



ASSEMBLY COMMITTEE ON WATER, PARKS, AND WILDLIFE
OUTCOMES REVIEW OVERSIGHT HEARING

Outcomes Review: AB 658 (Arambula), Chapter 678, Statutes of 2019
Water rights: water management
9:00 AM, Tuesday, March 10, 2026
State Capitol, Room 444

BACKGROUND PAPER

I. INTRODUCTION

This paper provides background for the Outcomes Review hearing on AB 658 (Arambula), Chapter 678, Statutes of 2019, that established a five-year permit for groundwater recharge. Interest in encouraging and expanding groundwater recharge increased significantly following the 2012-16 drought and the passage of the Sustainable Groundwater Management Act (SGMA) of 2014. The State Water Resources Control Board (State Water Board) is the primary state agency with responsibility to implement AB 658 and issued the first permit under AB 658 in 2023.¹

The purpose of the Outcomes Review process is to assess, review, and improve implementation of key enacted legislation to ensure that the laws passed by the Legislature continue to improve the lives of Californians.² To this end, the Committee will hear testimony about AB 658's outcomes from key stakeholders, including representatives from the State Water Board and groundwater management agencies that have received AB 658 permits.

¹ https://www.waterboards.ca.gov/press_room/press_releases/2023/pr01132023-Board-issues-first-five-year-temporary-groundwater-recharge-permit.html

² "Speaker Rivas Announces First-Of-Its-Kind 'Outcomes Review' Legislative Oversight Tool to Enhance Impacts of Laws," <https://speaker.asmdc.org/press-releases/20260203-speaker-rivas-announces-14-assembly-lawmakers-first-its-kind-outcomes>.

II. HISTORY AND IMPLEMENTATION OF AB 658

Groundwater is an important source of supply for California's communities, economy, and diverse natural resources. Groundwater recharge occurs when water on the earth's surface percolates down through layers of soil and earth into aquifers. Recharge occurs naturally when it rains and when water moves through rivers, streams, and creeks. It can also occur through active management when individuals or agencies divert water from a waterway to farmland or a settling basin where the water can gradually percolate down into the aquifer. Rates of recharge vary by soil type and conditions, but it is generally not a rapid process. Active groundwater recharge requires advance planning and infrastructure to be successful.

Interest in expanding groundwater recharge has increased since the passage of SGMA in 2014. In a 2020 study reviewing groundwater sustainability plans (GSP) developed under SGMA and submitted for critically overdrafted basins in the San Joaquin Valley, the Public Policy Institute of California (PPIC) shows that, collectively, the GSPs intend to recharge nearly 1 million acre-feet (MAF) of water annually to address groundwater overdraft.³ This is significant given that PPIC estimates that groundwater overdraft in the San Joaquin Valley for the 1987-2017 period was nearly 2 MAF annually.⁴ PPIC notes there are challenges to realizing the goal of recharging this amount of water on an annual basis, but the analysis does show the strong interest in recharge to address groundwater overdraft.

The importance of groundwater recharge has also been recognized in numerous state plans and strategies:

- *The California Water Plan: Update 2023* – see Recommendations (and associated sub-actions) 2.1, 3.1, 3.3, 4.2, and 6.2.
- Governor Newsom's *California's Water Supply Strategy: Adapting to a Hotter, Drier Future* (August 2022) – see Action 2.1 that calls for an increase in annual groundwater recharge of 500,000 AF.
- *Water Resilience Portfolio* (2020) – see Actions 3, 5, 11, and 16.
- *The California Water Action Plan* (2014) – see Actions 2, 4, and 6.

A water right or permit is required to capture water during high-flow or flood events and store it for later use. A permanent right takes a great deal of time and resources to obtain; as a result, many entities interested in groundwater recharge have pursued a temporary (180-day) permit instead. Whether pursuing a permanent (a process that can take more than seven years) or temporary permit, stakeholders have expressed frustration with the permitting process for

³ Ellen Hanak, Jelena Jezdimirovic, Alvar Escriva-Bou, Andrew Ayres, *A Review of Groundwater Sustainability Plans in the San Joaquin Valley*, (San Francisco: PPIC, 2020), 6.

⁴ *Ibid*, 1.

groundwater recharge. A 2023 survey on groundwater recharge in the San Joaquin Valley conducted by PPIC indicates that 32% of respondents report a “permitting or regulatory barrier” to implementing groundwater recharge projects (contrast with 49% of respondents that report an “infrastructure” barrier and 23% that report a “cost or funding barrier”).⁵

Prior legislative efforts. In addition to AB 658, several bills to encourage groundwater recharge and address associated permitting challenges have been introduced over the past decade or so. These efforts include:

- AB 647 (Eggman) of 2015 and AB 1427 (Eggman) of 2018 were substantially similar and sought to define the storing of water underground as a beneficial use; due to controversy over this approach, neither bill advanced through the legislative process.
- AB 2649 (Arambula) of 2018 was substantially similar to AB 658 until it was amended late in the legislative process to address State Water Project contracts.
- SB 122 (Committee on Budget and Fiscal Review), Chapter 51, Statutes of 2023, codified an executive order by Governor Newsom that allows the diversion of “floodflows” for purposes of groundwater recharge without a permit; entities that take advantage of SB 122 do not gain a right to the water diverted.
- AB 830 (Soria) of 2023 and AB 2060 (Soria) of 2024 attempted to exempt groundwater recharge projects from obtaining a Lake and Streambed Alteration Agreement from the Department of Fish and Wildlife (DFW); neither AB 830 nor AB 2060 were enacted.
- SB 1390 (Caballero) of 2024 proposed changes to the authority to divert “floodflows” to underground storage enacted by SB 122, principally to more clearly define the conditions when “floodflows” could safely be diverted without harming other water right holders. SB 1390 failed passage.

AB 658 intent and framework. Assemblymember Arambula’s stated intent in authoring AB 658 was to help California better prepare to deal with groundwater overdraft and climate change challenges: “California recently faced one of the worst droughts in its history, of which effects continue to be felt throughout the state. Climatologists predict that more frequent and severe droughts will occur. The best way to minimize damage during periods of drought is to prepare and capture water in times of high flows. Droughts combined with [SGMA] are going to vastly change the landscape of our farming and urban communities if we do not adequately prepare.”

The legislation sought to encourage groundwater recharge by establishing a new 5-year temporary permit for groundwater recharge for groundwater sustainability agencies (GSAs) or

⁵ Caitlin Peterson, Ellen Hanak, Zaire Joaquín Morales, *Replenishing Groundwater in the San Joaquin Valley: 2024 Update*, (San Francisco: PPIC, 2024), 21.

other local agencies. AB 658 also allows for GSAs or local agencies with an existing water right to seek a temporary change (for five years) to their existing water right to allow for groundwater recharge. One of the hopes of establishing a 5-year permit was that it would reduce the risk of spending time and money on a permit that could not be used if the weather did not cooperate. Prior to AB 658, the primary option for permitting groundwater recharge was through a 180-day temporary permit. In this scenario, an entity interested in recharging groundwater must submit an application in the fall every year before it is clear whether or not there will be sufficient winter rain to make the permit worthwhile. If there is a dry winter, an applicant has spent time and money on a permit that is of little or no value. With a 5-year permit, a permittee has more chances of experiencing wet conditions that allow for groundwater recharge; however, more work and expense is required to obtain one.

Groundwater recharge under either the 5-year temporary permit or the 5-year temporary change must be consistent with a basin's sustainability goal under SGMA and the requirements placed on an applicant are virtually the same. An applicant must complete review under the California Environmental Quality Act (CEQA), consult with DFW, complete a water availability analysis (WAA), and submit a proposed accounting method for the storage and extraction of water diverted. An applicant must also pay an application fee that is 15% to 25% of a standard water right fee; this fee amount is based on the volume of water diverted and ranges from \$750 (for <10 AF/year) to \$202,750 (for >200,000 AF/year) for FY2025-26. Before issuing a 5-year temporary permit or temporary change, the State Water Board must make a series of findings that:

- The diversion is to underground storage for beneficial use that advances a basin's sustainability goal under SGMA;
- The water may be diverted and used without injury to any lawful user of water;
- The water may be diverted and used without unreasonable effect upon fish, wildlife, or other instream beneficial uses;
- The diversion is in the public interest; and
- The diversion is consistent with any applicable GSP.

Finally, the protest process for a proposed 5-year temporary permit or temporary change is truncated compared to other water right applications as a protest must be filed within 30 days of the notice of the application. There have been protests on seven of the nine permits issued to date, but the concerns have not resulted in a hearing. Instead, the concerns raised to date have been addressed by incorporating specific terms into each permit. In a handful of objections, the State Water Board dismissed a concern raised.

WAA. A WAA is a necessary part of any water right application and helps to determine whether there is actually water available to be diverted from a given stream, river, or water body. This information is required per Water Code § 1260:

An applicant for a permit to appropriate water shall set forth all of the following: ... (k) *Sufficient information to demonstrate a reasonable likelihood that unappropriated water is available for the proposed appropriation* (emphasis added).

Some applicants for 5-year temporary permits have identified the WAA as one of the challenging components of their application. Obtaining the data necessary to complete a WAA typically involves hiring a consultant and can cost tens of thousands of dollars. The State Water Board directs applicants for a 5-year permit to look back 30 years to determine under which flow conditions water can safely be diverted without injuring other water users.

“90/20 method.” Many of the AB 658 permits rely on what is colloquially referred to as the “90/20 method.” This rule is a simplified approach for a WAA developed by the State Water Board that identifies those days between December 1st and March 31st when the daily flow on a given water body is at or above the 90th percentile for that day based on the historical record. The premise is that flows above the 90th percentile are not needed to satisfy the water demands of senior water right holders or the environment and, therefore, can be safely diverted. Any diversion on days that meet the 90th percentile threshold are then capped at 20% of the total daily flow. A WAA that does not use the 90/20 method approach can take much longer to complete. For permittees that adopt the 90/20 method, it becomes a condition in the permit itself that dictates at what flow rate, and how much water can be diverted.

Consultation with DFW. AB 658 requires an applicant for a 5-year permit to consult with DFW regarding the permit at least 30 days prior to submitting a formal application to the State Water Board. While DFW does not have authority to approve or deny a 5-year permit, the consultation allows DFW to examine potential impacts on fish and wildlife resources and provides DFW with an opportunity to propose permit conditions that the State Water Board may incorporate into the 5-year permit so that public trust resources are protected. Examples of terms proposed by DFW for the 5-year permits issued to date include: use fish screens at the point of diversion, complete biological surveys for sensitive species prior to initiating recharge activities, and obtain necessary permits (e.g., incidental take permit or Lake and Streambed Alteration Agreement), as needed. In the vast majority of cases, the State Water Board has incorporated DFW’s proposed conditions as terms in the 5-year permits issued to date.

CEQA. AB 658 requires an applicant to complete CEQA to obtain a 5-year permit. Seven of the nine permittees filed “notice of exemption” as they qualified for a CEQA exemption under an executive order issued by Governor Newsom on March 28, 2022 (N-7-22) that, among other provisions, suspends CEQA to enhance the ability of a local or state agency to capture high

runoff events for local storage or recharge, consistent with water rights priorities and protections for fish and wildlife. The other two permittees filed a “mitigated negative declaration” and did not need to complete a full environmental impact report to apply for the permit.

Other permitting issues. Some of the 5-year permittees have communicated their experience with permitting process to Committee staff; these permittees have generally reported positive experiences and expressed that they see a benefit to having a 5-year temporary permit option (as opposed to relying on repeated 180-day temporary permits). That said, some permittees have raised concerns with different aspects of the permitting process, including: the cost (including for developing a WAA, discussed above), the time it takes to obtain a permit (the State Water Board had processed most permits within five months, but consultations prior to submitting an application can take four to six months), and requirements to account for groundwater that is recharged.

III. AB 658 OUTCOME

To date, the State Water Board has issued nine permits pursuant to AB 658 that have authorized up 19,322 acre-feet (AF) of recharge and resulted in 671 AF of actual water recharged (seven of the nine permits have been issued in the past six months). The State Water Board has complied with a requirement to post information on permits issued on its website by December 31, 2024: https://www.waterboards.ca.gov/waterrights/water_issues/programs/applications/groundwater_recharge/pending_applications.html. Table 1 summarizes this information.

TABLE 1. AB 658 permits issued to date.

Diversion Season	Applicant	Watershed	Issued	Amount Authorized (AF)	Amount Diverted (AF)
2022-27	Omochumne-Hartnell Water District	San Joaquin River	1/11/2023	2,444	WY23=77 WY24=347.1 WY25=246.9
2023-28	Central California Irrigation District	San Joaquin River	5/15/2023	3,500	WY24=0 WY25=0
2025-30	Sierra Valley Groundwater Management District	Middle Fork Feather River	9/9/2025	763	
2025-30	Stockton East Water District	San Joaquin River	10/15/2025	4,999	
2025-30	Corning Subbasin GSA	Sacramento River	12/8/2025	2,065	
2025-30	Scott Valley Irrigation District	Scott River	12/16/2025	5,400	
2025-30	Modoc and Lassen County GSAs	Sacramento River	12/19/2025	650	

2025-30	Tehama County Flood Control and Water Conservation District*	Sacramento River	2/11/2026	2,250	
2025-30	Tehama County Flood Control and Water Conservation District*	Sacramento River	2/11/2026	2,250	

*Though similar, Tehama County Flood Control and Water Conservation District has obtained two, distinct permits under AB 658.

The need to address the challenges cited by Assemblymember Arambula in 2019 have only become more pressing since AB 658’s enactment as California experienced a severe drought from 2020 to early 2023 that placed unprecedented challenges on water management in California. In response to this drought, DWR published a report entitled *Water Year 2021: An Extreme Year*⁶ in September 2021 and Governor Newsom released his *California’s Water Supply Strategy, Adapting to a Hotter, Drier Future*⁷ in August 2022 that, among other actions, call for the state to expand groundwater recharge efforts.

IV. QUESTIONS FOR THE COMMITTEE

- How can the state encourage the issuance and use of AB 658 permits?
- Are there barriers preventing the issuance of AB 658 permits? If so, what are they?
- Is the cost of obtaining an AB 658 permit a deterrent to applying?
- Why are some agencies opting to apply for a 180-day permit instead of AB 658 permit?
- Many of the permits have relied on a CEQA exemption from a 2022 executive order. How long will this exemption apply? Should it be extended or removed?
- What funding does that state have available to assist applicants in obtaining an AB 658 permit?

⁶ <https://mavensnotebook.com/2021/10/02/publication-water-year-2021-an-extreme-year/>

⁷ <https://www.gov.ca.gov/2022/08/11/governor-newsom-announces-water-strategy-for-a-hotter-drier-california/>