

WATER RIGHTS WITHIN THE BAY/DELTA WATERSHED STATE WATER RESOURCES CONTROL BOARD

The water right permit system administered by the State Water Resources Control Board (State Water Board) applies to surface water bodies and to a narrow classification of groundwater, "subterranean streams flowing in known and definite channels." (Wat. Code, § 1200.) Aquifers that are not part of a subterranean stream are classified as "percolating groundwater." There are two basic categories of surface water rights: post-1914 appropriative; and pre-1914 appropriative and riparian. The State Water Board has very limited information on water use for either of these classes of water rights, and the little information it does have has not been synthesized and is not maintained electronically. The State Water Board has no information on groundwater use in the Delta watershed.

Post-1914 Appropriative Water Rights

The State Water Board has permitting and licensing authority over surface water diversions associated with post-1914 appropriative water rights within the legal Delta and within the Delta watershed. December 19, 1914 is the effective date of the Water Commission Act that established the modern procedures to regulate surface water appropriation. Surface water appropriations established prior to this date are not bound by these procedures. The State Water Board maintains paper and electronic files for post-1914 permitted and licensed water rights, pending water right applications, and also state filings, which are state filed water right applications reserved for future use by individuals and entities in the areas where water originates. The information in its files includes the holder of the water right, point of water diversion, limitations on the rate, amount, and season of diversion, the place and purpose of use of the water, and any other terms or conditions placed on the water right. These limitations on rate, amount, and season of use are used to determine the "face value" of the water right, defined as the total annual amount of diversion authorized for direct diversion or storage by a permit or license. The term is primarily used in the calculation of water right fees and does not take into account water availability, bypass requirements, or other conditions that may have a practical effect of limiting diversions. Further, the State Water Board has continuing authority to change existing water rights, following formal notice and opportunity for hearing, in order to protect the public trust and water quality and to prevent the waste, unreasonable use, and unreasonable method of use or diversion of water.

Water right permit and license holders are required to file progress reports with the State Water Board, and to report their water diversion and use amounts (Cal. Code of Regs, tit. 23, § 847). These reports are to be completed annually for water right permit holders and triennially for water right license holders. Approximately 68 percent of permit and license holders submit completed water use reports to the State Water Board. The Water Code does not contain specific enforcement provisions that would allow the State Water Board to enforce against the lack of reporting. Use information reported to the State Water Board is stored in paper files and there has been no verification of the quality of this information except as part of limited enforcement

actions. Summary information is therefore not available to compare face value of water rights to actual use. Some water users who hold multiple rights report the same use information for all of their rights. For instance, a right holder may use 2500 acre-feet per year of water under three different water rights. If that user reports a use of 2500 acre-feet for each of the three rights, a cursory review might lead the reviewer to conclude that 7500 acre-feet of water is being used, although this is not the case.

Pre-1914 Appropriative and Riparian Water Rights

The State Water Board does not have permitting and licensing authority over Pre-1914 appropriative or riparian water rights. The State Water Board does however collect Statements of Water Diversion and Use (Statements) from water diverters claiming riparian and pre-1914 water rights. (Wat. Code, § 5100 et seq.) The State Water Board has approximately 5,500 Statements of Water Diversion and Use on file for pre-1914 and riparian rights in waters tributary to the Delta. These Statements, however, do not provide complete information about riparian and pre-1914 water diversions in California. Of particular significance in the Delta, certain diverters are statutorily exempt from filing Statements; Water Code section 5101 exempts diversions that are reported by the Department of Water Resources (Department) in its hydrologic data bulletins or that are included in the consumptive use data for the Delta lowlands published by the Department in its bulletins. (*Id.*, § 5101, subds. (e)-(f).) The State Water Board estimates that there are approximately 1,600 unreported Pre-1914 and riparian diversions in the Delta. Additionally, even if a water diverter is statutorily required to file a Statement, there is no penalty for failure to file a report. (*Id.*, § 5108.)

Groundwater

Percolating groundwater is not subject to the State Water Board's permitting system and, in most of the state, is not regulated by any other public agency. When considering a proposed appropriation of groundwater, or determining whether an unpermitted diversion in close proximity to a stream is an unauthorized diversion, the State Water Board must evaluate the legal classification of the groundwater from which the water is being appropriated to determine whether it is a subterranean stream, which is under the jurisdiction of the State Water Board, or percolating groundwater, which is not. (See *North Gualala Water Co. v. State Water Resources Control Board* (2006) 139 Cal.App.4th 1577 [43 Cal.Rptr.3d 821] [upholding State Water Board's use of four-part test in determining legal classification of groundwater].) To the extent groundwater is classified as a subterranean stream, it is managed as surface water. (See also Wat. Code, § 2500 [statutory adjudication procedures, under which all rights in a stream system are determined, apply to surface waters and subterranean streams, not percolating groundwater].) The State Water Board has no legal authority to require users of percolating groundwater to report their uses of water, other than in four southern California counties. The State Water Board does not therefore maintain information on extraction of percolating groundwater within the Delta watershed.

Water Use versus Water Rights

The mean annual unimpaired or full natural flow in the Delta Watershed between 1921 and 2003 was 29 million acre-feet per annum (AFA), with a maximum of 73 million AFA

in 1983.¹ Unimpaired flow is flow that would be expected in the Delta watershed in the absence of storage and other human developments. In contrast, the total face value of the approximately 6,300 active water right permits and licenses within the Delta managed by the State Water Board, including the already assigned portion of state filings, is approximately 245 million AFA. There are 100 rights with a face value of 500,000 AFA, or more that account for 84% of the total face value of the water rights within the Delta watershed. The Central Valley Project and State Water Project hold 75 permits and licenses within the Delta watershed that account for 53% of the total face value of the water rights within the watershed. The total face value of the unassigned portion of state filings for consumptive use (excluding state filings for the beneficial use of power) within the Delta watershed is approximately 60 million AFA. This does not mean that this 60 million AFA is hydrologically available for appropriation. Prior to assignment of a state filing, the State Water Board will require that an applicant provide evidence that water is available to support the assignment. Clearly, actual use must be only a small fraction of the face value of these water rights, particularly since face value does not include pre-1914 and riparian water rights. There are three primary reasons why the face value of water rights is greater than actual diversions:

1. When approving a water right application, the State Water Board has to find that water is available for appropriation for the project being proposed. In making that determination, the State Water Board looks at both the demand characteristics associated with the proposed use and the likelihood that supply will be adequate to supply that demand. The State Water Board is required to maximize the beneficial use of water. Historically, the State Water Board has approved permits for agricultural projects if water is available in 50 percent of years, under the condition that water cannot be diverted in years in which there is insufficient supply to satisfy prior vested rights.
2. Water rights are issued based on the maximum rate of diversion (for direct diversion projects) and the maximum annual diversion to storage (for reservoirs and other impoundments). For large storage projects, the maximum annual diversion to storage generally only occurs in the year in which the project initially fills. Most modern water rights include a bypass condition which can limit diversion amounts below the "face value" amount in many years. Some water rights include a condition that limits the amount of water that can be diverted in combination with other water rights. This information is difficult to capture in a database format.
3. Some projects are covered by multiple rights for the same molecules of water. The State Water Board's regulations require that separate water rights be obtained for non-consumptive and consumptive uses of water. Large multi-use reservoirs will have at least two permits as a result, one that allows non-consumptive uses like recreation at and below the reservoir and one that allows consumptive uses such as municipal and irrigation uses. Similarly, the same molecule of water may be diverted several times by several different water right holders as it works its way down a river. If the water is not consumptively used,

¹ DWR, Bay Delta Office, California Central Valley Unimpaired Flow Data, Fourth Edition Draft, May 2007

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or lost to deep groundwater recharge, it likely returns to a river and is rediverted downstream.

Actual use under existing water rights is clearly a better metric to compare with unimpaired flows than is face value but the State Water Board has limited information on actual use. Comprehensive review and synthesis of the State Water Board's paper files would however provide only a crude estimate of actual historic and current use because of gaps in reporting and unreliability of the data already collected. Finally, there is a linkage between water availability in many surface waters and groundwater pumping but the State Water Board has no information on percolating groundwater pumping in the Delta watershed.