Metropolitan's incentives in these areas contribute to savings for all users of the system in terms of lower capital costs that would otherwise have been required to expand and maintain the system.



LRP funded projects together help keep steady or increase local supplies over years. LRP projects collectively produced about approximately 260,000 acre-feet in 2016.

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## Other Incentive Programs

### *2001 Seawater Desalination Program*

Metropolitan's IRP includes seawater desalination as a potential local resource and supports foundational actions to lay the groundwork for accelerating seawater desalination development as needed in the future. Similar to the LRP, Metropolitan established the Seawater Desalination Program (SDP) in August 2001 to provide financial incentives to member agencies for the development of seawater desalination projects. The SDP would have provided incentives up to \$250 per acre-foot of desalinated seawater produced and used. Metropolitan has signed three separate SDP agreements with City of Long Beach, Municipal Water District of Orange County, and West Basin Municipal Water District. These agreements are for 25 years and will expire in 2040. However, each agreement will expire in 2020 if the projects within the agreements do not begin operation by then. These projects are in various stages of planning. In October 2014, seawater desalination projects became eligible for funding under the LRP and as a result Metropolitan no longer offers the SDP.

### *2007 Public Sector Program*

In August 2007, the Board authorized \$15 million for the Accelerated Public Sector Water Efficiency Partnership Program. The goal of the program was to provide incentives to public agencies to implement water conservation measures and/or use recycled water. The thought was that the use of recycled water by a public agency such as Caltrans, which irrigates the freeway medians and has high public visibility, would send a positive message on the importance of recycled water and conservation of potable water. Under this program, Metropolitan provided incentives of \$250/AF, up to actual on-site retrofit costs, for the estimated two years of water use. Metropolitan provided about \$1.1 million for converting 85 sites with an estimated water savings of about 3,000 AFY of recycled water. Public parks and schools are other examples of entities that participated in this program.



### *2014 On-site Retrofit Pilot Program*

LRP recycled water projects collectively produced about 70 percent of their capacity in fiscal year 2012/13. Site conversion costs, often borne by the consumer, are a key impediment to achieving full project capacity. Providing financial assistance for conversions would accelerate increased recycled water use, which, in turn, would help alleviate drought conditions. To help fund retrofit costs, Metropolitan established the On-site Retrofit Pilot Program (ORP) in July 2014 with a budget of \$7.5 million over three years. In addition, Metropolitan received a grant from United States Bureau of Reclamation in the amount of \$700,000. The ORP provides rebates to consumers toward the cost of converting their potable water irrigation or industrial systems to recycled water use.



Under the ORP, Metropolitan accepted applications from July 2014 through June 2016. To date, many sites have already been converted to recycled water under the ORP and some are under construction. The ORP rebate is equal to \$975 per acre-foot (\$195/AF x 5 years ) multiplied by the average annual water use in previous three years, not to exceed actual on-site retrofit cost. Based on the reported costs so far, incentives provided by the ORP covers about 64 percent of actual construction costs. It is anticipated that approximately 280 sites will be retrofitted by June 2017 with an estimated water savings of about 8,900 AFY.

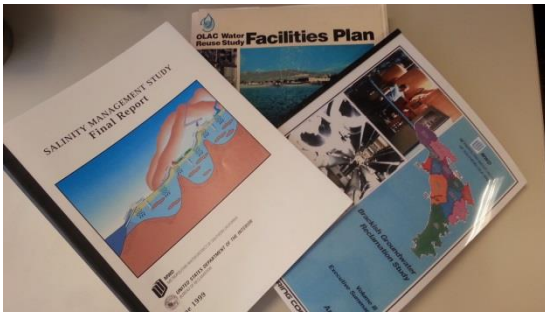


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The ORP was very popular with member agencies. However, per program requirements, agencies could not apply for ORP funding after June 30, 2016. To accommodate member agency's request, Metropolitan continued the program for another two years with an additional budget of \$10 million. Metropolitan is accepting on-site retrofit applications until September 2017 and agencies must complete their projects by June 2018.

### Non-incentive Programs

There are many constraints to developing local projects. Project cost and financing, inconsistent regulations and lengthy permitting processes, public education and acceptance, and technical issues are among top concerns. The LRP and other incentive programs mentioned above help with project costs. However, more research and development is needed to advance the technology to address public concerns on health and environmental matters as well as reduce project costs. Metropolitan has a long history of conducting joint studies with member agencies and other entities to advance development of local resources. Metropolitan continues exploring ways to help these projects increase yield and produce at capacity.



One of the major joint studies was the Orange and Los Angeles Counties Reuse Study in 1981 which resulted in creation of the LRP. Similarly, the Brackish Groundwater Reclamation Study resulted in creation of the Groundwater Recovery Program in 1991. Another important study was the Southern California comprehensive Water Reclamation and Reuse Study conducted during the 90s with the United States Bureau of Reclamation, Department of Water Resources, and several member and retail agencies. This study developed the first regional Geographic Information System (GIS) map with location and pertinent

information about all wastewater treatment plants and existing recycled water distribution systems. It also identified several recycled water projects in the region. Metropolitan, in collaboration with member and retail agencies, is currently updating the GIS map to reflect new information and numerous recycled water projects developed since then.

The Salinity Management Study in 1999 resulted in actions for water quality source control to reduce the salt load in the groundwater basins and the salinity of recycled water and other local resources. Metropolitan also participates in joint studies through the Southern California Salinity Coalition (SCSC), which is an alliance of water and wastewater agencies in Southern California dedicated to facilitating salinity management in the region. Current projects include updating the 1999 Salinity Management Study, launching a study on regulatory options for adapting to drought impacts to salinity, reevaluating Southern California's salt balance and sponsoring a salinity summit in November 2016.

In 2007, Metropolitan published the Groundwater Assessment Study to provide a status update on groundwater basins throughout Metropolitan's service area with regards to groundwater usage, storage capacity, and water quality. This study was conducted in collaboration with member and retail agencies, Department of Water Resources, California Department of Toxic Substances Control, local groundwater basin managers, and groundwater consultants and experts. Metropolitan provided updates on regional groundwater conditions through two separate board reports in 2011 and 2015.

For many years, Metropolitan has participated, supported, or funded the research by Water Environment and Reuse Foundation to advance use of recycled water and address regulatory or public concerns.

The latest Metropolitan effort in promoting research and joint studies to help local resources development is the Foundational Actions Funding Program, which is described below. Research from the Foundational Actions Funding Program as well as supporting research from stakeholder groups like the WateReuse Research Foundation, Water Environment Research Foundation has also expanded local knowledge and encouraged development of a diverse water supply portfolio.

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Public education of school children and the general public through Metropolitan’s outreach program and website has facilitated development of local water supplies by making citizens more aware of where their water supplies come from and the challenges of bringing water to Southern California.

### 2013 Foundational Actions Funding Program

The 2010 IRP Update included a planning component called Foundational Actions (renamed as Future Supply Actions in the 2015 IRP Update) which was intended to identify and advance potential future water supplies. In April 2013, Metropolitan’s Board approved a two-year pilot Foundational Actions Funding (FAF) Program with its member agencies for technical studies and pilot projects that reduce barriers to future production of recycled water, stormwater, seawater desalination, and groundwater. Under the FAF Program, Metropolitan funds up to 50 percent of the total cost of a project, up to \$500,000 per project per member agency. The member agency is required to match the funding dollar-for-dollar with non-Metropolitan funds. Funding these actions will help Metropolitan maintain its reliability goals, as outlined in the 2010 IRP Update.



Under the FAF Program, in May 2013, Metropolitan funded 10 projects from \$25,000 to \$500,000. Table 2 provides an overview of the participating projects.

Table 2	
Participating Projects	13
Member Agencies Participating	13
Total Program Funding	\$2.94 Million
Resources Represented	
Groundwater	4
Recycled Water	5
Seawater Desalination	2
Stormwater	2

Staff provided a detailed description of FAF in a report to the Water Planning and Stewardship Committee in April 2015. Staff will provide another status update to the committee in 2017.

### Legislation

Legislative support is important for creating funding, streamlining processes, and increasing opportunities to develop local resources. Legislation can influence the implementation of ordinances and codes, directly affecting recycled water and other resources in the region. Metropolitan has been actively involved with development or support of legislation to streamline regulations for project permitting and operation, while protecting the public health. There are several areas that Metropolitan has worked on to help encourage development of local water resources including public education, research, updated policies, and streamlined permitting.

Through legislation, Metropolitan has been able to secure much needed grants and low-interest rate loans for local project development. Metropolitan has advocated for additional funding including Proposition 1 which will help expand recycled and groundwater in the area. Staff is also working with associations to update federal funding programs like the Title XVI and Water Infrastructure and Innovation Act (WIFIA) to obtain more federal funding to expand local water



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supplies.

The 2009 recycled water policy helped engage the water and environmental communities to advance recycled water use, consistently implement regulations, and address concerns of potential unknown chemicals. Adoption of this statewide policy increased recycled water production goals and incorporated consideration of stormwater and other local water supplies.

Metropolitan also advocated for streamlined and consistent implementation of recycled water projects which led to revision of the general recycled water permit that can now be used by producers, distributors, and end users throughout the state. Staff continues to work with the regulatory agencies to update Title 22 regulations to eliminate outdated language and increase the use of recycled water at large irrigation sites. Staff is also participating on the Building Standards Commission steering committee to advance the use of recycled and gray water in new development while making sure that local water suppliers determine which building sites are affected.

Staff has also worked on legislation including SB 918 and AB 2282 to facilitate development of local supplies while protecting source water quality. Recently, staff has been involved in evaluating the Direct Potable Reuse feasibility report to help determine if and how local waste water supplies could be used to supplement drinking water systems. Work on Surface Water Augmentation Regulations is slated for later this year and will help provide another avenue to use local water supplies.

The State of California has also emphasized the need for and importance of conservation and local supply development. In 1999, the Metropolitan Water District Act was amended by Senate Bill 60 which directed Metropolitan to increase “sustainable, environmentally sound and cost-effective water conservation, recycling and groundwater storage and replenishment measures”. This amendment made Metropolitan the only water utility in California with a specific mandate from the state Legislature to pursue local resource development in recycled water and groundwater storage and replenishment.

In 2009, the state Legislature enacted and Governor Schwarzenegger signed into law, as part of a historic package of water reforms, Senate Bill X7-7. This bill mandated a new requirement to lower urban per capita water use 20 percent by December 31, 2020. The “20x2020” plan gave local communities flexibility in meeting this target while accounting for previous efforts in conservation and recycling. The Legislature found that reducing water demand (e.g., through urban per capita water use through conservation, water use efficiency, and regional water resources management) is essential in the face of growing population, climate change, and the need to protect and restore California’s fish and wildlife habitats. The Legislature also found that reducing demands provides significant energy and environmental benefits, can help protect water quality, improve streamflow, and reduce greenhouse gas emissions; and that diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta. Metropolitan coordinates closely with its member agencies to achieve these targets both at a retail agency level in compliance with legislative requirements and as a region in achieving a 20 percent reduction in per capita water use.

### *Water Quality and Source Control*

Protection and improvement of the quality of source supplies are essential to successful operation of local supplies. Source water protection is the first step in a multi-barrier approach to provide safe and reliable drinking water. Metropolitan has an active source water protection program to protect and enhance the State Water Project and Colorado River water supplies. In addition, Metropolitan is working with local agencies to expand wastewater pre-treatment programs to help identify and reduce potential impacts from industrial operations that may impact recycled water supplies. Each source has specific water quality issues that may include salts, nutrients, perchlorate, disinfection by products, arsenic, chromium-6, and/or constituents of emerging concern. Contaminants that cannot be sufficiently controlled through source water protection must be mitigated through additional treatment or blending. Drinking water standards for contaminants, such as arsenic, chromium-6, and other emerging constituents, may add cost to the use of groundwater storage and may affect the availability and operating flexibility of local supplies.

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Metropolitan has identified several categories of actions to protect source water quality including, education and outreach, legislation and regulations, and technical studies to evaluate and protect local supplies. Metropolitan has a broad education and outreach program to help educate the public on water supplies, conservation, recycled water, and watershed management. Staff also supports source control through legislation and regulations to reduce potential introduction of contaminants to the water supply, advocate for funding to monitor and mitigate potential contaminants, and require minimum treatment levels to protect public health. Monitoring and technical studies provide critical information and help advance new technology to protect water supplies. One of the technical studies, watershed sanitary surveys, are conducted every five years to identify possible drinking water contaminants, evaluate water quality, and recommend watershed management programs to protect and improve source water quality.

### *Coordination with Other Agencies*

Metropolitan continues to work with member agencies and other organizations to advance local resource development. Metropolitan also works with member agencies in developing strategic plans and policy principles to develop local resources. Examples include the establishment of the LRP Task Force and LRP Coordinators to create or review and enhance our local programs.

Another example is the Southern California Salinity Coalition (SCSC), which is an alliance of water and wastewater agencies in Southern California dedicated to facilitating salinity management in the region. SCSC was formed in 2002 to address the need to improve Southern California's salt balance and to preserve the region's water resources. The SCSC uses membership dues to fund public outreach, studies, salinity summits, policy white papers and student scholarships. Metropolitan is a founding member of SCSC and holds a position on the SCSC's board.

Metropolitan also collaborates with other local, state, and federal agencies by actively participating in various forums and organizations such as the ACWA and CUWA to discuss local resource development. Metropolitan has provided information on our programs at WaterReuse, American Water Works Association, and Water Smart seminars. These trade organizations have proven to be effective in promoting regional collaboration on research and leveraging resources.

### *Reimbursable Services Program*

Metropolitan established the Reimbursable Services Program (RSP) to help accelerate development of local water projects. Under the RSP, Metropolitan enters into a reimbursable agreement when a requesting member agency had a need for the development of local resource projects that help manage demand on Metropolitan's system, and increase regional reliability and availability. Metropolitan's participation would help meet the member agencies' strategic needs by expediting development of projects. Metropolitan's participation in a reimbursable service agreement would depend on the need to accelerate delivery of the projects in order to meet resource needs or improve reliability. For projects proposed by member agencies, Metropolitan would consider the following:

- Water quantity to ensure that the project makes a meaningful addition to regional supply reliability,
- Water quality to confirm that project water will meet all water quality objectives,
- Ensure that the project helps meet the IRP resource needs,
- Ability to help address current and future drought conditions,
- Impacts to Metropolitan's cash flow (delivered cost of the project),
- The need for Metropolitan's involvement to expedite project completion,
- The availability of Metropolitan resources to expedite project completion, and
- Compliance of the project with all permitting and environmental requirements.

Metropolitan's obligations may include:

- Conduct feasibility studies as needed,
- Perform technical and water quality analyses as needed,

## Board Report (Overview of Metropolitan's Efforts to Encourage Local Resources Development)

- Perform project management, procurement, installation/construction, and start-up/operations,
- Perform engineering design including drawings and performance specifications,
- Develop construction and operating cost estimates, and
- Contract with vendor.

Agency obligations would include:

- To serve as the Lead Agency under the California Environmental Quality Act,
- Obtain all necessary permits,
- Meet all applicable standards (e.g., water quality),
- Operate project upon termination of agreement, and
- Reimburse Metropolitan for all its actual costs, including labor, equipment, materials, and other services.

Based on a favorable assessment, Metropolitan staff would request Board authorization for reimbursable agreements for projects proposed by member agencies. The amount of the reimbursable agreement would be determined on a case-by-case basis. The agency would reimburse Metropolitan for all direct and indirect costs incurred, including the cost of capital and the fully burdened cost of Metropolitan's staff.

This approach has been successfully used in the past. Metropolitan and the Los Angeles Department of Water and Power (LADWP) entered into a reimbursable project agreement in December 2008, when the Board approved a \$12 million reimbursable agreement for a groundwater recovery project at the Tujunga well field. This project was completed with full reimbursement to Metropolitan and it is operated today by LADWP, successfully producing groundwater recovery supplies that help manage demands on Metropolitan's system, and increase regional reliability and availability. In September 2014, the Metropolitan's Board approved another reimbursement agreement up to \$20 million with the LADWP for future potential groundwater recovery projects to enhance water supplies within the Metropolitan service area.

### **Other Areas of Encouraging Local Resources Development**

#### *1999 Strategic Plan Policy Principles*

In 1999, the Board engaged in a Strategic Planning process to shape strategic vision and direction for the future. The primary theme emerging from the Strategic Planning process was that of choice – providing the opportunity for member agencies to competitively manage their supply and demand for water while ensuring reliability, quality and fairness. Through the Strategic Planning process, the Board developed a “Statement of Common Interests” as part of a set of policy principles which dealt directly with encouraging local supply development. Among elements of the Strategic Plan Policy Principles were 1) Local Resources Development – Metropolitan supports local resources development in partnership with its member agencies and by providing financial incentives, 2) Choice and Competition – Member agencies may choose the most cost-effective supplies additional from either Metropolitan, local resources development, and/or market transfers, and 3) Cost Allocation and Structure – The fair allocation of costs and financial commitments for Metropolitan's current and future investments in supply and infrastructure will be addressed in a revised rate structure.

Following the Strategic Planning process, the Board ultimately approved the unbundled rate structure that is in place today. By unbundling the rates into components, Metropolitan provided its member agencies with transparency under which they could compare local resources development opportunities to the functions associated with procuring and delivering treated imported supplies.

#### *Water Supply Allocation Plan*

In 1998, Metropolitan adopted its Water Surplus and Drought Management Plan (WSDM Plan), which has served as the framework for managing Metropolitan's portfolio of water resources, storage and transfer programs in wet and dry years. The Principles and Implementation Goals adopted with the WSDM Plan included a principle to “Maintain an ongoing coordinated effort among Metropolitan and its Member Agencies to encourage efficient water use, develop cost-effective local resource programs, and inform the public on water supply and reliability

## Board Report (Overview of Metropolitan's Efforts to Encourage Local Resources Development)

issues". One of the future implementation goals of the WSDM Plan was to guide the development of a regional water supply allocation plan for use in times of regional water shortage. In the WSDM Plan Implementation Goals, the consideration to create an equitable allocation of imported water was to include member agencies' investment in local resources and to reflect changes and/or losses of local supply. In both cases, the intention to recognize and not penalize local supply development by the member agencies was a key component of the plan.

In 2008 using the principles and goals from the WSDM Plan, Metropolitan developed and adopted the Water Supply Allocation Plan (WSAP) as the framework for equitably allocating regional water supplies during times of shortage. The WSAP includes two elements that encourage member agencies to develop local supplies. The first element involves the manner in which local supply production is handled in the WSAP during a year of supply allocation. Through the WSAP, member agencies are protected against the loss of local supplies in the calculation of their allocations of imported supply. This reduces the possibility that a member agency, by developing a long-term local supply, would bear the entire risk of losing that local supply and not having it covered by a like amount of imported supply. The second element comes as a result of the WSAP allocation framework itself. The framework is designed in a way that ensures that an agency that develops local supply will have an increased overall water supply at the retail level during an allocation of regional water supplies. The retail customers within a member agency will have a lesser shortage of water by having developed a local supply. This reduction in potential shortages at the retail level serves as a means of encouraging the development of local supply.

### Observations

- Incentive programs such as the LRP and the ORP have been very successful in encouraging or accelerating local resources development, reducing demand on the transportation system, and helping the region meet legislative mandates.
- Collaboration with other agencies and organizations to support legislation and regulations is an effective and necessary way to advance recycled water and other local resources. Through legislation, Metropolitan can enhance regulatory processes for project permitting and operation as well as secure much needed grants and low-interest rate loans for project development.
- Joint studies with member agencies and other organizations on technical research and development and study innovative technologies are key to pave the road for future local resource development.
- Protection and improvement of the quality of source supplies are essential to successful operation of local supplies.
- Increased public education and awareness of water recycling and its quality and benefits is a must.
- Member agencies' assistance and input through various workgroups are important to successful design and implementation of Metropolitan's programs that help advance local resources.
- Member Agency consumers, at the retail water service level, experience less shortage during the implementation of a water supply allocation through the Water Supply Allocation Plan as a result of developing more local supply.



at its meeting held APR 8 1986

*Doreen E. Giff*  
Executive Secretary

# The Metropolitan Water District of Southern California

March 27, 1986

To: Board of Directors      Water Problems Committee--Action,  
Engineering and Operations Committee--Action  
Finance and Insurance Committee--Action

From: General Manager

Subject: Proposed Revisions to the Local Projects Program

## Summary

The General Manager's Board letter of January 2, 1986, proposed that the Local Projects Program be revised so that Metropolitan's net financial contribution to each project sponsor would be the avoided energy cost of pumping State project water. The Board letter stated that the General Manager would hold a workshop to receive comments on the proposed program and would make detailed recommendations following the workshop.

The January 2 Board letter was supplemented by the Water Problems Committee Chairman's Board letter of January 13, 1986, recommending that the Local Projects Program be reactivated under the guidelines as they existed when the program was deferred in the summer of 1983, and that the General Manager reevaluate the program following the workshop. On January 14, 1986, your Board approved the committee's recommendation, and on February 19 the workshop was held.

At the workshop, local agencies identified two key issues: (1) a need by some local agencies for capital financing; and (2) a need for a guaranteed minimum annual payment by Metropolitan. Representatives of those agencies whose projects had been in advanced stages of negotiation when the program was deferred, stated their support for Metropolitan's new proposed program, as well as the original program. They cited two advantages of the proposed program to the project: (1) the potential for increased payments by Metropolitan if energy prices increase in the future; and (2) the avoidance of additional net payments by the project when there are water rate increases by Metropolitan.





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The proposed program would establish a Metropolitan payment to the project sponsor of \$93 per acre-foot through 1986-87 (the avoided cost of State project pumping). As a result of the issues raised at the workshop, a floor or minimum payment of \$75 per acre-foot would be established. In addition, an alternative capital contribution to the 25-year payment contract would be included in the program to provide flexibility for projects which need up-front capital financing.

#### Recommendation

That the Local Projects Program be revised to incorporate the following principles:

- o Member Agency and Term - The agreement would include a Metropolitan member agency and would be for a term of 25 years;
- o Net Annual Metropolitan Contribution - Metropolitan's net financial contribution would be equal to each year's avoided energy cost of pumping State project water, currently about \$93 per acre-foot, subject to a minimum payment of \$75 per acre-foot. Metropolitan would guarantee to purchase the yield at a unit rate equal to the sum of Metropolitan's avoided energy cost of delivering State project water, plus Metropolitan's prevailing rate for the class of service being provided. The yield would then be sold to Metropolitan's member agency at the prevailing rate for the class of service;
- o Alternative Capital Contribution - It is anticipated that the 25-year Metropolitan contract guaranteeing minimum annual payments will be sufficient to underwrite the local financing of most projects. However, in the event the agency is still unable to secure financing, Metropolitan would provide a capital contribution equivalent to the annual cash flow contribution. In such event, the project sponsor would be required to guarantee that the project would produce an appropriate amount of water for Metropolitan; and

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- o Flexibility - In special circumstances, the General Manager would retain the flexibility to modify the program so as to recommend to the Board a project that has some specific benefits to Metropolitan but cannot meet the specific guidelines.

#### Detailed Report

The Local Projects Program was deferred in the summer of 1983 due to Metropolitan's financial problems at that time. On January 14, 1986, your Board reactivated this program and also authorized the General Manager to reevaluate the Local Projects Program following a workshop.

#### Local Projects Program Workshop

On February 19, 1986, the General Manager held a workshop to hear comments on proposed revisions to the Local Projects Program that were set forth in the General Manager's Board letter of January 2, 1986. The following are the key issues discussed and statements expressed by Board members and other workshop participants:

- o The inability of some local agencies to finance capital costs could result in some projects not being implemented;
- o Potential reductions in Metropolitan's annual payment in the event of falling State project power rates could affect an agency's ability to finance capital costs;
- o Representatives of Irvine Ranch Water District, the Orange County Water District, and the City of Long Beach Water Department, representing agencies with projects in the advanced stages of negotiations when the program was deferred, and representatives of other agencies participating in the workshop, stated their support for Metropolitan's new proposed program as well as the original program; and
- o Two key advantages of the proposed program were cited. These were (1) that Metropolitan's project payments would grow in the future, with increasing energy costs and expanding project sales; and (2) assurance that project cash flow and economic viability would not be harmed by future Metropolitan rate increases.

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At the workshop, it was also pointed out that the avoided energy cost has increased. The January 2, 1986 Board letter estimated that the avoided energy cost of pumping State project water was about \$75 per acre-foot. The actual Department of Water Resources' average sale price for power was 31 mills/kilowatt-hour, equating to approximately \$93 per acre-foot in avoided energy costs.

### Proposed Program

Based on the results of the workshop, the General Manager recommends that the Local Projects Program, as set forth in the Board letter of January 2, 1986, be modified so that Metropolitan's yield purchase rate would be adjusted annually, subject to a minimum payment amount.

Payment specifics would be as follows. Through fiscal 1986-87, the avoided cost of State project pumping would be \$93 per acre-foot, based on an average sale of surplus State Water Project energy at 31 mills/kWh during calendar 1985. The calendar 1986 sales value for surplus energy would be used as the avoided cost for fiscal 1987-88, and so forth thereafter. In addition, it is proposed that a minimum, or floor payment, of \$75 per acre-foot (based on 25 mills/kWh) be established, which is considered reasonable for both Metropolitan and the projects in light of the uncertainties of future energy prices.

Details concerning project qualifications are described in the January 2, 1986 Board letter.

It is anticipated that Metropolitan's guaranteed annual payment, with a minimum payment provision, will provide an adequate basis for local financing. However, if a project were still unable to obtain financing, Metropolitan would provide the project with an initial capital contribution equivalent to the revised program.

### Need for Flexibility

A particular project may have some special benefits for Metropolitan other than the energy savings. Such benefits would include technology development, important research results, protection of a vital resource, or permanent loss of an opportunity if the project is not implemented. In recommending approval of specific projects, the General Manager would consider any such benefits.

*Carl Boronkay*  
Carl Boronkay

AH/wlb

Recommended for Board  
Approval by Engineering and  
Operations Committee

4/7/86  
Date

*Doyle Miller*  
Chairman

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

February 27, 1990

To: Board of Directors (Water Problems Committee--Action)  
(Engineering and Operations Committee--Action)

From: General Manager

Subject: Local Projects Program Financial Contribution

### Summary

The objective of the Local Projects Program (LPP) is to assist local agencies in the development of cost-effective local water supply. The Program provides financial assistance to new local water supply projects which reduce demands on Metropolitan's imported supplies and which require Metropolitan's assistance to be financially feasible. Your Board has approved participation in 17 local reclamation projects with a combined ultimate yield of 41,000 acre-feet per year (AFY). Twelve projects with a total estimated yield of 36,000 AFY are currently in various stages of review by staff for inclusion in the LPP.

Currently, Metropolitan's contribution under the LPP is based on avoided energy costs for pumping an equivalent amount of water through the State Water Project. This letter recommends that the contribution be changed to \$154 per acre-foot and that the contribution be reviewed and adjusted periodically by your Board. This change will help keep the Program viable and better allow Metropolitan to reach its goal of 150,000 acre-feet under the Program by the year 2000.

### Recommendations

1. That the Local Projects Program (LPP) be modified to \$154 per acre-foot, subject to three to five years' periodic review by your Board.
2. That the General Manager be given the authority to amend the 14 existing agreements under the LPP approved by your Board between June 1986 and November 1989, to reflect the financial contribution proposed in the first recommendation.

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February 27, 1990

Detailed Report

The objective of the Local Projects Program (LPP), which was initiated by your Board in 1981 is to assist local agencies in the development of cost effective local water supply projects. The Program provides financial support to local agencies which develop local water supply projects. To qualify for inclusion in the LPP, a local agency must demonstrate that its proposed project meets the following criteria:

- The project produces "new water" which replaces a firm demand on Metropolitan,
- The project requires Metropolitan's financial assistance to be viable,
- A facilities plan and market analysis must be complete, and
- Public health and regulatory permits must be obtainable.

To date, Metropolitan has participated in 17 local projects with an ultimate yield of approximately 41,000 acre-feet per year (AFY). Currently, 12 additional projects with an estimated yield of 36,000 AFY are in various stages of review.

Under the LPP, Metropolitan provides a net annual financial contribution based on the amount of water delivered by a local project in a particular year and Metropolitan's avoided energy cost for pumping an equivalent amount of water through the State Water Project (SWP). This amount may change yearly, but is subject to a minimum payment of \$75 per acre-foot. As an alternative to making annual contributions, the LPP provides that Metropolitan could make a one-time capital contribution which would be financially equivalent to the estimated annual contributions. Currently, Metropolitan's annual avoided pumping cost contribution to local projects is at the minimum payment of \$75 per acre-foot. Based on the Department of Water Resources' estimated SWP surplus energy sales for calendar year 1989, the LPP contribution is projected to be \$106 per acre-foot in fiscal year 1990-91.

The LPP contribution is transferred to the project sponsor via a yield purchase agreement. Under the

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agreement, Metropolitan purchases the yield of a project at a rate equal to the sum of: (a) Metropolitan's reclaimed water rate, and (b) the annually adjusted avoided energy cost. Metropolitan then sells the yield back to the project sponsor through our member agency at our reclaimed water rate leaving the project with a net contribution by Metropolitan equal to the annually adjusted avoided energy cost. Metropolitan tailors its total financial contribution to a project by varying the term of the agreement. In cases where the project becomes financially self-sufficient in less than 25 years, we adjust the term of our participation to the "break even" year. In most projects the term is 25 years, but in some projects the term may be as short as seven years.

From the participating agencies' perspective, the financial benefit of reclamation under the LPP includes two components: (1) the LPP contribution made by Metropolitan, and (2) the avoided water rate payment that the agency no longer needs to make to Metropolitan. The current non-interruptible treated water rate is \$230 per acre-foot and the avoided energy cost is \$75 per acre-foot, thus Metropolitan is currently providing a \$305 per acre-foot incentive for reclaimed water. Next year if the avoided energy rate is \$106 per acre-foot, the incentive will be \$336.

In order to meet our water goal for reclamation of 150,000 acre-feet of LPP water by the year 2000, staff has been examining the adequacy of the current LPP incentive. This examination indicates that the direct LPP contribution by Metropolitan should be raised to a set rate of \$154 per acre-foot which would serve as the minimum or floor rate. This, coupled with the avoided purchase of buying Metropolitan water, would provide an incentive of \$384 per acre-foot to reclaim water in our service area.

The calculation of the now proposed LPP contribution is based on Metropolitan's avoided costs to convey, treat, and distribute water and includes considerations of reliability and service area needs. Importantly, it reflects an approximate equitable sharing of the costs of reclaiming water. Typically the cost of new projects to provide tertiary treatment and the necessary distribution system is in the range of \$700 to \$900 per acre-foot. Metropolitan's incentive of \$384 per acre-foot means that the local agency and Metropolitan contribute about equally and substantially toward reclamation.

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February 27, 1990

Staff recommends that the minimum \$154 per acre-foot contribution not be tied to energy costs or any cost index, but instead be reviewed and adjusted by your Board periodically. The maximum period between reviews is recommended to be five years and the minimum three years.

This letter recommends authority be given to the General Manager to amend the 14 existing LPP agreements in order for those projects to receive the modified minimum contribution. In return for the increased LPP contribution, the sponsoring agencies would be giving up a contribution indexed to energy costs. Given the potential volatility of energy costs, staff views the release from automatic indexing to East Branch energy as a substantial benefit to Metropolitan. For instance, the 1990-91 contribution based on avoided energy on the East Branch would be \$106/AF, an increase of \$32 or 43% over 1989-90. This resulting stability provides adequate consideration to Metropolitan to amend the contracts.

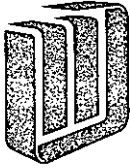
Alternatively, your Board may elect to have the LPP administered as a two tiered rate structure. The contribution to the existing agreements would continue to be based on SWP surplus energy sales and the contribution to all projects approved after March 1, 1990 would be based on the proposed rate of \$154 per acre-foot. In either case, the three projects under the original program; South Laguna, Las Virgenes, and Arlington would not be affected.

In our service area it is most important that groundwater production be maintained and enhanced. This is becoming increasingly difficult as contamination turns up in increasing amounts in more basins. The LPP is contributing toward groundwater cleanup through the Arlington Desalter in the Arlington Basin and the Glenwood Nitrate Water Reclamation Project in the Verdugo Basin. Staff is now reviewing the implications of expanding the LPP to more readily encompass other groundwater reclamation projects.

DLA/VLG:asj

  
for Carl Boronkay

APR -9 1991



**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

*Karen E. Delf*  
EXECUTIVE SECRETARY

March 26, 1991

*To:* Board of Directors (Water Problems Committee--Action)  
 (Engineering and Operations Committee--Action)  
 (Finance and Insurance Committee--Action)

*From:* General Manager

*Subject:* Proposed Groundwater Recovery Program

Summary

A Groundwater Recovery (GWR) Program is proposed to improve water supply reliability through the recovery of significant amounts of contaminated groundwater in Southern California.

Under the GWR Program, Metropolitan would enter into agreements to provide financial incentives of up to \$250 per acre-foot to member and local agencies that recover contaminated groundwater. The program would be limited to 200,000 acre-feet of annual production, an amount which is expected to be realized within the next ten years.

The GWR Program would expand Metropolitan's dependable water supplies by developing otherwise unusable contaminated groundwater in conjunction with the use of imported water for groundwater basin replenishment. By removing significant quantities of contaminants from groundwater, the program would also help preserve Southern California's irreplaceable groundwater resources from the spread of existing contamination by providing more flexibility for groundwater pumping patterns.

Recommendation

That the Board of Directors establish a Groundwater Storage Recovery Program substantially on the terms outlined in this letter.

Detailed Report

Southern California is facing serious water supply shortages. To help alleviate the problem, Metropolitan is pursuing increased storage of imported water in its service area to be used during shortages and summer peak demand periods. Local agencies are being encouraged to increase



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groundwater storage and production under existing seasonal storage and interruptible service programs. Financial incentives under these programs work well when treatment is not a major factor. However, in many cases the high cost of treating contaminated groundwater is a principal obstacle to expanded conjunctive use. Hence, a Groundwater Recovery (GWR) Program is proposed to encourage the treatment and production of the large quantities of contaminated groundwater in Southern California. This program would significantly add to regional water supply reliability.

Under the GWR Program, Metropolitan would enter into agreements to provide financial incentives of up to \$250 per acre-foot to member and local agencies that recover contaminated groundwater.

#### Groundwater Recovery Incentive

Salt removal from groundwater, which is one of the more expensive treatment processes, generally costs \$400 to \$800 per acre-foot and in some cases much more. The attached figure provides a regional perspective on brackish groundwater desalination costs for twenty-one conceptual projects in Southern California.

Because the actual cost of treating groundwater varies significantly depending on the nature of the contamination, the type of treatment and site specific conditions, it is preferable that Metropolitan participate in each project based upon actual costs incurred (subject to a reasonable upper limit). Staff evaluated various incentives, including our Local Project's rate of \$154 per acre-foot. After discussion with member agencies and review of the technical work by consultant engineers it was concluded that a maximum financial incentive of \$250 per acre-foot would be appropriate.

Agencies would receive Metropolitan's financial incentive under the following arrangement. Metropolitan would buy the recovered groundwater at a price equal to the lesser of:

1. the cost of recovering the water; or
2. a ceiling rate equal to the sum of \$250 per acre-foot plus Metropolitan's applicable noninterruptible water rate.

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Metropolitan would simultaneously sell the water to the participating member agency as treated or untreated noninterruptible service as applicable. The difference between the purchase and sale price would provide an incentive for member agencies to recover contaminated groundwater.

Examples of the incentive calculation and the distribution of project cost using water rates for fiscal year 1991-92 are shown on the attached tables.

#### Current Drought Conditions

For the duration of the current drought, it is proposed that all of the recovered groundwater under the GWR Program be considered as local water and not part of the target sales established under the current Incremental Interruption and Conservation Plan. This is the same approach currently being applied to wastewater reuse under the Local Projects Program.

#### Individual Project Approval

Metropolitan's participation in each project would be through a written agreement approved by your Board. Agreements would be for periods up to 20 years and would specify the maximum amount of recovered groundwater that Metropolitan would purchase from each project on an annual basis. The goal would be to have 200,000 acre-feet of annual production in the program, an amount which is expected to be realized within the next ten years.

#### Benefits

Under the GWR Program, Metropolitan would benefit from increased groundwater supply reliability within its service area and increased groundwater storage capability for conjunctive use. Expanded use of Southern California's groundwater resources during drought periods is an expected regional benefit.

#### Eligibility

The basic requirement for eligibility would be that contaminated groundwater would be recovered and served in a manner that would improve groundwater supply reliability. Local agencies are expected to independently develop projects costing less than Metropolitan's applicable

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noninterruptible water rate. Hence, such projects would not be eligible for participation in the GWR program. Furthermore, it is anticipated that projected rate increases for Metropolitan water over the next ten years will likely encourage development of the less expensive groundwater treatment projects without participation in the GWR program.

Financial assistance will apply only to project yield that benefits regional water supply. Projects must increase the participating local agency's average annual groundwater production by the amount of the approved project.

Each project must also include sufficient storage reserves to allow its production to be sustained during a 3-year period without receiving replenishment water from Metropolitan. However, under exceptional circumstances such as for a small basin, a two-year period would be proposed for your Board's consideration. Additionally, an option would be available for local agencies to participate in agreements for advance delivery of Metropolitan's imported water to groundwater storage accounts.

Each member agency's participation in the program would be limited to the greater of:

1. 5,000 acre-feet per year; or
2. Ten percent of the agency's total annual water demand.

Local participating agencies would be responsible for permits, water quality, environmental requirements and compliance with current regulations, laws and local management programs. They would also be required to hold Metropolitan harmless from all project related liabilities. Each project must be consistent with sound basin management practices and not contribute to further groundwater degradation.

Eligible project costs would include those for pumping, design, new construction, right-of-way, operation and maintenance for project facilities extending from and including the production well through the point of discharge of the treatment facility. Replenishment costs for imported water would also be eligible project costs. Costs supporting the local distribution system and development of system pressure other than that required

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to operate the treatment plant would not be eligible for assistance except in special cases such as for the development of nonpotable (dual) distribution systems.

#### California Environmental Quality Act

Metropolitan would satisfy the provisions of the California Environmental Quality Act as a Responsible Agency. As such, your Board would be required to consider the environmental effects of specific programs as contained in the environmental documents prepared by participating local agencies for specific programs on a case-by-case basis.

#### Cost to Metropolitan

Under full development, the maximum net annual cost to Metropolitan for the GWR Program would be \$50 million (\$250 x 200,000 acre-feet per year). This is equivalent to about \$20 per acre-foot applied uniformly to hypothetical annual water sales of 2.5 million acre-feet. However, program participation would increase progressively starting at a relatively low level in the initial years.

#### Financial Adjustments

Metropolitan's initial contribution when projects first go on line would be based on cost estimates determined prior to construction. The financial incentive would be revised up or down (not to exceed the ceiling rate) based on an audit after the first year of a project operation.

#### Program Participation

Member agencies would request participation by submitting a written letter accompanied by a feasibility study report including supporting technical and financial documentation. Staff will initiate its analysis of applications following approval of the GWR Program by your Board. Upon meeting minimum qualifications, each project would be submitted to your Board for its individual approval. Financial assistance under the program would commence in Fiscal Year 1991-92.

#### Early Termination

Agreements would be terminated when, through price escalation, the applicable noninterruptible water

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March 26, 1991

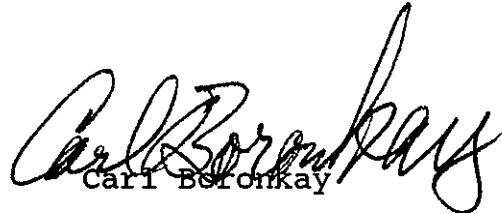
rate exceeds the purchase price Metropolitan pays for project water. Provisions would be established to ensure use of any of Metropolitan's water held in a groundwater storage account at the time of termination.

#### Staffing Requirements

Program administration would require three new staff positions: a senior engineer, associate engineer and assistant engineer. The senior engineer would head a new Groundwater Recovery Section within the Groundwater and Regional Resources Branch of the Resources Division.

#### Program Review

Following the first year of operation, staff will evaluate program performance and report its findings and recommendations to your Board. Thereafter, periodic reviews are proposed.



Carl Boronkay

AS:bvf

Attachment

GROUNDWATER RECOVERY PROGRAM  
EXAMPLES OF INCENTIVE CALCULATION AND DISTRIBUTION  
OF PROJECT COSTS

TABLE A

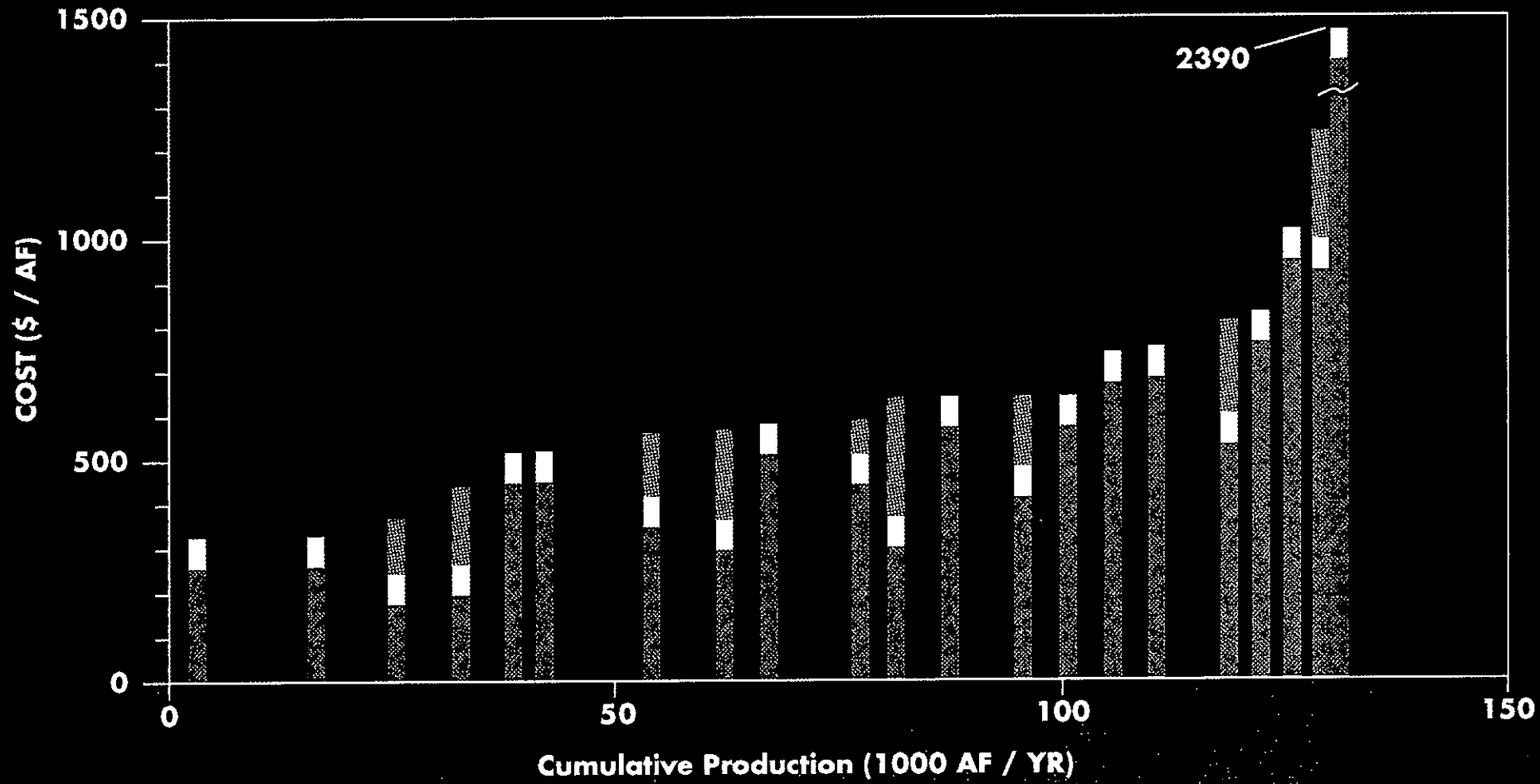
<u>Treated Water Service</u> (\$ per acre-feet)			
<u>Project Cost</u>	550	533	494
<u>Incentive Calculation</u>			
MWD Purchase from Local Agency	533	533	494
MWD Sale to Member Agency	<u>-283*</u>	<u>-283*</u>	<u>-283*</u>
Incentive	250	250	211
<u>Project Cost Distribution</u>			
Project Cost to Metropolitan	250	250	211
Project Cost to Local/Member Agencies	300	283	283

TABLE B

<u>Untreated Water Service</u> (\$ per acre-feet)			
<u>Project Cost</u>	533	494	450
<u>Incentive Calculation</u>			
MWD Purchase from Local Agency	494	494	450
MWD Sale to Member Agency	<u>-244*</u>	<u>-244*</u>	<u>-244*</u>
Incentive	250	250	206
<u>Project Cost Distribution</u>			
Project Cost to Metropolitan	250	250	206
Project Cost to Local/Member Agencies	283	244	244

\* 1991-92 Water Rates

# BRACKISH GROUNDWATER RECLAMATION



AUG 22 1995



**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

*Beren E. Duff*  
EXECUTIVE SECRETARY

8-3

August 8, 1995

**To:** Board of Directors (Water Planning and Resources Committee--Action)  
(Finance and Insurance Committee--Information)

**From:** General Manager

**Subject:** Advance conversion of existing projects under the Local Projects Program to the Local Resource Program

**RECOMMENDATION:**

It is recommended that the Board of Directors:

1. Authorize the General Manager to amend existing agreements for projects under the Local Projects Program (LPP) to include terms described in this letter and detailed in Attachment A. These terms are consistent with those included in the proposed Local Resources Program (LRP), which were detailed in the June 27, 1995 pending letter to your Board.
2. Authorize the General Manager to approve and enter into agreements with member agencies and subagencies for LPP projects currently under review on the same terms.

John R. Wodraska  
General Manager

Submitted by:

*Debra C. Man*

Concur:

*John R. Wodraska*  
\_\_\_\_\_  
John R. Wodraska  
General Manager

GLC:drs

Attachments (4)

LLP2LRP/BOARD



**EXECUTIVE SUMMARY:**

In July 1995, your Board requested that staff report back to you with a proposal to allow the immediate conversion of existing projects under the Local Projects Program (LPP) to include terms from the proposed Local Resource Program (LRP) as detailed in Attachment A and the pending letter to your Board from the General Manager dated June 27, 1995.

The proposed amendments will be available only to the 40 approved projects under the LPP, of which 37 projects have executed Joint Participation Agreements with Metropolitan and three are in the process of final execution of Agreements, as shown in Table 1. The conversion of projects from the existing LPP to LRP is voluntary and will be accomplished through amendment of the existing Agreements. Member agencies and subagencies may notify Metropolitan of their intent to convert to the LRP by February 29, 1996 and must execute amendments by December 31, 1996. All terms of the amended Agreements will be retroactive to September 1, 1995.

As the 40 LPP projects have been previously approved for eligibility, it is recommended that authority be given to the General Manager to amend the existing LPP agreements to incorporate the terms described below, should the project sponsors and developers so elect.

There are seven LPP projects currently under review (as shown in Table 2), for which Metropolitan has received completed applications as of August 1, 1995. The General Manager has been granted the authority by your Board to approve and enter into agreements with member agencies and subagencies under the existing LPP. It is recommended that the General Manager be authorized to approve and enter into agreements incorporating the additional terms set forth below for the LPP projects currently under review, if the project sponsors and developers of those projects elect this alternative. The project sponsors and developers of these projects must notify Metropolitan by February 29, 1996, whether they intend to qualify their projects under the terms and criteria of the existing LPP or the proposed LRP.

Metropolitan will continue to accept and review applications for new reclamation projects. However, Metropolitan and the applicants will not initiate agreement negotiations until after your Board considers and adopts modifications to the water management programs consistent with the Integrated Resources Planning (IRP) effort (expected in November 1995). The proposed LRP, if adopted by your Board, will merge the LPP and the Groundwater Recovery Program (GRP) into one water management program. This advance amendment of existing LPP projects to incorporate LRP terms will not affect existing GRP projects or GRP projects under review. The GRP will remain unchanged until such time as Metropolitan's Board of Directors adopts the LRP or other water management programs.

The proposed amendments are consistent with existing policy for the Local Projects Program, which is detailed in section 4516 of the MWD Administrative Code. The differences between the proposed amendments and the existing LPP are:

1. the minimum requirement for 100 AFY of project yield for the LPP will be deleted;

2. the contribution for a project will range from \$0 to a maximum of \$250/AF, and will be equal to the net actual cost of producing project water above the avoided cost of purchasing treated noninterruptible water from Metropolitan, plus an allowance for Metropolitan's New Demand Charge, if applicable;
3. the contribution payment level will be adjusted annually, based on actual costs, actual Metropolitan rates, and actual yield; and
4. the terms of the amended Agreements will be 25 years less the number of years the project has received LPP contributions.

As stated in item 2 above, Metropolitan's contribution will be adjusted annually based on the amount of actual "Unit Project Cost" exceeding Metropolitan's noninterruptible treated water rate including an allowance for Metropolitan's New Demand Charge (NDC). The allowance for Metropolitan's NDC will apply when the sum of the agency's purchase of Metropolitan's water and the actual production from the project exceeds the agency's NDC base. The NDC allowance will be equal to the amortized cost of the NDC that would have been assessed.

Under the amended Agreements, member agencies will receive monthly contributions based on projected yields and costs for the fiscal year. Participants must maintain production records and incurred project costs. This information will be submitted to Metropolitan annually for reconciliation of actual yields and costs for determining the annual contributions. Adjustments for over or under payments, based on actual costs and yield, will be made as appropriate.

During the past several months, staff have had extensive discussions with member agencies and local retail water suppliers regarding the existing LPP and the proposed LRP. The member agencies recognize the need to incorporate the 1995 DMP principle on local resource projects into future water supply and drought management plans. The 1995 DMP provides for adjustments for local resources – "The base allocations should be adjusted to distribute regional benefits in proportion to the regional dollars spent in the development of local resources such as reclamation." The methodology for adjusting the base allocations will be developed in Metropolitan's water supply and drought management plan and will be consistent with this principle. The water supply and drought management plan is scheduled for consideration and adoption by your Board in November 1995.

#### **DETAILED REPORT:**

In July 1995, your Board requested that staff report back to you with a proposal to allow the immediate conversion of existing projects under the Local Projects Program (LPP) to include terms from the Local Resource Program (LRP) as detailed in Attachment A and the pending letter to your Board from the General Manager dated June 27, 1995.

#### **Existing Local Projects Program**

The objective of the Local Projects Program (LPP), which was initiated in late 1981, is to assist local agencies in the development of cost effective local water supply projects. Under the LPP, Metropolitan provides a net annual financial contribution based on the amount

of water delivered by a local project in a particular year. In February 1990, your Board acted to establish the LPP contribution at \$154/acre-foot (AF), and recommended that the LPP contribution be reviewed and adjusted periodically. The \$154/AF contribution was calculated based on Metropolitan's avoided costs to convey, treat, and distribute water, and included considerations of reliability and service area needs.

Presently, the LPP includes 40 projects which are estimated to ultimately produce about 179,000 acre-feet per year (AFY) of reclaimed water (see Table 1). Thirty of these projects are in operation and receiving Metropolitan's LPP contributions. The remaining ten projects have been approved for participation by the General Manager and are under design or construction. Table 2 lists the additional seven projects that are currently under review and for which Metropolitan has received completed applications by August 1, 1995.

#### Local Resource Program

The proposed LRP is consistent with existing policy for the development of local resources as described in section 4516 of the MWD Administrative Code detailing the existing Local Projects Program. The differences between the proposed LRP and the existing LPP are:

1. the minimum requirement for 100 AFY of project yield for the LPP will be deleted;
2. the LRP contribution for a project will range from \$0 to a maximum of \$250/AF, and will be equal to the net actual cost of producing project water above the avoided cost of purchasing treated noninterruptible water from Metropolitan, plus an allowance for Metropolitan's New Demand Charge (as described later in this letter);
3. the LRP contribution payment level will be adjusted annually based on reported costs and water production; and
4. the terms of LRP agreements will be 25 years.

As stated in item 2 above, Metropolitan's LRP contribution will be adjusted annually based on the amount of actual "Unit Project Cost" exceeding Metropolitan's noninterruptible treated water rate including an allowance for Metropolitan's New Demand Charge (NDC). The LRP contribution is compared to Metropolitan's treated water rate because the maximum value of \$250/AF of local supplies is based on the reduction of Metropolitan's costs to supply treated water to its member agencies. The allowance for the NDC is included with the treated water rate because the amount represents the avoided cost purchasing imported water to the project developers.

Under current procedures in the Groundwater Recovery Program, the unit project cost is reduced by outside funding. However, based on recent discussions with member agencies and project developers, it is recommended that project costs not be discounted by alternate funding sources. This will help encourage agencies to develop innovative financing methods to fund these projects and will reward entrepreneurial efforts at the local level.

Figure 1 illustrates the LRP incentive level as the difference of the actual "Unit Project Cost" and costs for purchasing Metropolitan's supplies. The allowance for Metropolitan's NDC will apply when the sum of the agency's purchase of Metropolitan's water and the actual production from the LRP project exceeds the NDC base (see Figures 2 and 3). The NDC allowance will be equal to the amortized cost of the NDC that would have been

assessed. The NDC allowance will apply at the member agency level when the LRP Agreement is between Metropolitan and the member agency. If the LRP Agreement is a three party agreement among Metropolitan, a member agency and a subagency, the NDC allowance may be applied at the subagency or member agency level at the election of the member agency.

Participating LRP member agencies will receive monthly contributions based on projected yields and costs for the fiscal year. LRP participants must maintain production records and incurred project costs. This information will be used for annual reconciliation of actual yields and costs for determining the annual LRP contributions. Metropolitan will make adjustments for over or under payments to the agencies as appropriate.

The 1995 Drought Management Plan (DMP), which was approved by your Board in November 1994, recognizes that local resource projects must increase regional supplies and provide measurable regional benefits. The following principle regarding local resource projects is included in the adopted 1995 DMP:

"The base allocations should be adjusted to distribute regional benefits in proportion to the regional dollars spent in the development of local resources such as reclamation."

During the past several months, staff have had extensive discussions with member agencies and local retail water suppliers regarding the existing LPP and LRP. The agencies recognize the need to incorporate the 1995 DMP principle on local resource projects in future water supply and drought management plans. Based on the above principle for ensuring regional participation in local projects, the calculation for the base allocation adjustment will be included in the water supply and drought management plan that is being developed and scheduled for adoption in November 1995.

#### Advance Conversion of Existing LPP Projects to LRP Terms

It is recommended that project sponsors (member agencies) and project developers (subagencies) of the 40 existing projects under the LPP (listed in Table 1) may elect to amend their Joint Participation Agreements with Metropolitan to convert to the terms shown in Attachment A, which are consistent with the proposed LRP. Under the amended Agreements, Metropolitan will continue to purchase "Actual Yield" of each project up to the ultimate yield specified in each existing Agreement. Member agencies and subagencies may notify Metropolitan of their intent to convert to terms of the LRP by February 29, 1996 and must execute amendments by December 31, 1996.

There are seven LPP projects currently under review (listed in Table 2), for which Metropolitan has received completed applications as of August 1, 1995. The project sponsors and developers of these projects must notify Metropolitan by February 29, 1996, whether they intend to qualify their projects under the terms and criteria of the existing LPP or the proposed LRP.

For LPP projects not yet in operation, the terms of the agreement will be 25 years commencing on the date the project sponsors or project developers notify Metropolitan that the project has begun operation. For a LPP project already in operation, the term of the agreement will be 25 years less the number of years the project has received LPP contribution. All terms of amended Agreements will be retroactive to September 1, 1995.

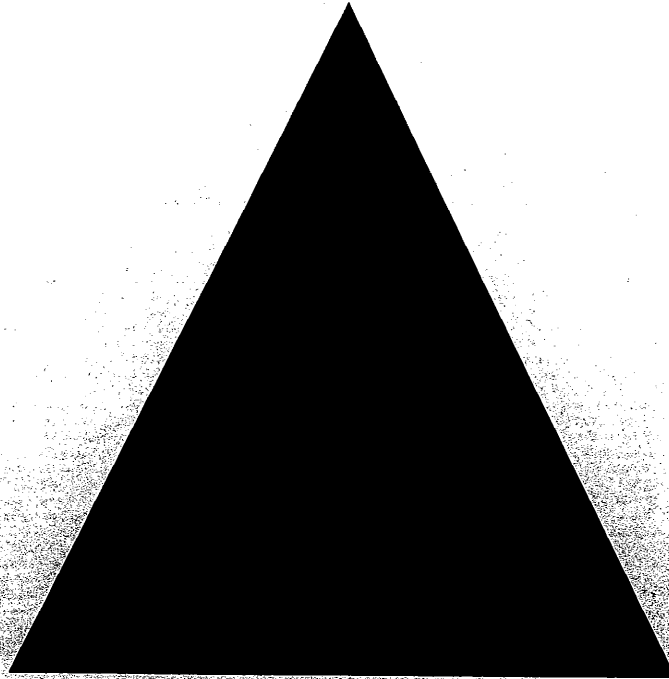
Metropolitan reserves the right to terminate the agreement upon 30 days notice if actual yield is not produced by a project within five (5) years following the effective date of the amended Agreement.

As the 40 LPP projects have been previously approved for eligibility, it is recommended that authority be given to the General Manager to amend the existing LPP agreements to incorporate terms listed in Attachment A, should the project sponsors and developers so elect. For the seven projects currently under review, it is recommended that the General Manager will be granted the authority to incorporate the new terms into agreements with agencies.

Metropolitan will continue to accept and review applications for new reclamation projects. However, Metropolitan will not begin agreement negotiations until your Board approves the LRP or another water management program for local supply augmentation projects expected in November 1995.

#### Groundwater Recovery Program

The proposed LRP would merge the LPP and the GRP into one water management program. However, this advance conversion of existing LPP projects will not affect existing GRP projects or GRP projects under review. The GRP will remain unchanged until such time that Metropolitan's Board of Directors adopts the LRP. Under the GRP, project participation requires approval by your Board.



### Page Place Holder Sheet / Page Tracking Sheet

Page Place Holder Sheet

This sheet stands in for a section consisting of 4 total number of pages in this document, including those starting at page number 'Table 1' and ending with page number 'Fig 2' as numbered in the document.

Page Tracking Sheet

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**Attachment A****LOCAL RESOURCE PROGRAM CRITERIA**

1. Metropolitan pays contribution only for those projects providing a regional benefit
2. Variable rate contribution payments on a sliding scale up to a maximum of \$250/acre-foot, to cover eligible project costs exceeding the cost of purchasing Metropolitan water at the treated non-interruptible rate, plus the amortized NDC when appropriate
3. Contribution payments based on project performance (yield)
4. Contributions adjusted annually
5. Agreement term for maximum of 25 years
6. Project eligibility: water reclamation, groundwater recovery, and seawater desalination
7. Participating agencies responsible for all permits and regulatory requirements
8. Metropolitan held harmless from all project-related liabilities
9. Metropolitan satisfies CEQA provisions as a Responsible Agency
10. Eligible project costs include capital, O&M, and replacement costs, and treatment costs beyond that required for compliance with wastewater disposal regulations, and costs for environmental documentations and mitigations directly related to the implementation of the project.
11. Controls and limits will be established for discretionary cost factors, such as agency labor
12. All reported project costs and water production values would be subject to audit
13. Metropolitan must concur with all nontraditional mitigation or third party agreements
14. Provisions would be included in LRP agreements to terminate agreements in the event that project yield is not materialized over 5 years after execution of the agreement.



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

**BOARD  
ACTION**

- Board of Directors  
*Water Planning and Stewardship Committee*

10/14/2014 Board Meeting

**8-4**

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## **Subject**

Authorize refinements to the Local Resources Program

## **Executive Summary**

This action authorizes Local Resources Program (LRP) refinements to encourage and expedite local resource production, which would help meet the Integrated Water Resources Plan (IRP) goals and water use efficiency targets, and be responsive to current drought conditions.

## **Details**

Since 2011, staff has worked with member agencies through a series of LRP process workgroups to identify constraints to local project development and explore effective strategies to increase local resource production. Staff recommends program refinements to (1) support the development of local resources consistent with the goals in Metropolitan's 2010 IRP, (2) support member agency project implementation, and (3) implement funding approaches that are cost-effective and sustainable based on the net financial impact to Metropolitan.

## **Background**

Since 1982, Metropolitan has assisted local agencies in the development of local water recycling and groundwater recovery projects under the LRP. Metropolitan currently provides financial incentives up to \$250 per acre-foot (AF) of water production. Since program inception, Metropolitan has provided about \$490 million in incentives for the development of more than 2.0 million AF of recycled water and about 720,000 AF of recovered groundwater. There are currently 99 projects under the program, of which 85 are in operation. More than half the recycled water and groundwater recovery supplies produced annually in the region have been developed through this program.

The program was revised in 2007 with an updated goal of incentivizing 174,000 acre-feet per year (AFY) of new annual production. Currently, applications are reviewed on a first-come and first-served basis. The LRP incentive is calculated on a sliding scale, which reflects the project unit costs exceeding Metropolitan's prevailing water rate. Under the current LRP, the Board has approved 23 projects with a combined contractual yield of about 111,000 AFY. The remaining target is another 63,000 AFY of contractual yield.

In January 2014, Governor Brown declared a drought emergency due to California's historically low precipitation in calendar year 2013. This unprecedented drought condition persists today, and has drastically reduced water deliveries from the State Water Project (SWP). The LRP promotes the development of local supplies to help manage demands on Metropolitan's system, and increase regional reliability and availability. Projects developed in the near term as part of this program could help alleviate drought impacts should dry conditions continue. However, over the past year, Metropolitan has not received any new recycled water or groundwater recovery project applications for participation in the LRP. As a result, projects may not be developed in time to help alleviate the current drought and meet the IRP and water use efficiency goals. Based on discussions with member agencies, costs to develop and implement projects are a predominant constraint to initiating new projects.



In addition, production records indicate that existing recycled water projects supported by Metropolitan collectively are producing only about 70 percent of their capacity. Important limiting factors in reaching project capacity include: costs to reach customers furthest from treatment plants, on-site retrofit of customers' potable water systems, and required additional treatment to address water quality. Accordingly, Metropolitan developed the following programs which assist agencies in reducing the gap between production and contractual yield:

- 2007 – Public Sector Program: incentives for public agencies to convert potable water irrigation and industrial systems to recycled water
- 2013 – Foundational Actions Funding Program: matching funds for technical studies and pilot projects to reduce barriers and enhance regional understanding of the challenges and technical requirements necessary to develop future water supplies
- 2014 – On-site Retrofit Pilot Program: incentives for landowners to convert potable water irrigation and industrial systems to recycled water

In addition to the above programs, Metropolitan staff is recommending refinements to the LRP to further expedite development of new projects and motivate increased production of projects. These refinements include:

1. Increase the maximum incentive amount

High costs remain a significant barrier in developing local water supplies. Staff has reviewed the maximum incentive amount and recommends increasing it to \$340/AF. This increase reflects the rising costs of local project development in recent years. Staff looked at a number of methodologies to determine the incentive amount, including:

- (1) Consumer Price Index (CPI) inflation since 2007 (the last year the LRP was revised), and
- (2) Percent change in LRP project unit costs from 2007 to the present.

Applying the CPI inflation since 2007 would adjust the maximum incentive amount from \$250/AF to \$280/AF, an increase of \$30/AF. Staff analyzed a number of representative LRP projects and determined that the percent increase in the unit costs for these projects since 2007 was approximately 58 percent, which would adjust the maximum incentive amount from \$250/AF to \$395/AF, an increase of \$145/AF. Staff recommends setting the maximum incentive amount at \$340/AF, which is the midpoint of the range between \$280/AF and \$395/AF. This would provide an increase of about 35 percent in the maximum incentive level Metropolitan would offer under the LRP in order to spur additional local supply development.

It is recommended that this incentive amount be in place until the remaining LRP target of 63,000 AFY is achieved, at which time staff would review the program and make a recommendation to maintain this incentive amount or change based on needs and conditions at that time.

2. Offer alternate incentive payment structures

In addition to reviewing the incentive amount, staff also evaluated methods to update the incentive payment structure to bring new projects on-line faster and motivate increased production of projects. Staff recommends three alternative incentive payment structures be made available to the member agencies on a per project basis:

- Alternative 1 – Sliding Scale Incentives Over 25 Years (Current Payment Structure)
- Alternative 2 – Sliding Scale Incentives Over 15 Years (New Structure)
- Alternative 3 – Fixed Incentives Over 25 Years (Previously Approved Structure)

General Program Information is described in [Attachment 1](#).

Alternative 1 – Sliding Scale Incentives Over 25 Years (Current Payment Structure): Metropolitan would accept LRP applications for proposed projects on a continuous basis until the 63,000 AFY remaining target is reached. Applications would be reviewed for established milestones, such as planning, design, and status of environmental documentation. Sliding scale incentives of up to \$340/AF would be provided based on actual project unit costs exceeding Metropolitan's prevailing water rate, calculated annually. The LRP agreement term would be for 25 years.

Alternative 2 – Sliding Scale Incentives Over 15 Years (New Structure): This alternative is similar to Alternative 1, but the incentive amount is calculated over a shorter payment period (15 years versus 25 years), allowing for higher incentives earlier in the contract. The adjusted incentive amount includes a present value calculation, resulting in an equivalent maximum obligation to Metropolitan as Alternative 1 (Sliding Scale Incentives Over 25 years). Incentives of up to \$475/AF would be provided based on actual project unit costs exceeding Metropolitan’s prevailing water rate, calculated over 15 years. The LRP agreement term would be for 25 years, but incentives would be provided up to the first 15 years of the contract. In addition to the current LRP performance provisions, projects must continue production for 25 years, even if LRP payments are reduced to zero after 15 years. If an agency fails to comply with these provisions for any of its LRP projects, Metropolitan would require the agency to reimburse Metropolitan to ensure that the costs incurred due to nonperformance are recovered.

Alternative 3 – Fixed Incentives Over 25 Years (Previously Approved Structure): Compared to sliding scale incentives that are dependent on Metropolitan’s water rate, a fixed incentive rate would provide agencies with a more stable source of funds to help address financing issues. Agencies use LRP incentives as a means of income when securing financing for their projects. Fixed incentives provide stable income and help project financing. Under this approach, Metropolitan would offer a fixed incentive no greater than \$305/AF that is project specific over 25 years. This would be less than the \$340/AF incentive offered under the sliding scale alternatives to adjust for increased risk in absence of annual cost reconciliations. The fixed incentive rate for each project would be calculated such that Metropolitan’s maximum obligation toward that project under this alternative would not exceed its estimated financial obligations under Alternative 1 for the same project. This alternative would be similar to the payment structure approved by Metropolitan’s Board in May 2011 for the Chino Basin Desalination Program.

Detailed descriptions of the alternate incentive payment structures are included in [Attachment 2](#).

### 3. Include on-site recycled water retrofit costs in the LRP

In order for a site to receive recycled water, the potable water irrigation or industrial water systems must be retrofitted to receive recycled water. Site conversion is an integral part of any recycled water project. Site conversion costs can be another impediment to achieving full project capacity. Currently, on-site retrofit costs are not eligible for incentives in the LRP. Making these costs eligible under the LRP would help bring end users on-line quicker, facilitate deliveries, and encourage increased recycled water project production. Eligible costs would include retrofit design, permitting, construction, and connection fees. Staff recommends including on-site retrofit costs as eligible costs in the LRP.

### 4. Include other water resources in the LRP

The IRP calls for the development of a diverse resource portfolio with projects that help meet future demands and increase reliability in the region. The following additional resources were evaluated for inclusion in the LRP:

- **Seawater Desalination:** In 2001, Metropolitan implemented the Seawater Desalination Program (SDP), which provided funding for development of seawater desalination projects similar to the LRP. However, the SDP agreements did not include performance provisions like those included in the LRP. Staff recommends accepting and evaluating new seawater desalination project applications as part of the LRP and its eligibility criteria.
- **Stormwater:** Metropolitan’s Foundational Actions Funding Program currently includes two stormwater studies/projects. The results of these studies, along with additional studies on long-term quantity and regional benefits of stormwater development, are needed prior to making recommendations on the eligibility of stormwater projects in the LRP.

### 5. Provide reimbursable services

The current drought conditions resulted in the lowest allocation in the more than 50-year history of the SWP. To accelerate development of local supplies, staff recommends entering into reimbursable agreements with member agencies for the development of ready-to-proceed local projects that help manage demands on Metropolitan’s

system, and increase regional reliability and availability. Metropolitan's participation would help meet member agencies' strategic needs by expediting development of projects. Metropolitan would offer a variety of technical and financial services.

For projects proposed by member agencies, Metropolitan would consider the following:

- Water quantity to ensure that the project makes a meaningful addition to regional reliability,
- Water quality to confirm that project water would meet all water quality objectives,
- Ensure that the project helps meet the IRP resource needs,
- Ability to help address current and future drought conditions,
- Impacts to Metropolitan's cash flow (delivered cost of the project),
- The need for Metropolitan's involvement to expedite project completion,
- The availability of Metropolitan resources to expedite project completion, and
- Compliance of the project with all permitting and environmental requirements.

Based on a favorable assessment, Metropolitan staff would request board authorization for reimbursable projects proposed by member agencies. This approach has been successfully used in the past. Metropolitan and the Los Angeles Department of Water and Power (LADWP) successfully entered into a similar reimbursable project agreement when SWP deliveries were restricted in 2008 (35 percent allocation) and 2009 (40 percent allocation). In December 2008, Metropolitan's Board approved a \$12 million reimbursable agreement for a groundwater recovery project at the Tujunga well field. This project was completed with full reimbursement to Metropolitan and it is operated today by LADWP, successfully producing groundwater recovery supplies that help manage demands on Metropolitan's system, and increase regional reliability and availability. In September 2014, Metropolitan's Board approved a \$20 million reimbursable agreement with the LADWP for future potential groundwater recovery projects to enhance water supplies within the Metropolitan service area.

A detailed description of the reimbursable services is included in [Attachment 3](#).

#### Next Steps

If approved, staff will implement the refined Local Resources Program. Terms for projects with existing agreements will remain the same. These LRP refinements will help reach the 2007 LRP target. Staff will evaluate the need to increase the LRP target as part of the 2015 IRP Update process.

#### **Policy**

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By Minute Item 48449, dated October 12, 2010, the Board adopted the 2010 Integrated Water Resources Plan.

By Minute Item 47049, dated April 10, 2007, the Board adopted the Local Resources Program Provisions including a goal of 174,000 acre-feet per year of new production.

#### **California Environmental Quality Act (CEQA)**

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CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not subject to CEQA because it involves other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines). Before any final commitment of resources is made to any specific project, the appropriate CEQA analysis will be completed.

The CEQA determination is: Determine that the proposed action is not defined as a project and is not subject to CEQA pursuant to Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Adopt the CEQA determination that the proposed action is not defined as a project and is not subject to CEQA, and authorize

- a. Increasing the LRP maximum incentive amount to \$340/AF;
- b. Including alternative payment structures for new local projects as outlined in [Attachment 2](#) and the general program information outlined in [Attachment 1](#);
- c. Including on-site retrofits as eligible costs in the LRP;
- d. Including seawater desalination as an eligible resource in the LRP; and
- e. Entering into reimbursable agreements with member agencies as outlined in [Attachment 3](#).

**Fiscal Impact:** Metropolitan's maximum exposure, in addition to the amount authorized by the Board in 2007, is \$90/AF (\$340-\$250), which totals about \$142 million at the maximum incentive rate for 63,000 AFY over 25-year agreement terms. Financial impacts of specific projects will be provided when their respective LRP agreements are brought to the Board for consideration.

**Business Analysis:** Program implementation will encourage and expedite local resource production, which would help meet the Integrated Water Resources Plan (IRP) goals and water use efficiency targets, and respond to current drought conditions.

### Option #2

Take no action.

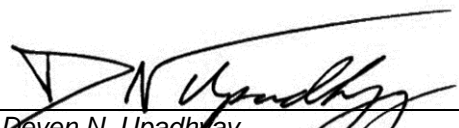
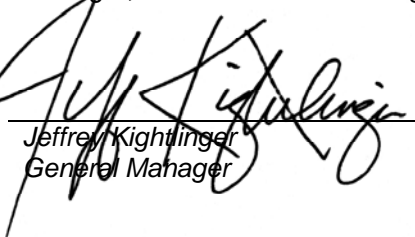
**Fiscal Impact:** None

**Business Analysis:** Staff would forgo an opportunity to increase local resources development in order to meet IRP goals, water use efficiency targets and respond to current drought conditions.

## Staff Recommendation

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### Option #1

 Deven N. Upadhyay Manager, Water Resource Management	10/2/2014 Date
 Jeffrey Kightlinger General Manager	10/2/2014 Date

[Attachment 1 – Local Resources Program General Program Information](#)

[Attachment 2 – Local Resources Program Alternate Incentive Payment Structures](#)

[Attachment 3 – Reimbursable Services](#)

Ref# wrm12632687

## **Local Resources Program General Program Information**

### General Requirements

The Local Resources Program (LRP) provides incentives for development of new water recycling, groundwater recovery, and seawater desalination projects in Metropolitan's service area. Unless otherwise approved by Metropolitan, proposed projects must comply with the following general requirements:

1. Project must replace an existing demand or prevent a new demand on Metropolitan's imported water deliveries either through direct replacement of potable water or increased regional groundwater production.
2. Project must not exist or be under construction prior to application submittal. Projects that commence construction after application submittal and prior to executing an agreement with Metropolitan would be subject to agency's sole financial risk.
3. Project must include construction of new substantive treatment or distribution facilities.
4. Proposals must be supported by a Metropolitan member agency.
5. Project must be owned and operated by the agency, and Metropolitan has no ownership or operational obligations toward the project.
6. Project must comply with the Metropolitan Water District Act and applicable laws.
7. Project must comply with CEQA and/or NEPA provisions prior to Metropolitan board approval.
8. Metropolitan's Board must approve each project prior to incentive agreement execution.
9. Project must have obtained all required Regional and State permits prior to receiving Metropolitan board approval.
10. Additional requirements specific to each project will be developed to address system integration issues related to use of Metropolitan's facilities, if needed.

### Project Phasing

Metropolitan would only consider new projects that are ready for construction and capable of achieving stated production capacities in the near future. To that end, Metropolitan would consider phasing of projects with long ramp-up schedules. LRP funding would be provided to only initial phases that are well positioned to produce water. Future phases would be considered for inclusion at later dates when production is more imminent.

Some existing LRP projects are not fully developed and need more time beyond the term of current agreements to reach full capacity. To help advance expansion of those projects, Metropolitan would apply the project phasing principle. Existing agreements would be truncated at current production levels and new agreements would be negotiated for remaining phases.

The existing LRP agreements and new project proposals shall not be subdivided into more than three phases.

### General Performance Provisions

The following performance provisions would apply to new and amended agreements to ensure timely and responsive project development and production. These provisions would allow Metropolitan to adjust or

withdraw financial commitments to projects that fail to meet development and production milestones outlined in the following table.

<b>Timeline (full fiscal year)</b>	<b>Milestone</b>	<b>Consequence if target is not achieved</b>
Two years after agreement execution	Start construction	Agreement may be terminated*
Four years after agreement execution	Start operation	Agreement may be terminated*
Four-Seven years after agreement execution	50 percent of contract yield	Contract yield may be reduced
8-11 years after agreement execution	75 percent of contract yield**	Same as above
12-15 years and every four years thereafter	75 percent of contract yield**	Same as above

\* Entities may appeal termination to Metropolitan’s Board of Directors.

\*\* Ultimate yield or revised ultimate yield due to project’s performance in previous years (if applicable)

Program Target

The current program was adopted in 2007 with a goal of incentivizing 174,000 AFY of new annual production. Under the current program, the Board has approved 23 projects with a combined contractual yield of about 111,000 AFY, resulting in a remaining target of 63,000 AFY.

Process Overview

Program refinements do not apply to projects with existing LRP agreements. Metropolitan would accept project applications on an open and continuous basis until the LRP target is achieved. Staff would review project applications to ensure compliance with general program requirements. Project proposals that have met the General Requirements (previously described) and secured approval of draft agreement terms by the respective governing bodies would be forwarded to Metropolitan’s Board for approval of LRP participation through an agreement. Upon board approval, staff would meet with project sponsors and respective member agencies to negotiate terms and execute agreements. LRP agreement terms are for 25 years.

## **Local Resources Program Alternate Incentive Payment Structures**

### Incentive Payment Structures

Agencies can choose from one of the following three alternative incentive payment structures for each of their eligible projects to participate in the LRP:

- Alternative 1 – Sliding Scale Incentives Over 25 Years (Current Payment Structure)
- Alternative 2 – Sliding Scale Incentives Over 15 Years (New Structure)
- Alternative 3 – Fixed Incentives Over 25 Years (Previously Approved Structure)

### Alternative 1 - Sliding Scale Incentives Over 25 Years (Current Payment Structure)

Metropolitan would provide member or retail agencies a sliding scale incentive up to \$340/AF over 25 years, calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate, for project water produced and used.

Eligible project costs include an agency's out of pocket costs normally associated with developing local resource projects including design, capital, operations, maintenance, and replacement costs. Incentive payments are subject to a follow-up cost reconciliation process with adjustments for under- or over-payment to be included in subsequent water service invoices from Metropolitan.

### Alternative 2 - Sliding Scale Incentives Over 15 Years (New Structure)

This alternative is similar to the current program, but the incentive amount is calculated over a shorter payment period (15 years versus 25 years), allowing for higher incentives earlier in the contract. The adjusted incentive amount includes a present value calculation, resulting in an equivalent maximum obligation to Metropolitan as Alternative 1 (Sliding Scale Incentives Over 25 years). Metropolitan would provide member or retail agencies a sliding scale incentive up to \$475/AF over 15 years, calculated annually based on actual project unit costs exceeding Metropolitan's prevailing water rate, for project water produced and used. Eligible project costs are the same as Alternative 1. Incentive payments are subject to a follow-up cost reconciliation process with adjustments for under- or over-payment to be included in subsequent water service invoices from Metropolitan. In addition to the current LRP performance provisions, projects must continue production for 25 years, even if LRP payments are reduced to zero after 15 years. This provision ensures continued production throughout the contract term. If an agency fails to comply with these provisions, Metropolitan may require reimbursement for a percentage of the previous LRP payments toward that project. The reimbursement would be determined for each year remaining in the agreement considering the following:

- The previous LRP payments
- The previous project yield
- Project yield in the year in which a reimbursement is required

### Alternative 3 – Fixed Incentive Over 25 Years (Previously Approved Structure)

Compared to sliding scale incentives that are dependent on Metropolitan's water rate, a fixed incentive rate provides agencies with a more stable source of funds to help address financing issues. Agencies use LRP incentives as a means of income when securing financing for their projects. Fixed incentives provide stable income and help agencies with securing capital funds. Metropolitan would offer a project-specific fixed incentive rate, not to exceed \$305/AF, over 25 years. The fixed incentive amount for each project would be negotiated so that Metropolitan's maximum obligation toward that project

under this alternative would not exceed the estimated financial obligations under Alternative 1 for the same project, and be adjusted for increased financial risk to Metropolitan in absence of annual cost reconciliations.

In addition to the general requirements and performance provisions, the following provision would apply to this alternative: Total LRP payments under the agreement term would be limited to total estimated project yield presented by the agency at the time of agreement negotiation.



### **Reimbursable Services**

Metropolitan would enter into a reimbursable agreement with requesting member agencies for the development of local resource projects that help manage demand on Metropolitan's system, and increase regional reliability and availability. Metropolitan's participation would help meet the member agencies' strategic needs by expediting development of projects. Metropolitan's participation in a reimbursable service agreement would depend on the need to accelerate delivery of the projects in order to meet resource needs or improve reliability.

For projects proposed by member agencies, Metropolitan would consider the following:

- Water quantity to ensure that the project makes a meaningful addition to regional supply reliability,
- Water quality to confirm that project water will meet all water quality objectives,
- Ensure that the project helps meet the IRP resource needs,
- Ability to help address current and future drought conditions,
- Impacts to Metropolitan's cash flow (delivered cost of the project),
- The need for Metropolitan's involvement to expedite project completion,
- The availability of Metropolitan resources to expedite project completion, and
- Compliance of the project with all permitting and environmental requirements.

Metropolitan's obligations may include:

- Conduct feasibility studies as needed,
- Perform technical and water quality analyses as needed,
- Perform project management, procurement, installation/construction, and start-up/operations,
- Perform engineering design including drawings and performance specifications,
- Develop construction and operating cost estimates, and
- Contract with vendor.

Agency obligations would include:

- To serve as the Lead Agency under the California Environmental Quality Act,
- Obtain all necessary permits,
- Meet all applicable standards (e.g., water quality),
- Operate project upon termination of agreement, and
- Reimburse Metropolitan for all its actual costs, including labor, equipment, materials, and other services.

The amount of the reimbursable agreement would be determined on a case-by-case basis. The agency would reimburse Metropolitan for all direct and indirect costs incurred, including the cost of capital and the fully burdened cost of Metropolitan's staff.