



Information on Stormwater for Recharge Pilot

Water Planning and Stewardship Committee

Item 9-3

October 7, 2019

Understanding of Stormwater

Where we've been

Stormwater capture
and flow to the
ocean

- How much stormwater do we capture?
- How much goes to the ocean?

SCWC Stormwater
White Paper

- How much does stormwater cost?

Governance and
Regulatory
Framework

- What are the external drivers that impact Metropolitan participation in stormwater projects?

Understanding of Stormwater

Where we're going

How can
Metropolitan
incentivize
stormwater
projects?

- Direct Use Pilot
 - Approved by Board last month
- Stormwater Recharge Pilot
 - What is the relationship between capture and yield?
 - Roll-out of proposed Stormwater Recharge Pilot criteria

Outline for Proposed Stormwater Recharge Pilot

- Prior Discussions and Feedback Received
 - C&LR Committee
 - Member Agency Managers
- Capture vs. Yield
- Example project
- Proposed Stormwater Recharge Pilot Criteria

Prior Discussions & Feedback Received

- C&LR Committee
- Member Agency Managers

Consider longer monitoring period

Consider limiting projects by regional board areas and groundwater basins

Consider including technical assistance

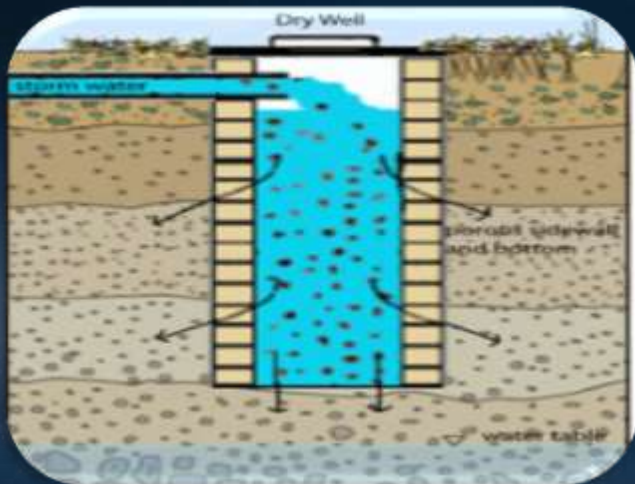
Consider program criteria modifications

Types of Stormwater Recharge Projects

Infiltration gallery



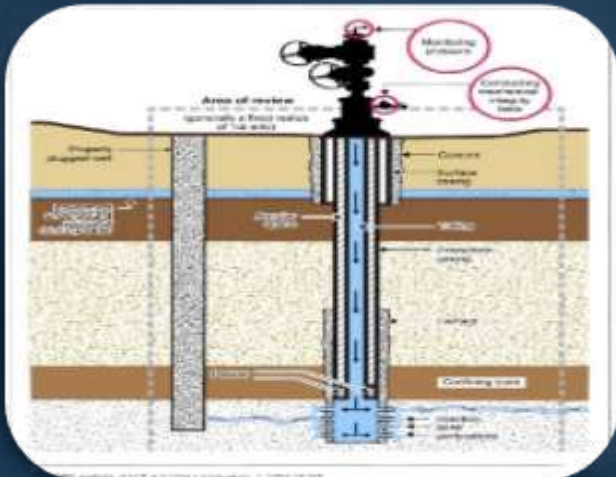
Dry well



Spreading grounds



Injection well



Capture vs. Yield

Capture



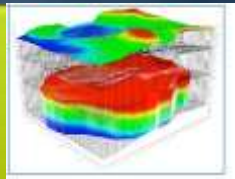
Infiltration



Recharge

Monitoring

Wells, lysimeters, modeling



Production

Basin manager approves additional pumping



Yield



Increased production above baseline

OR

Reduced demand on MWD

Groundwater Basin

Example Project

Broadway Neighborhood Stormwater Greenway Project

Example: Broadway Project Location



Example: Broadway Neighborhood Stormwater Greenway Project

- Diverts and treats storm drain flow from 51 acres of drainage area
- Total capacity: 41 AFY



Infiltration gallery

Example: Broadway Neighborhood Stormwater Greenway Project

- 94 AF was captured over the 3 year monitoring period:
 - Infiltration gallery: 74 AF
 - All eight dry wells: 20 AF

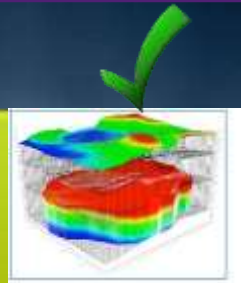


Example: Broadway Project

Capture



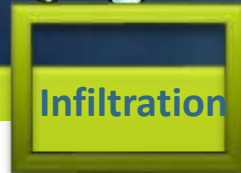
Monitoring



Yield



Infiltration



Production

Basin manager approves additional pumping

LADWP

94
AF

X
AF

Recharge

IN PROCESS

Central Groundwater Basin

Proposed Stormwater Recharge Pilot Criteria

Stormwater Recharge Pilot

Proposed Eligibility Requirements

- Open to all member agencies
 - **Non-MWD agencies must partner with MAs**
- Public/private sites (non-residential)
- New construction or monitoring equipment installation projects



Stormwater Recharge Pilot

Proposed Program Criteria

Must have an estimated capture of at least 40 AFY

Must be new water

Must be within Metropolitan's service area

Must have right to capture water

Increases total recharge to basin and decreases flow to ocean

Does not impact downstream users

Stormwater Recharge Pilot

Proposed Project Criteria – Regional Distribution

- No more than 5 projects from any Regional Board area
- No more than 2 projects per groundwater basin
- Additional projects will be placed on a waiting list



Stormwater Recharge Pilot

Proposed Program Criteria - Monitoring & Reporting

- Collect at least 3 years of monitoring data
 - Measure capture and recharge
 - Demonstrate how stored water recharges usable groundwater
 - Show how groundwater production will increase
 - Assess cost data related to water supply
- Submit at least 3 annual reports



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Pilot Program Elements

Proposed Budget

- Up to 10 projects
- \$7.5 million
- Maximum of \$1 million/new construction (including monitoring)
- Maximum \$500,000 per monitoring retrofit installation



Proposed Duration

- Anticipated start: March 2020
- New project construction: must be online in 3 years
- Monitoring installation: must be online in 1 year
- Minimum monitoring for all projects: at least 3 years



Proposed Funding Structure

New Construction Projects

Construction

Up to 50% (1:1 match)
of eligible project costs
(e.g. construction,
metering, monitoring
etc.)

+

Monitoring & Reporting

Up to \$50,000/report
(at least 3 reports)

Capped at \$1,000,000/project

Proposed Funding Structure

Monitoring Equipment Installation Projects

Installation

Up to \$350,000 of eligible project costs (e.g. metering, monitoring wells, modeling, etc.)

+

Monitoring & Reporting

Up to \$50,000/report (at least 3 reports)

Capped at \$500,000/project

Proposed Pilot Program Implementation

Approval

- Application
- Agreement

Construction
or
Installation

- New: 3 years
- Monitoring
Installation: 1 year

Monitoring

- At least 3
years

Updates

- Board updates

Stormwater Recharge Pilot

Proposed Outreach & Application Period

- Outreach
 - Member Agency Managers Meeting
- Application Period



Next Steps

- Incorporate feedback from the Committee
- Follow up with written action item to WP&S Committee

