

FAQ: Groundwater Recharge Technical Considerations

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How is the Water Availability Analysis (WAA) methodology for a streamlined application for a permit to divert water to underground storage different from other water right applications?

The streamlined WAA methodology is different primarily due to a reliance on either two specified thresholds or triggers in established written flood management protocols rather than an analysis that often requires highly site-specific information and detailed technical investigation.

The two thresholds are 1) that daily flows above the 90th percentile are unappropriated during the winter period and 2) that limiting total diversions to 20 percent of flow will not cause unreasonable impacts on fish and wildlife. The methodology associated with these two thresholds requires the applicant to compile data from the gage or gages most representative of flows at the point of diversion and compare the 90th percentile flows at this gage against calculated downstream demands. If the 90th percentile flows exceed downstream demands, additional information from the applicant will not generally be required to demonstrate water availability. For most United States Geological Survey (USGS)-published gages, the National Water Information System (NWIS) Surface Water Daily Statistics tool can retrieve the 90th percentile mean daily streamflow (P90 streamflow) for each day of the year and no calculation is required. For non-USGS gages, P90 mean daily streamflow may be calculated. Total calculated demands downstream will be a combination senior diversion demand and existing environmental instream flow requirements. Statewide information on existing instream flow requirements are available on the [Division's Flow Requirement website](#). Data on demands can be found at the State Water Board's [eWRIMS database](#).

WAAs relying on triggers established in written flood management protocols will need to assess historic past practices of the flood control agency or historic flooding events to examine whether and how there is unappropriated water available to supply the application.

Additional [guidance on WAA methodology](#) is available on the groundwater recharge website.

When can a diverter use the simplified water availability analysis approach?

In general, the highest streamflow and least likelihood of impact to downstream right holders, fish, and ecosystems occurs during the winter months. Typically, there is little irrigation demand during the winter, and at flows greater than the 90th percentile daily flow there should be excess water relative to existing flow requirements (such as the Delta outflow requirements) and demands from senior water right holders. At present, the Division will only consider appropriations between December 1 and March 31 of a water year as eligible for the streamlined process. This diversion season may not encompass peak flows in every watershed, but will cover much of California's high flow season while allowing for a simplified water availability analysis and expedited processing because of the reduced likelihood of impact to other uses and users.

What if the peak flows in the source waterbody often occur outside of the period from December 1 to March 31?

The Division will not prioritize applications seeking to divert peak flows outside of the December 1 through March 31 timeframe. If peak flows in the source waterbody often occur outside of the period from December 1 to March 31, and the applicant can demonstrate that peak flows during this alternate period are generally greater than the demands of existing users and flows needed for environmental purposes, the application may still be processed more quickly. However, the spring and fall months are typically when flows are necessary to support anadromous fish species and consideration of the impacts of a new diversion may require additional analysis.

Can I use the streamlined permitting process to obtain a temporary permit?

Meeting the criteria for streamlined processing is also likely to accelerate the issuance of a temporary permit, assuming that the applicant has a stream gage near their intended point of diversion or is able to install such a gage prior to commencement of the temporary permit. Many of the terms and conditions that would typically be applied to a streamlined permit may also be applicable to a temporary permit.

Can I use a stream gage other than a USGS gage when calculating the 90th percentile flows at my project?

The [California Data Exchange Center, or CDEC](#), includes many stream gages that do not participate in the USGS [NWIS streamflow reporting system](#), but that may be able to provide estimates of high flow thresholds at your project's location. While CDEC lacks some of the pre-calculated daily statistics tools that are available on the NWIS, 90th percentile flows can often be ascertained from CDEC station data. If the stream gage nearest to the diversion location is not an operating USGS gage, you should check whether a CDEC gage may be available.

There may be other telemetered stream flow gages maintained by agencies that do not report stage or streamflow data to USGS or CDEC. The Division will evaluate the suitability of these gages for use on a case-by-case basis. Factors will include whether the gage has data telemetry and internet connectivity and the longevity of gage records. The Division will also evaluate whether that gage data is available to the public following application for a water right permit.

Why do I need a telemetered gage near my point of diversion?

The streamlined WAA methodology relies on calculations of the 90th percentile flows that must be available for a project's POD. A telemetered stream gage located near the POD will be the means for demonstrating high flows are present, how much of the flow may be diverted by the POD without exceeding the 20% diversion limit, and whether those diversions might affect downstream water needs (for ecosystems or senior right holders).

Additionally, for projects that have multiple PODs, additional stream gages will increase operational flexibility by demonstrating high flows are present at various points within a watershed, potentially making it easier to divert additional flows while demonstrating that downstream senior rights are not being exercised to their full extent during specific events. See the [WAA Guidance](#) for more information.

Is groundwater recharge a beneficial use under the California Water Code?

Groundwater recharge is the enhancement of water levels in groundwater aquifers, by natural or artificial means, with surface water or recycled water. Groundwater recharge is not a beneficial use of water on its own, but rather is one method of diverting and storing water that takes advantage of the natural storage capacity of groundwater aquifers. To obtain a water right to divert water to underground storage, you must identify the eventual beneficial use of the water just as with above-ground surface water storage projects. Please see the Division's [Fact Sheet](#) regarding Purposes of Use for Underground Storage Projects for additional guidance regarding beneficial uses for underground storage projects.

How can I demonstrate the beneficial use of water under a permit or license that allows underground storage (recharge) as a method of diversion?

Please see the Division's [Fact Sheet](#) regarding Purposes of Use for Underground Storage Projects for additional guidance on how beneficial uses can be identified for projects proposing to store water underground. Robust accounting methodologies for subbasins or management areas under SGMA may be relied upon to demonstrate beneficial use. Prospective applicants are encouraged to consider methods to model the fate of water transmitted to underground storage in both the project planning and accounting development steps. As parties pursue applications for various extractive or in situ beneficial uses, the Division will provide the applications as examples to assist others.

What groundwater accounting methods are acceptable for streamlined permitting?

Several options are available for accounting for the storage and use of water under the streamlined permitting process. The most appropriate method will likely depend on the type of applicant, the beneficial uses proposed, and whether an existing method of accounting for groundwater stored in the basin is already established by a groundwater sustainability plan, court decree, or other basis for groundwater management.

A simplified accounting method for extractive beneficial uses is last-in-first-out. Pursuant to this method, water that is diverted to storage under the permit is extracted and used prior to reliance on any other basis of right to extract and use water. This method of accounting may avoid the need to calculate storage losses over time and thereby simplify the methodology. Where the end-user of water is not the permit-holder, agreements or regulations must be in place to assure that water stored under the permit is extracted and used before reliance on any other basis of right.

Existing groundwater accounting methods established by a groundwater sustainability plan, court decree, or other type of groundwater management plan may also be relied upon for streamlined processing. Where an existing plan is in place that is sufficiently robust to provide adequate accounting of water storage and use, the Division may require as a term in the permit that water stored and used be accounted for in accordance with the existing methodology. A groundwater sustainability agency that is developing an accounting methodology for management of the basin may want to consider whether the methodology is sufficiently robust to be relied upon for permitting and eventual licensing of rights to divert water to underground storage. Considerations of methods to model the fate of water transmitted

to underground storage may also be helpful in developing and/or calibrating an accounting methodology.

Other accounting methodologies may also be used for purposes of permitting but may require additional processing time for development and review.

What kind of annual reporting will be required as part of the water right?

Right holders are required to complete annual reports to the Division electronically through the [Report Management system \(RMS\)](#) website. Separate annual reports are required for each water right. Each annual reporting cycle is for a complete calendar year (January 1 to December 31).

The Division has developed an electronic notification system to provide certain general reporting and fee payment reminders to water right holders and claimants. You may subscribe to the [Division's electronic notification system](#) (select Water Rights and then Water Rights Reporting Notification).

Annual reports must include information regarding compliance with the conditions of your water rights(s) and your diversion and beneficial use of water (Wat. Code, § 348.; Cal. Code Regs., tit. 23, chapters 2.7 and 2.8)

Beneficial use, depending on the permit authorization, may include both in situ (in place) and consumptive (extracted) uses. Beneficial use reporting is used to confirm diligent use of the right, as rights may be lost if not used.

Sample annual reports for a [Permit](#) and a [License](#) are available on the Division's eWRIMs RMS test site.

Questions or requests for assistance related to annual reports should be directed to the Division of Water Rights Statements Unit as 916-341-5431 or by email at DWR-Statements@waterboards.ca.gov