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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

7-3

December 5, 1997

To: Board of Directors (Budget and Finance Committee—Action)
(Water Planning and Resources Committee—Action)

From: *for* General Manager

Submitted by: Robert J. Gomperz, Acting Director
of Public Affairs and Conservation

Edward J. Measitt
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Subject: Landscape Conservation Projects on Sites Using Recycled Water for Irrigation

RECOMMENDATION(S)

That your Board approve expanding Conservation Credits Program funding to projects that conserve recycled water.

EXECUTIVE SUMMARY

The production of and demand for recycled water has increased significantly, which has led to heightened interest in opportunities to more fully utilize recycled water. Metropolitan's member agencies have proposed several projects that could save recycled water, specifically through more efficient landscape irrigation techniques. Staff has identified the potential for short-term financial benefits and long-term water savings from conserving recycled water, although each project proposal will have to be analyzed individually.

DETAILED REPORT

Background on the Conservation Credits Program and Local Projects Program

The concepts described herein would apply for any conservation project. The specific proposals received from member agencies thus far have been for Landscape Conservation projects. Therefore, Metropolitan's Landscape Conservation Program will be used to illustrate the concept of funding conservation of recycled water. Metropolitan's Landscape Conservation Program promotes more efficient use of water for irrigation on large landscapes. One element, the installation of computerized irrigation systems, is funded at \$154/acre-foot (AF) up to one-half of the project's costs based on verified water savings. Completed projects with computerized irrigation systems have shown water savings of 16 to 35 percent.

Metropolitan's Local Projects Program (LPP) and Local Resources Program (LRP) assist member agencies in the development of recycling projects. Under the LPP, Metropolitan's contribution is \$154/AF of recycled water. Funding under the LRP is on a sliding scale up to \$250/AF of recycled water. Agencies are paid annually for the amount of water delivered by their projects.

Some member agencies have proposed specific projects that could save recycled water through the installation of computerized irrigation systems. Staff has identified the potential for short-term financial benefits and long-term water savings from conserving recycled water, although each project proposal will have to be analyzed individually.

Water savings benefits for agencies that are at or near maximum production of Recycled Water

The Conservation Credits Program (CCP), the LPP, and the LRP all reduce demand for potable water. These programs are integral components of Metropolitan's Integrated Resource Plan. Combining the demand reduction capabilities of the CCP and LPP/LRP for some specific projects can result in a proportionate decrease in the demand. By increasing the efficient use of recycled water on one site, an agency increases the availability of recycled water to replace potable water elsewhere within its service territory.

Agencies that are at or near maximum production of recycled water would produce a resource benefit in the form of additional potable water savings immediately. For example, if an agency is producing 5,000 AF per year of recycled water, at plant capacity, and a conservation project can save 100/AF per year of recycled water, then that 100/AF per year is available to convert an additional site from potable to recycled water. Therefore, 100/AF of additional potable water is saved.

Financial benefits where agencies have abundant Recycled Water supplies

The interaction of the CCP and LPP/LRP may provide a financial benefit to Metropolitan. As part of Metropolitan's CCP, Metropolitan pays \$154/AF up to 50 percent of the cost of the project, with payment made based on verified water saved. Although the benefit of the conserved water can last for an indefinite period, Metropolitan limits its incentives to a term of two to five years. In comparison, LPP/LRP contracts pay up to \$250/AF for recycled water produced over a much longer term, up to 25 years.

If, for example, a single site were to implement conservation of recycled water, with a conservation agreement having a term of four years, saving 100/AF per year, the water saved through the conservation project would cost Metropolitan \$61,600.

Example of CCP funding calculation:

100	(Projected Acre Feet of Savings per year)
x4	(Years in the Term of the Project)
<u>x\$154</u>	<u>(CCP funding per AF conserved)</u>
= \$61,600	(CCP funding from Metropolitan)

If the same site did not conserve recycled water, and the LPP agreement, for example, had 20 years remaining in the contract and assuming an LPP funding rate of \$154/AF, Metropolitan's funding would be \$308,000.

Example of LPP funding calculation:

100	(Projected AF of recycled produced per year)
x20	(Years remaining in the Term of the Project)
<u>x\$154</u>	<u>(Average LPP funding per AF produced)</u>
=\$308,000	(LPP funding from Metropolitan)

Comparing these examples shows there is a \$246,400 difference in the incentives paid by Metropolitan to save 100 AF on the same site. Actual savings are driven by the difference in the length of the terms of the CCP and LPP/LRP agreements.

Examples where providing Conservation Credits Program funding for projects using Recycled Water would not benefit Metropolitan

The financial benefits to Metropolitan would vary depending on: 1) how many years remain in the LPP/LRP agreement relative to the time the conservation project would begin; and 2) the funding level of the LPP/LRP agreement. If the terms of the LPP/LRP and CCP agreements are equal, then the difference in the incentive levels alone will determine if there is a difference in costs for the two projects.

If an agency never reaches full production capacity on recycled water under its LPP/LRP agreement, then no potable water savings would be realized from completing a conservation project on the site. Also, where an agency did not receive LPP/LRP funding from Metropolitan, there would be no financial benefit to Metropolitan. Therefore, some projects may not have either financial or water savings benefits for Metropolitan.

Summary

Metropolitan has received requests to fund projects that conserve recycled water through more efficient irrigation technologies. Based on member agencies' estimated requests for fiscal year 1998-99, staff expects that reimbursement for water savings for projects of this type will not exceed \$70,000 during the first year. As member agencies' production of recycled water increases, staff estimates an increase in funding requests of 5 - 10 percent per fiscal year. As mentioned above, each project would have to be individually analyzed to determine the benefits and costs to Metropolitan. In order to receive CCP funding, the project would have to provide financial benefits, conserve additional potable water, or provide both. Not all proposals would meet these criteria, but where there are financial and/or water savings benefits from the project, staff recommends that CCP funding be provided.

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