Senator Angelique V. Ashby, 8th Senate District

SB 659 – Groundwater Recharge Action Plan

Allows DWR to provide recommendations for additional groundwater recharge capacity

SUMMARY

According to a Department of Water Resources (DWR) study,[1] groundwater recharge has the potential to meet more than 13 million acre-feet of California's water storage needs per year.

SB 659 seeks to build off this study by allowing the Department of Water Resources to provide actionable recommendations for increased groundwater recharge opportunities, which will allow California to stabilize our groundwater supply and ensure our systems are prepared for the impacts of climate change.

BACKGROUND

According to the Public Policy Institute of California, groundwater recharge is an important water management practice in California.[2]

Groundwater is a critical component of the state's water storage, accounting for up to 60% of the state's total water supply during a drought. During the recent series of storms across California, groundwater recharge has been taking place naturally as water seeps into the ground, greatly benefiting our unseen aquifers.

Groundwater is heavily relied upon by communities, agriculture, and the environment. This can be sustainable, but only with sufficient groundwater recharge systems in place to allow recharge in wet years. This approach will allow for better management of weather extremes and adapt to the increasingly intense wet and dry periods that we so often face.

Water for groundwater recharge projects can come from many different sources, such as surface water, storm water runoff, recycled water, or remediated groundwater. This can then be recharged into the aquifer by way of percolation basins, canals, natural drainages, injection wells, or conjunctive use.

The idea of using groundwater aquifers to manage and store water below ground has been successful in multiple areas across the state – programs for managed recharge of groundwater aquifers have been in place for decades in Orange County, Santa Clara Valley, Sacramento County, and Kern County, to name a few.

Groundwater recharge is an important tool for sustainable groundwater management and recovery from groundwater depletion. The ability in wet times to store water underground to be used in dry years is central to the ability to conjunctively manage groundwater and surface water supplies.

Groundwater recharge projects can also provide multiple benefits, such as reducing flood risk, storing water for future droughts, maintaining agricultural productivity or domestic water use, improved management for the environmental flows, and sustaining groundwater-dependent ecosystems.

Groundwater basins have the ability to hold approximately 20 times more water than the state's total surface water storage and reservoirs. Recharge is a key action in the Governor's "Water Supply Strategy: Adapting to a Hotter, Drier Future"[3] that was released in August 2022, outlining the necessary strategies to secure a more reliable water supply in the face of worsening climate change.

California is committed to expediting groundwater recharge to maximize the capture of storm water and the potential of the natural underground water storage capacity, but in order to meet this commitment it is imperative that a goal is set for the state to begin working towards.

THE PROBLEM

In 2021 and 2022, DWR awarded $68 million to 42 groundwater recharge projects that provide nearly 117,000 acre-feet of potential recharge capacity. However, this is not nearly enough to curb the impacts of climate change on our water supply.

According to the Water Supply Strategy report, California will lose approximately 7.5 million acre-feet per year by 2040. Climate change is bringing

[1] Water Available for Replenishment Report

[2] PPIC Groundwater Recharge Fact Sheet

[3] Water Supply Strategy: Adapting to a Hotter, Drier Future

warmer temperatures, reduced snowpack (which historically held one-third of seasonal water storage), more volatile precipitation, more intense droughts, and higher runoff.

California's aquifers have much more storage capacity than its surface reservoirs, and storing more water underground can help water users adapt to the loss of snowpack and increased flood risk.

However, current storage and conveyance infrastructure, as well as operational and regulatory practices, are not primed to take advantage of water available for recharge, especially during wet years. Active recharge on farmland could significantly increase if local agencies adopted formal accounting systems, as groundwater banks do.

In the midst of this winter's atmospheric rivers, Governor Newsom ordered 600,000 acre-feet of the state's anomalously high river flows diverted to groundwater recharge and storage in the Central Valley. Along with other supply-side efforts, including the Governor's decision last year to increase annual groundwater recharge by at least 500,000 acre-feet a year, the state could slow current rates of groundwater depletion by as much as 25%.

However, such orders won't guarantee California's future water security. That depends on the timely and successful implementation of the Sustainable Groundwater Management Act (SGMA), which set 2042 as the target date.

Absent specific objectives for halting groundwater depletion, California will have a difficult time meeting this 2042 timeline, and while well-intentioned, the lack of incremental goals throughout SGMA is slowing down the implementation of groundwater recharge that California so desperately needs.

SB 659 bolsters SGMA to allow DWR to create a goal for the state that everyone can begin working towards, before California's water supply is too far gone.

THE SOLUTION

Due to climate change, a substantially increased groundwater supply is essential to create a reliable supply of water for the environment, our communities, and California industries.

As Governor Newsom's proposed 2023-24 budget summary states, groundwater recharge is "one of the core pillars of the Water Supply Strategy," and by setting a goal to create additional groundwater recharge capacity, SB 659 works directly in tandem with this core pillar to ensure California meets the moment.

SUPPORT

- Regional Water Authority (sponsor)
- California Association of Winegrape Growers (sponsor)
- American Pistachio Growers
- Associated General Contractors of California
- Association of California Egg Farmers
- Association of California Water Agencies (ACWA)
- California Apple Commission
- California Association of Pest Control Advisors
- California Association of Realtors
- California Association of Wheat Growers
- California Avocado Commission
- California Bean Shippers Association
- California Blueberry Association
- California Blueberry Commission
- California Builders Alliance
- California Chamber of Commerce
- California Citrus Mutual
- California Cotton Ginners and Growers Association
- California Fresh Fruit Association
- California Grain & Feed Association
- California Groundwater Coalition
- California Pear Growers
- California Seed Association
- California State Floral Association
- California Walnut Commission
- City of Roseville
- City of Sacramento
- CivicWell
- Clean Water Action
- Community Water Center
- Eastern Municipal Water District
- El Dorado County Water Agency
- Family Winemakers of California

- Far West Equipment Dealers Association
- Irvine Ranch Water District
- Leadership Counsel for Justice and Accountability
- Northern California Water Association
- Olive Growers Council of California
- Pacific Egg & Poultry Association
- Plant California Alliance
- Rancho California Water District
- Sacramento Area Council of Governments
- Sacramento Metropolitan Chamber of Commerce
- Sacramento Regional Builders Exchange
- Sacramento Suburban Water District
- Sonoma County Water Agency
- Sustainable Conservation
- The Nature Conservancy
- Turlock Irrigation District
- Water Replenishment District of Southern California
- Western Agricultural Processors Association
- Wine Institute

FOR MORE INFORMATION

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