



Stormwater Capture and Aquifer Recharge

Background

In 2011, the State Water Resources Control Board (SWRCB) adopted [Resolution No. 2017-0012](#), "A Comprehensive Response to Climate Change." In the resolution, the SWRCB noted the effects of climate change, including increasing frequency of extreme weather events, prolonged fire seasons with larger and more intense fires, increased tree mortality, heat waves, sea-level rise, and storm surges. They also listed changing hydrological conditions in California, including declining snowpack, more frequent and longer droughts, changing water supplies, and increasing subsidence. To adapt to climate change, the Resolution calls for managing stormwater as a resource:

Storm water capture and use provides flood protection, augments local water supplies, and increases water supply reliability as a climate adaptation strategy, in addition to water quality benefits, and enhanced aquatic habitats. Division of Water Quality (DWQ) shall collaborate with the Department of Water Resources, and other state and local land use agencies to prioritize storm water detention and infiltration.

In 2014, SB 985 (Pavley) amended the Water Code to state that stormwater and dry weather runoff are "underutilized sources of surface water and groundwater supplies. Instead of being viewed as a resource, they are often seen as a problem that must be moved to the ocean as quickly as possible or as a source of contamination, contributing to a loss of usable water supplies and the pollution and impairment of rivers, lakes, streams, and coastal waters.... When properly designed and managed, the capture and use of stormwater and dry weather runoff can contribute significantly to local water supplies through onsite storage and use, or letting it infiltrate into the ground to recharge groundwater, either onsite or at regional facilities, thereby increasing available supplies of drinking water....The capture and use of stormwater and dry weather runoff is not only one of the most cost-effective sources of new water supplies, it is a supply that can often be provided using significantly less energy than other sources of new water supplies" (Water Code Section 10561). SB 985 also required the development of a stormwater resource plan as a condition of receiving grants for stormwater and dry weather runoff capture projects from Proposition 1.

In 2016, the SWRCB released a [comprehensive Strategy to Optimize Resource Management of Stormwater \(STORMS\)](#). STORMS includes a 10-year vision and mission, and a 3-phased

approach to establishing the value of storm water as a resource in California and encourage its application to beneficial uses. Specifically, the SWRCB intends to lead the evolution of stormwater management by supporting policies for collaborative watershed-level stormwater management and pollution prevention, removing obstacles to funding, and addressing regulatory challenges to using stormwater as a resource. The Storm Water Strategy assists in achieving many of the actions identified in the [California Water Action Plan](#) by promoting multiple benefit projects where stormwater is treated as a resource to be captured and used; therefore resulting in increased flood protection, integrated water management, protection of important ecosystems, and improvement of groundwater management.

The Commission will hear presentations from a panel of individuals involved in stormwater capture and aquifer recharge projects, including:

Jeffrey Albrecht, Project Manager, SWRCB STORMS unit, will describe the background of STORMS, the STORMS projects that intersect with the Water Commission's interests, and opportunities to support mutual objectives. He will describe stormwater control measures, projects to estimate the volume of stormwater captured and infiltrated, water rights issues, and the role of Stormwater Resource Plans.

Heather Cooley, Pacific Institute Research Director, will describe the Institute's recent reports on the potential for stormwater capture, policy issues, and funding opportunities, as well as a recent study of commercial landscape potential for stormwater capture.

Keith Lilley, Assistant Deputy Director for Stormwater Planning, Los Angeles County Department of Public Works, will describe the County's use of spreading grounds to allow stormwater to percolate into groundwater basins.

Don Bunts, Deputy General Manager, Santa Margarita Water District, will describe the District's projects to capture flood flows in the San Juan Watershed for groundwater infiltration.

This is an informational item.

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