

Section 6 California's Current Agricultural Water Use Measurement Legislation

Attached is a summary of California's current legal and regulatory approach to agricultural water use measurement. This material was developed by the Technical Team to support the Panel's October 2001 interim deliberations.

PRELIMINARY SUMMARY**EXISTING LEGAL RULES
RELATING TO MEASUREMENT IN CALIFORNIA****Background and Purpose**

The purpose of this section is to set forth existing legal rules pertaining to measurement of water use in California. This information was developed principally through a review of statutes, regulations, agency guidance documents, memoranda of understanding and other sources of rules pertaining to measurement.

This is a revised version of a document presented as a Summary of Existing Law at the June 15, 2001, meeting of the Independent Review Panel on Appropriate Measurement. At that meeting, the Panel recommended that the draft be revised to address issues pertaining to groundwater, transfers, and conjunctive use. Those additions have been made below.

Because this section is intended to help inform a discussion of possibilities for action by the California Legislature, the main focus here is on existing provisions of the California Water Code. If the reader has any suggestions regarding further authorities that should be described here, those suggestions should be forwarded to the Panel organizers for inclusion in the future.

Summary

As set forth in greater detail below, water use measurement in California is associated not only with state law, but also with voluntary efforts and federal requirements. Particular areas of the California Water Code currently include provisions relating in various ways to the topic of measurement, which may suggest potential locations for grouping any future measurement-related provisions. The California Department of Water Resources and State Water Resources Control Board have certain existing authorities related to inquiries into or required statements/notices about current water use.

A number of counties have been identified in state statutes as meriting special attention due to concerns about groundwater. There, certain extractors subject to the requirement must report to the State Water Resources Control Board the quantities of water extracted from the ground as well as the quantities diverted from surface sources. Where a local agency voluntarily adopts a groundwater management plan, the agency may impose an annual fee to pay for implementation of the plan. The fee is to be based on the amount of groundwater extracted from the basin.

In connection with transfers or conjunctive use, depending on the particular mechanism used, the person sending the water may be required to demonstrate that their transfer would not injure another water user, which may be helped by a showing of prior

consumptive use of the water proposed to be transferred. To protect their water rights, the person sending water may also be required in certain instances to file reports describing their reduction in water use, a description that would be facilitated by having documentation of previous and current use.

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The California Water Use Measurement Law

California's "Water Use Measurement Law" is found in California Water Code, division 1, chapter 8, sections 500 through 530. The Water Use Measurement Law was enacted as part of Senate Bill 229 (Boatwright), which was signed into law by Governor Wilson in 1991.

Legislative Findings and Declarations

In enacting the Water Use Measurement Law, the Legislature made the following findings and declarations:

Necessity of Measurement. "[I]t is necessary to determine the quantities of water in use throughout the state to the maximum extent that is reasonable to do so."¹

Absence of Measurement Causes Waste and Unreasonable Use of Water. "[W]ater furnished or used without any method of determination of the quantities of water used by the person to whom the water is furnished has caused, and will continue to cause, waste and unreasonable use of water, and . . . this waste and unreasonable use should be identified, isolated, and eliminated."²

Waste and Unreasonable Use of Water Cause Waste of Energy. "[W]aste or unreasonable use of water imposes unnecessary and wasteful consumption of energy to deliver or furnish the water, and it is necessary, therefore, to determine the quantities of water in use throughout the state to the maximum extent that it is reasonable to do so in order to reduce that energy consumption."³

State Goal of Metering All New Water Service Connections Commencing in 1992. "[T]he California goal for measurement of water use is the achievement by January 1, 1992, of the installation of water meters on all new water service connections after that date to systems and facilities owned, operated, or under the management or control of a water purveyor, which meters will measure the quantity of water furnished or delivered

¹ Cal. Water Code, § 520.

² Cal. Water Code, § 521. Regarding waste and unreasonable use of water, the California Constitution provides:

"It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. . . ."

Cal. Constitution, Art. X, § 2.

³ Cal. Water Code, § 522.

through each system or facility to each new user of the water.”⁴ The Legislature gave inclusive definitions to the key terms of this goal statement, not expressly limiting its application to potable water.⁵

Technical Standards

The Water Use Measurement Law also provides that “[d]omestic cold water meters shall be in compliance with relevant standards of the American Water Works Association and shall be of the type approved by the Director of Food and Agriculture pursuant to Section 12500.5 of the Business and Professions Code.”⁶

Required Metering of New Potable Water Service

In the same bill that enacted the Water Use Measurement Law, the Legislature also enacted a provision to require metering of new water service.⁷ In setting forth this metering requirement, the Legislature used the same inclusive definitions it had used in the Water Measurement Law in regard to the metering goal. However, here, the Legislature expressly limited the metering requirement “only to potable water.”⁸

“Notwithstanding any other provision of law, every water purveyor who sells, leases, rents, furnishes, or delivers water service to any person shall require, as a condition of new water service on and after January 1, 1992, that a suitable water meter to measure the water service shall be installed on the water service facilities in accordance with Chapter 8 (commencing with Section 500). The cost of installation of the meter shall be paid by the user of the water, and any water purveyor may impose and collect charges for those costs.”⁹

⁴ Cal. Water Code, § 523.

⁵ “‘Water meter’ includes any suitable water measuring device or facility which measures or determines the volumetric flow of water.” Cal. Water Code, § 516. “‘Water service’ means the sale, lease, rental, furnishing, or delivery of water for beneficial use, and includes, but is not limited to, contracting for that sale, lease, rental, furnishing, or delivery of water, except bottled water.” Cal. Water Code, § 515. “‘Water purveyor’ means any person who furnishes water service to another person.” Cal. Water Code, § 512. “‘Person’ means any individual, firm, association, partnership, corporation, or public entity of any kind.” Cal. Water Code, § 513. “‘Public entity’ includes a city, county, city and county, whether general law or chartered, a district, board, commission, bureau, authority, agency, department, division, section, any other political subdivision of the state of any kind, or the state.” Cal. Water Code, § 514.

⁶ Cal. Water Code, § 530. “The [Secretary of Food and Agriculture] by rules and regulations shall provide for submission for approval of types or designs of weights, measures, or weighing, measuring, or counting instruments or devices, used for commercial purposes, and shall issue certificates of approval of such types or designs as he shall find to meet the requirements of this code and the tolerances and specifications thereunder. [¶] It shall be unlawful to sell or use for commercial purposes any weight or measure, or any weighing, measuring, or counting instrument or device, of a type or design which has not first been so approved by the department; provided, however, that any such weight, measure, instrument, or device in use for commercial purposes prior to the effective date of this act may be continued in use unless and until condemned under the provisions of this code.” Cal. Bus. & Professions Code, § 12500.5; see also Cal. Bus. & Professions Code, §§ 12500, subs. (b) & (e), 12500.9.

⁷ Cal. Water Code, § 110.

⁸ Cal. Water Code, § 110, subs. (b) & (c). The Legislature also said that the metering requirement “does not apply to a community water system which serves less than 15 service connections used by yearlong residents or regularly serves less than 25 yearlong residents, or a single well which services the water supply of a single family residential home.” Cal. Water Code, § 110, subd. (d).

⁹ Cal. Water Code, § 110, subd. (a).

Authorities of the California Department of Water Resources

The California Department of Water Resources (“DWR”) has several powers and authorities pertaining to measurement of water use. DWR “may” do any of the following:

- “[C]arry on . . . investigations into matters pertaining to the water resources of the State along the lines of hydrography, hydroeconomics, and the use and distribution of water for agricultural purposes”¹⁰
- “Conduct investigations of the rate of use of water for various purposes and considering various soil conditions.”¹¹
- “Collect records of diversion and use of water.”¹²
- “Conduct investigations of all or any portion of any stream, stream system, lake or other body of water.”¹³

DWR “is authorized to”:

“[C]ollect hydrologic data necessary for river forecasting, to make forecasts of stream flow, to provide for flood warning, and to provide for communication necessary for the collection and dissemination of such information.”¹⁴

Pursuant to statute, DWR “shall”:

- “[C]onduct surveys and investigations relating to the reclamation of water from wastes for beneficial purposes, including but not limited to the determination of quantities of such water presently wasted, and possibilities of use of such water for recharge of underground storage or for agricultural or industrial uses.”¹⁵
- “[I]nvestigate conditions of the quality of all waters within the state, including saline waters, coastal and inland, as related to all sources of pollution of whatever nature. . . .”¹⁶

DWR or any other public agency that supplies water for agricultural use may:

- Institute a water conservation or efficient water management program, including, among other things, “[u]sing flow measuring devices in the delivery system and providing to farmers, or assisting farmers in the use of, on-farm flow measurement devices.”¹⁷

¹⁰ Cal. Water Code, § 225.

¹¹ Cal. Water Code, § 226(e).

¹² Cal. Water Code, § 226(c).

¹³ Cal. Water Code, § 226(a).

¹⁴ Cal. Water Code, § 236.

¹⁵ Cal. Water Code, § 230.

¹⁶ Cal. Water Code, § 229.

¹⁷ Cal. Water Code, § 10522(b)(1).

Measurement in Watermaster Service Areas.

Under state law, owners of conduits and certain reservoirs within watermaster service areas are required to “construct and maintain such water flow measuring devices at such points along the conduit as may be required and approved by the department [of water resources] for the purpose of assisting the watermaster in determining”:

- as to the conduits, the amounts of water “which are being diverted and applied to beneficial use”,¹⁸
- as to the reservoirs, the amounts of water “to which the owner is entitled and the amounts of water which the owner is diverting, storing, and applying to beneficial use.”¹⁹

Authorities of the State Water Resources Control Board*Statements of Water Diversion and Use.*

With specified exceptions, “Each person who, after December 31, 1965, diverts water shall file with the [State Water Resources Control Board], prior to July 1 of the succeeding year, a statement of his diversion and use.”²⁰ This applies to diverters under riparian rights and diverters under pre-1914 appropriative rights. In such statements, “Those who maintain water-measuring devices and keep monthly records of water diversions shall state the quantity of water diverted by months during the preceding calendar year. Others shall state the acreage of each crop irrigated, the average number of people served with water, the average number of stock watered, and the nature and extent of any other use during the preceding calendar year, or such other equivalent information tending to indicate the quantity of water used as may be prescribed by the board.”²¹ After filing of the initial statement, supplemental statements are due at three-year intervals.²²

Suitable Measuring and Recording Devices

“After issuance of a permit for surface diversion or storage or 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.”²³

Reports of Licensee

State Water Resources Control Board staff who were interviewed indicated that following the water rights Application process, and following issuance of a permit, the permittee is required to submit a Progress Report of Permittee each year.²⁴ Upon completion of the diversion project and perfection of the water right, a License is issued.

¹⁸ Cal. Water Code, § 4103; see also Cal. Water Code, § 4104.

¹⁹ Cal. Water Code, § 4125; see also Cal. Water Code, § 4126.

²⁰ Cal. Water Code, § 5101; see also Cal. Water Code, § 5102.

²¹ Cal. Water Code, § 5103(d).

²² Cal. Water Code, § 5104.

²³ Cal. Code of Regulations, tit. 23, § 846.

²⁴ Cal. Code of Regulations, § 847.

The Licensee is required to submit a Report of Licensee every three years for the life of the water right. The required Report of Licensee specifies, among other things the amount of water taken.

Notices of Extractions and Diversions of Water.

Since 1955, certain measurement rules apply in the Counties of Riverside, San Bernardino, Los Angeles, and Ventura.²⁵ In those Counties, persons extracting more than 25 acre-feet of groundwater per year shall file with the State Water Resources Control Board a “Notice of Extraction and Diversion of Water,” with certain exceptions. Among other things, the notice must state the “quantity of water taken and the method of measurement used by such person or his predecessor in interest in each preceding year from each surface or ground water source” going back ten years.²⁶ In other words, extraction of groundwater in excess of 25 acre-feet triggers the requirement of filing a notice as to both surface and groundwater. The State Board implements this through issuance of separate “first notice” forms for groundwater extractions and surface water diversions, and separate “annual notices” after filing of the first notices. The State Board has stated that the measurement information obtained through the program “will materially assist in establishing the rights of users to water in the event a judicial determination of rights is invoked to assure orderly and efficient use of water from a common ground water source.”²⁷

State Water Resources Control Board staff who were interviewed emphasized that, while the filing of the notices is mandatory, the consequence for noncompliance with the filing requirement is merely that the historical water use information is unavailable to the water user in the event an adjudication occurs. In addition, staff indicated that, as a whole, the degree of accuracy of the data submitted is such that it does not lend itself to aggregation. Individual persons submitting data do not always submit accurately calculated information. The submittals do serve as indicators that extractions are occurring at particular locations.

Authorities of Both State Water Resources Control Board and Department of Water Resources

“The department and board shall take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water in this state.”²⁸

Groundwater Management Programs under the Groundwater Management Act of 1992 (A.B. 3030), as amended

Any local agency can adopt a groundwater management plan.²⁹ The plan may include components relating to, for example, control of saline water intrusion, facilitating

²⁵ Cal. Water Code, § 4999.

²⁶ Cal. Water Code, § 5002(b).

²⁷ Information Relating to Recordation of Water Extractions and Diversions in Riverside, San Bernardino, Los Angeles and Ventura Counties, 91-3 WR, State of California Water Resources Control Board (June 1991), p. 1.

²⁸ Cal. Water Code, § 275.

²⁹ Cal. Water Code, § 10753(a).

conjunctive use operations, and others.³⁰ With some exceptions, a local agency that adopts a groundwater management plan may, after an election by a majority of those voting, impose equitable annual fees and assessments for groundwater management based on the amount of groundwater extracted from the groundwater basin within the plan area to pay for costs incurred by the local agency for groundwater management.³¹ The Local Groundwater Management Assistance Act of 2000 (A.B. 303) created a fund to be administered by DWR for grants to agencies to carry out activities to manage groundwater.³²

DWR staff who were interviewed did not identify any adopted groundwater management plans that include provisions relating to measurement. Because of the decentralized nature of the groundwater management plan process, however, not all such plans come to DWR's attention.

Groundwater Management Districts

Several statutes have been enacted that create particular groundwater management districts having particular powers.³³ Most of these statutes empower the districts to require or engage in measurement of water use. Each of the statutory districts is in a different stage of implementation, both in regard to general operational matters such as appointment of Board members and in regard to specific programmatic matters such as establishing or carrying out measurement requirements. Below are representative provisions that are found in some of the distinct legislative acts that pertain to such districts.

Required registration and measurements

"The district may require extraction facilities to be registered with the district and measured with a water flow measuring device installed and calibrated by the district or, at its option, by the extraction facility operator. The district may also require any new extraction facility which is constructed, existing extraction facility which is deepened, or abandoned extraction facility which is reactivated to be registered with the district within 60 days of completion of construction, deepening, or reactivation, and measured with a water flow measuring device installed and calibrated by the district or, at its option, by the extraction facility operator."³⁴ As to some districts, the statute provides that the district "shall" require measuring devices.³⁵

³⁰ Cal. Water Code, § 10753.7.

³¹ Cal. Water Code, §§ 10754.2, 10754.3.

³² Cal. Water Code, §§ 10795-10795.20.

³³ See, e.g., Fox Canyon Groundwater Management Agency, Cal. Uncod. Water Deer., Act 2750 (2001); Honey Lake Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 2793 (2001); Monterey Peninsula Water Management District Law, Cal. Uncod. Water Deer., Act 5065 (2001); Ojai Basin Groundwater Management Agency Act, Cal. Uncod. Water Deer., Act 7140B (2001); Orange County Water District Act, Cal. Uncod. Water Deer., Act 5683 (2001); Pajaro Valley Water Management Agency, Cal. Uncod. Water Deer., Act 5695, (2001); Santa Clara Valley Water District Act, Cal. Uncod. Water Deer., Act 7335 (2001); Sierra Valley and Long Valley Groundwater Basins, Cal. Uncod. Water Deer., Act 7662 (2001); Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 (2001).

³⁴ Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 601 (2001).

³⁵ Ojai Basin Groundwater Management Agency Act, Cal. Uncod. Water Deer., Act 7140B, § 804 (2001).

Unlawful extraction and civil liability

“No person may extract groundwater from any extraction facility required to be registered unless the extraction facility has been registered with the district and, if required, has a water flow measuring device affixed. Any person who does not comply with this section shall be liable civilly for a sum not to exceed one thousand dollars (\$ 1,000) for each day this section is not complied with”³⁶

Groundwater extraction statement

The district may require the operator of each extraction facility to file with the district “a statement relative to groundwater extraction, including, but not limited to, the gallons per minute which may be extracted from each extraction facility, the static groundwater level for each extraction facility, a general description or number locating each extraction facility, use and acreage served by the extraction facility, and the method of measuring or computing groundwater extraction.”³⁷ Such statements may also be required to include total extraction in acre-feet of water from the extraction facility for the preceding year, and the soil and crop types for agricultural uses.³⁸

Alternative methods for estimating water use

“When a water-measuring device is not permanently attached to a water-producing facility, the board may establish a method or methods to be used in computing the amount of water produced from such water-producing facilities. [¶] Such methods may be based upon any, or all, or a combination of some of the following criteria: the minimum charge sufficient to cover administrative costs of collection, size of water-producing facility discharge opening, area served by the water-producing facility, number of persons served by the water-producing facility, use of land served by the water-producing facility, crops grown on land served by the water-producing facility, or any other criteria which may be used to determine with reasonable accuracy the amount of water produced from such water-producing facility.”³⁹

Record of extraction accuracy and investigation

“When a water flow measuring device is used at an extraction facility, the record of extraction, as disclosed by the water flow measuring device, shall be presumed to be accurate and shall be used as the basis for computing the water extraction of the extraction facility in completing the groundwater extraction statement. The district may require proof of the accuracy of the water flow measuring device from the operator and may, absent adequate proof of accuracy, order the operator to have the water flow measuring device calibrated in a manner acceptable to the district. If the district has probable cause to believe that the extraction of groundwater from any extraction facility is in excess of the amount reported in groundwater extraction statements, or if no

³⁶ Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 603 (2001).

³⁷ Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 604 (2001).

³⁸ Pajaro Valley Water Management Agency, Cal. Uncod. Water Deer., Act 5695, § 603, subds. (a) & (d) (2001).

³⁹ Monterey Peninsula Water Management District Law, Cal. Uncod. Water Deer., Act 5065, § 354 (2001).

statements are filed covering an extraction facility, the district may investigate the extraction of water from each such extraction facility.”⁴⁰

Civil liability

“Any person who does not file a groundwater extraction statement, if required to do so, or any person who injures, alters, removes, resets, adjusts, manipulates, obstructs, or in any manner interferes or tampers with, or procures, causes, or directs any person to injure, alter, remove, reset, adjust, manipulate, obstruct, or in any manner interfere or tamper with, any water flow measuring device affixed to any extraction facility as required by this act so as to cause the water flow measuring device to improperly or inaccurately measure and record water extraction, or any person who, with intent to evade any provision or requirement of this act, files with the district any false or fraudulent groundwater extraction statement, shall be liable civilly in a sum of not more than one thousand dollars (\$ 1,000).”⁴¹

Basis of calculating groundwater extraction charges

“Groundwater extraction charges shall be calculated on the basis of groundwater extraction statements required to be filed pursuant to this act.”⁴²

Injunctive relief against noncompliance

“Upon the failure of any person to comply with any of the provisions of this act, including, but not limited to, the registration of extraction facilities and installation of measuring devices, filing of statements, payment of extraction charges, or payment of management charges, or upon the failure of any person to comply with any ordinance adopted by the board of directors pursuant to this act, the district may petition the superior court of the county for a temporary restraining order or preliminary or permanent injunction prohibiting the person from operating an extraction facility or for other injunctive relief that may be appropriate.”⁴³

Federal Central Valley Project Contracts

Standard Contractual Provisions. Under federal law, Central Valley Project (“CVP”) contracts must include requirements for the employment of water measuring devices or methods.

“All Central Valley Project water service or repayment contracts for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation Law after the date of enactment of this title, shall provide that the contracting district or agency shall ensure that all surface water delivery systems within its boundaries are equipped with water measuring devices or water measuring methods of comparable effectiveness acceptable to the Secretary within five years of the date of contract execution, amendment,

⁴⁰. Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 605 (2001).

⁴¹. Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 607 (2001).

⁴². Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 805 (2001).

⁴³. Willow Creek Valley Groundwater Basin Act, Cal. Uncod. Water Deer., Act 9171 § 1201 (2001).

or renewal, and that any new surface water deliveries systems installed within its boundaries on or after the date of contract renewal are so equipped.”⁴⁴

Reporting of Deliveries. Federal CVP contractors are also required to report water deliveries, not only to the federal government but also to the State of California.

“The contracting district or agency shall inform the Secretary and the State of California annually as to the monthly volume of surface water delivered within its boundaries.”⁴⁵

Criteria for Evaluating Water Management Plans. Pursuant to section 210 of the Reclamation Reform Act of 1982, districts with certain types of Bureau of Reclamation contracts are required to prepare and submit Water Management Plans to the Bureau.

“Each district that has entered into a repayment contract or water service contract pursuant to Federal reclamation law or the Water Supply Act of 1958, as amended^[46] shall develop a water conservation plan which shall contain definite goals, appropriate water conservation measures, and a time schedule for meeting the water conservation objectives.”⁴⁷

Pursuant to the Central Valley Project Improvement Act (“CVPIA”), the Bureau of Reclamation

“shall establish and administer an office on Central Valley Project water conservation best management practices that shall, in consultation with the Secretary of Agriculture, the California Department of Water Resources, California academic institutions, and Central Valley Project water users, develop criteria for evaluating the adequacy of all water conservation plans developed by project contractors, including those plans required by section 210 of the Reclamation Reform Act of 1982.”⁴⁸

In 1996, the Bureau of Reclamation issued in final form an agency guidance document entitled “Criteria for Evaluating Water Management Plans.”⁴⁹ The criteria include a requirement that “Water Management Plans shall describe . . . customer water delivery measurements”⁵⁰ An adequate plan is also expected to

⁴⁴ Central Valley Project Improvement Act (CVPIA), Pub. L. 102-575, title XXXIV, § 3405(b), Oct. 30, 1992, 106 Stat. 4706.

⁴⁵ Id.

⁴⁶ 43 U.S.C. § 390b.

⁴⁷ Reclamation Reform Act of 1982, 43 U.S.C. § 390jj(b).

⁴⁸ CVPIA § 3405(e).

⁴⁹ U.S. Bureau of Reclamation, Mid-Pacific Region, Final Criteria for Evaluating Water Management Plans (Aug. 1996) [“1996 Criteria”].

⁵⁰ 1996 Criteria, at p. 6.

“List the total number of connections/turn-outs, the number currently measured and the percentage of customer water deliveries measured. List the types and numbers of measurement devices (e.g., meters, calibrated gates, weirs, etc.), level of accuracy, frequency of calibration, and maintenance and reading schedule.”⁵¹

Plans are also required to describe a program for implementation of certain agricultural best management practices (“BMPs”). BMPs deemed “critical” are those which all districts “will implement or are already implementing.” In regard to water use measurement, the critical BMPs call for districts to

“measure, with a device that is rated to have a maximum error of six percent, the volume of water delivered by the District to each customer (within five years of contract renewal or if no contract renewal date, by January 1, 1999)”⁵²

In 1999, the Bureau of Reclamation issued in draft form a revised version of “Criteria for Evaluating Water Management Plans.” In regard to water use measurement, the critical BMPs under the 1999 Draft Criteria would call for districts to

“Measure and maintain, to a reasonable degree of accuracy, the volume of water delivered by the Contractor to each customer.”⁵³

The 1999 Draft Criteria also attempt to integrate the Bureau of Reclamation’s review of agricultural Water Management Plans with review by the Agricultural Water Management Council (“AWMC”), to the extent possible.⁵⁴

Agricultural Water Management Council Memorandum of Understanding

A multi-stakeholder Advisory Committee established pursuant to the California Agricultural Water Suppliers Efficient Water Management Practices Act of 1990, Assembly Bill 3616,⁵⁵ has developed a “Memorandum of Understanding Regarding the Efficient Water Management Practices for Agricultural Water Suppliers” (“MOU”). In signing the MOU, signatories become members of the Agricultural Water Management Council (“AWMC”). Signatories include approximately thirty water districts, as well as environmental groups and other interested parties. Under the MOU, signatories will evaluate and endorse Water Management Plans. The MOU also provides a mechanism for signatories to plan and implement cost-effective Efficient Water Management Practices (“EWMPs”).

⁵¹. 1996 Criteria, at p. 8.

⁵². 1996 Criteria, at p. 12.

⁵³. U.S. Bureau of Reclamation, Mid-Pacific Region, Draft Criteria for Evaluating Water Management Plans (1999) [“1999 Draft Criteria”], at p. 9.

⁵⁴. 1999 Draft Criteria, at p. 4.

⁵⁵. Stats 1990, ch. 739, § 1 (AB 3616).

The MOU sets forth lists of EWMPs in three categories. “List A” practices are “Generally Applicable Efficient Water Management Practices.” “List B” practices are “Conditionally Applicable Efficient Water Management Practices.” “List C” practices are “Other Efficient Water Management Practices.” Each Water Management Plan will include all EWMPs from List A. Each Water Management Plan will contain all EWMPs from List B that are found to “generate net water management benefits.” Each Water Management Plan will contain all EWMPs from List C “in the form(s) found to optimize net water management benefits.”

One of the List C practices relates to water measurement and reporting. Under this practice:

“A water supplier will measure or calculate the volume of water delivered within a reasonable range of accuracy. Such measurement or calculation will be by individual water user or other reasonable measurement/calculation option. A water supplier will provide timely water use reports to water users through billings or advisories.”⁵⁶

Transfers and Conjunctive Use

There are several different types of water transfers that can occur under California and federal law. The measurement requirements associated with each statutory type of transfer are described below. In addition to these, individual state or federal contracts may contain provisions regarding transfers.

Certain measurement requirements are also associated with conjunctive use of surface and groundwater, as described below. In general, to avoid losing a water right through one of these approaches, a user may be required to document the previous use of water proposed to be foregone in the future.

Temporary urgency changes under Water Code, §§ 1435-1442.

Before issuing an order allowing a “temporary urgency change,” the State Water Resources Control Board must find, among other things, that: (1) the permittee urgently needs the change; (2) the change will not injure any other lawful user; (3) the change will not unreasonably effect fish or wildlife; and (4) the change is in the public interest.⁵⁷ Before making necessary findings, the State Board must review available records which relate to the rights of other legal users. (Water Code, § 1437.)

Temporary changes under Water Code, §§ 1725-1732.

The State Board must approve a proposed “temporary change” if: (1) the change would not injure any legal user of water through, among other things, significant changes in water quantity; and (2) the proposed change would not unreasonably affect fish and wildlife.⁵⁸ Before approving a petition for change, the State Board must determine “if the

⁵⁶ Memorandum of Understanding Regarding Efficient Water Management Practices by Agricultural Water Suppliers in California (November 13, 1996), Ex. A, List C(1).

⁵⁷ Cal. Water Code, § 1435(b).

⁵⁸ Cal. Water Code, § 1727(b).

water proposed to be transferred would have been consumptively used or stored pursuant to petitioner's permit or license in the absence of the proposed transfer or conserved pursuant to Section 1011.⁵⁹ Petitioners for temporary changes are not allowed to initiate or increase the use of groundwater to replace surface water transferred by their petition, except in limited circumstances.⁶⁰

Long-term transfers under Water Code, §§ 1735-1737.

The State Board may approve a petition for a "long-term transfer" where the change would not result in substantial injury to any legal user of water and would not unreasonably affect fish and wildlife.⁶¹

Surplus water transfers under Water Code, §§ 380-387.

Local or regional public agencies authorized to serve water within a service area may sell, lease, exchange, or otherwise transfer water for use outside the agency if the water is: (1) surplus to the needs of the water users of the agency; or (2) voluntarily foregone during the period of the transfer by a water user of the agency.⁶² The State Board can approve a petition for a long-term transfer under these provisions where the change would not result in substantial injury to any legal user of water, would not unreasonably affect fish and wildlife, and would not unreasonably affect the overall economy of the area from which the water is being transferred. When a transfer under section 382 is of conserved water, the user's water rights are protected under Water Code section 1011, which recognizes conservation as a reasonable and beneficial use. When a user is seeking the benefit of section 1011, the State Board may require that user to "file periodic reports describing the extent and amount of the reduction in water use due to conservation efforts."⁶³ Similar provisions apply in the case reductions of use as the result of use of recycled, desalinated or polluted water.⁶⁴

Transfers of water conserved or available through contracts under Water Code, §§ 1745-1745.11.

A water supplier (either a public agency or private company supplying or storing water) may transfer water to a state drought water bank or to any other water supplier or user.⁶⁵ The water supplier may only do so if no other user will receive less than the amount provided by their allocation for that year or be otherwise unreasonably adversely affected without their consent.⁶⁶ Water that can be transferred by this method includes conserved water or water made available pursuant to a contract by the user to reduce their use (including by fallowing).⁶⁷ The amount of water made available by land fallowing

⁵⁹ Cal. Water Code, § 1726(e).

⁶⁰ Cal. Water Code, § 1732.

⁶¹ Cal. Water Code, § 1736.

⁶² Cal. Water Code, § 382.

⁶³ Cal. Water Code, § 1011(a).

⁶⁴ Cal. Water Code, § 1010.

⁶⁵ Cal. Water Code, §§ 1745, 1745.02, 1745.04.

⁶⁶ Cal. Water Code, § 1745.04.

⁶⁷ Cal. Water Code, § 1745.05(a).

may not exceed 20 percent of the water that would have been applied or stored by the water supplier in the absence of any contract under these provisions.⁶⁸

Conjunctive use—pumping in lieu of using surface water.

If use of surface water under an appropriative right is replaced by groundwater pumping, the reduction in use of the surface water is a reasonable and beneficial use “to the extent of the cessation of, or reduction in, use, and to the same extent as the appropriated water was put to reasonable and beneficial use by that person.”⁶⁹ The State Board may require any holder of an appropriative right who seeks the benefit of this section 1011.5 “to file periodic reports describing the extent and amount of the reduction in water use due to substitution of an alternate supply.”⁷⁰

Conjunctive use—use of surface water in lieu of pumping.

Use of surface water in lieu of groundwater extraction is a reasonable and beneficial use if the surface water is imported or is conserved by a water conservation plan.⁷¹ Any user of imported or conserved water seeking the benefit of this section 1005.1 “shall file” with the State Board and annual “statement of the amount” of imported or conserved water applied to reasonable beneficial use pursuant to the provisions of section 1005.1 during the previous water year.

Replenishment of groundwater through cessation or reduction in extraction due to use of water that is imported or is conserved through a conservation plan is also a reasonable and beneficial use.⁷² Any water user seeking the benefit of these sections “shall file” with the State Board a statement of the amounts of the reduction in the extraction of ground water due to use of imported or conserved water during the previous water year.

CVPIA transfers

Under the federal Central Valley Project Improvement Act, recipients of Central Valley Project water may transfer that water, but the amount transferred may not exceed in one year the average of water delivered during the last three normal delivery years prior to October 30, 1992. The water subject to any such transfer “shall be limited to water that would have been consumptively used or irretrievably lost to beneficial use during the year or years of the transfer.”⁷³ Pursuant to Bureau of Reclamation interim guidelines implementing these provisions, “Crop consumptive use” is “the total evapotranspiration of applied water minus effective precipitation and does not include transportation losses, return flows, leaching, frost protection, or deep percolation to usable groundwater basins.” “Project water irretrievably lost to beneficial use” is “deep percolation to an unusable groundwater aquifer (e.g., a saline sink or a groundwater

⁶⁸ Cal. Water Code, § 1745.05(b).

⁶⁹ Cal. Water Code, § 1011.5(b).

⁷⁰ Cal. Water Code, § 1011.5(b).

⁷¹ Cal. Water Code, § 1005.1.

⁷² Cal. Water Code, §§ 1005.2, 1005.4.

⁷³ Central Valley Project Improvement Act (CVPIA), Pub. L. 102-575, title XXXIV, § 3405(a)(1)(A)&(I), Oct. 30, 1992, 106 Stat. 4706.

aquifer that is polluted to the degree that water from that aquifer cannot be directly used).”⁷⁴

⁷⁴. Interim Guidelines for Implementation of the Water Transfer Provisions of the Central Valley Project Improvement Act (October 28, 1999).

Forms

Statement of Water Diversion and Use

First Notice Groundwater Diversion

Complete a separate notice for each well.

State of California
State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
Info: (916) 657-2170, FAX: (916) 657-1485, Web: <http://www.waterrights.ca.gov>

Recordation Number
State Well Number

FIRST NOTICE
GROUNDWATER DIVERSION

(Pursuant to Part 5, Division 2 of the Water Code)

1. Name of person owning the well _____
(Unless otherwise indicated, annual notices will be sent to this name and address)

Address _____
Street address or P.O. Box number City State Zip Code

Telephone Number () _____ - _____

2. Name of person extracting groundwater, if different than Item 1

Address _____
Street address or P.O. Box number City State Zip Code

Telephone Number () _____ - _____

WELL LOCATION

3. Owner's designation of well _____ 4. County _____

5. County Assessor's Parcel Number _____

6. Describe location of well to the nearest 40-acre quarter section. State well number (if known) _____

_____ 1/4, of _____ 1/4, Section _____, Township _____
Range _____, _____ B. & M.

7. Indicate location of well in the section grid below, or provide us with a copy of the USGS quadrangle map with the well location marked. The place of use should also be indicated. The grid represents one whole section.

Section _____, Township _____, Range _____

Quadrangle map name _____

WATER USE

8. Describe the Place of Use: (If sketch is required, please use grid under item 7.) _____

9. Quantity and Use of water extracted and method used in determining quantity for the last calendar year.

Calendar Year	EXTRACTIONS		USE		
			When use is for irrigation		When use is other than irrigation
	Annual extractions in acre-feet or _____ (specify unit)	Method of measurement or of estimate (specify)	Crops served	Acreage Supplied	Nature and extent of use, i.e. population, products manufactured, number and kind of stock watered
19					

10. Do you also divert surface water? _____
Yes or No

11. If answer (to 10 above) is yea, how are you reporting surface water use?

- a. Under Statement of Water Diversion and Use procedures
- b. Under Annual Recordation Notice procedures
- c. Under Appropriative Water Right procedures
- d. Not reporting

WELL DATA

12. Is place of use also served by another well? _____ Another water source? _____
Yes or No Yes or No

13. If yes to either, describe _____

14. Type, make and horsepower of pump _____ Date installed _____

15. Pump tests _____
Conducted by _____ Date _____ Discharge rate gpm _____ Plant efficiency _____

16. Power supply _____
Source _____ Meter No. _____ Date installed _____

17. Depth of well _____ feet. 18. Casing diameter _____ inches.

19. Is well gravel-packed? _____ 20. Date drilled _____
Yes or No

21. What are the upper and lower depths of casing perforations? Upper _____ Lower _____
(Show feet from ground surface)

22. Is log of well available? _____ Where? _____
Yes or No

23. Has a chemical analysis of well water been make? _____ If yes, where can it be obtained? _____
Yes or No

24. Are water level measurements available? _____ Where? _____

PLEASE NOTE THAT:

A willful misstatement in this notice is a misdemeanor . . . Section 5008 of Water Code.

A \$5.00 filing fee must accompany each notice.

I certify that the foregoing required statements and the following optional additional statements, if any, are true and correct to the best of my knowledge and belief.

Name _____

Signature _____

Title _____ Date _____

At (City of P.O.) _____

Firm or Corporate Name _____



Call/EPA



Pete Wilson
Governor

INSTRUCTIONS FOR FILING FIRST NOTICE
GROUND WATER EXTRACTIONS

State Water
Resources
Control Board

Division of
Water Rights

Mailing Address:
P.O. Box 2000
Sacramento, CA
95812-2000

901 P Street
Sacramento, CA
95814
(916) 657-2170
FAX (916) 657-1485

A SEPARATE FIRST NOTICE FOR EACH WELL should be typewritten or legibly written in ink. Where supplemental sheets are used, please make reference to the item number involved. Instructions for completing different ITEMS in the First Notice are as follows:

1. The person (or firm) in whose name the notice is to be recorded should be stated here. Please use the same name for all wells.
2. Names of persons not included in Item 1 who are known to be using the well or claim an interest in water extracted therefrom should be listed in this item or on a supplemental sheet. It is not necessary to include names of persons if the extractor is a mutual water company, public utility or public agency.
3. The owners designation by number and/or name may be given in this item in order to properly identify the well referred to in the notice. If this is the only well, it will suffice to insert "No. 1" in this item.
4. It is important to state the COUNTY in which the well is located. This determines the first two numbers of the recordation number.
5. The County ASSESSOR'S PARCEL NUMBER is important and must be included.
6. The description of the well location should be sufficiently clear to enable a stranger to find it on the ground or to locate it on a map of the area. The description may be made on the grid in Item 6. Post Office Box or Rural Route Numbers are NOT ACCEPTABLE.
7. The complete grid represents one section. The township, range, and section number is necessary for the computer program to accept the data. The quadrangle map name is shown in the lower right hand corner of the USGS map.
8. If the water is used on an area within one mile of the well a statement to that effect will suffice, otherwise a description or sketch of the general area of use must be given. It is preferred that the United States public land survey system of Township, Range, Section, and portion thereof be used to describe the area of use. If a sketch is drawn in lieu of such description it should outline the area served with the distances clearly shown to roads or other prominent landmarks which may be easily located. A mutual water company, public utility or public agency may attach a map outlining the general service area. In this regard, submission of one copy of a map delineating the service area for several wells will be sufficient.

FIRST NOTICE OF
GROUNDWATER EXTRACTIONS

-2-

9. The total amount of water extracted must be reported in this item. It is preferable to report the amount in acre-feet, but it may also be reported in cubic feet or gallons. The unit of measurement used must be noted in the space provided. If the amount of water extracted was estimated rather than being measured by a meter, weir, volumetric, or any other direct measuring device, the method by which the quantity was estimated should be specified, such as depth of applied water and acreage served, power records, lift and pump test, or other. (1 acre-foot = 43,560 cubic feet = 325,851 U.S. gallons).

The use of water extracted should be indicated by giving total acreage of each crop served. If more than one kind of crop is served by water from the well, list separately the number of acres under each crop. If use is for purposes other than irrigation the amount of the use should be indicated. For example, the water may be used for domestic purposes for 20 purposes and 6 residences, and stockwatering for 200 head of cattle. (If more space is needed the information may be entered on another sheet of paper and attached to this notice).

10. through 24.

Information supplied under these items will tend to support the claim of right to the use of ground water and will assist in reducing the cost of verification of the data contained in the notice in the case where such verification is requested under Water Code Section 5007.

EACH NOTICE MUST BE SIGNED, DATED, AND SUBMITTED WITH THE REQUIRED FILING FEE TO:

State Water Resources Control Board
Division of Water Rights
Post Office Box 2000
Sacramento, CA 95812-2000