



- Board of Directors  
*Water Planning and Stewardship Committee*

10/8/2019 Board Meeting

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9-3

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## Subject

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Information on Stormwater for Recharge Pilot Program

### Executive Summary

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Metropolitan seeks to better understand the water supply benefits of stormwater projects. Additional research and data on actual stormwater projects are needed to assess project performance and potential benefits. The proposed Stormwater for Recharge Pilot Program (Recharge Pilot) encourages development and monitoring of new and existing stormwater projects by providing financial incentives for project construction/retrofit and monitoring/reporting costs. The primary purpose of the Recharge Pilot is to collect data from several stormwater projects from across the service area to gain a better understanding of the relationship between stormwater capture and the water supply benefit (yield) by measuring actual stormwater runoff capture volumes and demonstrating how the captured stormwater recharges the usable groundwater. The Recharge Pilot will help evaluate the potential water supply benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches.

### Details

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#### Background

Metropolitan's 2015 Integrated Water Resources Plan (IRP) Update calls for the development of a diverse resource portfolio through local supply projects – including recycled water, groundwater recovery, seawater desalination, and stormwater capture. Metropolitan has played an active role in the development of those local supplies through different approaches and programs developed over the years. Since 1982, Metropolitan has provided incentives to its member agencies to develop local projects through the Local Resources Program (LRP). Local stormwater capture projects currently are not funded through the LRP, due in part to the need for a better understanding of the connection between captured stormwater and yield.

In 2018, the Southern California Water Coalition published a Stormwater Whitepaper Update that detailed benefits and challenges associated with stormwater development. Although stormwater projects deliver multiple benefits such as supply yield, flood mitigation, habitat creation, and water quality improvements, some of the main challenges with developing stormwater projects are related to costs, metering, and data collection. Stormwater capture projects are expensive to construct, operate, and maintain. In addition, it can be difficult to secure available funding to help offset the capital investment. Furthermore, the relationship between stormwater capture and yield has not been extensively analyzed. With respect to metering, very few projects are monitored, due to expensive flow monitoring devices and/or insufficient staff resources. In addition, most projects don't demonstrate a direct link to increased groundwater production or yield. This limits the ability to fully characterize stormwater capture project costs or to quantify the water supply benefit.

#### Proposed Stormwater for Recharge Pilot

Stormwater recharge projects capture stormwater for groundwater recharge and future production. Some examples of recharge projects include stormwater capture through centralized spreading basins, dry wells, or infiltration galleries.

In an effort to gain a better understanding of the relationship between stormwater capture and yield, staff is proposing a Recharge Pilot to encourage the development and monitoring of new and existing stormwater projects. The proposed Recharge Pilot would provide funding for both new construction and installation of monitoring equipment to evaluate the relationship between stormwater capture and yield. Metropolitan proposes to fund projects under the Recharge Pilot at a cost that may be higher than if funded solely for their actual water supply yield. Staff recognizes that Metropolitan funding will only cover a portion of the cost of these projects. Project proponents will likely need to pull together multiple funding sources to cover project costs.

#### *Proposed Criteria*

Staff proposes a \$7.5 million Recharge Pilot to provide funding for installation of monitoring equipment or new construction and a minimum of three years of monitoring of stormwater recharge project (**Attachment 1**). The Recharge Pilot is designed with the intent of capturing a diverse set of data from existing, active projects, and from new, potentially larger-scale projects. Once approved, a project would be given up to one year for the installation of monitoring equipment or three years for new construction. The Recharge Pilot would be open to public and private (non-residential) locations, and each project would need to be supported by its member agency. For each approved project, Metropolitan would enter into an agreement with the member agency and the project owner. During the monitoring period, participants would be required to submit annual monitoring reports capturing the monitoring data collected and costs incurred in that year. Monitoring reports would be due at the end of each fiscal year, for a minimum of three reports. Upon mutual agreement, Metropolitan may fund additional years of reporting, if needed.

In an effort to gather data from several region-wide stormwater projects, staff proposes to select projects based on a first-come, first-served basis conforming to program criteria detailed in **Attachment 1**. A maximum of 10 projects will be funded.

#### *Proposed Funding Structure*

Staff proposes to provide funding for existing projects to install monitoring equipment in two components: installation of monitoring equipment and ongoing monitoring/reporting. The first component would offset the upfront costs associated with installing monitoring equipment, such as meters, monitoring wells, lysimeters, or performing groundwater modeling. Under this component, a project would be eligible to receive reimbursement of up to \$350,000 of eligible project costs (i.e., materials and construction/installation). The second component is to help with the required monitoring and reporting for this pilot. Because there are expected to be multiple monitoring points, a payment of \$50,000 per report would be provided to cover the additional time and effort required to produce the data needed for this Recharge Pilot. A retrofit project would be eligible to receive a maximum funding amount of the sum of the monitoring installation and monitoring/reporting components, capped at \$500,000.

Similarly, staff proposes to provide funding for construction of new stormwater recharge projects in two components: construction and monitoring/reporting. For the first component, a project would be eligible to receive reimbursement of up to 50 percent of eligible project costs (materials, and construction) with a cap of \$850,000. For the monitoring and reporting component, the same payment of \$50,000 per report would be provided. In total, a new construction project would be eligible to receive a maximum funding amount of the sum of the construction and monitoring/reporting components, capped at \$1,000,000.

#### *Outreach*

If approved by the Board, the Recharge Pilot would begin accepting recharge project applications starting March 1, 2020, for a two-year period, or until funding is fully committed, whichever is earlier. A maximum of 10 stormwater recharge projects will be funded.

The Recharge Pilot will provide information to help evaluate the water supply benefits of stormwater capture projects. Providing funding to offset construction and monitoring costs reduces a key constraint in project development and the ability to quantify stormwater capture.

**Next Steps**

Staff will incorporate feedback received from the Committee and member agencies and bring the item back for action in the coming months.

**Policy**

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By Minute Item 50358, dated January 12, 2016, the Board adopted the 2015 Integrated Water Resources Plan Update.

By Minute Item 50883 and as set forth in Board Letter 8-2, dated July 11, 2017, the Board adopted revised Policy Principles guiding Metropolitan's role in regional implementation of Integrated Water Resources Plan targets for local resources and conservation.

**Fiscal Impact**

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Funding of up to \$7.5 million, currently budgeted under the Local Resources Program budget (Water Stewardship fund), would be utilized for the Pilot.

  
Brad Coffey  
Manager, Water Resource Management

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9/24/2019  
Date

  
Jeffrey Lightlinger  
General Manager

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9/26/2019  
Date

**Attachment 1 – Proposed Stormwater for Recharge Pilot Program Criteria**

Ref# wrm12672585

## Proposed Stormwater for Recharge Pilot Program Criteria

- Budget: \$7.5 million
- Program Start: March 1, 2020
- Participation: Public/private sites (non-residential)
- Project must:
  - Measure capture and recharge
  - Demonstrate how stored water recharges usable groundwater
  - Show how the project will increase groundwater production or decrease Metropolitan demand
  - Increase total recharge to the groundwater basin and does not impact downstream users
  - Have the right to capture and recharge stormwater in the area of the proposed project
  - Have an estimated capture of at least 40 acre-feet per year
  - Be within Metropolitan’s service area
  - Be new water
    - Must have right to capture water
    - Increases total recharge to a groundwater basin and decreases flows to the ocean
    - Does not impact downstream users.
  - Submit a minimum of three annual monitoring reports
- Application period: March 1, 2020 – December 31, 2021, or until funds fully committed.
- Maximum of 10 projects
- Provide funding for:
  - Monitoring Equipment Installation – installation of monitoring equipment including meters, monitoring wells, lysimeters or groundwater modeling and reporting of stormwater recharge of existing stormwater projects
  - New Construction – construction and monitoring/reporting of new stormwater recharge projects

Project Type	Funding Components	
	Installation/Construction	Monitoring and Reporting
<b>Monitoring Equipment Installation</b>	Up to \$350,000 for eligible costs (material and installation)	\$50,000/report
<b>Capped at \$500,000</b>		
<b>New Construction</b>	Up to 50% reimbursement of eligible costs (material and construction)	\$50,000/report
<b>Capped at \$1,000,000</b>		