Central Valley Regional Water Quality Control Board
30/31 May 2013 Board Meeting

Response to Comments
for the
City of Colfax
Wastewater Treatment Plant
Tentative Waste Discharge Requirements and
Tentative Cease and Desist Order

The following are Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements (NPDES Permit Renewal) and Cease and Desist Order (CDO) for the City of Colfax, Wastewater Treatment Plant (Facility), in Placer County.

The tentative NPDES Permit and CDO were issued for a 30-day public comment period on 19 February 2013 and comments were due 20 March 2013.

The Central Valley Water Board received timely comments regarding the tentative NPDES Permit and CDO by the due date from the following interested parties:

- City of Colfax (City)
- Mr. Allen Edwards, property owner at the discharge point of the Facility and downstream resident
- Mr. Michael Garabedian, Friends of the North Fork
- Central Valley Clean Water Association (CVCWA)

Changes were made to the tentative NPDES Permit based on public comments received. The submitted comments were accepted into the record, and are summarized below, followed by Central Valley Water Board staff responses.

CITY COMMENTS

City Comment No. 1. <u>Pond 3 Lining and Groundwater</u>

The City comments that installation of a high density polyethylene (HDPE) liner to the Pond 3 Storage Reservoir was completed in November 2012 to ensure discharges were not occurring from the pond, and to ensure compliance with Prohibition III.A of the City's NPDES Permit (Order R5-2007-0130) that prohibits unauthorized discharges from the Facility. The City contends that the tentative NPDES Permit [Provision VI.C.2.d. Groundwater Monitoring and Assessment Report] implies "*that if the groundwater does not improve, the assumption will be that the liner is not effective.*" Therefore, the City requests clarification that changes in groundwater composition between groundwater measured down-gradient from Pond 3 (well RGW-003) and upstream of the Facility (well RGW-001) should not be used as the sole basis for determining if Pond 3 is

influencing local groundwater. The City contends that the engineered lining of all three ponds should serve the basis of demonstrating that the Facility's activities do not have an influence on local groundwater. The City further contends that the groundwater measured at RGW-003 is reflective of the natural groundwater character at the base of the valley where the Facility happens to be located. Thus the City maintains that if groundwater quality does not change in the future, it will be evidence that the Pond 3 seepage collection system was effective and that unauthorized discharges were not occurring.

Response: Central Valley Water Board staff concurs in part. In determining groundwater quality and the effectiveness of lining Pond 3, the intent of Provision VI.C.2.d Groundwater Monitoring and Assessment Report, is to consider all data, before and after lining of Pond 3, and any additional information provided by the City. Thus, Central Valley Water Board staff concur that ground water monitoring data from monitoring well RGW-003 may not alone conclude that Pond 3 does not influence local ground water quality. However, Central Valley Water Board staff does not concur that "*the engineered lining of all three ponds should serve the basis of demonstrating that the City's WWTP* [Facility] *activities do not have an influence on local groundwater."* Changes were made to Special Provision VI.C.2.d of the proposed NPDES Permit, as shown in underline/strikethrough format below. (See also Mr. Edwards Comment No. 5 and Response).

d. Groundwater Monitoring and Assessment Report

i. By **1 ~~June~~December 2013**, the Discharger shall submit a *Groundwater Sampling Plan* that describes the procedures to be used to collect and analyze groundwater samples. The Plan shall discuss the EPA analytical test methods, chain of custody control, quality assurance/quality control procedures to be employed during sampling, sample collection procedures, sampling techniques, and decontamination procedures. The Plan shall include sample field data forms. The report shall be prepared by a California Registered Engineer or Professional Geologist as required by Section VI.A.2.l.

ii. By **1 ~~May~~June 2014~~5~~**, the Discharger shall submit a *Groundwater Quality Assessment Report,* which evaluates the constituents found in groundwater monitoring well RGW-003~~,~~ and ~~whether the quality has improved by~~ the effectiveness of lining ~~of~~ the storage reservoir (Pond 3) to ensure unauthorized discharges are not occurring. The evaluation shall ~~specifically~~include an assessment of the concentrations of electrical conductivity, ~~pH, total coliform organisms,~~ nitrate, and ammonia, and changes in pH, with respect to background conditions (if able to determine) and/or water quality trends within monitoring well RGW-003 ~~over the last three years~~. The evaluation, should also include graphical representation of the chemistry of water samples where the mineral cations and anions are shown by separate plots (e.g. piper or stiff diagrams), and a test using the electrical

resistivity technique to assess the integrity of the high density polyethylene liner. ~~The report shall contain a trend analysis and a prediction of when groundwater quality will reach background conditions.~~ The report shall be prepared by a California Registered Engineer or Professional Geologist as required by Section VI.A.2.l.

iii. The Discharger shall comply with section VI.B. Groundwater Monitoring Locations RGW-001, RGW-002, and RGW-003 of the Monitoring and Reporting Program, Attachment E.

City Comment No. 2. Chlorine Monitoring Requirement (EFF-001)

The City contends that the tentative NPDES Permit (Monitoring and Reporting Program, Attachment E) should only require Total Residual Chlorine "*continuous monitoring when chlorine is actively being used at the treatment plant,*" because the Facility "*uses ultraviolet disinfection as its mode of disinfecting its final effluent. Chlorine may be used from time to time to control filamentous organism growth in the WWTP* [Facility]. *Otherwise, chlorine is not used in the treatment system*."

Response: Central Valley Water Board staff concurs in part. The current UV sewage disinfection system was installed in 2009. The City's NPDES Permit (Order R5-2007-0130) was not amended to reflect the change in disinfection systems, and therefore, the chlorine effluent limitation and continuous monitoring requirements remained. Chlorine monitoring results between January 2009 and November 2012, indicated numerous exceedances of the chlorine residual effluent limitations, which the City reported were false-positive recordings by the Facility's continuous monitoring device. Although the City no longer uses chlorine for sewage disinfection, the City continues to use chlorine for maintenance purposes and when there are filamentous algae problems in the Facility. In order to ensure compliance, the proposed NPDES Permit retains the effluent limitations of 0.01 mg/L as a 4-day average and 0.02 mg/L as a 1-hour average for chlorine residual that are in the NPDES Permit (Order R5-2007-0130). In addition the proposed NPDES Permit requires that the City monitor chlorine residual continuously for one year. If, at the end of the year, the monitoring results indicate that the chlorine effluent limitations have been met regularly, then the City may reduce chlorine residual monitoring from 'continuous' to 'continuous when chlorine is in use at the Facility'. Changes were made to Table E-3 in the Monitoring and Reporting Program (Attachment E) of the proposed NPDES Permit, as shown, in part, below in underline format, and throughout the proposed NPDES Permit as appropriate.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chlorine, Total Residual [8]	mg/L	Meter	Continuous [17]	[1]

[17] The Discharger shall monitor chlorine residual continuously through 31 July 2014. After that time, the Discharger may request in writing that chlorine residual monitoring be reduced to only periods when chlorine is used at the facility. Approval for this change shall be based on whether or not previous monitoring results show that chlorine residual effluent limits have been met. The monitoring change may only be implemented after the Discharger receives written approval from the Executive Officer.

City Comment No. 3. Cease and Desist Order, Item 7, page. 2

The City contends that the interim maximum daily effluent limitation (MDEL) for arsenic shown in the tentative Cease and Desist Order, is more stringent than the proposed final MDEL (20 µg/L) in the tentative NPDES Permit, and requests that the interim MDEL be changed to the proposed final MDEL (20 µg/L).

Response: Central Valley Water Board staff concurs and the change has been made to the proposed Cease and Desist Order as shown below in underline/strikethrough format.

Constituent	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation
Arsenic	12.7 ~~u~~µg/L	~~12.7~~20 ~~u~~µg/L

City Comment No. 4. Cease and Desist Order, Item 11, page. 3

The City requests clarification on the reasoning behind the final compliance date of 8 December 2016 in Item 11, page 3 of the tentative Cease and Desist Order.

Response: Central Valley Water Board staff concurs and changes were made in the proposed Cease and Desist Order as shown in underline/strikethrough format below.

11. Compliance with this Order exempts the Discharger from MMPs for violations of the arsenic final effluent limitations found in WDRs Order R5-2013-XXXX from the date of adoption through ~~8~~30 ~~December~~May 2016. In accordance with Water Code section 13385(j)(3), the total length of protection from MMPs is less than five years.

City Comment No. 5. Tentative Order, Section X.A.1.f.iii.

The City comments that the tentative NPDES Permit incorrectly shows the units for the Total Coliform maximum effluent limit as 240 MPN/10 mL instead of 240 MPN/100 mL.

Response: Central Valley Water Board staff concurs and changes were made to Effluent Limitations and Discharge Specifications IV.A.1.f of the proposed NPDES Permit, as shown in underline format below, and throughout the proposed NPDES Permit as appropriate:

f. Total Coliform Organisms. Effluent total coliform organisms shall not exceed:
- **i.** 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
- **ii.** 23 MPN/100 mL, more than once in any 30-day period; and
- **iii.** 240 MPN/10<u>0</u> mL, at any time.

City Comment No. 6. Tentative Order, Section IV.C.2.c, Attachment I.II.A.

The City contends that the timing for priority pollutant monitoring in the tentative NPDES Permit is unclear and requests that the quarterly priority pollutant monitoring is to occur during the 3rd year of the permit.

Response: Central Valley Water Board staff concurs and changes were made to section X.D.4 of the Monitoring and Reporting Program (Attachment E) in the proposed NPDES Permit as shown in strikethrough format below, and throughout the proposed NPDES Permit as appropriate.

4. Effluent and Receiving Water Characterization Study. An effluent and receiving water monitoring study is required to ensure adequate information is available for the next permit renewal. During the third year of this permit term, the Discharger shall conduct **quarterly** monitoring of the effluent at EFF-001 and of the receiving water at RSW-001U for all priority pollutants and other constituents of concern as described in Attachment I. Dioxin and Furan sampling shall be performed only twice during the year, as described in Attachment J. The report shall be completed in conformance with the following schedule.

Task	Compliance Date
i. Submit Work Plan and Time Schedule	No later than 2 years 6 months from adoption of this Order
ii. Conduct monthly[1] monitoring	During third ~~or fourth~~ year of permit term
iii. Submit Final Report	6 months following completion of final monitoring event

[1] Dioxin and Furan sampling shall be performed only twice during the year, as described in Attachment J.

City Comment No. 7. Tentative Order, Attachment E.II, Table E-1.

The City states that in the tentative NPDES Permit, the coordinates for the effluent sampling point should be shown as 39º 4' 58"N, 120º 56' 12"W.

Response: Central Valley Water Board staff concurs and changes were made to Table E-1of the Monitoring and Report Program (Attachment E) in the proposed NPDES Permit as shown in part below in underline/strikethrough format, and throughout the proposed NPDES Permit as appropriate.

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	Downstream from the last connection through which wastewater can be admitted to the outfall (39°, 4', ~~30~~58" N, 120°, 56', ~~30~~12" W)

City Comment No. 8. Tentative Order, Attachment E.V.B and Attachment E.X.D.5.

The City states that the tentative NPDES Permit, Attachment E Section V.B and Section X.D.5 and related sections *"The referenced permit sections (Sections VI.C.2.c.i and ii) are incorrect. Please replace these with the correct references: Section VI.C.2.d.i and ii.*"

Response: Central Valley Water Board staff concurs and changes were made to section VIII.B of the Monitoring and Reporting Program (Attachment E) of the proposed NPDES Permit as shown in part in underline/strikethrough format below, and throughout the proposed NPDES Permit as appropriate.

B. Groundwater Monitoring Locations RGW-001, RGW-002, and RGW-003

1. After ~~one year of quarterly monitoring (samples to be collected from the Second Quarter 2013 through the First Quarter 2014) 1~~ June 2015, the groundwater monitoring results will be assessed to determine whether impacts from the storage reservoir has been reduced/eliminated due to the new liner. The content of, and due date for, the *Groundwater Quality Assessment Report* is described in Section VI.C.2.~~c~~d.ii of the Order. If the Executive Officer agrees in writing that groundwater quality is improving, then the monitoring schedule may be reduced to semiannually (with samples to be collected during the first quarter and third quarter each year). If the Executive Officer does not agree that the groundwater quality is improving, then samples shall continue to be collected quarterly and the Discharger may be required to install additional monitoring wells…

3. As required by Section VI.A.2.l of the Order, groundwater monitoring reports shall be prepared by, or under the direction of, a California Registered Engineer or Professional Geologist. All groundwater samples shall be

collected pursuant to an approved *Groundwater Sampling Plan* (as required by Section VI.C.2.~~c~~d.i of this Order).

City Comment No. 9. Tentative Order, Attachment E.VII.B.3

The City comments that the tentative NPDES Permit, Attachment E. Section VIII.B.3, contains an incorrect reference to Section VI.A.2.I; the City requests clarification.

Response: Central Valley Water Board staff does not concur. Section VI.A.2.l [lower case L] is correct; no changes were made to the proposed NPDES Permit.

MR. ALLEN EDWARDS COMMENTS

Request for Designated Party Status. Mr. Allen Edwards requested designated party status for the Central Valley Water Board hearing scheduled for 30 and 31 May 2013 with regard to the proposed renewal of the NPDES Permit for the City of Colfax, Wastewater Treatment Plant. The commenter will be granted designated party status for the subject hearing.

Mr. Edwards Comment No. 1. Page 5

Mr. Edwards contends that the Central Valley Water Board Executive Officer does not have the authority to authorize a permanent increase in the Colfax plant wet weather design flow [referring to the 8 August 2012 letter issued by the Executive Officer that approves a wet weather peak flow rate of 0.8 mgd]. Thus, Mr. Edwards requests that the issue of whether the City's stress test (See also Comment and Response to Mr. Edwards Comment No. 2 below) was sufficient to justify increasing the plant's wet weather design flow be put before the Central Valley Water Board for a formal decision.

RESPONSE: Central Valley Water Board staff concurs in part. The proposed NPDES Permit limits the average dry weather flow at 0.275 million gallons per day (mgd), which was previously adopted by the Central Valley Water Board in the NPDES Permit (Order R5-2007-0130). The average dry weather flow represents the daily average flow when groundwater is at or near normal and runoff is not occurring; compliance is determined annually based on the average daily flow over three consecutive dry weather months (e.g., July, August, and September). The design flow of the Facility's treatment system is 0.5 mgd. Wet weather flow limits are not usually contained within NPDES permits because peak flows should be built into the facility design. At the Facility, excess flows are stored in the treatment ponds and storage reservoir, and then are treated and discharged to surface waters throughout the year. However, the City's sewage collection system experiences excessive rain-induced infiltration and inflow (I/I) that may cause excessive peak

flows to the Facility during winter periods. Therefore, in Cease and Desist Order R5-2010-0001 that was rescinded and replaced by Cease and Desist Order R5-2011-0097, the Board required the City, in part, to repair and replace their sewage collection system to reduce winter peak flows related to the I/I and to conduct a stress test on the Facility to determine the maximum total flow rate during storm events that does not result in chronic operational problems related to hydraulic overloading of the treatment system. In a letter dated 8 August 2012, based on the results of the City's completed stress test (See Mr. Edwards Comment No. 2 and Response below), the Executive Officer approved a wet weather design flow rate at 0.8 mgd. The Executive Officer has the authority to approve the results of a study required by a NPDES Permit or the results of a study in an enforcement action (e.g. CDO), in this case, the wet weather design flow rate results at 0.8 mgd. But, the Central Valley Water Board, in this case, additionally may determine that it is appropriate to include a wet weather flow limit in the City's NPDES Permit (the proposed NPDES permit does not contain a wet weather design flow limit) since the City of Colfax does have a severe I/I problem.

Mr. Edwards Comment No. 2. <u>Stress Test</u>

Mr. Edwards contends that the City improperly conducted the stress test required by the Central Valley Water Board to determine if the plant could properly operate above its design capacity of 0.5 mgd. Thus, Mr. Edwards contends that the Central Valley Water Board should not approve a wet weather peak flow rate at 0.8 mgd because of several problems occurring during the stress test that draw question into the plants ability to operate effectively above 0.5 mgd as summarized below*:*

- The City did not conduct any of the test flow rates for the required 40-day period.
- The City did not use the plant's continuous effluent flow meter throughout the stress test as required due to a malfunction during February and early March; instead, the City used a pump meter to record flows during this period.
- Flow and turbidity data presented in the stress test report is not consistent with the continuous meter data the City reported to Mr. Edwards for those months.
- The plant was not always operating optimally during the stress test, because effluent was diverted to the storage reservoir on 140 incidents that varied from less than an hour to several days. Discharger staff stated diversions were due mostly to turbidity exceedances.
- Additionally, effluent limitations for turbidity, bis (2-ethylhexyl) phthalate, and mercury were exceed during the stress test, which further proves the plant did not operate optimally.

Mr. Edwards further contends that the Central Valley Water Board should have provided a public review process of the stress test, and that the Executive Officer does not have the authority to approve an increase in the flow. (See Mr. Edwards Comment No. 1 and Response).

RESPONSE: Central Valley Water Board staff concurs in part. Mr. Edwards is correct that the City did not conduct the stress test as described in Finding 46 of the existing Cease and Desist Order R5-2011-0097. Nevertheless, Staff recommends a wet weather peak flow rate of 0.8 mgd based upon review of the stress test report and the following findings. The engineering firm HDR, Inc. conducted a capacity assessment of the Facility's treatment works and hydraulic capacities that identified the secondary clarifiers and the ultra violet disinfection as the limiting systems within the treatment works, each with a hydraulic capacity up to 0.80 mgd. During the stress test, flows through the treatment system were increased incrementally starting at 0.30 mgd in January and ending in 0.80 mgd in April. The treatment works operated at 0.80 mgd for twenty days. The City reported the effects of increased flows on the Biological Treatment, Clarifiers, Tertiary Filters, and the Ultra Violet Disinfection treatment systems (*April 2012 City of Colfax Wastewater Treatment Plant Stress Test*, by Larry Walker Associates). The report states that during the stress test, in general, treated wastewater concentrations were below the applicable effluent limitations: nitrate was below 2.0 mg/L (10.0 mg/l is the proposed effluent limit), ammonia was below 1.0 mg/L (maximum daily and monthly average effluent limits = 2.1 mg/L and 0.8 mg/L respectively), biochemical oxygen demand was non-detect (method detection level = 3.0 mg/L; maximum daily limit = 25 mg/L), total suspended solids maximum concentration was 9.0 mg/L, and total coliform was less than 2 MPN/100 ml. Additionally, should treatment system upsets occur, as they did during the stress test, the Facility has the ability to divert the treated effluent to the storage reservoir preventing discharge of effluent levels that may cause or contribute to an exceedance of a water quality standard in the receiving water.

Mr. Edwards Comment No. 3. <u>Page 15, Inadequate monitoring</u>

Mr. Edwards comments that monitoring and reporting requirements [Attachment E] of the tentative NPDES Permit do not require monitoring for many of the constituents that are listed under Surface Water Limitations, Section V.A, including pesticides in the water column and bottom sediments, chemicals, radioactivity, and biostimulatory substances.

Response: Central Valley Water Board staff concurs in part. Mr. Edwards is correct that the surface water monitoring required within the proposed NPDES Permit (Attachment E, Table E-5a) does not match the list of Surface Water Limitations (Limitations and Discharge Requirements, section V.A). These limitations are based on water quality objectives contained in the Basin Plan, and the proposed NPDES Permit requires that the discharge shall not cause the receiving water (i.e. unnamed tributary of Smuthers Ravine, Smuthers Ravine, Bunch Canyon, or downstream waters) to exceed any of the listed Surface Water Limitations. To determine that the discharge complies, some constituents are measured at the point of discharge while others are measured in the surface water. Specifically, the proposed NPDES Permit requires weekly monitoring of the surface water, in part, for

1. Bacteria, 5. Dissolved Oxygen, 8. pH, 15. Temperature, 17. Turbidity, and electrical conductivity, which is one of the 3. Chemical Constituents.

However, Central Valley Water Board staff does not concur that the proposed NPDES Permit does not contain adequate surface water monitoring for Surface Water Limitation, 3. Chemical Constituents. In addition to the required monitoring for electrical conductivity, the proposed NPDES Permit requires quarterly monitoring for one year of the surface water for chloride, iron, nitrate, manganese, methylene blue activated substances, sulfate, total dissolved solids, eight additional inorganics, and 25 additional organics (Attachment I), and seventeen dioxin/furan congeners twice for one year (Attachment J).

In addition, the proposed NPDES Permit requires quarterly monitoring for one year of the 126 Priority Toxic Pollutants (16. Toxicity); many pesticides (9. Pesticides) are included in the 126 Priority Toxic Pollutants as well as within the 25 organic Chemical Constituents listed in Attachment I, which includes Thiobencarb. However, Mr. Edwards is correct that the proposed NPDES Permit does not require monitoring of the bottom sediments. But the proposed NPDES Permit does require the City to conduct monthly monitoring of the effluent for one year to determine if the discharge contains pesticide concentrations that may cause an excursion of any of the pesticides water quality criteria.

Central Valley Water Board staff also does not concur that the proposed NPDES Permit does not contain adequate monitoring for Surface Water Limitation, 2. Biostimulatory Substances. This narrative limitation is to protect aquatic life beneficial uses from the consequences of nutrient over-enrichment and resulting eutrophication. Eutrophication is a natural aging process in which the surface water becomes organically enriched; however, it can be accelerated by nutrient rich municipal wastewater (Water Resources and Environmental Engineering, Metcalf and Eddy, Inc., 3rd Edition). Therefore, to determine compliance with this narrative surface water limitation, the proposed NPDES Permit requires weekly effluent monitoring of nitrate and weekly surface water monitoring of dissolved oxygen and pH, including reporting visual observations (e.g. Fungi, slimes, or objectionable growths). Additionally, the proposed NPDES Permit requires quarterly effluent and surface water monitoring for one year of nitrite and phosphorus.

Mr. Edwards also correctly states that the proposed NPDES Permit does not require monitoring of radionuclides to determine compliance with the surface water limitation 16. Radioactivity. This is because the 3 April 2012 surface water monitoring results (R1 = 0.91 pCi/L and R2 = 0.85 pCi/L) were below the maximum contaminant level of 15 pCi/L. Moreover, there is no reason to suspect radionuclides in the effluent discharge, and therefore, Central Valley Water Board staff does not recommend continued monitoring of radionuclides in the surface water.

For the Surface Water Limitations 4. Color, 6. Floating Material, 7. Oil and Grease, 13. Suspended Material, and 14. Taste and Odors Limitations, the proposed NPDES

Permit requires the City to maintain a log and report their visual observations during the weekly monitoring events. Compliance with the Surface Water Limitations for 11. Suspended Sediments and 12. Settleable Substances is determined by the weekly effluent monitoring results for total suspended solids and settleable solids. The proposed NPDES Permit contains a comprehensive surface water monitoring program. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 4. Page 16, Eliminates Coliform limit for Ground water

Mr. Edwards contends that the tentative NPDES Permit eliminates the existing groundwater limit contained in the NPDES Permit (Order R5-2007-0130) but maintains groundwater monitoring for total coliform.

Response: Central Valley Water Board staff concurs in part. Since adoption of the NPDES Permit (Order R5-2007-0130), the Facility was upgraded with 1) new tertiary-level package treatment system, 2) ultraviolet light disinfection system, and 3) lining two ponds and the storage reservoir. Thus, the Facility has reduced constituent concentrations within the effluent and the possibility of percolation to the underlying groundwater, and therefore, removal of groundwater numeric effluent limits is appropriate. Nevertheless, the proposed NPDES Permit continues groundwater monitoring until the City provides Certified confirmation, Provision VI.C.2.d. Groundwater Monitoring and Assessment Report, that the storage reservoir's high density polyethylene (HDPE) liner is effective. However, based on analysis of the existing groundwater data, Central Valley Water Board staff found that concentrations of total coliform organisms in groundwater are inconsistent from month to month and therefore, it is not useful for determining trends in groundwater contamination. Other groundwater parameters such as electrical conductivity, nitrate, and ammonia appear to show trends in groundwater contamination and appear to show that the downgradient well may have been impacted by contamination from the storage reservoir prior to lining, while the total coliform concentrations were inconclusive. Additionally, Central Valley Water Board staff determined that analysis of Standard Minerals in the groundwater would be more informative in assessing the effectiveness of the HDPE liner. Changes were made to Table E-5b in the Monitoring and Reporting Program of the proposed NPDES Permit, Attachment E, as shown in part below, in underline/strikethrough format.

Table E-5b. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
~~Total Coliform Organisms~~	~~MPN/100 mL~~	~~Grab~~	~~1/Quarter or semiannually[4] if approved by the Executive Officer~~	~~[2]~~
Standard Minerals [6]	mg/L	Grab	1/Quarter or semiannually[4] if approved by the Executive Officer	--

[6] Standard minerals shall include the following: boron, bromide, calcium, fluoride, iron, magnesium, total potassium, sodium, chloride, total phosphorus, sulfate, total alkalinity (including alkalinity series), and total hardness as CaCO3, and include verification that the analysis is complete (i.e., cation/anion balance)

Mr. Edwards Comment No. 5. <u>Page 24, Groundwater Monitoring</u>

Mr. Edwards contends that the tentative NPDES Permit, Provision VI.C.2.d. Groundwater Quality Monitoring and Assessment Report should require installation of deep wells and contain a description of "*how the information in the report will be used*." Additionally, Mr. Edwards contends that "*the city has no provision for consistent background groundwater monitoring data for comparison with the data from RGW-003* [down gradient groundwater monitoring well]," implying that the existing groundwater monitoring program is inadequate for use in assessing the adequacy of the Pond 3 liner. In addition, Mr. Edwards contends that the "*analysis should be released for public review and comment, and possible board action regarding the condition of the pond 3 liner*."

Response: Central Valley Water Board staff does not concur that the City should install any additional groundwater monitoring wells, deep or shallow. All Facility ponds are lined, which minimizes percolation of wastewater to the underlying groundwater, and therefore, the purpose of Provision VI.C.2.d is to determine the effectiveness of the high density polyethylene (HDPE) liner in Pond 3.

However, Central Valley Water Board staff concurs that this provision should contain additional information and requirements to assess the adequacy of the HDPE liner in Pond 3, and thus, the proposed NPDES Permit was changed as shown in staff Response to City Comment No. 1 in underline/strikethrough format. Central Valley Water Board staff also concurs that the City's final report assessing the effectiveness of the HDPE liner should be available, as all documents, for public review; and of course, Central Valley Water Board staff will consider all facts and findings submitted, including comments from the public.

Additionally, Central Valley Water Board staff concurs that possible Board action may be necessary if found that the HDPE liner is not adequate and thus Pond 3 is causing the underlying groundwater to contain waste constituents greater than background quality or water quality objectives, whichever is greater. But, Central Valley Water Board staff believes that the proposed NPDES Permit adequately addresses this issue. The proposed NPDES Permit in Attachment E, Monitoring and Reporting Program, section VIII.B., requires, in part, quarterly groundwater monitoring until the Executive Officer determines that the monitoring frequency can be reduced to semiannually (See also staff response to City Comment No. 8 and Response). Additionally, the proposed NPDES Permit contains a provision (VI.C.1.a.ii.) that allows the adopted Order to be reopened and waste discharge requirements added, or modified, if the Central Valley Water Board determines appropriate.

Mr. Edwards Comment No. 6. Page 25, b. Pesticide Study

Mr. Edwards contends that the tentative NPDES Permit, Provision VI.C.2.b Pesticide Study, should contain a description of the decisions that will result from the study findings.

Response: Central Valley Water Board staff concurs. Changes were made to Special Provision VI.C.2.b of the proposed NPDES Permit as shown in part below in underline format, and an accompanying reopener provision was added in section VI.C.1.g:

b. Pesticide Study. An effluent monitoring study is required for pesticides to determine whether the effluent contains concentrations that have a reasonable potential to cause or contribute to an excursion above the water quality criteria for pesticides. If pesticides are found to be causing exceedances above the applicable water quality criterion, this Order contains a reopener provision that allows the permit to be reopened to add effluent limitations if the Central Valley Water Board determines it necessary. During the first year of this permit term, the Discharger shall conduct monthly monitoring of the effluent at EFF-001 for persistent chlorinated hydrocarbon pesticides (organochlorine pesticides) including Aldrin, α-BHC, β-BHC, δ-BHC, γ-BHC, Chlordane, Dieldrin, 4,4-DDD, 4,4-DDE, 4,4-DDT, Endosulfan I, Endosulfan II, Endosulfan Sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, and Toxaphene. The study shall begin in November 2013 and conform to the following schedule: …

Mr. Edwards Comment No. 7. Page 33, F. Total Residual Chlorine Effluent Limitations

Mr. Edwards states that the tentative NPDES Permit method for determining compliance [section VII. Compliance Determination] with the final total residual chlorine effluent limitation is "*excessively polluter-friendly, particularly given the long history of chlorine violations at the Colfax plant*" and contends that "*Unless the City is collecting backup monitoring data on an almost continuous basis*," it is "*unworkable*."

Response: Central Valley Water Board staff does not concur. The City replaced the Facility's chlorine disinfection system in 2009 with the current ultraviolet light (UV) disinfection system. Therefore, the City no longer uses chlorine on a day-to-day basis, but does use chlorine to control filamentous growth in the UV disinfection system when needed. The proposed NPDES Permit retains the chlorine residual effluent limitations and requires continuous monitoring for one year because chlorine monitoring results indicated exceedances of the chlorine residual effluent limitations, which the City reported were false-positive recordings by the Facility's continuous monitoring device. Central Valley Water Board staff believes that section VII. Compliance Determination F. Total Residual Chlorine Effluent Limitations in the proposed NPDES Permit that allows the City to demonstrate whether a "*recorded*

[chlorine residual] spike" is a false positive is appropriate. No changes were made to the proposed NPDES Permit. (See also City Comment No. 2 and Response)

Mr. Edwards Comment No. 8. Page C-2

Mr. Edwards states that the Process Flow Schematic of Attachment C2 in the tentative NPDES Permit does not show the continuous sensors and automatic diversion system required for a Title 22 tertiary treatment plant.

Response: Central Valley Water Board staff concurs that the Process Flow Schematic, Attachment C2, in the proposed NPDES Permit does not show the continuous sensors and automatic diversion system. However, the Process Flow Schematic does show all the main elements of the Facility's treatment train. Dischargers are not required to show all elements of the treatment system, and Central Valley Water Board staff believes that the City has provided an adequate diagrammatic representation of the Facility. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 9. Page F-4, Pond liner completion

Mr. Edwards comments that the tentative NPDES Permit implies that the City completed the pond 3 liner by October 1, 2012. Mr. Edwards contends that the City completed the final steps of the liner process in mid January 2013 and that the installation process was flawed.

Response: Central Valley Water Board staff concurs in part. The proposed NPDES Permit, Provision VI.C.2.d. Groundwater Monitoring and Assessment Report requires a comprehensive assessment of the effectiveness of the Pond 3 liner installation process. However, changes were made to section II.A.1. in the Fact Sheet of the proposed NPDES Permit to specify the actual project completion date as shown in part below in underline format:

> Pond 3 was constructed by building an earthen dam across the floor of a ravine and was not lined. The Discharger collected all known sources of seepage and returned the water to the reservoir. Cease and Desist Order R5-2011-0097 required the Discharger to cease all seepage discharges to surface water, and allowed the Discharger until 1 October 2012 to comply. The Discharger installed a high density polyethylene lining in Pond 3 by the end of November 2012 and completed all phases of the lining project in January 2013. The Pond 3 dam is classified as a jurisdictional dam by the California Department of Water Resources Division of Safety of Dams.

Mr. Edwards Comment No. 10. Page F-6, #2

Mr. Edwards questions that since the Executive Officer authorized the discontinuance of Pond 3 seepage monitoring [7 January 2013 letter], how will the Central Valley Water Board determine that the pond liner is intact?

Response: To assess the effectiveness of the Pond 3 liner, the proposed NPDES Permit, Provision VI.C.2.d Groundwater Monitoring and Assessment Report, requires the City to assess groundwater monitoring data results, to include a graphical representation of the chemistry of the mineral cations and anions, and to conduct an integrity test of the liner using the electrical resistivity technique. A final report of the findings and assessment, certified by a California Registered Engineer or Professional Geologist, is required to be submitted to the Central Valley Water Board. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 11. Page F-20

Mr. Edwards comments that for some constituents, only data through December 2011 were used for the Reasonable Potential Analysis even though data through November 2012 were available.

Response: Central Valley Water Board staff concurs in part. In general, to conduct a Reasonable Potential Analysis (RPA), staff evaluates the data submitted within a City's Report of Waste Discharge; additional data may be used if the monitoring data for a particular constituent was insufficient in determining if the discharge demonstrates a reasonable potential to cause an exceedance of the applicable water quality objective. In this case, because of Mr. Edwards concerns, staff evaluated all available data and conducted a new RPA based on data through 30 November 2012 for aluminum, ammonia, arsenic, bis (2-ethylhexyl) phthalate, cadmium, copper, cyanide, iron, lead, manganese, methylene blue activated substances (MBAS), total mercury, methyl mercury, pentachlorophenol, 18 pesticides (Attachment K), chloride, electrical conductivity, sulfate, total dissolved solids, and silver. The additional monitoring data did not change the RPA discussed in the tentative NPDES Permit; no changes were made to the waste discharge requirements in the proposed NPDES Permit.

Mr. Edwards Comment No. 12. Page F-21, Bottom paragraph

Mr. Edwards contends that the new background receiving water sampling point located approximately 100 feet upstream from the discharge point may not be representative of ambient water quality because seepage from pond 3 leaked into the watercourse a short distance upstream from this location. Mr. Edwards further contends that "*it has not been proven that the newly installed pond liner is functioning well enough to change*" the background receiving water sampling point established in the NPDES Permit (Order R5-2007-0130)

Response: Central Valley Water Board staff does not concur. The existing background receiving water sampling point in the NPDES Permit (Order R5-2007-0130), located approximately 500 feet upstream from the discharge point, was dry most of the time and yielded little or no data, as discussed in the proposed NPDES Permit, Attachment F, section IV.C.2.b. Effluent and Ambient Background Data. Central Valley Water Board staff has determined that the new discharge point contained in the proposed NPDES Permit, where water flows almost year round, located approximately 100 feet upstream from the discharge point, will provide data representative of background water quality. As discussed previously in Mr. Edwards Comment No. 10 and Response, the Groundwater Quality Assessment Report provision contained in the proposed NPDES Permit requires an assessment of the effectiveness of the newly installed liner. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 13. <u>Page F-21, Bottom paragraph</u>

Mr. Edwards states that the tentative NPDES Permit concludes that because of the newly installed pond liner "*there should be no risk of seepage impacts*" at the new upstream monitoring point. Mr. Edward contends that this conclusion has no supporting evidence.

Response: Central Valley Water Board staff concurs. Changes were made to the last paragraph of section IV.C.2.b. of the proposed NPDES Permit Fact Sheet (Attachment F), as shown in underline/strikethrough format below.

> Receiving water monitoring is implemented in NPDES permits to determine ambient water quality conditions, compliance with Basin Plan Objectives, and that the receiving water Beneficial Uses are protected. Previous Order R5-2007-0130 contained a monitoring location 500 feet upstream of the discharge point that was dry during most sampling events under the duration of the permit. Approximately 100 feet upstream of the discharge point, there is flowing water almost year round that is spring-fed. In the past, this monitoring point was possibly impacted by seepage from the storage reservoir. However, with the lining of the storage reservoir, ~~there should be no risk of seepage impacts~~ <u>the risk of seepage impacts has been greatly reduced. Monitoring at this point should provide a better dataset, and t</u>herefore, Board staff has moved the upstream monitoring point to a location approximately 100 feet upstream of the discharge point.

Mr. Edwards Comment No. 14. <u>Page F-38, Bis (2-ethylhexyl) phthalate</u>

Mr. Edwards contends that because the City was assessed fines by the Central Valley Water Board for violations of bis (2-ethylhexyl) phthalate, the tentative NPDES Permit

findings in section IV.C.3.b.ii, that there is no reasonable potential for effluent "*to cause or contribute to an in-stream excursion of bis (2-ethylhexyl) phthalate above the CTR criterion for the protection of human health*" (RPA), is incorrect. In addition, Mr. Edwards contends that this RPA conclusion seems to contradict the information in Attachment G of the tentative NPDES Permit, which indicates that reasonable potential was uncertain.

Response: Central Valley Water Board staff concurs in part. Central Valley Water Board staff does not concur that the proposed NPDES Permit incorrectly determines that the effluent discharge does not demonstrates reasonable potential for bis (2-ethylhexyl) phthalate. The proposed NPDES Permit, section IV.C.3.b.ii, provides an extensive data analysis and determination; in short, 46 anayltical results of the effluent indicated that 32 samples did not contain concentrations of bis (2-ethylhexyl) phthalate and the laboratory reported detected but not quantified concentrations (i.e. DNQ, estimated values, or J-flags) below the Reporting Limit for the remaining 14 samples. Central Valley Water Board staff concluded that the 14 sample results with DNQ values were not quantifiable, and therefore, were not sufficient to determine if concentrations exceeded the bis(2-ethylhexyl)phthalate criterion. However, the remaining 32 sample results that did not show concentrations of bis(2-ethylhexyl)phthalate was sufficient to determine that the discharge does not demonstrate reasonable potential to cause or contribute to an in-stream excursion above the bis(2-ethylhexyl)phthalate criterion. No changes were made to the proposed NPDES Permit.

However, Central Valley Water Board staff agrees and acknowledges a typographical error. Changes were made to Attachment G of the proposed NPDES Permit as shown in part below in underline/strikethrough format:

Constituent	Units	Max. Eff. Conc.	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	Reasonable Potential
Bis(2-ethylhexyl) Phthalate	µg/L	5.3 J	NA	1.8	NA	NA	1.8	5.9	NA	4	~~Uncertain~~ No

Mr. Edwards Comment No. 15. Page F-43, Cyanide

Mr. Edwards contends that the tentative NPDES Permit inappropriately concludes that there is no reasonable potential for cyanide, because the maximum cyanide effluent concentration at 5 µg/L exceeds the existing average monthly effluent limitation of 4.3 µg/L in the NPDES Permit (Order R5-2007-0130) and equals the applicable criterion of 5.2 µg/L.

Response: Central Valley Water Board staff does not concur. Mr. Edwards is correct in stating that one sample obtained in December 2010 (maximum effluent concentration at 5 µg/L, MEC) out of the 50 samples collected between 1 January 2009 and 30 November 2012 exceeded the existing monthly average effluent limitation of 4.3 µg/L, but no sample exceeded the existing maximum daily

effluent limitation of 8.5 µg/L. Additionally, none of the 50 samples (including the MEC of 5 µg/L) contained concentrations above the acute and chronic cyanide criteria at 22 µg/L and 5.2 µg/L, respectively. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), section 1.3, requires, in part, that an effluent limit be established if the MEC is greater than or equal to the criterion; the SIP does not require an effluent limit if the MEC exceeds an existing effluent limit. Therefore, the proposed NPDES Permit appropriately does not contain cyanide effluent limits. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 16. Page F-44, Iron

Mr. Edwards contends that iron concentrations in the effluent exceeded the 300 µg/L criterion, therefore, demonstrating reasonable potential for iron in the effluent to exceed the criterion.

Response: Central Valley Water Board staff does not concur. Consumer Acceptance Limits, or Secondary MCLs, are drinking water standards contained in Title 22 of the California Code of Regulations. Title 22 requires compliance with these standards on an annual average basis, when sampling at least quarterly. Therefore Central Valley Water Board staff evaluates applicable data as an annual average to determine if the discharge demonstrates reasonable potential to cause or contribute to an exceedance of the Secondary MCLs criterion. As explained in detail in the proposed NPDES Permit Fact Sheet, section IV.C.3.b.v, out of 65 analytical samples obtained between 1 January 2009 and 30 November 2012, the maximum annual average (calculated within calendar year 2012) for iron was 66.54 µg/L, which is below the criterion. Therefore, the proposed NPDES Permit appropriately does not contain an iron effluent limit. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 17. Page F-51, Total Dissolved Solids (TDS)

Mr. Edwards contends that the findings in the tentative NPDES Permit for total dissolved solids (TDS) seem inappropriate because the City's monitoring records show that the plant has the potential to exceed the 500 mg/L secondary MCL for TDS by nearly a factor of 2, and because of the TDS water quality criteria for the North Fork American River of 125 mg/l *("Water Quality Standards Criteria Summaries: A Compilation of State and Federal Criteria" USEPA, September 1988).*

Response: Central Valley Water Board staff does not concur. The Secondary Maximum Contaminant Limit (MCL) for total dissolved solids (TDS) is 500 mg/L as a recommended lower level and 1000 mg/L as an upper level, and 1500 mg/L as a short-term maximum level. Secondary MCLs are drinking water standards contained in Title 22 of the California Code of Regulations for aesthetics such as

smell, odor, and color, and thus, Title 22 requires compliance with these standards on an annual average basis. Therefore, Central Valley Water Board staff evaluates applicable data as an annual average to determine if the discharge demonstrates reasonable potential to cause or contribute to an exceedance of the Secondary MCLs criterion. Out of 188 analytical samples obtained between 1 January 2009 and 30 November 2012, the maximum annual average effluent concentration for TDS was 257 mg/L in 2012, which is below the upper level of the Secondary MCL criterion range. The maximum effluent concentration during this period was 937 mg/L, which is below the short-term maximum secondary MCL of 1500 mg/L. Therefore, the discharge does not demonstrate reasonable potential to exceed the secondary MCL criteria for TDS.

The Basin Plan contains a water quality objective (Table III-3) that TDS in the North Fork American River from the source to Folsom Lake, shall not exceed 125 mg/l as the 90th percentile (90% of the time, the TDS shall not exceed 125 mg/L in the North Fork American River). The Facility discharge is located approximately 6 miles upstream of the North Fork American River, and may potentially flow via Smuthers Ravine and Bunch Canyon to the North Fork American River. Based on the sampling conducted for the 303(d) list of impaired water bodies, the North Fork American River is not listed for TDS. Monitoring data obtained between 2006 and 2010 from the North Fork American River showed the maximum concentrations of TDS at 118 mg/L. Therefore, the discharge does not cause the North Fork American River to exceed the Basin Plan TDS water quality objective of 125 mg/L.

No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 18. <u>Turbidity</u>

Mr. Edwards contends that the tentative NPDES Permit includes turbidity as an operation limit, and instead, needs to continue the turbidity effluent limits contained in NPDES Permit (Order R5-2007-0130) to protect downstream water quality for the following reasons:

- Turbidity limits are established for Title 22 Tertiary plants.
- US EPA recognizes the relationship between turbidity and pathogen pollution.

Mr. Edwards further contends that "*it seems both unreasonable and illegal to drop effluent limits and monitoring for turbidity*."

Response: Central Valley Water Board staff does not concur. Low turbidity is necessary for proper operation of the Facility's ultraviolet light (UV) disinfection system, and therefore, the proposed NPDES Permit includes operational specifications for turbidity in Provision VI.C.4.a. Additionally, the proposed NPDES Permit in the Monitoring and Reporting Program, Attachment E, requires continuous effluent monitoring for turbidity to determine compliance with the turbidity operational specification. Mr. Edwards correctly states that NPDES Permit (Order

R5-2007-0130) included effluent limitations for turbidity, but the operational turbidity specifications in the proposed NPDES Permit are an equivalent permit condition that is not less stringent than the turbidity limitations in NPDES Permit (Order R5-2007-0130). Compliance with the operational specifications for turbidity contained in the proposed NPDES Permit will ensure that the discharge does not contain pathogens. However, higher effluent turbidity measurements do not necessarily indicate that the effluent discharge exceeds the water quality criteria/objectives for pathogens (i.e., bacteria, parasites, and viruses), which are the principal infectious agents that may be present in raw sewage. Total coliform organisms are an indicator of the level of pathogens in the effluent, and therefore, the proposed NPDES Permit contains effluent limitations for total coliform organisms to control the discharge of pathogens. The proposed NPDES Permit is protective of downstream water quality. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 19. <u>Constituents Where There Was Limited or Insufficient Data for RPA Analysis</u>

Mr. Edwards contends that the tentative NPDES Permit does not specify requirements should monitoring results for the constituents with limited or insufficient data (cadmium, lead, methylene blue activated substances, pentachlorophenol, pesticides, and silver) show exceedances of the applicable water quality objective. Mr. Edwards further contends that the tentative NPDES Permit should contain effluent limits for these constituents until studies show they are no longer necessary.

Response: Central Valley Water Board staff does not concur. As explained in detail in the Fact Sheet (Attachment F), section IV.C.3, the proposed NPDES Permit requires additional monitoring for these constituents in place of an effluent limitation as allowed by section 1.3 (Step 8), and requires the City to instruct the laboratories to achieve Reporting Levels at the Minimum Levels listed in Appendix 4 of *The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) as allowed by section 2.4. Moreover, for cadmium (2 samples, all non-detects), lead (3 samples, all estimated-values), pentachlorophenol (3 samples, 2 non-detects and 1 estimated-value), and silver (3 samples, 1 non-detect and 2 estimated-values), the proposed NPDES Permit, section IV.C.3, **does** [emphasis added] state "Should monitoring results indicate that the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality standard, then this Order may be reopened and modified by adding an appropriate effluent limitation." However, for MBAS (1 sample detected below the criterion) the findings do not include this statement; nevertheless, the proposed NPDES Permit does contain a Reopener Provision (b.) to allow the permit to be reopened as a result of a reportable detection and modified as determined appropriate by the Central Valley Water Board. For pesticides (PCHP), the proposed NPDES Permit, Special Provision VI.C.2.b., requires the City to conduct a special study (See also Mr. Edwards Comment No. 6 and Response).

The proposed NPDES Permit contains comprehensive monitoring and study requirements to ensure that the downstream beneficial uses are protected. No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 20. Calendar of Events

Mr. Edwards states that "*The permit should contain a calendar of events that includes the due dates for all the studies – and explicit periods for public review and comment, and date for board review and action.*"

Response: Central Valley Water Board staff does not concur. The Limitations and Discharge Requirements (pp. 1 – 31) of the proposed NPDES Permit contains all waste discharge requirements and compliance schedules, and the proposed Cease and Desist Order contains tables with its requirements and accompanying time schedules on page 5. Additionally, once the Board issues these new Orders, the notice of adoption cover letter contains a summary of all requirements and due dates; Mr. Edwards, as an interested party, will also receive this letter.

None of the requirements and compliance dates contained in the proposed NPDES Permit, or accompanying enforcement action, require reopening the permit or public review periods. However, should the Orders be reopened to modify or add interim or final effluent limits, or to otherwise modify the Orders, the public is provided notice and a 30-day review period of the proposed actions. And as stated within each Order, "*Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050…*" No changes were made to the proposed NPDES Permit.

Mr. Edwards Comment No. 21. Max. Eff. Concentrations

Mr. Edwards contends that the maximum effluent concentrations listed in Attachment G do not seem to correlate to either the narrative in the fact sheet nor the Monthly SMRs from the City.

Response: Central Valley Water Board staff concurs. Changes were made to Attachment G of the proposed NPDES Permit as shown in part below in underline/strikethrough format.

Constituent	Units	Max. Eff. Conc.	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	Reasonable Potential
Bis(2-ethylhexyl) Phthalate	µg/L	5.3 J	NA	1.8	NA	NA	1.8	5.9	NA	4	~~Uncertain~~ No
Cyanide	µg/L	~~0.005~~	NA	5.2	22	5.2	700	220000	NA	150	No
alpha-BHC	µg/L	0.019 J	NA	ND	NA	NA	0.0039	0.013	ND	NA	Uncertain
alpha-Endosulfan	µg/L	0.066 J	NA	ND	0.22	0.056	110	240	ND	NA	Uncertain

beta-BHC	µg/L	0.068 J	NA	ND	NA	NA	0.014	0.046	ND	NA	Uncertain
Chlordane	µg/L	~~ND~~ 0.013 J	NA	ND	2.4	0.0043	0.00057	0.00059	ND	0.1	Uncertain
4,4'-DDD	µg/L	0.01 J	NA	ND	NA	NA	0.00083	0.00084	ND	NA	Uncertain
4,4'-DDE	µg/L	0.041 J	NA	ND	NA	NA	0.00059	0.00059	ND	NA	Uncertain
4,4'-DDT	µg/L	0.084 J	NA	ND	1.1	0.001	0.00059	0.00059	ND	NA	Uncertain
delta-BHC	µg/L	0.038 J	NA	ND	NA	NA	NA	NA	ND	NA	Uncertain
Dieldrin	µg/L	0.028 J	NA	ND	0.24	0.056	0.00014	0.00014	ND	NA	Uncertain
Endosulfan Sulfate	µg/L	0.029 J	NA	ND	NA	NA	110	240	ND	NA	Uncertain
Endrin	µg/L	0.054 J	NA	ND	0.086	0.036	0.76	0.81	ND	NA	Uncertain
Endrin Aldehyde	µg/L	0.029 J	NA	ND	NA	NA	0.76	0.81	ND	NA	Uncertain
gamma-BHC	µg/L	0.02 J	NA	ND	0.95	NA	0.019	0.063	ND	0.2	Uncertain
Heptachlor	µg/L	0.08 J	NA	ND	0.52	0.0038	0.00021	0.00021	ND	0.01	Uncertain
Heptachlor Epoxide	µg/L	0.026 J	NA	ND	0.52	0.0038	0.0001	0.00011	ND	0.01	Uncertain
Iron	µg/L	~~84~~ 334	NA	300	NA	1000	NA	NA	NA	300	No
Lead	µg/L	3.6 J	NA	0.84	21	0.84	NA	NA	NA	15	Uncertain
Manganese	µg/L	~~146~~ 341	NA	50	NA	NA	NA	100	NA	50	Yes
Mercury, Total	µg/L	0.0131	NA	0.77	NA	0.77	0.050	0.051	NA	NA	No
Pentachloro-phenol	µg/L	0.3 J	NA	0.28	5.20	4.05	0.28	8.2	NA	1	Uncertain
Persistent Chlorinated Hydrocarbon Pesticides	µg/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	~~Uncertain~~ No
Silver	µg/L	0.6 J	NA	0.48	0.48	NA	NA	NA	NA	100	Uncertain

MR. MICHAEL GARABEDIAN, FRIENDS OF THE NORTH FORK (FRIENDS)

Request for Designated Party Status. Friends of the North Fork requested designated party status for the Central Valley Water Board hearing scheduled for 30 and 31 May 2013 with regard to the proposed renewal of the NPDES Permit for the City of Colfax, Wastewater Treatment Plant. The commenter will be granted designated party status for the subject hearing.

Friends Comment No. 1. General Comment, Friends of the North Fork

Friends state that "*We incorporated in 2005 as nonprofit organization with the purpose of protecting the North Fork American River watershed. We have one board member who owns property on Sorefinger Point and another who owns property between the point and where discharges from the Colfax POTW enter the river, both whose families take drinking water from the river.…Friends has a lengthy track record of efforts to protect the watershed, including party status contesting terms in Colfax POTW orders of Central Valley Regional Water Quality Control Board ("Board").*"

Response: Central Valley Water Board staff has noted the comment.

Friends Comment No. 2. <u>Need for additional public involvement and extension of comment period and evidence submission deadline</u>

Friends request a 30-day extension of time to submit evidence and comments because the comment period for this permit is itself inadequate for Friends and for the public. Friends contends that "*the applicant and the Central Valley organization representing sanitation districts [CVCWA] have had an opportunity for review and comment on certain aspects of the drafts."* Additionally, Friends request that the Board also provide a workshop in Colfax for the public where the proposed Permit and accompanying enforcement action are explained in an atmosphere where questions may be asked. Friends also request to meet with Board staff to discuss issues and ask questions.

Response: Central Valley Water Board staff concurs in part.

Central Valley Water Board staff does not concur that Friends should be granted "*a 30-day extension of time to submit evidence and comments.*" 40 CFR 124.10 and Water Code section 13167.5 require thirty days for the public review period. On 19 February 2013, Central Valley Water Board staff emailed the tentative NPDES Permit and Cease and Desist Order to the City, Friends, and Mr. Edwards (also USEPA and CVCWA); all parties were notified that written comments were due by the end of business on 20 March 2013. Central Valley Water Board staff also emailed Friends, and Mr. Edwards, a tentative NPDES Permit in underline/strikethrough format identifying the changes made since they received the draft NPDES permit in December 2012. Hard copies and the Notice of Public Hearing (also within the Agenda Package) were mailed to all interested parties. Additionally, the City posted copies of the Notice of Public Hearing at the local Post Office, Colfax City Hall, and electronically on its local website at http://www.colfax-ca.gov.

Previously, Central Valley Water Board staff emailed the draft NPDES permit to the City, CVCWA, and Mr. Edwards for review and factual verification on 21 December 2012. And, in December 2012, per Friends request, Central Valley Water Board staff also emailed Friends a copy of the draft NPDES permit.

Friends and Mr. Edwards have been granted Designated Party status at the public hearing for this item. Nevertheless, the Central Valley Water Board may determine that a workshop in the City of Colfax is also warranted.

Central Valley Water Board staff concurred with Friends request to meet to discuss issues and ask questions, and on 3 April 2013, Kenneth Landau, Gayleen Perreira, and Elizabeth Thayer met with Friends for three hours to discuss the proposed NPDES Permit and Cease and Desist Order for the City of Colfax, and provided Friends all requested documentation.

Friends Comment No. 3. A. The discharge point location is by itself inadequate

Friends contend that the single discharge point to the unnamed tributary is inappropriate and inadequate for the purpose of protecting the quality of the North Fork American River, and that the tentative NPDES Permit should have a second discharge point where the discharge enters the North Fork American River. Friends further contend that the tentative NPDES Permit should also require monitoring above and below the point of discharge into the North Fork American River.

Response: Central Valley Water Board staff does not concur. Significant dilution occurs in the North Fork American River, the receiving water that is located approximately 6 miles downstream of the effluent discharge. The Facility discharges tertiary-level treated effluent into an unnamed tributary of Smuthers Ravine at Discharge Point 001 (Smuthers Ravine is located only 1000 feet downstream of Discharge Point 001). Dilution within the unnamed tributary may occur during and immediately following high rainfall events; however, the proposed NPDES Permit does not allow dilution credit, and instead, requires more stringent "end-of-pipe" effluent limitations to protect beneficial uses and water quality of the downstream receiving waters, including Smuthers Ravine, Bunch Creek, and the North Fork of the American River. Thus, the effluent must comply with the proposed effluent limitations at "end-of-pipe," and **not** [emphasis added] at a point within the receiving water. To determine compliance with the more stringent "end-of-pipe" effluent limits, the City must obtain representative effluent samples "*downstream from the last connection [treatment system] through which wastewater can be admitted to the outfall*" (Discharge Point 001, Description of monitoring location EFF-001, Table E-1, Monitoring and Reporting Program, Attachment E, of the proposed NPDES Permit).

To determine compliance with receiving water limitations, the NPDES Permit (Order R5-2007-0130) requires monitoring samples obtained at two receiving water locations: 1) R-001U, from a spring located approximately 500 feet upstream of the discharge (the same sampling location for ambient (background) water quality samples) (See Mr. Edwards Comment No. 12 and Response) and 2) R-002D, in the unnamed tributary at a location approximately 100 feet downstream of the discharge. Upstream and downstream receiving water monitoring is used to assess changes in the receiving water caused by the effluent discharge, which could be positive or negative impacts. However, R-001U is mostly dry and R-002D is effluent dominated, which presents difficulty in assessing receiving water changes. Therefore, Central Valley Water Board staff examined several alternative downstream monitoring locations. Smuthers Ravine is also frequently dry upstream of the confluence and so did not seem to be an improvement to the existing upstream monitoring location, R-001U. Bunch Canyon is approximately 2 miles downstream of the discharge and is relatively inaccessible, and therefore was not considered. Because of the dilution and other inflow sources within the 6 mile reach from the discharge to the entry point, the North Fork of American River would also be difficult to assess the potential changes caused by the effluent discharge. Therefore, the proposed NPDES Permit retains the same downstream receiving

water monitoring location within the unnamed tributary, but proposes a new upstream monitoring location, which is from a spring located 100 feet upstream of the discharge that contains water mostly year-round (RSW-002D, Monitoring Location Description, Table E-1, Monitoring and Reporting Program, Attachment E, of the proposed NPDES Permit).

No changes were made to the proposed NPDES Permit.

Friends Comment No. 4. B. The draft order erroneously provides that industrial pretreatment requirements are not applicable and there appears to be little or no viability of the program in this Board's region and little or no attention to the program at State Board level.

Friends contend that the tentative NPDES Permit needs, at minimum, to include an investigation of possible industrial sources of pollution and a pretreatment program reopener clause. Friends comment that they have previously raised concerns to the Central Valley Water Board Legal Counsel and Staff about the necessity for an industrial pretreatment program requirement for the City of Colfax, and to date Friends have received no acknowledgement of their concerns. Friends further contend that the tentative NPDES Permit "Not Applicable" determination for special provision VI.C.5.a. Pretreatment Requirements is unjustified in light of Friends raising the issue with the Board.

In the 20 March 2013 comment letter, Friends provided a list of industries and businesses in the City of Colfax (pp. 2- 4). Friends contend that two industries require "categorical standards" per federal regulations 40 CFR sections 405 through 471.

Response: Central Valley Water Board staff concurs in part. During a meeting on 3 April 2013, Central Valley Water Board staff assured Friends that comments written in response to the tentative NPDES Permit would be responded to in writing, and that staff responses to all comments would be provided to Friends prior to the Central Valley Water Board's May hearing of this item.

Central Valley Water Board staff does not concur that the City of Colfax should be required to have a Pretreatment Program that contains all the pretreatment requirements in federal regulations (40 CFR Part 403). 40 CFR Part 403 requires all large Publicly Owned Treatment Works (POTWs) (those designed to treat flows of more than 5 million gallons per day) and smaller POTWs (that accept wastewater from industrial users that could affect the treatment plant or its discharges) to establish local pretreatment programs and to enforce all national pretreatment standards and requirements in addition to any more stringent local requirements necessary to protect site-specific conditions at the Facility. Because the proposed NPDES Permit limits the Facility average dry weather flow at 0.275 mgd, the City of Colfax is not required to establish a pretreatment program per the requirements contained in 40 CFR Part 403, and thus, the City's NPDES Permit, and subsequent

renewals including the proposed NPDES Permit, appropriately do not contain provisional Pretreatment Requirements applicable to federal regulations (e.g. Not Applicable). However, Central Valley Water Board staff does concur that the City of Colfax should have a local pretreatment program.

The City of Colfax has the ability to regulate industrial users under its local municipal code. Per the City of Colfax Municipal Code section 13.08.480, the City has the authority to issue an industrial wastewater permit. In June 2012, the Facility experienced an upset caused by an industrial user discharge of biological material (yeast). Section 13.08.030 of the City of Colfax Municipal Code classifies the industry that caused the upset as an Industrial User due to the BOD load and that the industry has the potential to cause process interference at the Facility. The City of Cofax is in the process of issuing an industrial wastewater permit to this Industrial User. The City is also reviewing all industries/businesses within the City of Colfax to determine whether any additional industrial users require industrial wastewater permits. Central Valley Water Board staff believes the City's actions are appropriate.

Central Valley Water Board staff appreciates Friends providing the list of industries located in the City of Colfax (pp. 2-4, Friends of the North Fork comment letter, 20 March 2013). Central Valley Water Board staff evaluated this list of industries to determine if any are listed as industries with categorical standards within federal regulations 40 CFR sections 405 through 471, including the two industrial printing operations (GKM Corporation and Tully Wihr Inc.) Friends cites as having Categorical Standards. 40 CFR Part 447-Ink Formulating Point Source Category prescribes standards applicable to discharges resulting from tank washing systems using solvents. Central Valley Water Board staff did not find anything on these two printing operations websites that determined 40 CFR Part 447 was applicable, and therefore, that the federal categorical standards are required; however, staff recommends that the City of Colfax review/inspect these operations to determine if an industrial permit is required per the City of Colfax Municipal Code section 13.08.480.

Central Valley Water Board staff concurs that a reopener provision should be included in the proposed NPDES Permit due to the recent Facility upset caused by an Industrial User. Changes were made to Special Provisions VI.C.1.h of the proposed NPDES Permit as shown below in underline format.

h. Pretreatment Requirements. If the Central Valley Water Board determines that future Facility upsets and/or effluent limitation violations indicate that pretreatment requirements are necessary to control industrial user site-specific discharges, this Order may be reopened to add Pretreatment Requirements in section VI.C.5.a.

Changes were also made to the Facility Description in the Fact Sheet, section II.A.6, as shown below in underline format.

6. **May/June 2012 Plant Upset.** On 15 May 2012, a discharge to the Facility by an industrial discharger caused a plant upset. The Discharger was able to get the Facility back to proper operating status by early July 2012. The plant upset was evidenced primarily by discharges of high ammonia concentrations between late May and early July 2012. The effluent ammonia concentrations exceeded the effluent limitations for over a month. The maximum effluent concentration during the upset period was 11.7 mg/L and the maximum ammonia concentration at the downstream receiving water monitoring point was 7.46 mg/L. Aside from the plant upset, the downstream receiving water has met the ammonia criteria.

   Federal regulations, 40 CFR 403 requires facilities with design flow greater than 5 mgd to have a Pretreatment Program in place. 40 CFR 403 allows the Central Valley Water Board to impose a pretreatment program on facilities that discharge less than 5 mgd, where necessary. The Facility has a design flow of 0.5 mgd and is not required to have a Pretreatment Program. The City of Colfax has the ability to regulate industrial dischargers through the municipal code and has done so in this case. This Order does not require the City to have a Pretreatment Program as defined by 40 CFR 403. <u>This Order contains a provision so that this Order can be reopened to impose pretreatment requirements for the City of Colfax if the Central Valley Water Board determines that future plant upsets and/or effluent limitation violations indicate that a Pretreatment Program in accordance with 40 CFR 403 is necessary to control industrial user site-specific discharges.</u>

Changes were also made to finding 5. in the proposed Cease and Desist Order as shown in underline/strikethrough format below:

5. Between 1 January 2009 (when the Facility became fully operational) and 31 December 2011, there were two samples collected and analyzed for total recoverable arsenic. One sample was ND, with a reporting level of 10 µg/L and a method detection limit of 0.9 µg/L, and the second sample was reported to contain arsenic concentrations at 12.7 µg/L. The City submitted an Arsenic Infeasibility Analysis, dated 18 January 2013, in which the City proposes to conduct monthly arsenic analyses for one year and to investigate the laboratory analytical methods for potential interference. ~~After the year of monitoring,~~ if the additional <u>sample</u> analyses indicate <u>effluent concentrations</u> exceed the arsenic effluent limitations, the City will conduct a source identification study and a local education and outreach program, <u>and if necessary regulate industrial users that caused the exceedance under its local municipal code.</u>

As previously stated, Central Valley Water Board staff does not recommend that the proposed NPDES Permit include a requirement for the City of Colfax to develop and implement a pretreatment program as prescribed in 40 CFR Part 403. However, USEPA staff informed Central Valley Water Board staff that funds are available

through the State Water Resources Control Board for a Pretreatment Program contractor to evaluate the City of Colfax industries and local pretreatment program; the Central Valley Water Board may determine that this action is appropriate.

Friends Comment No. 5. C. The permit needs to require the content and monitoring of sludge, biosolids and all other removals and the disposition of the materials.

Friends contend that the tentative NPDES Permit must prescribe monitoring of "*the content of process, physical and all other removals from the waste stream…, identification of the class or category of the materials, method of transport, location of disposition, identity of disposition site and company, classifications of the disposition site."*

Response: Central Valley Water Board staff does not concur. The proposed NPDES Permit in Limitations and Discharge Requirements, section VI.C.5.b. Sludge/Biosolids Treatment or Discharge Specifications, requires, in part, the Discharger to submit an updated biosolids disposal plan that describes at a minimum (a) sources and amounts of biosolids generated annually, (b) location and description of the containment area, and (c) plans for ultimate disposal, including the Central Valley Water Board's waste discharge requirement numbers that regulate the particular landfill, its classification, and the name and location of the landfill.

Additionally, section IX.B. Biosolids, of the Monitoring and Reporting Program, Attachment E, in the proposed NPDES Permit, requires the Discharger to a) collect a composite sample of sludge and test for the metals listed in Title 22 once per year when sludge is removed from the ponds for disposal; b) maintain sampling records, and retain for five years; c) "*Upon removal of sludge, the Discharger shall submit characterization of sludge quality, including sludge percent solids and quantitative results of chemical analysis for the priority pollutants listed in 40 CFR 122 Appendix D, Tables II and III (excluding total phenols).*"

The proposed NPDES Permit requires a comprehensive monitoring and assessment of biosolids. No changes were made to the proposed NPDES Permit.

Friends Comment No. 6. D. The proposed infiltration and inflow language should not allow the possibility of terminating any further I&I correction.

Friends state that "*The proposed infiltration and inflow language should not allow the possibility of terminating any further I&I correction."* Friends contend that the tentative NPDES Permit only addresses partial I&I, and thus violates "*Clean Water Act Infiltration and Inflow regulation sections 40 CFR 35.927, 35.927-1 and 35.927-2.*"

Response: Central Valley Water Board staff does not concur. First, the cited sections do not apply to state programs in issuing NPDES Permits. These provisions apply for purposes of an applicant seeking grant assistance. Second, existing Cease and Desist Order R5-2011-0097 contains infiltration and inflow (I&I) rehabilitation requirements that remain fully enforceable; any actions the Central Valley Water Board determines regarding the proposed NPDES Permit and accompanying Cease and Desist Order will not rescind or change Cease and Desist Order R5-2011-0097. The proposed NPDES Permit only contains a discussion about Cease and Desist Order R5-2011-0097 I&I rehabilitation requirements. However, changes were made to section II.A of the proposed NPDES Permit for clarification as shown in underline format below, and throughout the proposed NPDES Permit as appropriate.

A. Background. The City of Colfax (hereinafter Discharger) is currently discharging pursuant to Order R5-2007-0130 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079529. In December 2011, the Central Valley Water Board adopted Cease and Desist Order (CDO) R5-2011-0097. The CDO established time schedules for meeting the discharge prohibitions and effluent limitations under Order R5-2007-0130 or subsequent order, and includes requirements for rehabilitation of the Infiltration and Inflow (I&I) problems of the sewer collection system. The Discharger submitted a Report of Waste Discharge, dated 3 April 2012, and applied for an NPDES permit renewal to discharge up to 0.275 million gallons per day of treated municipal wastewater, collected and treated seepage, and storm water runoff from the Wastewater Treatment Plant, hereinafter Facility. The application was deemed complete on 4 April 2012.

Friends Comment No. 7. E. The actions of the Board under the existing permit and its enforcement and the draft permit demonstrate that the Board is improperly willing to allow the quality of the waters of the North Fork to deteriorate.

Friends contend that the tentative NPDES Permit must identify the *"public and private water supplies taken from the [North Fork of the American] river below where the discharge enters the river."*

Response: Central Valley Water Board staff does not concur. The proposed NPDES Permit, in part, requires the wastewater treated at effluent quality attainable by tertiary-level treatment, which is more stringent then the requirements contained in Federal Regulations, 40 CFR Part 133. Moreover, the proposed NPDES Permit also establishes water quality based effluent limitations to protect the beneficial uses (e.g., MUN: domestic and municipal supply use), and thus the water quality of the receiving water, the unnamed tributary of Smuthers Ravine, and all downstream receiving waters (i.e., Smuthers Ravine, Bunch Canyon, and the North Fork of the American River). No changes were made to the proposed NPDES Permit.

Friends Comment No. 8. F. The proposed permit does not contain limitations, standards or other controls on pollutant discharges designed to and necessary to protect wildlife.

Friends contend that the tentative NPDES Permit does not contain limitations that protect wildlife, independent of controls designed to protect humans.

Response: Central Valley Water Board staff does not concur. The proposed NPDES Permit contains water quality based effluent limitations that protect wildlife, and wildlife habitat. In determining whether the discharge may have a reasonable potential to cause or contribute to an excursion above any applicable priority pollutant criterion or objective (Reasonable Potential Analysis, RPA), Central Valley Water Board staff first must determine which beneficial uses designated in the Basin Plan (Table II-1) apply to the receiving water. The proposed NPDES Permit, Table 5, lists the Basin Plan Beneficial Uses applicable to the unnamed tributary of Smuthers Ravine, which includes Wildlife habitat (WILD), defined in the Basin Plan as "*Uses of water that support terrestrial or wetland ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.*"

Next, constituent-by-constituent, Central Valley Water Board staff considers all water quality standards (e.g. Basin Plan water quality objectives, the California Toxics Rule water quality standards, and state drinking water standards) applicable to the Basin Plan Beneficial Uses. To protect all the Basin Plan Beneficial Uses, the lowest (most stringent) water quality standard for each constituent, whether for protection of human health, aquatic life, or wildlife, is compared to the highest constituent concentration measured in the effluent and receiving water. Sometimes the human health standard is more stringent than the aquatic life standard, and other times the aquatic life standard is more stringent; but always, in using the most stringent standard in conducting the RPA, all beneficial uses are protected, including Wildlife habit (WILD). Based on the RPA conducted on this Facility, the proposed NPDES Permit contains water quality based effluent limitations, in part, based on the California Toxics Rule, which established standards protective of wildlife. No changes were made to the proposed NPDES Permit.

Friends Comment No. 9. G. The draft fails to protect California Species of Concern and Threatened Species, the fishery and the macro invertebrate assemblage.

Friends contend that the Colfax discharge affects areas where known species of concern and threatened species are sighted, but the [Central Valley Water] Board appears to ignore them.

Response: Central Valley Water Board staff does not concur. See the response to Friends Comment No. 8 above.

Friends Comment No. 10. H. The draft fails to address unregulated drinking water and unregulated water quality contaminants.

Friends contend that the tentative NPDES Permit fails to address unregulated drinking water and unregulated water quality contaminants such as contaminants of emerging concern.

Response: Central Valley Water Board staff concurs in part. The issue of emerging contaminants (e.g. pharmaceuticals and endocrine disrupters) is a concern of the State and Regional Water Boards, but no federal or state regulations have been established yet. Additionally, the science is too uncertain at this point to require each publicly-owned treatment works to monitor for numerous constituents that have the potential to be found in the discharge. The State and Regional Water Boards are working to develop a coordinated regional monitoring program. Therefore, a reopener provision has been added to section VI.C.1.j of the proposed NPDES Permit as shown in underline format below:

j. Regional Monitoring Program. The State and Regional Water Boards are committed to creation of a coordinated Regional Monitoring Program to address receiving water monitoring for all Water Board regulatory and research programs. When a Regional Monitoring Program becomes functional, this permit may be reopened to make appropriate adjustments in permit-specific monitoring to coordinate with the Regional Monitoring Program.

Friends Comment No. 11. I. The background, facility description, and minor discharge classification require revision and major changes.

Friends contend that the minor discharge classification requires revision and the tentative NPDES Permit should be set in the context of the North Fork American River, the Auburn State Recreation Area and other public uses of the area into which the discharge flows. Friends further contend that the tentative NPDES Permit should describe in detail the City's past and ongoing violations.

Response: Central Valley Water Board staff does not concur. For treated municipal wastewater discharges, USEPA classifies discharges under 1 mgd as minor discharges. The City of Colfax permitted discharge is 0.275 mgd, and therefore, the minor discharge classification is appropriate. For non-municipal discharges, USEPA has a rating system (27 June 1990 Memorandum, USEPA Office of Water Enforcement and Permits). Central Valley Water Board staff also evaluated the City of Colfax discharge using USEPA's step-by-step evaluation and scoring process (NPDES Permit Rating Work Sheet). A score equal to or greater than 80 is considered a major discharge; the City scored 45, and therefore, the minor discharge classification is correct. Nevertheless, the Central Valley Water Board also has the discretion to assign the Facility discharge as a major.

Central Valley Water Board staff does not concur that the proposed NPDES Permit should be set in the context of the North Fork American River or the Auburn State Recreation Area. The Facility discharges effluent to the unnamed tributary of Smuthers Ravine, and the proposed NPDES Permit contains waste discharge requirements to protect beneficial uses of that receiving water and downstream waters (i.e., Smuthers Ravine, Bunch Creek, and the North Fork American River). (See previous responses to Friends Comments No. 3 and 8.) Additionally, section II.D in the Fact Sheet of the proposed NPDES Permit summarizes the compliance issues that occurred during the duration of the NPDES Permit (Order R5-2007-0130).

No changes were made to the proposed NPDES Permit.

Friends Comment No. 12. J. The description and permit need to describe and address that the POTW discharge appears to enter the same ravine as storm water runoff from Colfax.

Response: Central Valley Water Board staff concurs and has modified section II.B.3 of the Fact Sheet in the proposed NPDES Permit as shown in underline/strikethrough format below.

3. The confluence of the unnamed tributary of Smuthers Ravine with Smuthers Ravine is approximately ~~one mile~~ 1,000 feet downstream of the discharge point, while the confluence of Smuthers Ravine with Bunch Canyon is approximately two miles downstream of the discharge point. The confluence of the North Fork American River is approximately 6 miles from the discharge point. Smuthers Ravine is an ephemeral stream; Bunch Canyon and the North Fork American River are ~~is a~~ perennial stream~~s~~ that support~~s~~ aquatic life year round.

Most of the City of Colfax is located on the southeast side of a mountain ridge. Storm water runoff from this portion of the City of Colfax discharges to Bunch Canyon, which discharges into the North Fork of the American River. The storm water runoff, within the city limits that are on the northwest side of the ridge, ultimately makes its way to the Bear River which is a tributary of the Feather River.

Friends Comment No. 13. K. The management of mercury in the permit needs to address the Delta and development of the current statewide mercury TMDL, and the American River Mercury TMDL program that was started and withdrawn after its CEQA scoping notice was issued.

Response: Central Valley Water Board staff concurs in part. Changes were made to section II.H of the proposed NPDES Permit clarification as shown in part below in underline/strikethrough format, and throughout the proposed NPDES Permit as appropriate:

The unnamed tributary of Smuthers Ravine, Smuthers Ravine, and Bunch Canyon~~, and the North Fork of the American River~~ are not listed on the 303(d) list of impaired water bodies. The North Fork of the American River is on the 303(d) list of impaired water bodies for mercury. The State Water Board and the nine Regional Water Boards are developing a statewide mercury TMDL program for mercury-impaired reservoirs. In addition, the State Water Board is developing statewide fish tissue objectives for mercury and an associated implementation program to achieve the objectives. Currently, no TMDL is scheduled for the North Fork of the American River; however, these programs may have future mercury requirements for dischargers. Effluent limits for mercury are not included in this Order, but it does contain a provision that allows this Order to be reopened to include any future mercury requirements.

Friends Comment No. 14. L. Individual description is needed if the discharges from the earlier Colfax POTW entered a different watershed.

Response: Central Valley Water Board staff concurs. Discharge Point 001 is in the same location and has not changed, but the City calibrated the global positioning system and provided corrected latitude and longitude coordinates. Changes were made to section II.B.2 in the Fact Sheet of the proposed NPDES Permit for clarification, as shown in underline/strikethrough format below.

2. Treated municipal wastewater is discharged at Discharge Point No. 001 to an unnamed tributary of Smuthers Ravine, a water of the United States and tributary to the North Fork of the American River (via Smuthers Ravine and Bunch Canyon) at a point latitude 39° 04' ~~30~~44.5" N and longitude 120° 56' ~~30~~21.5" W. (The Discharge Point 001 position was calibrated correctly from the latitude and longitude shown in previous Order R5-2007-0130, latitude 39° 04' 30" N and longitude 120° 56' 30" W.)

Friends Comment No. 15. M. The permit needs to incorporate by reference all standards and other protections that are adopted by the Board.

Response: Central Valley Water Board staff does not concur. The proposed NPDES Permit contains lengthy discussions of all state and federal Regulations, Plans, and Policies in the Limitations and Discharge Requirements (sections II.C-T), Standard Provisions (Attachment D), and the Fact Sheet (Attachment F). No changes were made to the proposed NPDES Permit.

Friends Comment No. 16. N. All draft permit terms and conditions without factual presentation and explanation and with conclusory remarks are inadequate.

Response: Central Valley Water Board staff does not concur. The proposed Permit Fact Sheet contains 100 pages of extensive and step-by-step discussions of the bases for decisions and determinations made by the Central Valley Water Board. No changes were made to the proposed NPDES Permit.

CENTRAL VALLEY CLEAN WATER ASSOCIATION (CVCWA)

CVCWA Comment No. 1. BOD and TSS FIndings

CVCWA contends that the Fact Sheet of the tentative NPDES Permit includes new findings that water quality based effluent limitations for BOD and TSS are necessary to protect aquatic life, but provides no evidence to support such a statement. CVCWA requests that the findings for BOD and TSS be revised to mirror the findings in the NPDES Permit (Order R5-2007-0130) that the BOD and TSS limitations are necessary to ensure proper operation of a tertiary treatment process.

Response: Central Valley Water Board staff concurs and has removed the findings for BOD and TSS contained in the tentative NPDES Permit (section IV.C.3.d.iii.) and made changes to proposed NPDES Permit, section vi. Pathogens of the Fact Sheet, as shown in part in underline/strikethrough format below:

vi. Pathogens

(a) WQO. …

(b) RPA Results. Raw domestic wastewater inherently contains human pathogens that threaten human health, and constitute a threatened pollution and nuisance under CWC section 13050 if discharged untreated to the receiving water. Reasonable potential therefore exists and WQBELs are required. …

(c) WQBELs. …

~~This Order contains effluent limitations, operating specifications, and requires a tertiary level of treatment, or equivalent, necessary to protect the beneficial uses of the receiving water. The Central Valley Water Board has previously considered the factors in Water Code section 13241 in establishing these requirements.~~ This Order contains effluent limitations for BOD_5, total coliform organisms, and TSS, and requires a tertiary level of treatment, or equivalent, necessary to protect the beneficial uses of the receiving water. The Central Valley Water Board has previously considered the factors in Water Code Section 13241 in establishing these requirements.

Final WQBELs for BOD_5 and TSS are based on the technical capability of the tertiary process, which is necessary to protect the beneficial uses of the receiving water. BOD_5 is a measure of the amount of oxygen used in the biochemical oxidation of organic matter. The tertiary treatment standards for BOD_5 and TSS are indicators of the effectiveness of the tertiary treatment process. The principal design parameter for wastewater treatment plants is the daily BOD_5 and TSS loading rates and the corresponding removal rate of the system. The application of tertiary treatment processes results in the ability to achieve lower levels for BOD_5 and TSS than the secondary standards currently prescribed. Therefore, this Order requires compliance

with AMELs for BOD_5 and TSS of 10 mg/L and compliance with average weekly effluent limitations of 15 mg/L, which is based on the technical capability of a tertiary system. In addition to the average weekly and average monthly effluent limitations, a daily maximum effluent limitation for BOD_5 and TSS is included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities.

(d) Plant Performance and Attainability. This Order contains effluent limitations for total coliform organisms, BOD_5 and TSS that are carried over from previous Order R5-2007-0130. Since the new Facility went on-line in January 2009, it appears the Discharger can meet these limitations. This Order also contains operational specifications for turbidity.

CVCWA Comment No. 2. Ultraviolet Light (UV) Disinfection System Operating Specifications

CVCWA contends that the tentative NPDES Permit *"continues the Regional Board's precedent for dictating in NPDES permits specific operating specifications for UV disinfection."* CVCWA further contends that the tentative NPDES Permit *"should be revised to provide as an alternative to all of the UV disinfection requirements the ability for a discharger to prepare, with DPH approval, a UV Operations and Maintenance Program. We recommend revisions accordingly.*"

Response: Central Valley Water Board staff does not concur. For UV disinfection, additional operating specifications are necessary. The California Department of Public Health (DPH) developed the total coliform organisms levels based on the use of chlorine disinfection. UV disinfection does not disinfect the wastewater in the same manner as chlorine. For facilities that utilize UV disinfection, DPH requires compliance with additional operating specifications to ensure adequate disinfection is provided. Therefore, in addition to turbidity specifications and total coliform organisms effluent limits, the proposed NPDES Permit includes UV disinfection system operating specifications as recommended by DPH. Additionally, the proposed NPDES Permit, section VI. Ultraviolet Light (UV) Disinfection System Operating Specifications, allows the City to operate the UV System in accordance with an alternative plan, approved by DPH or the Executive Officer. However, the proposed NPDES Permit was changed to include a Ultraviolet Light Operating Specifications Reopener provision (VI.C.1.i.) as shown in underline format below:

i. Ultraviolet Light. If the Discharger conducts a site-specific UV Engineering study that identifies site-specific UV operating specifications that will achieve the virus inactivation equivalent to Title 22 disinfected tertiary recycled water, this Order may be reopened to modify the UV operating specifications, in accordance with Reopener Provision VI.C.1.a.