Central Valley Regional Water Quality Control Board
4/5 June 2015 Board Meeting

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

At a public hearing scheduled for 4/5 June 2015, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0003981) for the Sierra Pacific Industries, Burney 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 20 April 2015 in order to receive full consideration. Timely comments were received from the following:

1. Sierra Pacific Industries, Burney Division (Discharger) submitted comments on 20 April 2015.

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

DISCHARGER (SIERRA PACIFIC INDUSTRIES, BURNEY DIVISION) COMMENTS

DISCHARGER COMMENT #1 – General Comments on the Tentative Order
The Discharger requests to cease renewal of the existing individual NPDES permit and instead obtain coverage for storm water discharges from the log yard area under the State Water Resources Control Board (State Water Board) Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (General Industrial Storm Water Permit or GISWP). The Discharger states that storm water discharges from the log yard area do not pose a unique threat to receiving water quality and that the complexity of facility operations do not warrant adoption of the Tentative Order in lieu of coverage under the GISWP based on the following:

1. No storm water discharges from the log yard area have occurred in over 4 years.

2. Infrequent storm water discharges from the log yard area that may occur are not expected to alter receiving water conditions.
3. Log yard area storm water runoff generated from over two (2) inches of rainfall can be contained onsite prior to a discharge, improving storm water quality beyond typical log yard storm water runoff.
4. Facility operations of the log yard area consist of storing and scaling whole, chemically untreated logs and use of diesel fuel powered heavy equipment. No fuel or chemicals are stored in the log yard area. Storm water discharges generated from this area are typical of the industry and should only be subject to those regulatory requirements as implemented in the GISWP.

RESPONSE:
Central Valley Water Board staff disagrees. Renewal of the existing individual NPDES permit, rather than coverage under the GISWP, is appropriate as discussed further below.

Discharges of process water and storm water from the log yard do pose an elevated threat to water quality. Past discharges have caused exceedances of effluent and receiving water limitations, and have exhibited acute and chronic whole effluent toxicity. Some facility improvements have been made, including construction of a retention pond in 2010, however even after the pond was constructed, discharges from the facility continued to exhibit acute and chronic toxicity. While no discharges have occurred for the last several years due to the storage capacity of the retention pond, and the drought-related low precipitation, there is insufficient evidence to indicate that compliance with effluent and receiving water limitations can be met in years with more normal rainfall volumes. The discharge continues to threaten receiving water beneficial uses.

Prior to facility improvements (completed by 2010) and ongoing drought conditions which began in 2012[1], the Discharger has failed to comply with waste discharge requirements when discharging industrial storm water to Canyon Creek resulting in effluent limitation violations for pH and settleable solids and exceedances of receiving water limitations for turbidity directly impacting Canyon Creek. Whole effluent acute and chronic toxicity was exhibited in the discharge during this time period as well.

Post facility improvements (completed by 2010) and during one 2010-2011 wet weather season, the discharge exhibited whole effluent acute toxicity and the Discharger

[1] Source: California Department of Water Resources

conducted three species whole effluent chronic toxicity testing which resulted in five (5) exceedances in 2010 and two (2) exceedances in 2011 of the 1 chronic toxicity unit (TU_c) trigger. Exceeding whole effluent acute toxicity discharge specifications and the whole effluent chronic toxicity trigger demonstrates that the discharge has the reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective for Canyon Creek. The Discharger conducted an investigation into the cause of whole effluent toxicity and submitted to the Central Valley Water Board that tannins and lignins generated during log yard sprinkling operations were the likely cause. Effluent limitations for settleable solids and receiving water limitations for turbidity were exceeded during this time period impacting Canyon Creek.

Lastly, the proposed individual permit renewal is prepared in response to the Discharger's expired NPDES permit and the application for renewal (Report of Waste Discharge, or ROWD) that the Discharger submitted on 10 February 2012. The Discharger has not submitted a notice of intent (NOI) with supporting documentation in order for the Central Valley Water Board to consider enrollment in the GISWP rather the individual permit coverage. All previous discussions with Discharger representatives indicated their desire to continue individual permit coverage.

DISCHARGER COMMENT #2 – Log Yard Flushing Study Requirement
The Discharger disagrees with the requirement to complete a log yard area flushing study at this time. The Discharger contends that there is sufficient storage to capture all residual process water, and that they are already collecting the maximum amount possible. In addition, the Discharger states it would be required to temporarily cease operation of the log yard in order to complete the flushing study which is an unreasonable regulatory burden inconsistent with California Water Code (CWC) section 13000 and CWC section 13267.

RESPONSE:
Central Valley Water Board staff disagrees. The current permit contains requirements to complete a log yard flushing study, but the Discharger did not complete it. Therefore, technical information is currently unavailable to evaluate whether existing Best Management Practices (BMPs) for eliminating or reducing pollutants of concern in storm water discharges from the log yard area are adequate. Water quality data indicates the discharge exhibits acute and chronic toxicity and threatens beneficial uses in the receiving water. Additional BMPs, potentially including storing more log yard area runoff, may be necessary. The log yard flushing study is appropriate in order to provide data on feasible pollutant reduction capabilities. Ceasing log yard operation to conduct the flushing study is not necessary or desirable. The flushing study should be

performed during standard facility operations of the log yard area, including use of equipment, to ensure that representative data is collected.

DISCHARGER COMMENT #3 – Industrial Storm Water Action Levels (ALs)
The Discharger disagrees with the proposed industrial storm water Action Levels (ALs) for discharges from the Log Yard area to Canyon Creek. The Discharger requests that the proposed ALs be based on annual averages and only include constituents that are consistent with numeric action levels (NALs) in the State Water Board's General Industrial Storm Water Permit (GISWP). Specifically, the Discharger requests that the ALs for total suspended solids (TSS), chemical oxygen demand (COD), and total recoverable zinc be set as annual averages. The Discharger also requests that the ALs for manganese, tannins and lignins, and chronic toxicity be removed from the permit.

RESPONSE:
Central Valley Water Board staff disagrees. As discussed in Comment #1 above, the discharge from the log yard area poses elevated risk to receiving water quality and therefore an individual permit is proposed, rather than relying on the General Industrial Storm Water Permit. In this case, the GISWP does not contain adequate conditions or monitoring requirements to ensure that receiving water quality is protected. Therefore, the proposed individual permit should not be directly compared to the GISWP. Site-specific factors have been considered in developing the proposed individual permit.

The Discharger requested that the basis for comparing discharge data to the ALs be based on annual averages. Regional Board staff does not agree because the pollutants being regulated can have acute and chronic effects over shorter time frames than a year. Furthermore, the discharge only occurs in the wet season, so evaluating on an annual average basis may not be adequately protective. The Discharger did not agree with the AL for iron and after further consideration, Regional Board staff agreed to remove the AL for iron; revision to the proposed permit were made to remove the AL for iron.

The Discharger objects to including an AL for tannins and lignins. Tannins and lignins are groups of pollutants associated with the wood products processed at the facility. As reported by the Discharger, tannins and lignins are the likely cause of whole effluent toxicity exhibited in the discharge. Therefore inclusion of an AL for tannins and lignins is appropriate.

Based on consideration of the Discharger's comment regarding the inclusion of an AL for manganese, Regional Board staff agrees that it is not necessary at this time. Revisions to the tentative permit have been made to remove the manganese AL.

The Discharger requested that the AL for Total Suspended Solids (TSS) be modified to include both an annual average and maximum daily value. Regional Board staff agree and revisions have been made to the proposed permit to establish an annual average AL of 100 mg/L and a maximum daily AL of 400 mg/L for TSS. These values are consistent with those in the GISWP.

The Discharger requested that the AL for zinc be set equal to Numeric Action Level (NAL) in the GISWP. Regional Board staff disagrees because the NAL in the GISWP does not consider site-specific effluent and receiving water conditions. The AL in the proposed permit is calculated based on site-specific hardness data and is appropriate in order to ensure the quality of the receiving water is protected.

Lastly, the Discharger requested that the data from monitoring discharges from the log yard area be averaged with data for storm water discharges from other areas of the facility. This would be inappropriate because, based on operations and monitoring data reported by the Discharger, the pollutants contained in discharges from the log yard area versus other portions of the facility, are not present at similar concentrations, nor are they discharged at the same locations. Therefore averaging the data would not represent the actual impacts to the receiving water at individual discharge locations. As a result, it is inappropriate to use facility-wide storm water quality sampling results to evaluate discharge quality of storm water generated from the log yard area.

DISCHARGER COMMENT #4 – Action Level for Chronic Toxicity

The Discharger objects to the inclusion of an action level (AL) for chronic toxicity in the proposed permit. The Discharger states that inclusion of an AL effectively imposes an effluent limitation since accelerated chronic toxicity monitoring and toxicity reduction evaluation (TRE) requirements could result in exceedance of the ISWAL value and result in Central Valley Water Board and/or third party lawsuit liability. The Discharger also states that discharge requirements to address chronic toxicity are not meaningful for intermittent storm water discharges and, as stated in Central Valley Water Board Order R5-2014-0035 adopted for a neighboring sawmill and cogeneration facility with similar storm water discharges, "monitoring for three species chronic toxicity monitoring has not been retained… due to the intermittent nature of the storm water discharge and the infeasibility of continuous (i.e., multi-day) sample collection, which is required by this

analysis." Lastly, the Discharger states that the ALs for total recoverable zinc, COD, TSS, and pH are sufficient and that the GISWP does not require toxicity testing.

RESPONSE:
Central Valley Water Board staff disagrees. The facility's site-specific discharge has demonstrated acute and chronic whole effluent toxicity. Therefore it is appropriate to include monitoring for acute and chronic toxicity, an effluent limitation for acute toxicity, and an AL for chronic toxicity. The AL for chronic toxicity is not an effluent limit and exceeding the AL is not a violation of the permit. Exceeding the AL simply triggers further evaluation of chronic toxicity in the discharge. In the event the AL is exceeded, the Discharger has the option to tailor an appropriate incident-specific toxicity investigation by submitting an alternative toxicity evaluation study work plan in lieu of a Toxicity Reduction Evaluation. The Discharger is required to investigate the cause and demonstrate that toxicity has been eliminated to the extent practicable in order to demonstrate compliance with Basin Plan water quality objectives for Canyon Creek.

The Discharger commented that an existing permit for a different sawmill/cogeneration facility located nearby does not include an AL for chronic toxicity. The Discharger is correct, but in that case monitoring data did not indicate whole effluent toxicity in the discharge, unlike the SPI-Burney facility which has demonstrated acute and chronic toxicity.

DISCHARGER COMMENT #5 – Salinity Evaluation and Minimization Plan (SEMP)
The Discharger requests that the requirement for SEMP update and annual implementation and progress report be removed from the Tentative Order. The Tentative Order states, "*Based on the relatively low reported salinity, the discharge does not have reasonable potential to cause or contribute to an in-stream excursion of the water quality objectives for salinity...*" Therefore, a salinity reduction plan and associated annual reporting and monitoring should not be required. In addition, implementing a reasonable potential analysis for salinity is not applicable or appropriate for industrial storm water discharges.

RESPONSE:
Central Valley Water Board staff disagrees. The current permit required the Discharger to characterize salinity in the discharge and submit a SEMP. Retention pond water monitoring has demonstrated elevated levels of electrical conductivity, an indicator of salinity. Retention pond water is used for log yard sprinkling and monitoring data for total dissolved solids (TDS) and electrical conductivity (EC) indicates presence of salinity in discharges to Canyon Creek from the log yard area. Both the discharge to

groundwater and the discharge to surface waters exhibit elevated levels of EC. Salinity is a major problem in the Central Valley region and significant efforts are underway to study and control salinity-related impacts to water quality. The proposed permit simply requires the Discharger to update and continue to implement their existing SEMP as appropriate.

DISCHARGER COMMENT #6 – Surface Water Discharge Monitoring and Reporting Requirements

The Discharger requests that pollutant monitoring in the surface water discharge be consistent with the General Industrial Storm Water Permit (GISWP). In particular, justification for new monitoring requirements for ammonia, 5-day biochemical oxygen demand (BOD_5), dissolved oxygen (DO), minerals, temperature, and chronic toxicity should be removed from the Tentative Order.

RESPONSE:

Central Valley Water Board staff disagrees. As discussed previously, the proposed permit considers site specific factors that the GISWP does not, including the fact that the discharge poses an elevated threat to receiving water quality as exhibited by observed pollutant concentrations and acute and chronic toxicity. The proposed monitoring program is appropriate to ensure the discharge is adequately characterized and potential impacts to receiving water quality are understood. Regarding the specific concerns about ammonia, BOD, DO, minerals, and temperature, Central Valley Water Board staff agree with removing these parameters from the surface water discharge monitoring. Changes have been made to the proposed permit in response to this comment.

DISCHARGER COMMENT #7 – Pond Monitoring and Reporting Requirements

The Discharger requests that new pond monitoring requirements be deferred until completion of groundwater studies to provide information regarding contaminants of concern. The Tentative Order requires installation of groundwater monitoring wells, groundwater monitoring for characterization, a groundwater antidegradation analysis, and a Title 27 exemption analyses.

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 analysis update, and Title 27 exemption analysis update.

DISCHARGER COMMENT #8 – Receiving Water Monitoring and Reporting Requirements

The Discharger states, "*there is no regulatory basis to require receiving water monitoring during discharges of exclusively industrial stormwater*". Implementation of monitoring requirements in accordance with the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP) does not apply to discharges of industrial storm water and the GISWP, applicable to other discharges of industrial storm water, does not require receiving water monitoring.

RESPONSE:

Central Valley Water Board staff disagrees. Surface water discharges from the facility have demonstrated historical non-compliance with surface water discharge and receiving water permit requirements. The Discharger is correct that the State Implementation Policy (SIP) does not apply to storm water discharges; that is why the proposed permit does not include numeric effluent limits for priority pollutants as would otherwise be required by the SIP. Receiving water limits and associated monitoring are included to ensure that the discharge does not cause exceedances of water quality objectives in the receiving water.

DISCHARGER COMMENT #9 – Ash Monitoring and Reporting Requirements

The Discharger requests that the ash monitoring frequency for all constituents, except dioxins, remain annual. The Discharger requests that ash monitoring for dioxin be required once during the term of the permit. The Discharger states that ash quality is fairly consistent and there is no justification for increasing the number and frequency of analytes tested. Furthermore, the Discharger requests that the requirements for reporting final application area and annual reporting deadline be consistent with Cal Recycle and Public Resources Code (PRC) 44107 for ash sold to intermediate soil amendment producers.

RESPONSE:

Central Valley Water Board staff disagrees. The proposed frequency for ash and cooling tower solids monitoring is appropriate. Even though the Discharger has a relatively consistent source of wood fuel, some variation in ash quality will occur and a monitoring frequency of twice per year is reasonable. Regarding the proposed monitoring frequency for Dioxin, Central Valley Water Board staff recognizes the high

cost for monitoring of this constituent. Therefore the monitoring frequency is proposed as only once per year. Additionally, upon approval of the Executive Officer, footnote 5 of Table E-9 in the Tentative Order allows the monitoring frequency for Dioxin to be reduced after two consecutive years of data have been submitted. Dioxins are known to be present in wood ash and present a threat to human health and the environment at extremely low concentrations; therefore Central Valley Water Board staff believe reducing monitoring for this constituent to once during the permit term would not be appropriate.

At the request of the Discharger and consistent with PRC 44107, the Tentative Order has been modified to include an annual report deadline of 1 April each year for ash monitoring completed as specified in Attachment E. In addition, information regarding final application area by end users is not required for Facility ash that has been sold or supplied to intermediate producers for use in manufacturing commercial soil amendment products.