

ITEM: 10

SUBJECT: Byron Sanitary District, Byron Wastewater Treatment Facility

BOARD ACTION: *Consideration of Revised Waste Discharge Requirements (WDRs)*

BACKGROUND: The Byron Sanitary District (the Discharger) operates a wastewater treatment facility (WWTF) for the community of Byron in Contra Costa County. The revised WDRs are necessary to reflect facility improvements and a proposed capacity increase to accommodate an anticipated 20 year growth from its existing 381 EDUs to 465 EDUs. The Discharger submitted its RWD in March 2008 and supplemental material in August 2008. The necessary CEQA documents were filed for the expansion. The RWD was submitted to comply with CAO R5-2002-0733 (CAO) and TSO R5-2005-0900 (TSO).

The CAO states that the facility has violated WDRs 5-00-058 by not completing required system improvements and impacting groundwater and surface water quality in regard to nitrogen and coliform bacteria. The TSO states that the discharger has violated both the WDRs and CAO for similar reasons and failure to submit progress reports. The CAO and TSO set a time schedule for report submittal to monitor progress of facility improvements but do not set any effluent or groundwater limits. All orders (WDRs, CAO and TSO) state that the facility is in need of significant improvements to address: effluent quality improvements; pond berm construction, which was expected to cause pond seepage into an adjacent wetlands that drains to Fisk Creek and eventually to the San Joaquin River by way of Discovery Bay; and Imhoff tank maintenance, which went more than 10 years without solids removal.

The improvements proposed by the RWD include collection system rehabilitation, replacing the Imhoff tank and pump station with a new headworks and pump station, removing sludge from ponds, improving wastewater flow configuration between ponds, improving the control and monitoring system, and replacing four groundwater monitoring wells that have questionable construction integrity, resulting in suspected groundwater intrusion, and/or inappropriate site location. The new wells and placement are expected to provide the acquisition more reliable downgradient groundwater quality data.

The proposed Order sets the monthly average flow limit within the design capacity proposed by the RWD at 96,000 gpd during the dry months and at 100,800 gpd during the wet months to account for 5% I/I. The proposed Order does not set an effluent limit on electrical conductivity (EC) due to high background groundwater EC concentrations. The proposed Oder contains groundwater limitations specifying that constituents not to exceed background groundwater conditions. Total Coliform Organisms must be less than 2.2 MPN /100ml or background, whichever is greater. The Order includes groundwater limits for pH to prevent nuisance conditions.

Based on the Discharger's planned improvements (planned to be completed in early 2009), the proposed permit rescinds the CAO and TSO but monitors progress by requiring the submittal of a *Construction As-Built Completion Report* and a *Monitoring Well Installation Report*. Additionally, because of past enforcement the proposed WDRs require the submittal of a *One Time Monitoring Well Disinfection Workplan* in case of continued coliform bacteria volitions and the submittal of a *Groundwater and Pond Evaluation Report*, which requires the evaluation of groundwater quality after 8 quarters of monitoring and the determination of the hydraulic relationship between Fisk creek and the adjacent percolation evaporation ponds. If it is determined that groundwater has been degraded from operations of the WWTF, the Discharger will be required to reevaluate its treatment technology and implement BPTC.

ISSUES:

The California Sportfishing Protection Alliance (CSPA) is contesting the proposed Order and has requested designated party status. Regional Board staff completed a document responding to comments. The major issues discussed in the public comments are summarized below:

CSPA Comment: *"The proposed WDR does not comply with the Board's Antidegradation Policy by failing to contain limitations that are protective of groundwater quality in accordance with CWC 13377."*

The groundwater limits contained with the proposed WDRs are protective as they are either background or numerical limits taken directly from the Basin Plan. .

CSPA Comment: *"The wastewater discharge does not meet the minimum requirements for exemption from California Code of Regulation Title 27."*

Finding 78 of the proposed WDRs explains the issue of the applicable exemption from Title 27 for this facility. In addition, the commenter appears to imply it has information with regard to a pending or proposed enforcement, Regional Water Board staff know of no pending enforcement actions for this facility.

CSPA Comments: *"The Byron wastewater discharge constitutes a discharge of waste to surface water and must be regulated in accordance with the applicable Federal NPDES regulations."*

Regional Water Board staff disagree that the Byron WWTF should be regulated in accordance with applicable Federal NPDES regulations. As stated in the proposed WDRs the Byron WWTP area soils are Marcuse Clay and the ponds, berms and levees are constructed of clay. Further, groundwater is found in a sandy aquifer beneath a clay layer that extends from the surface to 20 to 35 feet bgs. Because of the clay layer, the aquifer is confined or semi-confined. This was not the case for the Healdsburg facility. Further in that case, Justice Kennedy specified that a "mere hydrologic connection should not suffice in all cases; the connection

may be too insubstantial for the hydrologic linkage to establish the required nexus." And a significant nexus in this case can only be determined by further study. Therefore, Regional Water Board staff agrees that the groundwater hydraulic relationship between Fisk Creek and the adjacent percolation/evaporation ponds needs to be investigated. Thus, Provision F.1.d of the proposed WDRs has been changed to include a *Groundwater and Pond Evaluation Report* and now requires: "In addition, the Discharger shall evaluate the hydraulic relationship between the disposal ponds and Fisk Creek, including but not limited to identifying the conditions under which Fisk Creek is either a losing or gaining surface water body."

Recommendation: Adopt the proposed Order

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11020 Sun Center Dr. #200

Rancho Cordova, CA 95670