ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME
State Water Resources Control Board

CONTACT PERSON
Daniel Schultz

daniel.schultz@waterboards.ca.gov

TELEPHONE NUMBER
916-323-9392

DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400
Emergency Regulations for Emergency Curtailment
where insufficient flows are available to protect Fish in certain watersheds

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 1a through g is checked, complete this Economic Impact Statement.
If box in Item 1h. 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:

_____________________________________

_____________________________________

____________________________________

PAGE 1
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: __________________________________________

__________________________________________
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 through 12 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:

   ________________________________________________________________
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  

Not a State mandate; generally applicable regulation. No fiscal impacts to State agencies. Local agencies may incur costs of up to $1,017,314. See attachment for details.
B. FISCAL EFFECT ON STATE GOVERNMENT

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 ____________________

C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS

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

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

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
Fiscal Impact Statement

B. Fiscal Effect on Local and State Government

Assumptions

Cost assumptions and replacement percentages were taken from the "Estimating Fiscal Impacts of Implanting Water Diversion Curtailments in the Sacramento-San Joaquin Delta Watershed" report prepared for the State Water Resources Control Board by Josué Medellín-Azuara, Richard E. Howitt, and Jay R. Lund of the University of California, Davis (UCD). Specific assumptions and percentages are detailed below. Sources for costs include peer reviewed models for agricultural production and water use such as Statewide Agricultural Production Model (SWAP) V6 (http://sawp.ucdavis.edu), mainstream impact analysis software such as Impact Analysis for Planning (IMPLAN) Model 2002 (http://www.implan.com) and secondary sources in the public domain that provide information required to undertake this fiscal impact analysis. The 60% agricultural groundwater replacement with 20% from district wells and 40% from private wells was based on expert judgment by UCD. Reduction in water use was estimated at 35% for agricultural use, based on expert judgment by UCD. An average groundwater replacement cost of $83.65 per acre-foot from the SWAP model was used to calculate water replacement costs from groundwater pumping. The maximum water sales values as well as maximum costs of conservation and enforcement for both urban and agriculture were used to conservatively estimate the fiscal impact to state and local government. Agricultural water sales value of $100 per acre-foot was determined by an informal review of publicly available information by UCD and was used to calculate lost water sales revenue. Conservation and enforcement costs were assumed to be $350 per acre-foot (urban) and $100 per acre-foot (agriculture), based on expert judgment by UCD. State and local tax revenue from agriculture is assumed to be 10% of revenue from the IMPLAN Model.

Fiscal impact scenarios for the affected government entities were based on State Water Board projected curtailment actions. This year it is projected that natural inflows will be inadequate to support many water diversions, including all post-1914 appropriative water right holders. In April the State Water Board posted information on projected water supply, demand and availability for the Stanislaus, Tuolumne, Upper San Joaquin, Merced, Yuba, Kern, Kings, Kaweah and Tule rivers and the Sacramento-San Joaquin Delta indicating that curtailments are expected in these watersheds in the near future. For the Sacramento-San Joaquin Delta and its tributaries, the projection is that water will not be available as early as May 15 for all post-1914 water right holders, as soon as June 1 for all junior pre-1914 water right holders, and after June 16 for additional pre-1914 water rights with any remaining supply to be shared on a correlative basis among riparian users. A 90% exceedance scenario was used to conservatively estimate the fiscal impact to state and local governments. That State Water Board calculated the exceedance using USGS and DWR gauges in the affected watersheds.
Lassen Mutual Water Company

Lassen Mutual Water Company (LMWC) holds a post-1914 appropriative water right (Application Number: A014396) and serves 500 individuals (as stated on http://www.lassenpineswater.com/). LMWC as a post-1914 appropriative water rights holder will be among the first to be curtailed and would incur no costs ($0) due to the proposed emergency regulations.

Deer Creek Irrigation District

The Deer Creek Irrigation District (DCID) holds an adjudicated water right (Statement Number: S000731) for 35% of Deer Creek’s flow (Tehama County Superior Court Decree No. 4189). In 2010, DCID reported an annual total of 20,400 acre-feet directly diverted and beneficially used. The water was beneficially used to irrigate 1900 acres. Under the water right associated with Statement S000731, DCID may divert water for domestic uses. No domestic use as reported in 2010 and domestic use not analyzed in this fiscal impact report. The June 2010 reported diversion values were used to estimate the fiscal impact of the proposed emergency regulations.

The proposed emergency regulation would be in effect for 270 days. DCID would sustain an overall impact of 2020 acre-feet in June due to the emergency regulation, and no impacts due to the emergency regulations in October and November when curtailments are enacted. It is assumed that 20% of this water would be replaced by district groundwater pumping and no water purchases would be available. The remaining water loss (80%) would lead to lost revenue from water sales for DCID. The maximum agricultural water sales price ($100 per acre-foot) was used to conservatively estimate the fiscal impact to DCID. In addition, it is assumed that DCID will reduce their demand by 35%. The enforcement and conservations cost associated with this effort would be $100 per acre-foot. The total water replacement potentially due to the emergency regulations is 2020 acre-feet, for a total cost of $365,923.00 to DCID (Table 1).
<table>
<thead>
<tr>
<th>Month</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported amount used</td>
<td>2020</td>
</tr>
<tr>
<td>Projected Supply</td>
<td>3000.00</td>
</tr>
<tr>
<td>Emergency Regulation Flow Requirements</td>
<td>3172.80</td>
</tr>
<tr>
<td>Supply available</td>
<td>0.00</td>
</tr>
<tr>
<td>DCID Replacement</td>
<td>2020.00</td>
</tr>
<tr>
<td>DCID Replacement due to Emergency</td>
<td>2020.00</td>
</tr>
<tr>
<td>Regulation Flow Requirements</td>
<td></td>
</tr>
<tr>
<td>20% Groundwater replacement</td>
<td>404.00</td>
</tr>
<tr>
<td>Cost of Ground Water Replacement</td>
<td>$168,973.00</td>
</tr>
<tr>
<td>80% Water Sales Loss</td>
<td>1616.00</td>
</tr>
<tr>
<td>Lost Water Sales Revenue</td>
<td>$161,600.00</td>
</tr>
<tr>
<td>35% Reduced Applied Water</td>
<td>707.00</td>
</tr>
<tr>
<td>Conservation and Enforcement Costs</td>
<td>$35,350.00</td>
</tr>
<tr>
<td><strong>Total Cost to DCID</strong></td>
<td><strong>$365,923.00</strong></td>
</tr>
</tbody>
</table>

Table 1: Cost estimate for groundwater replacement, conservation and enforcement, and water sales loses for DCID for June in a 90% exceedance scenario. Volumes in acre-feet.

**Tehama County**

The Tehama County 2012 Crop Report states that in 2012 the total revenue from agriculture was $246,059,600 [http://co.tehama.ca.us/images/stories/agriculture/cropreport.pdf] generating an estimated $24,605,960 in state and local tax revenue (10%). In Tehama Country, three watersheds will be affected by the emergency regulation Antelope, Mill and Deer Creeks. Within the watersheds 15,276 acres are reported as irrigated lands. Based on 2010 reporting, 99% of the water used in the watersheds is used for irrigation, therefore the State Water Board assumed all proposed water reductions would affect irrigated lands. For purposes of this fiscal impacts analysis, the State Water Board conservatively assumed walnut (high value) crop water use (3 acre-feet).

The proposed emergency regulation would be in effect for 270 days. The State Water Board calculated total supply 90% exceedance scenario in each watershed was calculated. The costs to Tehama County were calculated based on curtailments effecting only post-1914 water rights holders in June and both pre-1914 and post-1914 water users in October and November. Thus the proposed emergency regulations would affect riparian and pre-1914 users in June and only riparian users in October and November.

The total emergency regulation requirement was subtracted from this leaving the total supply to water users. Demand was subtracted from the supply to water users giving the total water reduction under the proposed regulation. It was assumed that 60% of the water reduction would be replaced by groundwater (20% district and 40% private wells) and 40% of the water
reduction would not be replaced. The affected acreage was based on un-replaced water and an assumed of 3 acre-foot per acre need (Table 3).

<table>
<thead>
<tr>
<th></th>
<th>Deer</th>
<th>Mill</th>
<th>Antelope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Projected Supply</td>
<td>7600.00</td>
<td>7600.00</td>
<td>7600.00</td>
</tr>
<tr>
<td>Total Emergency Regulation Requirements</td>
<td>9220.95</td>
<td>9220.95</td>
<td>9220.95</td>
</tr>
<tr>
<td>Total Supply to Water Users</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total Demand</td>
<td>5685.42</td>
<td>8277.11</td>
<td>3006.65</td>
</tr>
<tr>
<td>Total Water Replacement due to Emergency Regulation Flow Requirements</td>
<td>5685.42</td>
<td>8274.34</td>
<td>3006.65</td>
</tr>
<tr>
<td>Total Groundwater Replacement</td>
<td>3411.25</td>
<td>4964.61</td>
<td>1803.99</td>
</tr>
<tr>
<td>Total Water Lost</td>
<td>2274.17</td>
<td>3309.74</td>
<td>1202.66</td>
</tr>
<tr>
<td>Affected Acreage</td>
<td>758.06</td>
<td>1103.25</td>
<td>400.89</td>
</tr>
</tbody>
</table>

Table 2. Affected acreage for Deer, Mill and Antelope Creek. Minimum scenario: Pre-1914 and Riparian users affected by the proposed emergency regulation in June and only Riparian users affected by the proposed affect in October and November. Maximum scenario: All water rights affected June, October and November by the proposed emergency regulation. Volumes in acre-feet.

Potential Tehama County tax loses were based on the affected acreage calculated above, total revenue of crops in 2012, total irrigated acres in Tehama County and the assumption of a 10% tax on agriculture (Table 3). Total tax dollars potentially lost due to the emergency regulation is calculated by multiplying tax dollars generated per acre in 2012 by the affected acreage. This analysis resulted in an estimated $651,391.24 lost tax revenue due to the emergency regulations (Table 3).
<table>
<thead>
<tr>
<th>Tehama County Tax loses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated acres in Tehama County</td>
<td>85453</td>
</tr>
<tr>
<td>Fruit and Nut Crops</td>
<td>$206,903,200.00</td>
</tr>
<tr>
<td>Nursery Crops</td>
<td>$10,539,900.00</td>
</tr>
<tr>
<td>Vegetable crops</td>
<td>$3,500.00</td>
</tr>
<tr>
<td>Pasture &amp; Range</td>
<td>$14,283,700.00</td>
</tr>
<tr>
<td>Seed Crops</td>
<td>$284,700.00</td>
</tr>
<tr>
<td>Field Crops</td>
<td>$14,044,600.00</td>
</tr>
<tr>
<td>Total Revenue in 2012</td>
<td>$246,059,600.00</td>
</tr>
<tr>
<td>Total Tax Revenue (10%) in 2012</td>
<td>$24,605,960.00</td>
</tr>
<tr>
<td>Dollars generated per acre in 2012</td>
<td>$287.95</td>
</tr>
<tr>
<td>Deer Affected Acreage</td>
<td>758.06</td>
</tr>
<tr>
<td>Mill Affected Acreage</td>
<td>1103.25</td>
</tr>
<tr>
<td>Antelope Affected Acreage</td>
<td>400.89</td>
</tr>
<tr>
<td>Total Acres Affected</td>
<td>2262.19</td>
</tr>
<tr>
<td>% Acres Affected</td>
<td>2.65</td>
</tr>
<tr>
<td>Agricultural Tax Revenue lost due to</td>
<td>$ 651,391.24</td>
</tr>
<tr>
<td>Emergency Regulations</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Tehama County Tax loses. Minimum scenario: Pre-1914 and Riparian users affected by the proposed emergency regulation in June and only Riparian users affected by the proposed affect in October and November. Maximum scenario: All water rights affected June, October and November by the proposed emergency regulation.