



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

11/10/2015 Board Meeting

8-3

Subject

Appropriate \$15 million; and authorize: (1) agreement with County Sanitation District No. 2 of Los Angeles County for development of a potential regional recycled water supply program; and (2) design of a demonstration-scale recycled water treatment plant (Approp. 15493)

Executive Summary

This action authorizes Metropolitan to enter into an agreement with the Sanitation Districts of Los Angeles County, specifically County Sanitation District No. 2 of Los Angeles County (Sanitation District), to implement a demonstration project and to establish the framework of terms and conditions for development of a regional recycled water supply program. As reported to the Water Planning and Stewardship Committee on September 22, 2015 and October 12, 2015, Metropolitan has the opportunity to work collaboratively with the Sanitation District to develop a potential regional recycled water supply program that would purify and reuse water for the recharge of groundwater basins. Under the proposed agreement, Metropolitan and the Sanitation District would jointly develop this program to purify secondary effluent from the Sanitation District's Joint Water Pollution Control Plant (JWPCP) using advanced treatment technologies to produce water that is near-distilled in quality and that would be equal or better than the quality of water currently used to replenish groundwater basins in the Southern California region. The secondary effluent from the JWPCP is currently discharged to the Pacific Ocean. The purified water would be delivered to Metropolitan's member agencies to meet their groundwater recharge and storage requirements. A collaboration between the two districts could advance the reuse of water at a scale, timing, and strategic location to serve the direct needs of multiple member agencies for recharge of groundwater basins in Southern California, and to augment regional supplies for Metropolitan's service area.

The demonstration project would serve as a proof of concept and would provide critical information needed for implementation of the potential regional recycled water supply program. The demonstration project would consist of three components: (1) a one million gallon per day (1mgd) demonstration-scale treatment plant, which would verify source water quality criteria and confirm the advanced treatment process needed to purify water for groundwater recharge; (2) feasibility studies of the delivery system to determine the distribution facilities, routing, capacity, phasing, and timing needed to recharge various groundwater basins within Metropolitan's service area, and (3) a financing plan to assess the economic viability of a full-scale regional program. Staff anticipates returning to the Board within one year with its preliminary recommendations concerning the full-scale program.

The proposed agreement also establishes the framework of terms and conditions for development of the full-scale regional recycled water supply program, if recommended to both districts' respective boards for future consideration. The objectives of this framework are to enable the potential reuse of up to 150 mgd of treated effluent from the Sanitation District's JWPCP; fairly divide potential costs and investments, and establish responsibilities between Metropolitan and the Sanitation District; reserve the use of a Sanitation District site for the advanced water treatment facility; and ensure that this program would avoid conflicts and duplication with other recycled water plans.

Timing and Urgency

Development of a regional recycled water supply program would present a significant opportunity to provide a new resource that would help maintain groundwater recharge and storage for the service area. The unprecedented drought conditions of the past eight years have resulted in significant reductions in local surface supplies and groundwater production, and have increased the need for recharge supplies to groundwater and surface reservoirs to improve their sustainable yields and operating integrity. The challenges of continued droughts, climate change uncertainties, and the hydrologic variability of imported water supplies, demonstrate the value in accelerating development of water resources, including conservation, water recycling, groundwater recovery and storage, and ocean desalination.

The demonstration-scale treatment plant will be a capital project under Metropolitan's Capital Investment Plan (CIP). Funds for this project are available within Metropolitan's capital expenditure plan for fiscal year 2015/16.

Details

Advancing Recycled Water Resources Development

The current statewide drought emergency has underscored the importance of advancing the development of recycled water, in conjunction with conservation and maintaining core imported supplies – all as outlined in Metropolitan's Integrated Resources Plan (IRP). The 2014/15 water year brought the lowest snowpack and runoff in recorded history, and resulted in significant loss of surface water supplies and groundwater production within Metropolitan's service area. Reservoirs and groundwater basins are now at their lowest storage levels in the last two decades, highlighting an increasing need for groundwater and surface reservoir recharge supplies to improve their sustainable yields and operating integrity. The projected groundwater production within Metropolitan's service area is estimated to have fallen by approximately 250,000 acre-feet per year due to these unprecedented drought conditions. In addition, there remains 150,000 acre-feet per year of new conservation and local resources that have yet to be developed in order to meet the 2010 IRP resource targets for maintaining water supply reliability over the next 20 years.

These events and potential challenges have led Metropolitan and its member agencies to pursue resource strategies that accelerate the development of significant local resources to deal with droughts, climate change, and seismic risks. The development of a regional recycled water supply program would be consistent with these strategies and would provide a significant water supply. Further, the potential program would offer an opportunity to add value to Metropolitan's core supplies, by recapturing for reuse a significant amount of imported State Water Project (SWP) and Colorado River Aqueduct (CRA) supplies that have already been delivered to the Sanitation District's service area by Metropolitan.

Regional Collaboration

A regional collaboration between Metropolitan and the Sanitation District to jointly develop recycled water supplies has been under discussion for over five years, with careful consideration of the technical feasibility and institutional coordination required. In March 2010, Metropolitan's Board authorized staff to collaborate with the Sanitation District to study the feasibility of a regional indirect potable reuse program and to perform pilot-scale studies. Between June 2010 and July 2012, these pilot studies were conducted jointly by the two districts at the JWPCP in order to evaluate the feasibility of advanced treatment of the JWPCP's secondary effluent. The pilot-scale studies also evaluated how Metropolitan could meet then-draft Title 22 Groundwater Replenishment Regulations administered by the California Department of Public Health, now the Division of Drinking Water. The results of the pilot-scale studies indicated that advanced treatment for indirect potable reuse through groundwater replenishment is technically feasible. Since the pilot study, additional requirements were incorporated into the final Title 22 Groundwater Replenishment Regulations, which became effective June 2014.

On this basis, Metropolitan and the Sanitation District have jointly prepared a proposed agreement to implement a demonstration project and to establish the framework of terms and conditions for development of a regional recycled water supply program. The term sheet for the agreement is included in [Attachment 1](#). The proposed agreement provides the draft terms and conditions for regional collaboration between the two districts to advance

the reuse of water at a scale, timing, and strategic location to serve the direct needs of multiple member agencies for the recharge of groundwater basins in Southern California, and to augment regional supplies for Metropolitan's service area.

Under this regional program, Metropolitan would purify the secondary effluent from the Sanitation District's JWPCP using advanced treatment technologies to produce water that is near-distilled in quality and that would be equal or better than the quality of water currently used to replenish groundwater basins in the Southern California region. Up to 150 mgd of secondary effluent from the JWPCP, which is currently discharged to the Pacific Ocean, would be available for purification and reuse. Metropolitan would deliver the purified water annually to member agencies to meet their groundwater recharge and storage requirements.

The Sanitation District is a member of a partnership of 24 independent and special districts that provide wastewater and solid waste management for approximately 5.3 million people in Los Angeles County. These agencies currently treat an average of 440 mgd of wastewater at ten water reclamation plants and at the JWPCP located in Carson, California ([Attachment 2](#)). The JWPCP is the Sanitation District's largest wastewater treatment plant, with a capacity of 400 mgd. It currently provides primary and secondary treatment to an average daily flow of approximately 270 mgd of wastewater before it is discharged through outfall tunnels to the Pacific Ocean. In consideration of recent wastewater flow reductions due to conservation, and regulatory compliance issues associated with brine discharge from the potential advanced water treatment facility, the Sanitation District estimates that there is sufficient secondary effluent available to produce approximately 150 mgd of purified water for reuse.

Proposed Demonstration Project

As an initial step, the demonstration project would serve as a proof of concept and would provide critical information needed for implementation of the potential regional recycled water supply program. The demonstration project would consist of three components:

- 1. Demonstration Plant** – Under the proposed agreement, a 1-mgd demonstration-scale recycled water treatment plant would be planned and designed to verify criteria for the source quality of water from the JWPCP for the advanced water treatment facility; to confirm the treatment processes required for regulatory acceptance of the purified product water for groundwater recharge; and to characterize the brine and waste for disposal. Critical information will be developed for these parameters in conjunction with design of the 1-mgd demonstration plant, and will be provided by December 2016. Award of a construction contract for the demonstration plant is also planned for that date. The plant would then be constructed and operated to optimize design and operational strategies for the above parameters to assist in scale-up to a full-scale advanced water treatment facility. The demonstration plant would also confirm capital and operating costs for the full-scale facility, provide water quality data for regulatory acceptance, and create a visitor center for public outreach and education. The demonstration plant would be located within the operational boundary of the JWPCP.
- 2. Feasibility Studies of the Delivery System** – Metropolitan would conduct feasibility studies of the delivery system that would distribute the purified water to member agencies for the recharge of groundwater basins within the service area. The anticipated activities of the feasibility studies include the development of program capacity, phasing, and timing; coordination with member agencies and stakeholders on groundwater recharge requirements; investigation of delivery system facilities, alignments, rights-of-way, and substructures; development of initial costs, and identification of regulatory and environmental requirements.
- 3. Financing Plan** – Metropolitan would also prepare a financing plan to assess the economic viability of a regional program. The financing plan would establish water sale arrangements with member agencies for the delivery of reuse water for recharge of groundwater basins; evaluate the potential for state and federal grants and loans; determine cost-sharing opportunities; and assess funding and rate impacts.

Development of a Potential Full-Scale Program

The determination to proceed with a full-scale regional recycled water supply program would be made based on information developed and confirmed through the demonstration project. The proposed agreement between Metropolitan and the Sanitation District addresses implementation of the demonstration project and also establishes the framework of terms and conditions for development of a full-scale program, if recommended to both districts' respective boards for future consideration. Under the proposed agreement, the respective responsibilities of the two districts and key terms for both the demonstration project and the full-scale program are outlined. The key terms for the full-scale program are tentative and not binding until that full-scale program is authorized by the boards of Metropolitan and the Sanitation District. The term sheet appears in [Attachment 1](#).

The responsibilities and key terms for the demonstration project are as follows:

- Subject to each board's approval
- If authorized to proceed, the Sanitation District would:
 1. Deliver 1 mgd of secondary-treated effluent as source water to the demonstration plant.
 2. Provide land and utilities for the demonstration plant.
 3. Dispose of brine and waste streams.
 4. Perform influent laboratory analyses.
- If authorized to proceed, Metropolitan would:
 1. Fund, design, construct, operate, and maintain the 1mgd demonstration plant.
 2. Conduct feasibility studies for a potential full-scale program in conjunction with the demonstration project.
 3. Determine water quality-related, regulatory, and flow parameters for a potential full-scale program.

The tentative responsibilities and key terms for a full-scale regional recycled water supply program are as follows:

- Subject to each board's approval
- If authorized to proceed, the Sanitation District would:
 1. Deliver secondary-treated effluent as source water to Metropolitan's advanced water treatment facility sufficient to produce up to 150 mgd of product water.
 2. Lease land for the advanced water treatment facility.
 3. Maintain the quantity and quality of the source water made available to the advanced water treatment facility for each phase of the full-scale program as agreed to by the parties, subject to certain conditions.
 4. Dispose of brine and waste streams.
 5. Agree not to collect from Metropolitan a fee, service charge, or connection fee for the above.
- If authorized to proceed, Metropolitan would:
 1. Fund, design, construct, operate, and maintain the advanced water treatment facility and delivery system. The program may be developed in phases, up to a capacity of 150 mgd, while funding would be less any state or other participating funds.
 2. Distribute and sell the product water.
 3. Provide exchange water, in a quantity of approximately one percent of the product water, to the Sanitation District.
 4. Pay \$5,000 per acre/year to the Sanitation District, escalated by the CPI annually, for the land leased for the advanced water treatment facility.

Demonstration-Scale Recycled Water Treatment Plant – Planning and Design Phase (\$15,000,000)

The planning effort will include conceptual layout of the plant, coordination of connections to the Sanitation District facility, identification of permitting requirements, and preparation of a conceptual design report.

Planned design phase activities include field surveys, detailed geotechnical investigations, preparation of environmental documentation, value engineering, local agency permitting, preparation of final construction plans and specifications, receipt of competitive bids, and development of construction cost estimates.

The design approach for the 1 mgd plant will utilize MWD staff, consultants, and in-kind services from the Sanitation District. Staff will initiate a selection process for design consultants with specialized expertise in the design and operation of these types of recycled water facilities. In addition to designing the plant, it is envisioned that the consultant will provide engineering support during construction of the plant, and will provide staff to operate the plant for the initial 12 months of operation and testing. Staff will return to the Board to authorize the consulting agreement for the design phase of the project in February 2016. At the time the construction contract for the plant is awarded, staff may return to the Board to amend the professional services agreement for the construction oversight and operational activities. Metropolitan staff will provide technical oversight of the design effort and will perform design in appropriate areas of the project. The Sanitation District staff will perform design activities within the JWPCP at locations where the demonstration plant will tie into its existing facilities.

This action appropriates \$15 million for design, construction, and one year of operation of the demonstration plant, and authorizes planning and design-phase activities for the plant (**Attachment 3**). The requested funds for the planning and design phase includes \$770,000 for planning and conceptual design, \$1.2 million for design, and \$510,000 for permitting, preparation of environmental documentation, value engineering, and project management. The requested funds for the construction, start-up, operation, and testing are \$11.62 million. The remaining budget is \$900,000. Staff will return to the board in the future for authorization of construction, start-up, operation and testing, and to award the construction contract of the plant.

The total estimated cost for design, construction and one year of operation of the demonstration plant is \$15 million. The demonstration-scale treatment plant will be a capital project under Metropolitan's Capital Investment Plan (CIP). Funds for this project are available within Metropolitan's capital expenditure plan for fiscal year 2015/16.

Project Milestones

February 2016 – Board authorization of agreements for design of the demonstration plant and for feasibility studies

October/November 2016 – Board review of the Financing Plan, the results of the feasibility studies of the delivery system, and the critical process-related information developed during design of the demonstration plant

December 2016 – Board award of construction contract for the demonstration plant; and potential certification of environmental documentation for the full-scale regional recycled water supply program

Policy

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

By Minute Item 42287, dated February 11, 1997, the Board adopted a set of policy principles on water recycling Metropolitan Board Report No. 1373, "2010 Update of Integrated Water Resources Plan", dated October 2010

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves the funding and minor alterations of existing private or public facilities, along with the construction of minor appurtenant structures, with minor modifications in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees. The proposed action also consists of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. These activities would result in negligible expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 3, Class 4, and Class 6 Categorical Exemptions (Sections 15301, 15303, 15304, and 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under four Categorical Exemptions (Class 1, Section 15301; Class 3, Section 15303; Class 4, Section 15304; and Class 6, Section 15306 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is categorically exempt, and

- a. Appropriate \$15 million;
- b. Authorize agreement with County Sanitation District No. 2 of Los Angeles County, substantially in conformance with the terms included in [Attachment 1](#), and in a form approved by the General Counsel, for implementation of a demonstration project and development of a potential regional recycled water supply program; and
- c. Authorize design of a demonstration-scale recycled water treatment plant.

Fiscal Impact: \$15 million in capital funds under Approp. No. 15493

Business Analysis: This option would advance the development of significant water reuse for the recharge of groundwater basins in Southern California, and would augment regional supplies for Metropolitan's entire service area to deal with droughts, climate change, and seismic risks, and to meet IRP resource targets.

Option #2

Do not proceed with the demonstration project or development of a regional recycled water supply program.

Fiscal Impact: None

Business Analysis: This option would forgo an opportunity to develop a significant recycled water resource to meet the increasing need for groundwater and surface reservoir recharge supplies for the improvement of sustainable yields, and to increase the region's water supply to deal with droughts, climate change, and emergencies.

Staff Recommendation

Option #1



Debra Man
Chief Operating Officer

10/28/2015
Date



Jeffrey Kightlinger
General Manager

10/28/2015
Date

Attachment 1 – Term Sheet for Potential Regional Recycled Water Program Agreement with Sanitation District No. 2 of Los Angeles County

Attachment 2 – Location Map

Attachment 3 – Financial Statement

Ref# es12639798

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

GENERAL TERMS

| | |
|--------------------------------|---|
| AGREEMENTS | Program Agreement (“Agreement”) Ground Lease Source Water Agreement |
| PARTIES | Metropolitan Water District of Southern California (“Metropolitan”) County Sanitation District No. 2 of Los Angeles County (“Sanitation District”) |
| EFFECTIVE DATE | Agreement becomes effective on last date of execution of Agreement, Ground Lease and Source Water Agreement (“Effective Date”). |
| TERM | Twenty years from Effective Date |
| PROGRAM INTENT | To produce 150 million gallons per day (“MGD”) of purified water from Sanitation District’s Joint Water Pollution Control Plant (“Joint Plant”) in Carson for groundwater recharge and similar uses |
| PROJECT PHASING | <u>Demonstration Project</u> : approx. 1 MGD capacity, single phase <u>Full-Scale Project</u> : up to 150 MGD capacity, multiple phases |
| SCOPE OF COMMITMENT | <u>Demonstration Project</u> : Binding terms and conditions <u>Full-Scale Project</u> : Proposed terms and conditions only |
| CEQA COMPLIANCE | Metropolitan to act as Lead Agency for Demonstration Project and, if appropriate, for Full-Scale Project. Metropolitan agrees to indemnify Sanitation District for any CEQA-related lawsuits. |
| WORKING COMMITTEE | Parties will establish Working Committee to manage activities and address issues on day-to-day basis. |
| DISPUTE RESOLUTION | Parties will attempt to resolve any disputes in prompt and equitable manner. Parties may pursue litigation if no resolution is reached. |
| INDEMNITY | Reciprocal indemnity provisions based on nature, scope and location of each Party’s activities. |
| INDEPENDENT CONTRACTORS | No partnership or joint venture. Each Party acting as independent contractor. |

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

DEMONSTRATION PROJECT TERMS

TREATMENT FACILITY

- Location** Parties will identify mutually acceptable location within boundaries of Joint Plant for Demonstration Project. Site property will be leased to Metropolitan at no cost.
- Capacity** Demonstration Project anticipated to produce approximately one MGD of purified water. Exact design and configuration determined by Metropolitan in its sole discretion.
- Design and Construction** Metropolitan will permit, design and construct Demonstration Project and any power feeds, raw water supply lines, waste stream lines, and other process lines (“Ancillary Facilities”) within two years of Effective Date. Metropolitan responsible for costs of permitting, design and construction activities, except to extent they are covered by other entities.
- Sanitation District will be responsible for any preexisting hazardous wastes or contaminated soil or groundwater identified during design or encountered during construction. Metropolitan will be responsible for all other construction wastes.
- Ownership and Operation** Metropolitan will be sole owner of Demonstration Project and Ancillary Facilities and will operate and maintain them for duration of Agreement Term. Metropolitan responsible for costs associated with operation and maintenance of the Demonstration Project and Ancillary Facilities.
- Parties may utilize Demonstration Project for public outreach purposes, which may include providing tours of facility.
- Removal of Demonstration Project** At end of Demonstration Project, Sanitation District has right to purchase Demonstration Project and Ancillary Facilities for their salvage value.
- If Sanitation District does not purchase the facilities, then Metropolitan must remove them and return site to pre-project condition within two years of notice from Sanitation District.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

**Permits and
Authorizations**

Metropolitan will secure any permits, authorizations and approvals required to construct and operate Demonstration Project and Ancillary Facilities. Sanitation District will cooperate with Metropolitan in securing such permits, authorizations and approvals.

Utilities

Sanitation District will provide all utility connections and services needed to construct and operate Demonstration Project at no cost to Metropolitan.

SOURCE WATER

General Obligation

Sanitation District will provide secondary effluent from Joint Plant (“Source Water”) in amount sufficient to meet treatment capacity of Demonstration Project at no cost to Metropolitan. Parties will agree on schedule and criteria for delivery of Source Water to Demonstration Project prior to final design.

**Source Water
Facilities**

Construction: Sanitation District will design and construct any facilities necessary to deliver Source Water to Demonstration Project (“Source Water Delivery Facilities”) and any Joint Plant tie-ins (“Tie-In Facilities”) within two years of the Effective Date.

Ownership and Operation: Sanitation District will be sole owner of Source Water Delivery and Tie-In Facilities and will operate and maintain them for duration of Agreement Term.

Permits and Authorizations: Sanitation District will secure any permits, authorizations and approvals required to construct and operate Source Water Delivery and Tie-In Facilities. Metropolitan will cooperate with Sanitation District in securing such permits, authorizations and approvals.

OTHER TERMS

**Distribution and Use
of Purified Water**

Metropolitan will convey all purified water produced by Demonstration Project to suitable location within the Joint Plant, as determined by Sanitation District.

Sanitation District will be responsible for and have discretion over any subsequent distribution, use or disposal of the purified water, and be entitled to any revenues resulting from such distribution, use or disposal.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

**Disposal of Treatment
Residuals**

Sanitation District responsible for disposal of any and all residuals generated by the Demonstration Project (“Treatment Residuals”). Metropolitan will return all Treatment Residuals to suitable location at Joint Plant, as determined by the Sanitation District prior to commencement of final design.

Connection of the Demonstration Project to the Joint Plant will not be considered sewer connection. Sanitation District will not assess any charge or fee on Metropolitan for disposal of Treatment Residuals at Joint Plant.

**Laboratory Analyses
and Data Sharing**

Parties will jointly conduct sampling and laboratory analyses as necessary to monitor and determine treatment efficacy of Demonstration Project. Sanitation District responsible for sampling and laboratory analyses upstream of Demonstration Project; Metropolitan responsible for sampling and laboratory analyses within and downstream of Demonstration Project. Parties will share water quality and process data associated with operation of Joint Plant and Demonstration Project during Agreement Term.

**Development of Full-
Scale Project
Requirements**

Source Water Criteria: Parties will work collaboratively to develop Source Water quality and flow criteria that will ensure cost-effective treatment at any Full-Scale Project facilities constructed during subsequent phases of program. Parties also will meet and confer to develop enhancements to Sanitation District’s industrial wastewater pretreatment program aimed at controlling Source Water contaminants.

Other Studies and Evaluations: Parties will cooperate in conducting and preparing other studies and plans as are necessary to assess economic and technical feasibility, financing needs, right-of-way and permitting requirements, environmental and regulatory compliance obligations, and engineering, construction and operational specifications for the Full-Scale Project.

**Pursuit of Grant and
Loan Funding**

Parties will jointly pursue grant and loan funding in support of Demonstration Project. Any funding received will be distributed based on percentage of design and capital costs contributed by each Party in support of Demonstration Project.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

POTENTIAL FULL-SCALE PROJECT TERMS

TREATMENT FACILITY

- Location** Parties will identify mutually acceptable location within boundaries of Joint Plant for Full-Scale Project, up to 35 acres (“Full-Scale Project Site”). Site property will be leased to Metropolitan for \$5,000 per acre (2015 dollars), with annual CPI adjustment. Lease term will begin when construction commences.
- Capacity** Full-Scale Project anticipated to produce up to 150 MGD of purified water. Parties will agree on maximum capacity for each phase of Full-Scale Project prior to final design for that phase. Exact design and configuration determined by Metropolitan in its sole discretion.
- Design and Construction** Metropolitan will design and construct Full-Scale Project and Ancillary Facilities. Metropolitan responsible for costs of permitting, design and construction activities, except to extent they are covered by other entities.
- Sanitation District will be responsible for any preexisting hazardous wastes or contaminated soil or groundwater identified during design or encountered during construction at the Full-Scale Project Site. Metropolitan will be responsible for all other construction wastes.
- Ownership and Operation** Metropolitan will be sole owner of Full-Scale Project and Ancillary Facilities and will operate and maintain them for duration of Program which is anticipated to have minimum duration of 50 years. Metropolitan responsible for costs associated with operation and maintenance of the Full-Scale Project and Ancillary Facilities.
- Permits and Authorizations** Metropolitan will secure any permits, authorizations and approvals required to construct and operate the Full-Scale Project. Sanitation District will cooperate with Metropolitan in securing such permits, authorizations and approvals.
- Utilities** Except for disposal of treatment residuals, Metropolitan responsible for providing any and all utility connections and services needed to construct and operate the Full-Scale Project.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

SOURCE WATER

General Obligation

Sanitation District will provide Source Water in amount sufficient to meet the treatment capacity of Full-Scale Project as constructed at no cost to Metropolitan.

Prior to final design for each phase of project, Parties will agree on the water quality and flow criteria that will apply to any Source Water delivered to the project during that phase (“Source Water Criteria”). Once these criteria are established, Sanitation District will not make any changes in Joint Plant facilities, operations or design that may significantly adversely affect quality or quantity of Source Water, unless required to meet regulatory requirements. The Parties shall meet and confer in good faith to determine appropriate actions, if changes are required.

Sanitation District will not enter into any agreement to provide secondary-treated effluent to another entity or project that could significantly reduce amount of Source Water available to Full Scale Project without Metropolitan’s consent.

If circumstances beyond control of Sanitation District adversely impact quality or volume of Source Water, its Chief Engineer may temporarily limit amount of Source Water made available to Full-Scale Project. Sanitation District will use best efforts to reestablish availability of Source Water.

Sanitation District not liable for any costs or damages resulting from a temporary interruption in service or limitation of availability of Source Water due to decreased influent flows, operation difficulties, or an inability of Sanitation District to meet NPDES requirements.

Source Water Facilities

Construction: Sanitation District will design and construct any facilities necessary for Source Water Joint Plant Tie-Ins (“Tie-In Facilities”).

Ownership and Operation: Sanitation District will be sole owner of Source Water Tie-In Facilities and will operate and maintain these facilities for the duration of the Agreement Term.

Permits and Authorizations: Sanitation District will secure any permits, authorizations and approvals required to construct and operate the Source Water Tie-In Facilities. Metropolitan will cooperate with Sanitation District in securing such permits, authorizations and approvals.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

**Source Water Control
Program**

Prior to commencement of final design for each phase of Full-Scale Project, Parties shall agree on program for controlling entry of contaminants into Source Water delivered to Full-Scale Project during that phase.

OTHER TERMS

**Distribution and Use
of Purified Water**

Metropolitan will be responsible for and have discretion over any distribution, use or disposal of all purified water produced from Full-Scale Project, except as follows:

- Metropolitan will provide Member Agencies within Sanitation District Joint Outfall service area with right of first refusal to purchase purified water on same terms and conditions as would be offered to Metropolitan's other Member Agencies. Right of first refusal applies solely to amount of purified water estimated to be produced by each phase of Full-Scale Project and must be exercised prior to the commencement of final design for that phase. If excess purified water becomes available from the Full-Scale Project after its construction, Metropolitan will provide Member Agencies within Sanitation District Joint Outfall service area with right of first refusal to purchase such excess on same terms and conditions as would be offered to Metropolitan's other Member Agencies.
- Metropolitan will provide Sanitation District with an allotment of purified water at no cost based on size of Full-Scale Project's treatment capacity: (i) 0 to 60 MGD: 600 AFY; (ii) 61 to 100 MGD: 1,300 AFY; (iii) 101 to 150+MGD: 1,800 AFY. Allotment will be delivered to groundwater basins where Metropolitan has suitable facilities, as directed by the Sanitation District.
- Sanitation District has option to purchase up to 1 MGD of additional purified water at Metropolitan's cost of treatment for Joint Plant uses. Joint Plant uses include those uses identified and implemented during the Demonstration Project. Delivery and use of purified water under this option is responsibility of Sanitation District.

**TERM SHEET FOR POTENTIAL REGIONAL RECYCLED WATER PROGRAM
AGREEMENT WITH SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY**

**Disposal of Treatment
Residuals**

Sanitation District responsible for disposal of residuals generated by treatment of Source Water at the Full-Scale Project (“Treatment Residuals”).

Prior to commencement of final design for each phase of Full-Scale Project, Parties will agree on quantity and quality of Treatment Residuals to be disposed at the Joint Plant during that phase. If anticipated quantity and quality of Treatment Residuals would interfere with Sanitation District’s ability to discharge its waste streams in compliance with applicable laws, rules and regulations, Parties will meet and confer to develop actions within their respective treatment operations to ensure compliance.

Metropolitan will return all Treatment Residuals to suitable locations at Joint Plant, as determined by the Sanitation District prior to commencement of final design for the project.

As needed, Metropolitan will treat non-brine components of Treatment Residuals to standards generally applicable to current industrial waste dischargers.

Connection of the Full-Scale Project to the Joint Plant will not be considered sewer connection. Sanitation District will not assess any charge or fee on Metropolitan for disposal of Treatment Residuals at Joint Plant.

**Laboratory Analyses
and Data Sharing**

Parties will jointly conduct sampling and laboratory analyses as necessary to monitor and determine treatment efficacy of Full-Scale Project. Sanitation District responsible for sampling and laboratory analyses upstream of Demonstration Project; Metropolitan responsible for sampling and laboratory analyses within and downstream of Demonstration Project. Parties will share water quality and process data associated with operation of Joint Plant and Full-Scale Project during term of Program.

**Pursuit of Grant and
Loan Funding**

Parties will jointly pursue grant and loan funding in support of Full-Scale Project. Any funding received will be distributed based on percentage of design and capital costs contributed by each Party in support of Full-Scale Project.

Location Map



Financial Statement for Demonstration-Scale Recycled Water Treatment Plant Appropriation

A breakdown of Board Action No. 1 for Appropriation No. 15493 for the Demonstration-Scale Recycled Water Treatment Plant¹ is as follows:

| | Initial Action No. 1 (Nov. 2015) | New Total Appropriated Amount |
|--|---|--|
| Labor | | |
| Owner Costs (Program mgmt., permitting, bidding) | \$1,480,000 | \$1,480,000 |
| Submittals Review & Record Drwgs | 140,000 | 140,000 |
| Construction Inspection and Support | 750,000 | 750,000 |
| Metropolitan Force Construction | 160,000 | 160,000 |
| Start-Up, Operational Testing and Reporting | 790,000 | 790,000 |
| Materials and Supplies | 100,000 | 100,000 |
| Incidental Expenses | 50,000 | 50,000 |
| Professional/Technical Services | 3,130,000 | 3,130,000 |
| Contracts | 7,500,000 | 7,500,000 |
| Remaining Budget | 900,000 | 900,000 |
| Total | \$ 15,000,000 | \$ 15,000,000 |

Funding Request

| | | | |
|-----------------------------------|---|--------------------------------------|------------------|
| Appropriation Name: | Demonstration-Scale Recycled Water Treatment Plant | | |
| Source of Funds: | Revenue Bonds, Replacement and Refurbishment or General Funds | | |
| Appropriation No.: | 15493 | Board Action No.: | 1 |
| Requested Amount: | \$ 15,000,000 | Budget Page No.: | N/A |
| Total Appropriated Amount: | \$ 15,000,000 | Total Appropriation Estimate: | To be determined |

¹ This is the initial appropriation for the Demonstration-Scale Recycled Water Treatment Plant.