

Measurement and Reporting of Water Diversion Emergency Regulations Digest

March 1, 2016

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Amend California Code of Regulations, Title 23, Division 3, Chapter 2.7 and adopt Title 23, Division 3, Chapter 2.8 to read:

California Code of Regulations

Title 23. Waters

Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

CH 2.7 WATER DIVERSION AND USE REPORTS

§ 907. Definitions. The following definitions apply to the terms as they are used in this chapter.

(a) “Board” ~~when used in this chapter~~ means the State Water Resources Control Board.

(b) “Board’s website” means www.waterboards.ca.gov.

(c) “Diverter” means:

(1) Any person authorized to divert water under a permit or license; or

(2) Any person required under Water Code, Division 2, Part 5.1 to file a Statement of Water Diversions and Use; or

(3) Any person authorized to divert under a registration or certificate; or

(4) To the extent authorized by federal law, the federal government for rights claimed under permits, licenses, registrations, certificates, statements of water diversion and use, and non-reserved and reserved rights on file with the board.

(d) “Reports” ~~when used in this chapter~~ refers to the following documents:

~~(1) Supplemental Statement of Water Diversion and Use Forms; Pursuant to Water Code section 5104, supplemental statements of water diversion and use shall be filed at three-year intervals, prior to July 1 of the year succeeding the end of each three-year interval.~~

~~(2) Reports of Permittee and Licensee; Pursuant to sections 847 925 and 929 of this title, prior to issuance of license, annual progress reports shall be filed promptly by the permittee upon forms provided by the board. After issuance of a license, reports shall be made when requested by the board upon forms provided by the board.~~

(3) Reports of Registration and Certificate Holders pursuant to section 924 of this title.

(34) Notices of Extraction and Diversion of Water, Pursuant to Part 5 of Division 2 of the Water Code, Each person in the counties of Riverside, San Bernardino, Los Angeles and Ventura who, after 1959, extracts ground water in excess of 25 acre-feet in any year shall file with the board, within six months of the succeeding calendar year, a "Notice of Extraction and Diversion of Water" on a form provided by the board.

(45) Forms indicating a change of name, address or ownership.

(e) "Twelve month reporting period" means a calendar year beginning January 1 and ending the succeeding December 31.

(e) "Website" when used in this chapter means www.waterboards.ca.gov.

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 1003.5, 1395, 1396, 1397, 4999, 5001, 5105 and 12261, Water Code.

§ 908. Compliance.

Failure to meet the requirements of this chapter is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846.

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), and 1846, Water Code.

§ 910. Purpose.

The regulations contained in this chapter are adopted for the purpose of implementing and carrying out provisions of Chapter 2.7 of Division 1 of the Water Code and Parts 2, 5 and 5.1 of Division 2 of the Water Code. The regulations identify requirements for the mandatory electronic filing of reports on the board's ~~internet~~ website. Reports subject to mandatory electronic filing include: supplemental statements of water diversion and use, Water Right Progress Reports by Permittees, Reports of Licensees, Reports of Registration and Certificate Holders, Notices of Groundwater Extraction and Diversion, and reports filed by watermasters pursuant to Water Code section 5101, subdivisions (d) and (e).

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841 Water Code.

Reference: Sections 348, subdivision (a), 5101, 5103, and 5104, Water Code.

§ 911. Construction.

(a) To the extent authorized by federal law, this chapter applies to the federal government and any reports filed by the federal government for rights claimed under permits, licenses, registrations, statements of water diversion and use, stockpond certificates, and non-reserved and reserved rights on file with the board.

(b) Nothing in this chapter shall be construed to limit or modify the board's authority to obtain information under any other lawful authority.

Authority cited: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1846, 5101, 5103, and 5104, Water Code.

§ 912. No Conflicts with Other Reporting Requirements.

(a) Any person with a water right identified in or subject to a statute, order, policy, regulation, decision, judgment or probationary designation of the board, a Regional Water Quality Control Board, or a court is responsible for meeting the terms and conditions of the statute, order, policy, regulation, decision or judgment and the requirements of this chapter. If there is any conflict or inconsistency between the water use reporting requirements subject to the statute, order, policy, regulation, decision, judgment or probationary designation and the requirements of this chapter, the more stringent requirement or requirements shall control in each instance.

(b) A permit, license, registration, or certificate holder is responsible for meeting the conditions of the permit, license, registration, or certificate and the requirements of this chapter. If there is any conflict or inconsistency between the permit, license, or registration condition for water use reporting and the requirements of this chapter, the more stringent requirement or requirements shall control in each instance.

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), and 1846, Water Code.

§ 915. Changes in Name, Address or Ownership.

Pursuant to sections 691, 830, 831, and 1074 of this title, changes in name, address or ownership shall be immediately reported to the board electronically using a change of name, address or ownership form or the supplemental statement of change form available on the board's website.

Authority cited: Sections 348, subdivision (a), 1058, 1840, and 1841~~1058~~, Water Code.

Reference: Section 348, subdivision (a), Water Code.

§ 916. Request for Additional Time

A diverter may submit a request for additional time to comply with the provisions of this chapter on a form available on the board's website. The Deputy Director for the Division of Water Rights may grant such requests upon a showing of good cause.

Authority cited: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Section 348, subdivision (a), Water Code.

§ 917. Reporting – Insufficient Flows to Support All Diversions.

(a) When flows or projected available supplies in a watershed or subwatershed are sufficient to support some but not all projected diversion demand, the Deputy Director for the Division of Water Rights may require water diverters located within the watershed or subwatershed to electronically submit monthly or more frequent reports of water diversion.

(b) Reports of water diversion shall be submitted in accordance with a schedule approved by the Deputy Director for the Division of Water Rights. The schedule may require monthly, daily, or more frequent reporting. In determining the frequency of reporting, the Deputy Director for the Division of Water Rights shall not exceed the frequency of recording required under section 933, subdivision (b)(1), of this title.

(c) Water right diversion demand projections made under this section may be based on reported diversion and use data, including but not limited to data submitted with Progress Reports by Permittees, Reports of Licensees, Reports of Registration and Certificate Holders, Supplemental Statements of Water Diversion and Use, and reports filed by watermasters pursuant to Water Code section 5101, subdivisions (d) and (e).

(d) Water availability projections made under this section may be based on:

(1) Projections from the Department of Water Resources or its successor;

(2) Projections from the National Weather Service, California Nevada River Forecast Center, and similar sources;

(3) Stream gage data; and

(4) Other data the Deputy Director for the Division of Water Rights determines is appropriate, given data availability, data reliability, and staff resources.

(e) The failure to electronically submit diversion reports requested in accordance with the applicable schedule approved by the Deputy Director for the Division of Water Rights, even when no diversions are made, is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846.

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1846, 5101, 5103, and 5104, Water Code.

§ 920. Supplemental Statements of Water Diversion and Use.

(a) Supplemental statements of water diversion and use shall be filed on forms available at the board's website. A supplemental statement shall be filed annually by July 1 after the close of the twelve month reporting period ~~triennially~~, or promptly if there is a change in the name or address

of the person diverting water, or more frequently as directed under section 917. Notice to the board of changes in name, address or ownership must also be reported electronically on the ~~change of name, address or ownership~~ supplemental statement of change form on the board's website. Filing the ~~change of name, address or ownership~~ supplemental statement of change form does not eliminate the requirement to file a supplemental statement of water diversion and use.

(b) After the board has received an initial statement of water diversion and use as required by Water Code section 5101, the board will provide a user name and password to the person required to file supplemental statements of water diversion and use. The electronic supplemental statement form will be pre-populated with current ownership information made available to the board. Failure to receive a notice providing a user name and password does not exempt the filer from the requirement to file a supplemental statement of ~~change water diversion and use~~. Persons required to file a supplemental statement should notify the board prior to the ~~annual triennial~~ reporting date to request a user name and password if the board has not already provided such information.

(c) The completed supplemental statement form shall include the following information:

(1) ~~Changes to~~ The name(s), address(es), or and other ownership information for the diverter record with the board;

(2) The type of water right being claimed for the water diverted under the statement;

(3) The maximum rate of diversion achieved at any time during each month ~~of the year~~, if available;

(4) The amount of water directly diverted and collected to storage in each month and the total annual amount diverted. Each month must contain an entry. If no diversion occurred, a "0" should be entered;

(5) A description of the diversion works, including type of diversion and capacity of direct diversion and/or storage facility.

(6) Information on the device or method used to calculate the amount of water diverted.

~~(5) On or after January 1, 2012, the~~ (7) The amount of water beneficially used in each month and the total annual amount beneficially used. Each month must contain an entry. If no beneficial use occurred in a given month, a "0" should be entered;

~~(6)~~ (8) The purpose(s) for which the water was diverted and used;. Use information to be provided includes:

(A) irrigation, including crop type and acreage;

(B) frost protection, including acres covered;

(C) heat control, including acres covered;

(D) industrial, including type of activity;

- (E) stock watering, including number and type of animals;
- (F) municipal, including approximate population served, and seven digit public water system number or other identifier;
- (G) domestic, including number of persons served, lawn or garden area, and seven digit public water system number or other identifier, if applicable;
- (H) power generation, including installed capacity in kilowatts, megawatts or horsepower;
- (I) recreational, including boating, fishing or other water sports;
- (J) any additional uses not named above, including environmental use.

(79) Any changes in the other information contained in the preceding statement;

(10) Report of water transfers during the twelve month reporting period including transfer dates and approving agency;

(11) Report of transferred contract water including contract agency, contract number, source, amount of contract water in acre-feet and projected water use in the upcoming year.

(d) Water diversion measurement, either direct diversion or diversion to storage including the type of device(s) used, additional technology used, who installed the device(s) and any alternative method(s) used in measuring the water diversion.

~~(d)~~(e) If a substitute or alternative water supply, such as groundwater, contract water, or recycled water, is being used in lieu of surface water to be reported under a statement, the report should indicate the source and amount of substitute or alternative water used and the amount of surface water offset, on a monthly basis.

~~(e)~~(f) If the use of an alternative supply of water or any water conservation efforts have resulted in a cessation or reduction in use, the report should include a description of the conservation efforts employed and indicate the extent and monthly amount of the reduction in water use due to these water conservation efforts.

Authority: Sections 348, subdivision (a), 1058, 1840, and ~~1058~~1841, Water Code.

Reference: Sections 348, subdivision (a), 1010, 1011, 1011.5, 5100, 5101, 5103 and 5104, Water Code.

§ 921. Watermaster Reports Filed with the Board.

(a) Watermasters that elect to file annual reports with the board shall file the reports in an electronic format acceptable to the board.

(b) Reports filed with the board by a watermaster pursuant to Water Code section 5101(d) shall include the following information:

- (1) Identity of the person(s) diverting water

- (2) Description of the general purposes of use
- (3) Description of the place of use
- (4) The type of use
- (5) The quantity of water diverted from each source.

(c) Reports filed with the board by a watermaster pursuant to Water Code section 5101(e) shall include the following information:

- (1) Identity of the person(s) diverting water
- (2) Description of the place of use
- (3) The quantity of water diverted from each source.

(d) Reports filed with the board by a watermaster pursuant to Water Code section 5001 shall include the following information:

- (1) Identity of the persons who have extracted or diverted water
- (2) Description of the general place of use
- (3) Quantity of water extracted or diverted from each source.

(e) Additional reporting criteria may be included if such criteria are included pursuant to an agreement between the board and the watermaster. Additional requirements may include: the diverter's mailing address, assessors parcel number(s), tract number, monthly diversion amounts, and total diversion amounts.

Authority: Sections 348, subdivision (a), 1058, Water Code.

Reference: Sections 348, subdivision (a), 5001, 5101(d), 5101(e), Water Code.

§ 922. Diverters in a Watermaster Service Area.

(a) Pursuant to section 5101 of the Water Code, any person who diverts water in a watermaster service area that is not included in reports filed by the watermaster with the board or a court shall report such diversions by filing a Supplemental Statement of Water Diversion and Use pursuant to section 920 of this chapter.

(b) Any person who diverts pursuant to a permit, license, registration, or certificate in a watermaster service area shall file reports pursuant to sections 924, 925 and 929 of this chapter, as applicable, even if the diversion is reported by the watermaster.

Authority: Sections 348, subdivision (a), 1058, 1840, 1841, and 5103, Water Code.

Reference: Sections 348, subdivision (a) 5101(d) and 5101(e), Water Code.

§ 924. Water Use Reports of Registration and Certificate Holders.

(a) Reports of registration and certificate holders shall be filed annually by April 1 after the close of the twelve month reporting period. Provisional streamflow data may be used in preparing the water use report if final streamflow data are not available by the reporting deadline. If provisional streamflow data are used in the water use report, an amended report based on final streamflow data shall be filed within one month of the date the final streamflow data is available. The board may rely upon any report, including a report based on provisional data, until and unless a revised report is filed. The report shall be filed electronically on a form available at the board's website. Compliance with the requirement to file a water use report is a condition of every registration or certificate. A failure to file a report under this section is a violation of registration and certificate terms, as applicable.

(b) The annual reports shall include the following information:

- (1) A statement of compliance or of non-compliance with the terms and conditions of the registration or certificate;
- (2) The purpose(s) for which water is diverted and used;
- (3) The quantity of water diverted from each point of diversion by month (or shorter timeframe if otherwise required); and
- (4) For direct diversion, the maximum rate of diversion achieved at any time during each month, if available.

(c) The first reports of registration and certificate holders shall be filed for the diversion and use of water made during calendar year 2016. The report for 2016 shall be filed prior to April 1, 2017.

(d) The requirement to file annual reports of registration and certificate holders is in addition to and does not modify the five year renewal period for registrations under section 1228.5 of the Water Code.

Authority: Sections 348, subdivision (a), 1058, 1228.6, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1226.1, 1226.2, 1228.2, 1228.3, and 1846, Water Code.

§ 925. Progress Reports by Permittee.

(a) As specified in section 847 of this title, water right permit holders are required to file annual progress reports. Section 846 of this title provides that permittees may also be required to submit a written statement of the quantities of water beneficially used. Annual reports required under this section are in addition to any specific reporting requirements in a water right permit.

(b) Annual progress reports by permittees shall be filed by April 1 after the close of the twelve month reporting period ~~no later than July of the next year succeeding the year of diversion on~~

forms available at the board's website. Provisional data and information may be used in the progress report if final data are not available by the reporting deadline. If provisional streamflow data are used in the water use report, an amended report based on final streamflow data shall be filed within one month of the date the final streamflow data is available. The board may rely upon any report, including a report based on provisional data, until and unless a revised report is filed. A failure to file a progress report is a violation of permit terms.

(c) The annual reports shall include the following information:

(1) A statement affirming compliance or non-compliance with permit terms and conditions;

(2) The construction status of the permitted project and status of current water use;

(3) The purpose(s) for which water is diverted and used. Use information to be provided includes:

(A) irrigation, including crop type and acreage;

(B) frost protection, including acres covered;

(C) heat control, including acres covered;

(D) industrial, including type of activity;

(E) stock watering, including number and type of animals;

(F) municipal, including approximate population served, and seven digit public water system number or other identifier;

(G) domestic, including number of persons served, lawn or garden area, etc., and seven digit public water system number or other identifier, if applicable;

(H) power generation, including installed capacity in kilowatts, megawatts or horsepower;

(I) recreational, including boating, fishing or other water sports;

(J) additional uses not named above, including environmental use;-

(4) Information on the device or method used to calculate the amount of water diverted.

(45) The amount of water taken from each point of diversion in each month (or shorter period if otherwise required) from the source, including amount directly diverted, and the amount collected to storage, and the total annual amount of water diverted during the twelve month reporting period. Each month must contain an entry. If no diversion occurred in a given month, a "0" should be entered;

(56) The maximum rate of diversion achieved at any time during each month (or shorter period if otherwise required), if available of the year, if available;

~~(67) For permits, the annual report shall also include the measurement data required to be collected in section 933 of this chapter. For permits that authorize collection of water to storage, permittees shall also report the maximum and minimum water surface elevations for each reservoir.~~

(d) If a substitute or alternative water supply, such as groundwater, contract water, or recycled water, is being used in lieu of surface water that is required to be reported under this ~~section report~~, the report should indicate the source and amount of substitute or alternative water used and the amount of surface water offset on a monthly basis.

~~(e) If the use of an alternative supply of water or any water conservation efforts have resulted in a cessation or reduction in use, the report should include a description of the conservation efforts employed and indicate the extent and monthly amount of the reduction in water use due to these water conservation efforts.~~

Authority: Sections 348, subdivision (a), 1058, 1840, and ~~1841~~1058, Water Code.

Reference: Sections 348, subdivision (a), 1010, 1011, ~~and 1011.5,~~ and 1846, Water Code.

§ 929. Reports of Licensee.

(a) As specified in section 847 of this title, water rights license holders are required to file reports when requested by the board. Annual reports required under this section are in addition to any specific reporting requirements in a water right license.

(b) Reports of licensee shall be filed annually by April 1 after the close of the twelve month reporting period and not later than July of the next year succeeding the year of diversion on forms available at the board's website. Provisional data and information may be used in the report of licensee if final data are not available by the reporting deadline. If provisional streamflow data are used in the water use report, an amended report based on final streamflow data shall be filed within one month of the date the final streamflow data is available. The board may rely upon any report, including a report based on provisional data, until and unless a revised report is filed. A failure to file a licensee report is a violation of license terms.

(c) The annual reports shall include the following information:

(1) A statement affirming compliance or non-compliance with license terms and conditions;

(2) The amount of water diverted;

(3) The purpose(s) for which water is diverted and used. Use information to be provided includes:

- (A) irrigation, including crop type and acreage;
- (B) frost protection, including acres covered;
- (C) heat control, including acres covered;
- (D) industrial, including type of activity;
- (E) stock watering, including number and type(s) of animals;
- (F) municipal, including approximate population served, and seven digit public water system number or other identifier;
- (G) domestic, including number of persons served, lawn or garden area, etc., and seven digit public water system number or other identifier, if applicable;
- (H) power generation, including installed capacity in kilowatts, megawatts or horsepower;
- (I) recreational, including boating, fishing or other water sports;
- (J) additional uses not named above, including environmental use.

(4) Information on the device or method used to calculate the amount of water diverted.

(45) The amount of water taken from the source from each point of diversion in each month (or shorter period if otherwise required), including direct diversion amount, and amount collected to storage, and the total annual amount of water diverted during the twelve month reporting period. Each month must contain an entry. If no diversion occurred in a given month, a "0" should be entered.

(56) The maximum rate of diversion achieved at any time during each month (or shorter period if otherwise required), if available of the year, if available;

(67) For licenses, the annual report shall also include the measurement data required to be collected pursuant to section 933 of this chapter. For licenses that authorize collection of water to storage, licensees shall also report the maximum and minimum water surface elevations for each reservoir.

(d) If a substitute or alternative water supply, such as groundwater, contract water, or recycled water, is being used in lieu of surface water that is required to be reported under this report, the report should indicate the source and amount of substitute or alternative water used and the amount of surface water offset on a monthly basis.

(e) If ~~the use of an alternative supply of water or any~~ water conservation efforts have resulted in a cessation or reduction in use of surface water, the report should include a description of the conservation efforts employed and indicate the extent and monthly amount of the reduction in water use due to these water conservation efforts.

Authority: Sections 348, subdivision (a), 1011, 1058, 1840, and 1841-1058, Water Code.

Reference: Sections 348, subdivision (a), 1010, 1011, ~~and~~ 1011.5, and 1846, Water Code.

§ 930. Notices of Extraction and Diversion.

(a) Annual notices of groundwater extraction and diversion required pursuant to Part 5 of Division 2 of the Water Code shall be submitted to the board electronically, within six months after the close of the succeeding calendar year, on the forms available at the board's website. A failure to file an annual notice of groundwater extraction and diversion is considered non-use of water.

(b) The report shall include the following information:

- (1) Type of diversion;
- (2) Amount of groundwater extracted during the calendar year;
- (3) Amount of surface water diverted and used, if applicable;
- (4) Method of measurement;
- (5) Supplemental information, if applicable.

(c) Electronic reporting of groundwater extraction and diversion does not apply to those persons reporting to local oversight agencies pursuant to section 5009 of the Water Code.

(d) As specified in Section 1070 of this title, a filing fee is required. The fee must be submitted separately from the electronic report. Filing is not complete until the board receives the filing fee.

(e) If the use of an alternative supply of water or any water conservation efforts have resulted in a cessation or reduction in use, the report should indicate the extent and amount of the reduction in water use due to water conservation efforts.

Authority: Sections 348, subdivision (a), 1058, and 1529, Water Code.

Reference: Sections 1005.1, 1005.2, 1005.3, 1005.4, 1011, 1011.5, 1530, 4999, 5000, 5001, 5002, 5003 and 5004, Water Code.

CH 2.8 MEASURING AND MONITORING

§931 Definitions. The following definitions apply to the terms as they are used in this Chapter.

(a) “Accuracy” means the measured volume relative to the actual volume, expressed as a percent, and determined at the same frequency as is specified for monitoring in section 933, subdivision (b) of this title. The percent shall be calculated as $100 \times (\text{measured value} - \text{actual value}) / \text{actual value}$.

(1) “Measured value” is the value indicated by the device or measurement method or determined through calculations, such as flow rate combined with duration of flow.

(2) “Actual value” is the value as determined through laboratory, design, or field testing protocols.

(b) “Board” means the State Water Resource Control Board.

(c) “Delta” means the Delta as defined in section 12220 of the Water Code and the Suisun Marsh as defined in section 29101 of the Public Resources Code.

(d) “Deputy director” means the Deputy Director for the Division of Water Rights.

(e) “Diverter” means:

(1) Any person authorized to divert water under a permit or license; or

(2) Any person required under Water Code, Division 2, Part 5.1 to file a Statement of Water Diversions and Use; or

(3) Any person authorized to divert under a registration; or

(4) To the extent authorized by federal law, the federal government for rights claimed under permits, licenses, registrations, statements of water diversion and use, and non-reserved and reserved rights on file with the board.

(f) “Diverter with multiple claimed rights” means a diverter who diverts water under more than one of the following: permits, licenses, registrations, stockpond certificates, or statements of water diversion and use.

(g) “Executive director” means the Executive Director of the board.

(h) “Measurement method” means a method capable of accounting for the rate of direct diversion, rate of collection to storage, and rate of withdrawal or release from storage where the method is likely to achieve accuracy standards comparable to those of individual measuring devices as described in section 933 subdivision (d) of this chapter.

(i) “Measuring device” means a device by which a diverter determines and records the numeric value of flow rate, velocity or volume of the water passing a designated and calibrated observation point during a specific time period. A measuring device may be a manufactured device, an on-site built device, or an in-house built device.

(j) “Place of use” means the legal location where water is used under the water right or claimed water right, subject to the following clarifications:

(1) For livestock stockpond registrations, as defined in section 1228.1, subdivision (b)(3) of the Water Code, and for stockpond certificates, as described in section 1226.1 of the Water Code, the place of use is the stockpond.

(2) For single purpose recreational ponds, the place of use is the pond.

(3) For other ponds or reservoirs, the deputy director may designate the pond or reservoir as the place of use for the purposes of compliance with this chapter.

(4) For instream flow beneficial uses and wetland preservation and enhancement dedications, the place of use is the designated reach of the stream or the wetland area where the water is applied to beneficial use.

(k) “Point of diversion” means the legal location where water is diverted from its source.

(l) “Qualified individual” means:

(1) For diversions greater than or equal to 100 acre-feet per year:

(A) A California-registered Professional Engineer; or

(B) A California-licensed contractor authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps; or

(C) A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods; or

(D) In the case of a right or a claimed right to divert by an agency of the federal government, a hydrologist or professional engineer experienced and trained in water measurement who is employed by the federal agency in that capacity.

(2) For diversions less than 100 acre-feet per year, a person trained and experienced in water measurement and reporting. This may include the diverter or the diverter’s agent.

(m) “Threatened, endangered, or fully protected fish” means a population of fish that belong to a species listed as threatened or endangered pursuant to the Endangered Species Act, (16 U.S.C. §§ 1531-1544), or the California Endangered Species Act, (Fish & Game Code, §§ 2050-2097) or fully protected pursuant to Fish & Game Code, § 5515.

(n) “Twelve month reporting period” has the same meaning as in section 907, subdivision (e) of this title.

(o) “Type of measuring device” means a class of measuring devices manufactured or built to perform similar functions. For example, inline flow meters, submerged orifice gates, and rectangular, v-notch, and broad crested weirs are types of measuring devices.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13 and 5103, Water Code.

§931.5 Authority of the Delta Watermaster.

The Delta Watermaster may exercise all powers assigned to the deputy director under this chapter for any point of diversion located within the Delta. The deputy director may exercise these powers within the Delta during a vacancy in the position of Delta Watermaster or as authorized by the Delta Watermaster.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 85230, Water Code.

§932 Applicability.

(a) Except as provided in subdivision (d), the following diverters shall install and maintain a measuring device or employ a measurement method capable of measuring the rate of diversion, rate of collection to storage, the rate of withdrawal or release from storage, and the total volume of water diverted or collected to storage:

(1) Any person authorized to divert greater than 10 acre-feet of water per year under a permit or license.

(2) Any person who has previously diverted or intends to divert greater than 10 acre-feet of water per year and is required under Water Code Part 5.1 to file a Statement of Water Diversions and Use.

(3) Any person authorized to divert greater than 10 acre-feet of water per year or to have a storage facility with a capacity greater than 10 acre-feet under a registration.

(b) A diverter with multiple claimed rights shall install and maintain a measuring device or employ a measurement method for all water rights to divert from the same point of diversion or serving the same place of use if the sum of the diverter’s multiple claimed rights serving the place of use exceeds 10 acre-feet per year, or exceeds such other measurement threshold as the deputy director may establish under subdivision (d) of this section. Measurement methods employed by a diverter with multiple claimed rights shall be capable of measuring the rate of diversion, rate of collection to storage, the rate of withdrawal or release from storage, and the total volume of water diverted or collected to storage.

(c) Effective Dates.

(1) The deadlines for the installation and certification of measuring devices or the adoption of a measurement method shall be:

(A) On or before January 1, 2017, for a diverter with a right or a claimed right to divert 1000 acre-feet of water per year or more.

(B) On or before July 1, 2017, for a diverter with a right or a claimed right to divert 100 acre-feet of water per year or more.

(C) On or before January 1, 2018, for a diverter with a right or a claimed right to divert greater than 10 acre-feet of water per year.

(2) For a diverter with multiple claimed rights, the deadlines for the installation and certification of measuring devices or methods shall be as follows for each point of diversion or place of use shared by multiple claimed rights:

(A) On or before January 1, 2017, where the sum of all the multiple claimed rights to divert from the same point of diversion or to serve the same place of use is 1000 acre-feet of water per year or more.

(B) On or before July 1, 2017, where the sum of all the multiple claimed rights to divert from the same point of diversion or to serve the same place of use is 100 acre-feet of water per year or more.

(C) On or before January 1, 2018, where the sum of all the multiple claimed rights to divert from the same point of diversion or to serve the same place of use is greater than 10 acre-feet of water per year.

(D) In the event of any conflict between deadlines for a diverter with multiple claimed rights, the more stringent requirement shall control.

(d) Increasing the Measurement Threshold.

(1) Beginning January 1, 2017, the deputy director may issue orders to increase the 10 acre-feet measurement threshold of subdivision (a) in a watershed or subwatershed incrementally to or above 25 acre-feet. The deputy director may authorize an increased measurement threshold after:

(A) Considering the total monthly quantities of water diverted in relation to the monthly quantity of water available within the watershed or subwatershed; the requirements of any policy, decision or order of the board or a court; and the need for diversion and bypass information to evaluate impacts from the diversions of water to public trust resources. The deputy director may require submission of documentation on the nature and scope of diversions in the watershed prior to issuing the order; and

(B) Reviewing any relevant information submitted by affected diverters, federal, state, local, or tribal governments, or other interested parties regarding a proposed increase in reporting threshold; and

(C) Determining that the benefits of the additional reporting information at a specific measurement threshold are substantially outweighed by the cost of installing measuring devices, or employing measurement methods, or employing alternative compliance plans; and

(D) Determining that increasing the measurement threshold will not injure public trust resources or any threatened, endangered, or fully protected fish.

(2) The deputy director shall not increase the measurement threshold in a watershed or subwatershed above those established in any other regulation, policy, decision, order or other legal requirement adopted by the board, a Regional Water Quality Control Board, or a court, unless the change is authorized by such previous requirements.

(3) The deputy director may review each proposal to increase the reporting threshold on a case-by-case basis.

(4) The deputy director may authorize an increased measurement threshold for a period not to exceed five years. If changing conditions warrant, the deputy director may modify or cancel any such authorization.

(5) The deputy director shall maintain and post on the board's website a list of measurement thresholds for watersheds or subwatersheds where the measurement threshold is greater than 10 acre-feet.

(6) A decision or order issued under this section by the deputy director is subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the Water Code, and all applicable sections of this title.

(e) Other Measurement and Monitoring Requirements.

(1) Any person with a water right identified in or subject to a statute, order, policy, regulation, decision, judgment or probationary designation of the board, a Regional Water Quality Control Board, or a court is responsible for meeting the terms and conditions of the statute, order, policy, regulation, decision or judgment and the requirements of this chapter. If there is any conflict or inconsistency between the measurement and monitoring requirements subject to the statute, order, policy, regulation, decision, judgment or probationary designation and the requirements of this chapter, the more stringent requirement or requirements shall control in each instance.

(2) A permit, license, or registration holder is responsible for meeting the conditions of the permit, license, or registration and the requirements of this chapter. If there is any conflict or inconsistency between the permit, license, or registration condition for measurement and monitoring and the requirements of this chapter, the more stringent requirement or requirements shall control in each instance.

(f) Failure to maintain a measuring device, employ a measurement method, or implement an alternative compliance plan in accordance with the requirements of this chapter is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1122, 1123, 1846, and 5103, Water Code.

§933 Measuring Device Requirements.

(a) Measurement Options. A diverter may choose any measuring device, or combination of devices, that meet the requirements of this section.

(b) Data

(1) Data Recording. The measuring device shall be capable of recording the date, time, and at least one of the following: total volume of water diverted, flow rate, water velocity, or water elevation. The data shall be recorded in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the deputy director. The measuring device shall be capable of recording the required information as follows:

(A) For direct diversion:

(i) On an hourly or more frequent basis for a diverter with a right or a claimed right to divert 1000 acre-feet of water per year or more.

(ii) On a daily or more frequent basis for a diverter with a right or a claimed right to divert 100 acre-feet of water per year or more.

(iii) On a weekly or more frequent basis for a diverter with a right or a claimed right to divert more than 10 acre-feet of water per year.

(B) For direct diversion by a diverter with multiple claimed rights:

(i) On an hourly or more frequent basis, where the sum of the diversions made under the claimed rights from the same point of diversion or to serve the same place of use is 1000 acre-feet of water per year or more.

(ii) On a daily or more frequent basis, where the sum of the diversions made under the claimed rights from the same point of diversion or to serve the same place of use is 100 acre-feet of water per year or more.

(iii) On a weekly or more frequent basis, where the sum of the diversions made under the claimed rights from the same point of diversion or to serve the same place of use is greater than 10 acre-feet of water per year.

(iv) In the event of any conflict between recording requirements for a diverter with multiple claimed rights from the same point of diversion or to serve the same place of use, the more stringent requirement shall control.

(C) For storage in a reservoir or pond:

(i) On an hourly or more frequent basis for a reservoir or pond with a storage capacity of 1000 acre-feet or more.

(ii) On a daily or more frequent basis for a reservoir or pond with a storage capacity of 200 acre-feet or more.

(iii) On a weekly or more frequent basis for a reservoir or pond with a storage capacity of 50 acre-feet or more and less than 200 acre-feet.

(iv) On a monthly or more frequent basis for a reservoir or pond with a storage capacity of greater than 10 acre-feet and less than 50 acre-feet.

(v) In the event of any conflict between recording requirements for a diverter with multiple claimed rights to divert to storage in a reservoir or pond, the more stringent requirement shall control.

(2) Data Submittal.

(A) Each diverter to which a measurement requirement applies shall submit the data from each measuring device to the board as required by chapter 2.7 of division 3 of this title, and within 30 days of any request or order by the board.

(B) For a reservoir subject to drawdown and refill during the collection to storage season, or that is otherwise operated in a cyclical manner, the maximum and minimum water surface elevations, the corresponding reservoir volume, and the monitoring dates shall be measured and the resulting data maintained.

(C) For each reservoir, if water is diverted or flows into the reservoir under more than one bases of right, including groundwater or water purchased under a contract, the amounts reported to the board shall be limited to the amounts covered by the water right being reported. A record of the alternative supplies entering the reservoir throughout the year shall be maintained to demonstrate that water stored is under a separate basis of right or contract.

(3) Data Retention. Each diverter shall keep records of the data from each measuring device for a period of no less than 10 years.

(4) Telemetry Requirements.

(A) This paragraph applies to any diverter who:

(i) Diverts more than 10,000 acre-feet annually; or

(ii) Owns or operates a reservoir or pond with a storage capacity of 10,000 acre-feet or more; or

(iii) Diverts during the period from June 1 through September 30, and directly diverts more than 30 cubic feet per second at any time; or

(iv) Diverts during the period from June 1 through September 30, and has claimed water right(s) to more than 20 percent of historic calculated mean monthly stream flow as measured by a stream gage with publically available records maintained by the U.S. Geological Survey, the California Department of Water Resources, the U.S. Army Corps of Engineers, or the board, or such other percentage as the deputy director shall determine; and any of the following conditions apply:

(a) Threatened, endangered, or fully protected fish species are present or have historically been present; or

(b) The diversion is made from a stream that is part of the board's North Coast Instream Flow Policy area; or

(c) The diversion is made from the Deer Creek, Mill Creek, or Antelope Creek watersheds of the Sacramento River watershed; or

(d) The diversion is made from the Mark West Creek, Green Valley Creek, Mill Creek, or Dutch Bill Creek watersheds of the Russian River watershed; or

(B) This paragraph applies to all rights, claimed rights, or combinations of rights and claimed rights to divert from a single or shared point of diversion if the sum of such rights or claimed rights meets the criteria of subparagraphs (A)(i), (A)(iii), and (A)(iv) of this paragraph.

(C) By January 1, 2020, diverters subject to subparagraphs (A)(i), (A)(ii), or (A)(iii) of this paragraph shall provide telemetered diversion data via a public website that displays the data on at least a daily basis, and that is updated weekly, at minimum. For diverters subject to subparagraph (A)(iv), the deputy director may establish the appropriate date and percentage of stream flow for telemetering after notice and opportunity for comment. The data shall be provided to the board upon the request of the deputy director in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the deputy director. The deputy director shall not require telemetering of any diverter who diverts less than 10 percent of the calculated stream flow.

(D) The board may adjust the percent threshold of historic calculated mean monthly stream flow below 10 percent on an individual stream after notice and opportunity for comment and following a board meeting.

(c) Calculating Volume from Recorded Data. If a measuring device measures the flow rate, water velocity, or water elevation, and does not report the total volume of water diverted or delivered, the diverter shall report the conversion method used to convert the measured value to volume. The conversion method shall be approved by a qualified individual.

(1) For a measuring device that measures flow-rate, the report shall describe protocols used to record the duration of operation where volume is derived by the following formula: $\text{Volume} = (\text{flow rate}) \times (\text{duration})$.

(2) For a measuring device that measures flow velocity only, the report shall describe protocols used to determine the cross-sectional area of flow and the duration of operation, where volume is derived by the following formula: $\text{Volume} = (\text{velocity}) \times (\text{cross-section flow area}) \times (\text{duration})$.

(3) For a measuring device that measures water elevation at the device (e.g. flow over a weir or differential elevation on either side of a device), the report shall describe protocols used to derive flow rate at the measuring device and the method or formula used to derive volume from the measured elevation value(s).

(d) Required Accuracy. The accuracy for each measuring device applies to the volume diverted or stored.

(1) A measuring device installed on or before January 1, 2016, shall be certified to be accurate to within ± 15 percent by volume based on periodic testing of the installed device.

(2) A measuring device installed or replaced after January 1, 2016 that is used to measure the diversion of water shall be certified to be accurate to within:

(A) ± 5 percent by volume in the laboratory if using a laboratory certification.

(B) ± 10 percent by volume based on periodic testing of the installed device if using a non-laboratory certification for a diverter with a right or a claimed right greater than or equal to 100 acre-feet per year.

(C) ± 15 percent by volume based on periodic testing of the installed device if using a non-laboratory certification for a diverter with a right or a claimed right greater than or equal to 10 acre-feet per year.

(3) A measuring device installed or replaced after January 1, 2016 that is used to measure the water stored in a reservoir or pond shall be certified to be accurate to within:

(A) ± 10 percent by volume in based on periodic testing of the installed device for a reservoir or pond with a storage capacity of 200 acre-feet or more.

(B) ± 15 percent by volume in based on periodic testing of the installed device for a reservoir or pond with a storage capacity greater than 10 acre-feet and less than 200 acre-feet.

(e) Certification of Accuracy. The accuracy of a measuring device shall be initially certified and documented as follows:

(1) For a measuring device installed prior to January 1, 2016, the accuracy required shall be initially certified and documented by field-testing performed by an individual trained in the use of relevant field-testing equipment. The results from the field testing shall be documented in a report approved by a qualified individual and shall be filed with the next subsequent water use report. Stream gages installed and maintained by the U.S. Geological Survey or the U.S. Army Corps of Engineers do not require additional certification of the stream gage device accuracy pursuant to this section.

(2) For a measuring device installed or replaced after January 1, 2016, the accuracy shall be initially certified and documented by either:

(A) Laboratory certification prior to installation of a measuring device as documented by the manufacturer or an entity, institution or individual that tested the device following relevant industry-established protocols. Documentation shall include the manufacturer's literature or the results of laboratory testing of an individual measuring device or type of measuring device; or

(B) Non-laboratory certification after the installation of a measuring device based on periodic testing of the installed device, as documented by either:

(i) The affidavit or declaration of a qualified individual documenting the design and installation of the measuring device at a specified location; or

(ii) A report approved by a qualified individual documenting the field-testing performed on the installed measuring device by an individual trained in the use of field testing equipment.

(f) Protocols for Field-Testing and Field-Inspection and Analysis. Field-testing shall be performed for a measuring device according to the manufacturer's recommendations or design specifications and be overseen by a qualified individual. Field inspection and analysis protocols shall be performed and the results shall be approved by a qualified individual for each measuring device to demonstrate the following:

(1) The design and installation standards used for each measuring device meets the accuracy standards of subdivision (d) of this section; and

(2) The operation and maintenance protocols will ensure compliance with the accuracy standards of subdivision (d) of this section.

(g) Installation, Maintenance and Performance Requirements. A measuring device shall be installed, maintained, operated, inspected, and monitored to ensure the accuracy standards of subdivision (d) of this section are met. The installation of a measuring device shall be performed by a qualified individual.

(h) Calibration. The measuring device shall be calibrated by a qualified individual upon installation and at least once every five years thereafter. The diverter shall be responsible for more frequent calibration of measuring device(s) as necessary to ensure the accuracy requirements of subdivision (d) of this section are met.

(i) Measuring Device Location. No delivery or use of water shall occur between the point of diversion and the location of the measuring device, unless otherwise measured.

(j) Accessibility. The measuring device shall be installed in a manner such that it is readily accessible for reading, inspection, testing, repair or replacement. The diverter shall make the measurement device reasonably available for inspection by an authorized representative of the board upon request. The diverter shall provide the board's representative with reasonable access to inspect the measuring device. Failure to provide such reasonable access is a violation of this regulation.

(k) Verification of Measuring Device. The board may conduct a field inspection or request additional information from the diverter to determine if the measuring device has been properly installed and meets the requirements of this section. Failure to timely install a measuring device or verify its accuracy is a violation of this regulation.

(l) Inadequate Measuring Device. If a measuring device fails to meet the accuracy requirements of subdivision (d) of this section, the diverter shall repair or replace the measuring device at their own expense to meet such requirements.

(1) Notification. A diverter shall timely notify the board in writing upon detecting that the holder's measuring device does not comply with the accuracy requirements of subdivision (d) of this section. The notification shall include the diverter's plan to take appropriate, timely corrective action to comply with the accuracy requirements of subdivision (d) of this section.

(2) Enforcement. Failure to timely repair or replace a measuring device that does not comply with the accuracy requirements of subdivision (d) of this section is a violation of this regulation.

(m) Lawful authority. Nothing in this section shall be construed to limit or modify the board's authority to obtain information under any other lawful authority.

Authority: Sections 183, 1051, 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

§934 Measurement Method.

(a) A measurement method is a protocol for measuring water diversions, other than through a measuring device at each authorized point of diversion, where the method achieves the accuracy requirements of subdivision (e) of this section. The board encourages diverters on a local or regional basis to cooperate and establish a measurement method or methods to measure direct diversion, diversion to storage, and withdrawal or release from storage in an efficient and cost effective manner which meets the accuracy requirements of subdivision (e) of this section. Any measurement method shall be able to quantify the amount of water diverted under all separate priorities of rights being exercised. If the claimed water rights included in a measurement method have different requirements under section 933, the more stringent requirement shall control for all of the claimed water rights covered by the measurement method.

(b) Minimum Standards for Measurement Method.

(1) Form and Content. A measurement method shall be prepared by a qualified individual and shall include, at a minimum, a written description that includes the following information:

(A) Name and contact information of all participants, including designation of an agent to serve as the primary contact person.

(B) Topographic or aerial map(s) showing location of participants and covered lands (including all assessor parcel numbers). The map shall conform to the mapping requirements of article 7 of chapter 2 of division 3 of this title.

(C) Description of how the measurement method is implemented to meet the requirements of this chapter.

(D) Documentation required under subdivision (f) of this section verifying the accuracy of the measurement method.

(E) Description of the permits, licenses, registrations, certificates and water right claims covered by the measurement method including for each individual right: file number, owner name, water right type, priority of diversion, monthly and annual diversion amounts, place of use, purpose of use, and alternative sources of water.

(F) Description of how the measurement method will account for each priority of right during periods of insufficient supply.

(2) Action by the deputy director. The deputy director may review measurement methods at the deputy director's discretion, and may reject measurement methods that fail to meet the requirements of this section. A measurement method shall not be authorized where any requirement of any contract, policy, order, decision, judgment, determination, or other regulatory requirement of the board, a Regional Water Quality Control Board, other state or federal agency, or a court requires that diversions be measured by a measuring device at each point of diversion.

(3) Initial Term and Renewal. The deadlines for the adoption of a measurement method shall be in accordance with subdivision (c) of section 932 of this title.

(c) Shared Measurement Point Upstream of the Delivery Point or Farm Headgate. A group of diverters may measure water diverted at a location upstream of their respective delivery points or farm headgates or at shared points of diversion if a written agreement is in place for the diverters to share a measuring device located at the shared point of diversion. Diverters using a shared measuring device under this subdivision shall report the following additional information to the board on an annual basis:

(1) The methodology used to apportion the volume of water delivered from the shared point of diversion to each downstream diverter, including how water will be apportioned among the diverters participating in the agreement during periods of insufficient supply while preventing injury to any other legal user of water or to public trust resources.

(2) The field or flow condition at each individual diverter's delivery point downstream of the point of measurement including the duration of water delivery to the individual diverter, annual water use patterns, irrigated acreage (including GIS map showing assessor's parcel number and USDA field identification number), crops planted, on-farm irrigation system, and other relevant distinctions in beneficial uses and water management practices.

(3) Consumptive use of water for each individual diverter, if available.

(d) Data

(1) Data Recording. The measurement method shall be capable of reporting the date, time, and total amount of water diverted in accordance with the requirements of subdivision (b) of section 933 of this title. The data shall be recorded in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the deputy director.

(2) Data Submittal. Each diverter or claimant shall submit data from the measurement method to the board pursuant to chapter 2.7 of division 3 of this title, or within 30 days of request of the deputy director. Water use data for each twelve month reporting period shall be submitted on a form available on the board's website with the appropriate water use report including a Progress Report by Permittee, Report of Licensee, Supplemental Statement of Water Diversion and Use, and Water Use Reports of Registration and Certificate Holders.

(e) Required Accuracy. The accuracy of the measurement method to determine the volumes of water diverted, diverted to storage, and withdrawn or released from storage shall reasonably achieve accuracy standards comparable to the standards listed in subdivision (d) of section 933 of this title for individual measuring devices. The accuracy of the measurement method shall be determined by a qualified individual.

(f) Certification of Measurement Method Accuracy. The accuracy of a measurement method shall initially be certified and documented by field-testing performed by an individual trained in the use of relevant field-testing equipment. The results from the field testing shall be documented in a report approved by a qualified individual and shall be filed with the subsequent water use report. When the measurement method applies to water diverted for agricultural use, the certification shall be based on a statistically significant number of sampling points based on crop type and field size, include field testing and measurement during multiple phases of the crop-growth cycle, include all factors which influence consumptive use of water, and include any estimated tailwater return flows and percolation losses, where applicable. Field notes, calculations, and other materials used in the certification shall be included in the report.

(g) Operation and Performance Requirements. A measurement method shall be operated and maintained to meet the accuracy standards of subdivision (e) of this section. Field testing and re-analysis that the measurement method meets the requirements of this section shall be performed by a qualified individual upon installation, and at least once every five years thereafter.

(h) Inadequate Measurement Method. If a measurement method fails to meet the accuracy standards of subdivision (e) of this section, the measurement method shall be corrected to comply with such standards.

(1) Notification. The diverters employing a measurement method shall notify the board in writing within 30 days of finding a measurement method does not comply with the accuracy standards of subdivision (e) of this section. The notification shall include a plan to take appropriate, timely corrective action.

(2) Enforcement. Failure to correct defects or to ensure the measurement method complies with the accuracy standards of subdivision (e) of this section is a violation of this regulation.

(3) Measuring Devices Required. If defects in the measurement method are not timely corrected, measuring devices shall be installed at each point of diversion previously covered by a measurement method within 90 days.

(i) Measurement Method Duration and Renewal.

(1) A measurement method may remain in effect for a period of not more than five years, commencing from the effective date applicable to diversions subject to the plan pursuant to subdivision (c) of section 932 of this title.

(2) A diverter may renew a measurement method by resubmitting it, with or without amendment, before the method expires.

(3) The deputy director may reject a measurement method renewal for failure of the diverter(s) to implement a previous measurement method or for failure to achieve the required accuracy. Incomplete measurement method documentation, documentation that do not meet the minimum standards of this section, and lapses in measurement methods shall not relieve a diverter of the requirement to fully comply with sections 933 and 934 of this chapter.

(j) Measurement methods submitted in accordance with the provisions of this section shall be timely implemented.

Authority: Sections 183, 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

§935 Alternative Compliance for a Measuring Device or Measurement Method Requirement.

(a) Alternative Compliance – Generally. In circumstances where strict compliance with sections 933 or 934 of this title is not feasible, would be unreasonably expensive, would unreasonably affect public trust uses, or would result in the waste or unreasonable use of water, a diverter may submit an alternative compliance plan.

(b) Minimum Standards – an alternative compliance plan under subdivision (a) shall meet the following minimum standards:

(1) The plan shall include the following information:

- (A) The name and contact information for all diverters covered by the plan;
- (B) The name and contact information for the person designated to represent all diverters covered by the plan in matters before the board;
- (C) Identification of each individual water right type and priority covered by the plan;
- (D) A detailed description of the area served by the plan, including all points of diversion whether used or not used, all methods of diversion, any conveyance systems, all beneficial uses of water, and all acreage served;
- (E) The assessor's parcel numbers and ownership within the area covered by the plan;
- (F) Identification of the proposed measurement frequency;
- (G) Identification of the proposed measurement methodology;
- (H) Topographic map(s) or aerial photograph(s) of the area covered by the plan that show the separate places of use authorized to be served by claimed water rights covered by the plan and showing the acreage served;
- (I) An implementation schedule, including date-specific, objective milestones of plan implementation from date of filing through final implementation, including the estimated milestones for acquiring permits required for plan implementation and the estimated milestones for compliance with the California Environmental Quality Act, if required;
- (J) Budget for implementation of the plan and the source(s) of financing for the plan;
- (K) A list of any permits required for plan implementation, the agencies that will issue the permits, and expected dates for issuance;
- (L) An affirmation, signed by all diverters covered by the plan, that the plan will be implemented in accordance with the schedule contained therein and that all claimed water rights covered by the plan will not be exercised outside the scope of the plan.

(2) The plan shall include an explanation and substantiating documentation of alternative compliance for each of the requirements of sections 933 and 934 of this title. Absent substantiation of the specific basis for reduced performance standards, the plan shall state how compliance with sections 933 and 934 of this title will be achieved.

(3) The plan shall provide detailed documentation establishing and supporting the specific basis for claiming that strict compliance with sections 934 and 935 of this title is not feasible, would be unreasonably expensive, would unreasonably affect public trust uses, or would result in the waste or unreasonable use of water. Any claim that strict compliance is unreasonable expensive shall be accompanied by a cost analysis.

(4) The plan shall include a certification by a qualified individual that the plan is in compliance with this chapter.

(c) Filing of Alternative Compliance Plan.

(1) The alternative compliance plan shall be filed no later than the compliance deadline applicable to the diverter(s)' claim(s) of right under subdivisions (b) and (c) of section 932 of this title.

(2) The alternative compliance plan shall be filed electronically on a form available on the board's website.

(3) The alternative compliance plan shall be filed under penalty of perjury.

(d) Diverters under an alternative compliance plan shall report on plan implementation. Documentation of compliance with the timelines and other elements of the alternative compliance plan shall be filed with the applicable annual report under chapter 2.7 of this title.

(e) All plans submitted in accordance with the provisions of this section shall be timely implemented in accordance with the schedule contained therein.

(f) The deputy director may make such determinations for a plan, group of substantially similar plans, or group of plans for substantially similar projects.

(g) Alternative compliance plans received pursuant to this section will be posted on the board's website. The deputy director shall provide opportunity for comment by any interested parties.

(h) The deputy director may:

(1) Review any plan, request additional information to support a plan, and confer informally with a plan's sponsor to suggest modification in the plan;

(2) Audit any plan or any element of a plan for compliance with this chapter;

(3) Require submission of evidence of plan implementation in accordance with the schedule therein;

(4) Require changes or modification to any plan or plan component necessary to achieve compliance with this chapter,

(5) Require that any defect in a plan be corrected within a reasonable time; and

(6) Reject any plan that fails to meet the requirements of this chapter.

(j) A decision or order issued under subdivision (h) of this section is subject to reconsideration under article 2 (commencing with section 1122) of chapter 4 of part 1 of division 2 of the California Water Code, and all applicable sections of this title.

(k) Plan Duration and Renewal.

(1) An alternative compliance plan may remain in effect for a period of not more than five years, commencing from the effective date applicable to diversions subject to the plan pursuant to subdivision (c) of section 932 of this title.

(2) A diverter may renew an alternative compliance plan by resubmitting it, with or without amendment, before the plan expires.

(3) The deputy director may reject a plan renewal for failure of the diverter to implement a previous plan according to its schedule, or for failure of a previous plan to achieve the required accuracy. Incomplete plans, plans that do not meet the minimum standards of this section, and lapses in plans shall not relieve a diverter of the requirement to fully comply with sections 933 and 934 of this chapter.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

§936 Request for Additional Time.

(a) A diverter may submit a request for additional time to comply with the provisions of this Chapter on a form available on the board's website. The additional time granted by the deputy director shall not exceed 24 months per extension.

(b) Approval of a time extension request is contingent on the following:

(1) Financial considerations shall be considered only in cases where the diverter has requested agency funding, and is awaiting grant or loan award.

(2) Extensions based on other considerations are limited to:

(A) minimum time needed to access site due to weather conditions; or

(B) minimum time needed to obtain other agency permits; or

(C) minimum time needed to comply with construction time periods set in other agency permits; or

(D) unforeseen circumstances.

(c) All time extension requests shall be accompanied by documentation of grant or loan request or agency permit requests, as applicable. Funding and/or permit approval documents shall be submitted to the deputy director within 30 days of receipt. Time extension requests based on unforeseen circumstances shall be accompanied by a showing of good cause and a showing that all reasonable efforts have been made to comply with the timelines established in the subdivision (c) of section 932 of this chapter.

(d) All time extension requests shall be accompanied by a plan documenting the additional time needed to comply with the provisions of this chapter. The plan shall describe the interim

measurement practices the diverter will implement while diligently pursuing compliance with this chapter.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

§937 Report of Water Measuring Device.

(a) Report - Filing Requirements. A report of water measuring device shall be filed electronically on a form available on the board's website.

(1) For measuring devices installed on or before January 1, 2016, a diverter shall submit a report of water measuring device to the board with the first water use report filed after January 1, 2017.

(2) For measuring devices installed after January 1, 2016, a diverter shall submit a report of water measuring device to the board with the first water use report submitted after installation of the device.

(3) After the initial report has been submitted, the diverter shall provide the board with a report of water measuring device at five year intervals.

(4) The diverter shall submit a report of water measuring device to the board within 30 days of installation or calibration of a new or replacement measuring device.

(5) The diverter shall submit a report of water measuring device to the board within 30 days of request from the board.

(b) Form - Content. The report of water measuring device shall contain the following information, as applicable:

(1) Name of diverter.

(2) Contact information for the person testing the performance of the device, including email address.

(3) Water right identification number, if assigned.

(4) Type of measuring device.

(5) Make, model number and serial number of the measuring device.

(6) Type of recording device.

(7) Make, model number and serial number of the recording device.

(8) Units of measurement.

(9) The date of installation.

(10) Certification of accuracy.

(11) Name of the person who installed the measuring device.

(12) Date of most recent calibration or recalibration of the measuring device.

(13) Maintenance schedule for the measuring device and the recording device.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

§938 Compliance.

Failure to meet the requirements of this Chapter is violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846.

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 1846, Water Code.

Emergency Defined

Governor Edmund G. Brown Jr. signed Senate Bill (SB) 88 on June 24, 2015 (appendix 2). The bill enacts Water Code sections 1840 and 1841 and amends sections 5103 and 5104, all of which establish measurement and reporting requirements for a substantial number of diverters.

Section 1841 of the Water Code authorizes the State Water Resources Control Board (State Water Board or Board) to adopt an emergency regulation requiring measuring and reporting of water diversion. Specifically, the Board may regulate measurement and reporting of diversions by persons authorized to appropriate water under a permit, license, registration for small domestic, small irrigation, or livestock stockpond use, or certification for livestock stockpond use. (Wat. Code, 1841, subd. (a)(1).) The Board may also regulate measurement and reporting of diversions by persons required to file a statement of diversion and use. (*Id.*, §§ 1841, subd. (a)(2), 5103, subd. (e)(1)(B).)

Subdivision (b) of section 1841 specifies that the Board's initial measurement and reporting regulation shall be adopted as an emergency regulation in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The adoption of the initial regulation is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health, safety, and general welfare. (Wat. Code, § 1841, subd. (b).) The Board's initial measurement and reporting regulation shall remain in effect until revised by the Board. (*Ibid.*) The adoption of the initial regulation is exempt from Division 13 (commencing with Section 21000) of the Public Resources Code. (*Id.*, subd. (c).)

In this document, the Board is providing the necessary specific facts demonstrating compliance with Government Code section 11346.1, subdivision (b)(2) and Water Code section 1841.

Government Code section 11346.1, subdivision (a)(2) requires that, at least five working days prior to submission of the proposed emergency action to the Office of Administrative Law, the adopting agency provide a notice of the proposed emergency action to every person who has filed a request for notice of regulatory action with the agency. After submission of the proposed emergency to the Office of Administrative Law, the Office of Administrative Law shall allow interested persons five calendar days to submit comments on the proposed emergency regulations as set forth in Government Code Section 11349.6.

The information contained within this finding of emergency provides the information necessary to support the Board's emergency rulemaking under Water Code section 1841 and also meets the emergency regulation criteria of Government Code section 11346.1 and the applicable requirements of section 11346.5.

Evidence of Emergency and Need for the Regulation

The Board finds that an emergency exists due to the requirements of section 1841, subdivision (b) of the Water Code. The adoption of the proposed emergency regulation is necessary to

address the emergency and to specifically allow for the provisions and requirements of Water Code section 1840, 1841, 5103, and 5104 to be effectively and efficiently administered and enforced. The proposed emergency regulation will implement these new provisions and provide guidance to water users.

The new measurement requirements affect all water right holders diverting more than 10 acre-feet of water per year (approximately 12,000 water right holders). The annual reporting requirement will affect all water users required to file statements of diversion and use (including those claiming a riparian or pre-1914 appropriative water right) and persons authorized to appropriate under a permit, license, registration (small domestic, small irrigation, or livestock stock pond), or certificate for livestock stock pond use.

The Board anticipated that the new measurement requirements could present challenges to some water users. The Board held meetings and workshops in affected areas around the state to receive input on key issues to be addressed in the emergency regulation. The Board used the input from the meetings and workshops to shape a draft regulation which was broadly circulated in early-December, 2016.

The draft regulation was presented for discussion at a Board Workshop on December 17, 2015. During the comment period associated with the workshop, the Board solicited feedback on the approach reflected in the draft regulation, as well as comments on the specific regulatory language.

The draft regulation was further refined based on comments received from the workshop. The emergency regulation was presented to the Board for adoption at its board meeting on January 19, 2016.

Current Problem

California's recent extended drought has highlighted the need for more current and accurate information on how much water is being diverted in the various watersheds throughout the State. Even during years with more normal precipitation, rainfall and snow accumulation patterns vary widely across the State. Even though water supply may be adequate in one region, a critical water shortage can occur in another region.

More accurate data on water diversions is needed on a timely basis for all users of water in the State to evaluate how far their water supplies can be expected to stretch. As a user of water in the State, this diversion information together with an understanding of the priority of right to use a limited water supply, will allow for better water use planning decisions. This information is critical to ensure that priority water needs are met, that water rights holders have access to the information indicating whether sufficient water is likely to be available for their beneficial uses, and to ensure that adequate flows remain instream for more senior downstream beneficial uses.

During the 2015 drought, the Board called upon the water use community to provide predictions of expected surface water diversion, and to report back on the amounts that were actually

diverted. This more current information shows that the historic reporting standard does not provide accurate or timely water demand data sufficient for drought response. The new law and proposed implementing regulation is expected to address this problem.

Current Issues

- The Governor recently signed into law a bill which adds measurement requirements to water rights that are 10 acre-feet or more in size.
- The law requires that water diverters begin measuring as soon as January 1, 2016.
- The law requires that all diverters report their diversions annually.
- Currently, only permit and license holders submit their water diversion reports each year. All others submit their information on a less frequent basis.
- During times of water shortage, more frequent reporting may be required.

Benefits of Measurement

The Board is the agency with primary responsibility for the administration and regulation of water rights in California. The Board allocates surface water through a system of permits, licenses, and registrations that grant and condition the right to directly divert water and/or to divert water to storage for reasonable beneficial use. In addition, the Board maintains records of water use under riparian and pre-1914 claims of right.

The implementation of improved measurement and reporting of water rights as required under Senate Bill 88 and a proposed emergency regulation to implement the new law will improve water right administration and transparency of diversion records. More accurate and current diversion records together with their transparency allow the Board and all water users to more effectively:

- Understand and plan ahead for limited water supplies;
- Identify water losses in a diversion system and take corrective actions to conserve water and stretch limited water supplies;
- Assure compliance with the quantity and season limitations of existing water rights;
- Protect the senior rights of diverters in accordance with their relative priorities;
- Provide for efficient management and use of water during times of shortage; and
- Improve water planning and near-term forecasting of water demand.
- Increase understanding of water use through more accurate measurement
- Improve water rights administration and transparency of records
- Provide more accurate data on available water supplies
- Assure compliance with the quantity and season limitations of existing water rights
- Protect senior rights in accordance with priorities
- Provide for efficient management and use of water during times of shortage
- Improve forecasting of water demand

Summary of Public Outreach

On October 6, 2015, the Board held an initial stakeholder meeting. The meeting brought together a small group of over 20 experts in water rights and water resources management to discuss key concepts that should be considered in the emergency regulation. The notes from this meeting are contained in appendix 3.

On October 8, 2015, the Board held a stakeholder meeting in Stockton to discuss how Delta-specific issues may be affected by additional measurement and reporting requirements.

On October 16, 2015, the Board held a technical workshop with experts primarily from federal and state agencies to discuss issues related to regulating, installing, operating, and maintaining water measurement devices or methods.

On October 26, 2015, the Board mailed a letter to approximately 7500 diverters affected by the new measurement requirements (appendix 4) to inform the diverters of the new measurement and reporting requirements.

Five public outreach meetings were conducted throughout California during the first two weeks of November. The draft regulation reflects the stakeholder input. Documents related to the public meetings are contained in appendices 5 through 9.

On December 17, 2015, the Board held a public workshop at the CalEPA Headquarters Building in Sacramento to hear public comments on the draft emergency regulation. The Board solicited feedback on the approach reflected in the draft regulation, as well as on the specific regulatory language. The draft regulation was further refined based on comments received. Documents related to the Board workshop are contained in appendices 10 through 14.

On January 19, 2016, The Board adopted the emergency regulation at its Board Meeting. The Board solicited feedback during the meeting and changes were made to the regulation at the Board Meeting based on comments received. Documents related to the Board meeting are contained in appendices 15 and 16.

TIMELINE

Measurement and Reporting Emergency Regulation

OCTOBER

- | | |
|--------|--|
| Early: | October 6 - Held stakeholder meeting to review initial concepts related to measurement and reporting |
| | October 8 – Held stakeholder meeting to discuss Delta specific issues to measurement and reporting |
| Mid: | October 16 - Held technical workshop to review concerns related to measurement and reporting |
| | Reviewed recommendations from stakeholder groups and technical workgroup |

Late: Released draft of regulatory concepts and recommendations

NOVEMBER

Early/Mid: Held public meetings on Senate Bill 88 and the regulatory concepts and recommendations

- November 2 – Los Angeles
- November 4 – Redding
- November 5 – Stockton
- November 9 – Sacramento
- November 12 – Santa Rosa

DECEMBER

Early: Released draft regulation for public review

Mid: December 17 – Presented draft emergency regulation at Board Workshop

JANUARY

Early: Organized public comments – updated draft of the emergency regulation

Mid: January 19 - Emergency regulation adopted by the Board

SUMMARY OF REQUIREMENTS OF SENATE BILL 88

Reporting Requirements Established under Senate Bill 88:

- Permit, license, and statement holders shall maintain a record of all diversion monitoring and the total amount of water diverted and submit these records to the state board. The records shall include date, time, and diversion rate at time intervals of one hour or less, with certain exceptions.
- A person who diverts under a registration, permit, or license shall submit a water use report to the board at least annually.
- Supplemental statements of diversion and use shall be filed annually prior to July 1. The filing of supplemental statements on an annual basis will affect approximately 19,546 claimed water rights.
- The legislation also authorizes the Board to adopt a regulation requiring annual reporting from statement holders and persons authorized to appropriate under a permit, license, registration (small domestic, small irrigation, or livestock stockpond), or certificate for livestock stockpond use.

Summary of the Measurement Requirements Established under Senate Bill 88:

- A person who diverts 10 acre-feet of water per year or more under a permit, license, or statement shall install and maintain a device or employ a method capable of measuring the rate of direct diversion, rate of collection to storage, and rate of withdrawal or release from storage, as specified, and with certain exceptions. This requirement affects approximately 4,715 statement holders and 7,049 permit and license holders.

- The Board shall consider devices and methods that provide accurate measurements within an acceptable range of error.
- Water users may propose a measurement method which is a protocol for measuring water diversions other than through a measuring device at each point of diversion.
- The Board may modify the measurement requirements or increase the threshold limit above 10 acre-feet per annum for specific areas or when certain conditions are met.

Informative Digest

Discussion of updates and additions to Chapter 2.7, Water Diversion and Use Reports

Section 907. Definitions

Definitions were added and updated to clarify the regulation. The regulation defines “diverter” to include various water right holders and statement filers, and defines “twelve month reporting period” to mean the calendar year. The regulation shortened the definition of “reports” for clarity and added reports of registration and certificate holders.

Section 908. Compliance

A general section was added to inform the regulated community that failure to comply with the requirements of this chapter is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846. This section clarifies the Board’s enforcement authority.

Section 910. Purpose

This section was updated to include reports of registration and certificate holders to the types of reports that are required to be filed electronically.

Section 911. Construction

This is a new section added to clarify that to the extent authorized by federal law, the chapter applies to the federal government and any water use reports filed by the federal government. A general condition was also added stating that nothing in this chapter shall be construed to limit or modify the board’s authority to obtain information under any other lawful authority, to ensure consistency with other regulations.

Section 912. No Conflicts with Other Reporting Requirements

This new section was added to clarify that if there is any conflict or inconsistency between the water use reporting requirements of the Board or by statute, order, policy, regulation, decision, judgment, or probationary designation and the requirements of Chapter 2.7, the more stringent requirement or requirements shall control.

Section 915. Changes in Name, Address or Ownership

This section was updated to include the type of form statement holders file to submit a change of name, address, or ownership for an existing statement on file with the Board.

Section 916. Request for Additional Time

This new section was added to provide a standard method under which diverters may request an extension of time to comply with the reporting requirements of Chapter 2.7. All extension requests must be accompanied by supporting documentation.

Section 917. Reporting – Insufficient Flows to Support All Diversion

This new section was added to allow the Board to require diverters within a watershed or subwatershed to submit monthly or more frequent reports of water diversion when the available supply of water is insufficient to meet all projected diversion demand. The regulation identifies data that may serve as the basis of a water availability projection under the regulation. This information is critical during times of insufficient supply and allows the Board to administer the water right priority system during times of shortage with the latest information available. The draft regulation allows the Deputy Director for the Division of Water Rights (Deputy Director) to establish the deadline for when monthly reports are due.

Some commenters did not like the idea of monthly reporting. They wanted to make sure that the data submitted on a monthly basis would be useful. Division staff explained that the data was useful in times of shortage to balance available supply with demand.

Section 920. Supplemental Statements of Water Diversion and Use

This section was updated to require supplemental statements to be filed every year instead of every three years, per recent amendments to section 5104 of the Water Code. The report covers diversions during the preceding calendar year. This section was also updated to include additional information on the supplemental statement form to make the reporting requirements consistent with what is required on the Progress Reports by Permittee and the Reports of Licensee. To account for the new measurement requirements of Chapter 2.8, the diverter is also required to input how diversions are measured on their supplemental statement. The July 1 deadline is required by section 5104 of the Water Code.

There was general support from the people submitting comments for requiring all water right holders to submit water use reports on an annual basis. There were a number of comments suggesting water use reports should be based on the water year which would require changes to the Water Code.

Section 921. Watermaster Reports Filed with the Board

Because SB 88 does not address watermaster reports, the language of this section was not changed.

Section 922. Diverters in a Watermaster Service Area

This new section was added to inform diverters in a watermaster service area of when they are required to file reports with the Board. This section restates for clarity the existing obligation to comply with permit and license terms. Reports of registration and certificate holders, progress reports by permittee, and reports of licensee typically provide more detailed diversion and use information than a watermaster report, and the Board needs the additional information to

effectively administer the water rights system. This section also restates for clarity the existing obligation to file a statement of diversion and use for certain diverters in watermaster service areas under section 5101, subdivisions (d) and (e) of the Water Code. It does not add any new requirements for diverters.

Section 924. Water Use Reports of Registration and Certificate Holders

This new section was added as authorized under section 1841 of the Water Code. The section requires registration and certificate holders to file a report every year, covering diversions during the preceding calendar year. The annual report for these diverters contains information on water use and amount of water diverted. The diverter is required to file their report by April 1 of each year. To provide consistency with reporting under sections 925 and 929, the report may be filed based on provisional data and a final report shall be filed within one month of final data becoming available.

Section 925. Progress Reports by Permittee

This section was updated to require the report of diversions during the preceding calendar year to be filed by April 1 instead of July. The Board changed the filing date so that the data would be available earlier in the year and could be used in supply and demand forecasts. The report may be filed based on provisional data and a final report shall be filed within one month of final data being available. The ability to file an initial report based on provisional data was included to accommodate a number of stakeholders who commented in writing and at the Board Workshop and Board Meeting that they would not have final water use data available by April 1 of each year.

Section 929. Reports of Licensee

This section was updated to require the report of diversions during the preceding calendar year to be filed by April 1 instead of July. The Board changed the filing date so that the data would be available earlier in the year and could be used in supply and demand forecasts. The report may be filed based on provisional data and a final report shall be filed within one month of final data being available. The ability to file an initial report based on provisional data was included to accommodate a number of stakeholders who commented in writing and at the Board Workshop and Board Meeting that they would not have final water use data available by April 1 of each year.

Table of Reporting Deadlines Required Under Sections 920, 924, 925, and 929

All annual reports filed in accordance with sections 920, 924, 925, and 929 will continue to document diversions during the prior calendar year. The filing deadlines for submitting the water use reports for 2015 and 2016 are summarized in the table below:

DIVERSION/STORAGE PERIOD	ANNUAL REPORT DEADLINES				
	PERMITS	LICENSES	STATEMENTS	REGISTRATIONS	CERTIFICATES
2015	JULY 1, 2016	JULY 1, 2016	JULY 1, 2016	VARIES	NOT REQUIRED
2016	APRIL 1, 2017	APRIL 1, 2017	JULY 1, 2017	APRIL 1, 2017	APRIL 1, 2017

Section 930. Notices of Extraction and Diversion

No changes were made to this section. Reporting on groundwater extraction was not covered under SB 88.

Discussion of additions to Chapter 2.8, Measuring and Monitoring

Section 931. Definitions

This section defines terms as they are used in Chapter 2.8. The most noteworthy definitions are summarized here. “Accuracy” is defined because the accuracy of a measuring device is a key component of the regulation. “Accuracy” is the measured volume relative to the actual volume of water diverted. “Delta” is defined by reference to Water Code section 12220 and Public Resources Code 29101. “Delta” was defined for consistency with the Delta Reform Act and to show where the Delta Watermaster may exercise all powers assigned to the deputy director under Chapter 2.8. “Diverter” is defined to include various water right holders and statement filers. “Diverter with multiple claimed rights” is defined to describe diverters who hold more than one right or claimed right. For diverters with multiple claimed rights, the appropriate accuracy standards, implementation deadlines, and other requirements are generally determined by adding up the sum of all water rights or claimed rights that share a place of use or point of diversion. “Place of use” is defined to clarify how the term should apply to reservoirs, ponds, and instream beneficial uses when implementing subdivision (b) of section 932 and other provisions. Because livestock stockponds and single purpose recreational ponds use water at the pond itself, combining the pond with other water rights exercised elsewhere to determine accuracy standards, implementation deadlines, and other requirements would not be practicable. Likewise, because instream flow dedications are used in a particular designated reach, combining instream flow dedications with other water rights exercised elsewhere to determine accuracy standards, implementation deadlines, and other requirements would not be practicable. “Qualified individual” is defined to clarify who can install, design, calibrate, and maintain measuring devices or measurement methods. For diversions less than 100 acre-feet per year, a person trained and experienced in water measurement and reporting is a “qualified individual,” which may include the diverter or the diverter’s agent. This definition helps simplify compliance for diverters who divert a comparatively small amount of water.

Section 931.5 Authority of the Delta Watermaster

This section was added to inform diverters in the Delta that the Delta Watermaster may exercise all powers assigned to the Deputy Director for the Division of Water Rights in Chapter 2.8 for any point of diversion located within the Delta. This section restates for clarity an existing authority of the Delta Watermaster.

Section 932. Applicability

(a) This subdivision describes which diverters are required to measure their water use in accordance with the requirements of Chapter 2.8. This is consistent with sections 1840 and 5103, subdivision (e)(1)(B) of the Water Code, which require measurement by permittees,

licensees, and statement filers that divert 10 acre feet or more. Per section 1841 of the Water Code, the Board has discretion to adopt measurement requirements for registration holders and stockpond certificate holders. There were many comments recommending that the Water Board exempt registrations from the measurement requirement. The Water Board generally agreed with this recommendation because registrations and stockpond certificates are small diversions. Since most registration types have a maximum authorized diversion of 10 acre-feet per year (small irrigation registrations can divert up to 20 acre-feet per year), the Board set the diversion threshold for required measurement at greater than 10 acre-feet per year.

Measurement is not required for domestic registrations, small irrigation registrations, livestock registrations, or stock pond certificates provided that the maximum authorized diversion is 10 acre-feet per year or less under all water right serving the same place of use or diverting from the same point of diversion. This is consistent with the policy goals of articles 2.5 and 2.7 of chapter 1 of part 2 of division 2 of the Water Code, which contemplate a simplified application and administration process for these categories of small water rights.

(b) This subdivision describes how the requirements of Chapter 2.8 apply to a diverter with multiple claimed rights. This section was added based on public comments received about how the regulation would be applied to a diverter with multiple claimed rights associated with one point of diversion or one place of use. The threshold for measurement should be based on the total amount of water diverted under all bases of right for each place of use. This ensures that diversions of the same total size are subject to the same measurement accuracy requirements and technical specifications. For example, 20 statements of five acre feet each serving the same place of use, two permits to divert 50 acre feet from the same point of diversion, and one 100 acre foot license all divert 100 acre feet of water from their respective stream. Treating all such combinations of diversions the same ensures consistency and fairness for all water users.

(c) This subdivision describes the effective dates for when measuring devices shall be installed or measurement methods shall be adopted. There were numerous comments received about how much time it would take diverters to install and calibrate water measuring devices or implement measurement methods. For example, water users may need time to acquire permits from the U.S. Army Corps of Engineers or the California Department of Fish and Wildlife. Many people recommended the Board stagger the implementation of the measurement requirements and thought that staggered implementation could lead to increased compliance. Staggered implementation also staggers demand for the limited number of engineers and other technical experts available to assist diverters with installing measurement devices.

The regulation requires diverters who divert 1,000 acre-feet or more per year to be measured by January 1, 2017. During the public meetings, Board Workshop, and Board Meeting, many of the larger diverters stated that they were already measuring many of the points of diversion, but would need time to have their measuring devices calibrated. Diverters who divert less than 1,000 acre-feet per year must have measurement in place prior to July 1, 2017 or January 1, 2018, depending on the actual diversion size. The implementation dates were staggered to allow for more time for smaller diverters to comply with the requirements of Chapter 2.8.

There were many comments suggesting that the Water Board allow flexibility in implementing the measuring requirements. Where appropriate, the regulation allows for interim and multi-year plans to allow diverters to achieve full compliance. Diverters may also request additional time to comply with the measurement requirements under section 936 of the proposed regulation.

(d) This subdivision describes the process by which the Deputy Director may increase the 10 acre-feet measurement threshold in areas of the state where the additional benefits of reporting are substantially outweighed by the cost of measurement, per section 1840, subdivision (b)(2) of the Water Code. The regulation includes a framework that allows the Board to establish a higher diversion threshold in specific watersheds or under specific circumstances. The cost of measurement and the relative size of the diversions compared to the natural flow, overall diversion demand, and instream uses in the watershed are important factors in determining if a higher threshold may be established.

(e) This subdivision clarifies that if there is any conflict or inconsistency between the measurement requirements of the Board or by statute, order, policy, regulation, decision, judgment, or probationary designation and the requirements of Chapter 2.8, the more stringent requirement or requirements shall control.

(f) A general subdivision was added to inform the regulated community that failure to maintain a measuring device, employ a measurement method, or implement an alternative compliance plan in accordance with the requirements of Chapter 2.8 is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846. This subdivision is for clarity and does not add any new enforcement capability to the Board.

Section 933. Measuring Device Requirements

(a) This subdivision allows diverters to use any measuring device or combination of devices that meet the requirements of the regulation. The Board decided to use performance standards so that each diverter can use the best measurement technology for their specific point of diversion and place of use.

(b)(1) This subdivision describes the frequency the data must be recorded. There were numerous comments received during the public outreach process that the measurement requirements should be less stringent for smaller diversions and smaller reservoirs, in order to reduce cost of compliance for small diversions. The Water Board agreed with these comments. as larger diversions and reservoirs are much more likely to affect flow conditions in a waterway, and must record their diversion data on a more frequent basis. Smaller diversions and reservoirs must record their diversions on a weekly or monthly basis while diverters who divert over 1,000 acre-feet per year or store more than 1,000 acre-feet of water shall record their diversions on an hourly or more frequent basis. Multiple diversions that share a place of use or point of diversion must meet the same recording frequency as a large water right, consistent with the Board's intent to set the same requirements for diversions of adding up to the same size.

(b)(2) This subdivision describes the requirements for submitting the measurement information to the Board.

(b)(3) This subdivision states that each diverter shall keep records of the data from each measuring device for a period of no less than 10 years. Different time periods were discussed for this record retention requirement, from three years to indefinitely. It was determined 10 years was a reasonable amount of time to require records to be retained. It is expected most diverters will retain their diversion records indefinitely.

(b)(4) This subdivision establishes requirements for large diverters and some relatively large diverters in streams with vulnerable fisheries to provide telemetered diversion data. Telemetered diversion data is required for all diverters who divert more than 10,000 acre-feet annually, store 10,000 acre-feet or more, or divert more than 30 cubic feet per second during the period June 1 to September 30. This class of diverter accounts for over 90 percent of the surface water diverted in California. Their diversions have the potential to dramatically affect stream conditions from one moment to the next. Therefore the Board determined it was reasonable to require these larger diverters to provide telemetered diversion data, thereby enabling close monitoring of the effects of these large diversions.

Numerous comments were received with concerns that medium and small diverters can have significant impacts on stream systems with threatened, endangered, or fully protected fish species. To address these concerns, the regulation authorizes the Deputy Director to establish telemetry requirements for any diverter who diverts 10 percent or more of the calculated stream flow in a stream system where threatened, endangered, or fully protected fish species are present or have been present. This includes certain waterways in which the Board has fishery protection policies in place. The regulation also allows the Board to require telemetry for diversions taking less than 10 percent of the stream flow only after providing the public with notice and opportunity for comment as well as a public board meeting process.

(c) This subdivision provides guidance on how to calculate the volume of water diverted if the measuring device does not report the total volume of water diverted.

(d) This subdivision establishes measuring device accuracy requirements for different diversion sizes. Comments received during public information meetings generally supported using accuracy requirements instead of creating a list of acceptable measuring devices and measurement methods, although a few wanted to know what specific devices would be acceptable. There were numerous comments received during the public outreach process that the measurement requirements should be less stringent for smaller diversions and smaller reservoirs. The Water Board agreed with these comments. Smaller diversions and reservoirs shall meet an accuracy standard of $\pm 15\%$ while diverters who divert over 100 acre-feet per year or store more than 200 acre-feet of water shall meet an accuracy standard of $\pm 10\%$.

There was general agreement from the public during the meetings that the Water Board should grandfather in existing measurement devices as much as possible. Some agencies with existing measurement device requirements include:

- Department of Water Resources (agricultural water measurement)
- United States Bureau of Reclamation (Central Valley Project contractors)
- United States Geologic Survey (surface water gaging network)
- Federal Energy Regulatory Commission (federally licensed power facilities)
- Public Utility Commission (investor owned water utilities)
- State Water Board, Division of Drinking Water (publicly owned water utilities)

The accuracy standards adopted in the regulation were chosen to reasonably ensure that they could be met by existing devices that have been properly installed, operated, and maintained. The accuracy standard is $\pm 15\%$ for measuring devices installed on or before January 1, 2016.

(e) through (h) These subdivisions describe how the accuracy of a measuring device shall be certified and also how a measuring device shall be installed, maintained, and calibrated. There were numerous comments received during the public outreach process that the certification, installation, maintenance, and calibration process should be less stringent for smaller diversions and smaller reservoirs. Many people were concerned that the cost of installation, maintenance, and certification could be onerous.

To address this concern, the regulation stated that a “qualified individual” shall certify the accuracy of, install, maintain, and calibrate a water measurement device. The qualifications required for such an individual are more rigorous for diversions greater than or equal to 100 acre-feet per year. “Qualified Individual” is defined in Section 930 of Chapter 2.8 as:

- (1) For diversions greater than or equal to 100 acre-feet per year:
 - (A) A California-registered Professional Engineer; or
 - (B) A California-licensed contractor authorized by the State License Board for C-57 well drilling or C-61 Limited Specialty/D-21 Machinery and Pumps; or
 - (C) A person under the supervision of a California-registered Professional Engineer and employed to install, operate, and maintain water measurement and reporting devices or methods; or
 - (D) In the case of a right or a claimed right to divert by an agency of the federal government, a hydrologist or professional engineer experienced and trained in water measurement who is employed by the federal agency in that capacity.
- (2) For diversions less than 100 acre-feet per year, a person trained and experienced in water measurement and reporting. This may include the diverter or the diverter’s agent.

(i) through (k) These subdivisions provide additional requirements for the location, accessibility, and board verification of measuring devices.

(l) This subdivision describes requirements for repairing or replacing a measuring device that fails to meet the required accuracy standards.

(m) This subdivision clarifies that this section shall limit or modify the board's authority to obtain information under any other lawful authority. This language is necessary to prevent potential conflicts of authority.

Section 934. Measurement Method

This section describes the requirements for submitting and using a measurement method in lieu of a measurement device at each point of diversion. A measurement method is a method capable of accounting for the rate of direct diversion, rate of collection to storage, and rate of withdrawal or release from storage where the method is likely to achieve accuracy standards comparable to those of individual measuring devices. Allowing the use of measurement methods is consistent with subdivision (a)(1) of section 1841 of the Water Code, which states:

Except as provided in subdivision (b), a person who, on or after January 1, 2016, diverts 10 acre-feet of water per year or more under a permit or license shall install and maintain a device or employ a method capable of measuring the rate of direct diversion, rate of collection to storage, and rate of withdrawal or release from storage.

There were numerous comments received during the outreach process regarding measurement methods. Common situations where measurement methods would be employed include diverters who share a ditch and a diverter who has multiple points of diversion serving their place of use (a situation common in the Sacramento/San Joaquin Delta).

The regulation is flexible in the types of measurement methods water users may submit as long as the measurement method meets the regulation's accuracy standards for measurement. Water diverters are encouraged to establish collaborative measurement on a local or regional basis.

(a) This subdivision defines measurement methods. It also sets the requirement that, if different water rights under a measurement method have different requirements under section 933, the measurement method shall meet the most stringent requirement. This is necessary to prevent conflicts and ensure that the Board receives accurate diversion and use data.

(b) This subdivision establishes minimum standards for measurement methods, including the requirement that they be prepared by a qualified individual as defined in section 932. The compliance deadlines for measurement devices and measurement methods are the same. This subdivision also establishes a process for the Deputy Director to review measurement methods and reject those that fail to meet the requirements of section 934.

(c) This subdivision authorizes diverters who divert through a shared ditch system to employ a shared measurement method, and specifies additional requirements for implementing such measurement methods consistently with the water rights priority system.

(d) This subdivision specifies data recording and data submittal requirements for measurement methods. These match the data requirements for measurement devices, to ensure consistency.

(e) This subdivision specifies the accuracy requirements for measurement methods, which are the same as those for measurement devices.

(f) This subdivision specifies requirements for the initial accuracy certification of a measurement method, which must be certified and documented by field-testing performed by an individual trained in the use of relevant field-testing equipment. The results from the field testing shall be documented in a report approved by a qualified individual, as defined, and submitted to the board with the next subsequent water use report.

(g) This subdivision requires that measurement methods be re-tested every five years by a qualified individual, to ensure that they continue to meet applicable accuracy standards.

(h) This subdivision establishes a process for replacing a measurement method that fails to meet accuracy standards. Diversers are required to notify the Board in writing within 30 days of finding that a measurement method does not meet accuracy standards. Measurement devices must be installed within 90 days if defects in a measurement method are not timely corrected.

(i) This subdivision describes the process for renewing a measurement method at five year intervals. The Deputy Director may reject a measurement method renewal for failure to achieve the required accuracy, or for failure of the diverter or diversers to implement a previously-submitted measurement method.

(j) This subdivision clarifies that a diverter has an obligation to implement, in a timely manner, the measurement method submitted to the Board.

Section 935. Alternative Compliance for a Measuring Device or Measurement Method Requirement

This section describes the plan a diverter may prepare for circumstances where strict compliance with the requirements in the regulation for a measuring device or measurement method are not feasible, would be unreasonably expensive, would unreasonably affect public trust uses, or would result in the waste or unreasonable use of water. This section establishes a framework for alternative approaches to compliance for a specific measuring device or measurement method, or for a type of measuring device.

During the public outreach process, many diversers were concerned they would not be able to meet one or more of the requirements for a measuring device or measurement method. Diversers requested exemptions from the measurement requirement for specific issues like small hydropower projects, points of diversion that are inaccessible for portions of the year due to snow, points of diversion with highly variable flow rates, and points of diversion under tidal influence.

This section requires a diverter to submit an alternative compliance plan and provide detailed documentation establishing and supporting the specific basis for claiming that strict compliance with the measuring device or measurement method requirements are not feasible, would be unreasonably expensive, would unreasonably affect public trust uses, or would result in the waste or unreasonable use of water. A plan shall describe how the diverter will attain reasonable compliance with the measurement requirements of the regulation. A diverter is required to diligently implement the proposed plan. Alternative compliance plans may remain in effort for up to five years, and may be renewed.

Alternative compliance plans are subject to audit by the Deputy Director, and shall be publicly posted on the Board's website with the opportunity for public comment. The Deputy Director may modify alternative compliance plans to meet the requirements of chapter 2.8, require correction of a defective plan, reject a plan that fails to meet the requirements of chapter 2.8, and require submission of additional information. Decisions or orders by the Deputy Director are subject to reconsideration.

Section 936. Request for Additional Time

This section was added to provide a standard method under which diverters may request an extension of time to comply with the reporting requirements of Chapter 2.8. All extension requests must be accompanied by supporting documentation.

Section 937. Report of Water Measuring Device

This section was added to inform diverters of applicable deadlines and to describe the information they are required to submit to the Board after installing a water measuring device. Reports should be submitted with the diverter's annual supplemental statement of water diversion and use, report of permittee, report of licensee, or report of registration holder, as applicable. Reports for devices installed on or before January 1, 2016 are due with the diverter's first water use report filed after January 1, 2017. Reports for devices installed after January 1, 2016, should be submitted with the first water use report submitted after installation. Reports for replacement devices are due within 30 days of installation or calibration.

Section 938. Compliance

A general section was added to inform the regulated community that failure to meet the requirements of this chapter is a violation subject to civil liability of up to \$500 per day pursuant to Water Code section 1846. This section does not add any new enforcement capability to the Board.

Summary of Additional Public Comments on the Regulation

Appendix 17 contains a brief summary of additional comments and questions received during the regulation development process.

Review of Measurement and Reporting Requirements in Other Western States

Appendix 18 contains a brief review of the measurement and monitoring requirements of Colorado, Oregon, Washington, Utah, and Arizona.

Summary of Existing Laws and Regulations

The existing rules for reporting are contained in California Code of Regulations, Title 23, Division 3, Chapter 2.7. This chapter was amended by the emergency regulation. These previous reporting regulations required water use reports to be submitted for different filing periods depending on the type of water right claimed. License and permit holders were required to file a water use report every year, while statement holders were only required to file every three years. Registration holders were only required to file once every five years as part of the renewal process under section 1228.5 of the Water Code. Stockpond certificate holders were not previously required to file.

The type of information required on each water use report also varied based on the type of water right. The emergency regulation updated the information required on each water use report in an effort to standardize submittals for statement filers and holders of permits, licenses, registrations, and certificates.

The existing regulations for measurement are contained in the following sections of the California Code of Regulations, Title 23, Division 3:

§780. Standard Permit Terms. The board maintains a list of Standard Permit Terms, applicable portions of which are included in all permits. Copies of the Standard Permit Terms are available upon request. In addition to the applicable standard terms which are included in each permit, the following terms shall be included in every water right permit issued by the board, and shall be included in every existing permit as a condition for granting an extension of time to commence or to complete construction work or to apply the water to full beneficial use:

Pursuant to California Water Code Sections 100 and 275 and the common law public trust doctrine, all rights and privileges under the permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water. The Board's continuing authority may be exercised by imposing additional specific requirements to eliminate waste of water and to meet the permittee's reasonable water requirements without unreasonable draft from the water source. Permittees may be required to implement a water conservation plan, features of which may include but are not necessarily be limited to: (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity

limitations of this permit and to determine accurately water use as against reasonable water requirements for the authorized project. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation. The continuing authority of the Board also may be exercised by imposing further limitations on the diversion and use of water by the permittee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution Article X, Sec. 2; is consistent with the public interest; and is necessary to preserve or restore the uses protected by the public trust.

§846. Measuring Devices and Statements. After issuance of a permit for surface diversion or storage or for underground storage, the permittee may be required to establish suitable measuring and recording devices and to obtain and furnish to the Board such records as may be needed to determine with reasonable accuracy: the quantity of water beneficially used; or the quantity of water placed in storage and the quantity later recovered under the provisions of the permit. Permittee may also be required to determine and submit a written statement of the quantities beneficially used.

SB 88 amended section 5103 of the Water Code, changing measurement requirements for statement filers. The statute previously read as follows:

§5103, subdivision (e). On or after January 1, 2012, monthly records of water diversions. The measurements of the diversion shall be made using best available technologies and best professional practices. Nothing in this paragraph shall be construed to require the implementation of technologies or practices by a person who provides to the board documentation demonstrating that the implementation of those practices is not locally cost effective.

Approximately 70 percent of statement holders stated on their water use reports that the measurement of the diversion as required under Water Code Section 5103 was not locally cost effective. SB 88 amended section 5013 of the Water Code to remove the “not locally cost effective” exception. As amended, the statute now provides, in relevant part, as follows:

§5103. Each statement shall be prepared on a form provided by the board. The statement shall include all of the following information:

...

(e) (1) (A) At least monthly records of water diversions. The measurements of the diversion shall be made in accordance with Section 1840.

(B) (i) On and after July 1, 2016, the measurement of a diversion of 10 acre-feet or more per year shall comply with regulations adopted by the board pursuant to Article 3 (commencing with Section 1840) of Chapter 12 of Part 2.

(ii) The requirement of clause (i) is extended to January 1, 2017, for any statement filer that enters into a voluntary agreement that is acceptable to the board to reduce the statement filer's diversions during the 2015 irrigation season.

A general description of existing law governing water rights, the water right priority system, the Board's information-gathering authorities, and the constitutional prohibition against the waste, unreasonable diversion, unreasonable method or diversion, or unreasonable use of water is set forth below.

Two main types of water rights constitute the vast majority of diversions in California: riparian rights and appropriative rights. A riparian water right generally provides a right to use the natural flow of a water body to which the land is riparian. Broadly speaking, riparian land is land that touches a lake, river, stream, or creek. Water can only be diverted under a riparian right when that water is used on the riparian parcel on land that drains back to the lake, river, stream, or creek from which the water was taken. Riparian rights remain with the property when it changes hands, although parcels severed from the adjacent water source generally lose their right to the water, absent indicia of intent to the contrary at the time of severance. Only the natural flow of water can be diverted under a riparian right. Water that is imported into a watershed from another river, stream, or creek cannot be used under a riparian right. Water cannot be stored during a wet time for use during a drier time under a riparian right. Neither can water released from an upstream storage reservoir be used by a downstream user under a riparian right. Riparian rights generally have a senior (higher relative priority) right to natural flows as against appropriative rights, and water must be available to fulfill the needs of all riparians before an appropriator may divert. This is not always the case, however. An appropriative right predating the patent date of riparian lands has seniority relative to the riparian right. The priorities of riparian right holders are correlative vis-à-vis each other; during a drought all share the shortage among themselves. Because a riparian right only allows the use of natural flow, it is possible to have water available under a riparian right during wetter years or months and not during drier years or months when natural flows are no longer available, including cases where stream flow is being supported by releases of previously stored water. This is particularly the case in dry years such as the current drought.

On the other hand, an appropriative water right is generally needed for water that is diverted for use on non-riparian land or to store water for use when it would not be available under natural conditions. An appropriative right holder can use natural flow, and non-natural flows like imported water from other watersheds, or irrigation return flows. Prior to 1914, appropriative water rights were acquired by putting water to beneficial use. The exact priority date of a pre-1914 appropriation can vary depending on the circumstances, but depends on either posting notice under the then applicable procedures of the Civil Code or otherwise clearly initiating the means necessary to divert or actually diverting. An appropriative water right that was acquired before 1914 is called a pre-1914 appropriative water right and is not subject to the permitting authority of the Board. Appropriative water rights obtained after 1914 require a water right permit and subsequently a license issued by the Board or its predecessors. Similar to pre-1914 water rights, the seniority of post-1914 water rights is based on a first-in-time concept with the

date of seniority typically established by the date of the application for the permit. A water right permit confers the Board's (or its predecessor's) authorization to develop a water diversion and use project. The right to use water is obtained through actual beneficial use of water within the limits described in the permit. A water right license is issued once full beneficial use of water has been made and other conditions of a water right permit are met and constitutes the confirmation by the Board (or its predecessor) of the water right. As between appropriators, junior water right holders may only divert where there is sufficient water to completely fulfill the needs of more senior appropriators.

When the amount of water available in a water source is not sufficient to support the needs of existing water right holders, junior appropriators must cease diversion in favor of more senior rights. However, it is not always clear to a junior diverter whether there is sufficient flow in the system to support their diversion and senior water uses downstream. It can also be difficult to determine whether releases of stored water are abandoned flows that may be diverted or whether those flows are not available for diversion because they are being released for downstream purposes. Similarly, it can be difficult for a riparian to know if water is natural flow or stored or imported water and whether, when and to what extent correlative reductions in water use are needed due to the need to share limited supplies amongst riparians. As part of administering water rights, the Board may curtail water diversions based on California's water rights priority system. The Board has continuing authority under Water Code sections 100 and 275 to enforce the requirements of the California Constitution, Article X, § 2, which directs that the water resources of the state be put to beneficial use to the fullest extent, and that water not be wasted or unreasonably used. It further provides that rights to the use of water are limited to such water as is reasonably required for the beneficial use served, and does not extend to the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of the water. The reasonable use doctrine applies to the diversion and use of both surface water and groundwater, and it applies irrespective of the type of water right held by the diverter or user. (*Peabody v. Vallejo* (1935) 2 Cal.2d 351, 366-367.) What constitutes an unreasonable use, method of use, or method of diversion depends on the facts and circumstances of each case. (*People ex rel. State Water Resources Control Board v. Forni* (1976) 54 Cal.App.3d 743, 750.) Under the reasonable use doctrine, water right holders may be required to endure some inconvenience or to incur reasonable expenses. (*Id.* at pp. 751-752.)

In order to implement the water rights priority system, the Board may (a) investigate all streams, stream systems, portions of stream systems, lakes, or other bodies of water; (b) take testimony in regard to the rights to water or the use of water thereon or therein; and (c) ascertain whether or not water heretofore filed upon or attempted to be appropriated is appropriated under the laws of the State. (Water Code § 1051.) This investigative authority extends to diversions under claim of pre-1914 or riparian right, for purposes of determining whether or not such diversions are authorized. (See, e.g., *Young v. SWRCB* (2013) 219 Cal.App.4th 397.)

Diverting water when it is unavailable under your priority of right constitutes an unauthorized diversion and a trespass against the state. Violations could be subject to an Administrative Civil

Liability (ACL) under the Water Code, or referred to the Attorney General. Administrative cease and desist orders and court injunctions may also be issued to require that diversions stop. An ACL for an unauthorized diversion may impose liability up to \$1,000 a day plus \$2,500 per acre foot of water that is illegally diverted for violations during the current drought. The Board may also issue administrative cease and desist orders and request court injunctions to require that diversions stop.

Summary

The implementation of improved measurement and reporting of water rights as required under Senate Bill 88 and the proposed emergency regulation will improve water right administration and transparency of diversion records. More accurate and current diversion records together with their transparency allow the Board and all water users to more effectively:

- Understand and plan ahead for limited water supplies;
- Identify water losses in a diversion system and take corrective actions to conserve water and stretch limited water supplies;
- Assure compliance with the quantity and season limitations of existing water rights;
- Protect the senior rights of diverters in accordance with their relative priorities;
- Provide for efficient management and use of water during times of shortage; and
- Improve water planning and near-term forecasting of water demand.
- Increase understanding of water use through more accurate measurement
- Improve water rights administration and transparency of records
- Provide more accurate data on available water supplies
- Assure compliance with the quantity and season limitations of existing water rights
- Protect senior rights in accordance with priorities
- Provide for efficient management and use of water during times of shortage
- Improve forecasting of water demand

Mandate on Local Agencies or School Districts

The Board has determined that amendment of section 879 does not impose a new mandate on local agencies or school districts. The regulation is generally applicable law.

Cost Estimate

This cost estimate considers the fiscal effect of the proposed regulation, as defined in Government Code section 11346.5, subdivision (a)(6), which requires analysis of a proposed regulation's anticipated costs and savings to state agencies, local governments and agencies, school districts, including the effect of costs of savings of federal funding to the State.

Fiscal Effect of the Proposed Regulation (State and Local Government Agencies)

The primary fiscal effect of the proposed regulation relevant to Government Code section 11346.5, subdivision (a)(6) is the cost that would be incurred by state and local government agencies to install, operate, and maintain a measuring and recording device at each point of diversion.

The fiscal impact was based on information prepared by Board staff. M.Cubed partners Richard McCann, PhD, and Steven Moss, MPA, reviewed this report and provided comments on it, which were addressed by State Board staff before the study was finalized. M. Cubed, founded in 1993, provides economic and public policy consulting services to public and private sector clients.

The fiscal effects of the proposed regulation relevant to Government Code section 11346.5, subdivision (a)(6) are the cost that would be incurred by state and local government agencies to perform the tasks below:

1. File Supplemental Statements of Water Diversion and Use on an annual basis under section 5104 of the Water Code and section 920 of the proposed regulation. The Board estimates that there are 436 active statements held by state and local government agencies. The total cost incurred to state and local government agencies to complete and submit the supplemental statement on an annual basis would be **\$19,000 a year (average of \$43 per statement per year)**.
2. Complete an Annual Water Use Report under section 924 for Registration and Certificate holders. The Board estimates there are 14 registrations and certificates held by state and local government agencies. The total cost incurred to state and local government agencies to complete and submit the annual water use report would be **\$1,000 a year (average of \$65 per registration/certificate per year)**.
3. Complete and submit an online Report of Water Measuring Device and/or Recording Device in accordance with section 937. The Board estimates that there are 2979 points of diversion and 786 ponds and reservoirs held by state and local government agencies that would require the filing of an online Report of Water Measuring Device and/or Recording Device. The total cost incurred to state and local government agencies to complete and submit the online informational form and supporting documentation would be **\$367,000 (\$199 per water right)**.
4. Government agencies will need to install, repair, or modify existing measuring devices or measurement methods to comply with the requirements of Chapter 2.8, section 931 through section 937. The Board estimates that there are 2979 points of diversion and 786 ponds and reservoirs held by state and local government agencies that would require measurement. The cost incurred to state and local government agencies to install, repair, or modify measuring devices or implement measurement methods in accordance with Chapter 2.8 would be between **\$4,291,000 and \$8,819,000 (\$2,300 to \$4,800 per water right or claimed right)**.
5. Government agencies will need to operate and maintain measuring devices or measurement methods to comply with the requirements of Chapter 2.8, section 931 through section 937. The Board estimates that there are 2979 points of diversion and 786

ponds and reservoirs held by state and local government agencies that would require measurement. The cost incurred to state and local government agencies to operate and maintain measuring devices or measurement methods in accordance with Chapter 2.8 would be between **\$950,000 and \$1,962,000 a year (\$500 to \$1,100 per water right or claimed right).**

6. Special reporting - During a critically dry year, reporting of monthly diversions online may be required in specific critical water supply regions in accordance with section 917. The Board estimates that there are 2423 water rights and claimed water rights held by state and local government agencies that may be affected by this requirement. The cost incurred to state and local government agencies to complete and submit the diversion data online once a month for nine months would be **\$1,766,000 (\$729 per water right or claimed right).**

The expenses associated with items 1, 4, and 5 are required in accordance with Senate Bill 88 signed by Governor Edmund G. Brown Jr. on June 24, 2015. These expenses would be incurred by state and local government agencies regardless of whether the proposed Emergency Regulation for Measuring and Reporting was adopted by the Board.

The proposed regulation is not anticipated to have a fiscal impact on school districts or to result in costs or savings in federal funding to the State. There are not expected to be any other nondiscretionary costs or savings to local agencies from the regulation.

Appendix 1 provides more background information on the proposed estimate.

Cost of Compliance for Small Diversions

The cost of compliance was a significant concern raised by a number of parties during the public meetings and workshops. The Board was concerned about the cost of compliance with the measurement and monitoring requirements of the regulation, and therefore the Board made requirements in the regulation less stringent for diverters with smaller diversions. People who divert or store smaller amounts of water have more time to meet the measurement and monitoring requirements under the phased-in approach. They also have less stringent requirements related to measurement accuracy, monitoring frequency, and installation, operation, and maintenance. The following table summarized the estimated costs that apply to over 75 percent of the direct diversion and storage rights in California.

Category		Device/Service	Cost Range	
			Low	High
Reservoir Storage (acre-feet)	10 af < storage < 200 af (78% of measured reservoirs)	Staff Gauge	\$300	\$800
Direct Diversion (acre-feet/year)	10 af/yr < diversion < 100 af/yr (42% of measured points of diversion)	In-line flow meter	\$1,200	\$1,800
	100 af/yr ≤ diversion < 1000 af/year (34% of measured points of diversion)	In-line flow meter / Open Channel	\$2,000	\$6,000
		Data logger	\$250	\$600
		Total	\$2,250	\$6,600

The cost of measuring and monitoring water use is case specific and can vary widely based on the requirements of each specific situation. The cost of compliance will also depend on whether the diverter can use an existing device or needs to install a new one and on cost of installation by a qualified individual. In the table above, the cost estimates for reservoir storage assume a reservoir survey has been completed as part of determining the amount of water stored in the reservoir or pond.

Diverter who are required to measure are also required to complete an online Report of Water Measuring Device and/or Recording Device in accordance with section 937. The Board estimates that the average cost to complete and submit the online informational form and supporting documentation would be \$98 for each required measurement device.

The costs of complying with the annual reporting requirements of the regulation are:

- No additional cost for reporting annual water use by permit holders and license holders.
- Average of \$43 per year additional cost for each statement holder to file Supplemental Statements of Water Diversion and Use on an annual basis instead of once every three years.
- Average of \$65 per year additional cost for each registration holder and certificate holder to file annual water use reports.

Consistency Determination

As the Board is the agency charged with implementing the water right system, it is the only agency that can implement this emergency regulation. As required by Government Code Section 11346.5, subdivision (a)(3)(D), the Board has conducted an evaluation of this regulation and has determined that it is not inconsistent or incompatible with existing state regulations. Board authority includes broad investigatory authority, and Water Code Section

1058.5 explicitly recognizes the need for regulations to provide the Board with increased information to appropriately implement the water rights system during the drought emergency.

Suspension of California Environmental Quality Act

The initial adoption of the Board's water diversion measurement and reporting regulations is exempt from Division 13 (commencing with Section 21000) of the Public Resources Code. (Wat. Code, § 1841, subd. (c).)

Authority and Reference Citations

For Section 907

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 1003.5, 1395, 1396, 1397, 4999, 5001, 5105 and 12261, Water Code.

For Section 908

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), and 1846, Water Code.

For Section 910

Authority: Sections 348(a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348(a), 5101, 5103 and 5104, Water Code.

For Section 911

Authority cited: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1846, 5101, 5103, and 5104, Water Code.

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For Section 920

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

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For Section 921

Authority: Sections 348, subdivision (a), 1058, 1840, 1841, and 5103, Water Code.

Reference: Sections 348, subdivision (a), 5001, 5101(d) and 5101(e), Water Code.

For Section 922

Authority: Sections 348, subdivision (a), 1058, 1840, 1841, and 5103, Water Code.

Reference: Sections 348, subdivision (a) 5101(d) and 5101(e), Water Code.

For Section 924

Authority: Sections 348, subdivision (a), 1058, 1228.6, 1840, and 1841, Water Code.

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For Section 925

Authority: Sections 348, subdivision (a), 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1010, 1011, 1011.5, and 1846, Water Code.

For Section 929

Authority: Sections 348, subdivision (a), 1011, 1058, 1840, and 1841, Water Code.

Reference: Sections 348, subdivision (a), 1010, 1011, 1011.5, and 1846, Water Code.

For Section 931

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13 and 5103, Water Code.

For Section 931.5

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Section 85230, Water Code.

For Section 932

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1122, 1123, 1846, and 5103, Water Code.

For Section 933

Authority: Sections 183, 1051, 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

For Section 934

Authority: Sections 183, 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

For Section 935

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

For Section 936

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

For Section 937

Authority: Sections 1058, 1840, and 1841, Water Code.

Reference: Sections 13, 1846, and 5103, Water Code.

For Section 938

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<http://www.ecy.wa.gov/programs/wr/measuring/images/pdf/gsfps.pdf>

Washington State Department of Ecology, Guidelines for Selecting Open Channel Meters

http://www.ecy.wa.gov/programs/wr/measuring/images/pdf/guidelines_selectiopenchannelmeter.pdf

Washington State Department of Ecology, Inspecting an Open Channel Water Measuring System

<http://www.ecy.wa.gov/programs/wr/measuring/images/pdf/iocm.pdf>

Wilson, Craig, Delta Watermaster, Statements of Water Diversion & Use Water Diversion Measurements

http://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/docs/smnts_dvrns_use.pdf

Additional material was accessed and reviewed on the websites for the following agencies responsible for regulating water rights:

Utah	http://www.waterrights.utah.gov/
Washington	http://www.ecy.wa.gov/programs/wr/rights/water-right-home.html
Oregon	http://www.oregon.gov/owrd/pages/wr/index.aspx
Colorado	http://water.state.co.us/surfacewater/swrights/Pages/default.aspx
Arizona	http://www.azwater.gov/azdwr/SurfaceWater/SurfaceWaterRights/default.htm
New Mexico	http://www.ose.state.nm.us/WR/WRindex.php

Additional material or laws and regulations water rights administration was accessed from the following websites:

Utah	http://www.rules.utah.gov/publicat/code/r655/r655.htm
Washington	http://www.ecy.wa.gov/laws-rules/ecywac.html http://apps.leg.wa.gov/rcw/default.aspx?cite=90.03
Oregon	http://www.oregon.gov/owrd/pages/law/index.aspx http://www.oregon.gov/owrd/LAW/docs/Water_Vol_I.pdf
Colorado	https://www.yourwatercolorado.org/flip/catalog.php?catalog=waterlaw
Arizona	http://www.azleg.gov/ArizonaRevisedStatutes.asp?Title=45
New Mexico	http://law.justia.com/codes/new-mexico/2006/nmrc/jd_ch72-eaf.html http://www.ose.state.nm.us/WR/WRrules.php

Appendices

1. Fiscal impact analysis for the regulation
2. [Senate Bill 88](#)
3. [Meeting notes from stakeholder meeting held on October 6, 2015.](#)
4. October 26, 2015, notice letter mailed out to approximately 7500 diverters affected by the proposed measurement requirements.
5. [Agenda for the public meetings held in Los Angeles, Redding, Sacramento, Stockton, and Santa Rosa.](#)
6. [Public meeting handout of concepts being considered for a draft regulation.](#)
7. [Public meeting presentation slides.](#)
8. [Summary of comments received at the public meetings.](#)
9. [Public handout on financial assistance options for measuring](#)
10. Written comments received on the concepts prior to December 7, 2015
11. [Draft regulation dated December 7, 2015.](#)
12. [Comments received on the December 7, 2015 version of the draft regulation.](#)
13. [Presentation made at the Board workshop on December 17, 2015.](#)
14. List of people making oral comments on the regulation at the Board workshop on December 17, 2015.
15. [Draft regulation dated January 8, 2016](#)
16. List of people making oral comments on the regulation at the Board meeting on January 19, 2016.
17. Summary of Additional Public Comments
18. Measurement and Reporting Requirements in Other Western States