



California Regional Water Quality Control Board

Central Coast Region



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Protection

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October 27, 2004

Mr. Clint Quilter
City of Hollister
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Mr. Quilter:

CITY OF HOLLISTER DOMESTIC AND INDUSTRIAL WASTEWATER TREATMENT PLANT, SAN BENITO COUNTY; RESPONSE TO REPORT OF WASTE DISCHARGE AND ASSOCIATED ENGINEERING DOCUMENTS

Regional Board staff reviewed the following documents related to the Long-Term Wastewater Management Plan and Report of Waste Discharge for the Domestic Wastewater Treatment Plant (DWTP):

- Hydrogeologic Report – City of Hollister Hydrogeologic Assessment, May 17, 2004, Geomatrix Consultants
- Report of Waste Discharge for Domestic Wastewater System Improvements, May 2004, HydroScience Engineers, Inc.
- Predesign Report for Domestic Wastewater System Improvements, May 2004, HydroScience Engineers, Inc.
- Hydrogeological and Geotechnical Engineering Investigation – City of Hollister Long-Term Wastewater Treatment Plant Effluent Disposal Plan, May 2004, Geocon Consultants, Inc.
- Review of Hollister Wastewater Project Documents, August 4, 2004, Wm. Lea Fisher – Consulting Engineer
- Long-Term Wastewater Management Plan for the Domestic Wastewater Treatment Plant, September 2002, HydroScience Engineers, Inc.

Based on our review of these documents, we have the following comments. The comments are generally broken down by report, but there is some overlap given the interrelationship among various reports.

Hydrogeologic Report

The Hydrogeologic Report indicates percolation of wastewater at the Domestic Wastewater Treatment Plant (DWTP) and Industrial Wastewater Treatment Plant (IWTP) has resulted in measurable groundwater impacts approximately 2,000 feet southwest of the DWTP and approximately 1,000 feet east of the IWTP. Analysis of groundwater samples indicates increased levels of sodium, chloride, potassium and total dissolved solids are present beneath and downgradient of both facilities relative to the greater study area. Although wastewater disposal practices at both facilities are also suspected of contributing to nitrogen impacts, relative contributions are difficult to assess due to the presence of high levels of nitrate throughout the basin, presumably as a result of historical agricultural activities.



Due to the limited duration of the study, an insufficient number of groundwater samples were collected to evaluate seasonal variations and statistically analyze the groundwater data. Based on the limited data set and observed impacts, the report recommends additional groundwater monitoring and data evaluation to adequately assess groundwater impacts. Regional Board staff concurs with the recommendations. Please implement Recommendations 1 through 6 of the May 17, 2004, Geomatrix Hydrogeologic Report immediately. These recommendations must be incorporated into the forthcoming revisions of waste discharge requirements for each of the facilities.

Report of Waste Discharge and Predesign Report for Domestic Wastewater System Improvements

The submitted Report of Waste Discharge (ROWD) is incomplete with regard to wastewater disposal and salinity issues as discussed below. Additional comments regarding reclamation and uncertainties in the DWTP design are also discussed below as they relate to the reviewed documents.

Wastewater Disposal

Although the proposed tertiary treatment process, membrane bioreactor activated sludge (MBR), is reportedly capable of producing a high quality tertiary effluent and appears to be sized to meet the City's future wastewater treatment needs, the City has yet to fully address additional wastewater disposal needs to meet current and projected wastewater flows. The ROWD and Predesign Report tentatively proposed a 49.7-acre property north of Wright Road for the percolation of treated wastewater to augment the existing onsite DWTP percolation beds. This location was tentatively identified during the Hydrogeologic Assessment as a potentially viable disposal area and additional investigation was conducted as presented in the Hydrogeological and Geotechnical Engineering Investigation report. Personal correspondence among Regional Board staff, you, your consultant, and the San Benito County Water District indicates pursuit of this property by the City as a viable wastewater disposal location is being reconsidered due to local opposition and uncertainties regarding suitability of the site for wastewater percolation. Use of the existing percolation beds at the IWTP was also tentatively identified for the disposal of DWTP effluent in the event the proposed offsite disposal location did not prove viable. No technical documentation has been provided supporting the use of the IWTP percolation beds for DWTP effluent disposal and no other potential offsite locations have been identified to meet the DWTP effluent disposal needs. The ROWD and Long-Term Wastewater Management Plan (LTWMP) need to fully address wastewater disposal.

Salinity

Despite projected tertiary effluent quality, the ROWD does not adequately address salinity issues with regard to reducing the discharge of sodium, chloride, and total dissolved solids (TDS) to the groundwater basin and meeting effluent quality for future reclamation purposes. The DWTP and IWTP facilities are currently discharging significant amounts of sodium, chloride, and TDS to the groundwater basin. Although salinity is a basin wide issue as a result of groundwater basin geology and geochemistry and historical agricultural practices, the Hydrogeologic Report documents groundwater impacts attributable to the disposal of DWTP and IWTP effluent. The proposed treatment system was chosen to meet Title 22 standards for future reclamation activities. However, current salinity levels in the effluent will preclude reuse of the treated effluent for irrigation and industrial purposes.

The ROWD indicates the City will address salinity reduction in the Long-Term Wastewater Management Program through the improvement of water supply quality and source control. Staff concur that salinity issues should primarily be addressed through water supply improvements and source reduction rather than end of pipe wastewater treatment. Although this approach is not directly related to wastewater treatment



the salinity issue is an integral part of the overall wastewater management and reclamation planning for the City of Hollister. Consequently, both the LTWMP and ROWD should outline implementation measures to reduce sodium, chloride, and TDS in the effluent to reduce loading to the groundwater basin and facilitate reclamation. Forthcoming waste discharge requirements for the DWTP and IWTP will likely contain phasing of incrementally more-stringent salinity limitations over a five-year compliance period. As such, the City should propose phasing of effluent limits based on technologically and economically feasible implementation measures. The phasing of effluent limitations for sodium, chloride, and TDS should consider our Basin Plan groundwater quality objectives, beneficial uses of groundwater in the basin, existing groundwater quality, San Benito County Water District groundwater management documents, reclamation requirements, and any other pertinent information. Regional Board staff strongly recommends the City develop achievable and protective effluent limits for sodium, chloride and TDS in consultation with the San Benito County Water District. Staff will consider proposed salinity limits based on technical merit, threat to water quality, protection of beneficial uses, and Water District review when drafting the forthcoming waste discharge requirements.

Reclamation

The ROWD and Predesign Report indicate the selected MBR treatment system for the DWTP improvements was chosen in anticipation of more stringent nitrogen effluent limits and to meet Title 22 standards for future implementation of water reclamation. Implementation of water reclamation to offset wastewater disposal via percolation is not specifically addressed in any of the reviewed documents and appears to be currently of a programmatic nature only. Implementation of future reclamation activities is subject to Department of Health Services approval and will require a separate ROWD application package for the development of water reclamation requirements if not specifically addressed as part of the current ROWD application.

Domestic Wastewater Treatment Plant Design

As previously indicated, the chosen MBR process is capable of producing a high quality tertiary effluent low in BOD, suspended solids, and nitrogen suitable for land disposal and reclamation. However, a third party review of project design documents by Wm. Lea Fisher questions some of the design criteria used in developing the 20% facility design as presented in the Predesign Report. The concerns outlined in Wm. Lea Fisher's, August 4, 2004, letter to the San Benito County Water District should be addressed in subsequent design phases to ensure the proposed MBR process is adequately designed and constructed to attain the stated treatment goals.

Long-Term Wastewater Management Program

The San Benito County Water District has questioned the apparent lack of nexus between the above-described reports and a fully developed and up-to-date LTWMP. Regional Board staff share this concern. Review of these reports indicates the ROWD and Predesign Report are not consistent with the September 2002 Long-Term Wastewater Management Plan for the Domestic Wastewater Treatment Plant. Based on our November 14, 2002, comments on the September 2002 report, significant changes have been made to the previously selected DWTP long-term improvements. The ROWD and associated documents should be consistent with the LTWMP. As discussed below the reviewed reports also do not address the IWTP or sufficiently outline proposed measures to reduce salinity loading to the groundwater basin or implement reclamation. Therefore, the city still has not developed a fully up-to-date LTWMP in accordance with requirements of Order 00-020. A revised and complete LTWMP is due to this office immediately.



Industrial Wastewater Treatment Plant

None of the reviewed documents address implementation measures for improvements to the IWTP. Waste Discharge Requirements Order No. 00-020 for the IWTP requires the City to develop and implement a LTWMP that addresses operations at both the DWTP and IWTP (see Provision D.7.i of Order 00-020). The revised and final LTWMP needs to evaluate and address long-term planning for the IWTP with proposed improvements or operational changes as necessary.

Reclamation & Salinity

The Regional Board does not have the authority to require wastewater reclamation, but encourages the development of water reclamation facilities so that reclaimed water may be made available to help meet the growing water requirements of the State. Consequently, Waste Discharge Requirements Order No. 00-020 for the IWTP requires the City to evaluate reclamation and reuse options for treated wastewater as part of the LTWMP (see Provision D.7.ii of Order 00-020). As discussed above the reviewed documents indicate the City's intent to implement reclamation at some unspecified time in the future. None of the reviewed documents adequately evaluate or propose measures for the implementation of reclamation. The revised, final LTWMP document needs to contain specific measures and time lines for implementation of reclamation given the City's implied intent to do so in the future.

Reduction of sodium, chloride and TDS to levels appropriate for the proposed reclamation end uses should be addressed as part of the reclamation implementation plan. The LTWMP should also address salinity reduction as it relates to land disposal practices and resulting impacts to the groundwater basin as discussed above.

Compliance

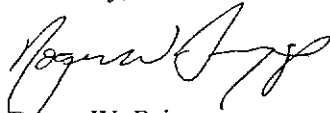
As a reminder, please note that Cease and Desist Order No. R3-2002-0105 requires the City of Hollister to fully implement all aspects of the LTWMP as required under Provision D.7 of Waste Discharge Requirements Order No. 00-020 by October 15, 2005. Compliance with Administrative Civil Liability Order No. R3-2002-0097 is also contingent upon completion of this final milestone. Failure to implement an acceptable LTWMP by this date or obtain an extension from the Regional Board will result in revocation of all suspended penalties and additional enforcement action. Based on the above stated deficiencies and discussions with you and other local stakeholders it is evident that full implementation of the LTWMP may not be achievable by the October 15, 2005 compliance deadline.

An extension request, if pursued, should be supported by a complete and up-to-date LTWMP and a detailed schedule for its implementation within a reasonable time frame. The above-stated concerns need to be addressed prior to any further implementation of the incomplete LTWMP regardless of the City requesting an extension. Staff understand that the development of a final LTWMP is currently contingent upon negotiations with other San Benito County agencies and the identification of a viable disposal location. However, continued failure to provide a fully developed LTWMP and complete ROWD may result in enforcement action by the Regional Board. Therefore, we strongly recommend the City and local agencies work constructively to address these and other local issues as soon as possible to avoid enforcement action.

Questions regarding this matter may be directed to **Matthew Keeling** at (805) 549-3685 or mkeeling@rb3.swrcb.ca.gov, or Harvey Packard at (805) 542-4639.



Sincerely,



Roger W. Briggs
Executive Officer

Paper File: Dischargers: City of Hollister, Industrial Plant
Electronic File: S:\WDR\WDR Facilities\San Benito Co\City of Hollister\Domestic\ROWD docs resp 100704.doc
Task Code: 126-01

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