STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)

STD. 399 (REV. 12/2013)

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME	CONTACT PERSON	EMAIL ADDRESS	TELEPHONE NUMBER
State Water Resources Control Board	Nathan Weaver	nathan.weaver@waterbo	916-341-5184

DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400	NOTICE FILE NUMBER
Measurement & Reporting on the Diversion of Water	Z

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- ☐ a. Impacts business and/or employees
- ☐ b. Impacts small businesses
- ☐ c. Impacts jobs or occupations
- ☐ d. Impacts California competitiveness
- ☐ e. Imposes reporting requirements
- ☐ f. Imposes prescriptive instead of performance
- ☐ g. Impacts individuals
- ☐ h. None of the above (Explain below): _____

If any box in Items 1 a through g is checked, complete this Economic Impact Statement.
If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.

2. The _____ (Agency/Department) estimates that the economic impact of this regulation (which includes the fiscal impact) is:

- ☐ Below $10 million
- ☐ Between $10 and $25 million
- ☐ Between $25 and $50 million
- ☐ Over $50 million *[If the economic impact is over $50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: _____

Describe the types of businesses (Include nonprofits): _____

Enter the number or percentage of total businesses impacted that are small businesses: _____

4. Enter the number of businesses that will be created: _____ eliminated: _____

Explain: _____

5. Indicate the geographic extent of impacts: ☐ Statewide

☐ Local or regional (List areas): _____

6. Enter the number of jobs created: _____ and eliminated: _____

Describe the types of jobs or occupations impacted: _____

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here? ☐ YES ☐ NO

If YES, explain briefly: _____

ECONOMIC IMPACT STATEMENT (CONTINUED)

B. ESTIMATED COSTS *Include calculations and assumptions in the rulemaking record.*

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? $ _____

   a. Initial costs for a small business: $ _____ Annual ongoing costs: $ _____ Years: _____

   b. Initial costs for a typical business: $ _____ Annual ongoing costs: $ _____ Years: _____

   c. Initial costs for an individual: $ _____ Annual ongoing costs: $ _____ Years: _____

   d. Describe other economic costs that may occur: _____

2. If multiple industries are impacted, enter the share of total costs for each industry: _____

3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements. *Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted.* $ _____

4. Will this regulation directly impact housing costs? ☐ YES ☐ NO

   If YES, enter the annual dollar cost per housing unit: $ _____

   Number of units: _____

5. Are there comparable Federal regulations? ☐ YES ☐ NO

   Explain the need for State regulation given the existence or absence of Federal regulations: _____

   Enter any additional costs to businesses and/or individuals that may be due to State - Federal differences: $ _____

C. ESTIMATED BENEFITS *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: _____

2. Are the benefits the result of: ☐ specific statutory requirements, or ☐ goals developed by the agency based on broad statutory authority?

   Explain: _____

3. What are the total statewide benefits from this regulation over its lifetime? $ _____

4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: _____

D. ALTERNATIVES TO THE REGULATION *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*

1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: _____

ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: $ _____ Cost: $ _____

Alternative 1: Benefit: $ _____ Cost: $ _____

Alternative 2: Benefit: $ _____ Cost: $ _____

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: _____

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? ☐ YES ☐ NO

Explain: _____

E. MAJOR REGULATIONS *Include calculations and assumptions in the rulemaking record.*

California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises **exceed $10 million?** ☐ YES ☐ NO

If YES, complete E2. and E3
If NO, skip to E4

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: _____

Alternative 2: _____

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost $ _____ Cost-effectiveness ratio: $ _____

Alternative 1: Total Cost $ _____ Cost-effectiveness ratio: $ _____

Alternative 2: Total Cost $ _____ Cost-effectiveness ratio: $ _____

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding $50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through12 months after the major regulation is estimated to be fully implemented?

☐ YES ☐ NO

If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

The increase or decrease of investment in the State: _____

The incentive for innovation in products, materials or processes: _____

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: _____

STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

ECONOMIC AND FISCAL IMPACT STATEMENT (REGULATIONS AND ORDERS)

STD. 399 (REV. 12/2013)

FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☐ 1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ _____

☐ a. Funding provided in _____

Budget Act of _____ or Chapter _____, Statutes of _____

☐ b. Funding will be requested in the Governor's Budget Act of _____

Fiscal Year: _____

☐ 2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

☐ a. Implements the Federal mandate contained in _____

☐ b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

☐ c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____

Date of Election: _____

☐ d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

_____

☐ e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

☐ f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

☐ g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

☐ 3. Annual Savings. (approximate)

$ _____

☐ 4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

☐ 5. No fiscal impact exists. This regulation does not affect any local entity or program.

☒ 6. Other. Explain Local agencies may incure one-time costs of $4,315,000 to $8,498,000, an annual cost of $894,000 to $1,832,000, and a cost during a critically dry year of up to $1,518,000. See attachment for details.

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FISCAL IMPACT STATEMENT (CONTINUED)

B. FISCAL EFFECT ON STATE GOVERNMENT *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

$ _____

It is anticipated that State agencies will:

☐ a. Absorb these additional costs within their existing budgets and resources.

☐ b. Increase the currently authorized budget level for the _____ Fiscal Year

☐ 2. Savings in the current State Fiscal Year. (Approximate)

$ _____

☐ 3. No fiscal impact exists. This regulation does not affect any State agency or program.

☒ 4. Other. Explain State agencies may incure one-time costs of $343,000 to $688,000, an annual cost of $76,000 to $150,000, and a cost during a critically dry year of up to $248,000. See attachment for details.

C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

☐ 1. Additional expenditures in the current State Fiscal Year. (Approximate)

$ _____

☐ 2. Savings in the current State Fiscal Year. (Approximate)

$ _____

☒ 3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.

☐ 4. Other. Explain _____

FISCAL OFFICER SIGNATURE	DATE
Susan M. Montoya	2/23/16

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY	DATE
S. Ross	2/29/16

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER	DATE

Appendix 1: Public Agency and Government Fiscal Impact Analysis

Summary

This cost estimate considers the fiscal effect of the proposed Emergency Regulation for Measuring and Reporting. On XX, 2016, the Office of Administrative Law (OAL) approved an emergency rulemaking packet submitted by the State Water Board that amended Chapter 2.7 of the California Code of Regulations, title 23, division 3 and added Chapter 2.8 to California Code of Regulations, title 23, division 3.

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. Practice areas include water and energy utility resource planning and ratemaking, resource use efficiency and conservation measures, project impact analysis, regional economic modeling, natural resource allocation policies, and environmental plan preparation and review.

Fiscal Effect of Proposed Emergency Regulation for Measuring and Reporting

The proposed Emergency Regulation for Measuring and Reporting imposes additional obligations, or costs, on a diverter that would not otherwise exist. A diverter was defined in the proposed Emergency Regulation for Measuring and Reporting as:

- Any person authorized to divert water under a permit or license; or
- Any person required under Water Code, Division 2, Part 5.1 to file a Statement of Water Diversions and Use; or
- Any person authorized to divert under a registration; or
- 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.

The fiscal effects 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 perform the tasks below:

1. File Supplemental Statements of Water Diversion and Use on an annual basis under Section 920. The State Water Board estimates 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 State Water 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 State Water Board estimates 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 932 through section 937. The State Water Board estimates 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 932 through section 937. The State Water Board estimates 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 State Water Board estimates 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, 2-15. 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 State Water Board. The State Water Board estimates that the costs incurred to state and local government agencies to comply with the proposed Emergency Regulation for Measuring and Reporting would be:

- One-time costs of between **$4,658,000 and $9,186,000**
- Annual cost of between **$970,000 and $1,982,000**
- Cost during critically dry year of up to **$1,766,000**.

Analysis of Fiscal Effects of Proposed Section 920

The proposed Emergency Regulation for Measuring and Reporting would require diverters who file a Statement of Water Diversion and Use to file a Supplemental Statement on an annual basis. Previously, supplemental statements were required to be filed every three years.

Filling out the online report every year instead of every three years would be the only additional burden to state and local government agencies associated with section 920 of the proposed Emergency Regulation for Measuring and Reporting.

To conservatively estimate the cost of section 920, the State Water Board determined the total number of Statements held by state and local government agencies and multiplied that number by an estimated average time to complete the online report, multiplied by an average

staff cost per hour.

Based on information compiled from the State Water Board's eWRIMS database, there are approximately 436 active Statements held by state and local government agencies that could be affected by the requirements of section 920.

Completion of the online form would be expected to take 1 hour. The estimated average total hourly costs of state and local government agency staff required to complete the online report was conservatively estimated using $65 per hour. The average cost to complete the online form would be $65 (1*$65).

There are a total of 436 registrations and certificates held by state and local government agencies. The annual cost incurred by state and local government agencies to file a supplemental statement would be $28,340 (436 *$65). Over a three year period, a Statement holder wouldl file the Supplemental Statement two more times than previously required. The additional cost over a three year period would be $56,680 ($28,340 * 2). The potential cost incurred by state and local government agencies to comply with section 920 of the proposed Emergency Regulation for Measuring and Reporting would be approximately **$19,000 a year** ($56,680÷3) or **$43 per statement per year**.

Analysis of Fiscal Effects of Proposed Section 924

The proposed Emergency Regulation for Measuring and Reporting would require holders of Registrations and Livestock Certificates to file a water use report every year. Filling out the online report would be the only additional burden to state and local government agencies associated with section 924 of the proposed Emergency Regulation for Measuring and Reporting.

To conservatively estimate the cost of section 924, the State Water Board determined the total number of registrations and certificates held by state and local government agencies and multiplied that number by an estimated average time to complete the online report, multiplied by an average staff cost per hour.

Based on information compiled from the State Water Board's eWRIMS database, there are approximately 12 registrations and one livestock certificate held by state and local government agencies that could be affected by the requirements of section 924 of the proposed Emergency Regulation for Measuring and Reporting.

Completion of the online form would be expected to take 1 hour. The estimated average total hourly staff costs of state and local government agency staff required to complete the online report and gather the required information from the field was conservatively estimated using $65 per hour. The average cost to complete the online form would be $65 (1*$65). There are a total of 13 registrations and certificates held by state and local government agencies. Therefore, the potential cost incurred by state and local government agencies to comply with section 924 of the proposed Emergency Regulation for Measuring and Reporting would be **$1,000 a year** (13 *$65) or **$65 per registration/certificate per year.**

Analysis of Fiscal Effects of Proposed Section 937

The proposed Emergency Regulation for Measuring and Reporting would require all diverters with diversions of more than 10 acre-feet per year (including license holders, permit holders, and statement holders) to file a Report of Water Measuring Device and

Recording Device. Filling out the online report and providing the supporting documentation would be the only additional burden to state and local government agencies associated with section 937 of the proposed Emergency Regulation for Measuring and Reporting.

To conservatively estimate the cost of section 937 of the proposed Emergency Regulation for Measuring and Reporting, the State Water Board determined the number of points of diversion associated with water rights and water right claims with diversions or authorized storage of more than 10 acre-feet per year held by state and local government agencies and multiplied that number by an estimated average time to complete the online report, multiplied by an average staff cost per hour.

Based on information compiled from the State Water Board's eWRIMS database, there are approximately 1,843 water rights and water right claims with diversions of more than 10 acre-feet per year held by state and local government agencies that could be affected by the requirements of section 937 of the proposed Emergency Regulation for Measuring and Reporting. There are 2,979 points of diversion and 786 reservoirs and ponds associated with these 1,843 rights and claimed rights. The amount of time required to complete the online report would depend on whether each agency already has documentation regarding its measuring and/or monitoring devices or whether it would need to obtain the information in the field.

Completion of the online form would be expected to take 1 hour. Agencies lacking sufficient information on the measuring and/or reporting device would need to conduct a field investigation to gather the necessary data needed to complete the form. The time required to collect the requested information in the field would vary. It is estimated it would take a state or local government entity 1 hour to collect the required information in the field. It is assumed the data would be collected during a routine operation and maintenance visit to the point of diversion, reservoir, or pond.

Thus, the time range to collect and report the required data would be between 1 hour (1 hour to complete the form) and 2 hours (1 hour to gather data in the field plus 1 hour to complete the form). It was estimated that half of the agencies would have sufficient records to fill out the report without requiring a field investigation. The remaining agencies would likely have incomplete records, requiring a field investigation. Thus, the average time to gather the data and fill out the report is would be 1.5 hours.

The estimated average total hourly staff costs of state and local government agency staff required to complete the online report and gather the required information from the field was conservatively estimated using $65 per hour. The average cost to complete the online form would be $97.50 (1.5*$65). There are approximately 2,979 points of diversion and 786 reservoirs and ponds associated with 1,843 water rights and water right claims held by state and local government agencies. Therefore, the potential cost incurred by state and local government agencies to comply with section 937 of the proposed Emergency Regulation for Measuring and Reporting would be **$367,000** (3,765 *$97.50). The average costs per water right or water claim would be **$199**.

Analysis of Fiscal Effects of Proposed Section 917

The proposed Emergency Regulation for Measuring and Reporting would require license, permit, and statement holders to file monthly diversion records during periods of insufficient supply. This requirement would only apply to state regions with insufficient supply to meet

demand. For the purpose of this analysis, it was assumed that the reporting has been required statewide for a period of nine months. Filling out the online form and gathering the data on a monthly basis would be the only additional burden to state and local government agencies associated with section 917 of the proposed Emergency Regulation for Measuring and Reporting.

To conservatively estimate the cost of section 917 of the proposed Emergency Regulation for Measuring and Reporting, the State Water Board determined the total number of water rights and water right claims held by state and local government agencies and multiplied that number by an estimated average time to complete the online form, multiplied by an average staff cost per hour.

Based on information compiled from the State Water Board's eWRIMS database, there are approximately 2,423 water rights and water right claims held by state and local government agencies that could be affected by the requirements of section 917 of the proposed Emergency Regulation for Measuring and Reporting. The amount of time required to complete the online form will depend on whether each agency already collects its diversion data on a monthly basis or whether it needs to obtain such information in the field.

Completion of the online form would be expected to take 30 minutes. Agencies that do not collect diversion data on a monthly basis would need to conduct a field investigation to gather the information needed to complete the form. The time required to collect the monthly diversion data in the field would vary. It is estimated it would take an average of 90 minutes for a state or local government entity to collect the required information in the field. It is assumed the data would be collected during a routine operation and maintenance visit to the measuring device.

The time range to collect and report the required diversion data was estimated to be between 30 minutes (30 minutes to complete the form) to 2 hours (90 minutes to gather data in the field plus 30 minutes to complete the form). It is estimated that half of the agencies would have sufficient records to fill out the report without requiring a field visit. The remaining agencies would likely have incomplete records, requiring a field visit. Thus, the average time to gather the data and fill out the form would be 1 hour and 15 minutes.

The estimated average total hourly staff costs of state and local government agency staff required to complete the online form and gather the diversion data from the field was conservatively estimated using $65 per hour. The average monthly cost to complete the online form is $81 ($65*1.25). The average cost to complete the form during the nine month period when the regulation is effective is **$729 ($81/month * 9 months)**. There are a total of 2,423 water rights and water right claims held by state and local government agencies that could be affected by section 917 of the proposed Emergency Regulation for Measuring and Reporting. Therefore, the cost incurred by state and local government agencies to comply with section 917 of the proposed Emergency Regulation for Measuring and Reporting is **$1,766,000** (2,423 water rights and claimed rights *$729) or **$729 per water right or claimed right.**

Estimated costs associated with the proposed section 917 of the proposed Emergency Regulation for Measuring and Reporting are conservative. Some of the permitted and licensed rights will be curtailed this year; under other rights no diversions will be made. Reports of no diversion will take significantly less time for the governmental agency to report. Therefore, the total cost to state and local government agencies will likely be significantly less than the estimate contained in this analysis.

Analysis of Fiscal Effects of Proposed Chapter 2.8

The proposed Emergency Regulation for Measuring and Reporting would require all license holders, permit holders, and statement holders who divert or are authorized to divert more than 10 acre-feet per year to install, operate, and maintain a measuring device or implement a measurement method. The cost of the measurement device or measurement method assumes the device is installed or that the measurement method is prepared by a qualified individual.

The proposed Emergency Regulation for Measuring and Reporting would require different standards of measurement and monitoring based on the size of the diversion or the size of the reservoir or pond. These categories and the number of water rights and claimed rights that fall into each of these categories held by state and local government agencies are summarized in Table 1 and Table 2.

To conservatively estimate the cost of the measuring requirement, the State Water Board determined the total number of water rights and claimed rights held by state and local government agencies that would be affected by Chapter 2.8. Based on information compiled from the State Water Board's eWRIMS database, there are 1,843 water rights and claimed rights with a claimed diversion or are authorized to divert more than 10 acre-feet per year held by state and local government agencies that would be affected. There are approximately 2979 points of diversion and 786 ponds and reservoirs associated with 1843 water rights and water right claims held by state and local government agencies that would require measurement. To determine the 10 acre-feet threshold, the face value was used for water use permits and licenses and for statement holders the water use reported for 2011.

The cost of measuring and monitoring water use are case specific and can vary widely based on the specific situation. Table 3 includes estimated costs for equipment that could be used to meet the measurement requirements of Chapter 2.8 of the proposed Emergency Regulation for Measuring and Reporting. These costs were estimated based on professional judgment and the following resources:

- The Department of Water Resources report "Cost Analysis for Proposed Agricultural Water Measurement Regulation in Support of Economic and Fiscal Impact Statement". http://www.water.ca.gov/wateruseefficiency/sb7/docs/G-EFImpactv-7-1-4_22.pdf
- Measurement of Delta Agricultural Diversion (July 2011), Patrick L. Stiehr, Watermark Engineering, Inc. http://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/docs/workshop2011july/stiehr_rpt.pdf
- Economic and Fiscal Impact Statement for the Russian River Frost Protection Regulation adopted on September 20, 2011. http://www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/russian_river_frost/docs/090111app_d.pdf

The cost to each state and local government agency to comply with Chapter 2.8 of the proposed Emergency Regulation for Measuring and Reporting will depend on whether each government entity already has a measurement and/or recording device installed or whether the agency needs to install a new device or devices. Many state and local government agencies are required to measure their water use under a variety of existing regulations, including:

- 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 (for federally licensed power facilities)
- Public Utility Commission (for investor owned water utilities)
- State Water Board, Division of Drinking Water (for publicly owned water utilities)

The State Water Board constructed the proposed Emergency Regulation for Measuring and Reporting to be consistent with existing measurement requirements and to ensure properly maintained measuring devices meeting the regulatory requirements of the governmental entities listed above would meet the requirements of the proposed Emergency Regulation for Measuring and Reporting.

The State Water Board determined the total number of water rights held by state and local government agencies and then estimated the number of water rights falling into each category. For each group of water rights, the State Water Board then estimated the percentages of devices which fell into one of the following three categories: (1) existing measuring device meets the standards of Chapter 2.8 of the proposed Emergency Regulation for Measuring and Reporting, (2) existing measuring device can be repaired or modified to meet the standards, or (3) new measuring device or measurement method is required to meet the standards. The percentages of measuring devices falling into each category were estimated using Table 3 from the Department of Water Resources report "Cost Analysis for Proposed Agricultural Water Measurement Regulation in Support of Economic and Fiscal Impact Statement" as a guide. The percentages for each category are listed in Table 3.

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 932 through section 937 of the proposed Emergency Regulation for Measuring and Reporting. The State Water Board estimated that the total 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.** The average cost would be between **$2,300 to $4,800 per water right ($4,291,000÷1843 to $8,819,000÷1843)**. The costs are shown on Table 3 and Table 4.

The cost of a Measurement Method is assumed to be comparable to the cost of installing measurement devices at each point of diversion. It is likely that a measurement method would be cheaper and more efficient than installing individual devices at each point of diversion.

The proposed Emergency Regulation for Measuring and Reporting also provide for specific situations where the cost of installing a measuring device in accordance with the requirements of Chapter 2.8 of the proposed Emergency Regulation for Measuring and Reporting would be unreasonably expensive, the diverter may apply for alternative compliance under Section 935 of the proposed Emergency Regulation for Measuring and Reporting.

Government agencies would need to operate and maintain measuring devices or measurement methods to comply with the requirements of Chapter 2.8 of the proposed Emergency Regulation for Measuring and Reporting. It was assumed that the annual cost of operation and maintenance of the measuring device or measurement method would be equal to 15% of the cost of installing a new device. The State Water Board estimated that the total cost incurred to state and local government agencies to operate and maintain new measuring devices or measurement methods in accordance with Chapter 2.8 would be

between **$950,000** and **$1,962,000** a year. The average cost would be between **$500 to $1,100 per water right ($950,000÷1843 to $1,962,000÷1843)**.The costs are shown on Table 3 and Table 4.

PUBLIC AGENCY AND GOVERNMENT FISCAL IMPACT ANALYSIS
EMERGENCY REGULATION FOR MEASURING AND REPORTING

Note: Diversion amounts based on face value for permits/licenses and 2011 reported use for Statements

TABLE 1 - WATER RIGHTS IN CALIFORNIA HELD BY STATE/LOCAL GOVERNMENT AGENCIES

DIRECT DIVERSION (dd) (ACRE-FEET PER YEAR)	NUMBER OF PERMITS, LICENSES, AND STATEMENTS	NUMBER OF ACTIVE STATEMENTS	NUMBER OF PERMITS AND LICENCES	NUMBER OF PODS FOR PERMITS AND LICENCES	NUMBER OF PODS FOR PERMITS, LICENCES, AND STATEMENTS	RESERVOIR STORAGE CATEGORY
dd ≥ 10000	356	16	340	755	771	157
1000 ≤ dd < 10,000	362	57	305	519	576	108
100 ≤ dd < 1000	500	68	432	704	772	169
10 < dd < 100	625	58	567	802	860	352
dd ≤ 10	580	237	343	390	627	175

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TABLE 2 - RESERVOIRS IN CALIFORNIA HELD BY STATE/LOCAL GOVERNMENT AGENCIES

RESERVOIR STORAGE CATEGORY (ACRE-FEET)	NUMBER OF PERMITS AND LICENSES	NUMBER OF PERMITS	NUMBER OF LICENSES
storage ≥ 10000	157	84	73
200 ≤ storage < 10000	217	71	146
50 ≤ storage < 200	114	41	73
10 < storage < 50	298	54	244

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TABLE 3 - FISCAL IMPACT TO STATE/LOCAL GOVERNMENTAL AGENCIES

Category		Device/Service	Cost Range		Number of Devices	Cost Assuming New Measurement Devices		Device Required?	Percent of Total	Cost of New	Cost Accounting for Existing Devices		15% Annual O&M (% of install)		Annual O&M (new and repaired only)	
			Low	High		Low	High				Low	High	Low	High	Low	High
Direct Diversion - dd (acre-feet/year)	dd ≥ 10000	Open Channel Flow Device	$7,500	$15,000	771	$7,555,800	$14,726,100	New	10%	100%	$1,284,486	$2,503,437	$1,133,370	$2,208,915	$340,011	$662,675
		Pressure transducer	$300	$1,000												
		Staff Gauge	$300	$500				Repair	20%	35%						
		Data logger	500	800												
		Telemetry	1200	1800				None (Existing)	70%	0%						
		Total	$9,800	$19,100												
	1000 ≤ dd < 10,000	Open Channel Flow Device	$5,000	$10,000	576	$3,513,600	$7,084,800	New	25%	100%	$1,185,840	$2,391,120	$527,040	$1,062,720	$263,520	$531,360
		Pressure transducer	$300	$1,000												
		Staff Gauge	$300	$500				Repair	25%	35%						
		Data logger	500	800												
		Total	$6,100	$12,300				None (Existing)	50%	0%						
	100 ≤ dd < 1000	Flow meter / Open Channel	$2,000	$6,000	772	$1,737,000	$5,095,200	New	35%	100%	$759,938	$2,229,150	$260,550	$764,280	$156,330	$458,568
		Data logger	$250	$600				Repair	25%	35%						
		Total	$2,250	$6,600				None (Existing)	40%	0%						
	10 < dd < 100	In-line flow meter	$1,200	$1,800	860	$1,032,000	$1,548,000	New	75%	100%	$828,180	$1,242,270	$154,800	$232,200	$139,320	$208,980
								Repair	15%	35%						
								None (Existing)	10%	0%						
Reservoir Storage (acre-feet)	storage ≥ 10000	Pressure transducer	$500	$1,500	157	$486,700	$910,600	New	10%	100%	$82,739	$154,802	$73,005	$136,590	$21,902	$40,977
		Staff Gauge	600	1500												
		Data logger	500	800				Repair	20%	35%						
		Telemetry	1500	2000												
		Total	$3,100	$5,800				None (Existing)	70%	0%						
	200 ≤ storage < 10000	Pressure transducer	$300	$1,000	217	$184,450	$434,000	New	25%	100%	$62,252	$146,475	$27,668	$65,100	$13,834	$32,550
		Staff Gauge	$300	$500												
		Data logger	$250	$500				Repair	25%	35%						
		Total	$850	$2,000				None (Existing)	50%	0%						
	50 ≤ storage < 200	Staff Gauge	$400	$800	114	$45,600	$91,200	New	35%	100%	$19,950	$39,900	$6,840	$13,680	$4,104	$8,208
								Repair	25%	35%						
								None (Existing)	40%	0%						
	10 < storage < 50	Staff Gauge	$300	$500	298	$89,400	$149,000	New	70%	100%	$67,274	$112,123	$13,410	$22,350	$11,399	$18,998
								Repair	15%	35%						
								None (Existing)	15%	0%						

NOTE: 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.

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TABLE 4 - FISCAL IMPACT TO STATE/LOCAL GOVERNMENTAL AGENCIES

Category	Cost Assuming New Measurement Devices		Cost Accounting for Existing Devices		Annual Operation/Maintenance (all)		Annual Operation/Maintenance (new and repair))	
	Low	High	Low	High	Low	High	Low	High
Direct Diversion	13,838,400	28,454,100	4,058,444	8,365,977	2,075,760	4,268,115	899,181	1,861,583
Reservoirs/Ponds	806,150	1,584,800	232,214	453,300	120,923	237,720	51,238	100,733
Total	**$14,644,550**	**$30,038,900**	**$4,290,658**	**$8,819,277**	**$2,196,683**	**$4,505,835**	**$950,419**	**$1,962,315**