THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- **Board of Directors**
  One Water and Stewardship Committee

1/10/2023 Board Meeting

7-10

Subject

Authorize an agreement with Upper San Gabriel Valley Municipal Water District and the city of South Pasadena for a Stormwater for Direct Use Pilot Program; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA

Executive Summary

Metropolitan seeks to better understand the water supply benefits of stormwater projects. This action requests authorization to enter into a Stormwater for Direct Use Pilot Program (Stormwater Pilot Program) Agreement with Upper San Gabriel Valley Municipal Water District (USGVMWD) and the city of South Pasadena (City) for the South Pasadena City Hall Stormwater Direct Use Project (Project). The Project will capture an estimated 1.15 acre-feet per year (AFY) of stormwater and offset potable water irrigation for on-site landscaping. The City will submit monitoring reports for the first three years after the start of operation. The Project will contribute towards Metropolitan's evaluation and understanding of local stormwater capture projects and their performance in providing regional water supply benefits.

Details

Background

Metropolitan developed the Stormwater Pilot Program to better understand the water supply benefits and assess the performance of stormwater projects. Direct-use projects capture and store rainfall and stormwater runoff on-site and use it to meet non-potable demands. The Stormwater Pilot Program encourages the development of new and retrofitting of existing, direct-use stormwater projects by providing financial incentives for construction and monitoring. The primary purpose is to collect information from several region-wide stormwater projects. The data and operational information collected will provide a better understanding of actual stormwater runoff capture volumes, costs, and project performance. The Pilot Program will help evaluate the potential water supply benefits delivered by stormwater capture projects and provides a basis for possible future funding approaches. To date, Metropolitan has committed $824,800 of funding for two projects under the Pilot Program. The Pilot Program stopped accepting applications on December 31, 2021.

Proposed Project

The Project will capture up to 1.15 acre-feet of stormwater annually from 1.22 acres at South Pasadena City Hall. The Project will install new underground cisterns inside the existing City Hall staff parking lot and drainage improvements in the surrounding area to redirect stormwater runoff to the cisterns. Approximately 93 percent of runoff will be captured in the proposed cisterns. The Project also includes improvements and minor alterations to existing landscaping, and an irrigation system to utilize the stored stormwater for landscape irrigation with solar-powered pumps. The City will own and operate the Project and plans to start operation in August 2023.

Attachment 1 includes the key terms of the proposed Agreement. Subject to approval in form by the General Counsel, key terms include the following requirements:

1. Meter(s) for measurement of capture and use.
2. Offset potable or reclaimed water use.

3. Have an estimated minimum design capture and use of one acre-foot per year.
4. Complete construction, install meters, and start operation within two years from agreement execution.
5. Submit three years of data collection and reporting to Metropolitan.

The Project, described in **Attachment 2**, complies with the criteria adopted by the Board on September 10, 2019, including that Metropolitan's maximum financial obligation is $500,000 for eligible expenses and three years of monitoring and reporting. Staff recommends that the Board authorize the General Manager to enter into a Pilot Program Agreement with USGVMWD and the City to provide funding for Project construction and monitoring.

Policy

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities.

By Minute Item 51734, dated September 10, 2019, the Board authorized $5.0 million for the Stormwater for Direct Use Pilot Program.

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 overall activity involves the funding, design, and installation of equipment within existing public facilities, along with the construction of minor appurtenant structures with negligible or no expansion of use and no possibility of significantly impacting the physical environment. Accordingly, the proposed action qualifies under Class 1 and Class 3 Categorical Exemptions (Sections 15301 and 15303 of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Authorize an agreement with Upper San Gabriel Valley Municipal Water District and the city of South Pasadena for a Stormwater for Direct Use Pilot Program project.

Fiscal Impact: Metropolitan's maximum obligation is $500,000 for eligible Project expenses and three-year monitoring and reporting period. Spending for this project will be managed within the Demand Management Budget.

Business Analysis: The Project would help Metropolitan to achieve the Pilot Program goal of understanding stormwater capture project costs, benefits, and performance and their role in local supply development.

Option #2

Do not authorize an agreement for the Project.

Fiscal Impact: None

Business Analysis: Metropolitan would meet the goals of the Pilot Program with the two previously approved Stormwater for Direct-Use Pilot Program projects.

Staff Recommendation

Option #1

Brad Coffey *1/4/2023*
Brad Coffey *Date*
Manager, Water Resource Management

for *Adel Hagekhalil* 1/4/2023
General Manager *Date*

Attachment 1 – Term Sheet South Pasadena City Hall Stormwater Direct Use Project Stormwater for Direct Use Pilot Program

Attachment 2 –South Pasadena City Hall Stormwater Direct Use Project Stormwater for Direct Use Pilot Program

Ref# wrm12686120

Term Sheet
South Pasadena City Hall Stormwater Direct Use Project
Stormwater for Direct Use Pilot Program

Project Overview

- Project Type: New construction
- Member Agency: Upper San Gabriel Valley Municipal Water District (USGVMWD)
- Sub-Agency: City of South Pasadena (South Pasadena)
- Estimated Stormwater Capture/ Potable or Recycled Water Offset: 1.15 AFY
- Drainage Area: 1.22 acres Targeted Zone: Inland
- Agreement Term: Execution Date to end of Monitoring Period
- Start of Operation Deadline: Two years from Agreement Execution Date
- Monitoring Period: Three full fiscal years following Start of Operation Date

Project Costs

- Estimated Total Project Capital Costs: $1.02 million
- Maximum Metropolitan Contribution: $500,000
    - Capital Costs: $440,000 (up to 50% reimbursement of eligible costs)
    - Monitoring and Reporting: $60,000 ($20,000 per report, total of three reports)
- The estimated capital costs include: (1) Installation of new underground cisterns, (2) Drainage improvements to redirect stormwater runoff to the cisterns, (3) Improvements and minor alterations to existing landscaping, and (4) Inclusion of an irrigation system with solar powered pumps. These capital costs will allow captured water to meet more than 96% of the estimated consumptive water demand of the landscaped area.
- USGVMWD is responsible for all submittals including:
    - Quarterly invoices and progress reports throughout the construction period
    - Annual monitoring report and database collection following start of operation (three-year monitoring period)
- Metropolitan will make all payments directly to South Pasadena.
- Capital incentive payments are based on actual, eligible construction costs and will be paid on a quarterly basis upon Metropolitan verification of eligibility, deliverables, and approval of invoices.
- Monitoring and reporting payments will be made upon Metropolitan review and approval of each submitted monitoring report and database collection.

SOUTH PASADENA CITY HALL STORMWATER DIRECT USE PROJECT

STORMWATER FOR DIRECT USE PILOT PROGRAM

Overview:

The South Pasadena City Hall Stormwater Direct Use Project will capture approximately 1.15 acre-feet of stormwater from 1.22 acres of rooftop and paved parking areas at South Pasadena City Hall. Captured stormwater will be stored in cisterns and will be used to irrigate existing and new landscaping. The city of South Pasadena will own and operate the Project.

Project Facilities:

As part of the agreement, the Project facilities include the installation of new underground cisterns inside the existing City Hall staff parking lot, plus drainage improvements in the surrounding area to redirect stormwater runoff to the cisterns. Water captured by the cisterns will be used to irrigate existing and proposed new landscaping in the parking lots and parkways along adjacent streets totaling 12,400 square feet. The Project also includes improvements and minor alterations to existing landscaping, and an irrigation system to utilize the stored stormwater for landscape irrigation with solar powered pumps.

The long-term daily modeling of the system shows that the proposed cistern will capture 1.15 AFY, or 93%, of the runoff in the Project's proposed drainage area. The consumptive water demand for this landscaped area is estimated at 1.19 AFY. Therefore, the water captured by the cisterns is more than 96% of the estimated consumptive water demand of the landscaped area.

The Project will also monitor stormwater capture and water savings by using flow meters at the inflow to the cisterns, the outflow from the cisterns, and the drawdown pipe to the sanitary sewer. In addition, the Project will monitor water levels in the cisterns to guide system operation, scheduling and drawdown, and as a quality check on the flow monitoring data. Real-time project flow and level monitoring data will be available online.

Source of Water:

Source of water includes stormwater runoff from drains and catch basins located at the Project site location.

Points of Connection:

Project facilities begin at the drain diversion points and end at the irrigation system interties and the nearby sanitary sewer connection.