

**From:** Tom Howard [<mailto:THoward@waterboards.ca.gov>]

**Sent:** Tuesday, August 09, 2011 5:07 PM

**To:** Grindstaff, Joe@DeltaCouncil

**Subject:** water use response

Joe,

Please find attached a document prepared by State Water Resources Control Board (State Water Board) staff in response to your email dated June 14, 2011, in which you requested information pertaining to: 1) the total water allocated in California and the Delta watershed, differentiated by water right type; 2) actual water use (both consumptive and non-consumptive); and 3) total amount of pending water rights in California and the Delta watershed.

While still early in the process, the State Water Board has begun collecting electronic water diversion and use data from appropriative permit and license holders, diverters reporting under the Statement of Water Diversion and Use (Statements) program, and groundwater users meeting certain criteria. This new information will allow the State Water Board to provide more accurate information concerning use of water in three to four years (Statements are only required to be submitted on a triennial basis). While self-reporting of water use will always have limitations, the collection of electronic use data will allow the State Water Board to gain considerably more information on actual use occurring within the state without grossly overestimating use based on the concept of face value.

As the availability of electronic water use information improves, the State Water Board will continue to coordinate with and provide updates to the Delta Stewardship Council. The State Water Board reports on several measures relevant to water rights allocations on an annual basis through its Annual Performance Report, which can be viewed online at: [http://www.waterboards.ca.gov/about\\_us/performance\\_report/allocate/](http://www.waterboards.ca.gov/about_us/performance_report/allocate/). Additional information on water right and permitting processes can be found online at: [http://www.waterboards.ca.gov/waterrights/board\\_info/water\\_rights\\_process.shtml](http://www.waterboards.ca.gov/waterrights/board_info/water_rights_process.shtml). If you have questions concerning the attached document or would like to discuss other related issues, please contact Mr. Les Grober, Assistant Deputy Director for the Division of Water Rights, at (916) 341-5428 or [lgrober@waterboards.ca.gov](mailto:lgrober@waterboards.ca.gov).

## REQUEST FOR INFORMATION PERTAINING TO THE ALLOCATION OF WATER IN CALIFORNIA AND THE DELTA WATERSHED

This document was prepared by State Water Resources Control Board (State Water Board) staff in response a request from Mr. Joe Grindstaff, Executive Officer of the Delta Stewardship Council, for information pertaining to: 1) the total water allocated in California and the Delta watershed, differentiated by water right type; 2) actual water use (both consumptive and non-consumptive); and 3) total amount of pending water rights in California and the Delta watershed.

### Water Allocated under Permits and Licenses in California and the Delta Watershed

Since 1914, the allocation of water is made through the appropriative water right program administered by the State Water Board's Division of Water Rights. Water is authorized for diversion through issuance of permits and subsequent licenses. Currently, the State Water Board is only able to readily provide "face value" data for the water rights within its permitting authority, rather than actual use data. Face value represents the total seasonal amount of water that could be diverted assuming the diversion system is operating at the instantaneous maximum limit for the entire duration of the applicable water right season, including rights issued for non-consumptive hydropower uses. However, permit and license holders often do not reach full face value levels for many reasons, including place of use restrictions in the permit/license that limit the area on which water can be used, the lack of water availability, crop rotation, irrigation efficiency upgrades, operating restrictions to meet streamflow bypass requirements or other physical and economic limitations. Face value amounts also include conveyance losses such as percolation and surface runoff, which is not consumed by the water right holder, but may be used by other water right holders. In addition, water is typically not fully consumptively used, so the same water can potentially be used multiple times. Therefore, actual use is only a fraction of the face value of these water rights. A summation of the face value for permits and licenses issued by the State Water Board is provided below in Table 1.

Allocation by Use	Statewide		Delta Watershed	
	Number	Amount (MAF <sup>2</sup> )	Number	Amount (MAF <sup>2</sup> )
Power	333	204	254	152
Non-Power	12,066	109	6,636	93
Total	12,399	313	6,890	245

<sup>1</sup> Source: eWRIMS, extracted July 28, 2011

<sup>2</sup> MAF – million acre-feet per annum

### Water Claimed under Pre-1914 and Riparian Water Rights

Total diversion information on pre-1914 and riparian water rights is submitted to the State Water Board through Statements of Water Diversion and Use (Statements). The State Water Board collects Statements from water diverters pursuant to Water Code section 5100 et seq.

Unfortunately, persons filing Statements have not been required in the past to provide complete information about water diversion and use. Additionally, many diverters in the Legal Delta were statutorily exempt from filing Statements until 2009. In 2009, the law was amended to require Delta diverters to submit Statements. In addition, penalties were added for failure to file a report (Wat. Code, § 5108). As a result, approximately 2,300 new initial Statements have been filed by

Delta diverters. Based on the 9,770 Statements filed through 2009, the total amount of water claimed under pre-1914 and riparian water rights throughout the state was estimated to be 116.4 million acre-feet per annum.

### Consumptive Water Use Information

While still early in the process, the State Water Board is now collecting electronic water diversion and use data, as presented in Tables 2 and 3, from: 1) permit and license holders; 2) diverters reporting under the Statements program; and 3) groundwater users whom meet certain criteria. This new information will allow the State Water Board to provide much more accurate information concerning use of water in three to four years, since statements are only required to be submitted on a triennial basis. Self-reporting of water use will always have limitations, including delinquent and unfiled reports and the tendency for water users to double and triple count the amounts of water when water use is spread among multiple water rights. However, the collection of electronic water use data will allow the State Water Board to gain considerably more information on actual water use occurring within the state without grossly overestimating use based on the concepts of face value. Information regarding the State Water Board's online reporting system can be found on our website at:

[http://www.waterboards.ca.gov/water\\_issues/programs/ewrims/](http://www.waterboards.ca.gov/water_issues/programs/ewrims/).

The tables below summarize the types and availability of water use information collected by the State Water Board (Table 2) and the status of online reporting (Table 3).

	<b>Face Value</b>	<b>Monthly Reported Diversion and Use</b>
Permits and Licenses	Yes	Yes <sup>1</sup>
Statements (pre-1914 and Riparian)	No	Yes <sup>2</sup>
Stockponds/Small Domestic Registrations	Yes	No <sup>3</sup>
Groundwater Recordations	No	Yes

<sup>1</sup> Deadline for submitting Progress Reports by Permittee and Reports of Licensee for the calendar year 2010: July 1, 2011.

<sup>2</sup> Deadline for submitting Supplemental Statements for the calendar year 2010: July 1, 2011.

<sup>3</sup> Data are available in paper documents. Electronic submittal is not required at this time.

	<b>Number of Reports Mailed Out</b>	<b>Number Electronically Received</b>	<b>Number Due</b>	<b>Percent Due</b>
Progress Report of Permittee	1,498	933	565	38%
Report of Licensee	10,906	5,643	5,263	48%
Supplemental Statement of Diversion and Use	3,101	1,063	2,038	66%
Groundwater Recordation and Diversion	1,531	1,111	420	27%
<b>Total</b>	<b>17,036</b>	<b>8,750</b>	<b>8,286</b>	<b>49%</b>

The Department of Water Resources (Department) provides estimates of consumptive use in the California Water Plan Update 2009 (Bulletin 160-09). Until the State Water Board's online reporting process has been fully implemented, the Department's estimates of consumptive use may be the best source of consumptive use data. Table 4 presents a summary of estimated applied water and consumptive use of applied water for the state and Delta watershed, as reported in the California Water Plan (Bulletin 160-09).

<b>Table 4. Summary of Applied Water and Consumptive Use of Applied Water (million acre-feet)<sup>1</sup></b>						
	<b>Water Year (Percent of Normal Precipitation – Statewide)<sup>2</sup></b>					
	<b>2001 (72%)</b>		<b>2003 (93%)</b>		<b>2005 (127%)</b>	
	<b>State</b>	<b>Delta Watershed</b>	<b>State</b>	<b>Delta Watershed</b>	<b>State</b>	<b>Delta Watershed</b>
Applied Water <sup>3</sup>	41.2	16.9	40.6	16.1	38.2	15.4
Consumptive Use of Applied Water (Ag, M&I, Wetlands) <sup>4</sup>	27.8	10.4	26.7	9.8	24.4	9.2

<sup>5</sup> Source: Water Plan Update 2009 (Bulletin 160-09) - summation of data presented in Table 4-2 (Statewide), Table SR-3 (Sacramento River Hydrologic Region), and Table SJ-2 (San Joaquin River Region).

<sup>2</sup> The percent of precipitation is based upon a running 30-year average for the state.

<sup>3</sup> Applied water refers to the total amount of water that is diverted from any source to meet the demands of water users, without adjusting for water that is used up, returned to the developed supply, or considered irrecoverable. Applied water is greater than consumptive use because it includes consumptive use, reuse, and outflows.

<sup>4</sup> Consumptive use (Agricultural, Municipal and Industrial, and Wetlands) is the amount of applied water used and no longer available as a source of supply.

### **Pending Water Right Applications**

There are currently 413 unpermitted appropriative applications pending statewide, the face value of which total approximately 10.2 million AFA. There are currently six unpermitted appropriative applications pending within the legal Delta, the face value of which total approximately 1.7 million AFA. Only if and until the State Water Board issue a permit pursuant to these application, does a right to divert exist.