



● Board of Directors  
*Water Planning and Stewardship Committee*

8/20/2019 Board Meeting

---

**9-2**

## **Subject**

---

Information on Stormwater for Direct Use Pilot Program

## **Executive Summary**

---

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 Direct Use Pilot Program (Pilot Program) encourages development and monitoring of new and existing direct use stormwater projects by providing financial incentives for project construction/retrofit and monitoring/reporting costs. The primary purpose of the Pilot Program is to collect data from several region-wide stormwater projects to gain 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 provide a basis for potential future funding approaches.

## **Details**

---

### **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 water supply 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 typically expensive to construct, operate, and maintain. In addition, it is difficult to secure available funding to help offset the capital investment. Furthermore, the relationship between stormwater capture and water supply yield has not been extensively analyzed. With respect to metering – very few projects are monitored, either due to expensive flow monitoring devices and/or insufficient staff resources. This limits the ability to fully characterize stormwater capture project costs or to quantify the water supply benefit.

### **Proposed Stormwater for Direct Use Pilot Program**

Direct use projects capture and store rainfall and stormwater runoff on-site and use it to meet non-potable demands (not for recharge). Some examples of direct use projects include stormwater capture through cisterns or permeable pavement with an underground collection system, which then use the captured water for on-site irrigation.

In an effort to gain a better understanding of actual costs, capture, and reuse of stormwater, staff is proposing a Pilot Program to encourage the development and monitoring of new and existing stormwater projects by providing funding for construction/retrofit and reporting of stormwater capture and reuse. For the purpose of collecting data to understand project performance and examine the potential benefits, Metropolitan proposes to fund projects under the Pilot Program at a cost higher than if funded solely for their actual water supply yield.

#### *Proposed Criteria*

During the development process, staff looked at various programs Metropolitan currently offers and selected the best elements from these programs to develop the framework for the proposed Pilot Program (**Attachment 1**).

Staff proposes a \$5 million Pilot Program to provide funding for constructing/retrofitting and three-year monitoring of direct use stormwater capture projects. The Pilot Program is designed with the intent of capturing a diverse set of data from existing, active projects, and from new, potentially larger-scaled, projects. The Pilot Program would provide funding for: (1) existing stormwater projects (that do not currently meter) to retrofit their sites to include flow monitoring, and (2) construction of new direct use stormwater capture projects.

Additionally, Metropolitan would also provide funding for a three-year monitoring and reporting period following construction/retrofit completion. Once approved, a project would be given up to one year for retrofit or two years for new construction.

The Pilot Program would be open to public and private (non-residential) sites, and each project would need to be supported by its member agency. Eligible sites include schools, parks, golf courses, industrial/commercial sites, and cemeteries. 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.

To be eligible to participate in the Pilot Program, projects must:

- Include meter(s) for measurement of capture and reuse;
- Offset potable water use;
- Be within Metropolitan's service area;
- Have an estimated minimum capture and reuse of one acre-foot per year; and
- Submit original project construction costs at the time of application (retrofit projects only).

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**).

#### *Proposed Funding Structure*

Staff proposes to provide funding for retrofit projects in two components: construction and monitoring/reporting. The first component would offset the upfront costs associated with retrofitting a project to include flow monitoring. Under this component, a project would be eligible to receive reimbursement of up to \$100,000 of eligible project costs (i.e., design, materials, and construction/installation). The second component is to help with the required monitoring and reporting for this pilot. Based on average reporting costs identified in project proposals submitted for other Metropolitan programs, a payment of \$20,000 per report would be provided to cover the additional time and effort required to produce the data needed for this Pilot Program. A retrofit project would be eligible to receive a maximum funding amount of the sum of the construction and monitoring/reporting components, capped at \$160,000.

Similarly, staff proposes to provide funding for construction of new stormwater capture and reuse 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 (design, materials, and construction). For the monitoring and reporting component, the same payment of \$20,000 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 \$500,000.

The table below summarizes potential program structure:

	Retrofit Projects	New Construction Projects
Maximum Funding Amount	\$160,000	\$500,000
Construction Period	Up to one year	Up to two years

#### *Outreach*

In anticipation of the application period, Metropolitan staff will meet with member agencies to coordinate outreach and develop targeted marketing materials for the program for distribution within their service area. The Pilot Program would begin accepting retrofit and new construction project applications starting January 1, 2020, for a two-year period, or until funding is fully committed, whichever is earlier.

The Pilot Program 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 volumes. Furthermore, the monitoring and reporting component will provide necessary data to evaluate the potential water supply benefits delivered by stormwater capture projects.

#### **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**

---

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.

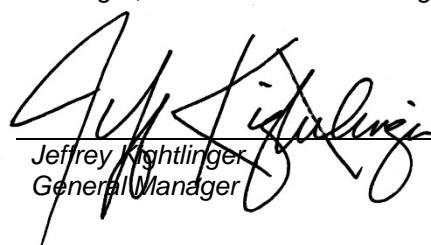
#### **Fiscal Impact**

---

Funding of up to \$5 million, currently budgeted under the Local Resources Program budget (Water Stewardship fund), would be utilized for the Pilot Program.

  
 Brad Coffey  
 Manager, Water Resource Management

7/29/2019  
 Date

  
 Jeffrey Nightlinger  
 General Manager

8/1/2019  
 Date

#### **Attachment 1 – Proposed Stormwater for Direct Use Pilot Program Program Criteria**

**Proposed Stormwater for Direct Use Pilot Program  
Program Criteria**

- Budget: \$5.0 million
- Program Start: January 1, 2020
- Participation: Public/private sites (non-residential)
- Project must:
  - Include meter(s) for measurement of capture and reuse
  - Offset existing potable water use
  - Be located within Metropolitan's service area
  - Capture and reuse at least one acre-foot per year
  - Submit original project construction costs at time of application (retrofit projects only)
- Projects must submit a minimum of three annual monitoring reports; additional reports may be negotiated if more years of information are needed
- Application period: January 1, 2020 – December 31, 2021, or until funds fully committed
- Provide funding for:
  - Retrofit – installation of monitoring equipment and reporting of stormwater capture and reuse of existing direct use stormwater capture projects
  - New Construction – construction and monitoring/reporting of new direct use stormwater capture projects

Project Type	Funding Components	
	Construction/Installation	Monitoring & Reporting
Retrofit	Up to \$100,000 for eligible costs (design, material, installation)	\$20,000/report
<b>Capped at \$160,000</b>		
New Construction	Up to 50% reimbursement of eligible costs (design, material, construction)	\$20,000/report
<b>Capped at \$500,000</b>		

Projects will be sought in three separate climate zones in Metropolitan's service area.

