Central Valley Regional Water Quality Control Board
27/28 March 2014 Board Meeting

Response to Written Comments on
Tentative Waste Discharge Requirements for
Burney Forest Power
Shasta County

At a public hearing scheduled for 27/28 March 2014, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0082490) for Burney Forest Power. 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 by 10 February 2014 in order to receive full consideration. Comments were received prior to the deadline from:

1. Burney Forest Power (Discharger) (received 10 February 2014).

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

DISCHARGER (BURNEY FOREST POWER) COMMENTS

DISCHARGER COMMENT #1 – Receiving Water Limitations for Hardness-Dependent Metals Criteria

The tentative Order uses the minimum observed receiving water hardness to calculate hardness-dependent receiving water limitations for copper, zinc, cadmium, lead, and silver. The Discharger requests that real-time receiving water hardness be used to calculate any hardness-dependent receiving water metals criteria and/or objectives for the purpose of calculating applicable receiving water limitations. The Discharger's request mirrors the approach taken in the previous Order with respect to hardness-dependent metals receiving water limitations.

RESPONSE:
Central Valley Water Board staff concurs with the requested change.

The tentative Order contains receiving surface water limitations based on Basin Plan water quality objectives and water quality standards. The Central Valley Water Board staff agrees that receiving surface water limitations for hardness-dependent metals criteria should be calculated using the hardness concentration in the receiving water at

the time of sample collection, rather than the minimum observed receiving water hardness during the past permit cycle. Using the hardness of the receiving water at the time of sample collection will provide an accurate means of real-time compliance determination, whereas the latter approach may result in an overly-protective criterion and limitation. The approach of using real-time hardness, rather than the minimum hardness, also reflects the permitting methodology used during the past permit cycle for this Facility for receiving water limitations that were based on hardness-dependent criteria.

For these reasons, staff has revised the tentative Order as follows:

Section V.A.19. (page 7):

19. Hardness-Dependent Metals. The CTR and Basin Plan contain hardness-dependent water quality criteria and objectives for freshwater aquatic-life for cadmium, copper, lead, silver, and zinc. ~~Receiving water limitations contained in the table below for cadmium, copper, lead, silver, and zinc are expressed in dissolved and are based on the lowest observed hardness in the downstream receiving water during the last permit cycle: 31 mg/L as $CaCO_3$. The discharge shall not cause the water quality in Canyon Creek to exceed any of the below criteria or objectives~~. The discharge shall not cause the water quality in Canyon Creek to exceed the subject hardness-dependent criteria and objectives based on the downstream receiving water hardness at time of sample collection:

~~**Table 5. Hardness-Dependent Metals Criteria**~~

~~**Parameter**~~	~~**Units**~~	~~**CTR Chronic Criteria (4-day)**~~	~~**Acute CTR Criteria (1-hr.)**~~
~~Cadmium, Dissolved~~	~~µg/L~~	~~0.94~~	~~0.17[1]~~
~~Copper, Dissolved~~	~~µg/L~~	~~3.3~~	~~4.5~~
~~Lead, Dissolved~~	~~µg/L~~	~~0.7~~	~~17.7~~
~~Silver, Dissolved~~	~~µg/L~~	~~--~~	~~0.5~~
~~Zinc, Dissolved~~	~~µg/L~~	~~44.0~~	~~13.0[1]~~

~~[1] Basin Plan Objective (maximum objective)~~

Table 5. Hardness-Dependent Criteria and Objectives[1]

Parameter (Dissolved)	**Criteria Continuous Concentration (CCC) (4-day average, µg/L)**	**Criteria Maximum Concentration (CMC) (1-hour average, µg/L)**
Cadmium	CCC= (exp{0.7852[ln(hardness)] – 2.715}) x (1.101672 - {[ln(hardness)] x [0.041838]})	CMC= (exp{1.128[ln(hardness)] – 3.6867}) x (1.136672 - {[ln(hardness)] x [0.041838]})

		and Basin Plan, maximum: exp{1.160[ln(hardness)] – 5.777}
Copper	CCC= (exp{0.8545[ln(hardness)] – 1.702}) x(0.960)	CMC= (exp{0.9422[ln(hardness)] – 1.700}) x (0.960) and Basin Plan, maximum: exp{0.905[ln(hardness)] – 1.612}
Lead	CCC= (exp{1.273[ln(hardness)] – 4.705}) x (1.46203 - {[ln(hardness)] x [0.145712]})	CMC= (exp{1.273[ln(hardness)] – 1.460}) x (1.46203 - {[ln(hardness)] x [0.145712]})
Silver	--	CMC(max)= (exp{1.72[ln(hardness)] – 6.52}) x (0.85)
Zinc	CCC= (exp{0.8473[ln(hardness)] + 0.884}) x (0.986)	CMC= (exp{0.8473[ln(hardness)] + 0.884}) x (0.978) and Basin Plan, maximum: exp{0.830[ln(hardness)] – 0.289}

1 Source: Central Valley Region Basin Plan and California Toxics Rule (40 CFR 131.38).

Fact Sheet Section V.A.3. (page F-23):

~~This Order establishes receiving water limitations for hardness dependent water quality criteria/objectives using the minimum observed downstream receiving water hardness value of 31 mg/L of $CaCO_3$. Hardness in the downstream receiving water was sampled 30 times during the past permit cycle, with a reported range of 31 to 78 mg/L of $CaCO_3$ and an average hardness of 42 mg/L of $CaCO_3$. The Central Valley Water Board finds the use of the minimum observed downstream receiving hardness appropriate and protective for establishing receiving water limitations for hardness-dependent criteria.~~

DISCHARGER COMMENT #2 – Storm Water Benchmark Values
The Discharger states that "the basis for the benchmark values listed in Table 7, Storm Water Benchmark Values do not appear to consider site-specific, background conditions." The Discharger requests, "an opportunity to establish site-specific benchmark values that considers background conditions at the site."

RESPONSE:
The tentative Order does consider site-specific information, and provides the basis for the storm water benchmark values.

The decision to establish storm water benchmark values for chemical oxygen demand (COD), electrical conductivity (EC), and iron is a result of the review of site-specific storm water and receiving water quality data collected during the term of the last permit

cycle. Storm water runoff from the Facility indicated, at times, elevated levels of COD, EC, and iron when compared to water quality objectives and/or what would be expected concentrations in relatively pollutant-free storm water. The source of the numerical value for each benchmark parameter in Table 7 is referenced in the Fact Sheet section IV.C.3. (a) COD (b) EC, and (c) Iron and are summarize below:

The benchmark value for COD (120 mg/L) is based off of the storm water benchmark value associated with general sawmills and planing mills, contained in U.S. EPA's multi-sector General Permit for Storm Water Dischargers associated with Industrial Activity. The EC benchmark value of 500 µmhos/cm, as an annual average, was developed by taking into consideration the secondary MCL for EC, the typically low EC value of rainwater (<10 µmhos/cm), and the site-specific EC conditions in the watershed (i.e., the upstream receiving water). The benchmark value for iron (1000 µg/L) is based off of USEPA's National Recommended Ambient Water Quality Criteria (NAWQC) for the protection of freshwater aquatic life for iron.

Please note the storm water benchmark levels are not effluent limitations. The levels are used to determine if storm water discharge from the facility merits further monitoring to ensure that the facility has been successful in implementing the SWPPP and/or if storm water pollution control measures must be reevaluated and improved upon.

DISCHARGER COMMENT #3 – Attachment C, Figure 1 Title Change
The Discharger states that the schematic in Attachment C, Figure 1 is incorrect. The correct title is "June through September Flow."

RESPONSE:
Central Valley Water Board staff agrees and has corrected the tentative Order. The title in Figure 1 in Attachment C has been changed to "June through September Flow."

DISCHARGER COMMENT #4 – Attachment C, Figure 2 Title Change
The Discharger states that the schematic in Attachment C, Figure 1 is incorrect. The correct title is "October through May."

RESPONSE:
The Central Valley Water Board staff agrees and has corrected the tentative Order. The title in Figure 2 in Attachment C has been changed to "October through May Flows."

DISCHARGER COMMENT #5 – Storm Water Monitoring Location
The tentative Order does not retain an alternate storm water monitoring location that is provided in the existing Order. The Discharger requests that the Central Valley Water Board retain the alternate storm water monitoring location "M-001B" from the existing Order. The Discharger states that M-001B provides a more representative sample of

water reaching the receiving water and that the elimination of M-001B may compromise the historic data base for this sample location. The Discharger is also concerned about possible concurrent storm water and receiving water monitoring requirements associated with removing M-001B.

RESPONSE:
Central Valley Water Board staff does not agree with the Discharger's request to continue monitoring the Facility storm water discharge at M-001B. Monitoring location M-001B is not proposed as the discharge monitoring point because the location does not adequately characterize the storm water discharge from the storm water retention basin.

The proposed Order regulates the discharge of industrial storm water to surface water from the Discharger's sawmill and cogeneration facilities. All storm water runoff from these two operations are collected in the Facility storm water retention basin. The existing Order provides two monitoring locations for the Facility storm water discharge. Monitoring location "M-001A" is located at the outfall of the storm water retention basin. Monitoring location "M-001B" is located within a drainage ditch approximately ¼ mile downstream from the retention basin discharge, but immediately upstream from the drainage ditch confluence with the receiving water (Canyon Creek). In addition to the retention basin storm water discharge, the drainage ditch receives storm water runoff from undeveloped portions of the Discharger's property. Central Valley Water Board staff has determined that sample collection at M-001B does not adequately characterize the discharge from the retention basin, as the sample may be diluted by other nonindustrial sources of storm water runoff. Therefore, the proposed Order includes only one monitoring location option for the Facility storm water: historically referred to as M-001A, and now identified as "EFF-001" (located at the outfall of the retention basin).

Monitoring storm water discharge direct from the retention basin is necessary to assess compliance with effluent limitations and to ensure adequate Best Management Practices are being implemented on site. Furthermore, compliance with receiving water criteria and objectives is determined in downstream Canyon Creek, therefore the Discharger can benefit from any dilution of the discharge prior to mixing with Canyon Creek.

To address the concurrent storm water and receiving water monitoring requirement, the receiving water monitoring frequency has been amended as follows:

Table E-5, footnote 4:

Sampling shall occur during periods of discharge from the storm water retention basin ~~(SW-001)~~ when a hydraulic connectivity between the storm water retention basin discharge and the receiving water exists.

DISCHARGER COMMENT #6 – "First Discharge Event" Storm Water and Receiving Water Monitoring Requirements

The tentative Order requires storm water and receiving water sampling "during the first hour (during daylight hours) of the first storm water discharge event after the dry season." The Discharger requests that the first discharge sampling requirement be changed to allow for sample collection "during the first week," rather than during the first hour.

The Discharger states that the retention basin is in a remote location. The Discharger further states that the basin is inspected daily during wet weather, however it would be difficult to predict the precise hour of discharge in order to collect a "first discharge" event sample. Furthermore, the Discharger states concerns over meeting analytical laboratory testing hold times as a result of the "first hour" sampling requirement.

RESPONSE:

The Central Valley Water Board does not agree with the requested one-week time frame to collect the first storm water discharge event after the dry season. However, to accommodate the access and sampling issues related to the remoteness of the retention basin, Central Valley Water Board staff have amended the monitoring requirement and allowed for sample collection within the "first 24-hours" rather than "first hour." The sampling requirement in Table E-2 (footnote 1 and 3) and Table E-5 (footnote 3) has been amended, respectively, as follows:

Table E-2 (footnote 1 and 3): Samples shall be collected during the first 24-hours ~~(during daylight hours)~~ from the first discharge after the dry season and according to sampling frequency thereafter.

Table E-5 (footnote 3): Samples shall be concurrent with the 2/year storm water sampling requirements and shall be collected during the first 24-hours ~~(during daylight hours)~~ of the first discharge after the dry season and once thereafter during the wet season.

In addition, to account for the potential limited staff resources and conflicts with laboratory holding times in the event that the "first discharge event" occurs on a weekend, staff have amended the proposed Order and added a footnote to Table E-2 and E-5, Minimum Sampling Frequency, as follows:

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

DISCHARGER COMMENT #7 –Duplication of Footnote 7, Table E-2.

The Discharger states that Footnote 7 of Table E-2 in Attachment E duplicates Footnote 5 in Table E-2.

RESPONSE:
Central Valley Water Board staff agrees. The tentative Order has been amended to remove Footnote 7 from Table E-2 in Attachment E.

DISCHARGER COMMENT #8 – Facility Description
The Discharger requests that the reference to "NAES," as an entity that provides operation and maintenance services to the plant, be removed from Permit Information I.A. in the Fact Sheet. The Discharger states that Burney Forest Power is the owner and operator of the facility and NAES is a contracted service provider.

RESPONSE:
Central Valley Water Board staff does not concur with the removal of NAES from the Permit Information description in the Fact Sheet. While Burney Forest Power is the owner and operator of the cogeneration power plant, NAES is identified in the Report of Waste Discharge as providing operation and maintenance services for the cogeneration plant under contract with the owners. In order to provide additional clarification to NAES' relationship with the Discharger, staff has amended the reference to NAES in Permit Information I.A, as follows:

Currently NAES provides operation and maintenance services for the cogeneration power plant under contract with the owners; however the contract service provider can change in the future.

DISCHARGER COMMENT #9 – Cover Letter for Public Posting.
The Discharger requests that the cover letter for the Notice of Public Hearing remove Doug Tomison as the facility contact. The Discharger requests our records to include Andy Duncan as the new facility contact.

RESPONSE:
Central Valley Water Board staff has made the requested change.

Other Central Valley Water Board Modifications to Tentative Permit

1. Page 9, Section V.B.4, Groundwater Limitations:

   ~~4. The discharge shall not cause the underlying groundwater to be degraded.~~

2. Page 15, Section VI.C.3.e, Facility-Specific BMP – First Flush Collection:

   The first flush must be collected and discharged to the log-deck recycle pond after any subsequent sprinkling of the logs prior to log-deck storm water discharge to surface water. ~~This Facility-specific BMP may be modified by approval of the Executive Officer~~.

3. Page 13, Section VI.C.1.e, add the following reopener provision:

   e. Log Deck Flushing Update. This Order may be reopened for modification, or revocation and reissuance, as a result of the findings of the Log Deck Flushing Update.

4. Page F-6, Fact Sheet Section II.C:

   Pollutant storm water benchmark values have been included in the table for reference. ~~The benchmarks are based to a large degree on USEPA's aquatic life criteria.~~

5. Page F-24, Fact Sheet Section VI.B.2.a, Log Deck Flushing Update:

   At minimum, the following ~~Pollutants~~ pollutants ~~that~~ must be addressed in the study: ~~include, but are not limited to,~~ tannins & lignins, electrical conductivity, chemical oxygen demand, and turbidity.

6. Page F-24, Fact Sheet Section VI.B.1, add the following reopener provision rationale:

   c. Log Deck Flushing Update. This Order may be reopened for modification, or revocation and reissuance, as a result of the findings of the Log Deck Flushing Update.