

Central Valley Regional Water Quality Control Board
21/22 April 2016 Board Meeting

Response to Written Comments on
Tentative Waste Discharge Requirements for
Sierra Pacific Industries, Shasta Lake Division
Sawmill and Cogeneration Facility
Shasta County

At a public hearing scheduled for 21/22 April 2016, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0081400) for the Sierra Pacific Industries, Shasta Lake Division Sawmill and Cogeneration Facility in Shasta County. This document contains responses to written comments received from interested parties in response to the tentative Order. Written comments from interested parties were required to be received by the Central Valley Water Board no later than 5:00 p.m. on 2 March 2016 in order to receive full consideration. Timely comments were received from the following:

1. Sierra Pacific Industries, Shasta Lake Division (Discharger) submitted comments on 25 February 2016.

One additional comment was received after the deadline from the Discharger on 11 March 2016.

Written comments from the above interested party are summarized below, followed by the response of Central Valley Water Board staff.

DISCHARGER (SIERRA PACIFIC INDUSTRIES) COMMENTS

DISCHARGER COMMENT #1 – Discharge Prohibitions

The Discharger suggests Discharge Prohibition III.A. language be changed. The tentative Order contains the following language for Discharge Prohibition III.A.:

Discharge of wastewater from the Facility, as the Facility is specifically described in the Fact Sheet in section II.B, in a manner different from that described in this Order is prohibited.

The Discharger states that this language is unnecessary and could restrict future planned changes which “may not be exactly consistent with the details described in the

Fact Sheet.” The Discharger suggests removing the reference to “Fact Sheet section II.B” in the prohibition language so as to read as follows:

“Discharge of wastewater from the Facility in a manner different from that described in this Order is prohibited.”

In addition, the Discharger also suggests removal of Discharge Prohibition III.E, which states, “Discharge from Discharge Point 001 (previous discharge location) is prohibited,” as “Discharge Point 001 no longer exists.”

RESPONSE:

Central Valley Water Board staff disagrees that Discharge Prohibition III.A language should be changed. Fact Sheet section II.B provides a description of the existing discharge point location and the receiving water (e.g., latitude and longitude, hydrologic area, etc.). The discharge point and receiving water locations contained in Fact Sheet section II.B is a reflection of the information provided by the Discharger in the Report of Waste Discharge and is a necessary component to the tentative Order.

In addition, Fact Sheet section II.E (i.e., Planned Changes) acknowledges that the Discharger is evaluating a long-term strategy to better manage process water and storm water onsite and, as part of this strategy, the Discharger may isolate process waste flows onsite, eliminate surface water discharge, and/or explore additional treatment options. Any future change that affects the characterization of the permitted discharge (volume, quality, location) shall be addressed through the Discharger’s submittal of a request for modification or revocation and reissuance pursuant to 40 CFR 124.5. NPDES permit modifications and revocations are discussed in more detail in the response to Discharger Comment #2.

Central Valley Water Board staff, however, agrees that Discharge Prohibition III.E should be removed. Discharge Point 001 is a sealed outfall location and is no longer in use. As such, the tentative Order has been amended and reference to Discharge Prohibition III.E, including the rationale provided in the Fact Sheet, has been removed.

DISCHARGER COMMENT #2 - Reopener Provisions

The Discharger requests that a reopener provision be added that would allow modification of the permit upon demonstration by the Discharger that all process water discharges have been eliminated. The Discharger states that they are “currently evaluating means to confine the discharge to exclusively storm water and could have

modifications completed early in the permit term that would render some of the current effluent limitations inapplicable.”

RESPONSE:

Central Valley Water Board staff disagrees that an additional reopener provision should be added to the permit to address potential future Facility modifications. This is because the tentative Order already contains a reopener provision to address this. The tentative Order contains Reopener Provision C.1.a., which addresses modification or revocation and reissuance requirements and procedures for NPDES permits. At any future date, the Discharger may submit to the Central Valley Water Board a request for modification or revocation and reissuance pursuant to 40 CFR section 122.62. The Discharger states that they are exploring the potential to eliminate the current discharge of commingled process wastewater and storm water from the Facility. Please note, the removal of a point source outfall when the discharge is terminated is considered a minor modification of the NPDES permit in accordance with 40 CFR 122.63.

DISCHARGER COMMENT #3 - Groundwater Monitoring Well Network Installation and Characterization

The Discharger states that the schedule for deliverables should be changed to tie the deliverable due dates to the *Central Valley Water Board approvals* and not the *effective date of the Order*.

In addition, the Discharger requests the removal of the requirement to submit a work plan for the technical report. The Discharger states, “*The requirements for the technical report are clear in the permit and a work plan for writing the report is unnecessary. Moreover, the work plan is required over 3 years in advance of the technical report due date prior to monitoring.*”

RESPONSE

Central Valley Water Board staff finds the deliverable due dates related to the Groundwater Monitoring Well Network Installation and Characterization requirement adequate for the purpose of maintaining progress with the goals of the requirement and to ensure the necessary information is delivered in a timely manner. For reference, the deliverables and their respective due dates are summarized in the table below.

Work Plan (Well installation)	Within 6 months of effective date of Order.
Work Plan (Technical Report)	Within 6 months of the effective date of Order.
Installation of wells	No later than 12 months following well installation Work Plan approval.
Technical Report	Within 42 months of the effective date of the Order.

The Discharger is requesting that all due dates be “tied to Central Valley Water Board approvals and not the effective date of the Order.” The work plans are initial submittals by the Discharger and their submittal need not be predicated on any prior Central Valley Water Board approval process. Therefore, the only other subject deliverable tied to the effective date of the Order is the final Technical Report. The Technical Report due date was established, in part, to allow for an adequate amount of time to collect both the ground water monitoring data (a minimum of two years) and additional data related to the hydrogeological analysis. However, to accommodate the Discharger’s concern regarding the timeframe of the work plan approval process, staff has amended the due date for the Technical Report, as follows:

Technical Report	Within 42 months of the date of <u>approval of the well installation work plan</u> effective date of the Order.
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In addition, Central Valley Water Board staff finds it important that a work plan be submitted for the Technical Report and within the timeframe provided (i.e., 6 months). Although the Report requirements related to the groundwater characterization is standard (e.g., summarize monitoring data, provide concentrations comparisons between background concentrations, etc.), the Report also requires an analysis of the hydrogeological interaction of groundwater beneath the site with surface water in the unnamed tributary. A work plan for such an analysis should be developed as soon as possible, as the information needed to complete the analysis may take years to collect and efforts on data collection will likely commence early in the permit cycle. Furthermore, Central Valley Water Board review and approval of the work plan allows for a common understanding of goals and objectives and clear expectations for the final product.

In reviewing the Discharger’s comment about the subject work plan, staff discovered an oversight in the language, such that the Technical Report work plan is not subject to approval by the Executive Officer. Staff has added the following language to Tentative Order section VI.C.2.b (new language underlined):

A work plan for the technical report shall be submitted for approval by the Executive Officer **within 6 months following the effective date of this Order.**

DISCHARGER COMMENT #4 - Salinity Evaluation and Minimization Plan

The Discharger requests removal of language related to the requirement to prepare and submit a Salinity Evaluation and Minimization Plan (SEMP) pursuant to section VI.C.3.a. of the tentative Order. However, the Discharger does not object to the requirement to have a SEMF on record and to evaluate the effectiveness of the SEMF and to provide a summary with the Report of Waste Discharge.

RESPONSE

The Discharger submitted a SEMF to the Central Valley Water Board for review on 2 March 2016 (after the public comment closing date for the tentative Order). As such, Central Valley Water Board staff has removed the submittal requirement from section VI.C.3.a and subsequent reference(s) to the requirement for submittal contained in Fact Sheet section IV.C.3.a.iii.

DISCHARGER COMMENT #5 - Municipal Recycled Water Use

The Discharger states that they have no control over the quality of the recycled water supplied by the City of Shasta Lake municipal wastewater treatment plant for reuse at the Discharger's Facility. For this reason, the Discharger requests that the tentative Order provision in section VI.C.6.b not obligate the Discharger to certify compliance with requirements set forth in California Code of Regulations (CCR) Title 22, Chapter 3, with respect to the treatment and quality of recycled water provided by the City's municipal wastewater treatment plant for reuse at the Facility.

RESPONSE:

The tentative Order contains a requirement that the Discharger submit documentation that the use of recycled water at the Facility is in compliance with requirements set forth in California Code of Regulations (CCR) Title 22, Chapter 3. Central Valley Water Board staff agree that the Discharger has no control over the quality of recycled water received from the City's municipal wastewater treatment plant and did not intend to imply such an authority with the chosen language. The tentative Order does, however, require that the use of municipal recycled water at the Facility be in accordance with requirements set forth in (CCR) Title 22, Chapter 3 and tentative Order section VI.C.6.b has been amended to reflect this requirement more clearly. In addition, the requirement to submit documentation on the use of recycled water at the Facility has been removed as it is not necessary for the request to be contained within the NPDES permit. The tentative Order has been amended to reflect these changes.

DISCHARGER COMMENT #6 - Dissolved Oxygen Receiving Water Monitoring

The Discharger requests removal of the requirement to monitor dissolved oxygen in the receiving water. The Discharger states that the discharge prohibition of 10:1 (receiving water to effluent) is sufficient to ensure that the discharge will comply with the dissolved oxygen criteria in the receiving water. Furthermore, the Discharger states there is no reasonable potential to exceed dissolved oxygen standards in the receiving water based on the “nature of the discharge.”

RESPONSE:

Central Valley Water Board staff disagrees. The tentative Order provides rationale for this new monitoring parameter in Fact Sheet section VII.D.1.d. Historical effluent data indicates that the commingled process wastewater and storm water contain oxygen demanding substances, such as chemical oxygen demand. Dissolved oxygen monitoring is an easy, inexpensive monitoring requirement that can provide immediate feedback in the field regarding the condition of the receiving water and whether receiving water objectives for dissolved oxygen are being maintained.

DISCHARGER COMMENT #7 - Flow Meter Calibration

The Discharger requests that the yearly flow meter calibration requirement be removed and replaced with a “yearly inspection requirement.” The Discharger’s concern is that in the event that there is no discharge from the Facility during the year, it may not be possible to calibrate the flow meter without removing it or creating a discharge.

RESPONSE:

Central Valley Water Board staff disagrees that a yearly calibration of the flow meter is not necessary. As addressed in Attachment E section I.D. (General Monitoring Provisions), “all flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.” The Discharger’s proposed “yearly inspection” does not ensure accuracy of the flow measurement device. In the case of the tentative Order, flow measurement accuracy is of elevated importance in light of the discharge prohibition that limits discharge to when receiving water to effluent flow is at least 10:1. Central Valley Water Board staff is open to revisiting this requirement if the flow meter manufacturer can certify that a less frequent calibration is adequate.

DISCHARGER COMMENT #8 – Effluent Monitoring

The Discharger requests the removal of the following language contained in Footnote 1 of Table E-2 (Effluent Monitoring) in Attachment E:

“If the discharge is intermittent rather than continuous, then the first day of each intermittent discharge shall be monitored, but not more than twice the frequency noted.”

The Discharger states, “There is far less potential for water quality variations from an intermittent pond discharge than there would be from a continuous discharge. This requirement will only act to encourage the discharge to be continuous over the sampling interval as opposed to intermittent so long as the 10:1 ratio can be maintained.” In addition, the Discharger is concerned that the amount of additional monitoring, in both the effluent and the receiving water, that would be required as a result of discharging intermittently.

RESPONSE:

Central Valley Water Board staff disagrees. The proposed monitoring program is appropriate to ensure the discharge is adequately characterized and potential impacts to receiving water quality are understood. Sampling intermittent discharges while maintaining a “cap” on the number of total samples collected during the month or week is a reasonable approach to capture potential variations in effluent discharges as a result of “batch” discharge events. Furthermore, the Discharger has not supplied any water quality data and/or standard pond operating procedures to support that there is “less water quality variation” when the Facility discharges intermittently versus continuously. The Discharger has sampled effluent on only two days during the past five years (in March 2011 and in January 2016) and has not provided any storm water retention pond data to support the claim that effluent quality variability is not of concern.

The intent of the “cap” on the number of samples per month is so that monitoring will not be overly burdensome. In consideration of the Discharger’s comment, the tentative Order has been revised to limit the resampling to weekly and monthly parameters.

DISCHARGER COMMENT #9 - Land Discharge Requirements

The Discharger requests that pond monitoring requirements be delayed until after the ground water characterization study, or alternatively that the pond monitoring frequencies for quarterly parameters are reduced to annual, and monthly parameters to quarterly. In addition, the Discharger requests that a provision be added that allows no retention basin monitoring when the water level of the pond recedes below established access points.

RESPONSE:

Central Valley Water Board staff disagrees. The process water stored in the ponds poses a threat to groundwater quality. The quality of the process water in the ponds

must be known in order to understand the relationship between discharges to the ponds, and impacts to underlying groundwater quality. Both pond monitoring data and groundwater monitoring data will be necessary in order to complete the required Antidegradation Re-evaluation.

Monthly pond monitoring parameters include freeboard, dissolved oxygen, pH, and electrical conductivity. These parameters can be monitored by visual observation and field instruments with minimal cost to the Discharger. Quarterly monitoring requirements include seven parameters: sulfate, COD, TDS, copper, zinc, iron, and manganese and reflect parameters of concern based on recent Central Valley Water Board pond monitoring results and pollutant parameters associated with sawmill process water and storm water. The quarterly frequency requirement is consistent with other sawmill pond monitoring requirements in the Central Valley Region.

In order to address the Discharger's safety concerns, Central Valley Water Board staff has added a footnote to Table E-4 in Attachment E to address access issues related to the retention pond. However, the retention basin is a storm water pond, and as such, is anticipated to be dry during the summer months.

The added footnote to Table E-4 in Attachment E states: "Retention pond monitoring is not required during periods of extremely low pond level when access to pond water presents a safety issue."

DISCHARGER COMMENT #10 Receiving Water Monitoring

The Discharger requests clarification on the meaning of "when applicable" in Footnote 1 to Tables E-5 and E-6 in Attachment E:

"Receiving water sampling shall be concurrent with effluent sampling, when applicable."

In addition, the Discharger requests the removal of footnote 4 from Table E-5 in Attachment E:

"Hardness samples shall be collected concurrently with metals samples. If no discharges to surface water occur within the first 3 years following the permit effective date, the Discharger shall collect quarterly samples for hardness at Monitoring Location RSW-001 during the fourth year of the permit term."

The Discharger states they will gladly assist in collecting hardness data in the receiving water for future permitting needs, however they feel the above requirement attached to Table E-5 does not belong in the permit and could confine monitoring to only the fourth year of the permit.

RESPONSE

The Central Valley Water Board agrees that Table E-5 and E-6 Footnote 1 may be ambiguous. Therefore the footnote in the tentative Order has been amended as follows:

“Receiving water sampling shall be concurrent with effluent sampling, when applicable. If the effluent discharge is intermittent rather than continuous, then on the first day of each intermittent discharge, receiving water shall be monitored for the weekly parameters, but not more than twice the frequency noted for the weekly receiving water parameters.”

The intent of the footnote is to ensure receiving water monitoring is conducted at the same time as effluent monitoring. In the case of an intermittent discharge, where the Discharger may be required to sample effluent more frequently than the minimum effluent monitoring frequency, the Discharger shall conduct receiving water sampling concurrently with the effluent sampling, but only for weekly receiving water parameters (i.e., pH, dissolved oxygen, electrical conductivity, temperature, and turbidity).

Central Valley Water Board staff appreciates the Discharger’s willingness to collect hardness samples, if necessary, for permit renewal purposes. Hardness data in the receiving water is used to calculate appropriate receiving water criteria for hardness-dependent parameters such as copper and zinc. During the term of the current permit cycle, receiving water monitoring for hardness occurred only once, and therefore staff had limited data to determine ambient hardness conditions in the receiving water. Receiving water monitoring required in the tentative Order is dependent on effluent discharge. If the Facility doesn’t discharge, then receiving water monitoring, including hardness monitoring, is not conducted. The subject footnote exists, in part, to ensure necessary data is acquired by the end of the permit term in order to assess ambient hardness conditions during the next permit renewal process. Furthermore, this monitoring requirement will only be triggered if no hardness data has been collected during the first three years of the permit due to no effluent discharges. For these reasons, Central Valley Water Board staff has not changed the subject hardness monitoring requirement.

DISCHARGER COMMENT #11 Ash Monitoring Requirements

The Discharger identified a typographical error in Table E-9 of Attachment E in the tentative Order. The monitoring parameter should be “Ash *Liming* Capacity” and not, “Ash *Limiting* Capacity.”

RESPONSE

Central Valley Water Board staff agrees. Table E-9 in Attachment E of the tentative Order has been amended to reflect the correction.

DISCHARGER COMMENT #12 - Effluent and Receiving Water Characterization

- A)** The Discharger suggests that the timing of the monitoring for the Effluent and Receiving Water Characterization (Attachment E IX.D) be changed from “*during the first two discharge events that occur after the effective date of this Order*” to “two sampling events at least two years apart.”

RESPONSE 12.A: Central Valley Water Board staff agrees with the Discharger’s concern that the sampling frequency language contained in Attachment E section IX.D.1 should be amended in order to avoid characterization monitoring in two consecutive days. Therefore, staff has amended Attachment E section IX.D.1 language as follows:

“Samples shall be collected from the effluent and upstream receiving water (Monitoring Locations EFF-002 and RSW-001) twice during the term of the permit and analyzed for the constituents listed in Table E-10, below. Monitoring shall be conducted during the first ~~two~~ discharge events after the dry season and shall occur in the first and second years of the permit term (i.e., once per year), or in subsequent years if there is no effluent discharge in the first two years.~~that occur after the effective date of this Order and t~~The results of such monitoring shall be submitted to the Central Valley Water Board with the monthly self-monitoring reports.

- B)** The Discharger also questions the requirement to collect receiving water samples during the required characterization monitoring events as receiving water priority pollutant data was collected in January 2016 and could be used for future permitting needs.

RESPONSE 12.B:

Upstream receiving water quality monitoring during the term of the permit is necessary to have a current characterization of the receiving water conditions when this permit is renewed in the future and to ensure that water quality objectives are being met in the receiving water upstream of the discharge.

- C)** The Discharger states that the list of parameters to be monitored during the characterization events has increased over the years *“with no explanation or justification provided for the additional monitoring parameters added or for keeping parameters from the last permit that have no potential to be contained in the effluent and have been consistently non-detect.”*

The Discharger requests *“that the added parameters, e.g. 8005, Resin & Fatty Acids, be removed or explained and that the Water Board consider reducing monitoring requirements to once during the permit term for Table E-10 parameters that have never been detected and retain twice per permit term for only those that have been detected during past monitoring.”*

RESPONSE 12.C:

The parameters contained in Table E-10 are constituents of concern that are related to water quality objectives that must be met in the receiving water. The proposed monitoring program is appropriate to ensure the discharge is adequately characterized and potential impacts to receiving water quality are understood. In consideration of the Discharger’s comment, the tentative Order has been revised to remove the sampling requirement for Resin and Fatty Acids.

Additional Comments Received by the Discharger (post-closing date)

DISCHARGER COMMENT #13 –First discharge event effluent sampling

The Discharger requests the following language be added to the effluent monitoring table in Attachment E Table E-2:

“First discharge event sampling may be limited to weekdays due to staffing and laboratory holding time needs and may exceed the 24-hour sampling requirement at times. First discharge events occurring on the weekend must be sampled no later than the following business day (e.g., Monday).”

RESPONSE:

Central Valley Water Board staff disagrees that the Discharger's proposed language should be added to the effluent monitoring requirements. The Facility is required to collect effluent samples during the first 24 hours from the first discharge after the dry season. The Facility's outfall is a submerged pipe and controlled by a valve that must be manually operated in order to open the valve and commence a discharge. Releases from the Facility are deliberate and controlled by the Discharger's staff; therefore sample collection can occur within the timeframe proposed.

Other Central Valley Water Board Modifications to Tentative Order

Central Valley Water Board staff made additional edits to the tentative Order related to Antidegradation Policies (tentative Order, Fact Sheet section IV.D.4) and the submittal requirements for an Antidegradation Reevaluation (tentative Order section VI.C.2.c). These changes are documented in the tentative Order in strikeout/underline format.