

ITEM: 11

SUBJECT: City of Colfax, Wastewater Treatment Plant, Placer County

BOARD ACTION: *Consideration of NPDES Permit Renewal (NPDES Permit No. CA0079529) and new Cease and Desist Order*

BACKGROUND: The City of Colfax (City) is the owner and operator of the Wastewater Treatment Plant (Facility), serving a population of approximately 2,000. The City has a median household income of nearly \$41,000, and the City meets the State definition of a small community with financial hardship. The monthly wastewater user charge for a typical single family dwelling is \$108.66.

The Facility is currently authorized to discharge an average dry weather flow of up to 0.275 million gallons per day (MGD) of tertiary-treated municipal wastewater to the unnamed tributary of Smuthers Ravine, a tributary of the North Fork of the American River within the Sacramento River Watershed. The United States Environmental Protection Agency and the Central Valley Regional Water Quality Control Board (The Board) have classified this discharge a minor discharge.

The Facility is located in a valley with natural springs and steep geographical terrain. The Facility was initially designed to dispose of effluent on land, and the storage reservoir (also referred to as Pond 3) was intended to provide complete containment during the winter. The City's sewage collection system was built in the early 1900's of clay pipe. This aging, outdated system generated significant volumes of inflow and infiltration (I/I) that caused substantial overflows from the storage reservoir. In 2005, the City installed an interim tertiary wastewater treatment plant to discontinue land discharges, and to dewater and line the storage reservoir. Issues occurred with the interim treatment plant, and the unlined storage reservoir was believed to be seeping municipal wastewater. However, in 2009, the Facility was upgraded to a new extended aeration tertiary treatment package plant with a design capacity of 0.5 MGD, and more recently, the storage reservoir was lined with high density polyethylene liner.

The proposed NPDES Permit contains new arsenic effluent limitations, and the proposed Cease and Desist Order requires compliance with the new effluent limitation by 30 May 2016. The proposed NPDES Permit also retains effluent limitations contained in the existing NPDES Permit (Order R5-2007-0130) for ammonia, biochemical oxygen demand (BOD), total chlorine residual, total coliform organisms, manganese, nitrate plus nitrite, pH, total suspended solids (TSS), whole effluent toxicity, and an average dry weather flow limit. But based on a reasonable potential analysis, the proposed NPDES Permit does not retain effluent limitations for aluminum, copper, cyanide, bis (2-ethylhexyl) phthalate, electrical conductivity, iron, settleable solids, turbidity, and the mercury mass limitation.

ISSUES: Public comments on the tentative NPDES permit were received from the City of Colfax, Mr. Allen Edwards, Friends of the North Fork, and Central Valley Clean Water Association (CVCWA). The comments and staff responses (Staff Response to Comments document) are included in the agenda package. Staff does not concur with all of the comments, but has resolved many of the public comments through subsequent meetings and discussions. Staff has made appropriate changes to the proposed NPDES Permit to address comments. The following is a summary of the comments on the major permitting issues that staff does not concur and may continue to be at issue.

**Peak Wet Weather Flow Rate.** Mr. Edwards questions (No. 1) the Executive Officer's authority to approve the Facility's peak wet weather (PWW) flow rate, referring to 8 August 2012 letter approving the PWW flow rate at 0.8 MGD based on the results of the City's stress test. Mr. Edwards seeks this issue be brought before The Board, and contends (No. 2) that the PWW flow rate of 0.8 MGD should not be approved because the City conducted a faulty stress test of its treatment system. Staff concurs in part. PWW flow rates are not usually contained in NPDES permits because peak flows should be built into the facility design. However, in this case, The Board may determine that the proposed NPDES Permit should contain a PWW flow rate because of the existing I/I problems. Nevertheless, based on a review of the stress test conducted on the Facility's treatment works, staff concurs that a PWW flow rate at 0.8 MGD is appropriate.

**Pond 3 Lining and Groundwater Evaluation.** The City comments (No. 1) that the proposed NPDES Permit provision (*Groundwater Monitoring and Assessment Report*) should not use groundwater monitoring results as sole factors in determining the effectiveness of the newly installed liner, and instead, the lining of all Facility ponds should be the basis demonstrating that the groundwater is not impacted by the Facility. Mr. Edwards comments that (No. 5) new groundwater wells should be installed to adequately assess groundwater quality, and that the assessment report regarding the effectiveness of Pond 3's liner and evaluation of the underlying groundwater should be released for public review and comment, and possible Board action. Mr. Edwards questions (No. 10) how the effectiveness of the Pond 3 lining will be determined. Staff concurs in part. To determine the effectiveness of Pond 3's liner, the proposed NPDES Permit requires the City to assess constituents in the down-gradient well to background concentrations, and to include a diagrammatic representation of the Standard Minerals cations and anions. The City is also required to conduct a test using electrical resistivity technique to determine the integrity of the liner. Staff does not concur that groundwater evaluations are not necessary, or that new groundwater wells should be installed.

**Federal Pretreatment Requirements.** Friends comments (No. 4) that the proposed NPDES Permit erroneously provides that industrial pretreatment requirements are not applicable, and that it should contain an investigation of the City's Industrial Users, and a pretreatment program reopener. Staff concurs in part. The proposed NPDES Permit was modified to include a Pretreatment Requirement Reopener provision. However, the federal Pretreatment Requirements are not applicable to the City. The City of Colfax has a local pretreatment program that authorizes the City to issue industrial wastewater permits to local industrial users, and the City has committed to inspect some of the local industrial users. However, The Board may request of the State Water Resources Control Board to have a Pretreatment Program contractor evaluate the City's industries users and pretreatment program to determine if the federal Pretreatment Requirement should be imposed.

**Chlorine Residual Continuous Monitoring.** The City comments (No. 2) that since the Facility disinfects with an ultraviolet light disinfection system, and not chlorine, the proposed NPDES Permit should only require continuous monitoring of chlorine when used (e.g. cleaning). Mr. Edwards comments (No. 7) that the proposed NPDES Permit stated method to determine compliance with the total chlorine effluent limit is "excessively polluter-friendly." Staff does not concur. The proposed NPDES Permit requires the City to continuously monitoring chlorine for one year, and if the monitoring results indicate that the chlorine effluent limits have been met regularly, the City may then continuously monitor only when chlorine is used at the Facility. The proposed NPDES Permit also allows the City to demonstrate whether a recorded spike is a 'false positive' reading, which is appropriate.

**Receiving Water Monitoring.** Mr. Edwards (No. 12) contends that the background receiving water monitoring location in the proposed NPDES Permit may not be adequate, because of potential pond seepage influences. Friends comments (No. 3) that downstream receiving water monitoring should be conducted above and below the point of entrance into the North Fork American River. Staff does not concur. The existing upstream receiving water monitoring location is dry most of the time, and thus, yields little data. Whereas, the upstream monitoring location in the proposed NPDES Permit contains water year round, and therefore, will provide an adequate data set; additionally, the proposed NPDES Permit requires an assessment of the pond liner to determine if pond seepage occurs. The downstream receiving water monitoring location is within the unnamed tributary, approximately 100 feet from the discharge. The North Fork of the American River is approximately six miles downstream of the discharge, and therefore the discharge entering the North Fork of the American River may be highly diluted or influenced by other sources along this reach; thus assessing potential changes caused by the effluent discharge would be difficult. The intermediate receiving waters, Smuthers Ravine is dry most of the time and Bunch Canyon is inaccessible.

**Wildlife, Threatened Species, and Constituents of Emerging Concern.** Friends comments that the proposed NPDES Permit fails to contain limitations protective of wildlife (No. 8), and fails to protect California species of concern and threatened species (No. 9). Friends also comments (No. 10) that the proposed NPDES Permit fails to address unregulated water quality contaminants (e.g. contaminants of emerging concern). Staff concurs in part. The proposed NPDES Permit is protective of all beneficial uses, including wildlife (WILD). Constituent-by-constituent, all water quality standards applicable to the beneficial uses were considered, and the most stringent standard was used to determine if an effluent limitation is necessary to protect the beneficial uses. Yet, staff concurs that the issue of emerging contaminants is a concern, but no federal or state regulations have been established yet. However, the State and Regional Water Boards are working to develop a regional monitoring program that may include monitoring of constituents of emerging concern, and therefore, the proposed NPDES Permit was modified to include a reopener provision.

**Ultraviolet (UV) Disinfection System Operating Specifications.** CVCWA comments that the proposed NPDES Permit is not in compliance with Water Code section 13360 because the UV specifications dictate the manner in which dischargers must comply with the specifications. Staff does not concur. The proposed NPDES Permit includes UV disinfection operational specifications recommended by California Department of Public Health (DPH) in addition to total coliform effluent limits, to assure the wastewater is processed through the proper disinfection process concurrently with meeting final coliform effluent limits. Complying with final Total Coliform effluent limits alone does not ensure protection of public health and public health-related beneficial uses. Nevertheless, the proposed NPDES Permit was modified with a reopener provision that allows the UV specifications modified should the City submit site-specific UV specifications approved by DPH.

RECOMMENDATION: Adopt NPDES Permit Renewal and Cease and Desist Order

Mgmt. Review \_\_\_\_\_  
Legal Review \_\_\_\_\_

30/31 May 2013  
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