

● **Board of Directors**  
**Water Planning and Resources Committee**

February 8, 2000 Board Meeting

9-2

**Subject**

Local Resources Program Agreement for the Encina Basin Water Reclamation Project – Phase 2 Expansion with San Diego County Water Authority and Carlsbad Municipal Water District (Carlsbad)

**Description**

The 2,950 acre-feet per year (AFY) expansion project is one of 14 competitively selected projects under Metropolitan's Local Resources Program (LRP) that would collectively produce 51,500 AFY of new production (**Attachment 1**). This project is being presented because it has now completed all prerequisites for LRP eligibility and is ready to proceed into construction. Additionally, program guidelines require all LRP agreements to be executed by April 1, 2000.

A report summarizing the screening process was presented to the board in December 1998. The final step in the process is board authorization of the LRP agreement for the expansion project. A copy of the negative declaration is available for your review in the office of the executive secretary.

The Phase 2 expansion project will provide an additional source of recycled water and extend the existing recycled water distribution system constructed under Phase 1, for which there is currently an LRP conversion agreement. Staff recommends merging agreements for both project phases into a single agreement to simplify project administration, eliminate the need for Metropolitan staff to perform annual reconciliations of project contributions, and eliminate the need for Carlsbad staff to conduct detailed operations and maintenance cost accounting. Metropolitan's commitment to provide financial incentives for Phase 1 would continue through January 31, 2018 as provided under the current Phase 1 agreement, except at a slightly higher incentive rate. To maintain a neutral cost to Metropolitan over the life of the combined agreement, the term for Phase 2 would be reduced from 25 years as requested in Carlsbad's proposal to 19 years and terminate on June 30, 2019. Additionally, the amount of production eligible for Metropolitan incentives would be capped on an annual basis to ensure that Metropolitan's financial exposure is limited to the principle of cost neutrality.

<b>Agreements as of July 1, 2000</b>	<b>Remaining Term (Years)</b>	<b>Metropolitan Incentives (\$ Millions)</b>	<b>Yield (AFY)</b>	<b>Incentive (\$/AF)</b>
Phase 1 (Existing)	17.5	3.9	2,050	Sliding scale \$0-250
Phase 2 (Carlsbad proposal)	25	7.9	2,950	Fixed schedule \$100 – 210
Combined (Recommended)	19	11.8	5,000	Fixed schedule \$100 – 210

**Policy**

Prior Board direction provided by Board Letter 8-9 dated May 26, 1998.

**Board Options/Fiscal Impacts**

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**Option #1**

- A. Review and consider information provided in the project's mitigated negative declaration and adopt the Lead Agency's findings related to the Phase 2 Project; and
- B. Authorize the General Manager to execute an LRP agreement that combines both Phases 1 and 2 of the Encina Basin Water Reclamation Project to provide incentive payments that begin at \$210 per acre-foot in fiscal year 2000-01 and are incrementally reduced in future years. The payment in fiscal year 2018-19 (last year) would be \$100 per acre-foot.

**Fiscal Impact:** About \$7.9 million over 19 years for the Phase 2 Expansion Project. Metropolitan's existing financial incentive obligation under Phase 1 is about \$3.9 million over 17.5 years. The fiscal impact for both phases is about \$11.8 million over 19 years.

**Option #2**

- A. Review and consider information provided in the project's mitigated negative declaration and adopt the Lead Agency's findings related to the Phase 2 Project; and
- B. Authorize the general manager to execute an LRP agreement for the Phase 2 Project only that provides incentive payments over 25 years that begin at \$210 per acre-foot in fiscal year 2000-01 and are incrementally reduced in future years. The payment in year 25 would be \$100 per acre-foot. The Phase 1 agreement is to remain unchanged.

**Fiscal Impact:** About \$7.9 million over 25 years.

**Option #3**

Defer entering a LRP agreement.

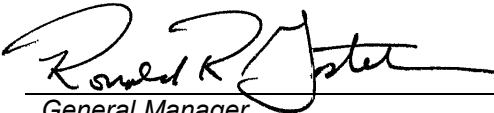
**Fiscal Impact:** Would avoid future payments totaling about \$7.9 million over 25 years. Metropolitan's existing financial incentive obligation under Phase 1 for about \$3.9 million over 17.5 years would be unchanged.

**Staff Recommendation**

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Option #1

 1/21/00  
 Stephen N. Arakawa, Acting Manager Date  
 Water Resource Management

 1/24/2000  
 General Manager Date

**Attachment 1**

## **Detailed Report**

### **Local Resources Program Background**

In June 1998, with endorsement of the member agencies, Metropolitan Board of Directors established the Local Resources Program (LRP). Metropolitan issued a competitive Request for Proposals (RFP) for 53,000 acre-feet per year (AFY) of production. Twenty-eight proposals were received and in the ensuing two-month period reviewed, by a committee made up of Metropolitan staff and water resource consultants using weighting criteria for ranking factors adopted by the Board. In December 1998, staff reported to the Board that the review committee identified 14 projects that best meet the selection criteria. Those 14 projects would collectively yield about 51,500 AFY (see Figure 1).

Project implementation would help the region meet the year 2020 goal of 500,000 AFY for recovered groundwater and recycled water production. An estimated 125,000 AFY shortfall in meeting the goal was identified in the RFP. This locally developed water improves regional water supply reliability by displacing requirements for future Metropolitan capital improvements and water importation.

### **Project Features**

The 2,950 AFY Encina Basin Water Reclamation Project – Phase 2 (Phase 2 expansion project) is one of the 14 selected projects and complies with LRP criteria adopted by Metropolitan's Board in June 1998. The Phase 2 expansion project involves construction of a new water reclamation treatment plant, expanding the treatment capacity at the existing Meadowlark Water Reclamation Plant, and expansion of the existing distribution system with construction of about 15 miles of pipeline and ancillary equipment. This Phase 2 expansion project will reduce the demand for an equal amount of potable supplies from Metropolitan that Carlsbad Municipal Water District (Carlsbad) would have delivered to current and future customers. Carlsbad will construct and operate the Project. Page 4 of this attachment provides a description of project features for both phases.

### **Existing LRP Agreement**

The Phase 2 expansion project will provide an additional source of recycled water and extend the existing recycled water distribution system constructed under Phase 1, for which there is currently an LRP conversion agreement. Terms of the existing Phase 1 agreement specify Metropolitan's sliding scale incentive payments of \$0-250 per acre-foot, subject to annual reconciliation of Phase 1 project contributions at the end of each fiscal year. The conversion agreement terminates on January 31, 2018.

Carlsbad requested that Metropolitan combine both project incentive agreements under new program rules, because it would be difficult to segregate operations and maintenance (O&M) costs between the two phases to strictly adhere to the Phase 1 agreement terms. Staff concurs and proposes that the Phase 1 agreement be terminated at the end of this fiscal year and combined with Phase 2 with the same fixed contribution schedule proposed under Phase 2. Hence, both phases would receive equal incentives. These incentives will change on an annual

basis starting with \$210 per acre-foot in 2000 and end with \$100 per acre-foot in 2019 (See Page 6 of this attachment). Metropolitan's commitment to provide financial incentives for Phase 1 would continue through January 31, 2018 as provided under the current Phase 1 agreement, except at a slightly higher incentive rate. To maintain a neutral cost to Metropolitan over the life of the combined agreement, the term for Phase 2 will be reduced from 25 years as requested in Carlsbad's proposal to 19 years and terminate on June 30, 2019. Additionally, the amount of production eligible for Metropolitan incentives will be capped on an annual basis to ensure that Metropolitan's financial exposure is limited to the principle of cost neutrality. A corresponding annual contribution beginning in fiscal year 2000-2001 through 2018-19 will be included in future O&M budgets. Metropolitan will provide up to \$1 million annually for a total contribution of about \$11.8 million for about 81,000 acre-feet for both phases. Metropolitan's financial contribution to both phases would be provided to Carlsbad through the San Diego County Water Authority (SDCWA) under a new 19-year agreement that commences on July 1, 2000. Page 6 of this attachment is a schedule of Metropolitan's projected annual contribution to the Project for a combined agreement.

<b>Agreements as of July 1, 2000</b>	<b>Remaining Term (Years)</b>	<b>Metropolitan Incentives (\$ Millions)</b>	<b>Yield (AFY)</b>	<b>Incentive (\$/AF)</b>
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### Metropolitan Benefits

Approval of the Phase 2 project expansion will increase the amount of recycled water produced and beneficially used in Carlsbad's service area, provide operational flexibility and system reliability, and reduce an equal amount of imported water that would have been supplied by Metropolitan. Merging agreements for both project phases into a single agreement would simplify project administration, eliminate the need for Metropolitan staff to perform annual reconciliations of project contributions, and eliminate the need for Carlsbad staff to conduct detailed operations and maintenance cost accounting.

### Environmental Documentation

Pursuant to the California Environmental Quality Act (CEQA), the Department, acting as the Lead Agency, has prepared and approved a Mitigated Negative Declaration for the Phase 2 project expansion. Metropolitan will not be responsible for implementing any of the mitigation measures associated with the Project. Metropolitan, as a Responsible Agency due to its financial participation in the Project, is required to review and consider the information provided in the Mitigated Negative Declaration prior to reaching a decision on the Project. Copies of the Lead Agency's Mitigated Negative Declaration and Notice of Determination are available for your review in the office of the Executive Secretary. No further environmental documentation is necessary for you to act upon in this matter.

**Figure 1**  
**LOCAL RESOURCES PROGRAM**  
**14 Selected Projects**

Selected Projects	Ultimate Yield (AFY)	Financial Incentive (\$/AF)	Total MWD Contribution (\$)	Agreement Term (yrs.)	Total Yield* (AF)	MWD Board Approval	Executed Agreement
Westlake Wells - Tapia WRF Intertie Project	150	130	78,000	4	600	x	x
Temescal Basin Desalting Facility	10,000	100	25,000,000	25	250,000	x	x
Dry Weather Runoff Reclamation Facility	280	150	1,050,000	25	7,000	x	x
Colored Water Treatment Facility	11,300	97-169	37,115,824	25	277,792	x	x
Alamitos Barrier Reclaimed Water Project	3,024	151-209	13,636,728	25	74,088	x	
Olivenhain Recycled Project - SE Quadrant	1,788	150	4,076,400	20	27,176	x	x
Otay Recycled Distribution Expansion	8,515	160-200	21,637,465	24	125,880	x	x
Santa Margarita Non-Domestic System	2,772	77-214	6,538,416	25	65,951	x	
Moulton Niguel Phase 4 Expansion	1,276	154	3,821,356	20	24,814	x	
Harbor Water Recycling Project	5,000	86-139	13,595,000	24	120,000	x	
Capistrano Valley Non-Domestic System	2,895	150	9,591,300	25	63,942		
Juan Well Filter Facility	900	75	472,500	7	6,300		
Encina Water Reclamation Phase 2	2,950	100-210	7,975,685	25	62,750		
Rincon del Diablo Recycled Water Program	648	15-250	648,785	11	4,633		
Total	51,498		145,237,459		1,110,926		

## **Encina Basin Water Reclamation Project – Phases 1 and 2**

### **Project Description**

#### Overview:

The Encina Basin Water Reclamation Project – Phases 1 and 2 (Project) is owned and operated by the Carlsbad Municipal Water District (Carlsbad). Under the Project, approximately 5,000 acre-feet per year (AFY) would be delivered to Carlsbad recycled water customers for landscape, agricultural, commercial and industrial purposes. The Project is located entirely within the Carlsbad's service area immediately south of Palomar Airport Road and west of El Camino Real (see Figure 1).

#### Sources of Recycled Water

##### *1. Meadowlark Water Reclamation Facility*

Under Phase 1, the Project currently receives Recycled Water from two external sources. The majority of the Project's water needs are supplied by the Meadowlark Water Reclamation Facility (Meadowlark), which is owned and operated by Vallecitos Water District (Vallecitos). Meadowlark provides primary, secondary and tertiary treatment to wastewater with a current capacity of about 2 million gallons per day. Recycled water from Meadowlark is delivered to the Project through Vallecitos' fail-safe pipeline. Recycled water in the fail-safe pipeline which is not used by the Project is delivered to the Encina Water Pollution Control Facility (Encina) and then discharged to the ocean. Carlsbad has entered into an agreement with Vallecitos to purchase up to 2,040 AFY from Meadowlark. Meadowlark, the Mahr Reservoir and Vallecitos' fail-safe pipeline are pre-existing and not part of the Project.

##### *2. Gafner Water Reclamation Plant*

Another existing source of water is the Gafner Water Reclamation Plant (Gafner), which is owned and operated by Leucadia County Water District (Leucadia). Gafner provides primary, secondary and tertiary treatment and has a current capacity of about 0.75 million gallons per day. Raw wastewater can also be sent to Encina via a separate pipeline from Gafner. At Leucadia's discretion, secondary treated wastewater can be pumped back from Encina to Gafner for tertiary treatment. Carlsbad has entered into a take-or-pay agreement with Leucadia to purchase a minimum of 394 AFY from Gafner for recycled water deliveries supplied only to La Costa South Golf Course. Gafner and Encina are pre-existing and not part of the Project.

##### *3. Carlsbad Water Recycling Facility*

Included in the development of Phase 2 facilities is construction of the proposed 5 million gallons per day Carlsbad Water Recycling Facility (CWRF). CWRF will provide tertiary treatment of secondary effluent from Encina and serve recycled water to the Project. Additional facilities may include reverse osmosis to reduce total dissolved solids levels in recycled water.

#### Project Facilities

##### *Phase 1*

Phase 1 of the Project consists of a distribution system, conversion of two potable water reservoirs to recycled water use and installation of potable water pipelines to replace pipelines

converted to recycled water use. The distribution system includes about six miles of recycled water pipeline, pumping facilities and a one-mile pipeline to replace the existing potable water pipeline that will be converted for recycled water use. Both the La Costa North and South Golf Courses receive recycled water from the Project via existing, non-project pipelines. In addition, the Project includes capital improvements to the Meadowlark including modifications to the effluent pump station, construction of a diversion structure and installation of electrical and instrumentation equipment.

### *Phase 2*

Phase 2 of the Project will involve construction of a new 5 million gallons per day Carlsbad Water Recycling Facility, extension of the existing distribution system with about 75,000 feet of new recycled water pipeline to serve new users, construction of a new pump station, and conversion of the existing Mahr Reservoir for recycled water storage. The Mahr Reservoir is considered pre-existing and not part of the Project despite capital improvements to convert the reservoir from potable to recycled water use.

### End Users

Recycled water from the Project will be produced for non-potable landscape, agricultural, commercial and industrial purposes within Carlsbad's service area.

### Points of Connection

Project facilities shall terminate at the points of connection to the Project's sources of supply, brine disposal facilities, Mahr Reservoir, the potable distribution systems, sewer systems, storm drains, groundwater extraction systems, Vallecitos' fail-safe pipeline, and meter connections to End Users.

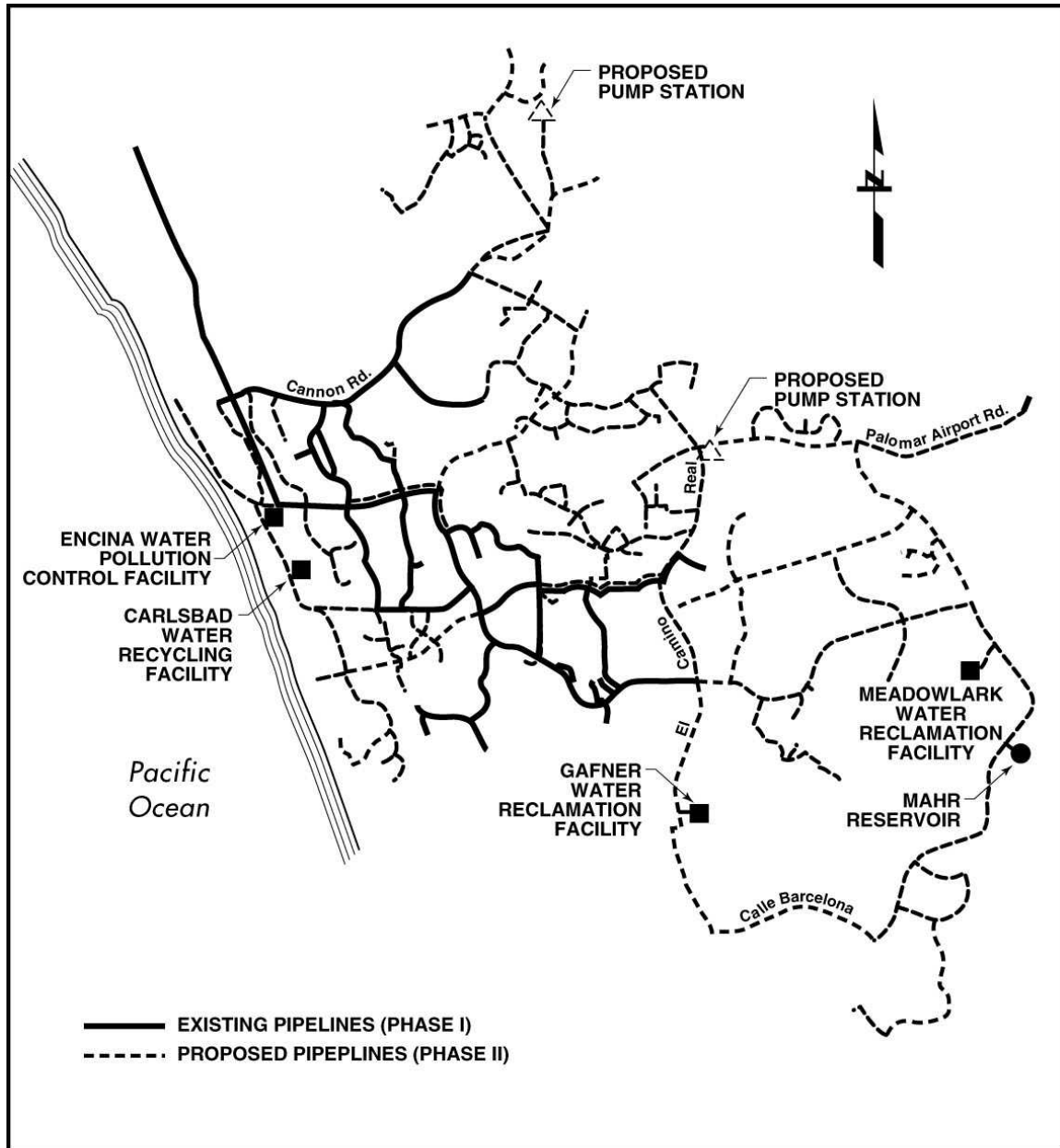
**Metropolitan's Annual Contribution for a Combined Agreement**

<b><u>Fiscal Year</u></b>	<b><u>Incentive Rate</u></b> <b>(\$/AF)</b>	<b><u>Phase 1 Production</u></b> <b>(AF)</b>	<b><u>Phase 2 Production</u></b> <b>(AF)</b>	<b><u>Total Annual Contribution</u></b> <b>(\$)</b>
2000-2001	210	2,050	200	472,500
2001-2002	210	2,050	500	535,500
2002-2003	210	2,050	1,000	640,500
2003-2004	210	2,050	1,400	724,500
2004-2005	200	2,050	1,800	770,000
2005-2006	200	2,050	2,200	850,000
2006-2007	200	2,050	2,600	930,000
2007-2008	200	2,050	2,900	990,000
2008-2009	200	2,050	2,950	1,000,000
2009-2010	139	2,050	2,950	695,000
2010-2011	100	2,050	2,950	500,000
2011-2012	100	2,050	2,950	500,000
2012-2013	100	2,050	2,950	500,000
2013-2014	100	2,050	2,950	500,000
2014-2015	100	2,050	2,950	500,000
2015-2016	100	2,050	2,950	500,000
2016-2017	100	2,050	2,950	500,000
2017-2018	100	1,200	2,950	415,000*
2018-2019	100	0	2,950	295,000**
<b>Total</b>		<b>36,050</b>	<b>45,050</b>	<b>11,818,000</b>

\* Phase 1 payments terminate on January 31, 2018.

\*\* Phase 2 payments terminate on June 30, 2019.





**ENCINA BASIN WATER RECLAMATION PROJECT  
PHASE I & II**