

ITEM: 15

SUBJECT: City of Colusa Wastewater Treatment Plant - Colusa County

BOARD ACTION: Consideration of NPDES Permit Renewal

BACKGROUND: The City of Colusa (hereinafter Discharger) is the owner and operator of its wastewater treatment plant (hereinafter Facility) that serves a small (mostly residential) community of approximately 5700 people. To meet its existing requirements in Waste Discharge Requirements Order No. 2002-0020 (NPDES Permit), the Discharger is completing a major Facility upgrade that will initiate operations in Fall 2008. The upgraded facilities will replace the existing secondary pond treatment system and chlorination disinfection system with a tertiary activated-sludge process and ultra violet light (UV) disinfection. To finance the Facility upgrade, the residential monthly sewer rates were recently increased by \$20 to the current \$57/month rate.

The proposed NPDES Permit renewal continues to allow a minor regulated flow of 0.7 million gallons per day of treated municipal wastewater to an unnamed tributary to Pough Slough, which is tributary to the Colusa Basin Drain. The Discharger is not unable to immediately comply with new and/or more stringent effluent limitations for ammonia, chlorodibromomethane, copper, dichlorobromomethane, foaming agents, iron, manganese, nitrate plus nitrite, and total trihalomethanes in the proposed permit. Therefore, time schedules for complying with the new and/or more stringent effluent limitations are included in the permit. Proposed effluent limitations for aluminum, ammonia and total chlorine residual are based on implementation of the narrative Basin Plan objective. The USEPA's National Recommended Ambient Water Quality Criteria for protection of freshwater aquatic life is the basis of the interpretation of the narrative objective.

ISSUES: The Discharger and the Central Valley Clean Water Association (CVCWA) submitted public comments regarding the tentative NPDES Permit. The major issues discussed in the public comments are summarized below. Further detail on all public comments is included in Regional Water Quality Control Board staff Responses to Comments:

MUN Beneficial Use Designation: The beneficial uses of the receiving waters (the unnamed tributary to Powell Slough, and Pough Slough) are not specifically identified in the Basin Plan for the Sacramento River And San Joaquin River Basins (Basin Plan). The receiving waters are tributary to the Colusa Basin Drain, which specifically is not designated with the Municipal and Domestic Water Supply (MUN) beneficial use. As discussed in the proposed permit findings, the MUN beneficial use is applied to the receiving waters based on the State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes that all waters (with certain exceptions) should be considered suitable or potentially suitable for municipal or domestic supply. Although the agricultural canal and slough which serve as the receiving waters may qualify for an exception to Resolution No. 88-63, the Regional Water Board may only grant such an

exception through a formal Basin Plan Amendment process.¹

The proposed permit includes a five year compliance schedule for new effluent limitations based on criteria to protect the MUN beneficial use. The proposed permit additionally finds that if the Discharger selects to pursue a Basin Plan Amendment, the Regional Water Board may consider a compliance schedule of up to ten years, as allowed by the Basin Plan, to successfully complete the Basin Plan Amendment process.

The Discharger and CVCWA disagree with the newly interpreted MUN designation of the receiving waters which differs from the existing NPDES permit finding that the receiving waters do not have the MUN designation. The Discharger and CVCWA also believe that the Regional Water Board does have the authority to grant an exception to Resolution No. 88-63 through the adoption of an individual NPDES permit. The Discharger is stating that the proposed MUN designation and resulting discharge requirements will require significant City expenditure for further facility upgrades, studies, monitoring, and compliance assurance.

Compliance With Aluminum Effluent Limitations: The proposed permit contains a maximum daily effluent limitation (MDEL) and an average monthly effluent limitation (AMEL), with monthly compliance monitoring. The Discharger requests that compliance with aluminum effluent limitations be only based on its compliance with the MDEL. The basis of the Discharger's request is that the MDEL and the AMEL are based on a statistical analysis revolving around a single water quality criterion (750 ug/L) and the monthly monitoring frequency is insufficient to differentiate between the two averaging periods. Regional Water Board staff does not agree with only allowing compliance to be determined for the MDEL, while potentially allowing non-compliance with the AMEL. Monthly monitoring provides only one data point to determine compliance with both the average monthly limit and the daily maximum limitation. If the discharger is concerned about violating the average monthly limitation, it should monitor immediately at the beginning of the month and conduct subsequent monitoring later in the month if compliance is not obtained with the first sample.

Chlorine Limitations and Permit Reopener: The Discharger requests that the total chlorine residual effluent limitations become non-applicable after the proposed UV disinfection system becomes operational. The Discharger also requests that a specific permit reopener be included in the permit to allow (1) a subsequent reasonable potential analysis (RPA) to be conducted after the tertiary treatment upgrades become operational, and (2) effluent limitations for chlorine byproducts and constituents removed by tertiary

¹ Basin Plan, page II-2.01 provides that the Regional Water Board may de-designate MUN based on the applicability of one or more of the Resolution No. 88-63 exceptions. Basin Plan, page VI-9.00, states that de-designation of a MUN use must occur through a formal basin plan amendment process. The Regional Water Board does not have the authority to grant an exception to Resolution No. 88-63 through an individual NPDES permit adoption. This conclusion is supported in State Water Board Water Quality Order No. 2002-0015 for the Vacaville's Easterly Wastewater Treatment Plant and State Water Board Order No. WQ 2006-0010.

treatment be re-evaluated.

To address the Discharger's request, the proposed permit was modified to have the compliance monitoring requirements for chlorine residual become ineffective upon written certification that the use of chlorine has ceased. The Discharger must resume monitoring if it uses chlorine disinfection after submitting the certification. However, Regional Water Board staff believes that coming in compliance with final effluent limitations is not a basis for reopening a permit and considering modification/removal of effluent limitations. A multi-year dataset, such as the information included in a Report of Waste Discharge for the renewal of a permit, is necessary for an RPA to be conducted, and if compliance with the effluent limitations is not an issue, then it is not crucial for the NPDES permit to be reopened prior to its expiration and subsequent renewal.

Salinity: The receiving waters are tributary of the Sacramento River and the Sacramento – San Joaquin Delta; therefore, the discharge contributes to the salinity in Delta waters. In the absence of a numerical receiving water objective for salinity, the proposed permit includes an interim annual-average (performance-based) limitation for electrical conductivity (EC) of 1500 umhos/cm. For continued salinity minimization measures and development of appropriate salinity criteria, the proposed permit requires the Discharger to develop and implement a Salinity Minimization plan, and develop and implement a Site-specific Salinity Study to determine appropriate salinity levels to protect the agricultural water supply uses of the receiving waters and downstream water bodies.

Miscellaneous Modifications: Independent of public comments, Regional Water Board staff corrected the copper limitations in the proposed permit that did not correspond to the correct limitations and calculations included in the tentative Fact Sheet. Additionally, staff now proposes to decrease the settleable solids monitoring frequency from daily to monthly monitoring since Total Suspended Solids and Turbidity are the primary measures of the performance of the new tertiary treatment facility. (Settleable solids monitoring corresponds to the operational performance of a secondary treatment facility and will not be applicable to this discharge when the current facility upgrade project is complete.)

Mgmt. Review _____

Legal Review _____

31 July / 1 August 2008

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