

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ADMINISTRATIVE CIVIL LIABILITY COMPLAINT R5-2013-0589

IN THE MATTER OF

CALIFORNIA DEPARTMENT OF TRANSPORTATION
STATE ROUTE 108 EAST SONORA BYPASS STAGE 2 PROJECT
TUOLUMNE COUNTY

This Complaint is issued to the California Department of Transportation (hereafter Caltrans or Discharger) pursuant to Water Code 13385, which authorizes the imposition of Administrative Civil Liability, and Water Code section 13323, which authorizes the Executive Officer to issue this Complaint. This Complaint is based on evidence that Caltrans violated provisions of the National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ (NPDES No. CAS000002) and the NPDES *General Permit for Storm Water Discharges from the State of California, Department of Transportation Properties, Facilities, and Activities*, Order 99-06-DWQ (NPDES No. CAS000003).

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

Background

1. Caltrans is responsible for the design, construction, management, and maintenance of the State's highway system, including freeways, bridges, maintenance facilities, and related properties. The State Route 108 East Sonora Bypass Project Stage II (Sonora Bypass Project or Project) consists of the construction of approximately two miles of two lane expressway on a new alignment from Peaceful Oak Road to Via Este Road, east of Sonora in Tuolumne County. The Project includes a grade separation where a new bridge will carry the expressway over the existing Mono Way and the adjacent unnamed creek tributary to Curtis Creek referred to herein as "Algerine Ditch". The \$52.9 million project started in April 2012 and was expected to be completed in July 2014.
2. On July 15, 1999, the State Water Resources Control Board (State Water Board) adopted a National Pollutant Discharge Elimination System (NPDES) *Permit for Storm Water Discharges from the Caltrans Properties, Facilities, and Activities*, Order No. 99-06-DWQ (Caltrans Storm Water Permit). The Caltrans Storm Water Permit regulates storm water discharges from all Caltrans properties, facilities, and activities, including construction activities.
3. The Caltrans Storm Water Permit requires Caltrans to prepare and implement a Construction Management Program in compliance with the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order 2009-0009-DWQ (NPDES No. CAS000002) (Construction General Permit). The Caltrans Storm Water Permit also requires Caltrans implement its State Water Board-approved comprehensive Storm Water Management Plan (SWMP), submit a Notification of Construction 30 days prior to commencing construction activities, and develop and implement a Storm Water Pollution Prevention Plan (SWPPP), as required by the Construction General Permit.
4. Caltrans submitted a Notice of Construction for the Project on 1 February 2010.

5. Construction Program Management Provision H.2 in the Caltrans Storm Water Permit requires Caltrans' Construction Management Program to comply with the requirements of the Construction General Permit. The Construction General Permit requires dischargers to assess the risk level of a site based on both sediment transport and receiving water risk. The Project was determined to be Risk Level 2 and subject to the requirements contained in Attachment D, Risk Level 2 Requirements, of the Construction General Permit.

Chronology

Inspections

6. **16 October 2012 inspection.** On 16 October 2012, Board staff inspected the Project site with Caltrans storm water staff. Board staff observed the contractor, Teichert Construction, conducting significant earth work in multiple areas of the project. Some areas of the project were mostly completed and both sediment and erosion control BMPs had been implemented. However, large portions of the site were not protected with either erosion or sediment control BMPs.

Board staff was very concerned about the eastern area of the Project where two large bridge abutments were under construction on the east and west sides of Mono Way. According to the construction schedule at the time of the inspection, these areas were not scheduled to be completed until November. Board staff attended a portion of a weekly construction meeting with Caltrans and its contractors and expressed concern about the lack of erosion control BMPs given the impending rainy season and the storm water problems experienced by Caltrans during its Stage 1 Sonora Bypass project in 2002. At the construction meeting, Caltrans storm water staff strongly encouraged the contractor to stabilize the site prior to rain events.

7. **19 November 2012 inspection.** On the morning of 19 November 2012, Board staff conducted an inspection following a rain event that began on 17 November 2012 and produced approximately two inches of precipitation. Board staff inspected the site with the Teichert Construction project manager.

During the inspection, Board staff observed numerous sediment and erosion control issues including a lack of BMPs and a turbid discharge from the Mono Way east abutment area into "Algerine Ditch", a water of the United States. Although perimeter sediment control BMPs were observed, there were no erosion control BMPs on the east abutment. Board staff observed rill erosion on the abutment soils and found that sediment had discharged over the perimeter BMPs, overwhelmed the silt fence and retention basin, and had been transported down "Algerine Ditch" a significant distance offsite. Board staff observed evidence of the turbid storm water discharge approximately 100 yards downstream of the abutment.

Board staff also observed sediment discharges in some other areas of the Project where BMPs were installed. On several of these slopes, fiber rolls were installed underneath the jute mat, which is not a typical installation and makes maintenance of the BMPs difficult.

At the end of the inspection, Board staff expressed concern about the lack of effective erosion control BMPs to the contractor's project manager. Staff also communicated that the unprotected Mono East abutment was of immediate concern and clearly not in compliance with the Construction General Permit and the Caltrans Storm Water Permit.

8. **29 November 2012 inspection.** On 29 November 2012, Board staff conducted an inspection prior to a rain event. The inspection was conducted with Caltrans and the contractor's qualified SWPPP practitioner (QSP).

Board staff observed rilling and significant erosion of the Mono Way east abutment, the slopes around the abutment, and at the base of the abutment. In addition, significant erosion was also observed east of the abutment, extending to Argyle Road. Several additional storm water retention basins had been constructed at the base of the abutment. The basins appeared to be holding water at the time of this inspection, but were not large enough to contain the volume of water from a significant storm event. The contractor had installed fiber rolls and jute netting on the upper portion of the northwest side of the abutment. The jute netting and fiber rolls did not extend down the entire slope. The remaining portions of the east abutment lacked erosion control BMPs.

In the area east and upslope of the Mono Way east abutment, Board staff observed that minimal erosion control and sediment control BMPs had been installed. This area drains away from the abutment and has multiple discharge locations tributary to surface water.

At the bridge abutment on the east side of Peaceful Oak Way, staff observed several erosion and sediment control BMP failures and evidence of several sediment discharges into the storm drains during the previous storm event.

9. **3 December 2012 inspection.** On 3 December 2012, Board staff conducted an inspection following a rain event that began on 29 November 2012 and produced approximately five inches of precipitation. The inspection was conducted with Caltrans staff and the contractor's QSP.

Since the 29 November 2012 inspection, significant additional erosion had occurred on the Mono Way east abutment. Staff observed increased rilling on the abutment, on the slopes around the abutment, and at the base of the abutment. A majority of the abutment still lacked erosion control BMPs. Staff observed several sediment control BMP failures in the area and evidence of turbid discharges to "Algerine Ditch". Staff also observed that the contractor was pumping water from the basins installed near the toe of the abutment to a pond upslope of the abutment to reduce the amount of runoff discharged to "Algerine Ditch".

In the area of the Mono Way west abutment, staff observed rilling on the slopes and multiple failures of erosion control BMPs installed on the slopes of the abutment. Staff also observed that the hydraulically applied erosion controls installed at the base of the abutment had failed in some locations. Staff also observed sediment discharge onto the pavement and evidence of a discharge of sediment offsite.

In the area upslope and east of the Mono Way east abutment, Board staff observed the pond where storm water was being pumped into from the base of the Mono Way east abutment. At the time of the inspection, the pond was nearly full and had previously overflowed and discharged to the north. Board staff observed that the areas upslope of the pond were largely unprotected and poorly stabilized, and evidence of erosion and a turbid discharge to surface water from these areas to the south was observed.

The contractor was using the area at the base of the Mono Way crossing as an equipment laydown yard. The yard consisted primarily of a dirt surface. Board staff observed evidence of erosion and sediment discharge to surface water from the laydown yard.

Board staff also observed multiple erosion and sediment control BMP failures and evidence of a sediment discharge from several locations from the east and west bridge abutments on Peaceful Oak Way. In addition, staff observed sediment deposited on the roadway and in a drain inlet filter bag on the current State Route 108 Bypass west of Peaceful Oak Road. The drain inlet bag had a large hole in it which allowed sediment into the storm drain. Board staff also observed several erosion and sediment control BMP failures on the slopes adjacent to Peaceful Oak Way into a drain inlet which discharges to surface waters.

10. **5 December 2012 inspection.** On 5 December 2012, Board staff conducted an inspection during a rain event. This inspection focused on the area of the Mono Way east abutment. The inspection was conducted with Caltrans staff, a Department of Fish and Wildlife warden, the contractor's QSP, and the contractor's Qualified SWPPP Developer (QSD). During the inspection, Board staff observed several BMP failures and multiple discharges of turbid water to "Algerine Ditch".

Staff observed that the Mono Way east abutment slopes still lacked erosion control BMPs. Staff observed a significant amount of rilling, greater than what was observed during the 3 December 2012 inspection. The contractor was pumping water from several storm water basins at the base of the abutment into the pond at the top of the abutment. Staff observed sediment-laden storm water running down the abutment in several locations and discharging into "Algerine Ditch".

Staff inspected the upslope area when the contractor was pumping water from the basins at the base of the abutment. The pond was nearly full and BMPs in the graded areas around the pond were marginal or absent. Staff observed significant erosion and turbid stormwater flowing south off the site.

Since the 3 December 2012 inspection, the contractor had placed some rock at the equipment laydown yard, but the area was still mainly a dirt surface with no erosion controls. Board staff observed a discharge of sediment-laden storm water from the lay down area into "Algerine Ditch".

Staff observed somewhat turbid water in "Algerine Ditch" approximately 100-feet south of the Mono Way east abutment at the beginning of the inspection around 8:30 AM, early in the rain event. At noon, after a few hours of rain, the water in "Algerine Ditch" approximately 100-feet south of the Mono Way east abutment was very turbid. The turbid flow had a distinctive red color that was not present in other drainages or creeks in the area. Board staff collected a stormwater sample from "Algerine Ditch" immediately downstream of the site from under the bridge where the ditch crossed under Serrana Road. Board staff analyzed the sample for turbidity using a Hach 2100 P turbidity meter and determined that the sample had a turbidity of approximately 9,000 NTU.

Staff traced the flow of turbid storm water in "Algerine Ditch" approximately one mile downstream, where the creek crosses under Standard Road.

11. **13 December 2012 inspection.** On 13 December 2012, Board staff conducted a brief Project inspection prior to conducting a joint inspection with the California Department of Fish and Wildlife. Staff observed that the Mono Way east abutment remained largely unprotected with erosion control BMPs. The contractor had installed an additional construction entrance to the area at the base of the abutment and installed a new culvert to direct storm water flows under

this entrance. In addition, Board staff observed highly turbid water in “Algerine Ditch” approximately one mile downstream when the creek crosses under Standard Road, caused by erosion from the Mono Way east abutment during the 11/12 December 2013 rain event.

12. **7 January 2013 inspection:** On 7 January 2013, Board staff conducted an inspection following a minor rain event that produced less than one-half inch of rain on 6 and 7 January 2012. Board staff was not joined by Caltrans or the contractor on this inspection.

Board staff observed that plastic sheeting had been added to patch some of the failed erosion control BMPs on the west side of the Peaceful Oak Way abutment. Staff also observed that a large detention pond at the base of the east side of Peaceful Way Road abutment was full of sediment laden water from areas upslope on the abutment, where erosion control BMPs failed.

Board staff observed that plastic sheeting had been placed on the front face of the Mono Way east abutment. The upper side flanks on the abutment were covered with erosion control blanket; however, the erosion control blanket did not extend down the entire slope. At the time of the inspection, the contractor was placing rock at the base of the abutment.

At the time of the inspection, the basin upslope of the Mono Way east abutment was nearly empty. The contractor had installed three Baker tanks adjacent to the basin for additional water storage. A large pump was installed in the pond to transfer water into the tanks. Staff observed a lack of erosion control BMPs in the area around the pond. In addition, the area to the east of the basin and Baker tanks did not contain erosion control BMPs and had significant rilling through the area. Evidence of offsite discharges during previous storm events was also observed in this area.

13. **14 January 2013 inspection:** On 14 January 2013, Board staff conducted an inspection with Caltrans staff. During the inspection, the contractor was placing plastic on and around the Mono Way east abutment. Board staff observed active construction including notching at the top of the abutment for placement of the bridge deck. The pond in the upslope area of the abutment still contained water and no erosion control BMPs had been installed in this area. The contractor had also installed a rock road to the top of the abutment, but the areas to both sides of the road were not protected with erosion control BMPs.
14. **29 January 2013 inspection:** On 29 January 2013, Board staff conducted an inspection with Caltrans and Tuolumne County staff. Board staff observed major improvements in BMP implementation across the site.

Board staff observed that the majority of the Mono Way east abutment was covered in plastic sheeting with work to completely cover the abutment underway. The area to the east and upslope of the Mono Way east abutment was completely covered with plastic and/or straw mulch. The basin upslope of the abutment was nearly empty and three 20,000-gallon Baker tanks had been installed adjacent to the basin for additional water storage.

The Peaceful Oak Way abutment was fully protected with erosion control BMPs. Board staff observed water being pumped from the large detention pond to a water truck for disposal at the local sewage treatment plant. Additional plastic sheeting was being installed upslope of the detention pond.

15. **19 February 2013 inspection.** On 19 February 2013, Board staff conducted an inspection with Caltrans staff. The entire Project was now protected with plastic, straw mulch, erosion control blanket, or other storm water management BMPs. An active treatment system (ATS) had also been installed onsite.

Board staff observed that the areas where BMPs had previously failed had been fully repaired. The storm water retention basins near the Mono Way east abutment were mostly empty with capacity to capture storm water for either discharge or transfer to the ATS for treatment prior to discharge. According to the QSD, the ATS system had been fully tested, had a 160,000 gallon storage capacity, and was designed to treat storm water at a rate of 900 gallons per minute.

16. Based on the 16 October 2012 through 14 January 2013 inspections, Board staff identified that the Site did not have effective erosion or sediment control BMPs which led to the discharge of turbid storm water from the site. As described below in findings 28 through 32, the inadequate BMPs are a violation the General Permit and the turbid discharge is a violation of both the General Permit and Caltrans Stormwater Permit.

Based on the inspections as described above and Notice of Violation responses from Caltrans described in findings 21 through 27 below, Board staff determined that Caltrans was in compliance with the General Permit and Caltrans Storm Water Permit as of 29 January 2013.

Notices of Violation

17. **5 December 2012 Notice of Violation:** On 20 December 2012, Board staff issued a Notice of Violation (NOV) to Caltrans for the General Permit violations observed between 16 October 2012 and 5 December 2012. The NOV required a response by 18 January 2013 addressing each rain event that occurred from 15 November 2012 through 21 December 2012.
18. On 15 January 2013, Caltrans requested an extension to respond to the NOV. Board staff granted the extension on 16 January 2013. The extended deadline to respond to the NOV was 1 February 2013.
19. **18 January 2013 Notice of Violation:** On 18 January 2013, Board staff issued a second Notice of Violation (NOV) to Caltrans for the General Permit violations observed between 13 December 2012 and 14 January 2013. The NOV required a response by 8 February 2013 addressing each rain event that occurred between the previous NOV through 14 January 2013 December 2012.

Subpoena Request

20. **20 December 2012 Subpoena:** On 20 December 2012, the State Water Resources Control Board's Office of Enforcement issued a subpoena to Caltrans for documents and records related to the installation and maintenance of erosion and sediment control BMPs for the Sonora Bypass Project. The subpoena required a response by 25 January 2013.

Caltrans Notice of Violation, Subpoena Responses, and Volume Estimates

21. On 1 February 2013, Caltrans responded to the 20 December 2012 NOV. According to the response, there were four qualifying rain events (QREs) between 15 November 2012 and 17 December 2012. A QRE is defined in the General Permit as "*Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.*"

22. On 30 January 2013, Caltrans submitted a response to the 20 December 2012 subpoena in accordance with the subpoena conditions.
23. On 8 February 2013, Caltrans responded to the Second NOV dated 18 January 2013. In the response, Caltrans addressed the fifth QRE which began on 21 December 2012.
24. On 13 August 2013, Caltrans submitted the *June 2013 Technical Memorandum Sonora Bypass Runoff Calculation* which revised the previous 1 and 8 February 2013 volume estimates. This revised estimate recalculated the runoff volume from four of the eight sub-watersheds identified in the February calculations that did not contain sediment traps. The June 2013 estimate refines watershed areas and soil cover used to select runoff curve numbers used in the USDA TR-55 method to estimate runoff volume. This revised estimate did not recalculate runoff from the four sub-watersheds identified in the February estimates that contained sediment traps.
25. Water Board staff identified several issues with these volume estimates. The estimates calculated a volume of runoff from eight separate sub-watersheds associated with the Mono East abutment portion of the project. Of these eight sub-watersheds, four contain sediment traps which have a certain capacity to store water, reducing the volume discharged from the site during a storm event. According to the Caltrans runoff estimates, the sheds containing sediment traps never discharged. The volume estimates assume that these sediment traps were empty prior to each storm event and had available capacity sufficient to capture the volume of runoff generated during each storm event. However, Water Board inspection reports document runoff from several of these sheds during storm events. Also, Board staff inspection photos show several sediment traps containing water prior to storm events. In addition, water was pumped between sediment traps during storm events in an attempt to move water to traps that had remaining capacity to store water. None of the runoff calculations account for this movement of water between sediment traps, or the fact that the sediment basins were known to overflow.

Also, the TR-55 method assumes an average antecedent runoff condition prior to each storm event. This assumes that the available capacity for the soil to infiltrate rainwater prior to discharging is equal over all storm events and greatly overestimates the infiltration rate at the beginning of a storm if the storm event begins when soils are already saturated from previous storms. According to the USDA's TR-55 manual, there are several limitations to this method. The equations used in this method do not account for rainfall duration or intensity. Also, the initial abstraction variable (all losses including evaporation and infiltration) is generalized based on data from agricultural watersheds (relatively flat topography, not the steep slope of the abutment) and does not account for saturated soils prior to a storm event. For the Mono East abutment, Board staff documented during inspections that soils were saturated prior to rain events.

On 20 August 2013, Board staff requested that Caltrans reevaluate the volume estimates based on sediment trap pre-storm observations, documented discharges from sediment traps, and pre-storm soil conditions explained above. In addition, Board staff requested the addition of two qualifying storm events that occurred between 22-24 October 2012 and 9-11 November 2012.

26. On 17 September 2013, Caltrans responded to the 20 August 2013 volume reevaluation request. The revised September 2013 volume estimate did not address pre-storm sediment trap conditions, pre-storm soil moisture conditions, or pumping of water between sediment traps. The

September 2013 volume estimate added a total of 425 gallons of runoff during the 9-11 November 2013 storm event, for a total runoff estimate of 700,307 gallons.

27. Staff believes that the volume estimates calculated by Caltrans may be underestimated given the above discussion in Paragraphs 25 and 26. Based on information provided in the volume estimates (area of disturbed soil and rainfall received during this period), approximately 8.9 million gallons of rainfall fell on the Mono Way east abutment area. According to Caltrans, the slopes were too saturated to safely install BMPs during this period. Reporting that less than 10% of the rainfall resulted in runoff from these same saturated soils supports staff's belief that the volumes reported by Caltrans are underestimates. In an attempt to correct one of the deficiencies in the estimates, Board staff recalculated the volume assuming that 80% of the runoff generated in a shed containing a sediment trap remained in the sediment trap at the beginning of the next storm, reducing the available capacity of the trap to contain water during the next storm event. Based on this assumption, Board staff estimates that a minimum of 822,701 gallons of sediment-laden storm water was discharged from the site in the area related to the Mono East abutment. While staff believes that this estimate is closer to the actual discharge volume, it is likely that the actual discharge volume was greater than 822,701 gallons.

The following table summarizes the seven QREs described in the NOV responses and the June 2013 and September 2013 revised volume estimates. As requested by Board staff, Caltrans estimated the number of discharge locations and discharge volume for the areas adjacent to the Mono Way east abutment. Board staff noted other discharges and lack of BMPs from other locations along the two mile project, but this ACL Complaint focuses on the discharges from the Mono Way east abutment only. As described above, Board staff estimates that a minimum of 822,701 gallons of sediment-laden storm water discharged from the site in the areas adjacent to the Mono East abutment. According to Caltrans' Numeric Action Level Exceedance Reports, turbidity values ranged between 26 Nephelometric Turbidity Units (NTU) and 7,368 NTU for these discharges.

QRE	Start and End Date	Precipitation Amount (inches) ¹	Number of Discharge Locations ²	Total Discharge Volume From Unprotected DSA (gallons) ²	Turbidity Range of Discharge (NTU)
#1	22 Oct – 24 Oct 2012	0.59	0	0	No Discharge
#2	9 Nov – 11 Nov 2012	0.76	≥1	425	> 600
#3	17 Nov – 22 Nov 2012	2.19	5	53,144	Not Sampled ³
#4	29 Nov – 6 Dec 2012	5.43	4	466,168	42 – 7368
#5	11 Dec – 13 Dec 2012	0.70	4	157	2231 – 3724
#6	16 Dec – 18 Dec 2012	1.15	4	11,868	1797 – 5130
#7	21 Dec – 27 Dec 2012	4.61	4	290,939	26 – 6448
Total				822,701	

Note: ¹ = From the June 2013 and September 2013 Revised Volume Estimates
² = Associated with the Mono Way east Abutment
³ = 19 November 2012 Notice of Discharge reports a turbidity exceedance but no samples were collected because the discharge occurred over a weekend. The report states “Sediment discharged off of the unprotected Mono Way slope above Algerine Ditch. The sediment overwhelmed the installed sediment traps and silt fence.”

Violations at the Sonora Bypass Construction Site

28. Caltrans Storm Water Permit Section A.1, General Discharge Prohibition, states, in part:
The discharge of runoff from construction sites containing pollutants which have not been reduced using ... BCT for conventional pollutants to waters of the United States is prohibited.

Violation 1: Caltrans is alleged to have violated this requirement of the Caltrans Storm Water Permit by discharging at least 822,701 gallons of storm water containing turbidity that was not reduced using BCT over a period of 24 days during the seven QREs between 22 October 2012 and 27 December 2012.

29. Caltrans Storm Water Permit Section A.6, General Discharge Prohibition, states, in part:
The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity, or discoloration in waters of the State or which unreasonably affect or threaten to affect beneficial uses of such waters, is prohibited.

Violation 2: Caltrans is alleged to have violated this requirement of the Caltrans Storm Water Permit by discharging earthen materials contained in the 822,701 gallons of turbid storm water that was discharged over a period of 24 days during the seven QREs between 22 October 2012 and 27 December 2012.

30. Construction General Permit Attachment D, Provision E.4, Sediment Controls, states, in part: *Risk Level 2 dischargers shall apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths in accordance with Table 1.*

Violation 3: Caltrans is alleged to have violated this requirement of the Construction General Permit for a period of 82 days. According to Caltrans, earthwork on the Mono Way east abutment was completed on 15 November 2012. During the period between 16 October 2012 and 15 November 2012 when earthwork was occurring on the abutment, there were two qualifying rain events consisting of six days of rain. Board staff considered the Discharger to be in violation of this requirement during the six days of rain prior to 15 November 2012. Following the completion of the earthwork on the Mono Way east abutment, Board staff considered the Discharger to be in violation of this requirement for 76 days from 15 November 2012 through 29 January 2013, for a total of 82 days of violation.

31. Construction General Permit Attachment D, Provision E.3, Sediment Controls, states, in part: *Additional Risk Level 2 Requirement: Risk Level 2 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active construction.*

Violation 4: Caltrans is alleged to have violated this requirement of the Construction General Permit for a period of 16 days (days of QREs during active construction between 16 October 2012 through 3 December 2012). The site was determined to be inactive following the 3 December 2012 inspection where Board staff was informed that construction in this area had been stopped for the winter due to saturated soil conditions.

32. Construction General Permit Attachment D, Provision D.2, Erosion Controls, states, in part: *Additional Risk Level 2 Requirement: Risk Level 2 dischargers shall provide effective soil cover for inactive areas and all finished slopes, open space, utility backfill, and completed lots.*

Violation 5: Caltrans is alleged to have violated this requirement of the Construction General Permit for a period of 57 days (4 December 2012 through 29 January 2013 when this area was inactive) until the site was determined to be adequately protected with erosion control BMPs by covering the Mono Way east abutment with plastic sheeting on 29 January 2013.

Surface Water Beneficial Uses

33. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereafter 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.
34. Surface water drainage from the Sonora Bypass construction site flows to numerous surface waters including "Algerine Ditch", all of which are tributary to Curtis Creek, tributary to Don Pedro Reservoir.
35. The beneficial uses of Don Pedro Reservoir as stated in the Basin Plan are: municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; and wildlife habitat.

Calculation of Penalties Under Water Code Section 13385

36. Water Code section 13385 states, in relevant part:

(a) Any person who violates any of the following shall be liable civilly in accordance with this section:

(2) A waste discharge requirement ... issued pursuant to this chapter... (5) Any requirements of Section 301, 302, 306, 307, 308, 318, 401, or 405 of the Clean Water Act, as amended.

37. The Construction General Permit was adopted by the State Water Board on 2 September 2009, pursuant to Clean Water Act sections 201, 208(b), 302, 303(b), 304, 306, 307, 402, and 403. Section IV(A)(1) of the Construction General Permit states, in part:

Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action and/or removal from General Permit coverage.

38. The Caltrans Storm Water Permit was adopted by the State Water Board on 15 July 1999. Section M.2 of the Caltrans Storm Water Permit states, in part:

Any NPDES permit noncompliance constitutes a violation of the CWA and the CWC and is grounds for enforcement action pursuant to the CWA and CWC, NPDES Permit termination, or denial of a renewal application.

39. Caltrans' failure to implement the requirements of the Construction General Permit and the Caltrans Storm Water Permit described above violated the both Permits and therefore, violated the Clean Water Act and the Porter-Cologne Water Quality Control Act. Water Code section 13385 authorizes the imposition of administrative civil liability for such violations.

40. Water Code section 13385 states, in relevant part:

(c) Civil liability may be imposed administratively by the state board or a regional board pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 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.

The following table shows the volume of discharge subject to penalties.

Volume of Discharge subject to Civil Liability

QRE	Start and End Date	Sept 2013 Caltrans Volume Estimate (gallons)	WB Additional Runoff Estimate (gallons)	Total Discharge Volume (gallons)	Volume Subject to Penalties (gallons)
#1	22 Oct – 24 Oct 2012	0	0	0	0
#2	9 Nov – 11 Nov 2012	425	0	425	0
#3	17 Nov – 22 Nov 2012	53,144	0	53,144	52,144
#4	29 Nov – 6 Dec 2012	440,247	25,921	466,168	465,168
#5	11 Dec – 13 Dec 2012	157	0	157	0
#6	16 Dec – 18 Dec 2012	6,489	5,379	11,868	10,868
#7	21 Dec – 27 Dec 2012	199,844	91,095	290,939	289,939
				Total	818,119

41. **Maximum Civil Liability under Water Code Section 13385:** Pursuant to Water Code section 13385(c), each violation of the General Permit and Caltrans Stormwater Permit identified above is subject to penalties not to exceed \$10,000 per day and \$10 per gallon of discharge exceeding 1,000 gallons.

- Violation #1 – Caltrans Permit Discharge Prohibition A.1
 A total of 822,701 gallons of turbid water discharged from the Mono Way east abutment area over a period of 24 days in violation of Caltrans Stormwater Permit Discharge Prohibition A.1. A total of 818,119 gallons of this discharge is subject to penalties. The discharge occurred during the seven QREs between 22 October 2012 and 27 December 2012. The maximum penalty for this discharge is (818,119) gallons X \$10 per gallon plus 24 days X \$10,000 per day, or \$8,421,190.
- Violation #2 - Caltrans Permit Discharge Prohibition A.6
 A total of 822,701 gallons of turbid water discharged from the Mono Way east abutment area over a period of 24 days in violation of Caltrans Stormwater Permit Discharge Prohibition A.6. A total of 818,119 gallons of this discharge is subject to penalties. The discharge occurred during the seven QREs between 22 October 2012 and 27 December 2012. The maximum penalty for this discharge is (818,119) gallons X \$10 per gallon plus 24 days X \$10,000 per day, or \$8,421,190.
- Violation #3 – Construction General Permit Attachment D, Provision E.4
 Caltrans failed to comply with the Construction General Permit Sediment Control Provision E.4 for a period of 82 days. Therefore, the maximum penalty for these violations is \$10,000 X 82 days, or \$820,000.
- Violation #4 – Construction General Permit Attachment D, Provision E.3

Caltrans failed to comply with the Construction General Permit Sediment Control Provision E.3 for a period of 16 days. Therefore, the maximum penalty for these violations is \$10,000 X 16 days, or \$160,000.

- Violation #5 – Construction General Permit Attachment D, Provision D.2
Caltrans failed to comply with Construction General Permit Erosion Control Provision D.2 for a period of 57 days. Therefore, the maximum penalty for these violations is \$10,000 X 57 days, or \$570,000.

The maximum liability for these violations is **eighteen million three hundred ninety-two thousand three hundred eighty dollars (\$18,392,380)**.

42. **Minimum Civil Liability Under Water Code Section 13385:** Pursuant to Water Code section 13385(e), at a minimum, civil liability must be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation. The violations of the Caltrans Storm Water Permit and the General Permit were due to failure to implement appropriate erosion and sediment control BMPs as listed in the site specific SWPPP. Using the US EPA's BEN model, the economic benefit gained by non-compliance is calculated to be approximately \$1,030,032, which becomes the minimum civil liability which must be assessed pursuant to section 13385.

Proposed Administrative Civil Liability

43. Pursuant to Water Code section 13385(e), in determining the amount of any civil liability imposed under Water Code section 13385(c), the Board is required to take into account the nature, circumstances, extent, and gravity of the violations, whether the discharges are susceptible to cleanup or abatement, the degree of toxicity of the discharges, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violations, and other matters that justice may require.
44. On 17 November 2010, 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 section 13385(e).
45. This administrative civil liability was derived from the use of the penalty methodology in the Enforcement Policy, as explained in detail in Attachment A. The proposed civil liability takes into account such factors as Caltrans' culpability, history of violations, ability to pay and continue in business, and other factors as justice may require.
46. As described above, the maximum penalty for the violations is \$18,392,380. The Enforcement Policy requires that the minimum liability imposed be at least 10% higher than the estimated economic benefit of \$1,030,032, so that liabilities are not construed as the cost of doing business and that the assessed liability provides a meaningful deterrent to future violations. In this case, the economic benefit amount, plus 10%, is \$1,133,035. Based on consideration of the above facts and after applying the penalty methodology and allowing for staff costs pursuant to the Enforcement Policy, the Executive Officer of the Central Valley Water Board proposes that civil

liability be imposed administratively on Caltrans in the amount of **\$3,646,790**. The specific factors considered in this penalty are detailed in Attachment A.

Regulatory Considerations

47. 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 Caltrans Storm Water Permit and the Construction General Permit for penalties which have not yet been assessed or for violations that may subsequently occur.
48. An administrative civil liability may be imposed pursuant to the procedures described in Water Code section 13323. An administrative civil liability complaint alleges the act or failure to act that constitutes a violation of law, the provision of law authorizing administrative civil liability to be imposed, and the proposed administrative civil liability.
49. Issuance of this Administrative Civil Liability Complaint to enforce Water Code Division 7, Chapter 5.5 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, section 15321(a)(2).

CALTRANS IS HEREBY GIVEN NOTICE THAT:

1. The Executive Officer of the Central Valley Water Board proposes an administrative civil liability in the amount of **three million six hundred forty-six thousand seven hundred ninety dollars (\$3,646,790)**. 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, and includes consideration of the economic benefit or savings resulting from the violations.
2. A hearing on this matter will be conducted at the Central Valley Water Board meeting scheduled on **6/7 February 2014**, unless one of the following options occurs by **12 December 2013**:
 - a) Caltrans 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, along with payment for the proposed civil liability of three million six hundred forty-six thousand seven hundred ninety dollars (\$3,646,790); or
 - b) The Central Valley Water Board agrees to postpone any necessary hearing after Caltrans requests to engage in settlement discussions by checking off the box next to Option #2 on the attached form, and returns it to the Board along with a letter describing the issues to be discussed; or
 - c) The Central Valley Water Board agrees to postpone any necessary hearing after Caltrans requests a delay by checking off the box next to Option #3 on the attached form, and returns it to the Board along with a letter describing the issues to be discussed.

3. If a hearing 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.



for PAMELA C. CREEDON, Executive Officer

15 November 2013

Date

Waiver Form
Attachment A: Specific Factors Considered for Civil Liability

MAF/SER/WSW: 14-Nov-2013

**WAIVER FORM
FOR ADMINISTRATIVE CIVIL LIABILITY COMPLAINT**

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

I am duly authorized to represent Caltrans (hereafter Discharger) in connection with Administrative Civil Liability Complaint R5-2013-0589 (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 Caltrans waives the hearing requirement and will pay in full.)

a. I hereby waive any right Caltrans may have to a hearing before the Central Valley Water Board.

b. I certify that Caltrans will remit payment for the proposed civil liability in the full amount of **three million six hundred forty-six thousand seven hundred ninety dollars (\$3,646,790)** by check that references "ACL Complaint R5-2013-0589" made payable to the *State Water Pollution Cleanup and Abatement Account*. Payment must be received by the Central Valley Water Board by **12 December 2013**.

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 Executive Officer may withdraw the complaint, return payment, and issue a new complaint. I also understand that approval of the settlement will result in Caltrans 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 Caltrans to further enforcement, including additional civil liability.

(OPTION 2: Check here if Caltrans waives the 90-day hearing requirement in order to engage in settlement discussions.) I hereby waive any right Caltrans 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 Caltrans 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, Caltrans requests that the Central Valley Water Board delay the hearing so that Caltrans 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 Caltrans 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 Caltrans may have to a hearing before the Central Valley Water Board within 90 days after service of the Complaint. By checking this box, Caltrans requests that the Central Valley Water Board delay the hearing and/or hearing deadlines so that Caltrans 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 to ACL Complaint R5-2013-0589:
Specific Factors Considered for Civil Liability
State Route 108 East Sonora Bypass Stage 2 Project, Tuolumne County**

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 (CWC) 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.

Violation 1: Violation of Section A.1 of the Caltrans Storm Water Permit

Section A.1 of the Caltrans Storm Water Permit (Order 99-06-DWQ) prohibits the discharge of runoff from construction sites containing pollutants which have not been reduced using Best Available Technology Economically Achievable (BAT) for toxic pollutants and Best Conventional Pollutant Control Technology (BCT) for conventional pollutants to waters of the United States. The Caltrans Storm Water Permit requires the use of best management practices (BMPs) that meet the BAT/BCT standard to control pollutants in construction site runoff. The Mono East abutment area was not protected with erosion control BMPs during several storm events from October to December 2012. As discussed below, the violation occurred over a period of 24 days between 17 November 2012 and 27 December 2012, when at least 822,701 gallons of turbid storm water discharged to an ephemeral tributary to Curtis Creek, a water of the United States. Caltrans (Discharger) violated section A.1 because the discharge contained a conventional pollutant, turbidity, which was not reduced using BCT.

Step 1 – Potential for Harm for Discharge Violations

The “potential harm to beneficial uses” factor considers the harm to beneficial uses 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 to 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

A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses is negligible (0) to major (5). In this case the potential harm to beneficial uses was determined to be **moderate** (i.e. a score of 3), which is defined as a “*moderate threat to beneficial uses (i.e. impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects).*”

The Discharger failed to implement appropriate erosion and sediment control BMPs prior to storm events in October, November, and December 2012. This failure resulted in at least 822,701 gallons of sediment-laden discharges in November and December to an ephemeral creek tributary to Curtis Creek. Curtis Creek flows to Don Pedro Reservoir. The beneficial uses of Don Pedro Reservoir, as stated in the Basin Plan, are: municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; and wildlife habitat.

In many of their documents, Caltrans and the Water Board refer to the ephemeral creek near the Project's Mono Way east abutment as “Algerine Ditch”. Labeling this drainage course as Algerine Ditch

is a misnomer, however, because the historic Algerine Ditch begins several miles to the southwest on Curtis Creek near Lambert Lake and extends approximately 10 miles south and west past the Algerine School site to Blue Gulch Reservoir, according to the 2012 *Tuolumne Utilities District Ditch Sustainability Project Historic Evaluation Report*. According to the report, the USGS mapped ditch is inaccurate in many locations, but it is clear from the report that the ditch does not extend north of Lambert Lake. However, for consistency with the previous agency documents, the term “Algerine Ditch” is used here to refer to the unnamed tributary to Curtis Creek which passes the Mono Way east abutment area and connects to Curtis Creek south of Camage Avenue.

“Algerine Ditch” was identified as a water of the United States and subject to regulation under Section 404 of the federal Clean Water Act (CWA) in the Natural Environment Study (NES) prepared by Caltrans for the Project in 2008. Caltrans applied for and received a CWA section 404 permit, a CWA 401 certification, and a California Department of Fish and Wildlife streambed alteration permit for its construction activities in the creek and other Project areas. The NES identified suitable habitats for multiple special-status species within the Project’s Biological Study Area. The species included valley elderberry beetle (VELB); San Joaquin Roach; California red legged frog; western pond turtle; coast horned lizard; multiple bat species; multiple nesting bird species, and multiple plant species. The California Natural Diversity Database (CNDDDB) lists Sierra Nevada yellow-legged frog, San Joaquin roach, and other species as occurring in the area of the Standard USGS 7.5’ quadrangle map. Curtis Creek and “Algerine Ditch” are within the Standard map, so these species may have been impacted by sediment discharged from the Project.

Discharges of sediment to surface waters can cloud the receiving water, thereby reducing the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. Sediment can also transport other materials such as nutrients, metals, and oils and grease. The discharge of sediment negatively impacts aquatic organisms.

Board staff, accompanied by Department of Fish and Wildlife staff, inspected “Algerine Ditch” on both 5 December 2013 and 13 December 2012. The Mono East abutment is at the headwaters of “Algerine Ditch” and no background samples were available above the Project. At Standard Road, approximately one mile downstream of the discharge location, Board staff observed significant accumulation of red sediment along the sides of the creek, on the rocks, and in the blackberry bushes. The red sediment was due to the release from the Mono East abutment, and was distinctly different than the native dark brown creek substrate. Downstream of Standard Road, the creek enters a series of ponds, all of which were filled with red sediment. “Algerine Ditch” continues through Sierra Pacific Industry (SPI) property and enters Curtis Creek approximately 2 miles below the Mono East abutment. According to SPI personnel, red sediment discharges were observed in “Algerine Ditch” numerous times during November-December 2012.

Given the measured turbidity levels and the observed volume of sediment settled in the creek channel and banks during the two inspections, Board staff determined that the discharge of sediment impacted benthic macroinvertebrates, which are an important food source for fish. The discharge may have also impacted the multiple special-status species listed above. The discharges took place at the headwaters of a small stream, and relatively little dilution was available to mitigate the impact of the discharges. In addition, impact of the sediment discharges was observed over a relatively long stretch of the stream, at least one mile from the project site. The impacts may have extended further, but neither Board staff nor Caltrans staff investigated beyond that point. Sediment was discharged repeatedly over a period of 24 days between 22 October 2012 and 27 December 2013. During these discharge events, turbidity measurements of storm water leaving the construction site recorded by the Discharger ranged from 26

nephelometric turbidity units (NTU) up to 7,368 NTU, with the majority of measurements above 1,700 NTU. As noted above, neither Board staff, Caltrans, nor the contractor's qualified SWPPP practitioner (QSP) were able to collect an upstream sample because the discharge location was at the headwaters of "Algerine Ditch".

Based on the above discussion the amount of sediment released is considered to have a moderate potential to harm beneficial uses, as defined in the Enforcement Policy.

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. In this case, a score of **2** was assigned. A score of 2 is defined as the chemical and/or physical characteristics of the "*discharged material poses moderate risk or threat to potential receptors (i.e. chemical and/or physical characteristics of the discharged material have some level of toxicity or pose a moderate level of concern regarding receptor protection)*". Discharges of sediment can cloud the receiving water (which reduces the amount of sunlight reaching aquatic plants), clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. Sediment can also transport other materials such as nutrients, metals, and oils and grease, which can also negatively impact aquatic life and aquatic habitat. Therefore, a score of 2 is appropriate.

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, sediment discharged was dispersed by storm water over a long distance and cleanup or abatement would not be possible. 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 penalties based on both a per-gallon and a per-day basis for discharge violations.

Per Gallon Assessments for Discharge Violations

When there is a discharge, the Central Valley Water Board is to determine the initial liability amount on a per gallon basis using the Potential for Harm score from Step 1 and the extent of Deviation from Requirement of the violation. The Potential for Harm score from Step 1 is **6** and the extent of Deviation from Requirements¹ is considered **Major** because the requirement was rendered ineffective based on the lack of effective erosion control BMPs which caused large amounts of eroded sediment to be discharged to "Algerine Ditch". 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.

¹ The "Deviation from Requirement" reflects the extent to which the violation deviates from the specific requirement. In this case, the requirement (i.e., permit Prohibition A.1) was to use BAT/BCT to prevent discharges of turbid storm water.

For the penalty calculation, Board staff used an extremely conservative estimate of 822,701 gallons for the volume of discharge. The following paragraphs describe how the volume was determined.

On 20 December 2012, Board staff issued a Notice of Violation (NOV) to Caltrans for turbid discharges from the site. In the NOV, staff requested a volume estimate for discharges from the Mono East abutment portion of the site. Responses to the NOV were received on 1 February and 8 February 2013, including volume estimates. These volume estimates used the USDA TR-55 method to estimate runoff from eight sub-watersheds associated with the Mono East abutment. According to the estimates, four of the eight sub-sheds contained sediment traps. The sub-sheds with sediment traps were calculated to never discharge because the available storage volume in the sediment traps was greater than the runoff generated during each storm, with the exception of one sub-shed that had a sediment trap under construction during the first rain event. According to these initial volume estimates, a total of approximately 931,476 gallons of storm water discharged from the Mono East abutment portion of the site.

On 13 August 2013, Caltrans submitted a Technical Memorandum revising the original volume estimates. This revised estimate recalculated the runoff volume from four of the eight sub-watersheds identified in the February calculations that did not contain sediment traps. The estimate refined the watershed areas and soil cover used to select runoff curve numbers used in the USDA TR-55 method to estimate runoff volume. This revised estimate did not recalculate runoff from the four sub-watersheds identified in the February estimates that contained sediment traps. The revised estimate showed that a total of 699,583 gallons of storm water was discharged from sheds that did not contain sediment traps. The Technical Memorandum did not address the sub-sheds that contained sediment traps and Caltrans asserted that these sub-sheds did not discharge at any point during the storm season.

Water Board staff identified several issues with these volume estimates. The estimates calculated a volume of runoff from eight separate sub-watersheds associated with the Mono East abutment portion of the project. Of these eight sub-watersheds, four contain sediment traps which have a certain capacity to store water, reducing the volume discharged from the site during a storm event. According to the Caltrans runoff estimates, the sheds containing sediment traps never discharged. The volume estimates assume that these sediment traps were empty prior to each storm event and had available capacity sufficient to capture the volume of runoff generated during each storm event. However, Water Board inspection reports document runoff from several of these sheds during storm events. Also, Board staff inspection photos show several sediment traps containing water prior to storm events. In addition, water was pumped between sediment traps during storm events in an attempt to move water to traps that had remaining capacity to store water. None of the runoff calculations account for this movement of water between sediment traps, or the fact that the sediment basins were known to overflow.

Also, the TR-55 method assumes an average antecedent runoff condition prior to each storm event. This assumes that the available capacity for the soil to infiltrate rainwater prior to discharging is equal over all storm events and greatly overestimates the infiltration rate at the beginning of a storm if the storm event begins when soils are already saturated from previous storms. According to the USDA's TR-55 manual, there are several limitations to this method. The equations used in this method do not account for rainfall duration or intensity. Also, the initial abstraction variable (all losses including evaporation and infiltration) is generalized based on data from agricultural watersheds (relatively flat topography, not the steep slope of the abutment) and

does not account for saturated soils prior to a storm event. For the Mono East abutment, Board staff documented during inspections that soils were saturated prior to rain events.

On 20 August 2013, Board staff requested that Caltrans reevaluate the volume estimates based sediment trap pre-storm observations, documented discharges from sediment traps, and pre-storm soil conditions explained above. In addition, Board staff requested the addition of two qualifying storm events that occurred between 22-24 October 2012 and 9-11 November 2012. On 17 September 2013, Caltrans responded to the request. The revised volume estimate did not address pre-storm sediment trap condition, pre-storm soil moisture conditions, or pumping of water between sediment traps. The September volume estimates added a total of 425 gallons of runoff during the 9-11 November 2013 storm event, for a total runoff estimate of 700,307 gallons.

Staff does not believe that Caltrans' volume calculations accurately reflect the amount of sediment-laden stormwater discharged from the site based on the factors described above. In an attempt to correct one of the deficiencies in the estimates, Board staff recalculated the estimates assuming that 80% of the runoff generated in a shed containing a sediment trap remained in the sediment trap at the beginning of the next storm, reducing the available capacity of the trap to contain water during the next storm event. Based on this assumption, Board staff estimates that a minimum of 822,701 gallons of sediment-laden storm water was discharged from the site in the area related to the Mono East abutment.

For the purposes of the penalty calculation, Water Board staff is using a discharge volume of 822,701 gallons (of this amount, 818,119 gallons subject to penalties as described below). Caltrans was repeatedly asked to reevaluate the volume estimates and did not provide Board staff with information that reflected the observed site conditions. This was taken into account in the cleanup and cooperation factor, below.

The maximum civil liability allowed under Water Code section 13385 is \$10 per gallon discharged. This amount was used for discharges from the Mono East abutment with the exception of the discharges associated with qualifying rain events² (QREs) 4 and 7. Because of the volume of the Mono East abutment discharges related with QREs 4 and 7, as shown in the table below, Board staff used the "high volume" discount of \$2 per gallon instead of \$10 per gallon, as described by the Enforcement Policy. For QREs 4 and 7, it is appropriate to use the \$2 per gallon value in calculating the liability because of the significant volume of discharges. The Enforcement Policy also states that when using a value less than the statutory maximum of \$10/gallon results in an inappropriately small penalty, a higher amount, up to the statutory maximum, may be used. Board staff considered the final penalty amount, and believes that the amount is appropriate. However, if other factors such as the violator's conduct factors were to be reduced, then the final penalty would not be appropriate and staff would need to re-evaluate whether a value greater than \$2/gallon should be used in the calculation.

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 for each spill event. According to the volume estimates, there were six qualifying rain events in which discharge took place. As shown in the table below, the total volume subject to penalties is 818,119 gallons.

² A "qualifying rain event" is defined in the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, as "Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events."

Qualifying Rain Event	Dates	Total Runoff Volume (gallons)	Total Subject To Penalties (Volume - 1,000 gallons)	Days of Violation Subject to Penalties
#1	22-24 Oct 2012	0	0	0
#2	9-11 Nov 2012	425	0	0
#3	17-22 Nov 2012	53,144	52,144	6
#4	29 Nov-6 Dec 2012	466,168	465,168	8
#5	11-13 Dec 2012	157	0	0
#6	16-18 Dec 2012	11,868	10,868	3
#7	21-27 Dec 2012	290,939	289,939	7
Total			818,119	24

Per Day Assessments for Discharge Violations

When there is a discharge, the Water Board is to determine the initial liability amount on a per day basis using the same Potential for Harm score from Step 1 and the same Extent of Deviation from Requirements used in the per-gallon analysis. The Potential for Harm score from Step 1 is **6** and the Extent of Deviation from Requirements is considered to be **Major**. Therefore the “per day” factor is **0.22** (as determined from Table 2 in the Enforcement Policy). The Per Day Assessment is calculated as $(0.22) \times (\text{number of days}) \times \$10,000$ per day.

Violation 1 – Initial Liability Amount

The initial liability amount for the discharge violations is as follows:

Per Gallon Liability:

1. 17 through 22 November 2012: $\$10 \times (53,144 - 1,000) \times 0.22 = \$114,717$
2. 29 November through 6 December 2012: $\$2 \times (466,168 - 1,000) \times 0.22 = \$204,674$
3. 16 through 18 December 2012: $\$10 \times (11,868 - 1,000) \times 0.22 = \$23,910$
4. 21 through 27 December 2012: $\$2 \times (290,939 - 1,000) \times 0.22 = \$127,573$

Per Day Liability:

5. 17 through 22 November 2012: $\$10,000 \times 0.22 \times 6 \text{ days} = \$13,200$
6. 29 November through 6 December 2012: $\$10,000 \times 0.22 \times 8 \text{ days} = \$17,600$
7. 16 through 18 December 2012: $\$10,000 \times 0.22 \times 3 \text{ days} = \$6,600$
8. 21 through 27 December 2012: $\$10,000 \times 0.22 \times 7 \text{ days} = \$15,400$

Total Initial Liability = **\$523,674**

Step 3 – Per Day Assessment for Non-Discharge Violations

In this case, this factor does not apply because Violation #1 is related to a discharge and the liability was determined in Step 2.

Step 4 – 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.

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. The Discharger was given a multiplier value of **1.4** because of the Discharger's repeated failure to implement appropriate BMPs prior to several forecasted multi-day storm events, despite multiple warnings from Board staff. These failures to implement BMPs led to the discharges of turbid water which could have been avoided had appropriate BMPs been in place prior to the forecasted storm events. The Discharger did not anticipate what a reasonable person would have and did not implement appropriate measures to avoid the violations. The Discharger knowingly approved construction activities in the rainy season, allowed work to continue almost to the start of the storm event, and then violated the Permit conditions by not installing required BMPs prior to forecasted storm events.

In addition, because Board staff was so concerned about the site and the potential for discharge, ten inspections were conducted between 16 October 2012 and 19 February 2013. Water Board staff expended much greater time and effort on this site than on any other site in recent memory; and repeatedly reminded Caltrans that it was out of compliance with Construction General Permit and Caltrans Storm Water Permit requirements. The inspection reports are summarized below:

- 16 October 2012 - Board staff inspected the Project site with Caltrans storm water staff. Board staff observed the contractor, Teichert Construction, conducting significant earth work in multiple areas of the project. Some areas of the project were mostly completed and both sediment and erosion control BMPs had been implemented. However, large portions of the site were not protected with either erosion or sediment control BMPs.

Board staff was very concerned about the eastern area of the Project where two large bridge abutments were under construction on the east and west sides of Mono Way. According to the construction schedule at the time of the inspection, these areas were not scheduled to be completed until November. Board staff attended a portion of a weekly construction meeting with Caltrans and its contractors and expressed concern about the lack of erosion control BMPs given the impending rainy season and the storm water problems experienced by Caltrans during its Stage 1 Sonora Bypass project in 2002.

- 19 November 2012 - On morning of 19 November 2012, Board staff conducted an inspection following a rain event that began on 17 November 2012 and produced approximately two inches of precipitation. Board staff inspected the site with the Teichert Construction project manager.

During the inspection, Board staff observed numerous sediment and erosion control issues including a lack of BMPs and a turbid discharge from the Mono Way east abutment area into "Algerine Ditch", a water of the United States. Although perimeter sediment control BMPs were observed, there were no erosion control BMPs on the east abutment. Board staff observed rill erosion on the abutment soils and found that sediment had discharged over the perimeter BMPs, overwhelmed the silt fence and retention basin, and had been transported down

“Algerine Ditch” a significant distance offsite. Board staff observed evidence of the turbid storm water discharge approximately 100 yards downstream of the abutment.

Board staff also observed sediment discharges in some other areas of the Project where BMPs were installed. On several of these slopes, fiber rolls were installed underneath the jute mat, which is not a typical installation and makes maintenance of the BMPs difficult.

At the end of the inspection, Board staff expressed concern about the lack of effective erosion control BMPs to the contractor’s project manager. Staff also communicated that the unprotected Mono East abutment was of immediate concern and clearly not in compliance with the Construction General Permit and the Caltrans Storm Water Permit.

- 29 November 2012 - On 29 November 2012, Board staff conducted an inspection prior to a rain event. The inspection was conducted with Caltrans and the contractor’s qualified SWPPP practitioner (QSP).

Board staff observed rilling and significant erosion of the Mono Way east abutment, the slopes around the abutment, and at the base of the abutment. In addition, significant erosion was also observed east of the abutment, extending to Argyle Road. Several additional storm water retention basins had been constructed at the base of the abutment. The basins appeared to be holding water at the time of this inspection, but were not large enough to contain the volume of water from a significant storm event. The contractor had installed fiber rolls and jute netting on the upper portion of the northwest side of the abutment. The jute netting and fiber rolls did not extend down the entire slope. The remaining portions of the east abutment lacked erosion control BMPs.

In the area east and upslope of the Mono Way east abutment, Board staff observed that minimal erosion control and sediment control BMPs had been installed. This area drains away from the abutment and has multiple discharge locations tributary to surface water.

- 3 December 2012 - Board staff conducted an inspection following a rain event that began on 29 November 2012 and produced approximately five inches of precipitation. The inspection was conducted with Caltrans staff and the contractor’s QSP.

Since the 29 November 2012 inspection, significant additional erosion had occurred on the Mono Way east abutment. Staff observed increased rilling on the abutment, on the slopes around the abutment, and at the base of the abutment. A majority of the abutment still lacked erosion control BMPs. Staff observed several sediment control BMP failures in the area and evidence of turbid discharges to “Algerine Ditch”. Staff also observed that the contractor was pumping water from the basins installed near the toe of the abutment to a pond upslope of the abutment to reduce the amount of runoff discharged to “Algerine Ditch”.

In the area upslope and east of the Mono Way east abutment, Board staff observed the pond where storm water was being pumped into from the base of the Mono Way east abutment. At the time of the inspection, the pond was nearly full and had previously overflowed and discharged to the north. Board staff observed that the areas upslope of the pond were largely unprotected and poorly stabilized, and evidence of erosion and a turbid discharge to surface water from these areas to the south was observed.

The contractor was using the area at the base of the Mono Way crossing as an equipment laydown yard. The yard consisted primarily of a dirt surface. Board staff observed evidence of erosion and sediment discharge to surface water from the laydown yard.

- 5 December 2012 - Board staff conducted an inspection during a rain event. This inspection focused on the area of the Mono Way east abutment. The inspection was conducted with Caltrans staff, a Department of Fish and Wildlife warden, the Contractor's QSP, and the Contractor's Qualified SWPPP Developer (QSD). During the inspection, Board staff observed several BMP failures and multiple discharges of turbid water to "Algerine Ditch".

Staff observed that the Mono Way east abutment slopes still lacked erosion control BMPs. Staff observed a significant amount of rilling, greater than what was observed during the 3 December 2012 inspection. The contractor was pumping water from several storm water basins at the base of the abutment into the pond at the top of the abutment. Staff observed sediment-laden storm water running down the abutment in several locations and discharging into "Algerine Ditch".

Staff inspected the upslope area when the contractor was pumping water from the basins at the base of the abutment. The pond was nearly full and BMPs in the graded areas around the pond were marginal or absent. Staff observed significant erosion and turbid storm water flowing south off the site.

Since the 3 December 2012 inspection, the contractor had placed some rock at the equipment laydown yard, but the area was still mainly a dirt surface with no erosion controls. Board staff observed a discharge of sediment-laden storm water from the lay down area into "Algerine Ditch".

Staff observed somewhat turbid water in "Algerine Ditch" approximately 100-feet south of the Mono Way east abutment at the beginning of the inspection around 8:30 AM, early in the rain event. At noon, after a few hours of rain, the water in "Algerine Ditch" approximately 100-feet south of the Mono Way east abutment was very turbid. The turbid flow had a distinctive red color that was not present in other drainages or creeks in the area. Board staff collected a storm water sample from "Algerine Ditch" immediately downstream of the site from under the bridge where the ditch crossed under Serrana Road. Board staff analyzed the sample for turbidity using a Hach 2100 P turbidity meter and determined that the sample had a turbidity of approximately 9,000 NTU.

Staff traced the flow of turbid storm water in "Algerine Ditch" approximately one mile downstream, where the creek crosses under Standard Road.

- 13 December 2012 - Board staff conducted a brief Project inspection prior to conducting a joint inspection with the California Department of Fish and Wildlife. Staff observed that the Mono Way east abutment remained largely unprotected with erosion control BMPs. The contractor had installed an additional construction entrance to the area at the base of the abutment and installed a new culvert to direct storm water flows under this entrance. In addition, Board staff observed highly turbid water in "Algerine Ditch" approximately one-half mile downstream when the creek crosses under Standard Road, caused by erosion from the Mono Way east abutment during the 11/12 December 2013 rain event.

- 7 January 2013 - Board staff conducted an inspection following a minor rain event that produced less than one-half inch of rain on 6 and 7 January 2012. Board staff was not joined by Caltrans or the contractor on this inspection.

Board staff observed that plastic sheeting had been placed on the front face of the Mono Way east abutment. The upper side flanks on the abutment were covered with erosion control blanket; however, the erosion control blanket did not extend down the entire slope. At the time of the inspection, the contractor was placing rock at the base of the abutment.

At the time of the inspection, the basin upslope of the Mono Way east abutment was nearly empty. The contractor had installed three Baker tanks adjacent to the basin for additional water storage. A large pump was installed in the pond to transfer water into the tanks. Staff observed a lack of erosion control BMPs in the area around the pond. In addition, the area to the east of the basin and Baker tanks did not contain erosion control BMPs and had significant rilling through the area. Evidence of offsite discharges during previous storm events was also observed in this area.

- 14 January 2013 - Board staff conducted an inspection with Caltrans staff. During the inspection, the contractor was placing plastic on and around the Mono Way east abutment. Board staff observed active construction including notching at the top of the abutment for placement of the bridge deck. The pond in the upslope area of the abutment still contained water and no erosion control BMPs had been installed in this area. The contractor had also installed a rock road to the top of the abutment, but the areas to both sides of the road were not protected with erosion control BMPs.
- 29 January 2013 - On 29 January 2013, Board staff conducted an inspection with Caltrans and Tuolumne County staff. Board staff observed major improvements in BMP implementation across the site.

Board staff observed that the majority of the Mono Way east abutment was covered in plastic sheeting with work to completely cover the abutment underway. The area to the east and upslope of the Mono Way east abutment was completely covered with plastic and or straw mulch. The basin upslope of the abutment was nearly empty and three 20,000-gallon Baker tanks had been installed adjacent to the basin for additional water storage.

- 19 February 2013 - Board staff conducted an inspection with Caltrans staff. The entire Project was now protected with plastic, straw mulch, erosion control blanket, or other storm water management BMPs. An active treatment system (ATS) had also been installed onsite.

Board staff observed that the areas where BMPs had previously failed had been fully repaired. The storm water retention basins near the Mono Way east abutment were mostly empty with capacity to capture storm water for either discharge or transfer to the ATS for treatment prior to discharge. According to the QSD, the ATS system had been fully tested, had a 160,000 gallon storage capacity, and was designed to treat storm water at a rate of 900 gallons per minute.

These inspections show that Caltrans was aware of the BMP deficiencies prior to the first major storm event and elected to continue to allow construction rather than installation of erosion and sediment control BMPs. Given the above, a culpability of 1.4 is appropriate.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated 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. The Discharger was given a multiplier value of **1.3** because of the cooperation exhibited by the Discharger to return into compliance. Water Board staff conducted several inspections prior to the first discharge event and reminded the Discharger of the storm water BMP requirements and urged them to stabilize the Mono East abutment as soon as possible. The abutment was not stabilized for five storm events which produced 24 days of precipitation over a span of 40 days (17 November 2012 – 27 December 2012). While Caltrans did maintain and improve sediment traps and regraded shoulders to reduce discharge, it did not install permit-compliant BMPs or a treatment system until late January 2013.

History of Violations

This factor is to be used when there is a history of repeat violations. A minimum multiplier of 1.0 is to be used, and is to be increased as necessary. In this case, a multiplier of **1.1** was used because there have been previous discharge violations from similar projects constructed by Caltrans. For example, similar discharges of turbid storm water occurred from the first phase of the Sonora Bypass Project, according to the NOV issued to Caltrans District 10 by the Central Valley Water Board in May 2003. Caltrans District 10 also received an NOV for failure to implement appropriate sediment control BMPs at its I-5 widening project in Stockton on 6 March 2012. On 27 January 2010, the Central Valley Water Board issued an ACL Order/Stipulated Agreement to Caltrans for the discharge of 319,000 gallons of turbid storm water at the Lincoln Bypass Project in District 3. Other Regional Water Boards have also issued ACL Complaints to Caltrans. In 2009, the U.S. EPA found significant violations when it audited Caltrans' compliance with the Caltrans Storm Water Permit (Order 99-06-DWQ). As a result of the audit, U.S. EPA issued an Order for Compliance to Caltrans in 2010, in part, for failure to implement adequate structural and nonstructural BMPs at construction sites and failure to proactively implement its construction storm water management program year-round. U.S. EPA found Caltrans was not prepared to implement and was not implementing adequate BMPs at the beginning of its defined "rainy season". U.S. EPA also cited Caltrans' failure to conduct and document adequate inspections and enforcement at construction sites. The statewide violations found by the U.S. EPA mirror the violations that Water Board staff found at the Sonora Bypass Project. While Board staff is using a multiplier of 1.1 for this penalty calculation, it could be argued that given Caltrans' history of violation, a higher multiplier would be more appropriate.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Total Initial Liability Amount determined in Step 2.

Violation #1 – Total Base Liability Amount

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

$$\$523,674 \times 1.4 \times 1.3 \times 1.1 = \$1,048,395$$

Total Base Liability = **\$1,048,395**

Violation 2: Violation of Section A.6 of the Caltrans Storm Water Permit

Section A.6 of the Caltrans Storm Water Permit prohibits the discharge of sand, silt, clay or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity, or discoloration in waters of the State or which unreasonably affect or threaten to affect beneficial uses of such waters. Board staff considered the Discharger to be in violation of this requirement over a period of 24 days when at least 822,701 gallons of storm water with turbidities that ranged from 26 nephelometric turbidity units (NTU) up to 7,368 NTU (with the majority of measurements above 1,700 NTU) was discharged off site between 17 November 2012 and 27 December 2012.

Step 1 – Potential for Harm for Discharge Violations

The “potential harm to beneficial uses” factor considers the harm to beneficial uses 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 to 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

A score between 0 and 5 is assigned based on a determination of whether the harm or potential for harm to beneficial uses is negligible (0) to major (5). In this case the potential harm to beneficial uses was determined to be **moderate** (i.e. a score of 3), which is defined as a “*moderate threat to beneficial uses (i.e. impacts are observed or reasonably expected and impacts to beneficial uses are moderate and likely to attenuate without appreciable acute or chronic effects).*”

The Discharger failed to implement appropriate erosion and sediment control BMPs prior to storm events in October, November, and December 2012. This failure resulted in at least 822,701 gallons of sediment-laden discharges in November and December to “Algerine Ditch”, a tributary to Curtis Creek, which flows to Don Pedro Reservoir. The beneficial uses of Don Pedro Reservoir, as stated in the Basin Plan, are: municipal and domestic supply; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; and wildlife habitat.

“Algerine Ditch” was identified as a water of the United States and subject to regulation under Section 404 of the federal Clean Water Act (CWA) in the Natural Environment Study (NES) prepared by Caltrans for the Project in 2008. Caltrans applied for and received a CWA section 404 permit, a CWA 401 certification, and a California Department of Fish and Wildlife streambed alteration permit for its construction activities in the creek and other Project areas. The NES identified suitable habitats for multiple special-status species within the Project’s Biological Study Area. The species included valley elderberry beetle (VELB); San Joaquin Roach; California red legged frog; western pond turtle; coast horned lizard; multiple bat species; multiple nesting bird species, and multiple plant species. The

California Natural Diversity Database (CNDDDB) lists Sierra Nevada yellow-legged frog, San Joaquin roach, and other species as occurring in the area of the Standard USGS 7.5' quadrangle map. Curtis Creek and "Algerine Ditch" are within the Standard map, so these species may have been impacted by sediment discharged from the Project.

Discharges of sediment to surface waters can cloud the receiving water, thereby reducing the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. Sediment can also transport other materials such as nutrients, metals, and oils and grease. The discharge of sediment negatively impacts aquatic organisms.

Board staff, accompanied by Department of Fish and Wildlife staff inspected "Algerine Ditch" on both 5 December 2013 and 13 December 2012. The Mono East abutment is at the headwaters of "Algerine Ditch" and no background samples were available above the Project. At Standard Road approximately one mile downstream of the discharge location, Board staff observed significant accumulation of red sediment along the sides of the creek, on the rocks, and in the blackberry bushes. The red sediment was due to the release from the Mono East abutment and was distinctly different than the native dark brown creek substrate. Downstream of Standard Road, the creek enters a series of ponds, all of which were filled with red sediment. "Algerine Ditch" continues through Sierra Pacific Industry (SPI) property and enters Curtis Creek approximately 2 miles below the Mono East abutment. According to SPI personnel, red sediment discharges were observed in "Algerine Ditch" numerous times during November-December 2012.

Given the measured turbidity levels and the observed volume of sediment settled in the creek channel and banks during the two inspections, Board staff determined that the discharge of sediment impacted benthic macroinvertebrates, which are an important food source for fish. The discharge may have also impacted the multiple special-status species listed above. The discharges took place at the headwaters of a small stream, and relatively little dilution was available to mitigate the impact of the discharges. In addition, impact of the sediment discharges was observed over a relatively long stretch of the stream, at least one mile from the project site. The impacts may have extended further, but neither Board staff nor Caltrans staff investigated beyond that point. Sediment was discharged repeatedly over a period of 24 days between 22 October 2012 and 27 December 2013. During these discharge events, turbidity measurements of storm water leaving the construction site recorded by the Discharger ranged from 26 nephelometric turbidity units (NTU) up to 7,368 NTU, with the majority of measurements above 1,700 NTU. As noted above, neither Board staff, Caltrans, nor the contractor's QSP was able to collect an upstream sample because the discharge location was at the headwaters of "Algerine Ditch".

Based on the above discussion the amount of sediment released is considered to have a moderate potential to harm beneficial uses, as defined in the Enforcement Policy.

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. In this case, a score of **2** was assigned. A score of 2 is defined as the chemical and/or physical characteristics of the "*discharged material poses moderate risk or threat to potential receptors (i.e. chemical and/or physical characteristics of the discharged material have some level of toxicity or pose a moderate level of concern regarding receptor protection)*". Discharges of sediment can cloud the receiving water (which reduces the amount of sunlight reaching aquatic plants), clog fish gills, smother aquatic habitat and spawning areas, and impede navigation. Sediment can also transport

other materials such as nutrients, metals, and oils and grease, which can also negatively impact aquatic life and aquatic habitat. Therefore, a score of 2 is appropriate.

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, sediment discharged was dispersed by storm water over a long distance and cleanup or abatement would not be possible. 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 penalties based on both a per-gallon and a per-day basis for discharge violations.

Per Gallon Assessments for Discharge Violations

When there is a discharge, the Central Valley Water Board is to determine the initial liability amount on a per gallon basis using the Potential for Harm score from Step 1 and the extent of Deviation from Requirement of the violation. The Potential for Harm score from Step 1 is 6 and the extent of Deviation from Requirements is considered **Major** because the requirement (i.e., the Prohibition) was rendered ineffective based on the lack of effective erosion control BMPs which caused large amounts of eroded sediment to be discharged to “Algerine Ditch”. 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.

As explained for Violation 1, Water Board staff is using a total of 822,701 gallons discharged over 24 days for the purposes of penalty calculation. Staff does not believe that this is an accurate volume and feels that it is a substantial underestimate based on the factors described above. Caltrans was repeatedly asked to re-evaluate the volume estimates and did not provide Board staff with information that reflected site conditions. This was taken into account in the cleanup and cooperation factor, below.

The maximum civil liability allowed under Water Code section 13385 is \$10 per gallon discharged. This amount was used for discharges from the Mono East abutment with the exception of the discharges associated with qualifying rain events (QREs) 4 and 7. Because of the volume of the Mono East abutment discharges related with QREs 4 and 7, as shown in the table below, Board staff used the “high volume” discount of \$2 per gallon instead of \$10 per gallon, as described by the Enforcement Policy. For QREs 4 and 7, it is appropriate to use the \$2 per gallon value in calculating the liability because of the significant volume of discharges. The Enforcement Policy also states that when using a value less than the statutory maximum of \$10/gallon results in an inappropriately small penalty, a higher amount, up to the statutory maximum, may be used. Board staff considered the final penalty amount, and believes that the amount is appropriate. However, if other factors such as the violator’s conduct factors were to be reduced, then the final penalty would not be appropriate and staff would need to re-evaluate whether a value greater than \$2/gallon should be used in the calculation.

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 for each spill event. According to the volume estimates, there were six qualifying rain events in which discharge took place. As shown in the table below, the total volume subject to penalties is 818,119 gallons. The Per Gallon Assessment is calculated as $(0.31) \times (\text{spill volume} - 1,000) \times (\$2 \text{ per gallon})$.

Qualifying Rain Event	Dates	Total Runoff Volume (gallons)	Total Volume Subject To Penalties (Volume - 1,000 gallons)	Days of Violation Subject to Penalties
#1	22-24 Oct 2012	0	0	0
#2	9-11 Nov 2012	425	0	0
#3	17-22 Nov 2012	53,144	52,144	6
#4	29 Nov-6 Dec 2012	466,168	465,168	8
#5	11-13 Dec 2012	157	0	0
#6	16-18 Dec 2012	11,868	10,868	3
#7	21-27 Dec 2012	290,939	289,939	7
Total			818,119	24

Per Day Assessments for Discharge Violations

When there is a discharge, the Water Board is to determine the initial liability amount on a per day basis using the same Potential for Harm score from Step 1 and the same Extent of Deviation from Requirements used in the per-gallon analysis. The Potential for Harm score from Step 1 is **6** and the Extent of Deviation from Requirements is considered to be **Major**. Therefore the “per day” factor is **0.22** (as determined from Table 2 in the Enforcement Policy). The Per Day Assessment is calculated as $(0.22) \times (\text{number of days}) \times \$10,000 \text{ per day}$.

Violation 2 – Initial Liability Amount

The initial liability amount for the discharge violations is as follows:

Per Gallon Liability:

1. 17 through 22 November 2012: $\$10 \times (53,144 - 1,000) \times 0.22 = \$114,717$
2. 29 November through 6 December 2012: $\$2 \times (466,168 - 1,000) \times 0.22 = \$204,674$
3. 16 through 18 December 2012: $\$10 \times (11,868 - 1,000) \times 0.22 = \$23,910$
4. 21 through 27 December 2012: $\$2 \times (290,939 - 1,000) \times 0.22 = \$127,573$

Per Day Liability:

5. 17 through 22 November 2012: $\$10,000 \times 0.22 \times 6 \text{ days} = \$13,200$
6. 29 November through 6 December 2012: $\$10,000 \times 0.22 \times 8 \text{ days} = \$17,600$
7. 16 through 18 December 2012: $\$10,000 \times 0.22 \times 3 \text{ days} = \$6,600$
8. 21 through 27 December 2012: $\$10,000 \times 0.22 \times 7 \text{ days} = \$15,400$

Total Initial Liability = \$523,674

Step 3 – Per Day Assessment for Non-Discharge Violations

In this case, this factor does not apply because Violation #2 is related to a discharge and the liability was determined in Step 2.

Step 4 – 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.

Culpability

A factor of **1.4** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Cleanup and Cooperation

A factor of **1.3** is appropriate for this violation; the same factors described in Violation No. 1 are applicable to this violation.

History of Violations

A factor of **1.1** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Total Initial Liability Amount determined in Step 2.

Violation 2 – Total Base Liability Amount

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

$$\$523,674 \times 1.4 \times 1.3 \times 1.1 = \$1,048,395$$

Total Base Liability = **\$1,048,395**

Violation 3: Violation of Requirement E.4 of the Construction General Permit

The Construction General Permit (Order 2009-0009-DWQ as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ), Attachment D, Requirement E.4, requires Risk Level 2 dischargers to apply linear sediment control BMPs to comply with sheet flow lengths listed in Table 1 of Attachment D of the permit. The Sonora Bypass project was determined to be Risk Level 2 under the terms of the Construction General Permit. The maximum sheet flow lengths listed in Table 1 of Attachment D range from 10 to 20 feet, dependent on slope. Linear sediment controls are required to prevent rilling/gullies which concentrate flow and increase water flow velocities. Increased water flow velocities increase erosion and sediment transport. This requirement was in effect during rain events while the abutment was being built (i.e., active construction area in the terms of the Construction General Permit) and at all

times once the abutment was at final elevation (i.e., inactive construction area in the terms of the Construction General Permit). According to Caltrans, earthwork on the Mono East abutment was completed on 15 November 2012. During the period between 16 October 2012 and 15 November 2012 when earthwork was occurring on the abutment, there were two qualifying rain events consisting of six days of rain. On 29 January 2013, the Mono East abutment was covered with plastic and Board staff considered Caltrans to be in compliance beginning on 30 January 2013.

Board staff considered the Discharger to be in violation of the linear sediment control BMP requirements during the six days prior to 15 November 2012. Following the completion of the earthwork on the Mono East abutment, Board staff considered the Discharger to be in violation of this requirement for 76 days from 15 November 2012 through 29 January 2013, for a total of 82 days of violation.

Step 1 – Potential for Harm for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

Step 2 – Assessment for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

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 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 lack of appropriate linear sediment control BMPs had the potential to impact beneficial uses. During the period from 16 October 2012 through 29 January 2013, prior to installation of the plastic sheeting, rainfall caused erosion which could have been reduced using appropriate linear sediment control BMPs to trap a portion of the sediment and slow the flow of runoff. The Discharger did, however, increase the size of retention basins in late November 2012 in an effort to minimize turbid runoff and sediment transport offsite. However, based on inspections conducted by Board staff, these basins were undersized and not fully effective at preventing turbid discharges. Therefore, the potential for harm to beneficial uses is determined to be **Moderate**, which is defined as “*The characteristics of the violation present a substantial threat to beneficial uses and/or the circumstances of the violation indicate a substantial potential for harm. Most incidents would be considered to present a moderate potential for harm.*”

Deviation from Requirement: The Enforcement Policy requires determination of whether the violation represents either a minor, moderate, or major deviation from the applicable requirements. No linear sediment control BMPs or grade breaks were installed on the slopes of the Mono East abutment. The deviation from the applicable requirement (i.e., Requirement E.4 of the Construction General Permit) is determined to be **Major**, which is defined as “*The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).*”

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 below.

Violation 3 - Initial Liability Amount

The initial liability amounts for the violations calculated on a per-day basis, are as follows: 6 days of violation prior to 15 November 2012 and 76 days of violation from 15 November 2012 to 29 January 2013 for a total of 82 days of violation.

$$82 \text{ days} \times \$10,000 \times 0.55 = \$451,000$$

Total Initial Liability = **\$451,000**

Step 4 – 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.

Culpability

A factor of **1.4** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated 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. The Discharger was given a multiplier value of **1.3** because of the cooperation exhibited by the Discharger to return into compliance. Water Board staff conducted numerous inspections prior to the first discharge event reminding the Discharger of the storm water BMP requirements including linear sediment controls at the Mono East abutment as soon as possible. Effective linear sediment control BMPs were not installed between 16 October 2012 and 29 January 2013 which contributed to the turbid discharge cited in Violations 1 and 2, above.

History of Violations

A factor of **1.1** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Total Initial Liability Amount determined in Step 3.

Violation 3 - Total Base Liability Amount

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

$$\$451,000 \times 1.4 \times 1.3 \times 1.1 = \$902,902$$

Total Base Liability = **\$902,902**

Violation 4: Violation of Construction General Permit, Requirement E.3

The Construction General Permit, Attachment D, Requirement E.3, requires Risk Level 2 dischargers to implement appropriate erosion control BMPs including runoff control and soil stabilization in conjunction with sediment control BMPs in active construction areas. The Sonora Bypass project was determined to be Risk Level 2.

Board staff considered the Discharger to be in violation of the erosion and sediment control BMP requirements for active areas during qualifying rain events starting on 16 October 2012 (the date of the first inspection) through 3 December 2012 (the date that Board staff were informed that there would not be further activity in this area and that the abutment was inactive due to saturated soil conditions). Active construction areas are defined in the General Permit as: *“areas undergoing land surface disturbance. This includes construction activity during the preliminary stage, mass grading stage, streets and utilities stage and the vertical construction stage.”* Active areas must have appropriate erosion and sediment controls installed prior to rainfall but not between rain events. The General Permit defines inactive areas of construction as *“areas of construction activity that have been disturbed and are not scheduled to be re-disturbed for at least 14 days.”* Inactive areas must have effective soil cover during the entire period of inactivity, regardless of rainfall. Between 16 October and 3 December 2012, there were four qualifying rain events which lasted for 16 days; therefore, the Discharger was in violation of this provision for 16 days.

During the storm events prior to 3 December 2012, inadequate erosion and sediment control BMPs caused sediment to be mobilized into the retention basins. Violation 4 is for the period of 16 days of rainfall that occurred while the area was still considered active and the Discharger failed to have adequate erosion and sediment control BMPs installed at the site.

Step 1 – Potential for Harm for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

Step 2 – Assessment for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

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 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 lack of appropriate erosion and sediment control BMPs had the potential to impact beneficial uses. During the 16 October 2012 through 3 December 2012 period prior to installation of the plastic sheeting, rainfall caused massive erosion which could have been reduced using appropriate combination of erosion control and sediment control BMPs to limit erosion and capture a portion of the sediment that ultimately discharged. The Discharger did, however, increase the size of retention basins in late November 2012 in an effort to minimize turbid runoff and sediment transport offsite. However, based on inspections conducted by Board staff, these basins were undersized and not very effective. Therefore, the potential for harm to beneficial uses based on the BMPs in place is determined to be **Moderate**, which is defined as *“The characteristics of the violation present a substantial threat to beneficial uses and/or the circumstances of the violation indicate a substantial potential for harm. Most incidents would be considered to present a moderate potential for harm.”*

Deviation from Requirement: The Enforcement Policy requires determination of whether the violation represents either a minor, moderate, or major deviation from the applicable requirements. No erosion or sediment control BMPs were installed on the slopes of the Mono East abutment. The deviation from the applicable requirement (i.e, Requirement E.3 of the Construction General Permit) is determined to be **Major**, which is defined as “*The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).*”

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 below.

Violation 4 - Initial Liability Amount

The initial liability amounts for the violations, calculated on a per-day basis, are based on four QREs between 16 October 2012 through 3 December 2012 which totaled 16 days of rain:

$$16 \text{ days} \times \$10,000 \times 0.55 = \$88,000$$

Total Initial Liability = \$88,000

Step 4 – 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.

Culpability

A factor of **1.4** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated 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. The Discharger was given a multiplier value of **1.3** because of the cooperation exhibited by the Discharger to return into compliance. Water Board staff conducted several inspections prior to the first discharge event reminding the Discharger of the storm water BMP requirements including erosion and sediment controls at the Mono East abutment as soon as possible. Effective erosion and sediment control BMPs were not installed in active areas prior to rain events between 16 October 2012 and 3 December 2012 which contributed to the turbid discharge cited in Violations 1 and 2 (above) during these rain events.

History of Violations

A factor of **1.1** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Total Initial Liability Amount determined in Step 3.

Violation #4 - Total Base Liability Amount

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

$$\$88,000 \times 1.4 \times 1.3 \times 1.1 = \$176,176$$

Total Base Liability = **\$176,176**

Violation 5: Violation of Requirement D.2 of the Construction General Permit

The Construction General Permit, Attachment D, Requirement D.2, requires Risk Level 2 dischargers to implement appropriate erosion control BMPs for inactive areas. The Sonora Bypass project was determined to be Risk Level 2.

Board staff considered the Discharger to be in violation of the erosion control BMP requirements between 4 December 2012 (the date that Mono Way East abutment was considered inactive) until plastic sheeting completely protected the abutment from erosion on 29 January 2013. Inactive areas must have effective soil cover during the entire period of inactivity, regardless of rainfall.

Step 1 – Potential for Harm for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

Step 2 – Assessment for Discharge Violations

This step is not applicable because the violation is a not a discharge violation.

Step 3 – Per Day Assessment for Non-Discharge Violations

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

Potential for Harm: The Enforcement Policy requires determination of whether the characteristics of the violation resulted in a minor, moderate, or major potential for harm or threat to beneficial uses. The characteristics of the violation present either a minor, moderate, or major potential for harm or threat to beneficial uses. In this case, a lack of appropriate erosion and sediment control BMPs had the potential to impact beneficial uses. During the 4 December 2012 through 29 January 2013 period prior to installation of the plastic sheeting, rainfall caused erosion which could have been reduced using appropriate combination of erosion control and sediment control BMPs to limit erosion and capture a portion of the sediment that ultimately discharged. The Discharger did, however, increase the size of retention basins in late November 2012 in an effort to minimize turbid runoff and sediment transport offsite. However, based on inspections conducted by Board staff, these basins were undersized and not fully effective. Therefore, the potential for harm to beneficial uses based on the BMPs in place is determined to be **Moderate**, which is defined as “*The characteristics of the violation present a substantial threat to beneficial uses and/or the circumstances of the violation indicate a substantial potential for harm. Most incidents would be considered to present a moderate potential for harm.*”

Deviation from Requirement: The Enforcement Policy requires determination of whether the violation represents either a minor, moderate, or major deviation from the applicable requirements. No erosion

or sediment control BMPs were installed on the slopes of the Mono East abutment. The deviation from the applicable requirement (i.e, Requirement D.2 of the Construction General Permit) is determined to be **Major**, which is defined as “*The requirement has been rendered ineffective (e.g., discharger disregards the requirement, and/or the requirement is rendered ineffective in its essential functions).*”

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 below.

Violation 5 - Initial Liability Amount

The initial liability amounts for the violations, calculated on a per-day basis, are as follows, based on 57 days from 4 December 2012 through 29 January 2013:

$$57 \text{ days} \times \$10,000 \times 0.55 = \$313,500$$

Total Initial Liability = **\$313,500**

Step 4 – 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.

Culpability

A factor of **1.4** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Cleanup and Cooperation

This factor reflects the extent to which a discharger voluntarily cooperated 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. The Discharger was given a multiplier value of **1.3** because of the cooperation exhibited by the Discharger to return into compliance. Water Board staff conducted several inspections prior to the first discharge event reminding the Discharger of the storm water BMP requirements including erosion control soil cover for inactive areas at the Mono East abutment as soon as possible. Effective erosion control soil cover was not installed for 57 days after the abutment was considered inactive on 4 December 2013. The lack of soil cover contributed to the turbid discharge cited in Violation #s 1 and 2, above.

History of Violations

A factor of **1.1** is appropriate for this violation; the same factors described for Violation No. 1 are applicable to this violation.

Step 5 - Determination of Total Base Liability Amount

The Total Base Liability is determined by applying the adjustment factors from Step 4 to the Total Initial Liability Amount determined in Step 3.

Violation 5 - Total Base Liability Amount

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

$$\$313,500 \times 1.4 \times 1.3 \times 1.1 = \$627,627$$

Total Base Liability = **\$627,627**

**COMBINED TOTAL BASE LIABILITY
AND FACTORS APPLIED TO ALL VIOLATIONS**

The combined Total Base Liability Amount for the five violations is **\$3,803,495** (\$1,048,395 + \$1,048,395 + \$902,902 + \$176,176 + \$627,627 = \$3,803,495).

The following factors apply to the combined Total Base Liability Amounts for all of the violations discussed above.

STEP 6 – Ability to Pay and Continue in Business

The ability to pay and to continue in business must be considered when assessing administrative civil liabilities. Caltrans is a California state agency with an annual budget of over \$12 billion. Given this information, the combined Total Base Liability Amount was not adjusted for the Discharger's ability to pay.

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 has incurred over \$20,000 in staff costs associated with the investigation and enforcement of the violations alleged herein. While this amount could be added to the penalty, given recent State Water Board guidance, it is not.

STEP 8 – Economic Benefit

Pursuant to CWC section 13385(e), civil liability, at a minimum, must be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation. The violations of the Caltrans Storm Water Permit and General Construction Permit were due to failure to implement appropriate erosion and sediment control BMPs as listed in the site specific SWPPP.

The Enforcement Policy states (p. 21) that the total liability shall be at least 10% higher than the economic benefit, "so that liabilities are not construed as the cost of doing business and the assessed liability provides a meaningful deterrent to future violations." Caltrans incurred an economic benefit by not installing temporary BMPs prior to the seven qualifying rain events (QREs). Caltrans also incurred an economic benefit by working through the rainy season and finishing the Phase 2 Sonora Bypass project in November 2013 instead of July 2014 as originally planned, approximately eight months ahead of schedule. Because Caltrans worked through the rain to complete the earthwork on the Mono Way abutment (i.e., the area that led to the violations), Caltrans was able to complete the bridge construction through the winter instead of waiting until spring, and therefore finished the entire Project eight months ahead of schedule.

The economic benefit for not installing temporary BMPs was estimated based on installation and maintenance costs of temporary bonded fiber matrix (BFM) and fiber rolls for the seven QREs. Although requested, Caltrans did not provide detailed costs of BMP installation. Therefore, Water Board staff estimated the cost of the BMPs that were not installed based on a 25 January 2013 document posted to the Caltrans payment website. This document showed the unit costs for fiber rolls and BFM for the Project. Board staff estimated that 22.1 acres needed these temporary BMPs during the seven QREs, based on the 1 February 2013 Montgomery Associates' NOV response. The cost of the temporary BMPs was estimated to be \$456,374.

Board staff also estimated the economic benefit for completing the Project in November 2013 instead of July 2014. This estimate was done by estimating what Caltrans staff costs for the Project would have been if they had kept working until July 2014. In order to estimate what would have been spent if the Project was completed per the original schedule, Water Board staff requested that Caltrans provide monthly project cost sheets for the period of January to September 2013. However, this information was not submitted. Therefore, Board staff estimated based on observations during its inspections, an average of eight Caltrans staff members would have been assigned to the Project during the eight month period from November 2013 to July 2014. Board staff also assumed that the average annual salary, including overhead, was \$100,000 per person. Using these values, the savings in staff cost was estimated to be \$533,000. These savings represent an avoided cost to Caltrans on this project because finishing the Project early allowed these people to be assigned to other projects.

The U.S. Environmental Protection Agency developed the BEN computer model to calculate the economic benefit a discharger derives from delaying and/or avoiding compliance with environmental regulations. The State Water Board's Senior Economist used the BEN model and the above two values to estimate that the overall economic benefit of noncompliance was \$480,204 for the temporary BMPs and \$549,828 for the staffing and oversight costs, totaling \$1,030,032 in economic benefit. Pursuant to the Enforcement Policy, the total proposed liability amount should be at least 10% higher than the calculated economic benefit. The proposed liability exceeds the economic benefit plus 10% which is calculated to be \$1,133,035.

STEP 9 – Maximum and Minimum Liability Amounts

Minimum Liability Amount: Economic benefit plus 10% or **\$1,133,035**.

Maximum Liability Amount: The maximum administrative liability amount is the maximum amount allowed by Water Code section 13385. For discharge violations 1 and 2, the maximum liability is \$10/gallon plus \$10,000 per day. For non-discharge violations 3, 4, and 5, the maximum liability is \$10,000 per day. As shown in the table below, the statutory maximum amount for the alleged violations is **\$18,392,380**.

Statutory Maximum Liability Amount

Violation #1 – (818,119 gallons x \$10/gallon) + (24 days x \$10,000/day) = \$8,421,190

Violation #2 – (818,119 gallons x \$10/gallon) + (24 days x \$10,000/day) = \$8,421,190

Violation #3 – 82 days x \$10,000/day = \$820,000

Violation #4 – 16 days x \$10,000/day = \$160,000

Violation #5 – 57 days x \$10,000/day = \$570,000

Total Statutory Maximum Liability – \$8,421,190 + \$8,421,190 + \$820,000 + \$160,000 +
 \$570,000 = \$18,392,380

The maximum liability amount for each violation must be compared with the liability calculated using the Enforcement Policy’s penalty calculation method. If the liability calculated using the Enforcement Policy is above the statutory maximum for a particular violation, then the statutory maximum is used. As shown in the table below, the statutory maximum was used for violations 3, 4, and 5 because the penalty calculation amount is above the statutory maximum allowed by the Water Code.

Statutory Maximum Liability and Total Base Liability Analysis

	Statutory Maximum Liability	Penalty Calculation Liability	Proposed Liability
Violation #1	\$8,421,190	\$1,048,395	\$1,477,282
Violation #2	\$8,421,190	\$1,048,395	\$1,477,282
Violation #3	\$820,000	\$902,902	\$820,000
Violation #4	\$160,000	\$176,176	\$160,000
Violation #5	\$570,000	\$627,627	\$570,000
		Total	\$3,646,790

STEP 10 – Final Liability Amount

Based on the foregoing analysis, and consistent with the Enforcement Policy, the final liability amount proposed for the alleged violations is **\$3,646,790**. This liability falls within the statutory maximum and minimum liability amounts.