

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

In the Matter of:

**California Department of
Corrections and Rehabilitation**

Deuel Vocational Institution

ORDER R5-2017-0530

**SETTLEMENT AGREEMENT AND
STIPULATION FOR ENTRY OF
ADMINISTRATIVE CIVIL LIABILITY
ORDER**

INTRODUCTION

1. This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (Stipulated Order or Order) is entered into by and between the Assistant Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), on behalf of the Central Valley Water Board Prosecution Team (Prosecution Team), and the California Department of Corrections and Rehabilitation (CDCR) (collectively known as the Parties) and is presented to the Central Valley Water Board, or its delegee, for adoption as an order by settlement, pursuant to Government Code section 11415.60.

RECITALS

2. On 22 July 2016, the Assistant Executive Officer of the Central Valley Water Board issued Administrative Civil Liability Complaint No. R5-2016-0536 (Complaint) to CDCR pursuant to Water Code section 13323. The Complaint is attached hereto as Exhibit A.
3. The Complaint alleged that CDCR operated its Wastewater Treatment Facility (Facility) in violation of Cleanup and Abatement Order (CAO) R5-2015-0704 and Waste Discharge Requirements Order R5-2014-0014 (NPDES CA0078093). Specifically, the Complaint alleged the following:
 - 3.1 **Violation 1:** CDCR submitted seven reports that are materially deficient and do not contain the information required by CAO R5-

2015-0704. Each deficient report is a violation of the CAO as detailed further in the table below.

Delinquent Monitoring Reports	Due Date	Received	Status	Days of Violation ¹
First Quarter 2015 Progress Report	4/30/15	5/11/15	Incomplete	366
RO Plant Spare Parts Status Report	5/1/15	5/1/15	Incomplete	365
MBR Modules Replacement Time Schedule	5/1/15	5/1/15	Incomplete	365
O&M Manual and SOPs	6/1/15	5/28/15	Incomplete	334
Second Quarter 2015 Progress Report	7/30/15	7/19/15	Incomplete	275
Third Quarter 2015 Progress Report	10/30/15	1/27/15	Incomplete	183
Fourth Quarter 2015 Progress Report	1/30/16	1/27/15	Incomplete	91
Total Days				1,979

¹ As of 1 May 2016

- 3.2. **Violation 2:** Between 1 January and 30 April 2016, the Discharger exceeded seven effluent limits, in violation of the WDRs: five for total coliform organisms and two for nitrate plus nitrite. The Complaint assesses discretionary penalties for a total of 2,869,049 gallons of wastewater discharged for seven days of violation.
- 3.3. **Violation 3:** Standard Provision I.D of WDRs Order R5-2014-0014 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain. In particular, the CAO required that the Discharger

replace the membrane bioreactor modules by 31 March 2016. The modules were not replaced until 2 June 2016.

4. The Complaint proposed that \$4,037,620 in liability be imposed for the alleged violations, based upon use of the penalty methodology in the State Water Resources Control Board (State Water Board) Water Quality Enforcement Policy.
5. The Parties have engaged in confidential settlement negotiations and agree to settle the matter without administrative or civil litigation by presenting this Stipulation to the Central Valley Water Board, or its delegee, for adoption as an order by settlement pursuant to Government Code section 11415.60. To resolve the alleged violations by consent and without further administrative proceedings, the Parties have agreed to the imposition of \$2,300,000 in liability against CDCR with a portion of the liability suspended conditioned on successful completion of seven Supplemental Environmental Projects.
6. The Parties agree to a reduction from the liability proposed in the Complaint. The reduction considers adjustments to the penalty methodology factors along with litigation risks. The number of days of violation alleged for Violation #1 was reduced using the findings in the Enforcement Policy, thereby lowering the proposed liability for Violation #1 by \$856,317. In addition, a further reduction of \$881,303 was appropriate as described further under "Other Factors as Justice May Require" under Step 7 of the revised penalty methodology, which is attached herein as Exhibit B. The reduction is appropriate and consistent with the language of Water Code section 13385.
7. The Central Valley Water Board Prosecution Team believes that the resolution of the alleged violations is fair and reasonable and fulfills its enforcement objectives, that no further action is warranted concerning the violations alleged herein, and that the Stipulated Order is in the best interest of the public.

STIPULATIONS

The Parties stipulate to the following:

8. **Administrative Civil Liability:** CDCR hereby agrees to the imposition of an administrative civil liability totaling TWO MILLION THREE HUNDRED THOUSAND DOLLARS (\$2,300,000) to resolve the violations alleged in the Complaint. Specifically:

- 8.1. Within thirty (30) days of issuance of the Order, CDCR agrees to remit, by check, ONE MILLION TWO HUNDRED SEVEN THOUSAND FORTY DOLLARS (\$1,207,040) payable to the *State Water Resources Control Board Cleanup and Abatement Account*, and shall indicate on the check the number of this Order. CDCR shall send the original signed check to the State Water Resources Control Board Accounting Office, Attn: ACL Payment, P.O. Box 1888, Sacramento, CA 95812-1888. Copies of the check shall be sent to David Boyers, Assistant Chief Counsel, State Water Resources Control Board, Office of Enforcement, P.O. Box 100, Sacramento, CA 95812 and Howard Hold, Acting Supervisor, Compliance/Enforcement Section, Regional Water Quality Control Board, Central Valley Region, 11020 Sun Center Drive, Suite 200, Rancho Cordova, CA 95670.
- 8.2. Within thirty (30) days of issuance of the Order, CDCR agrees to remit, by check, ONE MILLION NINETY TWO THOUSAND NINE HUNDRED SIXTY DOLLARS (\$1,092,960) payable to the *Rose Foundation for Communities and the Environment* (Rose Foundation), and shall indicate on the check number of this Order. CDCR shall send the original signed check to the Rose Foundation, 1970 Broadway, Suite 600, Oakland, CA 94612-2218, Attn: Tim Little. Copies of the check shall be sent to David Boyers, Assistant Chief Counsel, State Water Resources Control Board, Office of Enforcement, P.O. Box 100, Sacramento, CA 95812 and Howard Hold, Acting Supervisor, Compliance/Enforcement Section, Regional Water Quality Control Board, Central Valley Region, 11020 Sun Center Drive, Suite 200, Rancho Cordova, CA 95670.

The Rose Foundation shall use the funds for seven Supplemental Projects. Of the total amount, \$150,000 shall be distributed to the

California Indian Environmental Alliance for use as safer subsistence fishing in the Sacramento River, \$200,000 shall be distributed to the *California Product Stewardship Council* for use as sustainable medication take back for the Sacramento Valley, \$140,000 shall be distributed to the *Central Sierra Environmental Resource Center* for use as two years of watershed monitoring and outreach in the Central Sierra Nevada, \$100,000 shall be distributed to the *Environmental Justice Coalition for Water* for use as realizing the human right to water for Sacramento Valley disadvantaged communities, \$122,000 shall be distributed to the *Sierra Streams Institute* for use as initiating comprehensive baseline monitoring for the Bear River Watershed, \$199,962 shall be distributed to *The Sierra Fund* for use as increasing disadvantaged community assessment and Tribal involvement in mandated disadvantaged community needs assessment, and \$100,000 shall be distributed to the *Tuolumne River Trust* for use as outreach, pollution prevention, and cleanup activities in the Tuolumne River. In addition, \$56,710 shall be distributed to the Rose Foundation for general SEP development costs, and the remaining \$24,288 shall be distributed to the Rose Foundation for oversight of the seven SEPs described herein Exhibit C, which is incorporated into this Order by reference, describes the Rose Foundation's SEP development and SEP oversight activities in detail, as well as the seven SEPs including milestones, budget and performance measures.

9. **Supplemental Environmental Project:** CDCR and the Central Valley Water Board agree that the payment specified in Section 8.2 of the Stipulation is a SEP and that the amount specified will be treated as a Suspended Administrative Civil Liability for purposes of this Stipulated Order. Upon CDCR's payment of its SEP obligations under this Stipulation, the Central Valley Water Board staff shall send CDCR a letter recognizing the satisfactory completion of its SEP obligations. This letter shall terminate any further SEP obligations of CDCR and result in the permanent waiver of the SEP suspended liability.

10. **Publicity:** Should CDCR or its agents or contractors publicize one or more elements of the SEP, it shall state in a prominent manner that the project is being funded as part of the settlement of an enforcement action by the Central Valley Water Board against CDCR.

11. **Compliance with Applicable Laws:** CDCR understands that payment of administrative civil liability in accordance with the terms of the Stipulated Order and/or compliance with the terms of the Stipulated Order is not a substitute for compliance with applicable laws, and that continuing violations of the type alleged in the Complaint may subject it to further enforcement, including additional administrative civil liability.

12. **Party Contacts for Communications related to Stipulated Order:**

For the Central Valley Water Board:
Howard Hold, Acting Supervisor
Compliance and Enforcement Section
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670
Howard.Hold@waterboards.ca.gov
(916) 464-4679

For CDCR:
Gregor Larabee, Chief
Environmental & Regulatory Compliance Section
Department of Corrections and Rehabilitation
9838 Old Placerville Road, Suite B
Sacramento, CA 95827
Gregor.Larabee@cdcr.ca.gov

13. **Attorney's Fees and Costs:** Except as otherwise provided herein, each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.

14. **Matters Addressed by Stipulation:** Upon adoption by the Central Valley Water Board, or its delegee, the Stipulated Order represents a final and binding resolution and settlement of all claims, violations or causes of action alleged in the Complaint or which could have been asserted based on the specific facts alleged in the Complaint as of the effective date of the Stipulated Order (“Covered Matters”). The provisions of this Paragraph are expressly conditioned on CDCR’S payment of the administrative civil liability by the deadline specified in Paragraph 8.
15. **Public Notice:** CDCR understands that the Stipulated Order must be noticed for a 30-day public review and comment period prior to consideration by the Central Valley Water Board, or its delegee. If significant new information is received that reasonably affects the propriety of presenting the Stipulated Order to the Central Valley Water Board, or its delegee, for adoption, the Prosecution Team may unilaterally declare this Stipulation void and decide not to present it to the Central Valley Water Board, or its delegee. CDCR agrees that it may not rescind or otherwise withdraw its approval of the Stipulation.
16. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for the Central Valley Water Board’s adoption of the settlement by the Parties and review by the public, as reflected in the Stipulated Order, will be adequate. In the event procedural objections are raised prior to the Stipulated Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.
17. **No Waiver of Right to Enforce:** The failure of the Prosecution Team or of the Central Valley Water Board to enforce any provision of the Stipulated Order shall in no way be deemed a waiver of such provision, or in any way affect the validity of the Order. The failure of the Prosecution Team or of the Central Valley Water Board to enforce any such provision shall not preclude it from later enforcing the same or any other provision of the Stipulated Order.

18. **Effect of Stipulated Order:** Except as expressly provided in the Stipulated Order, nothing in the Stipulated Order is intended nor shall it be construed to preclude the Prosecution Team or any state agency, department, board or entity or any local agency from exercising its authority under any law, statute, or regulation.
19. **Interpretation:** The Stipulated Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party.
20. **Modification:** The Stipulated Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties, and approved by the Central Valley Water Board.
21. **If Order Does Not Take Effect:** In the event that the Stipulated Order does not take effect because it is not approved by the Central Valley Water Board, or its delegee, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Central Valley Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:
 - a. Objections related to prejudice or bias of any of the Central Valley Water Board members or their advisors and any other objections that are premised in whole or in part on the fact that the Central Valley Water Board members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing on the Complaint in this matter; or

- b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.
22. **No Admission of Liability:** In settling this matter, CDCR agrees that in the event of any future enforcement actions by the Central Valley Water Board, the Stipulated Order may be used as evidence of a prior enforcement action or a history of violation consistent with Water Code sections 13327 and 13385.
23. **Waiver of Hearing:** CDCR has been informed of the rights provided by Water Code section 13323(b), and hereby waives its right to a hearing before the Central Valley Water Board prior to the adoption of the Stipulated Order.
24. **Waiver of Right to Petition:** CDCR hereby waives its right to petition the Central Valley Water Board's adoption of the Stipulated Order as written for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.
25. **Covenant Not to Sue:** CDCR covenants not to sue or pursue any administrative or civil claim(s) against any State Agency or the State of California, their officers, Board Members, employees, representatives, agents, or attorneys arising out of or relating to any Covered Matter.
26. **Central Valley Water Board is Not Liable:** Neither the Central Valley Water Board members nor the Central Valley Water Board staff, attorneys, or representatives shall be liable for any injury or damage to persons or property resulting from acts or omissions by CDCR, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to the Stipulated Order, nor shall the Central Valley Water Board, its members or staff be held as parties to or guarantors of any contract entered into by CDCR, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to the Stipulated Order.

27. **CDCR is Not Liable:** Neither CDCR, its directors, officers, employees, agents, representatives or contractors shall be liable for any injury or damage to persons or property resulting from acts or omissions by the Central Valley Water Board members, or the Central Valley Water Board staff, attorneys, or representatives in carrying out activities pursuant to the Stipulated Order, nor shall CDCR, its directors, officers, employees, agents, representatives or contractors be held as parties to or guarantors of any contract entered into by the Central Valley Water Board, its members or staff CDCR, in carrying out activities pursuant to the Stipulated Order.
28. **Authority to Bind:** Each person executing the Stipulated Order in a representative capacity represents and warrants that he or she is authorized to execute the Stipulated Order on behalf of and to bind the entity on whose behalf he or she executes the Order.
29. **No Third Party Beneficiaries:** The Stipulated Order is not intended to confer any rights or obligations on any third party or parties, and no third party or parties shall have any right of action under this Stipulated Order for any cause whatsoever.
30. **Effective Date:** The Stipulated Order shall be effective and binding on the Parties upon the date the Central Valley Water Board, or its delegee, enters the Order.
31. **Counterpart Signatures:** The Stipulated Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document.
32. **Incorporation of Exhibits:** Exhibits "A", "B", and "C" are hereby incorporated by reference.

IT IS SO STIPULATED.

California Regional Water Quality Control Board Prosecution Team
Central Valley Region

By: Original Signed By
Andrew Altevogt
Assistant Executive Officer

Date: 7/18/2017

California Department of Corrections and Rehabilitation

By: Deborah Hysen

Date: 7/6/2017

Order of the Central Valley Water Board

1. In adopting this Stipulated Order, the Central Valley Water Board has considered, where applicable, each of the factors prescribed in Water Code sections 13327 and 13385(e). The consideration of these factors is based upon information and comments obtained by the Central Valley Water Board's staff in investigating the allegations described in the Complaint or otherwise provided to the Central Valley Water Board or its delegee by the Parties and members of the public.
2. This is an action to enforce the laws and regulations administered by the Central Valley Water Board. The Central Valley Water Board finds that issuance of this Order is also exempt from the provisions of CEQA in accordance with section 15321(a)(2), Title 14, of the California Code of Regulations as an enforcement action by a regulatory agency and there are no exceptions that would preclude the use of this exemption. This action may also be considered exempt because it is an action by a regulatory agency for the protection of natural resources (Cal. Code Regs., tit. 14, § 15307.) and an action by a regulatory agency for the protection of the environment (Cal. Code Regs., tit. 14, § 15308.). Should additional environmental review be required in connection with future discretionary regulatory actions at this site, the Central Valley Water Board may recover the costs associated with preparing and processing environmental documents from the discharger. (Pub. Resources Code, § 21089.)
3. The terms of the foregoing Stipulation are fully incorporated herein and made part of this Order of the Central Valley Water Board.

Pursuant to Water Code sections 13323 and 13385 and Government Code section 11415.60, **IT IS HEREBY ORDERED** on behalf of the California Regional Water Quality Control Board, Central Valley Region.

Original Signed By

Pamela Creedon
Executive Officer

8/23/2017

Date

Attachments (see next page)

Attachments:

Exhibit A: Administrative Civil Liability Complaint R5-2016-0536

Exhibit B: Revised Penalty Methodology

Exhibit C: Description of Supplemental Environmental Projects

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ADMINISTRATIVE CIVIL LIABILITY COMPLAINT R5-2016-0536

IN THE MATTER OF

CALIFORNIA DEPARTMENT OF CORRECTIONS AND REHABILITATION
DEUEL VOCATIONAL INSTITUTION
WASTEWATER TREATMENT FACILITY
SAN JOAQUIN COUNTY

This Administrative Civil Liability Complaint (Complaint) is issued to the California Department of Corrections and Rehabilitation (CDCR or Discharger) pursuant to California Water Code (Water Code) section 13323, which authorizes the Executive Officer to issue this Complaint, and Water Code section 7, which authorizes the delegation of the Executive Officer's authority to a deputy, in this case the Assistant Executive Officer. This Complaint proposes administrative civil liability pursuant to Water Code sections 13268 and 13385. The allegations in this Complaint are based on violations of Cleanup and Abatement Order (CAO) R5-2015-0704 and Waste Discharge Requirements Order R5-2014-0014 (NPDES CA0078093).

The Assistant Executive Officer of the Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) alleges the following:

BACKGROUND

1. The Discharger owns and operates the Deuel Vocational Institution Wastewater Treatment Facility (Facility) a wastewater collection, treatment and disposal system, which provides sewerage service to the Deuel Vocational Institution, a California prison. Treated municipal wastewater is discharged into Deuel Drain, tributary to Paradise Cut and Old River, which are part of the Sacramento-San Joaquin Delta and waters of the United States.
2. In order to regulate discharges from the Facility, on 7 February 2014, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2014-0014, which contained new requirements and rescinded WDRs Order R5-2008-0164, except for enforcement purposes. On 9 October 2014, the Board amended the WDRs by adoption of Order R5-2014-0014-01, which allows for participation in the Delta Regional Monitoring Program. Otherwise, the amended WDRs contain the same requirements as WDRs Order R5-2014-0014.
3. On 30 March 2015, the Assistant Executive Officer issued Cleanup and Abatement Order (CAO) R5-2015-0704 to the Discharger for violations and threatened violations of the WDRs, including: chronic toxicity in the effluent, exceedance of the nitrate effluent limit, damage to the membrane bioreactor, use of expired chemical reagents, failure to develop standard operating procedures, lack of adequate staffing, poor housekeeping, and the potential for increased influent flows and lack of treatment capacity. These violations are likely occurring at the Facility due to 1) inadequate operation and maintenance of the Reverse Osmosis Groundwater Treatment Plant (RO Plant), which had been installed to treat groundwater from onsite supply wells to provide potable water to inmates and to reduce electrical conductivity in the influent to the wastewater treatment plant, and 2) inadequate operation and maintenance of the membrane bioreactor (MBR) at the Facility.
4. The CAO requires submittal of a number of reports which, if implemented, will bring the Discharger back into compliance with the WDRs and will allow continued, reliable operation of the Facility. The reports are described in detail in Attachment A to this Complaint.

**VIOLATIONS OF CAO R5-2015-0704:
FAILURE TO SUBMIT TECHNICAL REPORTS**

5. According to the Hereby Ordered section of the CAO, "... *technical reports shall contain the information and decisions required by the following paragraphs. If a report is submitted without the required information or decision, then the Discharger is in violation of this Order and subject to additional enforcement action.*"
6. The Discharger has a history of submitting late and incomplete technical and progress reports. Since the adoption of the CAO on 30 March 2015, the Discharger has been issued two Notices of Violations (NOVs) and multiple staff-enforcement emails regarding late and incomplete reports, as described below.
7. On 8 May 2015, Board staff issued a NOV for the non-submittal of three reports (*RO Plant Spare Parts Status Report, MBR Modules Replacement Time Schedule, and the First Quarter Progress Report*). The NOV informed the Discharger that the maximum liability as of 8 May 2015 for these delinquent reports was \$110,000. In addition, the NOV required the Discharger to submit these delinquent reports immediately to avoid further enforcement action.
8. On 11 May 2015, the Discharger responded submitted what it described as the *First Quarter Progress Report*. However, a review of the document shows that it does not contain the information required by the CAO and is therefore materially deficient. In addition, the Discharger stated that it had submitted the *RO Plant Spare Parts Status Report* and *MBR Modules Replacement Time Schedule* on 1 May, as required. Further review by Board staff found that although the *RO Plant Spare Parts Status Report* and *MBR Modules Replacement Time Schedule* had been submitted on time, these reports did not include all of the required information and therefore the Discharger did not comply with the CAO. The information which is missing is described in Attachment A to this Order.
9. On 30 June 2015, Board staff issued a NOV for delinquent technical reports, which included the *RO Plant Spare Parts Status Report, MBR Modules Replacement Time Schedule and O&M Manual and SOPs*¹. The NOV includes detailed explanations for why these technical reports are materially deficient and requested the Discharger to resubmit these reports forthwith. The Discharger was informed that the maximum liability as of 30 June 2015 for these delinquent reports was \$160,000. However, as of 1 May 2016, the Discharger has not submitted reports which contain the information required by the CAO.
10. On 4 September 2015, the Central Valley Water Board's Assistant Executive Officer emailed the Discharger to express concerns regarding compliance with CAO R5-2015-0704 and the failure to resubmit the three technical reports listed in the above Finding. The email informed the Discharger that the maximum liability as of 4 September 2015 for these delinquent reports is over \$350,000. In addition, it stated that the Board is extremely concerned about the poor performance of the Facility and the numerous recent violations of the effluent limitations. On 4 September 2015, the Associate Warden responded by email and stated that the Facility's Operations budget for FY 15-16 still had not been received, and that he would respond within a week with the status and options for moving forward. Board staff subsequently participated in a conference call with the Discharger to discuss the outstanding reports and what is required by the CAO.

¹ Submitted on 28 May 2015

11. The Discharger has submitted two reports which comply with the CAO: the *Time Schedule for Cleaning and Properly Maintaining Facility Grounds* and the *Third Party Selection Report*.
12. On 5 February 2016, Central Valley Board staff emailed the Discharger regarding the *Third and Fourth Quarter Progress Reports*. Board staff stated that these progress reports do not contain the information required by the CAO. Staff provided a detailed explanation as to what is to be submitted in each progress report, and requested the Discharger to resubmit these delinquent reports immediately. As of 1 May 2016, the Discharger has failed to respond.
13. Board staff met with the Discharger multiple times prior to issuance of the CAO, provided the Discharger with an opportunity to comment on the draft Order, and since the CAO's adoption, has spent considerable effort attempting to educate the Discharger so that it will comply. However, as of 1 May 2016, the Discharger continues to fail to comply with the CAO. The table below outlines the reporting violations.

Delinquent Monitoring Reports	Due Date	Received	Status	Days of Violation ¹
First Quarter 2015 Progress Report	4/30/15	5/11/15	Incomplete	366
RO Plant Spare Parts Status Report	5/1/15	5/1/15	Incomplete	365
MBR Modules Replacement Time Schedule	5/1/15	5/1/15	Incomplete	365
O&M Manual and SOPs	6/1/15	5/28/15	Incomplete	334
Second Quarter 2015 Progress Report	7/30/15	7/19/15	Incomplete	275
Third Quarter 2015 Progress Report	10/30/15	1/27/15	89 Days Late Incomplete	183
Fourth Quarter 2015 Progress Report	1/30/16	1/27/15	Incomplete	91
Total Days				1,979

¹As of 1 May 2016.

VIOLATIONS OF WDRS ORDER R5-2014-0014

14. The WDRs allow the discharge of treated wastewater to surface waters, under the condition that the Discharger complies with the effluent limitations and other limitations prescribed by the Board. Failure to comply with the WDRs subjects the Discharger to mandatory minimum penalties as well as discretionary penalties.
15. The purpose of the CAO was to compel the Discharger to take actions to upgrade its wastewater treatment facility such that it would continuously comply with its WDRs. However, between adoption of the CAO on 30 March 2015, and 31 December 2015, the Discharger violated the effluent limit for total coliform organisms 28 times, violated the effluent limit for nitrate plus nitrite effluent limit four times, and violated the effluent limit for ammonia three times. On 28 March 2016, the Assistant Executive Officer issued Administrative Civil Liability Complaint (ACLC) R5-2016-0523 to the Discharger. The ACLC assessed \$111,000 in mandatory minimum penalties for effluent limit violations that occurred between 1 April 2014 and 31 December 2015. The

Discharger has paid the penalty.

16. This Order assesses discretionary penalties for those effluent limit violations that occurred between 1 January 2016 and 30 April 2016, as shown on Attachment B to this Order. There were five total coliform violations and two nitrate plus nitrite violations. During the time in which the effluent limit was violated, over 2.8 million gallons of wastewater was discharged to the Deuel Drain. It is noted that the Discharger also exceeded the chronic toxicity limit for eight of the eleven toxicity tests that it conducted since issuance of the CAO. While these violations are considered as part of the penalty calculation (Attachment A), this Order does not specifically assess liability for the toxicity limit violations.
17. On 12 January 2016, Board staff issued a NOV for violating the final effluent limitations for ammonia, nitrate plus nitrite, and total coliform organisms between August 2015 and November 2015. Board staff requested a response summarizing actions the Discharger would immediately implement to properly treat its wastewater and comply with the NPDES permit until the damaged membrane bioreactor modules are replaced. The Discharger has not provided a specific response to this NOV; however, the Discharger did respond on 9 March 2016 as described below.
18. On 18 February 2016, Board staff issued a NOV for violating the final effluent limitations for total coliform organisms during December 2015. Board staff requested that the Discharger describe the preventative measures that would be implemented to prevent similar violations until the membrane bioreactors are replaced. On 9 March 2016, the Discharger responded to the February NOV and stated (a) on 6 August 2015 a contractor made changes to the "maintenance clean program", (b) in late October 2015, two of the UV trains were re-built, (c) on 26 January 2016 an additional UV train became operational, and (d) a purchase order was issued on 22 February 2016 to replace the membrane biofilters.
19. Standard Provision I.D of the WDRs Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain. In particular, the CAO required that the Discharger replace the MBR modules by 31 March 2016. However, as of 1 May 2016, the modules have not been replaced.

REGULATORY CONSIDERATIONS

20. As described above, the Discharger has failed to submit technical and progress reports as required by CAO R5-2015-0704. The Discharger has also violated its WDRs Order R5-2014-0014 by discharging waste water in exceedance of permitted limits and by failing to properly operate and maintain its wastewater treatment facility.
21. The Central Valley Regional Water Board may impose administrative civil liabilities for violations of a discharger's WDR permit and/or applicable Board orders pursuant to the procedures described in Water Code section 13323. This Complaint alleges the Discharger violated WDRs Order R5-2014-0014 and CAO R5-2015-0704, and seeks the imposition of administrative civil liability in accordance with Water Code sections 13268 and 13385.

22. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Surface water drainage from the facility is the Sacramento San Joaquin Delta. The designated beneficial uses of the Sacramento San Joaquin Delta are municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction and/or early development; wildlife habitat; and navigation.
23. Pursuant to Water Code section 13385, in determining the amount of civil liability, the regional board shall take into consideration the nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on the ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters as justice may require.
24. Issuance of this Complaint to enforce Division 7, Chapter 5.5 of the Water Code is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000 et seq.), in accordance with California Code of Regulations, title 14, sections 15307, 15308, 15321, subdivision (a)(2) and all applicable law.

CALCULATION OF CIVIL LIABILITIES UNDER WATER CODE SECTION 13268

25. Water Code section 13268, subdivision (a)(1) states: *Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267... is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b).*
26. Water Code section 13268, subdivision (b)(1) states: *Civil liability may be administratively imposed by a regional board ...for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.*
27. CAO R5-2015-0704 requires that reports be submitted pursuant to Water Code section 13267. As outlined in Finding 13, the Discharger has failed to submit seven technical and progress reports that contained the information required by the CAO. As of 1 May 2016, the reports are a total of 1,979 days late.
28. **Maximum Civil Liability:** Per Water Code section 13268, subdivision (b)(1) the maximum administrative civil liability that may be assessed for not submitting the monitoring reports required by the CAO is **one million nine hundred seventy nine thousand dollars (\$1,979,000).**

CALCULATION OF CIVIL LIABILITIES UNDER WATER CODE SECTION 13385

29. Water Code section 13385(a)(2) states that any person who violates a waste discharge requirement may be subject to civil liability.
30. Water Code section 13385(c) states, in relevant part:
 - (c) Civil liability may be imposed administratively by the state board or a regional board... in an amount not to exceed the sum of both of the following:

- (1) Ten thousand dollars (\$10,000) for each day in which the violation occurs.
- (2) Where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed ten dollars (\$10) multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.
- (e) At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation.

31. **Maximum Civil Liability for Discharge to Surface Waters:** Per Water Code section 13385, civil liability administratively imposed by the Central Valley Water Board may not exceed \$10,000 per day of violation, plus \$10 per gallon for each gallon of waste discharged over 1,000 gallons. The discharge took place over 7 days, and therefore the maximum per-day penalty is \$70,000. A total of 2,876,049 gallons were discharged during the seven days of violation; of this amount, 2,869,049 gallons were discharged over 1,000 gallons per discharge event. The maximum per-gallon penalty is \$28,690,490. The maximum civil penalty is the sum of the per-day and per-gallon penalties, or \$28,760,490.
32. **Maximum Civil Liability for Failing to Comply with WDRs:** Per Water Code section 13385, civil liability administratively imposed by the Central Valley Water Board may not exceed \$10,000 per day of violation. The Discharger has failed to comply with Provision I.D of the WDRs. In particular, the Discharger has failed to comply with the CAO requirement that the MBR modules be replaced by 31 March 2016. As of 1 May 2016, the Discharger is in violation for 30 days, for a maximum liability of \$300,000.
33. **Minimum Civil Liability for All Violations:** Pursuant to the State Water Board's Enforcement Policy, liability must be assessed to recover at a minimum ten percent more than the economic benefit of noncompliance derived from the acts that constitute each violation. The minimum civil liability for all violations is estimated to be \$2,293,251.

PROPOSED ADMINISTRATIVE CIVIL LIABILITY

34. On 17 November 2009, the State Water Board adopted Resolution No. 2009-0083 amending the Water Quality Enforcement Policy (Enforcement Policy). The Enforcement Policy was approved by the Office of Administrative Law and became effective on 20 May 2010. The Enforcement Policy establishes a methodology for assessing administrative civil liability. The use of this methodology addresses the factors that are required to be considered when imposing a civil liability as outlined in Water Code sections 13327 and 13385, subdivision (e). The entire Enforcement Policy can be found at:
http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final11179.pdf.
35. The recommended administrative civil liability was derived from the use of the penalty methodology in the Enforcement Policy, and Water Code sections 13268 and 13385, as explained in detail in Attachment A to this Complaint. The proposed civil liability takes into account such factors as the Discharger's culpability, history of violations, ability to pay and continue in business, and other factors as justice may require.

36. As described above, the maximum penalty for all three types of violations is \$31,039,490 and the minimum penalty is \$2,293,251. Based on consideration of the above facts, and after applying the penalty methodology, the Assistant Executive Officer of the Central Valley Water Board proposes that civil liability be imposed administratively on the Discharger in the amount of \$4,037,620. The specific factors considered in this penalty are detailed in Attachment A.
37. Notwithstanding the issuance of this Complaint, the Central Valley Water Board retains the authority to assess additional penalties for violations of the requirements of the Discharger's WDRs or CAO for which penalties have not yet been assessed or for violations that may subsequently occur.
38. On 14 February 2014, the Executive Officer designated Andrew Altevogt, Assistant Executive Officer, as the Lead Prosecution Officer for all enforcement matters originating in the Central Valley Region. The 14 February 2014 Delegation of Authority also authorizes Andrew Altevogt to issue administrative civil liability complaints.

THE CALIFORNIA DEPARTMENT OF CORRECTION AND REHABILITATION IS HEREBY GIVEN NOTICE THAT:

1. The Assistant Executive Officer of the Central Valley Water Board proposes that the Discharger be assessed an administrative civil liability in the amount of **four million thirty seven thousand six hundred twenty dollars (\$4,037,620)**. The amount of the proposed liability is based upon a review of the factors cited in Water Code section 13385, as well as the State Water Resources Control Board's 2010 Water Quality Enforcement Policy.
2. A hearing on this matter will be conducted at the Central Valley Water Board meeting scheduled on **13/14 October 2016**, unless the Discharger does one of the following by **12 August 2016**:
 - a) Waives the hearing by completing the attached form (checking off the box next to Option 1) and returning it to the Central Valley Water Board. In addition, submit payment for the proposed civil liability in the amount **four million thirty seven thousand six hundred twenty dollars (\$4,037,620)** to the State Water Board with a copy of the check to the Central Valley Water Board; or
 - b) Requests to engage in settlement discussions by checking the box next to Option 2 on the attached form, and returning it to the Board along with a letter describing the issues to be discussed. The Central Valley Water Board must agree to the postponement; or
 - c) Requests to delay the hearing by checking off the box next to Option 3 on the attached form, and returning it to the Board along with a letter describing the proposed length of delay and the issues to be discussed. The Central Valley Water Board must agree to the postponement.
4. If a hearing on this matter is held, the Central Valley Water Board will consider whether to affirm, reject, or modify the proposed Administrative Civil Liability, or whether to refer the matter to the Attorney General for recovery of judicial civil liability.
5. If this matter proceeds to hearing, the Assistant Executive Officer reserves the right to amend the proposed amount of civil liability to conform to the evidence presented, including but not limited to, increasing the proposed amount to account for the costs of enforcement (including staff, legal and

expert witness costs) incurred after the date of the issuance of this Complaint through completion of the hearing.

Original Signed by

ANDREW ALTEVOGT, Assistant Executive Officer

22 July 2016

DATE

Attachment A: Penalty Calculation Methodology including Exhibit 1, Economic Benefit Analysis
Attachment B: Effluent Limit Violations

**WAIVER FORM
FOR ADMINISTRATIVE CIVIL LIABILITY COMPLAINT**

By signing this waiver, I affirm and acknowledge the following:

I am duly authorized to represent the California Department of Corrections and Rehabilitations (hereafter Discharger) in connection with Administrative Civil Liability Complaint R5-2016-0536 (hereafter Complaint). I am informed that California Water Code section 13323, subdivision (b), states that, "a hearing before the regional board shall be conducted within 90 days after the party has been served. The person who has been issued a complaint may waive the right to a hearing."

(OPTION 1: Check here if the Discharger waives the hearing requirement and will pay in full.)

- a. I hereby waive any right the Discharger may have to a hearing before the Central Valley Water Board.
- b. I certify that the Discharger will remit payment for the proposed civil liability in the full amount of **four million thirty seven thousand six hundred twenty dollars (\$4,037,620)** by check that references "ACL Complaint R5-2016-0536" made payable to the *State Water Pollution Cleanup and Abatement Account*. Payment must be received by the State Water Resources Control Board, Accounting Office, Attn: ACL Payment at PO Box 1888, Sacramento, California, 95812-1888 by **12 August 2016**. The waiver and a copy of the check must be submitted to the Central Valley Water Board at 11020 Sun Center Drive #200, Attn: Wendy Wyels, Rancho Cordova, California, 95670 by **12 August 2016**.
- c. I understand the payment of the above amount constitutes a proposed settlement of the Complaint, and that any settlement will not become final until after a 30-day public notice and comment period. Should the Central Valley Water Board receive significant new information or comments during this comment period, the Central Valley Water Board's Assistant Executive Officer may withdraw the complaint, return payment, and issue a new complaint. I also understand that approval of the settlement will result in the Discharger having waived the right to contest the allegations in the Complaint and the imposition of civil liability.
- d. I understand that payment of the above amount is not a substitute for compliance with applicable laws and that continuing violations of the type alleged in the Complaint may subject the Discharger to further enforcement, including additional civil liability.

(OPTION 2: Check here if the Discharger waives the 90-day hearing requirement in order to engage in settlement discussions.) I hereby waive any right the Discharger may have to a hearing before the Central Valley Water Board within 90 days after service of the complaint, but I reserve the ability to request a hearing in the future. I certify that the Discharger will promptly engage the Central Valley Water Board Prosecution Team in settlement discussions to attempt to resolve the outstanding violation(s). By checking this box, the Discharger requests that the Central Valley Water Board delay the hearing so that the Discharger and the Prosecution Team can discuss settlement. It remains within the discretion of the Central Valley Water Board to agree to delay the hearing. Any proposed settlement is subject to the conditions described above under "Option 1."

(OPTION 3: Check here if the Discharger waives the 90-day hearing requirement in order to extend the hearing date and/or hearing deadlines. Attach a separate sheet with the amount of additional time requested and the rationale.) I hereby waive any right the Discharger may have to a hearing before the Central Valley Water Board within 90 days after service of the complaint. By checking this box, the Discharger requests that the Central Valley Water Board delay the hearing and/or hearing deadlines so that the Discharger may have additional time to prepare for the hearing. It remains within the discretion of the Central Valley Water Board to approve the extension.

(Print Name and Title)

(Signature)

(Date)

Attachment A – ACL Complaint No. R5-2016-0536
Specific Factors Considered for Administrative Civil Liability
California Department of Corrections and Rehabilitation
Deuel Vocational Institution Wastewater Treatment Facility

The State Water Board's *Water Quality Enforcement Policy* (Enforcement Policy) establishes a methodology for determining administrative civil liability by addressing the factors that are required to be considered under California Water Code section 13385(e). Each factor of the nine-step approach is discussed below, as is the basis for assessing the corresponding score. The Enforcement Policy can be found at: http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf.

Background

The Deuel Vocational Institution wastewater treatment facility discharges treated wastewater to the Deuel Drain, a water of the U.S. The Deuel Drain is part of the Southern Delta which is listed in the 303(d) list for chlorpyrifos, DDT, diazinon, electrical conductivity, group A pesticides, invasive species, mercury, and unknown toxicity. The Discharger is regulated by Waste Discharge Requirements Order R5-2014-0014-01 (NPDES CA0078093) (WDRs or Permit) which prescribes effluent limits and other conditions that must be met in order to discharge the wastewater.

On 30 March 2015, the Assistant Executive Officer issued Cleanup and Abatement Order R5-2015-0704 (CAO). Finding 23 of the CAO describes the reasons for issuance:

The Discharger is in violation of the WDRs because the reverse osmosis treatment plant, which removes salts and therefore allows the wastewater treatment plant to comply with effluent limits, has failed to operate reliably and has remained out of service for 66% of the time since it was permitted. Without the reverse osmosis plant, the discharged effluent will likely continue to exceed chronic toxicity limits. In addition, inadequate operation and maintenance has resulted in water quality exceedances above the permitted effluent limitations. When left unaddressed, there is a likely potential that the discharges of domestic wastewater will continue to contain levels exceeding the chronic toxicity and nitrate/nitrite limits in WDRs Order R5-2014-0014-01. Requiring the Discharger to comply with this Order, including the requirement to continuously operate the RO plant and reporting obligations related to the operations and maintenance of the RO plant, are necessary remedial actions to prevent wastewater from polluting Deuel Drain and its connected tributaries.

The CAO requires that the Discharger continuously operate the RO plant and to take certain actions if it is off-line. The Discharger has generally complied with this requirement and it is not the subject of this Complaint. The CAO also required the Discharger to submit a number of technical reports, which if implemented, will bring the Discharger back into compliance with the WDRs and will allow continued, reliable operation of the Facility.

Effluent Limitations and Discharge Specifications IV.A. of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall maintain compliance with the following effluent limitations..." including the limitation for nitrate plus nitrite (as N) of 10 mg/L as a monthly average and a 7-day median for total coliform organisms of 2.2 MPN/100 ml. The Discharger has not complied with these requirements, as evidenced by the ongoing effluent limit violations and chronic toxicity violations.

Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain.

The Complaint has been issued because the Discharger has (a) failed to submit technical reports required by the CAO, (b) continued to discharge in violation of the effluent limits in the WDRs, and (c) failed to properly operate and maintain the wastewater treatment plant in violation of the WDRs. These three violations will be addressed separately.

Violation #1: Failure to Submit Technical and Progress Reports Required by CAO R5-2015-0704

Background for Violation #1

The Discharger has submitted seven reports that are materially deficient and do not contain the information required by CAO R5-2015-0704. Therefore, each deficient report is a violation of the CAO. The required content of each report, as well as what was submitted, is summarized below.

1. Item #3 of the CAO required that a *RO Plant Spare Parts Status Report* be submitted by 1 May 2015. The report was to document “that the RO plant has adequate spare parts available, describe redundancy and/or features in place for continuous operation, and an action plan containing a schedule to prevent chronic toxicity when the RO plant is taken off-line for maintenance.” The Discharger submitted a document on 1 May 2015 which states that \$250,000 in funding has been secured to purchase parts, but fails to explain which spare parts are available now, which need to be purchased and when, the cost of the parts, or if adequate parts are on-site for repairs that are necessary to properly run and maintain the RO Plant. The report does not contain any information regarding the action plan and schedule to prevent chronic toxicity when the RO plant is off-line. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted.
2. Item #4 of the CAO requires that a *MBR Modules Replacement Time Schedule* be submitted by 1 May 2016. The report was to provide a time schedule for replacing the membrane bioreactor (MBR) modules, which was not to extend beyond 31 March 2016. The schedule was to include the process for all contracting actions necessary to complete the work. The Discharger submitted a document on 1 May 2015 which states that the Discharger has requested quotes; however, the Discharger failed to provide a schedule that includes the tasks to complete the MBR module replacement by 31 March 2016. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted, and as of 1 May 2016, the MBR modules have not been replaced.
3. Item #5 of the CAO requires that the Discharger update and submit the Facility’s *Operation and Maintenance (O&M) Manual and Standard Operating Procedures (SOPs)* by 1 June 2015. The purpose of the document was to “maximize efficiency of the MBR under current operating conditions such that the wastewater treatment plant effluent will meet all requirements of WDRs Order R5-2014-0014.” The Discharger submitted a document on 28 May 2015. However, it was just a copy of the 2011 O&M Manual, and was not an update as required by the CAO. The Discharger stated “A consultant has been retained to evaluate the operation of the plant. Changes to the plant and documents will be made if the consultant determines that corrections need to be made in order to improve the operation of the plant.” The CAO required an updated O&M Manual to reflect the current challenges of treating the wastewater; however, the Discharger did not submit this. Meanwhile, the Facility is not operating effectively and effluent

limits continue to exceed the permit's effluent limits. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted.

4. Item #10 of CAO R5-2015-0704 requires that the Discharger submit quarterly progress reports "describing the work completed to date to comply with each of the above requirements, as well as what work will be conducted in the next quarter."
 - a. The first progress report, covering the First Quarter 2015, was due on 30 April 2015. After receipt of a Notice of Violation, the document was submitted on 11 May 2015. However, the document described the work that had been completed under CAO R5-2015-0703, the Order issued to the Discharger for violations of the Title 27 WDRs. The report was deficient because it did not describe any of the work completed, or planned, in relation to CAO R5-2015-0704.
 - b. The Second Quarter 2015 progress report was due on 30 July 2015. The document was submitted on 30 July 2015. Once again, it contained information pertaining to the Title 27 CAO, R5-2015-0703. However, there are a few lines describing work that had been completed at the wastewater plant ("submitted purchase order request for purchase of the wastewater module membranes" and "replaced second RO train membranes") and work that will be done during the next quarter (establishing a contract with a consultant to complete Item #9 of the CDO, as well as some maintenance work at the Facility). However, the report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress towards completing all of the tasks.
 - c. The Third Quarter 2015 progress report was due on 30 October 2015, but was not submitted until 27 January 2016. Again, the majority of the report described work completed in response to the Title 27 CAO. With respect to the work completed at the wastewater treatment plant, the Third Quarter progress report had the same statement as in the Second Quarter Progress Report: "submitted purchase order request for purchase of the wastewater module membranes". With respect to work that will be undertaken during the next quarter, the report had the same text as the previous report regarding establishing a contract with a consultant to complete Item #9 of the CAO. The report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress towards completing all of the tasks.
 - d. The Fourth Quarter 2015 progress report was due on 30 January 2016 and was submitted on 27 January 2016. This report only described work completed in response to the Title 27 CAO. With respect to work that will be undertaken during the next quarter, the report had the same text as the previous two reports regarding establishing a contract with a consultant to complete Item #9 of the CAO. The report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress toward completing all of the tasks. A review of the Second through Fourth Quarterly Progress reports shows that the Discharger has made no progress at all towards complying with the CAO.
 - e. On 5 February 2016, staff sent an email to the Discharger stating that the Quarterly Progress reports are materially deficient and do not comply with the CAO. The email gave details of what is expected in a progress report: "...for example, a completed task outlined in the CAO R5-2015-0704 should include the date it was completed and uncompleted tasks should

include detail such as a timeline, a budget if applicable, and/or any other pertinent information to allow Board staff to determine if completion is on schedule for the dates listed in the CAO R5-2015-0704. In addition, the Progress Reports should thoroughly describe all activities that were performed by the Discharger to achieve compliance with the CAO R5-2015-0704 in the previous quarter and list of steps the Discharger is taking to hasten completion of the remaining uncompleted tasks..." To date, the Discharger has not submitted adequate First through Fourth Quarter 2015 progress reports.

Step 1 – Potential for Harm for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 2 – Assessment for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 3 – Per Day Assessment for Non-Discharge Violations

The "per day" factor is calculated for each non-discharge violation considering the (a) potential for harm and (b) the extent of the deviation from the applicable requirements.

Potential for Harm

The Enforcement Policy requires a determination of whether the characteristics of the violation resulted in a minor, moderate, or major potential for harm or threat to beneficial uses. In this case, a "Moderate" factor is appropriate because the submission of deficient technical reports suggests the Discharger has failed to take the necessary steps to operate the Reverse Osmosis plant in a manner that is most protective of water quality.

The Facility discharges domestic wastewater to Deuel Drain, a water of the United States, tributary to the San Joaquin River via Paradise Cut within the Sacramento – San Joaquin Delta. The designated beneficial uses of Deuel Drain that could be impacted by the discharge include municipal and domestic supply; agricultural irrigation; agricultural stock watering; industrial process water supply; industrial service supply; water contact recreation; other non-contact water recreation; warm freshwater aquatic habitat; cold freshwater aquatic habitat; warm fish migration habitat; cold fish migration habitat; warm spawning habitat; wildlife habitat; and navigation. The CAO contains requirements to submit reports to allow Board staff to evaluate whether the Discharger has taken the necessary steps to abate the ongoing pollution to Deuel Drain. The Discharger failed to submit a report that required a plan and schedule to prevent chronic toxicity when the RO plant was offline. No effort was made by the Discharger to provide an updated Operation and Maintenance Manual to maximize the efficiency of the membrane bioreactor modules. Quarterly progress reports were submitted late with little to no relevant content to determine the extent of compliance with requirements in the CAO. Meanwhile, because the Discharger failed to comply with the terms of the CAO, discharges of wastewater beyond permitted limits continued to cause pollution to the Deuel Drain. The failure to submit the required reports has an ancillary effect and/or threat to beneficial uses. The Discharger's existing operations are inadequate to meet effluent limitations in its permit. The intention behind the CAO was to require that the Discharger take short-term and long-term steps to improve its wastewater treatment system such that it could reliably comply with the effluent limits of its WDRs for the protection of the beneficial uses of the Deuel Drain. Without the information required by the reports in the CAO, the Discharger is presumed to be out of compliance with the actions necessary to abate the ongoing pollution to Deuel Drain. This

presents a substantial threat to beneficial uses. Therefore a moderate potential for harm was assessed.

A “Major” deviation from the requirement is also appropriate because the Discharger repeatedly submitted inadequate technical reports, which shows the Discharger’s disregard for compliance with regulatory requirements and inability to fulfill the specific requirements outlined in the CAO thereby rendering ineffective the Regional Board’s order to abate the effects of continuing pollution. Using Table 3 in the Enforcement Policy, the Per Day Factor of 0.55 is assigned. This value is to be multiplied by the days of violation and the maximum per day penalty, as shown in the Initial Liability table below.

Days of Violation

The Enforcement Policy provides that, for violations lasting more than 30 days, the Central Valley Water Board may adjust the per-day basis for civil liability if certain findings are made and provided that the adjusted per-day basis is no less than the per-day economic benefit, if any, resulting from the violation. In order to adjust the per-day basis, the Central Valley Water Board must make express findings that the violation: (1) is not causing daily detrimental impacts to the environment or the regulatory program; or (2) results in no economic benefit from the illegal conduct that can be measured on a daily basis; or (3) occurred without the knowledge or control of the violator, who therefore did not take action to mitigate or eliminate the violation. The Prosecution Team finds that it is possible to adjust the per-day basis for civil liability for the Progress Reports because no economic benefit can be measured on a daily basis for these reports that are considered a one-time cost.

The table below summarizes the date each required technical report was due. The days of violation are calculated from the due date of each report through 1 May 2016.

Delinquent Reports

Reports	Due Date	Received	Status	Days of Violation	Days of Violation (including reduced days, if applicable)
First Quarter 2015 Progress Report	4/30/15	5/11/15	Incomplete	366	18
RO Plant Spare Parts Status Report	5/1/15	5/1/15	Incomplete	365	365 ¹
MBR Modules Replacement Time Schedule	5/1/15	5/1/15	Incomplete	365	365 ¹
O&M Manual and SOPs	6/1/15	5/28/15	Incomplete	334	334 ¹
Second Quarter 2015 Progress Report	7/30/15	7/19/15	Incomplete	275	15
Third Quarter 2015 Progress Report	10/30/15	1/27/15	Incomplete	183	12
Fourth Quarter 2015 Progress Report	1/30/16	1/27/16	Incomplete	91	9
Total Days				1,979	1,118

¹ Reduction of the days of violation is not applicable.

Violation 1: Initial Liability

(0.55 factor from Table 3) x (1,118 days) x (\$1,000/day) = \$614,900

Step 4A – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean-up or cooperate with regulatory authority, and the violator's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

Higher liabilities should result from intentional or negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher multiplier for negligent behavior. This Discharger has multiple levels of management overseeing the wastewater treatment facility, and while certain individuals have attempted to cooperate with the Board and comply with the CAO, the multi-layered management system and insufficient cross-training of personnel to run the WWTP plant appears to be a few of the key deficiencies contributing to the lack of over-all compliance. Therefore, it is appropriate to use a culpability multiplier of 1.1 for this adjustment factor.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperates in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation. Prior to issuance of the CAO, Board staff met with the Discharger to try and achieve voluntary compliance. When this was not possible, Board staff afforded the Discharger an opportunity to comment on the draft CAO, and incorporated the Discharger's requests for date changes. Since issuance of the CAO, Board staff has provided two Notices of Violation and several emails relating to the inadequate technical reports. Although the Discharger persists in submitting incomplete reports, the Facility operations staff has cooperated on several occasions such as notifying Regional Board staff in a timely manner when the RO Plant was taken off-line for maintenance and conducting additional chronic toxicity testing as required by the CAO. The Discharger was given a multiplier value of 1.0.

History of Violation

When there is a history of repeat violations, the Enforcement Policy requires a minimum multiplier of 1.1 to be used. The Discharger has a history of violations. This includes prior administrative civil liabilities assessing mandatory minimum penalties for effluent violations of the NPDES permit (see Orders R5-2010-0549, R5-2011-0575, R5-2014-0050, R5-2014-0518, and R5-2016-0523), as well as the issuance of three Cleanup and Abatement Orders for various violations of the NPDES permit, the Title 27 permit, and the Dairy General Order.

In addition, the Discharger has history of submitting late and/or incomplete reports. For example, on 12 January 2012, the Discharger exceeded the chronic toxicity trigger level of 1 Toxic Unit Chronic (TUc) with a reported result of 1.33 TUc for *Selenastrum capricornutum*. Consequently, the Discharger initiated accelerated monitoring but was unable to achieve four consecutive accelerated monitoring tests that did not exceed the monitoring trigger. Board staff made several requests to the Discharger to

submit a Toxicity Reduction Evaluation (TRE) Action plan (26 July 2012, 26 October 2012, and 30 January 2013) as required by its WDRs; finally, on 27 March 2013 the Discharger submitted a Toxicity Reduction Evaluation (TRE) Report. In addition, the Discharger was required to submit a Salinity Evaluation and Minimization Plan by 1 December 2014. The Discharger neglected to submit the report. After several phone conversations with the Discharger; finally, on 13 January 2015 the Discharger submitted the report 42 days late. Therefore, a multiplier value of 1.4 is appropriate given the frequency of late and delinquent reporting, as well as the nature of prior enforcement actions against CDCR related to this Facility.

Violation 1- Total Base Liability

Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations Multiplier = Total Base Liability

$$\$614,900 \times 1.1 \times 1.0 \times 1.4 = \$946,946$$

**Violation #2: Effluent Limitation Violations from
1 January through 30 April 2016**

Background for Violation #2

The intention behind the CAO was that the Discharger would take short-term and long-term steps to improve its wastewater treatment system such that it could reliably comply with the effluent limits of its WDRs. Beyond not submitted the required reports in the CAO, the Discharger has not implemented the necessary actions to improve the performance of its wastewater treatment system. It comes at no surprise that wastewater discharged continues to exceed the effluent limits in its NPDES permit.

Between 1 January and 30 April 2016 (i.e., through submittal of the most recent monitoring report), the Discharger exceeded seven effluent limits, in violation of the WDRs: five for total coliform organisms and two for nitrate plus nitrite, as listed on Attachment B. The Complaint assesses discretionary penalties for these effluent limit violations. It is noted that the Discharger also exceeded the chronic toxicity limit for eight of the eleven toxicity tests that it conducted since issuance of the CAO. The Complaint does not specifically assess liability for the toxicity limit violations; however, these violations are considered in the Potential for Harm factor.

Step 1 – Potential for Harm for Discharge Violations

The “potential harm to beneficial uses” factor considers the harm that may result from exposure to the pollutants in the discharge, while evaluating the nature, circumstances, extent, and gravity of the violation(s). A three-factor scoring system is used for each violation or group of violations: (1) the potential for harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) whether the discharge is susceptible to cleanup or abatement.

Factor 1: Harm or Potential Harm to Beneficial Uses.

This factor evaluates direct or indirect harm or potential for harm from the violation. A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses ranges from negligible (0) to major (5). The Facility discharges domestic wastewater to Deuel Drain, a

water of the United States, tributary to the San Joaquin River via Paradise Cut within the Sacramento – San Joaquin Delta. The designated beneficial uses of Deuel Drain are described above in Violation 1. Discharges to surface water typically must be treated to a high standard to prevent adverse impacts to aquatic life and human health. Toxicity is the degree to which a substance can damage a living or non-living organism. Toxicity can refer to the effect on a whole organism, such as an animal, bacterium, or plant, as well as the effect on a substructure of the organism, such as a cell or an organ. In this case, the discharge consisted of partially treated wastewater. The Facility routinely exceeds the NPDES permit's chronic toxicity trigger level of 1 Toxic Unit Chronic (TUc) and according to the 27 March 2013 and 13 April 2015 Toxicity Reduction Evaluation (TRE) reports, one of the sources of toxicity in the Facility's effluent is high salinity. The wells which supply drinking water to the Deuel Vocational Institution's inmates and staff contain high salinity.

According to the Discharger's SMRs, the Discharger violated the nitrate plus nitrite monthly average effluent limitation. The Discharger stated that high nitrate plus nitrite is due to damaged membrane bioreactor (MBR) modules, which decreases the detention time in the denitrification process resulting in high nitrate plus nitrite in the effluent. The drinking water Maximum Contaminant Level (MCL) is the maximum concentration of a chemical that is allowed in public drinking water. The established MCLs by the U.S. Environmental Protection Agency (EPA) for nitrate and nitrite are 10 mg/L and 1 mg/L, respectively. Exposure to high levels of nitrate plus nitrite may cause serious health problems to aquatic species and human, such as the reduction of oxygen amount in the bloodstream. Elevated levels of nitrate and nitrite in drinking water have been known to cause a potentially fatal blood disorder in infants under six months of age called methemoglobinemia or "blue-baby" syndrome, and if untreated, may cause death. Therefore, the discharge from the Facility may have created a hazard to human health and aquatic life.

Finally, the Discharger violated the total coliform organism effluent limit. According to the Fact Sheet of the NPDES permit, "the undiluted effluent may be used for irrigation of food crops and/or for body-contact water recreation. Coliform organisms are intended as an indicator of the effectiveness of the entire treatment train and the effectiveness of removing other pathogens." The Discharger's continuing violation of the total coliform effluent limit puts the public at risk of disease and is an indicator that the Discharger's wastewater treatment system is not operating as intended and likely not removing other types of pathogens.

Because impacts are reasonably expected from toxicity, nitrate plus nitrite, and total coliform, it is appropriate to assign a "moderate" potential harm to beneficial uses. Hence, a score of 3 is assigned for this factor.

Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge.

A score between 0 and 4 is assigned based on a determination of the risk or threat of the discharged material. "Potential receptors" are those identified considering human, environmental, and ecosystem exposure pathways. The effluent was treated, however the damaged MBR modules did not filter adequately and the discharge contained elevated levels of nitrate plus nitrite and total coliform. Therefore, Regional Board staff considers the discharge to be partially treated at best. Elevated levels of these constituents can lead to low dissolved oxygen in the receiving water, impacts to aquatic life, and impacts to human health thereby posing a moderate risk or threat to potential receptors. It is appropriate to assign a "moderate" risk to this discharge and a score of 2 was assigned for this factor.

Factor 3: Susceptibility to Cleanup or Abatement.

A score of 0 is assigned for this factor if 50% or more of the discharge is susceptible to cleanup or abatement. A score of 1 is assigned if less than 50% of the discharge is susceptible to cleanup or

abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated by the discharger. In this case, less than 50% of the discharge was susceptible to cleanup or abatement as the wastewater entered Deuel Drain. Therefore, a factor of 1 is assigned.

Final Score – “Potential for Harm”

The scores of the three factors are added to provide a Potential for Harm score for each violation or group of violations. In this case, a **final score of 6** was calculated. The total score is then used in Step 2, below.

Step 2– Assessment for Discharge Violations

This step addresses administrative civil liabilities for the unauthorized discharge based on both a per-gallon and a per-day basis.

1. Per Gallon Assessments for Discharge Violations

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per gallon basis using the Potential for Harm score and the Extent of Deviation from Requirement of the violation.

The Potential for Harm Score was determined in Step 1, and is 6. The Extent of Deviation is considered “major” because the WDRs prohibit the discharge of wastewater that exceeds effluent limits and the requirement has been rendered ineffective where the effluent has exceeded permit limits for total coliform and nitrate plus nitrite. Table 1 of the Enforcement Policy (p. 14) is used to determine a “per gallon factor” based on the total score from Step 1 and the level of Deviation from Requirement. For this particular case, the factor is 0.22. This value is multiplied by the volume of discharge and the per gallon civil liability, as described below.

The Complaint only assesses penalties for the four violations which took place between 1 January and 30 April 2016. Due to the persistent nature of the effluent limit violations, the penalty is based on the days and volume of wastewater discharged. The discharge volume is based on figures reported by CDCR in its self-monitoring reports for the period in which the violation occurred.

Date	Effluent limit violated	Monitoring Period	Volume discharged, gallons	Volume minus 1,000 gallons
12 January 2016	Total Coliform	7-Day Median	410,173 ¹	409,173
26 January 2016	Total Coliform	7-Day Median	443,858 ¹	442,858
9 February 2016	Total Coliform	7-Day Median	417,126 ¹	416,126
31 March 2016	Nitrite Plus Nitrate (as N)	Monthly Average	409,768 ²	408,768
13 April 2016	Total Coliform	7-Day Median	430,516 ¹	429,516
27 April 2016	Total Coliform	7-Day Median	370,949 ¹	369,949
30 April 2016	Nitrite Plus Nitrate (as N)	Monthly Average	393,659 ²	392,659
TOTAL:			2,876,049	2,869,049

¹ Total daily volume of the day which the sample was collected.

² Average discharge, on a daily basis, for the month.

The Complaint assesses penalties for the 2,876,049 gallons of wastewater discharged on the days during which effluent limitations were exceeded. Water Code section 13385(c)(2) states that the civil liability amount is to be based on the number of gallons discharged—but not cleaned up—over 1,000

gallons discharged. That volume is 2,869,049. The maximum civil liability allowed under Water Code section 13385 on a per gallon basis is \$10/gallon. The Enforcement Policy allows for a reduced per gallon penalty for high volume discharges. Given this discharge can be considered partially treated, the Prosecution Team chose to apply a reduced per volume factor of \$2/gallon.

Therefore, the Per Gallon Assessment is calculated as:

Violation 2: Discharge Liability

$$0.22 \times 2,869,049 \text{ gallons} \times \$2 \text{ per gallon} = \$1,262,382$$

2. Per Day Assessments for Discharge Volumes

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per day basis using the same Potential for Harm and the Extent of Deviation from Requirement that were used in the per-gallon analysis. The “per day” factor (determined from Table 2 of the Enforcement Policy) is 0.22.

On three occasions, the Discharger exceeded the effluent limit for total coliform as a 7-day median. For each of these three violations, the Discharger was assumed to be in violation for only the day the sample was collected as opposed to the entire seven days. The Discharger also exceeded the monthly average limit for nitrate plus nitrate. The Discharger was assumed to be in violation for one day of the entire month. The total number of days of violation for these effluent limit exceedances is 7 days.

Water Code section 13385(c)(1) states that civil liability shall not exceed \$10,000 per day of violation.

Violation 2: Per Day Liability

$$0.22 \times 7 \text{ days} \times \$10,000 \text{ per day} = \$15,400$$

Initial Liability Amount: The value is determined by adding together the per gallon assessment and the per day assessment.

Violation 2: Initial Liability

$$\$1,262,382 \text{ per gallon assessment} + \$15,400 \text{ per day assessment} = \$1,277,781$$

Step 3 – Per Day Assessment for Non-Discharge Violation

This step is not applicable.

Step 4B – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator’s culpability, efforts to clean-up or cooperate with regulatory authority, and the violator’s compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

The Discharger constructed a Reverse Osmosis (RO) Plant to remove salt from its domestic water supply, provide higher quality drinking water to the inmates, and produce a higher quality effluent discharge from the Facility. When the RO Plant is not operational or not operating at its optimal condition, constituents that pose a concern to water quality are discharged in concentrations that the Facility cannot properly treat. In a letter from Siemens' project manager, Siemens observed in 2011 that debris that had been accumulating on the membrane bioreactor (MBR) modules. Siemens cautioned CDCR that the lack of maintenance and cleaning of the membranes could have damaged the membranes and reduced its long term integrity. Trash and debris was again observed during a 25 January 2013 inspection by a service technician. In a letter from Evoquo Water Technologies dated 24 July 2014, CDCR was once again cautioned that the membranes collected trash and debris. The lack of operation of the RO plant, coupled with the lack of proper cleaning of the membranes, have caused the modules to lose efficiency over a period of years, and eventually, the modules can no longer be cleaned sufficiently to properly operate. A higher culpability factor is appropriate because CDCR was aware of the risk of not properly maintaining the membrane bioreactor modules and chose not to employ adequate measures and processes to prevent the accumulation of trash and debris which likely severely impaired the functionality and effectiveness of the membranes. The compromised membranes prevented CDCR from adequately treating its wastewater thereby resulting in pollution to Deuel Drain. A factor of 1.3 is conservatively applied.

Cleanup and Cooperation

The Regional Board Prosecution Team has engaged in several meetings with CDCR to discuss compliance, however, this compliance assistance process has been insufficient. CDCR staff expressed the desire to comply contending that they "have taken every step necessary to correct the deficiency." (see Letter from Alan Price dated January 28 2016). However, CDCR has not complied with key requirements and actions in the CAO which were prescribed to improve its wastewater treatment system. Despite the numerous attempts to work cooperatively with CDCR, the Discharger continues to pollute Deuel Drain by discharging wastewater that contains constituents which exceed the mandatory limits protective of Deuel Drain's beneficial uses. A factor of 1.2 is conservatively applied.

History of Violation

See the history of violation rationale for Violation 1. A factor of 1.4 is appropriate.

Therefore, the total penalty for the effluent limitation violations is calculated as:

Violation 2: Total Base Liability

Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations
Multiplier = Total Base Liability
 $\$1,277,781 \times 1.3 \times 1.2 \times 1.4 = \$2,790,674$

Violation #3: Failure to Properly Operate and Maintain Facilities and Systems

Background for Violation #3:

Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain. In particular, the CAO required that the Discharger replace the MBR modules by 31 March 2016. However, as of 1 May 2016, the modules have not been replaced.

Step 1 – Potential for Harm for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 2 – Assessment for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 3 – Per Day Assessment for Non-Discharge Violations

The "per day" factor is calculated for each non-discharge violation considering the (a) potential for harm and (b) the extent of the deviation from the applicable requirements.

Potential for Harm

The Enforcement Policy requires a determination of whether the characteristics of the violation resulted in a minor, moderate, or major potential for harm or threat to beneficial uses. In this case, a "Moderate" potential for harm is appropriate because the discharge of partially treated wastewater presents a substantial threat to beneficial uses. Here, the failure to replace the MBR modules has resulted in partially treated wastewater which contained elevated levels of nitrate plus nitrite above the maximum contaminant levels allowed for drinking water, as well as total coliform organisms. The Discharger's continuing violation of the total coliform effluent limit puts the public at risk of disease and is an indicator that the Discharger's wastewater treatment system is not operating as intended and likely not removing other types of pathogens.

The deviation from requirement is "Major." The Discharger's WDRs require that it "properly operate and maintain all facilities and systems of treatment and control." (Standard Provision I.D.) In addition, the Discharger is required to operate a backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Order. *Id.* While the RO plant was installed to remove contaminants and provide potable water, its lack of operation has severely impaired the quality of wastewater discharged into the Wastewater Treatment Plant, and coupled with the Discharger's lack of proper operation and maintenance, has impaired the membrane bioreactor at the WWTP. The manual operation of the membrane bioreactor decreases the detention time in the denitrification process resulting in high nitrate plus nitrite in the effluent. The presence of total coliform in the effluent indicates that the treatment system is not operating as intended to properly treat waste constituents. The manufacturer of the membrane bioreactor, Siemens, recommended in its Operations and Maintenance Manual that the membranes be removed and cleaned at least once per year. The Discharger admitted that cleaning was delayed and the membranes were not properly pulled and cleaned for 2.5 years. In addition, the Discharger had not yet developed standard operating procedures (SOPs) for proper

operation and maintenance of the WWTP, including the necessity of training new operators. (See Regional Board staff Inspection Report dated 28 February 2015). The Discharger disregarded the requirement in its WDRs to properly operate and maintain its WWTP, warranting an assessment of a "Major" deviation from the requirement.

Using Table 3 in the Enforcement Policy, the Per Day Factor of 0.55 is assigned. This value is to be multiplied by the days of violation and the maximum per day penalty, as shown in the Initial Liability table below.

Days of Violation

The period of this violation of the NPDES permit extends back to in or around September 2011, when Siemens noted that debris accumulated in the membranes and pointed out concerns over the long term integrity of the membrane modules due to a lack of proper maintenance. However, for purposes of this action, the days of violation are calculated from the date the CAO requires replacing the membrane bioreactor (MBR) modules, which is 31 March 2016. As of 1 May 2016, the modules have not been replaced; therefore there is a total of 30 days of violation.

Violation 3: Initial Liability

$$(0.55 \text{ factor from Table 3}) \times (30 \text{ days}) \times (\$10,000/\text{day}) = \$165,000$$

Step 4A – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean-up or cooperate with regulatory authority, and the violator's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

See culpability discussion under Violation 2. A score of 1.3 was conservatively assessed.

Cleanup and Cooperation

See Cooperation discussion under Violation 2. A score of 1.2 was conservatively assessed.

History of Violation

See History of Violation discussion under Violation 2. As score of 1.4 was assessed.

Violation 3- Total Base Liability

Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations Multiplier = Total Base Liability

$$\$165,000 \times 1.3 \times 1.2 \times 1.4 = \$360,360$$

As described below in the "Maximum Liability" discussion, the maximum liability allowed by the California Water Code for violation #3 is \$300,000. Although the Penalty Calculation Methodology produced a higher penalty amount, the penalty is capped at the maximum allowed for by statute, or \$300,000.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is the sum of the liabilities for Violations 1 through 3.

Total Base Liability Amount

$\$946,946 \text{ (Violation 1)} + \$2,790,674 \text{ (Violation 2)} + \$300,000 \text{ (Violation 3)} = \$4,037,620$

Step 6 - Ability to Pay and Ability to Continue in Business

The ability to pay and to continue in business factor must be considered when assessing administrative civil liabilities. The California Department of Correction and Rehabilitation is a state agency with a Fiscal Year 16-17 budget of over \$10 billion¹. As such, it should have the ability to pay a penalty in the millions of dollars.

Step 7 – Other Factors as Justice May Require

The costs of investigation and enforcement are “other factors as justice may require,” and could be added to the liability amount. The Central Valley Water Board incurred over \$37,500 (250 hours at a statewide average of \$150/hour) in staff costs associated with the investigation and enforcement of the violations alleged herein. The Prosecution Team, in its discretion, is not recommending an increase in the Total Base Liability amount in consideration of these costs incurred as the proposed liability amount serves as a sufficient general and specific deterrent against future violations.

Step 8 – Economic Benefit

Pursuant to Water Code section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit of noncompliance derived from the acts that constitute the violation. The economic benefit of noncompliance for the violations is estimated at \$2,084,774 (see Exhibit 1 to this document).

Final adjusted liability

The final adjusted liability is \$4,037,620.

Step 9 – Maximum and Minimum Liability Amounts

The maximum and minimum amounts must be determined for comparison to the proposed liability.

Maximum Liability Amount: The maximum penalty is the sum of the statutory penalties for Violations 1, 2 and 3.

Violation 1, the failure to submit technical reports, is a violation of Water Code section 13268. The maximum penalty is \$1,000 per day for 1,979 days, or \$1,979,000.

Violation 2, the discharge of partially treated or toxic wastewater, is a violation of Water Code section 13385. As described in this section, civil liability may not exceed \$10,000 per day of violation, plus \$10 per gallon for each gallon of waste discharged over 1,000 gallons. The discharge took place over 7

¹ Source: <http://www.cdcr.ca.gov/Budget/>

days, and therefore the maximum per-day penalty is \$70,000. A total of 2,876,049 gallons were discharged during the seven days of violation; of this amount, 2,869,049 gallons were discharged over 1,000 gallons per discharge event. The maximum per-gallon penalty is \$28,690,490. The maximum civil penalty is the sum of the per-day and per-gallon penalties, or \$28,760,490.

Violation 3, the failure to properly operate and maintain facilities and systems, is a violation of Water Code section 13385. The maximum penalty is \$10,000 per day for 30 days, or \$300,000. Although the Penalty Calculation methodology produced a higher value, the maximum penalty is capped at \$300,000.

Therefore, the maximum liability for Violations 1, 2 and 3 is \$31,039,490.

Minimum Liability Amount: The minimum liability is equal to the economic benefit of noncompliance plus 10%, which is estimated to be \$2,293,251.

Step 10 – Final liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided amounts are within the statutory minimum and maximum amounts. The proposed administrative civil liability is \$4,037,620.

Exhibit 1: Economic Benefit Analysis

EXHIBIT 1 TO ADMINISTRATIVE CIVIL LIABILITY COMPLAINT R5-2016-0536

Economic Benefit Analysis																	
Deuel Vocational Institution, Wastewater Treatment Facility																	
Compliance Action	Capital Investment				One-Time Non-Depreciable Expenditure				Annual Cost			Non-Compliance Date	Compliance Date	Penalty Payment Date	Discount Rate	Benefit of Non-Compliance	
	Amount	Basis	Date	Delayed?	Amount	Basis	Date	Delayed?	Amount	Basis	Date						
RO Plant Spare Parts Status Report		ECI	1/1/2015	Y	\$ 1,306.38	ECI	10/13/2016	Y		ECI	1/1/2015	5/1/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 30
MBR Modules Replacement Time Schedule Report		ECI	1/1/2015	Y	\$ 653.19	ECI	10/13/2016	Y		ECI	1/1/2015	5/1/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 16
Facility's O&M/SOP Updates		ECI	1/1/2015	Y	\$ 5,225.54	ECI	10/13/2016	Y		ECI	1/1/2015	6/1/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 111
1st Quarter 2015 Report		ECI	1/1/2015	Y	\$ 979.79	ECI	10/13/2016	N		ECI	1/1/2015	4/30/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 1,000
2nd Quarter 2015 Report		ECI	1/1/2015	Y	\$ 979.79	ECI	10/13/2016	N		ECI	1/1/2015	7/30/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 997
3rd Quarter 2015 Report		ECI	1/1/2015	Y	\$ 979.79	ECI	10/13/2016	N		ECI	1/1/2015	10/30/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 993
4th Quarter 2015 Report		ECI	1/1/2015	Y	\$ 979.79	ECI	10/13/2016	N		ECI	1/1/2015	1/30/2016	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 989
MBR Replacement	\$ 860,000	PCI	4/21/2015	Y		ECI	1/1/2015	N		ECI	1/1/2015	9/20/2012	10/13/2016	10/13/2016	10/13/2016	4.00%	\$ 2,042,025
Procurement of Spare Parts		ECI	1/1/2015	Y	\$ 250,000	PCI	4/30/2015	Y		ECI	1/1/2015	8/1/2015	10/13/2016	10/13/2016	10/13/2016	3.60%	\$ 4,844
Annual MBR Removal & Cleaning		ECI	1/1/2015	Y		ECI	1/1/2015	N	\$ 7,656	ECI	10/13/2016	9/20/2011	1/1/2016	1/1/2016	1/1/2016	4.10%	\$ 33,769
Income Tax Schedule: Municipality Analyst: Bryan Elder Total Benefit: \$ 2,084,774 USEPA BEN Model Version: Version 5.5.0 (July 2015) Date/Time of Analysis: 5/31/2016 11:40 Assumptions: <ol style="list-style-type: none"> 1 RO Plant Spare Parts Status Report based on 20 labor hours for CDCR Water & Sewage Plant Supervisor. 2 MBR Modules Replacement Time Schedule Report based on 10 labor hours for CDCR Water & Sewage Plant Supervisor. 3 Facilities O&M/SOP Updates based on 80 labor hours for CDCR Water & Sewage Plant Supervisor. 4 Quarterly Reports based on 15 hours for CDCR Water & Sewage Plant Supervisor. 5 MBR Replacement costs based on GE Water & Process Technologies Proposal (4/21/2015). Product warrantied for 24 months, which has been used as replacement life. 6 Spare parts cost based on 4/30/15 submittal from DVI indicating \$250,000 in spare parts being budgeted. 7 Annual MBR removal and cleaning based on annual rental of crane for membrane removal, and 40 hours for CDCR Water & Sewage Plant Supervisor. 8 CDCR Water & Sewage Plant Supervisor labor rate based on low range of salary published for position as of 4/11/2016 of \$5661 per month. A multiplier of 2.0 was used to correct the salary to include additional labor expenses such as benefits, administrative expenses, and personnel expenses. 9 Non-compliance dates for reporting violations are deadlines outlined in CAO. 10 Non-compliance date for MBR replacement is identified as 2 years following initial plant operation (9/20/10). 11 Non-compliance date for spare parts procurment estimated as 3 months following deadline for the RO Plant Spare Parts Status Report. 12 Non-compliance date for annual MBR removal and cleaning estimated as starting one year following initial plant operation. 13 Compliance date and Penalty Payment Date are estimated as 10/13/16, the projected date of hearing. 14 Costs based mostly on labor have been adjusted using an employment cost index (ECI) built into the BEN model. Costs based on equipment/parts have been adjusted using a plant cost index (PCI) built into the BEN model. 15 For the purposes of analysis, CDCR (responsible party) has been entered as a municipality into the BEN model. 																	

ATTACHMENT B TO ADMINISTRATIVE CIVIL LIABILITY COMPLAINT R5-2016-0536

**California Department of Corrections and Rehabilitation
Deuel Vocational Institution**

Effluent limit violations between 1 January 2016 and 30 April 2016
(Data reported under Monitoring and Reporting Program R5-2014-0014-01)

	<u>Date</u>	<u>Parameter</u>	<u>Units</u>	<u>Limit</u>	<u>Measured</u>	<u>Period</u>
1	12 Jan-16	Total Coliform Organisms	MPN/100 mL	2.2	240	7-Day Median
2	26 Jan-16	Total Coliform Organisms	MPN/100 mL	2.2	13	7-Day Median
3	9-Feb-16	Total Coliform Organisms	MPN/100 mL	2.2	7.8	7-Day Median
4	31-Mar-16	Nitrite Plus Nitrate (as N)	mg/L	10	12	Monthly Average
5	13-Apr-16	Total Coliform	MPN/100 mL	2.2	23	7-Day Median
6	27-Apr-16	Total Coliform	MPN/100 mL	2.2	4.5	7-Day Median
7	30-Apr-16	Nitrite Plus Nitrate (as N)	mg/L	10	14	Monthly Average

Exhibit B to Stipulated Order R5-2017-0530 Revised Penalty Calculations

The State Water Board's *Water Quality Enforcement Policy* (Enforcement Policy) establishes a methodology for determining administrative civil liability by addressing the factors that are required to be considered under California Water Code section 13385(e). Each factor of the nine-step approach is discussed below, as is the basis for assessing the corresponding score. The Enforcement Policy can be found at: http://www.waterboards.ca.gov/water_issues/programs/enforcement/docs/enf_policy_final111709.pdf.

Background

The Deuel Vocational Institution wastewater treatment facility discharges treated wastewater to the Deuel Drain, a water of the U.S. The Deuel Drain is part of the Southern Delta which is listed in the 303(d) list for chlorpyrifos, DDT, diazinon, electrical conductivity, group A pesticides, invasive species, mercury, and unknown toxicity. The Discharger is regulated by Waste Discharge Requirements Order R5-2014-0014-01 (NPDES CA0078093) (WDRs or Permit) which prescribes effluent limits and other conditions that must be met in order to discharge the wastewater.

On 30 March 2015, the Assistant Executive Officer issued Cleanup and Abatement Order R5-2015-0704 (CAO). Finding 23 of the CAO describes the reasons for issuance:

The Discharger is in violation of the WDRs because the reverse osmosis treatment plant, which removes salts and therefore allows the wastewater treatment plant to comply with effluent limits, has failed to operate reliably and has remained out of service for 66% of the time since it was permitted. Without the reverse osmosis plant, the discharged effluent will likely continue to exceed chronic toxicity limits. In addition, inadequate operation and maintenance has resulted in water quality exceedances above the permitted effluent limitations. When left unaddressed, there is a likely potential that the discharges of domestic wastewater will continue to contain levels exceeding the chronic toxicity and nitrate/nitrite limits in WDRs Order R5-2014-0014-01. Requiring the Discharger to comply with this Order, including the requirement to continuously operate the RO plant and reporting obligations related to the operations and maintenance of the RO plant, are necessary remedial actions to prevent wastewater from polluting Deuel Drain and its connected tributaries.

The CAO requires that the Discharger continuously operate the RO plant and to take certain actions if it is off-line. The Discharger has generally complied with this requirement and it is not the subject of this Complaint. The CAO also required the Discharger to submit a number of technical reports, which if implemented, will bring the Discharger back into compliance with the WDRs and will allow continued, reliable operation of the Facility.

Effluent Limitations and Discharge Specifications IV.A. of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall maintain compliance with the following effluent limitations..." including the limitation for nitrate plus nitrite (as N) of 10 mg/L as a monthly average and a 7-day median for total coliform organisms of 2.2 MPN/100 ml. The Discharger has not complied with these requirements, as evidenced by the ongoing effluent limit violations and chronic toxicity violations.

Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: "The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order." The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain.

The Complaint has been issued because the Discharger has (a) failed to submit technical reports required by the CAO, (b) continued to discharge in violation of the effluent limits in the WDRs, and (c) failed to properly operate and maintain the wastewater treatment plant in violation of the WDRs. These three violations will be addressed separately.

Violation #1: Failure to Submit Technical and Progress Reports Required by CAO R5-2015-0704

Background for Violation #1

The Discharger has submitted seven reports that are materially deficient and do not contain the information required by CAO R5-2015-0704. Therefore, each deficient report is a violation of the CAO. The required content of each report, as well as what was submitted, is summarized below.

1. Item #3 of the CAO required that a *RO Plant Spare Parts Status Report* be submitted by 1 May 2015. The report was to document “that the RO plant has adequate spare parts available, describe redundancy and/or features in place for continuous operation, and an action plan containing a schedule to prevent chronic toxicity when the RO plant is taken off-line for maintenance.” The Discharger submitted a document on 1 May 2015 which states that \$250,000 in funding has been secured to purchase parts, but fails to explain which spare parts are available now, which need to be purchased and when, the cost of the parts, or if adequate parts are on-site for repairs that are necessary to properly run and maintain the RO Plant. The report does not contain any information regarding the action plan and schedule to prevent chronic toxicity when the RO plant is off-line. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted.
2. Item #4 of the CAO requires that a *MBR Modules Replacement Time Schedule* be submitted by 1 May 2016. The report was to provide a time schedule for replacing the membrane bioreactor (MBR) modules, which was not to extend beyond 31 March 2016. The schedule was to include the process for all contracting actions necessary to complete the work. The Discharger submitted a document on 1 May 2015 which states that the Discharger has requested quotes; however, the Discharger failed to provide a schedule that includes the tasks to complete the MBR module replacement by 31 March 2016. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted, and as of 1 May 2016, the MBR modules have not been replaced.
3. Item #5 of the CAO requires that the Discharger update and submit the Facility’s *Operation and Maintenance (O&M) Manual and Standard Operating Procedures (SOPs)* by 1 June 2015. The purpose of the document was to “maximize efficiency of the MBR under current operating conditions such that the wastewater treatment plant effluent will meet all requirements of WDRs Order R5-2014-0014.” The Discharger submitted a document on 28 May 2015. However, it was just a copy of the 2011 O&M Manual, and was not an update as required by the CAO. The Discharger stated “A consultant has been retained to evaluate the operation of the plant. Changes to the plant and documents will be made if the consultant determines that corrections need to be made in order to improve the operation of the plant.” The CAO required an updated O&M Manual to reflect the current challenges of treating the wastewater; however, the Discharger did not submit this. Meanwhile, the Facility is not operating effectively and effluent

limits continue to exceed the permit's effluent limits. Therefore, the report is materially deficient. The Discharger was notified of this fact in writing on 30 June 2015 and 4 September 2015. An adequate report has not been submitted.

4. Item #10 of CAO R5-2015-0704 requires that the Discharger submit quarterly progress reports "describing the work completed to date to comply with each of the above requirements, as well as what work will be conducted in the next quarter."
 - a. The first progress report, covering the First Quarter 2015, was due on 30 April 2015. After receipt of a Notice of Violation, the document was submitted on 11 May 2015. However, the document described the work that had been completed under CAO R5-2015-0703, the Order issued to the Discharger for violations of the Title 27 WDRs. The report was deficient because it did not describe any of the work completed, or planned, in relation to CAO R5-2015-0704.
 - b. The Second Quarter 2015 progress report was due on 30 July 2015. The document was submitted on 30 July 2015. Once again, it contained information pertaining to the Title 27 CAO, R5-2015-0703. However, there are a few lines describing work that had been completed at the wastewater plant ("submitted purchase order request for purchase of the wastewater module membranes" and "replaced second RO train membranes") and work that will be done during the next quarter (establishing a contract with a consultant to complete Item #9 of the CDO, as well as some maintenance work at the Facility). However, the report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress towards completing all of the tasks.
 - c. The Third Quarter 2015 progress report was due on 30 October 2015, but was not submitted until 27 January 2016. Again, the majority of the report described work completed in response to the Title 27 CAO. With respect to the work completed at the wastewater treatment plant, the Third Quarter progress report had the same statement as in the Second Quarter Progress Report: "submitted purchase order request for purchase of the wastewater module membranes". With respect to work that will be undertaken during the next quarter, the report had the same text as the previous report regarding establishing a contract with a consultant to complete Item #9 of the CAO. The report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress towards completing all of the tasks.
 - d. The Fourth Quarter 2015 progress report was due on 30 January 2016 and was submitted on 27 January 2016. This report only described work completed in response to the Title 27 CAO. With respect to work that will be undertaken during the next quarter, the report had the same text as the previous two reports regarding establishing a contract with a consultant to complete Item #9 of the CAO. The report did not contain the specificity needed to comply with the CAO and for Board staff to determine if the Discharger was making progress toward completing all of the tasks. A review of the Second through Fourth Quarterly Progress reports shows that the Discharger has made no progress at all towards complying with the CAO.
 - e. On 5 February 2016, staff sent an email to the Discharger stating that the Quarterly Progress reports are materially deficient and do not comply with the CAO. The email gave details of what is expected in a progress report: "...for example, a completed task outlined in the CAO R5-2015-0704 should include the date it was completed and uncompleted tasks should

include detail such as a timeline, a budget if applicable, and/or any other pertinent information to allow Board staff to determine if completion is on schedule for the dates listed in the CAO R5-2015-0704. In addition, the Progress Reports should thoroughly describe all activities that were performed by the Discharger to achieve compliance with the CAO R5-2015-0704 in the previous quarter and list of steps the Discharger is taking to hasten completion of the remaining uncompleted tasks..." To date, the Discharger has not submitted adequate First through Fourth Quarter 2015 progress reports.

Step 1 – Potential for Harm for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 2 – Assessment for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 3 – Per Day Assessment for Non-Discharge Violations

The "per day" factor is calculated for each non-discharge violation considering the (a) potential for harm and (b) the extent of the deviation from the applicable requirements.

Potential for Harm

The Enforcement Policy requires a determination of whether the characteristics of the violation resulted in a minor, moderate, or major potential for harm or threat to beneficial uses. In this case, a "Moderate" factor is appropriate because the submission of deficient technical reports suggests the Discharger has failed to take the necessary steps to operate the Reverse Osmosis plant in a manner that is most protective of water quality.

The Facility discharges domestic wastewater to Deuel Drain, a water of the United States, tributary to the San Joaquin River via Paradise Cut within the Sacramento – San Joaquin Delta. The designated beneficial uses of Deuel Drain that could be impacted by the discharge include municipal and domestic supply; agricultural irrigation; agricultural stock watering; industrial process water supply; industrial service supply; water contact recreation; other non-contact water recreation; warm freshwater aquatic habitat; cold freshwater aquatic habitat; warm fish migration habitat; cold fish migration habitat; warm spawning habitat; wildlife habitat; and navigation. The CAO contains requirements to submit reports to allow Board staff to evaluate whether the Discharger has taken the necessary steps to abate the ongoing pollution to Deuel Drain. The Discharger failed to submit a report that required a plan and schedule to prevent chronic toxicity when the RO plant was offline. No effort was made by the Discharger to provide an updated Operation and Maintenance Manual to maximize the efficiency of the membrane bioreactor modules. Quarterly progress reports were submitted late with little to no relevant content to determine the extent of compliance with requirements in the CAO. Meanwhile, because the Discharger failed to comply with the terms of the CAO, discharges of wastewater beyond permitted limits continued to cause pollution to the Deuel Drain. The failure to submit the required reports has an ancillary effect and/or threat to beneficial uses. The Discharger's existing operations are inadequate to meet effluent limitations in its permit. The intention behind the CAO was to require that the Discharger take short-term and long-term steps to improve its wastewater treatment system such that it could reliably comply with the effluent limits of its WDRs for the protection of the beneficial uses of the Deuel Drain. Without the information required by the reports in the CAO, the Discharger is presumed to be out of compliance with the actions necessary to abate the ongoing pollution to Deuel Drain. This

presents a substantial threat to beneficial uses. Therefore a moderate potential for harm was assessed.

A “Major” deviation from the requirement is also appropriate because the Discharger repeatedly submitted inadequate technical reports, which shows the Discharger’s disregard for compliance with regulatory requirements and inability to fulfill the specific requirements outlined in the CAO thereby rendering ineffective the Regional Board’s order to abate the effects of continuing pollution. Using Table 3 in the Enforcement Policy, the Per Day Factor of 0.55 is assigned. This value is to be multiplied by the days of violation and the maximum per day penalty, as shown in the Initial Liability table below.

Days of Violation

The Enforcement Policy provides that, for violations lasting more than 30 days, the Central Valley Water Board may adjust the per-day basis for civil liability if certain findings are made and provided that the adjusted per-day basis is no less than the per-day economic benefit, if any, resulting from the violation. In order to adjust the per-day basis, the Central Valley Water Board must make express findings that the violation: (1) is not causing daily detrimental impacts to the environment or the regulatory program; or (2) results in no economic benefit from the illegal conduct that can be measured on a daily basis; or (3) occurred without the knowledge or control of the violator, who therefore did not take action to mitigate or eliminate the violation. The Prosecution Team finds that it is possible to adjust the per-day basis for civil liability for the Progress Reports because no economic benefit can be measured on a daily basis for these reports that are considered a one-time cost.

The table below summarizes the date each required technical report was due. The days of violation are calculated from the due date of each report through 1 May 2016.

Delinquent Reports

Reports	Due Date	Received	Status ¹	Days of Violation	Days of Violation (including reduced days, if applicable)
First Quarter 2015 Progress Report	4/30/15	5/11/15	Incomplete	366	18
RO Plant Spare Parts Status Report	5/1/15	5/1/15	Incomplete	365	18
MBR Modules Replacement Time Schedule	5/1/15	5/1/15	Incomplete	365	18
O&M Manual and SOPs	6/1/15	5/28/15	Incomplete	334	17
Second Quarter 2015 Progress Report	7/30/15	7/19/15	Incomplete	275	15
Third Quarter 2015 Progress Report	10/30/15	1/27/16	Incomplete	183	12
Fourth Quarter 2015 Progress Report	1/30/16	1/27/16	Incomplete	91	9
Total Days				1,979	107

¹ As of 31 August 2016, all technical and progress reports listed in the table above have been resubmitted and Central Valley Regional Board staff has since found these reports to include all information required by the WDRs and CAO. Therefore, the status of the above reports have since been deemed complete by Central Valley Regional Board staff.

Violation 1: Initial Liability

$(0.55 \text{ factor from Table 3}) \times (107 \text{ days}) \times (\$1,000/\text{day}) = \$ 58,850$

Step 4A – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean-up or cooperate with regulatory authority, and the violator's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

Higher liabilities should result from intentional or negligent violations as opposed to accidental violations. A multiplier between 0.5 and 1.5 is to be used, with a higher multiplier for negligent behavior. This Discharger has multiple levels of management overseeing the wastewater treatment facility, and while certain individuals have attempted to cooperate with the Board and comply with the CAO, the multi-layered management system and insufficient cross-training of personnel to run the WWTP plant appears to be a few of the key deficiencies contributing to the lack of over-all compliance. Therefore, it is appropriate to use a culpability multiplier of 1.1 for this adjustment factor.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperates in returning to compliance and correcting environmental damage. A multiplier between 0.75 and 1.5 is to be used, with a higher multiplier when there is a lack of cooperation. Prior to issuance of the CAO, Board staff met with the Discharger to try and achieve voluntary compliance. When this was not possible, Board staff afforded the Discharger an opportunity to comment on the draft CAO, and incorporated the Discharger's requests for date changes. Since issuance of the CAO, Board staff has provided two Notices of Violation and several emails relating to the inadequate technical reports. Although the Discharger persists in submitting incomplete reports, the Facility operations staff has cooperated on several occasions such as notifying Regional Board staff in a timely manner when the RO Plant was taken off-line for maintenance and conducting additional chronic toxicity testing as required by the CAO. The Discharger was given a multiplier value of 1.0.

History of Violation

When there is a history of repeat violations, the Enforcement Policy requires a minimum multiplier of 1.1 to be used. The Discharger has a history of violations. This includes prior administrative civil liabilities assessing mandatory minimum penalties for effluent violations of the NPDES permit (see Orders R5-2010-0549, R5-2011-0575, R5-2014-0050, R5-2014-0518, and R5-2016-0523), as well as the issuance of three Cleanup and Abatement Orders for various violations of the NPDES permit, the Title 27 permit, and the Dairy General Order.

In addition, the Discharger has history of submitting late and/or incomplete reports. For example, on 12 January 2012, the Discharger exceeded the chronic toxicity trigger level of 1 Toxic Unit Chronic (TUc) with a reported result of 1.33 TUc for *Selenastrum capricornutum*. Consequently, the Discharger initiated accelerated monitoring but was unable to achieve four consecutive accelerated monitoring tests that did not exceed the monitoring trigger. Board staff made several requests to the Discharger to submit a Toxicity Reduction Evaluation (TRE) Action plan (26 July 2012, 26 October 2012, and 30 January 2013) as required by its WDRs; finally, on 27 March 2013 the Discharger submitted a Toxicity

Reduction Evaluation (TRE) Report. In addition, the Discharger was required to submit a Salinity Evaluation and Minimization Plan by 1 December 2014. The Discharger neglected to submit the report. After several phone conversations with the Discharger; finally, on 13 January 2015 the Discharger submitted the report 42 days late. Therefore, a multiplier value of 1.4 is appropriate given the frequency of late and delinquent reporting, as well as the nature of prior enforcement actions against CDCR related to this Facility.

Violation 1- Total Base Liability

Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations Multiplier = Total Base Liability

$$\$ 58,850 \times 1.1 \times 1.0 \times 1.4 = \$ 90,629$$

**Violation #2: Effluent Limitation Violations from
1 January through 30 April 2016**

Background for Violation #2

The intention behind the CAO was that the Discharger would take short-term and long-term steps to improve its wastewater treatment system such that it could reliably comply with the effluent limits of its WDRs. Beyond not submitted the required reports in the CAO, the Discharger has not implemented the necessary actions to improve the performance of its wastewater treatment system. It comes at no surprise that wastewater discharged continues to exceed the effluent limits in its NPDES permit.

Between 1 January and 30 April 2016 (i.e., through submittal of the most recent monitoring report), the Discharger exceeded seven effluent limits, in violation of the WDRs: five for total coliform organisms and two for nitrate plus nitrite, as listed on Attachment B. The Complaint assesses discretionary penalties for these effluent limit violations. It is noted that the Discharger also exceeded the chronic toxicity limit for eight of the eleven toxicity tests that it conducted since issuance of the CAO. The Complaint does not specifically assess liability for the toxicity limit violations; however, these violations are considered in the Potential for Harm factor.

Step 1 – Potential for Harm for Discharge Violations

The “potential harm to beneficial uses” factor considers the harm that may result from exposure to the pollutants in the discharge, while evaluating the nature, circumstances, extent, and gravity of the violation(s). A three-factor scoring system is used for each violation or group of violations: (1) the potential for harm to beneficial uses; (2) the degree of toxicity of the discharge; and (3) whether the discharge is susceptible to cleanup or abatement.

Factor 1: Harm or Potential Harm to Beneficial Uses.

This factor evaluates direct or indirect harm or potential for harm from the violation. A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses ranges from negligible (0) to major (5). The Facility discharges domestic wastewater to Deuel Drain, a water of the United States, tributary to the San Joaquin River via Paradise Cut within the Sacramento – San Joaquin Delta. The designated beneficial uses of Deuel Drain are described above in Violation 1.

Discharges to surface water typically must be treated to a high standard to prevent adverse impacts to aquatic life and human health. Toxicity is the degree to which a substance can damage a living or non-living organism. Toxicity can refer to the effect on a whole organism, such as an animal, bacterium, or plant, as well as the effect on a substructure of the organism, such as a cell or an organ. In this case, the discharge consisted of partially treated wastewater. The Facility routinely exceeds the NPDES permit's chronic toxicity trigger level of 1 Toxic Unit Chronic (TUC) and according to the 27 March 2013 and 13 April 2015 Toxicity Reduction Evaluation (TRE) reports, one of the sources of toxicity in the Facility's effluent is high salinity. The wells which supply drinking water to the Deuel Vocational Institution's inmates and staff contain high salinity.

According to the Discharger's SMRs, the Discharger violated the nitrate plus nitrite monthly average effluent limitation. The Discharger stated that high nitrate plus nitrite is due to damaged membrane bioreactor (MBR) modules, which decreases the detention time in the denitrification process resulting in high nitrate plus nitrite in the effluent. The drinking water Maximum Contaminant Level (MCL) is the maximum concentration of a chemical that is allowed in public drinking water. The established MCLs by the U.S. Environmental Protection Agency (EPA) for nitrate and nitrite are 10 mg/L and 1 mg/L, respectively. Exposure to high levels of nitrate plus nitrite may cause serious health problems to aquatic species and human, such as the reduction of oxygen amount in the bloodstream. Elevated levels of nitrate and nitrite in drinking water have been known to cause a potentially fatal blood disorder in infants under six months of age called methemoglobinemia or "blue-baby" syndrome, and if untreated, may cause death. Therefore, the discharge from the Facility may have created a hazard to human health and aquatic life.

Finally, the Discharger violated the total coliform organism effluent limit. According to the Fact Sheet of the NPDES permit, "the undiluted effluent may be used for irrigation of food crops and/or for body-contact water recreation. Coliform organisms are intended as an indicator of the effectiveness of the entire treatment train and the effectiveness of removing other pathogens." The Discharger's continuing violation of the total coliform effluent limit puts the public at risk of disease and is an indicator that the Discharger's wastewater treatment system is not operating as intended and likely not removing other types of pathogens.

Because impacts are reasonably expected from toxicity, nitrate plus nitrite, and total coliform, it is appropriate to assign a "moderate" potential harm to beneficial uses. Hence, a score of 3 is assigned for this factor.

Factor 2: The Physical, Chemical, Biological or Thermal Characteristics of the Discharge.

A score between 0 and 4 is assigned based on a determination of the risk or threat of the discharged material. "Potential receptors" are those identified considering human, environmental, and ecosystem exposure pathways. The effluent was treated, however the damaged MBR modules did not filter adequately and the discharge contained elevated levels of nitrate plus nitrite and total coliform. Therefore, Regional Board staff considers the discharge to be partially treated at best. Elevated levels of these constituents can lead to low dissolved oxygen in the receiving water, impacts to aquatic life, and impacts to human health thereby posing a moderate risk or threat to potential receptors. It is appropriate to assign a "moderate" risk to this discharge and a score of 2 was assigned for this factor.

Factor 3: Susceptibility to Cleanup or Abatement.

A score of 0 is assigned for this factor if 50% or more of the discharge is susceptible to cleanup or abatement. A score of 1 is assigned if less than 50% of the discharge is susceptible to cleanup or abatement. This factor is evaluated regardless of whether the discharge was actually cleaned up or abated by the discharger. In this case, less than 50% of the discharge was susceptible to cleanup or

abatement as the wastewater entered Deuel Drain. Therefore, a factor of 1 is assigned.

Final Score – “Potential for Harm”

The scores of the three factors are added to provide a Potential for Harm score for each violation or group of violations. In this case, a **final score of 6** was calculated. The total score is then used in Step 2, below.

Step 2– Assessment for Discharge Violations

This step addresses administrative civil liabilities for the unauthorized discharge based on both a per-gallon and a per-day basis.

1. Per Gallon Assessments for Discharge Violations

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per gallon basis using the Potential for Harm score and the Extent of Deviation from Requirement of the violation.

The Potential for Harm Score was determined in Step 1, and is 6. The Extent of Deviation is considered “major” because the WDRs prohibit the discharge of wastewater that exceeds effluent limits and the requirement has been rendered ineffective where the effluent has exceeded permit limits for total coliform and nitrate plus nitrite. Table 1 of the Enforcement Policy (p. 14) is used to determine a “per gallon factor” based on the total score from Step 1 and the level of Deviation from Requirement. For this particular case, the factor is 0.22. This value is multiplied by the volume of discharge and the per gallon civil liability, as described below.

The Complaint only assesses penalties for the four violations which took place between 1 January and 30 April 2016. Due to the persistent nature of the effluent limit violations, the penalty is based on the days and volume of wastewater discharged. The discharge volume is based on figures reported by CDCR in its self-monitoring reports for the period in which the violation occurred.

Date	Effluent limit violated	Monitoring Period	Volume discharged, gallons	Volume minus 1,000 gallons
12 January 2016	Total Coliform	7-Day Median	410,173 ¹	409,173
26 January 2016	Total Coliform	7-Day Median	443,858 ¹	442,858
9 February 2016	Total Coliform	7-Day Median	417,126 ¹	416,126
31 March 2016	Nitrite Plus Nitrate (as N)	Monthly Average	409,768 ²	408,768
13 April 2016	Total Coliform	7-Day Median	430,516 ¹	429,516
27 April 2016	Total Coliform	7-Day Median	370,949 ¹	369,949
30 April 2016	Nitrite Plus Nitrate (as N)	Monthly Average	393,659 ²	392,659
TOTAL:			2,876,049	2,869,049

¹ Total daily volume of the day which the sample was collected.

² Average discharge, on a daily basis, for the month.

The Complaint assesses penalties for the 2,876,049 gallons of wastewater discharged on the days during which effluent limitations were exceeded. Water Code section 13385(c)(2) states that the civil liability amount is to be based on the number of gallons discharged—but not cleaned up—over 1,000 gallons discharged. That volume is 2,869,049. The maximum civil liability allowed under Water Code section 13385 on a per gallon basis is \$10/gallon. The Enforcement Policy allows for a reduced per

gallon penalty for high volume discharges. Given this discharge can be considered partially treated, the Prosecution Team chose to apply a reduced per volume factor of \$2/gallon.

Therefore, the Per Gallon Assessment is calculated as:

Violation 2: Discharge Liability

$$0.22 \times 2,869,049 \text{ gallons} \times \$2 \text{ per gallon} = \$1,262,382$$

2. Per Day Assessments for Discharge Volumes

When there is a discharge, the Central Valley Water Board is to determine an initial liability amount on a per day basis using the same Potential for Harm and the Extent of Deviation from Requirement that were used in the per-gallon analysis. The “per day” factor (determined from Table 2 of the Enforcement Policy) is 0.22.

On three occasions, the Discharger exceeded the effluent limit for total coliform as a 7-day median. For each of these three violations, the Discharger was assumed to be in violation for only the day the sample was collected as opposed to the entire seven days. The Discharger also exceeded the monthly average limit for nitrate plus nitrite. The Discharger was assumed to be in violation for one day of the entire month. The total number of days of violation for these effluent limit exceedances is 7 days.

Water Code section 13385(c)(1) states that civil liability shall not exceed \$10,000 per day of violation.

Violation 2: Per Day Liability

$$0.22 \times 7 \text{ days} \times \$10,000 \text{ per day} = \$15,400$$

Initial Liability Amount: The value is determined by adding together the per gallon assessment and the per day assessment.

Violation 2: Initial Liability

$$\$1,262,382 \text{ per gallon assessment} + \$15,400 \text{ per day assessment} = \$1,277,781$$

Step 3 – Per Day Assessment for Non-Discharge Violation

This step is not applicable.

Step 4B – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator’s culpability, efforts to clean-up or cooperate with regulatory authority, and the violator’s compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

The Discharger constructed a Reverse Osmosis (RO) Plant to remove salt from its domestic water supply, provide higher quality drinking water to the inmates, and produce a higher quality effluent discharge from the Facility. When the RO Plant is not operational or not operating at its optimal condition, constituents that pose a concern to water quality are discharged in concentrations that the Facility cannot properly treat. In a letter from Siemens' project manager, Siemens observed in 2011 that debris that had been accumulating on the membrane bioreactor (MBR) modules. Siemens cautioned CDCR that the lack of maintenance and cleaning of the membranes could have damaged the membranes and reduced its long term integrity. Trash and debris was again observed during a 25 January 2013 inspection by a service technician. In a letter from Evoquo Water Technologies dated 24 July 2014, CDCR was once again cautioned that the membranes collected trash and debris. The lack of operation of the RO plant, coupled with the lack of proper cleaning of the membranes, have caused the modules to lose efficiency over a period of years, and eventually, the modules can no longer be cleaned sufficiently to properly operate. A higher culpability factor is appropriate because CDCR was aware of the risk of not properly maintaining the membrane bioreactor modules and chose not to employ adequate measures and processes to prevent the accumulation of trash and debris which likely severely impaired the functionality and effectiveness of the membranes. The compromised membranes prevented CDCR from adequately treating its wastewater thereby resulting in pollution to Deuel Drain. A factor of 1.3 is conservatively applied.

Cleanup and Cooperation

The Regional Board Prosecution Team has engaged in several meetings with CDCR to discuss compliance, however, this compliance assistance process has been insufficient. CDCR staff expressed the desire to comply contending that they "have taken every step necessary to correct the deficiency." (see Letter from Alan Price dated January 28 2016). However, CDCR has not complied with key requirements and actions in the CAO which were prescribed to improve its wastewater treatment system. Despite the numerous attempts to work cooperatively with CDCR, the Discharger continues to pollute Deuel Drain by discharging wastewater that contains constituents which exceed the mandatory limits protective of Deuel Drain's beneficial uses. A factor of 1.2 is conservatively applied.

History of Violation

See the history of violation rationale for Violation 1. A factor of 1.4 is appropriate.

Therefore, the total penalty for the effluent limitation violations is calculated as:

Violation 2: Total Base Liability

Initial Liability x Culpability Multiplier x Cleanup and Cooperation Multiplier x History of Violations
Multiplier = Total Base Liability

$$\$1,277,781 \times 1.3 \times 1.2 \times 1.4 = \$2,790,674$$

Violation #3: Failure to Properly Operate and Maintain Facilities and Systems

Background for Violation #3:

Standard Provision I.D of WDRs Order R5-2014-0014-01 states in part: “The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order . . . This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order.” The Discharger has delayed upgrades and maintenance to the wastewater treatment plant thereby further causing pollution to the Deuel Drain. In particular, the CAO required that the Discharger replace the MBR modules by 31 March 2016. However, as of 1 May 2016, the modules have not been replaced.

Step 1 – Potential for Harm for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 2 – Assessment for Discharge Violations

The Prosecution Team is not alleging a discharge violation; therefore, the evaluation of this factor has been omitted from the following calculation.

Step 3 – Per Day Assessment for Non-Discharge Violations

The “per day” factor is calculated for each non-discharge violation considering the (a) potential for harm and (b) the extent of the deviation from the applicable requirements.

Potential for Harm

The Enforcement Policy requires a determination of whether the characteristics of the violation resulted in a minor, moderate, or major potential for harm or threat to beneficial uses. In this case, a “Moderate” potential for harm is appropriate because the discharge of partially treated wastewater presents a substantial threat to beneficial uses. Here, the failure to replace the MBR modules has resulted in partially treated wastewater which contained elevated levels of nitrate plus nitrite above the maximum contaminant levels allowed for drinking water, as well as total coliform organisms. The Discharger’s continuing violation of the total coliform effluent limit puts the public at risk of disease and is an indicator that the Discharger’s wastewater treatment system is not operating as intended and likely not removing other types of pathogens.

The deviation from requirement is “Major.” The Discharger’s WDRs require that it “properly operate and maintain all facilities and systems of treatment and control.” (Standard Provision I.D.) In addition, the Discharger is required to operate a backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Order. *Id.* While the RO plant was installed to remove contaminants and provide potable water, its lack of operation has severely impaired the quality of wastewater discharged into the Wastewater Treatment Plant, and coupled with the Discharger’s lack of proper operation and maintenance, has impaired the membrane bioreactor at the WWTP. The manual operation of the membrane bioreactor decreases the detention time in the denitrification process resulting in high nitrate plus nitrite in the effluent. The presence of total coliform in the effluent indicates that the treatment system is not operating as intended to properly treat waste constituents. The manufacturer of the membrane bioreactor, Siemens, recommended in its Operations and Maintenance

Manual that the membranes be removed and cleaned at least once per year. The Discharger admitted that cleaning was delayed and the membranes were not properly pulled and cleaned for 2.5 years. In addition, the Discharger had not yet developed standard operating procedures (SOPs) for proper operation and maintenance of the WWTP, including the necessity of training new operators. (See Regional Board staff Inspection Report dated 28 February 2015). The Discharger disregarded the requirement in its WDRs to properly operate and maintain its WWTP, warranting an assessment of a "Major" deviation from the requirement.

Using Table 3 in the Enforcement Policy, the Per Day Factor of 0.55 is assigned. This value is to be multiplied by the days of violation and the maximum per day penalty, as shown in the Initial Liability table below.

Days of Violation

The period of this violation of the NPDES permit extends back to in or around September 2011, when Siemens noted that debris accumulated in the membranes and pointed out concerns over the long term integrity of the membrane modules due to a lack of proper maintenance. However, for purposes of this action, the days of violation are calculated from the date the CAO requires replacing the membrane bioreactor (MBR) modules, which is 31 March 2016. As of 1 May 2016², the modules have not been replaced; therefore there is a total of 30 days of violation.

Violation 3: Initial Liability

$$(0.55 \text{ factor from Table 3}) \times (30 \text{ days}) \times (\$10,000/\text{day}) = \$165,000$$

Step 4A – Adjustment Factors

There are three additional factors to be considered for modification of the amount of initial liability: the violator's culpability, efforts to clean-up or cooperate with regulatory authority, and the violator's compliance history. After each of these factors is considered for the violations involved, the applicable factor should be multiplied by the proposed amount for each violation to determine the revised amount for that violation.

Culpability

See culpability discussion under Violation 2. A score of 1.3 was conservatively assessed.

Cleanup and Cooperation

See Cooperation discussion under Violation 2. A score of 1.2 was conservatively assessed.

History of Violation

See History of Violation discussion under Violation 2. As score of 1.4 was assessed.

Violation 3- Total Base Liability

$$\text{Initial Liability} \times \text{Culpability Multiplier} \times \text{Cleanup and Cooperation Multiplier} \times \text{History of Violations Multiplier} = \text{Total Base Liability}$$

$$\$165,000 \times 1.3 \times 1.2 \times 1.4 = \$360,360$$

² Subsequent to the evaluation of days of violation used to calculate Violation #3, CDCR ultimately replaced the MBR modules on 2 June 2016, installed new piping for the MBR modules on 30 June 2016, and upgraded the SCADA software system on 12 July 2016.

As described below in the “Maximum Liability” discussion, the maximum liability allowed by the California Water Code for violation #3 is \$300,000. Although the Penalty Calculation Methodology produced a higher penalty amount, the penalty is capped at the maximum allowed for by statute, or \$300,000.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is the sum of the liabilities for Violations 1 through 3.

Total Base Liability Amount

\$ 90,629 (Violation 1) + \$2,790,674 (Violation 2) + \$300,000 (Violation 3) = \$3,181,303

Step 6 - Ability to Pay and Ability to Continue in Business

The ability to pay and to continue in business factor must be considered when assessing administrative civil liabilities. The California Department of Correction and Rehabilitation is a state agency with a Fiscal Year 16-17 budget of over \$10 billion³. As such, it should have the ability to pay a penalty in the millions of dollars.

Step 7 – Other Factors as Justice May Require

The costs of investigation and enforcement are “other factors as justice may require,” and could be added to the liability amount. The Central Valley Water Board incurred over \$37,500 (250 hours at a statewide average of \$150/hour) in staff costs associated with the investigation and enforcement of the violations alleged herein; however, the Prosecution Team, in its discretion, is not recommending an increase in the Total Base Liability amount based on staff costs. For the purpose of settlement, a reduction to the proposed liability of \$881,303 is appropriate considering a number of factors. According to the Enforcement Policy, discharges for effluent limit violations should typically “be addressed on a per day basis only.” (Enforcement Policy, p. 13). Both a per-gallon and per-day assessment may be considered for a large scale spill or release. *Id.* A per-gallon assessment is generally not appropriate for discharges that exceed effluent limitations or for discharges that are not considered large scale spills. Here, Violation #2 alleges a per-gallon penalty calculation for wastewater discharges ranging from 369,949 gallons to 442,858 gallons per day that exceeded effluent limits but are not otherwise considered large scale releases. In consideration of this guideline in the Enforcement Policy along with the litigation risk and circumstances of this particular case, it is appropriate to reduce the proposed liability from \$3,181,303 to \$2,300,000 while still maintaining a sufficient deterrent against similar conduct in the future.

Step 8 – Economic Benefit

Pursuant to Water Code section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefit of noncompliance derived from the acts that constitute the violation. The economic benefit of noncompliance for the violations is estimated at \$2,084,774 (see Exhibit 1 to this document).

Final adjusted liability

The final adjusted liability is \$2,300,000.

Step 9 – Maximum and Minimum Liability Amounts

The maximum and minimum amounts must be determined for comparison to the proposed liability.

³ Source: <http://www.cdcr.ca.gov/Budget/>

Maximum Liability Amount: The maximum penalty is the sum of the statutory penalties for Violations 1, 2 and 3.

Violation 1, the failure to submit technical reports, is a violation of Water Code section 13268. The maximum penalty is \$1,000 per day for 1,979 days, or \$1,979,000.

Violation 2, the discharge of partially treated or toxic wastewater, is a violation of Water Code section 13385. As described in this section, civil liability may not exceed \$10,000 per day of violation, plus \$10 per gallon for each gallon of waste discharged over 1,000 gallons. The discharge took place over 7 days, and therefore the maximum per-day penalty is \$70,000. A total of 2,876,049 gallons were discharged during the seven days of violation; of this amount, 2,869,049 gallons were discharged over 1,000 gallons per discharge event. The maximum per-gallon penalty is \$28,690,490. The maximum civil penalty is the sum of the per-day and per-gallon penalties, or \$28,760,490.

Violation 3, the failure to properly operate and maintain facilities and systems, is a violation of Water Code section 13385. The maximum penalty is \$10,000 per day for 30 days, or \$300,000. Although the Penalty Calculation methodology produced a higher value, the maximum penalty is capped at \$300,000.

Therefore, the maximum liability for Violations 1, 2 and 3 is \$31,039,490.

Minimum Liability Amount: The minimum liability is equal to the economic benefit of noncompliance plus 10%, which is estimated to be \$2,293,251.

Step 10 – Final liability Amount

The final liability amount consists of the added amounts for each violation, with any allowed adjustments, provided amounts are within the statutory minimum and maximum amounts. The proposed administrative civil liability is \$2,300,000.

Exhibit 1: Economic Benefit Analysis



Safer Subsistence Fishing in the Sacramento River

Amount Requested: \$ 150,000 – 3 Year Grant

Summary Description:

The goal of our Safer Subsistence Fishing: Sacramento River Project is to create a model for identifying and securing safe fishing locations in the Central Valley, Cache Creek Watershed east from Clearlake into the Sacramento River. This will result in cleaner water quality standards to levels that will support continued fish consumption at, or near cultural subsistence rates and provide safer places for cultural practices within the watershed. This project is related to CIEA's work related to Tribal Engagement in Integrated Regional Watershed Management Plans and Basin Plan Amendments. Specifically it will provide updated information for the Central Valley Region in the Westside, Sacramento River, San Francisco Bay Delta and Mountain County IRWMs wherein CIEA works closely with Tribes, and will provide guidance to future watershed restoration projects.

This project will also show that the goal of securing safer fishing locations is obtainable and that families can have local alternatives and be healthful in their own traditional territories in California. Our project will provide an alternative and preferable method of assessing and remediating locations based on California Tribes' and community needs.

The four components of this program includes: 1) Rank waters in this area by cleanest locations 2) Fill data gaps, 3) Develop further cleanup plans and identify sources to fund this work and will begin to 4) Provide findings to regional Tribes and distribute safer fish consumption advisories.

Detailed Project Description:

This project is a collaborative partnership between CIEA and our three main Tribal partners each with expertise in water quality and fish tissue sampling. One of our partners has an in-house mercury sampling lab and relationships with outside labs that agencies commonly work with. These partners include the Scotts Valley Band of Pomo, Big Valley Rancheria and the Habematolel Pomo of Upperlake. These same Tribes asked CIEA to pursue the goals of water ranking and are eager to begin this project in order for families to return safely to the fishing lifeways of their Peoples. There are four additional Tribes on the east side of the Project Area who will participate directly in guiding our work and in providing results to their communities. Our first Project Partner Coordination meeting will include project orientation, confirming work plan. The second will result in the approval of surveys, establishment of initial data gathering goals for fish tissue standards to meet known community needs. Following the community/families survey that we will conduct during the

first quarter of this project these tissue goals will be revisited by the Project partners to confirm that the communities fish consumption are reflected in our goals.

Overall our project will provide families and communities with confirmed safer fishing location information about their region and provide California Indian Tribes and communities with two (2) locations identified as closest to meeting the fish consumption goals of regional Tribal Communities. Our ranking will not only identifying toxic locations but will identify those that are least toxic in order to bring them within levels that will support fish consumption at or near subsistence levels.

Through this project we will distribute and administer surveys to identify areas of preferred use for fishing. Each of three Partner Tribes will gather results from their own membership, and conduct outreach to the four neighboring Tribes to gain wide community input. The Partner Tribes and CIEA will evaluate the results of currently known fish tissue samples, point and nonpoint sources of toxins and whether or not continued remediation might be needed to bring water and fish to safer fish tissue levels. Desired consumption rates will be defined by the Tribes and Tribal members themselves.

The Tribal partners will determine what locations will become the regional focus through discussions with their membership and outcomes of data surveys and supplemental sampling to fill data gaps. This plan will include an evaluation of existing state programs which can aid in securing access to two (2) safest fishing locations in the area. We will distribute findings, recommendations and new advisories that result from our sampling at the end of our project year and issue new advisories with coordination with OEHHA and CDPH to provide our findings to the local communities, Tribes and agencies. It will provide detailed information for Basin Plan Amendment updates and for Integrated Regional Water Management project identification.

The following are additional details of the four project phases for which we are requesting funding:

1) Rank waters in this area by cleanest locations

CIEA and our three project partners will complete and distribute a Community Watershed Survey to each of seven (7) regional Tribes and at a minimum of four (4) community events to identify which fishing locations on and near Cache Creek are most used and/or would like to be used by regional families for fishing and or cultural use. We will also identify fish species of interest. We will simultaneously review known data from existing databases and regional studies and identify data gaps where species and locations of interest have not been sampled or where the data sets are incomplete. Project partners with Arc GIS software and training will overlay known toxic sites including mine feature sites using existing data from Department of Toxics Substances Control (DTSC) and California Environmental Protection Agency (CA EPA).

The intersection between locations of community interest and locations with low levels of toxicity will assist us in identifying safer locations, targeting species and locations in need further sampling and which locations may need further remediation. Our goal during this project phase is to identify at minimum two (2) to three (3) regional sites that the community prefers to fish from, which are low in toxicity and that can most easily be brought into compliance. These will proceed into phases 3 of our project.

2) Fill data gaps

We are able to draw from several existing studies which show high and lower levels of toxins in multiple locations and for multiple species in the region. However these data sets are incomplete.

The Office of Health and Hazard Assessment and the California Department of Public Health coordinate fish consumption advisories in the State of California. In order for these advisories to be created complete data sets with the levels of mercury and PCBs must be available. Just because there is no site specific advisory does not mean that a location has been sampled and that an advisory is not in need of issuance. There are two statewide advisories in place in California which restrict the amount of fish that should be consumed from all locations. However, where data sets are incomplete it may be that fish consumption could be higher than these advisories indicate. Our goal is to identify locations that can support fish consumption at rates that exceed these statewide advisories and with additional sampling we plan to confirm these safer locations or move the locations into phase 3 of our project, which includes providing regional updated information and a reissuance of advisories that are more regional and site specific. There are also traditional fish that have never been sampled that Tribes would like to inform families about. Some species of traditional fish are less likely to take up toxins and could be safer food sources.

Our project partners have been trained and are experienced in the proper protocols of collecting, transporting and initiating fish tissue sampling. In particular Big Valley Rancheria has equipment to complete mercury sampling. We have budgeted forty-two (42) samples to be sent for such analysis either through our Tribal Partners' or by sending to the lab utilized by our agency colleagues. By doing this our project we will complete regional surface water quality studies (fish tissue sampling) in locations of interest to Tribal families and this data can be integrated into state databases.

CIEA is the Tribal Engagement Coordinator for the North Coast, the Upper Feather River and the San Francisco Bay Delta Integrated Regional Water Management Plans. Our Board members and project partners are from the Sacramento River and Westside IRWM Areas and we will work in coordination with these areas. CIEA is coordinating the Upper Feather River Tribes to work with the wider Mountain Counties Tribes and Sacramento River Tribes for interregional watershed management through IRWM Plans and during Basin Plan Amendments. Our findings will advise the updates to both of these management documents.

3) Develop further cleanup plans and identify sources to fund this

Following the identification of two (2) to three (3) local waters that can support fish consumption at rates at or near traditional consumption rates with the least amount of remediation we will characterize the watershed and identify which treatments are needed to further bring the locations to safer levels. The Project Partners and the Tribe(s) who traditionally utilized that watershed will lead the decision-making portion of these efforts including who to include in the creation of a Technical Assistance Committee (TAC) of most appropriate experts as consultants in these efforts. This TAC will include experts from state and federal agencies, Tribes and watershed restoration groups who have previously completed such activities to identify and apply such treatments.

In addition to state available funding, the three federally recognized Tribal Partners have access to federally funding programs which may also be a funding source for implementation of these remediation projects.

The goal of this Project is to identify locations that can be utilized by Tribal members with the least amount of cleanup, remediation or management activities. The results of our sampling and the surveys to show areas of most interest to Tribes will guide these efforts. At the completion of our project we expect to have draft plans and the identification of funding sources to apply for.

4) Provide findings to regional Tribes and distribute safer fish consumption advisories

CIEA and our Project Partners will provide our findings to local Tribes which can be integrated into future remediation by regional Tribes if needed for the two (2) to three (3) regional locations that are nearest to meeting needed water quality (fish tissues standard) objectives. This information will be shared with our regional partners and neighboring regional Tribes, with focus on those communities whose traditional territory the waters are within and/or closest to. Remediation plans can then be developed by Program Partners after our program is completed. Because this project is a partnership between a non-profit and three federally recognized Tribes, these Partners will have access to federal restoration and remediation funds that would otherwise be inaccessible or more difficult to obtain.

Our findings will also be shared by regional Tribes through participation in existing state programs such as those administered by CA EPA, the State Water Resource Control Board (SWRCB), Fish and Game and the Department of Water Resources (DWR). This includes distribution of our project findings to initiating the process toward integrating these beneficial sites into regional Basin Plan Amendments and Integrated Regional Management Plans.

To distribute safer fish consumption advisories CIEA and project partners will complete new advisories using the CDPH/OEHHA fish consumption advisory model and distribute them at community events, in Tribal newsletters, by digital media, at Tribal offices and through local health clinics. Our project goal is to reach 800 families with safer fishing information.

CV Safer Fishing - Project Budget	3 Year
Staff Time & Benefits: 510 Hours @ \$67/hour - inclcludes benefits/taxes	\$34,170.00
Staff Time & Benefits: 1900 Hours @ \$35/hour - inclcludes benefits/taxes	\$66,500.00
(CIEA, 8 Tribal partner staff & community stipends)	\$10,000.00
Travel: 2185 miles (staff & consultants) @ .54/mile	\$1,179.90
Printing: All outreach materials	\$800.00
Sampling / Testing: 45 samples @ \$300 each.	\$13,500.00
Phones	\$2,520.00
Sampling Consultants	\$4,500.00
Supplies	\$1,830.00
Admin. & Accounting	\$15,000.00
Total Project Budget	\$150,000
Direct Administration Cost	\$8,400
Total SEP Amount	\$158,400
Overall Program Oversight	\$3,600
Total due from Discharger	\$ 162,000



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PROJECT PROPOSAL UPDATE (for Rollover to 2017 Project List)

Sustainable Medication Take Back for the Sacramento Valley

Amount Requested: \$200,000 – 2 Year Grant

Summary Description:

The proposed project would expand the award winning “[Don’t Rush to Flush, Meds in the Bin We All Win!](#)” (DRTF) program developed by California Product Stewardship Council (CPSC) with funding from a previous Rose Foundation grant. DRTF protects water quality in the Sacramento Valley region by establishing safe and convenient medication collection sites and promoting their use to the public in lieu of flushing or trashing medications. Reducing flushing is the primary goal because wastewater treatment plants typically can only remove a small portion of pharmaceutical compounds, leaving the rest to flow directly into waterways. DRTF also discourages trashing because landfill leachate, which is often pumped out of the landfill and processed at the same wastewater treatment plants, can present a similar risk for contamination of waterways.

CPSC will collaborate with community partners and establish up to eighteen (20) new medication collections bins depending on funding available and promote the DRTF program to the community. The education and outreach program will target all consumers of medication in the project region with an emphasis on low-income and disadvantaged populations to achieve the primary goal of protecting waterways in the Sacramento Valley watershed through pollution prevention and reduction and the secondary goal of reducing the community health impacts associated with improperly stored and disposed medications.

We will measure progress by: 1) successfully establishing up to 20 new medication collection locations, 2) pounds of medications collected during the grant term with a collection goal of 35 pounds per bin per month open, 3) commitments from a minimum of 7 program partners including at least 3 disadvantaged community groups to provide ongoing promotion of the program, 4) commitments from bin hosts to continue hosting beyond the one year grant term as part of a sustainable program and from bin hosts or others to pay for disposal ongoing, and 5) measuring results through public surveys.

Detailed Project Description:

The project will build on CPSC’s existing relationships with local governments and non-governmental organizations (NGO’s) present in the target counties and materials developed for three previous Rose Foundation-funded DRTF expansion projects (Sacramento and Yolo Counties, East Contra Costa County, and Monterey County), thereby maximizing the benefits of the original investment of Rose Foundation grant funds to expand a successful turn-key program. This is a two year project. The key project partners are identified, and can quickly be contacted to secure their partnership on the project and assistance in identifying important stakeholder groups for outreach,



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recruiting and placing new bins, and educating residents about the program focusing on community groups for the disadvantages communities in at least English and Spanish and maybe other languages if needed.

The project goal is to educate consumers that unwanted medications should not be flushed and instead should be disposed of at secure, conveniently placed drop-off locations in order to help reduce pharmaceutical contaminants in our water supplies and lower the risk of accidental poisonings or substance abuse associated with unwanted medications stored in the home or diverted when improperly disposed.

This project involves outreach, education and partnership with diverse stakeholders including but not limited to:

- Medical community – pharmacies, hospitals, those who deal with mental health issues, health and veterinary clinics and their staff and professional associations
- Local government and special districts – county and city departments of public health, environmental health, solid waste & recycling, and public works; county and city law enforcement; water delivery and sanitation districts; community services districts
- Non-governmental organizations – drug abuse prevention groups, environmental advocacy organizations, community health protection groups, youth and children’s groups, children and senior protection groups, agricultural farmers with animals, and groups that help disadvantaged communities.

CPSC will contact local stakeholders from the categories listed above to educate them on proper medication disposal and its nexus with water quality, environmental protection, public health, and crime reduction and recruit them to partner with CPSC to identify and establish new collection locations and promote them to the surrounding communities.

CPSC and project partners will conduct meetings and presentations with key stakeholder groups in the region as needed in order to secure partnership on the project and long-term commitments to fund disposal of the collected medicines and promote the DRTF message after the grant term. CPSC will utilize a recruitment packet based on materials used to secure hosting commitments for the previous DRTF expansion projects. The first half of the project duration will be focused on conducting presentations to gain community partnerships, recruitment of bin hosts, siting the collection bins, and development and rollout of the public relations (PR) campaign. The second half of the project duration will be focused on continued outreach and monitoring to ensure the public is aware of the bins and gather data on bin usage, public awareness, and behavior change. Based on available funding, CPSC will retain a Public Relations firm to advise on effective public education and messaging in the project region and get help with translations for the disadvantaged communities with a different language than English.

The project will carry forward successful outreach methods from the previous DRTF projects, collaborating with key local partners to tailor messaging to the local community to ensure the



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comprehensive public education program imparts two key messages to the public and the medical community:

1. Do not flush unused medications down the toilet; and
2. Bring unwanted medications to new or existing collection sites

Below are four outcomes of the sustainable project through and beyond the grant term:

Outcome 1 - Presentations: Conduct presentations to key stakeholders resulting in commitments from a minimum of 7 local organizations to participate in and support the project with contributions including in-kind program promotion, bin hosting, and financial commitments for a sustainably funded program.

Outcome 2 - Site Bins: Establish one new permanent medication collection location for each \$10,000 in grant funding procured, targeting pharmacies, hospitals, health clinics or law enforcement locations in disadvantaged communities and/or areas lacking convenient medication collection sites. The amount includes all the public education and tracking for those sites.

Outcome 3 - Public Education and Awareness Campaign: Build on the award-winning DRTF education campaign and messaging developed for previous Rose Foundation grants and customize for the project region and available outreach channels to educate residents not to flush medications and instead use the collection bins. The campaign will target disadvantaged communities through a variety of outreach methods and languages including but not limited to print and online advertising, brochures, handouts, and other print materials, radio, billboards, and social media. CPSC will also disseminate information on pharmaceutical product stewardship broadly through the Don't Rush to Flush Facebook and Twitter social media pages and our [website](#).

Outcome 4 – Increase Healthcare Industry Awareness: Increase pharmacist, physician, hospice and in-home health care workers and veterinarian and law enforcement awareness of proper disposal practices and local collection locations to encourage regular counseling of patients about proper medication storage and disposal and develop education materials to provide to patients. Evaluation of the effectiveness of public education efforts about not flushing medications and use of collection bins through a survey(s) of the public.

The portion of the watershed impacted by the project is dependent on the amount of funds received to place bins and will be measured by the amount of medicines diverted from improper disposal by being collected in the bins. The placement of new medicine collection locations will be complemented by education of the medical community and general public to ensure the messaging is received and disposal behavior is changed. Based on amounts of collected medications observed in other DRTF projects, the goal is to collect an average of thirty-five pounds of medications per bin, per month in use. Using this per bin goal, the target amount of medications collected annually in



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eighteen bins would be over 6 tons. The weight of medications collected by the program participants through the secure medication collection bins will be tracked and documented for the final grant report. We will also measure project success by surveying the public and some of the health professionals to determine if at the end of the project we have significantly increased their knowledge on what to advise patients to do with unwanted medications.

Deliverables & Timeline:

The project will start on receipt of the grant. This is a two year project and will establish 15-20 more medication bins.

Goal: Get unwanted medications out of homes, streets and waterways by establishing and promoting existing and siting up to 20 new permanent take-back sites in grant region. Local partners commit to paying for ongoing hosting and disposal costs of medications collected in their bins, providing this service to the community free of charge, and making this program sustainable.

Timeline & Deliverables		
Milestone	Tasks	Deliverables
25% complete— 6 month mark for 24 month project.	<ol style="list-style-type: none"> 1. Identify local government agencies, pharmacies, hospitals and medical clinics, law enforcement, water districts and treatment plants, other healthcare and water quality organizations, disadvantaged community groups and other relevant stakeholders. 2. Conduct meetings/ presentations with key stakeholder groups to invite participation on the project and longer-term support of paying the disposal costs and promoting the “Don’t Rush to Flush, Meds in the Bin We All Win!” message to protect water quality. 3. Retain Public Relations firm (if needed and funding provided) and build on the PR campaign from the Sacramento/Yolo, Contra Costa, Santa Clara, and Monterey DRTF projects to customize for the regional 	<p>Outcome 1 – Presentations: Conduct presentations to key stakeholders resulting in commitments from a minimum of 7 local organizations to participate in and support the project with contributions including in-kind program promotion, bin hosting, and financial commitments for a sustainably funded program.</p>



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	<p>market and develop the educational materials for the medical community to give to the public.</p> <ol style="list-style-type: none"> 4. Begin recruitment of new take-back locations using a recruitment packet based on the materials developed for the previous projects. 5. Conduct pre-project survey of public and health care professionals to determine 	
<p>50% complete— 12 months</p>	<ol style="list-style-type: none"> 1. Establish up to 18 new permanent medication take-back sites in the region supported by outreach materials promoting the new and existing collection locations for unwanted and expired medications. 2. Distribute educational materials for the medical community to give the public including community groups, doctors and clinics serving disadvantaged communities. 	<p>Outcome 2 - Establish new permanent medication take-back sites and hold a kick off press event to promote them heavily in the region to ensure they are well utilized. Siting bins and promotion costs are approximately \$10,000 per bin with up to 20. Participation in quarterly check-in call with foundation staff. Submit mid-year progress report.</p>
<p>75% complete— 18 month mark for target project period of 24 months</p>	<ol style="list-style-type: none"> 1. Collaborate with key project partners to develop and execute a comprehensive public education campaign to ensure the public and medical community get two messages: 1) Do not flush unused medications down the toilet, and 2) Bring unused medications to new or existing conveniently located take-back sites in the region. 2. Conduct post program 	<p>Outcome 3: Obtain partnerships with a minimum of 7 organizations including at a minimum 3 disadvantaged community groups to support ongoing education and outreach about the medication take-back system established to promote the collection sites and educate the public not to flush unwanted medications. The campaign will target disadvantaged communities through a variety of outreach methods including but not limited to print (several languages) and online advertising, brochures, handouts, and other print materials, radio, billboards, and social media. CPSC will also disseminate information on pharmaceutical product stewardship broadly through the Don't Rush to Flush Facebook and Twitter social media pages and our website. Participation in quarterly</p>



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	surveys of the public and health care providers to determine knowledge and use of program.	<i>check-in call with foundation staff.</i>
100% complete— 12 months	<ol style="list-style-type: none"> 1. Compile medicine bin collection data. The collection goal is thirty-five pounds per bin per month for 15-20 bins. 2. Complete data analysis and prepare grant reports to Rose Foundation per contract. 	Outcome 4: <i>Analyze data about public knowledge of the program and produce clear and concise reports for the Rose Foundation about the project implementation. Participation in quarterly check-in call with foundation staff and submit final progress report</i>
Ongoing Tasks	<ol style="list-style-type: none"> 1. Ongoing tracking of collected medications to maintain comprehensive records of pharmaceuticals diverted from waterways. 	

California Product Stewardship Council

Rose Foundation Grant Proposal Budget - Sustainable Medication Take-Back Tulare Basin

Employee Wages	<u>Hours</u>	<u>Hourly Rate</u>		
Executive Director	66	241	\$	15,906
Assistant Director	130	161	\$	20,930
Program Manager	27	139	\$	3,753
Special Projects Manager II	8	197	\$	1,576
Special Projects Manager I	8	143	\$	1,144
Special Project Coordinator	39	93	\$	3,627
Senior Associate	206	98	\$	20,188
Associate	301	95	\$	28,595
Intern	165	50	\$	8,250
Total Employee Hours/Wages	950		\$	103,969

Contract Services	<u>Hours</u>	<u>Hourly Rate</u>		
Accounting Consultant	-	70	\$	-
Total Contract Services			\$	-

Expenses		
Media Buys & Printing to Promote Med Take-Back Sites		\$64,000
Contract Services Public Relations Consultant		\$3,000
Meeting Expenses		\$2,000
Travel		\$2,000
Bins		\$25,000
Total Expenses		\$96,000

Total Budget Requested for CPSC*	\$	199,969
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Local Government Staff Project Support

Staff Time and Promotion In-Kind	\$	40,000
Total Project Budget With In-Kind	\$	239,969

Direct Administration Cost	\$	11,200
Total SEP Amount	\$	211,200
Overall Program Oversight	\$	4,800
Total Due from Discharger	\$	216,000

***Hours and materials budget line items are for planning purposes only and may be adjusted, within the not-to-exceed amount, throughout the grant period by mutual consent of Rose Foundation Grant Manager and California Product Stewardship Council in order to complete the tasks specified in the Scope of Work.**

Central Sierra Environmental Resource Center

WATER IN THE BALANCE – FOUR KEY ACTIONS

Amount Requested: \$140,000 - 2 Year Grant

Summary Description: This amended proposal seeks funding for two years of watershed monitoring, water sampling, efforts to develop collaborative solutions, and educational outreach to enhance water conservation and public awareness about water resources. CSERC's coordinated strategies will locate threats to water resources and watershed health, sample water quality and pathogenic bacteria in streams, increase public awareness about the need to conserve and protect water, and enable CSERC staff be key participants in collaborative processes that affect water resources, river management, public health, and water planning across the Central Sierra Nevada.

Detailed Project Description: The four action programs of this project are proposed as a package of strategic efforts to benefit a diversity of social and economic interests. All reductions in water quality contamination benefit the environment and the communities that are served by the streams, rivers, and reservoirs of the region. Reductions in sediment discharge into forest streams and rivers due to watchdog monitoring success will reduce sediments that would clog reservoirs, which provide essential water storage for the full spectrum of water users. Increased awareness of the need for water conservation can result in lower water usage and lower water bills for DAC communities. CSERC's Spanish language articles and social networking can reach Latinos who otherwise may not receive persuasive water conservation and water quality protection messages.

Grant funding will support water education presentations to schools in Modesto, Stockton, Lodi, and other urban areas. CSERC's priority focus on serving minority community areas would continue, with an aim to shift to more classroom programs to interact even more closely with students.

The primary amendment to the project description that was approved as part of the Project List is the goal to implement the four strategic actions over TWO years, rather than one year. A second minor amendment is to add a higher level of laboratory testing for a limited number of water quality samples in 2017 and a broader number of samples in 2018. The purpose of the higher level of testing will be to assess the source percentage of contributions of pathogenic bacteria in stream segments that test at levels that exceed Basin Plan standards or EPA regulatory standards.

In 2009, CSERC cooperated with State Water Board staff to develop a Quality Assurance Project Plan (QAPP) to ensure accurate water quality sampling to test for pathogenic bacteria indicators (*E. coli*, total coliform bacteria, and fecal coliform bacteria). Specific protocols are followed and samples are delivered within the 6-hour time limit to an ELAP certified testing laboratory. As part of the QAPP, CSERC staff tests "field blanks" (samples of clean, filtered water) to ensure there are no quality control issues at the laboratory or with the sampling technique in the field. The Central Valley Water Quality Control Board Basin Plan provides a water quality standard for fecal coliform concentration in waters with contact recreation. CSERC has documented violations of that Basin Plan standard in various streams segments. CSERC will also be focusing test analysis by the independent laboratory on *E. coli* levels as a further basis for analysis and consistency with EPA regulatory standards. For example, lab results for 2016 with limited sampling showed 37 violations

of the Basin Plan standards for fecal coliform and 22 violations of EPA regulatory standards for *E. coli*. A higher level of testing analysis that can determine the percentage of source contributions that produce contamination may assist in finding correction actions that can improve water quality.

The addition of the higher degree of source testing and a proposed expansion of the program of work from one year to two years are the only changes from the original project description.

Deliverables & Timeline: The original project description contains a still accurate and unchanged timeline with listed deliverables for the first year of the project. This amended update bases the second year of upon duplicating the same deliverables in the same time periods as will occur in the first year.

Accordingly, over the first 12-month period after receiving funding, key actions will occur year-round, including intensive participation in all four major collaborative processes, increased outreach through the website and social media, slide show presentations and talks about water given to schools and community groups, and selected water quality sampling at strategic foothill stream sites. Supplementing the year-round work, highly important watershed monitoring of forest watersheds and water quality sampling in upper watersheds will be done during the period of June-October.

Breaking the two full years of deliverables into completion milestones and tying them to the project timeline, the following identifies all key deliverables for 25%, 50% 75% and 100% completion milestones.

Timeline & Deliverables		
Milestone	Tasks	Deliverables
25% complete— 6-month mark. Target project period: 24 months	<ol style="list-style-type: none"> 1. Watershed monitoring 2. Selected water sampling 3. Outreach programs to schools, community groups) 4. Website/Social networking 	Verbal and photo reports of monitoring provided to land management agencies. Lab results quantify contaminant levels. Outreach feedback leads to enhancement of website and networking.
50% complete— 12-month mark Target project period: 24 months	<ol style="list-style-type: none"> 1. Foothill watchdog monitoring expands 2. Selected water sampling 3. Outreach programs continue 4. Greater focus on Spanish language website articles and 	Notification to responsible agencies of violations identified. More lab results showing pollution levels. Continued refinement of outreach based on feedback.
75% complete— 18-month mark Target project period: 12 months	<ol style="list-style-type: none"> 1. Renewed forest monitoring of watersheds and threats 2. Selected water sampling 3. Continuation of all outreach 	Renewed reporting to agencies with responsibility for watersheds, water Prior year water quality results submitted at data to Water Board
100% complete—24 month mark Target project period: 12 months	<ol style="list-style-type: none"> 1. Ongoing monitoring where risks identified in region 2. Additional water sampling 3. Expanded outreach and online efforts to raise awareness 	Final watershed monitoring report to USFS and to IRWM stakeholder group. Submission of remaining water quality data to Water Board and USFS.

**Amended CSERC Budget
Water In The Balance Project Budget**

	2017	2018
WATERSHED WATCHDOG MONITORING		
Program salaries to implement monitoring		
22 field days 7 hrs ea x 2 staff 308 hrs \$35/hr	10,780.00	10,780
Mileage expense for monitoring		
2,870 miles x \$.54 mile	1,550.00	1,550
Total watchdog monitoring cost for year	12,330.00	12,330
 WATER QUALITY SAMPLING PROGRAM OF WORK		
Program salaries to implement sampling		
20 field days 6 hrs ea x 2 staff 240 hrs \$35/hr	8,400.00	8,400
Mileage expense for water quality sampling access		
2,450 miles times \$.54 mile	1,320.00	1,320
Laboratory samples expenses		
150 samples \$55 ea + \$500 for higher analysis	8,750.00	8,750
Testing to analyze pollutant source contributors		
lab genetic analysis costs	1,950.00	3,000
Supplies	300.00	300
Total water sampling cost for the year	20,720.00	21,770
 DEVELOPING STRATEGIC SOLUTIONS		
Program salaries to engage in collaborative processes		
Mileage expense for collaborative participation	15,875.00	15,875
5,765 miles x \$.54 mile	3,100.00	3,100
Total collaborative engagement expenses	18,975.00	18,975
 WATER CONSERVATION AND PUBLIC AWARENESS OUTREACH		
Salaries for presentation (schools community groups)		
320 hrs \$35/hr	11,200.00	11,200
Salaries for website work, social networking, outreach		
70 hrs \$35/hr	2,450.00	2,450
Supplies	500.00	500
Total conservation and public outreach expenses	17,450.00	17,450
 TOTAL WATER IN THE BALANCE BUDGET PER YEAR	 68,525.00	 70,525
 TOTAL WATER IN THE BALANCE BUDGET TWO YEARS	 \$ 140,000	
Direct Administration Cost	\$ 7,840	
Total SEP Amount	\$ 147,840	
Overall Program Oversight	\$ 3,360	
Total Due from Discharger	\$ 151,200	

Realizing the Human Right to Water for Sacramento Valley Disadvantaged Communities

Central Valley Disadvantaged Community
Water Quality Grants Program (2017
Project List)

Environmental Justice Coalition for Water

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Application Form

Project Name*

Name of Project

Realizing the Human Right to Water for Sacramento Valley Disadvantaged Communities

Amount Requested*

Amount Requested

\$100,000.00

Short Project Summary*

Please provide a short description of your project as if this was the only thing someone would read.

The Environmental Justice Coalition for Water (EJCW) is pleased to submit the following application for the Central Valley Disadvantaged Community Water Quality Grant, on behalf of itself and its project partners in the growing Sacramento Valley Water Justice Network (SVWJN), particularly Water Flows Free (an independent movement of water rights advocates including tribes, media, and water justice institutions in the Upper Sacramento Valley).

For seventeen years, EJCW has empowered low-income, people-of-color, and Tribal communities throughout California to become informed, vocal advocates for water justice. With this project, EJCW seeks to build on our current CV SEP by expanding watershed education and water justice capacity-building projects into Butte, Shasta, and parts of Siskiyou Counties. Upper Sacramento Valley communities are currently more isolated from the statewide Human Right to Water discourse than other water-disadvantaged communities. So, by engaging communities in the Upper Sacramento Valley EJCW will advance the following: 1) disadvantaged community identification and water quality needs assessment, 2) community outreach and education in disadvantaged communities, 3) supporting community participation in watershed planning, and 4) providing technical assistance to disadvantaged communities, including the creation of community advocacy resources and organizing tools.

This project's overarching goal is to empower low-income and people-of-color communities in the Upper Sacramento Valley with the objective of building capacity for local and regional water justice campaigns and the achievement of watershed health through education, building relationships, and developing sustainable projects. EJCW seeks to deepen and advance our current work with water justice advocate groups, organizations, media, private institutions, and Tribal leadership in Butte, Shasta, and Siskiyou counties to advance the Human Right to Water in disadvantaged communities at the regional and state levels to ensure healthy drinking water and fisheries and recreational waterways for disadvantaged and Tribal communities, particularly the severely disadvantaged communities in the region.

Our work in the Sacramento Valley region, from 2015-present, has delivered: one nationally recognized water rights advocacy event, co-organized with Tribal leadership, regional agencies, and water-disadvantaged community members, drawing 400+ attendees from multiple counties; 10+ outreach events; three research actions; and four regional water justice workshops for disadvantaged communities and water governance representatives. This project will advance these successes, and those of EJCW's

current CV SEP, into the Upper Sacramento Valley, and achieve the goals identified by the collaborative efforts and actions of EJCW's past and present work with its partners and members in disadvantaged communities in the Upper Sacramento Valley regarding the Human Right to Water (AB685).

County (or counties)*

Please select the county or counties where the work will be performed.

Butte County
Sacramento County
Shasta County
Siskiyou County

Fund*

Fund applicant applying to

Central Valley Disadvantaged Community Water Quality Grants Program

Issue [Internal]

Issue

Water Resources/Watershed Protection

Region [Internal]

Region

North Central & East

Grant History [Internal]

Enter the groups grant history prior to the online system.

Central Valley Disadvantaged Community Water Quality Grants Program

In partnership with the Central Valley Regional Water Quality Control Board, Rose Foundation has developed a grants program that would maximize the benefits to disadvantaged communities working on water quality issues in the **Central Valley** and **Sacramento Valley** areas. Grants awarded through this program are funded through Supplemental Environmental Project (SEP) payments that satisfy penalties imposed by the Water Board. **Applications are due December 2, 2016.**

Being placed on **the Annual Project List makes your organization eligible for a grant in 2017**. Please be aware: all grant applications should be considered publicly-available documents, and the full text of all applications recommended for the 2017 Project List shall be provided to CVRWQCB board members and published on the CVRWQCB's website.

Instructions

Remember to save your Application as you work. You will automatically be timed-out of the system after 90 minutes for security reasons. If any of your responses exceed the character limits or if any of your attachments are too big, your application will not be saved! Scroll down to the bottom of the page to find the **"Save As Draft"** button.

We highly recommend that you write up and save your responses in a Word document before inputting them into the fields below. However, please be aware that the system will strip most formatting (etc. font size, bolding, italicization, etc.) once you paste it into the fields below.

This application system works best with Firefox. If you are having any technical problems, please try using Firefox. You can download it for free [here](#).

If you encounter any problems, please contact Laura Fernandez at (510) 658-0702 x304 or email lfernandez@rosefdn.org.

Project Description

Project's Primary Geographic Area*

This project advances EJCW's existing CV SEP northward, beyond its current focus in the Sacramento County area, to include Upper Sacramento Valley disadvantaged communities and regional planning areas, particularly in the disadvantaged communities of Butte and Shasta Counties, and portions of Siskiyou County. The focus of this project would be with disadvantaged and tribal communities in the Upper Sacramento Valley region that are located at and below the headwaters of the Sacramento River (in Mount Shasta City).

This project, if successful, will provide the opportunity to easily scale into a larger regional collaboration throughout all of the Sacramento Valley Region (subject to available funding and capacity). Further, the adaptability of this project should allow it to be replicated throughout the State, where ever water justice and equity issues persist.

Describe the Water Body and/or Pollutant Addressed by this Project*

Identify the specific watershed that will be impacted, and consider whether the nature of your project will focus on groundwater or surface water. Please describe how your project will benefit water quality.

This project will impact both the groundwater and surface water of two watersheds directly and others indirectly.

While the focus of this project is likely to be on pollution prevention, flood abatement, and revitalization of surface waterways, this project will impact the following uses: agricultural supply (urban and small farms), subsistence fishing (a new beneficial use likely soon to be adopted by the State Water Board with support from EJCW), ground water recharge (and application of State's anti-degradation policy), municipal and domestic supply (especially drinking water supply), water contact recreation, and non-contact water recreation. Additionally, other areas to be explored include water-bottling extraction (as it relates to water quality, pollution, and water levels) and sanitation (especially with respect to the homeless population).

This project will address the following pollutants: primarily arsenic, nitrate, and hexavalent chromium, with respect to drinking water; the protozoan *Ichthyophthirius* ("ick"), heavy metals, mercury, and other industrial pollutants, with respect to subsistence fishing; fecal coliform, human waste, algae blooms caused by contaminant runoff, and diseases capable of transmission via water, with respect to homeless population; and paints, household chemicals, electronic waste, and other unknown pollutants that are routinely dumped illegally in irrigation ditches and other areas where they can impact water quality and watershed health.

This project addresses the following watersheds:

Upper Sacramento River Watershed/Sacramento Headwaters Watershed
(<http://www.sacriver.org/aboutwatershed/roadmap/watersheds/northeast/upper-sacramento-river>)

Sacramento-Lower Cow-Lower Clear Watershed
(https://cfpub.epa.gov/surf/huc.cfm?huc_code=18020101)

Sacramento Headwaters Watershed
(https://cfpub.epa.gov/surf/huc.cfm?huc_code=18020005)

Sacramento-Upper Clear Watershed
(https://cfpub.epa.gov/surf/huc.cfm?huc_code=18020112)

Lower Cottonwood Watershed
(https://cfpub.epa.gov/surf/huc.cfm?huc_code=18020102)

Detailed Project Description*

Describe the proposed project including:

- Why is this project strategic from an overall standpoint?
- What is your workplan for this grant? If you are seeking multi-year funding, describe each year's workplan.

EJCW takes as a starting point for intervention that impacted communities, predominantly low-income, people-of-color, and Tribal communities, are the most effective advocates for water quality protection and watershed health and that present inequities in access to safe, clean, affordable water result, at least in part, from the fact that water policy-making has been dominated by powerful (polluter) interest groups. This project aims to rectify the power imbalance in water governance by improving the

collective knowledge of tools available to disadvantaged communities for engaging in watershed health problem-solving.

Identifying disadvantaged communities and conducting water quality needs assessments will help develop a better understanding of local water quality impacts on beneficial uses for disadvantaged community drinking water supplies, fishing, and other recreational activity. Education, outreach, and organizing of disadvantaged communities will enable direct and proactive action on the part of disadvantaged communities (including tribal communities and their allies) to prevent and mitigate contamination of drinking water, fisheries, and recreational waterways. Community participation will ensure that the water quality needs of disadvantaged communities will be recognized and addressed by decision-makers to protect and remediate the relevant watersheds. Our project will also help to develop a closer working relationship between water-disadvantaged communities and enforcement personnel, whether in regulatory agencies or public prosecutors, as our current CV SEP in Sacramento and Yolo Counties demonstrates.

Each component of this project is strategic from an overall standpoint for the following reasons:

1) Identifying disadvantaged communities and conducting a water quality needs assessment will help develop a better understanding of local water quality impacts on beneficial uses for disadvantaged community, including drinking water supplies, fishing, and other recreational activity in Butte, Shasta, and Siskiyou Counties. Rather than reinventing the wheel, we plan to compile existing data about water quality health and impacts in Butte, Shasta, and Siskiyou counties; research and build on the work of local and State entities; identify relevant data sets, maps, and tools that can serve as useful resources; understand the area's demographics and assess the needs of and challenges faced by disadvantaged communities in the county; obtain the status of ongoing projects and initiatives related to water quality, access, and equity by analogous organizations; and send advocates into communities to interact with and understand the concerns of our target population. We are confident that this effort will enable us to develop a strong, foundational understanding of the counties' water quality and equity landscape as well as continue to develop and deepen the relationships with the communities that we currently serve and will work collaboratively with in the subsequent phases of our project.

2) In order to strengthen EJCW and the Sacramento Valley Water Justice Network's ability to achieve its mission, address the needs identified through the first phase of the project, and sustain itself over time, it is essential that SVWJN and its sponsor, EJCW, engage in capacity building. This will involve training members in a variety of areas, from understanding the history and fundamentals of water justice to developing specific skills, such as mapping, advocacy, organizing, and problem and solution identification.

3) Ultimately, we hope to use the skills developed through our in-house training to initiate our outreach and community education efforts. This will involve building a strong coalition of groups and community members; meeting with community leaders; hosting community forums; and leveraging our relationships with other established and technically sophisticated organizations to develop an agenda, priorities, and path forward. Education, outreach, and organizing of disadvantaged communities will enable direct and proactive action on the part of disadvantaged communities and their allies to prevent and mitigate contamination of drinking water, fisheries, and recreational waterways; address the water quality needs of disadvantaged communities; protect and remediate the relevant watershed(s); and continue to grow a powerful, effective, and self-sustaining network of water justice advocates.

4) Additionally, the project will build relationships between disadvantaged community members and

environmental enforcement personnel to potentially develop a multi-community/multi-agency collaboration around community-based complaints on environmental violations and enforcement agency staff follow-up and feedback. This process will include a two day environmental justice community tour with community members and enforcement staff, including an overview of similar online, community-based complaint procedures, i.e., KEEN, FERN, IVAN online, etc. Participants will then evaluate their collective interest in advancing such a project in their respective counties.

Strategies*

Choose all that apply.

- Pollution Prevention/Trash Clean-up
- Public Awareness
- Water Quality Monitoring
- Watershed Assessment and Protection
- Other

Deliverables and Timeline*

Please provide a list of major deliverables, and a timeline chart showing when project activities will be conducted and deliverables produced. Since timing of grant awards, if any, is uncertain, please consider your timeline and deliverables carefully. Two possible options are to propose a project with a flexible start date (i.e. the project could start on receipt of the grant), or to propose ongoing activities with established activity schedules and deliverables (i.e. funding would be applied to these activities and deliverables to the extent that is received)

Timeline and Deliverables_CV DAC NorthSacValley.pdf

The project's activities, tasks and deliverables are planned for a twelve month schedule. However, the project can be scaled to two years if needed. The following project schedule is based on a twelve month schedule:

Months 1 -3:

- a. Data gathering and document review: EJCW will compile, review, and map existing data on water quality, quantity, climate change/resilience, flood risk, fish health for beneficial uses etc., as it relates to disadvantaged communities in the three counties, as a visual aid to identification of problems and solutions as well as a guide to community engagement.
- b. Interviews with stakeholders (at least 20) regarding observations about water-related challenges and needs in Butte, Shasta and parts of Siskiyou Counties: including local EJ and environmentalist groups (e.g., Water Flows Free, tribal leaders, etc.), government (flood control districts, city and county stormwater staff, public water providers, etc.), faith communities, and community organizations. We will use interviews as an opportunity to engage stakeholders in community mapping exercises,
- c. Building partnerships with agency, organizational, and community stakeholders, alike. As part of the data collection and interview process, we will invite key stakeholders to meet directly with the Sacramento Valley Water Justice Network members to share ideas and develop rapport in a minimum of four regional meetings and two water justice summits.

d. Data analysis and needs assessment: We will amend community water maps by drawing on IRWM, CalEnviroScreen 2.0, and direct community surveys, among other resources.

Month 2:

- a. Human Right to Water documentary film screening and training on its implementation
- b. Water justice leadership training: A full curriculum has been developed and piloted with the Salinas Valley disadvantaged community project. The curriculum will be revised for the Upper Sacramento Valley regional context.

Months 3 - 12:

- a. Education and capacity building: We will hold four quarterly community workshops, hosted by and, in large part, for the members of the Sac Valley Water Justice Network with local water experts, environmental justice leaders, and decision-makers, to address and train on issues and skills of broad interest, as identified by data and community survey. They will be open to the public and may be co-hosted by partners, i.e., faith and/or cultural leaders, etc., to draw additional interest. We anticipate roughly 50 people at each, mostly from disadvantaged communities.

Months 6-12:

- a. Identify and evaluate 3-5 community projects for further development: We will partner with our technically-savvy colleagues in ECOS as well as the County, City, Water Districts, local utilities, DWR, State Water and Regional Water Boards, etc., to advise community partners on project conceptualization.
- b. Work with IRWM region and groups mentioned above to identify resources and supports to develop one or more community-based projects into full funding proposals.

Project deliverables at end of 12 months:

- a. Grow the network to anchor Sac Valley Water Justice Network
 - i. 20 organizational members
 - ii. 4-12 formal organizational project partnerships
- b. Set project or campaign agenda with toolkits for 3-5 of the disadvantaged communities engaged
- c. Two community representatives from each of the disadvantaged communities engaged, including at least 5 members of the Sac Valley Water Justice Network, participate in EJCW's water justice leadership training curriculum.
- d. One two-day EJ tour
- e. Four Human Right to Water workshops and trainings
- f. One regional water justice symposium
- g. Community resources and advocacy tools (as determined by the community members) for advancing the Human Right to Water to Water in their regions.

Financial Information

Project Budget*

Please provide a line-item project budget. The budget should specifically describe all project costs. If the budget includes income from other sources, specifically identify what expenses are being covered by this grant.

Timeline & Deliverables – 36 month (3 Year Project)

Milestone	Tasks	Deliverables
25% completed in Project Months 1-9	<ul style="list-style-type: none"> • 1st and 2nd of eight (8) Project Partner Coordination Meetings • Data review and identify data gaps • GIS overlay • Complete watershed community use survey • Distribution of survey to seven (7) Tribes at eight (7) community events • Rank waters based on community surveys, water quality and known toxicity in fish • Coordinate with community use 	<ul style="list-style-type: none"> • Meeting agendas & participants list • Completion of Project Orientation(s) & Coordination meetings with CIEA, Project Partners & neighboring Tribes • Watershed Survey to identify priorities & water quality targets (fish tissue standards) • Summary survey reports with results from 7 Tribes and/or communities, • 1st Waterbodies and Traditional Use Ranking Report: with existing status and data gaps • Identify at minimum two (2) to three (3) regionally preferred sites for sampling • In September 2017, Provide 1st check-in call with Rose Foundation
50% completed thru Year 1.5 Project Months 10-32	<ul style="list-style-type: none"> • 3rd Project Partner Coordination Meeting • In Year 1 create & in Year 2 reconfirm fish sampling plan • In Year 1, 2 & 3 Spring/Summer/Fall gather fish tissue samples (3 samples per species, per location – total of 42) and send to lab(s) for testing • By end of Year 3 sampling & surveying re-evaluate waterbody ranking with GIS overlay and toxin source evaluation • In Year 2 convene the TAC and gather remediation treatment options 	<ul style="list-style-type: none"> • Complete Fish sampling plan • Compile Fish tissue sampling results to complete data sets • 2nd Waterbodies and Traditional Use Ranking Report: with updated status, safest fishing locations • By September 2018 Provide the 2nd status call with Rose Foundation Project
75% completed by Project Months 19-27	<ul style="list-style-type: none"> • 4th & 5th Project Partner Coordination Meeting • Year 2: Identify at minimum two (2) to three (3) interim safest fishing locations • Provide interim findings to regional Tribes • Engage Tribes in updates to regional Basin Plan amendments • Create draft cleanup plans to bring locations into compliance 	<ul style="list-style-type: none"> • Provide findings to seven (7) regional Tribes • Coordinate Basin Plan amendment recommendations with neighboring Tribes and Tribal Partners • Put forward suggested treatments of two (2) to three (3) regionally preferred sites if needed as advised by the TAC and refined by Project Partners • By March 2019 Provide 3rd status call with Rose Foundation
100% completed by Project Months 28-36	<ul style="list-style-type: none"> • 6th Project Partner Coordination Meeting • Year 3: Confirm minimum two (2) to three (3) interim safest fishing locations • Provide training and presentations with neighboring Tribes • By year 3 of project: Provide 800 families and communities with confirmed safer fishing location information about their region 	<ul style="list-style-type: none"> • Create new advisories for regional safer advisories, emphasis in identification of at minimum two (2) to three (3) safer fishing locations • Complete tabling and distribution of advisories and safer fishing locations reaching 800 families • By September 2019 provide End-project Report to Rose Foundation

EJCW Project budget-CV DAC SacValleyNorth.pdf
Please see attached project budget file.

Financial Statement*

Please provide your organization's income and expense statement for the previous completed fiscal year. Please tell us what time period your financial statements cover.

2016-07-31 EJCW Reports.xlsx

EJCW's Fiscal Year submitted covers the period August 1st through July 31st.

Organization's Contributors*

Please list the 3 largest contributors (individual donors, foundations, and/or government funding) and the amount they gave to your organization over the last two years.

State of California, State Water Resources Control Board - \$500,000; California Wellness Foundation - \$225,000; State of California, State Water Board - \$134,000.

Tax Status*

Is your group a 501(c)3?

Yes

Community Information

Community Description*

Please describe the communities served by this project, including the social and economic demographics of the communities served. Please especially provide information about disadvantaged communities served by this project.

In general, EJCW and its partners serve low-income, people-of-color, and tribal communities. For purposes of project funding eligibility, EJCW tends to work with communities that meet or are likely candidates to meet the Department of Water Resources' (DWR) definition of a "disadvantaged community" (below 80% of the statewide median household income) or a "severely disadvantaged community" (below 60% of the statewide median household income).

This project identifies, and seeks out, the most severely disadvantaged communities in the Upper Sacramento Valley region. EJCW has existing relationships with disadvantaged communities in Butte, Shasta, and Siskiyou Counties, and through this project, aims to deepen, advance, and expand our current work in the following communities:

In Shasta County, DWR lists the following known disadvantaged communities: Redding City, Mountain Gate CDP, Anderson City, Lakehead CDP, French Gulch CDP, Big Bend CDP, Fall River Mills

CDP, Cassel CDP, Burney CDP, Hat Creek CDP, Cottonwood CDP. The majority of these communities are severely disadvantaged.

In Butte County DWR lists the following known disadvantaged communities: Nord CDP, Chico City, Concow CDP, Forest Ranch CDP, Magalia CDP, Paradise Town, Berry Creek, Oroville City, Bangor CDP.

In Siskiyou County, this project aims to work with the following DWR identified disadvantaged communities: Mount Shasta City, McCloud CDP, and Dunsmuir CDP.

There are other "hidden" disadvantaged communities that do not otherwise show up on DWR's mapping tool, such as unrecognized tribal communities, and parts of rural, unincorporated Butte and Shasta Counties where low-resource farmers and farm workers live.

The focus of this project will be with disadvantaged communities in the Upper Sacramento Valley region that are below the headwaters of the Sacramento River (in Mount Shasta City). The total population living in disadvantaged community census tracts in Butte, Shasta, and Siskiyou Counties is approximately 114,000. Latinos are the largest racial/ethnic group, followed by African Americans, people with two or more races, and Native Americans. In Shasta County, a disproportionate number of people of color live below the federal poverty level. Some disadvantaged communities or individuals that would be considered disadvantaged reside in very small pockets of Butte, Shasta, and Siskiyou Counties and are served drinking water by a small water system and/or private wells.

Community Benefit*

How will this project benefit the community?

Negative impacts from prolonged drought (including the direct result of a decrease in cultural and subsistence food sources), water extraction for water bottling, and poor and uninformed agricultural practices (both public and private farming) are contributing to water quality and availability issues in Butte, Shasta, and Siskiyou Counties. The benefits of this project to the community include:

1) Education and Research- Communities involved in this project will develop a clearer understanding of water quality issues in their region, including: a) how the health of watershed systems are connected to public health, the preservation of cultural practices, pollution mediation, and the impact water extraction rates have on water quality and supply; b) how water governance, agencies and decision-making systems function in their regions, more importantly, how to engage with those governance and management systems; c) understanding water laws, particularly the Human Right to Water (AB685), and other laws that effect water quality, particularly in disadvantaged communities.

2) Advocacy Tools and Organizing Resources- Communities involved in this project will create a variety of resources that can be used to advance the outreach, education, and advocacy efforts in the region. Specific tool and resource needs of the community will be identified through the regional needs assessment and will be created through participatory practices. These tools will be public and used by the community to advance their work engaging with community members and water agencies towards the goal of water justice. Specific tools may include, but aren't limited to: i) maps, ii) training manuals, iii) a customized water advocacy and engagement curriculum, iv) online and printed resources including a Human Right to Water toolkit, etc.

3) Media Platforms- Partners of this project will create and/or advance their media platforms by a receiving communications training for water justice advocates in disadvantaged communities that will a) expand their outreach, education, and advocacy efforts through social and print media platforms, b) increase the number of engaged community members, c) deliver regional water quality data and water justice issues in practical and meaningful ways to community members (in both Spanish and English), d)

engage with numerous other regions, states, community groups, etc. by increasing the reach of current social and print media efforts.

4) Community Action Plans- This project will produce, through a participatory process, Community Action Plans for disadvantaged communities and water justice allies and partners that will a) address the needs of the communities, b) identify polluters and local and regional water agencies, and c) address water quality, pollution, and watershed management issues, as determined by the community. Community Action Plans will be unique to each community and will identify research, advocacy and outreach and education tactics, among other goals for improving water quality and supply and reducing and remediating pollution and contamination.

5) Coalition Building- Communities and partners involved in this project will have the benefit of creating, expanding and connecting with organizations, community groups, and water justice networks from other parts of California as well as national and international groups. The benefits of growing and connecting to a larger coalition will allow the communities to learn from, and connect with, other disadvantaged and tribal communities regarding lessons learned and best practices of water justice advocacy and watershed and pollution management efforts from other areas, and at times, parts of the world.

Community Involvement*

How will the community be involved in this project? Please identify primary community partners and describe their role in the project.

Community participation in IRWMPs and integration of community input into planning and decision-making on watershed health will ensure that water quality needs of disadvantaged communities will be addressed in watershed protection and planning efforts. Ultimately, community drinking water supplies and the fisheries and waterways on which disadvantaged communities rely for subsistence and recreation will be protected and improved with corresponding improvements to public health from reduced exposures to contaminants.

All communities will be more involved in Integrated Regional Water Management planning. There will be an environmental justice water tour for Sac Valley Water Justice Network members, community partners, and the environmental enforcement and regulatory community. This tour will be largely led by community leaders from the various disadvantaged communities we would visit and engage.

The primary community partners and their respective roles are as follows:

1. State Level Community Partners:

The Sacramento Valley Water Justice Network would act as the planning forum and planning team for the various activities of this grant. Network members would conduct the data collection and analysis, take lead on establishing new working relationships with additional community partners and relevant agencies, facilitate education and outreach sessions and trainings, and more.

The Environmental Council of Sacramento, the Sacramento region's largest member-based,

environmental organization and a participant in the Sac Valley Water Justice Network, would take lead in facilitating conversation with policy-makers and the regulated community as well as provide and facilitate the provision of technical advice to disadvantaged community project proponents.

2. Local Agency and Community Partners:

Water Flows Free, a movement of water justice leaders and advocates; the The Redding Rancheria Tribal Health Center; The Mt. Shasta Bioregional Ecology Center; faith-based organizations, such as, but not limited to the Unitarian Universalist Church; and tribal communities, specifically the Winnemen Wintu Tribe, will be engaged as lead community agencies and key project partners as key entry points into the communities in order to provide outreach and education to disadvantaged communities on local water quality and ways to prevent and mitigate contamination of community drinking water sources, fisheries, and recreational waterways of particular importance to disadvantaged communities. These partners will act as vehicles for reaching disadvantaged community members in the three counties, and beyond.

3. Media:

EJCW will partner with Red Arrow Media and Redding Voice to provide multimedia support for outreach and education efforts. Network members will learn and, in the case of the groups above and more, already are learning about water contamination and access problems in the Upper Sacramento Valley and are identifying concrete actions to address these issues at the local and regional levels. This includes the developing of a public outreach plan to highlight impacts to local water and explore innovative ways to prevent and mitigate contamination affecting disadvantaged communities.

4. Local and Regional Campaigns:

EJCW will work with community partners to provide language appropriate educational and outreach materials on water quality and justice issues and work with local community and ethnic media to highlight local water quality challenges and solutions.

EJCW will conduct capacity and leadership development workshops through the network and provide training and support to disadvantaged community representatives to enable and encourage direct community engagement in local IRWMPs, particularly in the Upper Sacramento Valley and Northern Region (with emphasis on Butte and Shasta counties, and portions of Siskiyou county, as resources allow).

Additionally, EJCW will organize project participants to engage directly in key local IRWM, Groundwater Sustainability Agency, and watershed management planning efforts through written comments, participation in meetings, and program plan or policy development, including city and county General Plans, which must comply with SB 244, to ensure local disadvantaged communities' water needs are addressed therein.

Public Health Benefit*

How will this project benefit public health?

Community education allows both those most impacted and those that may be contributing to water quality to help prevent contamination and mitigate the impacts of contamination on beneficial uses, particularly for disadvantaged communities. It also helps engage those most impacted by contamination in raising public support for water quality improvement and protection activities. Community engagement and

support is necessary for the success of water quality improvement projects, particularly new efforts that require changes in practices.

Additionally, community-based projects selected for further development into funding proposals could directly impact public health through flood risk abatement, decreasing toxic exposure and water contamination from illegal dumping, lessen exposure to dangerous metals and other toxins from subsistence fishing practices through awareness and education and changing practices, and more.

Required Statements

Required by Discharger or Proposed As Mitigation*

Is this project independently required by any discharger or is this project proposed as mitigation to offset the impacts of any discharger's project(s)?

No.

Benefits to Groundwater or Surface Water Quality*

How will this project benefit or study groundwater or surface water quality or quantity, and the beneficial uses of the State of California?

Some disadvantaged community projects could benefit surface water, and/or groundwater, and/or the beneficial uses of the State of California in the following areas:

1. agricultural supply (urban and small farms),
2. subsistence fishing (a new beneficial use soon to be adopted by the State Water Board with support from EJCW),
3. groundwater recharge (and application of State's anti-degradation policy),
4. municipal and domestic supply (most especially drinking water supply),
5. water contact recreation, non-contact water recreation.

However, since this project first involves data collection, surveys, and information gathering to identify projects to develop into complete proposals as well as education and outreach campaigns that are not yet known in any specific instance, the list above remains an exciting range of possibilities.

Not Directly Benefit State or Regional Water Boards*

Include a statement that this project shall not directly benefit the State Water Board, or Regional Water Board functions or staff.

This project will not directly benefit the State Water Board, or Regional Water Board functions or staff.

Clean Water Act*

Have funds for this project been provided by, or are any requests for funding pending with, any voter-approved propositions, sources related to section 319 of the Clean Water Act, or other



Realizing the Human Right to Water for Sacramento Valley Disadvantaged Communities
December 5, 2016

Timeline and Deliverables Target project period: 12 months		
Milestone	Tasks	Deliverables
25% complete – 3 month mark.	<p>Task 1</p> <ul style="list-style-type: none"> • Data gathering with document reviews • Interviews with stakeholders (at least 20) • Building partnerships with agency, organizational, and community stakeholders • Data analysis, mapping, and needs assessment, drawing on IRWM and CalEnviroScreen, and direct community surveys, among other resources <p>Task 2</p> <ul style="list-style-type: none"> • Curriculum & evaluation tool (retooling for the Upper Sacramento Valley region from the Salinas Valley disadvantaged community project) <p>Task 3</p> <ul style="list-style-type: none"> • Coordinate EJ tour sites with community partners <p><u>Check—in phone call with Rose Foundation</u></p>	<p>Task 1</p> <ul style="list-style-type: none"> • Summary of data & list of stakeholders interviewed <p>Task 2</p> <ul style="list-style-type: none"> • Revised curriculum & evaluation tool for Upper Sacramento Valley region <p>Task 3</p> <ul style="list-style-type: none"> • EJ tour agenda and list of proposed sites



<p>50% complete – 6 month mark</p>	<p>Task 1</p> <ul style="list-style-type: none"> • Initiate capacity-building training on history and fundamentals of water justice, mapping, communications, advocacy, and organizing <p>Task 2</p> <ul style="list-style-type: none"> • Conduct at least one quarterly community workshop and Human Right to Water documentary and training <p>Task 3</p> <ul style="list-style-type: none"> • Complete EJ tour 	<p>Task 1</p> <ul style="list-style-type: none"> • Training agenda <p>Task 2</p> <ul style="list-style-type: none"> • Workshop agenda, materials, attendee list <p>Task 3</p> <ul style="list-style-type: none"> • Agenda, EJ tour site list, and attendee list, materials <p><u>Progress Report</u></p>
<p>75% complete- 9 month mark.</p>	<p>Task 1</p> <ul style="list-style-type: none"> • Complete recruitment and outreach for EJCW’s water justice leadership curriculum <p>Task 2</p> <ul style="list-style-type: none"> • Continue quarterly community workshop and Human Right to Water documentary and training <p>Task 3</p> <ul style="list-style-type: none"> • At least one regional water justice symposium addressing the Human Right to Water and regional water quality issues <p><u>Check-in phone call with Rose Foundation</u></p>	<p>Task 1</p> <ul style="list-style-type: none"> • List of outreach and summary of recruitment/outreach efforts <p>Task 2</p> <ul style="list-style-type: none"> • Workshop agenda, materials, attendee list <p>Task 3</p> <ul style="list-style-type: none"> • Symposium agenda and media packet • List of symposium attendees • Community action plans and next steps
<p>100% complete- 12 month mark.</p>	<p>Task 1</p> <ul style="list-style-type: none"> • Complete at least one water justice leadership curriculum training (12 week course) 	<p>Task 1</p> <ul style="list-style-type: none"> • List of outreach areas and summary of recruitment/outreach efforts

	<p>(Two community representatives from each of the disadvantaged communities engaged in Task 3, including at least five members of the Sac Valley Water Justice Network, participate in EJCW’s water justice leadership training curriculum.)</p> <p>Task 2</p> <ul style="list-style-type: none"> • Complete 2-3 quarterly community workshops in total, hosted by the Sac Valley Water Justice Network with local waters experts, environmental justice leaders, and decision-makers • Complete Human Right to Water documentary and training 	<p>Task 2</p> <ul style="list-style-type: none"> • Workshop participant evaluation & attendee list • Human Right to Water documentary and training agenda and list of attendees • Meeting minutes from follow-up meetings & list of next steps • List of attendees at follow-up meeting <p><u>Final Report</u></p>
<p>Ongoing Tasks</p>	<ol style="list-style-type: none"> 1. Project supervision 2. Grant reporting 3. Administrative support 4. Community outreach and engagement 5. Media engagement (social and print) 	

Central Valley Disadvantaged Community Water Quality Grants Program

Annual Project Budget: Realizing the Human Right to Water for Sacramento Valley Disadvantaged Communities

Organization: Environmental Justice Coalition for Water

Staff Salaries & Benefits (.75FTEs)	30000	40,000
Network Meetings & Trainings	3000	20000
Project Travel, (staff and DAC members)	5000	12345
Postage	100	200
Rent & Utilities	1200	1500
Printing	250	1000
Project consultants	20000	20,000
Translators & Interpreters	1500	3000
	<i>subtotal</i>	61050
	<i>project overhead @ 15%</i>	9158
	Totals \$	70,208 \$
Direct Administration Cost		\$ 5,600
Total SEP Amount		\$ 105,600
Overall Program Oversight		\$ 2,400
Total due from Discharger		\$ 108,000

A. Cash Income	Source Total \$	\$ Raised to
Date		
Foundation Grants	20000	0
Individual Donations/Member Dues	2000	50
Requested from UU Funding Program	50000	0
Totals: \$	72,000 \$	50

Citizen Science in Disadvantaged Communities for Bear River Watershed Improvement

Amount Requested: \$ 122,000 – 2 Year Grant

Summary Description: The Bear River Watershed, home to several disadvantaged communities, has been severely impacted by historical and present-day mining, industrial chemical discharges, agricultural chemical runoff, sewage spills, invasive species, and aquatic and terrestrial habitat degradation. The 2015 Lowell Fire brought a new threat of post-fire erosion across 2,304 acres in the Bear’s upper watershed, an area that includes several historical tailings and dredge piles and two major hydraulic diggings, which may release an increased volume of heavy metal-laced sediments into the watershed until the vegetation community is restored to stabilize the slopes. A proposal to flood an additional six miles of the Bear River with a new Centennial Dam is also slated despite known mercury accumulation and other environmental and public health risks. Sierra Streams Institute is uniquely positioned to address these issues, as we are currently leading a multi-agency, watershed-wide restoration planning process for the Bear, its tributaries, and associated uplands. Funding is now needed to bolster this planning process by initiating comprehensive baseline monitoring for the watershed, including collecting extensive water quality data, assessing the aquatic and terrestrial species and habitats that may be affected if the dam is approved, and reducing post-fire erosion with our partner landowners. Citizen engagement is at the heart of all our work and enables us to greatly expand overall stewardship of the Bear. Sierra Streams is currently engaging many disadvantaged community members as stakeholders in the Bear restoration planning process, empowering residents to shape the monitoring and restoration priorities for their home watershed. In the proposed monitoring program¹, we will train additional residents as citizen scientists to collect monitoring data, thus enhancing community understanding of ecological processes, increasing pride of place, and growing residents into activists and volunteers. Creating a community of “citizen scientists” who understand the value of local stewardship and monitoring is a contribution to a larger body of knowledge. Volunteer and landowner engagement will be critical at all stages of the grant implementation, including data gathering and monitoring.

Detailed Project Description (not to exceed 2 pages): The Bear River in the western Sierra Nevada flows for 73 miles from just below Lake Spaulding reservoir at 5500 feet to its confluence with the Feather River on the Central Valley floor. It is contained within the borders of Nevada, Placer, Sutter and Yuba counties, which are among the fastest growing in California. Located between the Yuba and American River drainages and serving as a major tributary to the Sacramento River and Delta, the Bear River flows through forests, wetlands, agricultural fields, and riparian habitats, many of which are in need of restoration. The watershed is 296,452 acres and includes over 990 miles of streams and rivers, not including ephemeral creeks. Wolf Creek and Dry Creek are major tributaries, with Wolf Creek flowing through the only major city in the watershed, Grass Valley (a designated Disadvantaged Community).

¹ SSI’s water quality monitoring and quality assurance and quality control protocols were developed with the State Water Resource Control Board in 1998 under the Quality Assurance Project Plan (QAPP) and has been updated with over site from the State Water Resources Control Board, Quality Assurance Program Manager in 2000, 2004, and is in the process of a more recent update. Data that SSI collects in the Bear and other Watersheds uses State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP) protocols and standards and is submitted to CEDEN yearly.

There are several rapidly urbanizing areas along the Highway 49 corridor, leading to an increased need to protect and manage private land.

The watershed is located at the heart of Gold Country, the Sierra foothill region that was intensely mined for gold beginning with the Gold Rush of 1849. Historic hydraulic mining and the use of mercury to remove gold through amalgamation has left Sierra Nevada rivers and watersheds with a legacy of eroding hillsides, mercury, and excess sediment. Serious impacts from historic hydraulic mining include mining sediment stored in the lower Bear – resulting in its alteration from a wide shallow river to a deeply incised one. Mercury can be converted by microbial action into methylmercury, which can then be absorbed by microbes, plants and animals. As mercury makes its way up the food chain it is concentrated in larger predatory fish such as trout and bass. Concentrations can exceed levels of concern for human consumption (>0.3 ppm in fish tissue).

Pollutants addressed by this project include:

- mercury, for which the Bear River is 303(d) listed;
- heavy metals from historical gold mining in the area, including arsenic, cadmium, and lead;
- pathogenic bacteria, particularly E. coli, for which the Bear's tributary Wolf Creek is 303(d) listed;
- nutrients including phosphates and nitrates.

This project will focus on surface water within the Bear River Watershed. Major tributaries to the Bear River include Steephollow Creek, Greenhorn Creek, Wolf Creek, Magnolia Creek, Rock Creek, and Dry Creek. The Bear River is itself a tributary to the Feather River, which flows into the Sacramento River and thus on to the Delta and San Francisco Bay. In the Bear River Watershed, water flows are heavily regulated for a combination of urban consumptive, agricultural irrigation and hydropower uses. Flows in the Bear River drainage are largely controlled by Nevada Irrigation District, PG&E and South Sutter Irrigation District.

Sierra Streams Institute is uniquely positioned to undertake the proposed project because of the level of community support we enjoy, which allows us to foster collaborations between private landowners, community members, and government entities for the protection of public and environmental health. Of particular note, our organization has practiced citizen science and has trained hundreds of local community members to produce sharable, quality-assured data for over twelve years, collecting monthly water quality monitoring data in the nearby Deer Creek Watershed. In our new Bear River Watershed restoration planning process, Sierra Streams is currently engaging many disadvantaged community members as stakeholders, empowering residents to shape the monitoring and restoration priorities for their home watershed. In the proposed monitoring program, we will train additional residents as citizen scientists to collect monitoring data, thus enhancing community understanding of ecological processes, increasing pride of place, and growing residents into activists and volunteers. Creating a community of "citizen scientists" who understand the value of local stewardship and monitoring is a contribution to a larger body of knowledge. Volunteer and landowner engagement will be critical at all stages of the grant implementation, including data gathering and monitoring.

The scarcity of current data limits the ability of community members to make informed decisions to protect their health. By initiating a comprehensive water quality monitoring program we will provide spatially explicit information. The information our monitoring program will provide will be used to inform the Restoration Plan and other conservation-related actions on an ecosystem scale creating a baseline for long term water quality improvement and tangible improvements for this severely impacted watershed. For example, we have been requested to provide water quality data on the Dry Creek tributary to the Bear River, to help inform the flows discussion at the upcoming FERC relicensing process for Camp Far West Reservoir, and water quality is among the suite of issues under discussion in the controversy surrounding the proposed new Centennial Dam. Additionally, the USFWS's Central Valley Project Improvement Act Tributary Production Enhancement Report identified water quality, temperatures, and flows among the suite of factors limiting salmon and steelhead migration, spawning, incubation and rearing success in the Bear River Watershed. Temperatures, dissolved oxygen levels, turbidity, and pH also affect native trout populations and the macroinvertebrates on which they feed. Aquatic macroinvertebrates also provide an essential food supply for many species of conservation concern in the Bear River Watershed, including black rails, yellow-breasted chats, yellow warblers, and willow flycatchers. Special-status amphibians such as foothill yellow-legged frogs are also highly sensitive to water quality.

Sound science and community involvement are necessary to determine where in the watershed to prioritize the most critical restoration actions to improve water quality. We aim to unify the collaboration between different stakeholders and potential restoration project partners through targeted community outreach and project development meetings. Emphasizing citizen participation and science-driven stewardship, Sierra Streams has prioritized community partnerships, creating a robust network of stakeholders, including individual landowners and community members, government agencies, public utilities, universities, advocacy groups, homeowners associations, and tribal representatives. This will allow us to build an interconnection of projects with a network of stakeholders as they relate to all pieces of the watershed monitoring and future restoration activities. Importantly, we will specifically target disadvantaged community members to participate in the data collection, community meetings, and restoration project working groups.

This project will have a flexible start date, beginning upon receipt of the grant. The majority of the timeline is thus scheduled according to the number of months after receipt of the grant, rather than calendar months. A portion of the project activities, however, must be conducted at certain times of year (e.g., macroinvertebrate sampling in June and October per California state protocols, heavy metal sampling during storm events with high stream turbidity, wildlife and vegetation surveys in spring and early summer). These will be performed at the appropriate times of year, at least 3 months after the project start date to allow sufficient time for preparation, and at least 4 months before the project end date to allow sufficient time to evaluate the results. Below are the descriptions of the monitoring, disadvantage community outreach, and restoration planning that staff at Sierra Streams will conduct:

Monthly Water Quality Monitoring: Volunteers will monitor the following parameters at each site on a monthly basis: dissolved oxygen, turbidity, pH, temperature, and conductivity. Volunteers will also collect bimonthly samples for nutrients and bacteria to be analyzed in the Sierra Streams lab in January,

March, May, July, September, and November. Bacteria samples will also be collected and analyzed in June and August.

Storm Sampling: Guided by Sierra Streams Institute's staff geologist, we will conduct heavy metal sampling at two key sites (Greenhorn Creek and Steephollow Creek) during two storm events (including the first large storm of the season). We will test for arsenic, cadmium, lead, mercury, and total suspended solids, nutrients, and bacteria in addition to our basic water quality parameters of dissolved oxygen, pH, temperature, conductivity, and turbidity. Due to safety concerns, these tests will be performed exclusively by staff members, although volunteers may accompany staff members to learn and observe.

Macroinvertebrate and Algae Sampling: Volunteers will be trained to collect macroinvertebrates and algae in June and October, with the exception of any sites at which depths or flows would present a safety hazard. These biological parameters provide important proof of stream health, by analysis of the diversity of pollution-sensitive species present. Sierra Streams Institute volunteers will identify the samples and analyze the data.

Wildlife Population and Habitat Surveys: Sierra Streams' staff wildlife biologist and staff botanist will perform surveys for special-status species (rare, threatened or endangered plants and animals) and will characterize the overall wildlife and vegetation communities at several sites of strategic importance for riparian ecosystem restoration in the Bear watershed. These surveys will move the watershed restoration planning forward to help prioritize the sites at which water quality and riparian species may simultaneously benefit. These surveys will occur during the spring and early summer, during the most active season for most wildlife species and the flowering season for most plants. Community members will accompany the staff biologists during the surveys, providing exciting opportunities for residents to learn about and enjoy the species with which they share a watershed. To avoid compromising data quality, only one-to-two residents per day will accompany the surveys, but a total of up to 50 community members may be served in this way over the course of the survey season.

Community Outreach and Restoration Project Planning: Sierra Streams currently participates in numerous public forums dedicated to stakeholder and community education and engagement, ranging from monthly meetings with the Lake Wildwood Association and other local groups to leaders of the Bear River Watershed Stakeholder group that incorporated stakeholders from a myriad of government, community, private and nonprofit originations. Our citizen science model has shown that volunteers trained to conduct scientific monitoring for place-based protection projects become engaged in seeking solutions and empowered to have a voice in policy making. We will continue to follow this model to engage stakeholders of the watershed including targeted outreach to disadvantaged community members. Using the data collected to collaboratively plan solutions to watershed problems, expanded water quality monitoring, and inclusive & targeted community outreach will enable us to produce a Restoration Plan with a prioritized list of projects and possible collaborations as well as develop projects/deliverables to ready-to-implement phase with workable partnerships.

Timeline & Deliverables		
Milestone	Tasks	Deliverables
25% complete— 6 month mark. Target project period: 24 months	<ol style="list-style-type: none"> 1. Project Management 2. Developing monitoring plan: selecting and prioritizing monitoring sites, obtaining landowner permission for monitoring access, and performing site reconnaissance surveys prior to volunteer training 3. Recruiting and training of core volunteer monitors 	Monitoring plan document delivered to Rose Foundation and watershed community stakeholders
50% complete— 12 month mark Target project period: 24 months	<ol style="list-style-type: none"> 4. 12 months of monthly water quality monitoring implemented: measuring dissolved oxygen, turbidity, temperature, pH, conductivity, nutrients, and bacteria 5. Half of heavy metal sampling 6. Half of Macroinvertebrate and algae sampling as biological indicators of aquatic ecosystem health 7. Half of Wildlife and vegetation surveys 8. Data analysis 9. Disadvantaged Community Outreach and Restoration Project Development 	Quarterly Report delivered to Rose Foundation and watershed community stakeholders. 1 meeting to community reporting results.
75% complete— 18 month mark Target project period: 24 months	<ol style="list-style-type: none"> 4. 24 year of monthly water quality monitoring implemented: measuring dissolved oxygen, turbidity, temperature, pH, conductivity, nutrients, and bacteria 5. Heavy metal sampling 6. Macroinvertebrate and algae sampling as biological indicators of aquatic ecosystem health completed 7. Wildlife and vegetation surveys completed 8. Data analysis 9. Disadvantaged Community Outreach and Restoration Project Development 	Quarterly Report delivered to Rose Foundation and watershed community stakeholders. 1 meeting to community reporting results.
100% complete— 24 month mark Target project period: 24 months	<ol style="list-style-type: none"> 8. Data analysis and writing report of results 9. Disadvantaged Community Outreach and Restoration Project Plan 	Report of monitoring results delivered to Rose Foundation, watershed community stakeholders, and state and regional water boards via TAC & CEDEN Restoration Plan prioritizing projects 1 meeting to community

		reporting results.
Ongoing Tasks	<ol style="list-style-type: none">1. Project Management3. Recruiting and training volunteer monitors4. - 7. Data will be entered as it is collected9. Disadvantaged Community Outreach and Restoration Project Development	

Tasks		Costs
1	Project Management (250 hours @ \$45.00/hour)	\$11,295
2	Developing and writing monitoring plan, including selecting and prioritizing monitoring sites, obtaining landowner permission for monitoring access, and performing site reconnaissance surveys prior to volunteer training (100 hours @ \$35.70/hour)	\$3,570
3	Recruiting, educating, and training volunteer monitors and citizen scientist (205 hours @ \$35.70/hour)	\$7,319
4	Water quality monitoring: measuring dissolved oxygen, turbidity, temperature, pH, conductivity, nutrients, and bacteria	\$17,091
5	Heavy metal sampling for mercury, arsenic, cadmium, lead, and total suspended solids	\$20,960
6	Macroinvertebrate and algae sampling as biological indicators of water quality and aquatic ecosystem health	\$7,190
7	Wildlife and vegetation surveys	\$17,090
8	Data analysis and writing report of results (300 hours @ \$35.70/hour)	\$10,710
9	Disadvantaged Community Outreach and Restoration Project Development and Writing (750 hours @ 35.70/hour)	\$26,775
Total covered by Rose Grant		\$122,000
Matching funds: In-Kind by SSI*		\$19,481
Matching funds-Bureau of Reclamation WaterSMART grant**		\$10,000
Total Cost of Project		\$151,481
Direct Administration Cost		\$ 6,832
Total SEP Amount		\$ 128,832
Overall Program Oversight		\$ 2,928
Total Due from Discharger		\$ 131,760

***In Kind Cost Match**

SSI has conducted water quality data collection and wildlife and plant surveying for 15 years. These monitoring efforts, as well as many restoration projects, have been supported by a dedicated group of trained citizen scientist volunteers who have worked with staff from Sierra Streams Institute to monitor ecological conditions at the project site. Volunteer rate is from https://www.independentsector.org/volunteer_time. SSI Volunteer In Kind services described below:

Physical Habitat \$913.58/site

Collection: 4 people * 8 hours * 1 time each year

Data entry: 1 person * 2 hours * 1 time each year

TOTAL: 34 hours per site each year @ \$26.87/hr

Macroinvertebrates \$967.32/site

Collection: 3 people * 1 hour each * 2 times each year

Processing & ID & Data entry: 1 person * 16 hours * 2 times each year

TOTAL: 36 hours per site each year @ \$26.87/hr

Algae \$483.66/site

Collection: 2 people * 1 hour each * 6 times each year

Processing: 1 person * 1 hour * 6 times each year

TOTAL: 18 hours per site each year @ \$26.87/hr

Wildlife and habitat \$1531.59/site

Collection: 2 people * 8 hour each * 3 times each year

Data entry: 1 person * 3 hour * 3 times each year

TOTAL: 57 hours per site each year @ \$26.87/hr

****Bureau of Reclamation WaterSMART grant**

Monitoring data collection at additional sites that complement the Rose Foundation sites for a broader understanding of the Bear Watershed as a whole.



***Integrating Gold Country DAC Participation in CABY Water Quality Activities II:
Project Planning, Bilingual and Tribal Participation, and Community Outreach 2017-18***

Amount Requested: \$ 200,000 – 2 Year Grant

Summary Description: This project will leverage two sources of funding: (1) a \$5.5 million grant awarded by the Department of Water Resources (DWR) to The Sierra Fund’s (TSF) “CABY Headwaters Resilience and Adaptability Program,” a collaboration between fifteen government and non-profit organizations and (2) a \$40,500 grant awarded by the Rose Foundation to increase DAC and Tribal involvement in both CABY and DWR’s mandated DAC needs assessment in 2017. Funding will allow The Sierra Fund to hire a full-time bilingual (Spanish-English) Community Organizer and a Tribal Consultant to ensure that Spanish-speaking and Tribal populations of our CABY region DAC communities are given the opportunity for meaningful participation in planning activities that will lead to improved water quality, water access, and health outcomes for the region. The proposed project will involve local organizations and leaders that serve Spanish speaking community members in planning efforts to produce and distribute state-issued fish consumption guidelines in Spanish at water bodies where ethnic minority anglers are fishing. Existing print media and web-based materials created by The Sierra Fund and state public health agencies, including fish consumption advisories created by the Office of Environmental Health Hazard Assessment (OEHHA) will be translated into Spanish and provided to Spanish-speaking community members through this process. In addition, culturally appropriate outreach will be conducted by the Tribal Consultant to ensure that the needs of these stakeholders are articulated and communicated. Community meetings and outreach at key events will target social service providers and low-income, DAC, Tribal, and Spanish-speaking community members to provide important public health information and solicit feedback on local water quality and water supply access issues to facilitate a holistic and useful DAC needs assessment.

Detailed Project Description: Funding from the Rose Foundation Central Valley Disadvantaged Communities Water Quality Program will supplement existing Rose Foundation funding and the DWR grant and allow us to holistically engage all segments of our DAC population including low-income, Tribal, and Spanish-speaking members. This level of engagement comes at a crucial time where it is imperative that we connect water quality improvement projects and community needs so that these are reflected in the DWR DAC needs assessment that will create a framework for future key projects in the CABY region. The following activities will be conducted under the Rose Foundation’s two-year grant period as part of our ongoing strategy to match the funded DWR grant.

OBJECTIVE 1 – Engage and educate Spanish-speaking and Tribal community members in the CABY region on issues of water quality and environmental health exposure pathways (Years 1 and 2): Since 2007, with the release of our *Mining’s Toxic Legacy* document, The Sierra Fund has made great strides in educating our English-speaking community members about the unique exposure risks associated with living in the Gold Country, including exposure to contaminated fish and dust. However, until recently we have not had the capacity to implement outreach activities directed explicitly toward Spanish-speaking and Tribal members of our community. New funding from the

Rose Foundation will allow us to leverage the Spanish language “Community Outreach Assistant” position (currently funded by Rose) into a full-time two-year position tasked with identifying and reaching out to Spanish speaking members of the CABY region with a focus on Grass Valley. In addition, funding will allow us to hire a Tribal Consultant for the duration of the project to conduct sustained outreach to underserved and underrepresented Tribal members of our community. This work will complement both the CABY IRWM work funded by the DWR grant and existing Rose Foundation funding to ensure that DAC community members, including Spanish speakers and Tribes, receive the education and tools that they need for meaningful participation in Post-It Day 2017 and 2018 (see below, Objective 2), CABY, and the DWR DAC needs assessment.

Activities

- Recruit and hire bilingual Community Organizer; retain Tribal Consultant; retain Graphic Art Consultant
- Translate existing print media and web-based outreach materials about CABY, regional water quality projects, and exposure risks associated with living in the Gold Country into Spanish.
- Support Community Organizer’s and Tribal Consultant’s attendance at CABY meetings to facilitate communication about CABY to organizations serving Spanish-speaking and Tribal community members.
- Identify and reach out to local organizations and groups that serve Spanish-speaking and Tribal community members including health care providers, WIC, churches, Rancherias, and dual-immersion public schools in order to describe exposure risks and the CABY implementation projects; facilitate inclusion of leaders in project implementation; and obtain scoping evaluations as part of meetings to facilitate collection of the ideas, concerns, and interests of Spanish-speaking and Tribal community members, allowing for active participation in informing the CABY collaborative process and the DWR DAC needs assessment.
- Create a list of water project ideas generated as a result of outreach to Spanish-speaking and Tribal populations and circulate the list to these contacts and other community leaders for review before finalizing.

Outcomes

- New Spanish language outreach materials created for use throughout the CABY region resulting in increased local capacity to address water quality and exposure issues.
- Full proposal for the required DAC needs assessment and engagement program includes articulated needs expressed by Spanish-speaking and Tribal community members.
- Creation of new scoping materials for use with leaders serving Spanish-speaking and Tribal community members that identifies their concerns and interests to occur as part of the DWR-funded DAC needs assessment.
- Improved implementation of water quality projects that respond to specific concerns of Spanish-speaking and Tribal DAC community members.

OBJECTIVE 2 – Improve local Spanish-speaking and Tribal DAC communities’ understanding about mercury in fish through “Post-It Day 2017 and 2018” (Years 1 and 2): Historic mercury use during the Gold Rush has left the CABY region with a legacy of contamination. Mercury contamination of local fish poses a health risk to local Spanish-speaking and Tribal DAC community members who practice subsistence fishing as a method to supplement their food budget or who consume local fish for cultural reasons. The California Office of Environmental Health Hazard Assessment (OEHHA) has issued a “Do Not Eat” advisory for high levels of mercury in black bass that

pertains to every lake or reservoir within an hour of Grass Valley. The effectiveness of these advisories is predicated on the assumption that this advice is seen and understood by anglers, and that as a result these groups are catching and consuming fish in quantities that are not dangerous. Unfortunately, despite efforts by California's public health agencies to provide advisories, no agency or landowner is required to post advice. The Sierra Fund has stepped into this gap and has, for the last two years, led an annual advisory posting event to get state-issued fish consumption advisories posted at water bodies where they apply. However, the advisories that we have posted thus far have been in English only. Furthermore, though our Post-It Day efforts have been informed by angler surveys conducted in the region, we were unable to interview Spanish-speaking anglers for our survey because we lacked bilingual staff and we have had limited success reaching out to Tribes with surveys due to cultural barriers. Thus, the needs of our Spanish-speaking and Tribal community members with regards to the consumption of locally caught fish have yet to be articulated. For this objective we will leverage the activities of Objective 1 to engage and inform leaders of our Spanish-speaking and Tribal community members about the dangers of consuming mercury contaminated fish and encourage participation of these members in the planning and execution of Post It Day 2017 and 2018.

Activities

- Community Organizer to meet with leadership of organizations serving Spanish-speaking community members to learn local fishing locations these communities frequent and crucial information on how to distribute advisory materials.
- Tribal Consultant to meet with members of local Tribes to learn local fishing locations these communities frequent and crucial information on how to distribute advisory materials.
- Coordinate with OEHHA to ensure that advisories are available and can be translated into Spanish.
- Conduct public service announcements about the health risks associated with the consumption of mercury contaminated fish on Spanish language radio stations.
- Work with local watershed organizations to publicize and recruit volunteers for "Post-It Day 2017 and 2018." Special effort will be focused on reaching low income, Spanish-speaking, and Tribal audiences.
- Hold our third and fourth annual Post-It Day events in late Spring 2017 and 2018.

Outcomes

- Increased quantity, diversity and commitment of stakeholder involvement
- Increased knowledge level of community members, with emphasis on Spanish-speakers and Tribes.
- Increased local autonomy and capacity building around the issue of mercury in fish.
- At least 100 fish consumption advisory posters in Spanish present at local water bodies where Spanish-speaking community members fish at the beginning of the summer recreation season.
- Strengthened local commitment to address the issue of mercury in fish tissue achieved through coalition building with stakeholder organizations and partners who will collaborate on ways to involve the affected community and develop local solutions.

OBJECTIVE 3 – Plan and hold informational meetings for low-income, DAC, Tribal and Spanish-speaking community members and those who serve them (Year 1): In 2014 The Sierra Fund wrapped up our extremely successful Health Outreach Program where we held 10 trainings for 166 doctors and clinic staff and hosted public meetings in four counties reaching hundreds of community

members. With the increased capacity provided by the Rose Foundation and the lessons that we have learned through leading two annual Post-It Day events, we believe that now is the critical time to “check in” with the many social service providers that we have coordinated with in the past. Furthermore, now is the time to share new information about the process of getting state-issued fish consumption advisories posted and to continue to draw low-income, DAC, Tribal, and Spanish-speaking community stakeholders into the fold. To achieve the goal of engaging the above listed stakeholders and the Grass Valley DAC at large, we will host a Community Health Summit in project Year 1 that leverages the activities and “buzz” generated through our first two objectives. We will rely on our extensive experience in reaching out to the many unique constituents in our local community and will hold two discrete informational meetings over the course of one day. A work-day meeting will be designed for public health officials, social service providers, and leaders of the local Spanish-speaking and Tribal communities. Meeting content will focus on how to further protect public health through widespread participation and support of posting state-issued fish consumption advisories, local water quality projects, and opportunities to collaborate. A second meeting will target DAC community members at large, and will feature materials in Spanish and English. The format of the second meeting will be mindfully designed to accommodate the working public of our DAC community. As such it will be held in the evening, with refreshments and childcare provided, and will focus on educating the public about the unique health hazards posed by living in the Gold Country. A centerpiece of the second meeting will be a Q and A session that concludes with a community brainstorm about critical water quality issues facing our DAC community members. We will utilize our key contact lists extensively to encourage Tribal and Spanish community members to attend the meeting and will advertise the meeting in both Spanish and English.

Activities

- Convene community members to educate and brainstorm about issues of importance regarding water quality, water access, and potential environmental health and exposure risks with an eye towards the needs of our DAC community members. Expenses include room rental, bilingual facilitation, refreshments, and childcare provider(s).
- Contact health care professionals and social service providers, including all individuals on our contact list from our previous Health Outreach Program to participate in the Community Summit meeting (day or evening session).
- Contact DACs, Spanish-speakers, and under-represented Tribal groups to participate in the Community Summit meeting (evening session).
- Create a list of publically identified “needs” generated as a result of our Community Health Summit and circulate the list to these contacts and other community leaders for review before finalizing and using to facilitate the ground-truthing activities of Objective 4.

Outcomes

- Diverse coalition of DAC stakeholders that have knowledge of both the unique local public health and water quality issues that our region faces and how to get involved in CABY and annual Post-It Day events to improve community health outcomes.
- Creation of new presentation materials for use with Spanish-speaking stakeholders.
- Improved implementation of water quality and water access projects that respond to specific concerns of Spanish-speaking and Tribal community members.

OBJECTIVE 4 – Ground-truth water quality and water access needs of Spanish-speaking and Tribal stakeholders at outreach events (Year 2): The first year of this project will provide us the time

needed to develop an understanding of the water quality and water access needs and concerns of our DAC community members and to establish meaningful relationships with leaders of local Spanish-speakers and Tribes. In project Year 2 we will leverage our coalition-building work and identify key opportunities to conduct outreach at events held by or for Spanish-speaking and Tribal community members. This will provide the chance to further disseminate the Spanish-language materials produced as part of Objectives 1 and 2 and to ground-truth the publically identified “needs” generated at our Community Health Summit and through scoping questionnaires. During outreach events, Spanish-speaking and Tribal community members will be asked to look at the “needs” list and to rank and provide feedback on proposed water quality and water access projects. During the final quarter of the two-year project period the results of our ground-truth exercise will be compiled and a prioritized list of projects that have been identified by and vetted with our DAC community members will be shared with CABY participants and the Mountain Counties region IRWMs. This will ensure that the outcomes of this project inform the projects that are chosen for grant proposals following the DWR DAC assessment and that ultimately future Proposition 1 funded projects convey true benefit to disadvantaged community members who reside in the Gold Country.

Activities

- Create list and timeline of key events to attend throughout 2018.
- Assemble language and culture appropriate outreach materials for events.
- Create “needs” list to be ranked at outreach events.
- Attend a minimum of three events per stakeholder group (Spanish-speaking, Tribes).
- Create prioritized list of projects and share with CABY and Mountain Counties IRWM groups.

Outcomes

- Meaningful water quality and water access projects will be pursued following the DWR-required DAC needs assessment.

Timeline & Deliverables		
Milestone	Tasks	Deliverables
<p>10% complete— 3 month mark. (approx. March 2017) Target project period: 24 months</p>	<ol style="list-style-type: none"> 1. Recruit, hire, and train bilingual (Spanish-English) Community Organizer. 2. Retain Tribal Consultant; retain Graphic Art Consultant. 3. Identify CABY region organizations serving Spanish speakers. 4. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY meetings. 	<ol style="list-style-type: none"> 1. Written job description and resume of qualified, successful applicant (Community Organizer). 2. Signed contracts (Tribal Consultant; Graphic Art Consultant) 3. List of key CABY region organizations serving Spanish speakers. 4. List of Tribal contacts. 5. Regular CABY meetings agendas and notes. 6. Quarterly check-in call with Rose Foundation staff.
<p>25% complete— 6 month mark. (approx. June 2017) Target project period: 24 months</p>	<ol style="list-style-type: none"> 1. Translate existing outreach materials into Spanish. 2. Graphic Consultant to update website to have Spanish language materials. 3. Contact and meet with leaders of organizations serving Spanish speakers and with Tribes. 4. Contact and meet with leaders of organizations serving Spanish speakers and with Tribes regarding participation in Post-It Day 2017. 5. Identify and reach out to local Spanish-language radio stations. 6. Support bilingual Community Organizer in attending regional meetings focused on addressing fish consumption in minority communities. 7. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY 	<ol style="list-style-type: none"> 1. Print and web-based Spanish language outreach materials. 2. Updated list of key CABY region organizations serving Spanish speakers. 3. Updated Tribal contact list. 4. Agendas and notes from at least four meetings with organizations or leadership serving Spanish and DAC community interests. 5. Agendas and notes from at least four meetings with Tribal members. 6. Completed scoping questionnaires from at least four meetings with organizations or leadership serving Spanish and DAC community interests. 7. Completed scoping questionnaires from at least four meetings with Tribal members. 8. At least four additional completed scoping questionnaires about posting locations for Post-It Day 2017. 9. List of posting locations identified by Spanish-language and Tribal community members. 10. Spanish-language public service announcement about mercury in fish for locally broadcasted Spanish radio stations. 11. Agendas and notes from regional

	meetings.	meetings. 12. Post-It Day 2017 materials including publicity materials and fish consumption advisories in Spanish and English. 13. Regular CABY meetings agendas and notes. 14. Grant narrative and financial progress report.
35% complete— 9 month mark. (approx. Sept. 2017) Target project period: 24 months	<ol style="list-style-type: none"> 1. Work with partner watershed organizations to hold Post-It Day 2017, including day-of and post-event publicity in English and Spanish. 2. Distribute CABY project materials to identified leaders of organizations serving Spanish-speaking community. 3. Plan for Community Health Summit 2017. 4. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY meetings. 	<ol style="list-style-type: none"> 1. At least two pre-event stories, in Spanish and English regarding Post-It Day 2017 carried by local media outlets (4 media outlets total). 2. Post-It Day event materials including training presentation, handouts, participants list and evaluations. 3. At least 20 volunteers participating in Post-It Day 2017, including participation by Spanish-speakers posting advisories in Spanish. 4. At least 50 locations posted with fish advisory signs in Spanish and English. 5. At least one post-event story, in Spanish and English regarding Post-It Day 2017 carried by local media outlets (2 media outlets total). 6. Community Health Summit pre-planning complete, include venue reservation, and publicity materials. 7. Regular CABY meetings agendas and notes. 8. Quarterly check in call with Rose Foundation staff.
50% complete— 12 month mark. (approx. Oct. 2017) Target project period: 24 months	<ol style="list-style-type: none"> 1. Hold Community Health Summit 2017, including day-of and post-event publicity in English and Spanish. 2. Compile list of community “needs” articulated at Community Health Summit. 3. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY meetings. 	<ol style="list-style-type: none"> 1. At least one pre-event story, in Spanish and English regarding Community Health Summit 2017 carried by local media outlets (2 media outlets total). 2. Community Health Summit event materials including presentation to professionals (day time) and presentation to DAC community members (evening, in Spanish and English), outreach materials (in Spanish and English), participants list and evaluations. 3. List of DAC community “needs”

		<p>identified by Community Health Summit participants.</p> <ol style="list-style-type: none"> 4. At least one post-event story, in Spanish and English regarding Community Health Summit 2017 summarizing meeting outcomes carried by local media outlets (2 media outlets total). 5. Regular CABY meetings agendas and notes. 6. Grant narrative and financial progress report.
<p>60% complete— 15 month mark. (approx. Jan. 2018) Target project period: 24 months</p>	<ol style="list-style-type: none"> 1. Circulate list of community “needs” articulated at Community Health Summit to list(s) of key contacts including low-income, DAC, Spanish-speaking, and Tribal leaders. 2. Create list and timeline of Spanish-speaking and Tribal outreach events to attend in 2018 3. Create list of “needs” to be ranked by community members at outreach events. 4. Assemble outreach materials. 5. Attend outreach events. 	<ol style="list-style-type: none"> 1. Circulation list 2. Comments on articulated “needs” provided by key contacts. 3. List and timeline of outreach events 4. Rank-able “needs” list 5. List of outreach events attended; sign in sheets; ranked “needs” lists. 6. Quarterly check-in call with Rose Foundation staff.
<p>75% complete— 18 month mark. (approx. April 2018) Target project period: 24 months</p>	<ol style="list-style-type: none"> 1. Attend outreach events. 2. Contact and meet with leaders of organizations serving Spanish speakers and with Tribes regarding participation in Post-It Day 2018. 3. Identify and reach out to local Spanish-language radio stations. 4. Support bilingual Community Organizer in attending regional meetings focused on addressing fish consumption in minority communities. 5. Support bilingual 	<ol style="list-style-type: none"> 1. List of outreach events attended; sign in sheets; ranked “needs” lists. 2. List of posting locations identified by Spanish-language and Tribal community members. 3. Spanish-language public service announcement about mercury in fish for locally broadcasted Spanish radio stations. 4. Agendas and notes from regional meetings. 5. Post-It Day 2018 materials including publicity materials and fish consumption advisories in Spanish and English. 6. Regular CABY meetings agendas and notes. 7. Grant narrative and financial progress report.

	Community Organizer and Tribal Consultant in attending regular CABY meetings.	
85% complete— 21 month mark. (approx. July 2018) Target project period: 24 months	<ol style="list-style-type: none"> 1. Attend outreach events. 2. Work with partner watershed organizations to hold Post-It Day 2018, including day-of and post-event publicity in English and Spanish. 3. Distribute CABY project materials to identified leaders of organizations serving Spanish-speaking community. 4. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY meetings. 	<ol style="list-style-type: none"> 1. List of outreach events attended; sign in sheets; ranked “needs” lists. 2. At least two pre-event stories, in Spanish and English regarding Post-It Day 2018 carried by local media outlets (4 media outlets total). 3. Post-It Day event materials including training presentation, handouts, participants list and evaluations. 4. At least 20 volunteers participating in Post-It Day 2018, including participation by Spanish-speakers posting advisories in Spanish. 5. At least 50 locations posted with fish advisory signs in Spanish and English. 6. At least one post-event story, in Spanish and English regarding Post-It Day 2018 carried by local media outlets (2 media outlets total). 7. Regular CABY meetings agendas and notes. 8. Quarterly check in call with Rose Foundation staff.
100% complete— (approx. Oct. 2018)	<ol style="list-style-type: none"> 1. Attend outreach events. 2. Create prioritized list of water quality and water access projects. 3. Present list to CABY and Mountain Counties IRWMGs. 	<ol style="list-style-type: none"> 1. List of outreach events attended; sign in sheets; ranked “needs” lists. 2. List of priority water quality and water access projects to be pursued utilizing Proposition 1 funding. 3. Final grant narrative and financial report.
Ongoing Tasks	<ol style="list-style-type: none"> 1. Support bilingual Community Organizer and Tribal Consultant in attending regular CABY meetings and reporting back to Spanish-speaking and Tribal stakeholders. 2. Maintain lists of key leaders or organizations serving Spanish-speaking and Tribal community members. 3. Recruit CABY members that serve Spanish-speaking and Tribal community members 4. Administer grant. 	

**Integrating Gold Country DAC Participation in CABY Water Quality Activities II:
Project Planning, Bilingual and Tribal Participation, and Community Outreach 2017-18**

Personnel Expenses		Totals
	Elizabeth Martin, CEO & Project Director	14% FTE
	Alex Keeble-Toll, Program Manager	10% FTE
	Carrie Monohan, Science Director	5% FTE
	Kelsey Westfall, Outreach Coordinator and Policy Assistant	12% FTE
	Community Organizer	75% FTE year 1 100% FTE year 2
	Operations Manager Beth Bordner	2% FTE
	Administrative Assistant Jenny Michael	2% FTE
Personnel Subtotal		\$118,982
	Personnel benefits @ 22% (Covers health and retirement benefits)	\$26,176
Total Personnel		\$145,158
Program Expenses		
Educational Materials		
	Design/print outreach and CABY materials in Spanish	\$700
	Spanish language translation/print of fish consumption advisory materials	\$500
	Community event materials, event rental space, refreshments, and childcare	\$1,200
Travel		
	Organizer travel to meetings with Spanish-speaking community (mileage, per diem)	\$850
	Tribal Consultant to travel to meetings with Tribal community (mileage, per diem)	\$850
	Travel to post fish advisory in Spanish	\$550
	Staff travel to community outreach events	\$500
	Staff travel to CABY meetings	\$800
Other		
	Fees to table at community outreach events	\$300
	Tribal Consultant (\$800/mo., 22 mo.)	\$17,600
	Graphic Art Consultant to update web-based outreach materials in Spanish language (60 hrs. @ \$15/hr.)	\$900
	Contribution to Sierra Region for DAC Coordination	\$1,000
Total Program Expenses		\$25,750
Total Personnel + Program Expenses		\$170,908
Total Project Budget		\$199,962
Total SEP Amount		\$211,200
Overall Program Oversight		\$4,800
Total Due from Discharger		\$216,000

This budget matches a secured grant from DWR for CABY Projects and a secured grant from the Rose Foundation for DAC Participation in CABY, Tribal Consultation, and Post-It Day 2017



Stanislaus County Water Stewardship Campaign

Amount Requested: \$100,000 – 2 Year Grant

Summary Description: The **Stanislaus County Water Stewardship Campaign** will improve water quality in the Tuolumne River as it flows through one of the most disadvantaged neighborhoods in Modesto utilizing a two-pronged approach by: 1) actively engaging local residents and businesses in pollution prevention and cleanup activities, and 2) increasing water literacy. Work completed during the grant period will benefit public health as well as California's defined beneficial uses.

First, we will build on baseline water quality information by recruiting monitoring teams from the Airport Neighborhood (AN) to add two neighborhood monitoring sites to our existing monitoring program as a means of increasing awareness of water quality issues and empowering residents to be part of the solution to improving water quality at their local swimming holes. While we initially worked in both the Airport Neighborhood and West Modesto, we have decided to focus our outreach and organizing entirely on the Airport Neighborhood, as the combination of the AN and West Modesto is geographically too big and diffuse for our capacity. We are actively having an impact in the AN, and plan to continue to do so, but we do not have the capacity to also have a significant impact in West Modesto at this point.

Second, a pollution prevention campaign will combat trash, much of it hazardous, dumped in the river and river parks. We will implement an *Adopt-a-River* program where local businesses, some whose warehouses are located on riverfront land, will commit to cleaning a section of river or sponsoring cleanups financially and alerting authorities to any unusual findings – the first program of its kind in the State of California to our knowledge.

Third, a Water Literacy Campaign will improve awareness of water pollution and water quality by working with elementary schools in the AN, using a modified version of our award-winning environmental education curriculum called *Trekking the Tuolumne River*. This hands-on and inquiry based learning experience introduces students, our future decision makers, to basic water quality issues through classroom lessons and monitoring at a river field trip and encourages river stewardship.

Detailed Project Description: In Stanislaus County, the Tuolumne flows through one of the most impoverished and disadvantaged communities in the region – Modesto's Airport Neighborhood (AN). While water pollution, dams and development have degraded the river, the community along its bank is facing enormous socioeconomic and public health challenges including crime, obesity, and blight. The neighborhood also suffers from a lack of services and involvement from outside the community and environmental justice concerns are plenty.

In the AN, 90% of the nearly 4,000 residents are Latino and 49% of the households live below the poverty level. 100% of the students at the local elementary school are designated as socioeconomically disadvantaged. According to the US Census in 2012, in the region as a whole 19.2% of households had incomes below the Federal poverty level, significantly higher than both



Tuolumne River

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California (15.3%) and the nation as a whole (14.9%). 24% of Stanislaus County adults have not received a high school diploma, also significantly higher than the statewide level of 19%.

The **Stanislaus County Water Stewardship Campaign** is designed to improve water quality of the Tuolumne as it flows through the Airport Neighborhood by actively engaging residents and local businesses in pollution prevention and cleanup activities and increasing water literacy. The overall project's strength lies in its strategic approach to improving water quality by approaching the problem from a grassroots standpoint, which is essential to long-term improved water quality and river stewardship. It blends 3 sub-projects that are built on groundwork performed by Tuolumne River Trust (TRT) over the past decade, and will be implemented by the Tuolumne River Trust's Central Valley Director of Outreach and Education and our Riverside Community Organizer in partnership with residents, volunteers and other local service providers.

1. Water Quality Monitoring - As a means to establish a baseline for water quality in the Tuolumne River, TRT has partnered with California State University Stanislaus, Modesto Junior College and community volunteers over the past three years to measure parameters at 5 sites on a monthly basis. Parameters include: temperature, turbidity, nitrate, phosphate, dissolved oxygen, pH, conductivity, and weather and habitat conditions. We propose to build on this work by recruiting community monitoring teams from and adding monitoring sites in the Airport Neighborhood as a means of increasing awareness of water quality issues and empowering residents to be part of the solution to improving water quality at their local swimming holes.

The monitoring element includes recruitment, data collection and educational outreach. Initial recruitment and training of a monitoring team will be through existing Tuolumne River Trust programming in the neighborhood as well as through students involved in the *Trekking the Tuolumne River Education Program*, described below. They will then create an invitation to a Community Water Quality Monitoring Training Day where they will share their knowledge with other residents.

2. Pollution Prevention Campaign - Each year, over 650 community members participate in TRT's volunteer river cleanups in the Tuolumne River Regional Park (TRRP) in the Airport Neighborhood and adjacent areas, and over 100 tons of trash and debris have been removed over the past year alone. Frustratingly, within weeks illegal dumping has resumed and the river and riverside parks are littered with hazardous trash once again, depleting water quality in vast swaths of the river. The **Stanislaus County Water Stewardship Campaign** will combat this problem by implementing an *Adopt-a-River* program where local community groups and businesses, some whose warehouses are located on riverfront land and are directly impacting the river as it flows through Modesto, will commit to cleaning a section of river or sponsoring cleanups financially. Much like a neighborhood watch program, these businesses will also be encouraged to notify TRT or local law enforcement of illegal dumping activity so it may be addressed and prevented. Feasibility for such a program has already been explored with a selection of businesses who are interested in participating.



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The *Adopt-a-River* program will succeed another TRT-supported, community-driven river cleanup initiative called Operation 9-2-99, in which a local volunteer organizes monthly river cleanups between 9th Street and Highway 99 in Modesto, the heart of the industrial area and the stretch of river notorious for illegal dumping and illegal encampments. Whereas Operation 9-2-99 was designed as an initial intense effort to remove the vast quantities of trash over a 29 month period, the *Adopt-a-River* Program will maintain the gains that are made by Operation 9-2-99 and will continue indefinitely. Support for this project will include recruitment, coordination with local law enforcement to ensure safety, and a public awareness campaign.

3. Water Literacy Campaign – While it is almost impossible to pick up a copy of the County’s main newspaper, the *Modesto Bee*, without finding articles regarding local water issues on the front page, student water literacy in students is poor. The proposed project will increase water literacy and river stewardship by working with elementary schools close to the Tuolumne River, including Orville Wrights Elementary School in the Airport Neighborhood, using our award-winning environmental education curriculum, *Trekking the Tuolumne River*. *Trekking* has been improving river ecology and stewardship knowledge of 4th and 5th graders – our future decision makers and river stewards– in Stanislaus County since it was initiated in 2005. This year-long hands-on and inquiry-based learning experience includes traditional and outdoor classroom sessions that support science education goals and problem-solving using real and local issues surrounding the Tuolumne River and the demands on its resources. Students learn about the Tuolumne, its ecosystems and the demands made on this important resource. Students are introduced to basic water quality issues through classroom lessons and hands-on experience monitoring at a river field trip.

While highly impactful, the expense of the program limits the number of schools we can reach each year. A grant from the Rose Foundation will allow us to offer *Trekking* to Orville Wright Elementary School in the AN free of charge. It will also provide an opportunity to apply what they are learning in school as part of their neighborhood water quality monitoring team, described above. Students will help collect data during neighborhood sampling events, interpret results and share information with others including local leaders and decision makers.

Deliverables & Timeline: Please identify all key deliverables for 25%, 50% 75% and 100% completion milestones, and tie them into the project timeline. The timeline does not have to be 12 months. It may be a longer or shorter period. Please express the timeline that will work best for your project. (3 month/6 month etc. as expressed below is for illustration purposes only).



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Timeline & Deliverables		
Milestone	Tasks	Deliverables
25% complete— 6 month mark. Target project period: 24 months	<ol style="list-style-type: none"> 1. Recruit and train families for community water quality monitoring 2. Begin obtaining monthly water quality monitoring datasets and sharing with partners 3. Select and train teachers and administrators participating in Trekking the Tuolumne River 4. Trekking pre-field trip classroom presentation 	<ol style="list-style-type: none"> 1. 12 community members recruited and trained 2. Water Quality Monitoring begins 3. Teachers recruited (minimum of 2 teachers at Orville Wright Elementary, reaching between 50 and 60 students) 4. Trekking pre-field trip completed
50% complete— 12 month mark Target project period: 24 months	<ol style="list-style-type: none"> 1. Trekking field trip to Tuolumne River 2. Trekking post-field trip classroom presentation 3. Develop <i>Adopt-a-River</i> flyers, informational materials and online platform 4. Complete 10 <i>Adopt-a-River</i> educational presentations 	<ol style="list-style-type: none"> 1. Trekking field trip completed (two classrooms/50-60 students reached) 2. Trekking post-field trip completed 3. Outreach material developed for <i>Adopt-a-River</i> 4. Contact with 10 potential businesses for <i>Adopt-a-River</i> 5. 6 monthly river cleanups completed 6. Submit mid-year grant report
75% complete— 18 month mark Target project period: 24 months	<ol style="list-style-type: none"> 1. Continue to obtain monthly water quality monitoring datasets and sharing with partners 2. Solicit in-kind donations of equipment and services for <i>Adopt-a-River</i> initiative 3. Secure and train 6-8 <i>Adopt-a-River</i> adopting businesses/groups 4. Begin monthly <i>Adopt-a-River</i> cleanups 	<ol style="list-style-type: none"> 1. Monthly water quality monitoring. 2. <i>Adopt-a-River</i> businesses identified and equipment secured 3. <i>Adopt-a-River</i> businesses trained 4. <i>Adopt-a-River</i> cleanups begin ((4 river cleanups during this period, 10 total)
100% complete— 24 month mark Target project period: 24 months	<ol style="list-style-type: none"> 1. Continue to obtain monthly water quality monitoring datasets and sharing with partners 2. Continue monthly <i>Adopt-a-River</i> cleanups and evaluate as needed 	<ol style="list-style-type: none"> 1. Monthly water quality monitoring continues 2. Monthly <i>Adopt-a-River</i> cleanups continue (at least 4 clean ups in this period, 14 total) 3. Submit final grant report

Rose Foundation for Communities and the Environment
Stanislaus County Water Stewardship Campaign

Project Budget Proposal

Proposed term: Years 2017 and 2018

	Proposed Project Budget	Rose Foundation Proposed Budget
Proposed Program Funding		
Rose Foundation	\$100,000	\$100,000
Max & Victoria Dreyfus Foundation	\$5,000	
Tuolumne River Trust-Unrestricted	\$56,559	
Committed Program Funding		
Beard Foundation	\$2,225	
Calif. Environmental Protection Agency	\$12,849	
Modesto Irrigation District	\$50,000	
U.S. Environmental Protection Agency	\$52,455	
TOTAL PROGRAM FUNDING	\$279,088	\$100,000
PERSONNEL EXPENSES		
Salaries, taxes	\$178,125	\$64,125
Benefits	\$32,111	\$11,560
Total Personnel	\$210,236	\$75,685
OTHER PROGRAM EXPENSES		
Contractors	\$26,709	\$9,461
Other Program Supplies/Printing	\$1,000	\$500
Travel	\$6,000	\$3,000
Water testing equipment	\$3,608	
Total other program expenses	\$37,317	\$12,961
Administrative Overhead	\$31,535	\$11,353
TOTAL PROGRAM COSTS	\$279,088	\$100,000
Direct Administration Cost		\$5,600
Total SEP Amount		\$105,600
Overall Program Oversight		\$2,400
Total Due from Discharger		\$108,000