

ITEM: 11

SUBJECT: City of Lincoln, Wastewater Treatment and Reclamation Facility

BOARD ACTION: *Consideration of NPDES Permit Renewal and Time Schedule Order*

BACKGROUND: The City of Lincoln (Discharger) owns the City of Lincoln Wastewater Treatment and Reclamation Facility (Facility). The Facility, located on State Highway 65 in Placer County, is a regional facility that is part of the Placer County wastewater regionalization effort, and provides advanced secondary and tertiary treatment, and ultraviolet light disinfection prior to surface water discharge. Tertiary treated wastewater is discharged to Auburn Ravine Creek, tributary to the Sacramento River via East Side Canal and Cross Canal.

The tentative NPDES permit renewal proposes an increase of the existing regulated flow of 3.3 million gallons per day (mgd), to a regulated flow of 4.2 mgd. The tentative permit also allows the regulated flow to increase up to 8.4 mgd as population grows and/or surrounding communities hook up into this regional facility during the proposed permit term. The Discharger has conducted an antidegradation analysis for an increase of discharge of up to 12 mgd to analyze the degradation due to the requested increase in flow. The Discharger continues to maximize its delivery of treated tertiary effluent to available users.

The proposed NPDES permit renewal includes new numeric effluent limitations for Aluminum, Ammonia, Copper, Mercury, and Electrical Conductivity (EC), and a new narrative effluent limitation for chronic toxicity. (The new narrative chronic toxicity effluent limitation was added to the tentative permit after the public comment period in accordance with the State Board Water Quality Order No. 2008-0008 issued in September 2008 addressing the City of Davis NPDES Permit petition.) Proposed effluent limitations for ammonia and aluminum are based on implementation of the narrative Basin Plan objective using USEPA's National Recommended Ambient Water Quality Criteria for protection of aquatic life. The Discharger is able to immediately comply with the proposed effluent limitations for Ammonia, Mercury, EC, and the maximum-daily and annual-average aluminum effluent. The Discharger, however, is not able to immediately comply with the new final monthly-average aluminum limitation or the new copper limitations. Therefore, a three year time schedule for compliance with the final monthly-average aluminum limitation is included in the proposed permit, and a five year time schedule for compliance with the new Copper effluent limitation is included in the proposed Time Schedule Order.

The proposed EC effluent limitation of 690 umhos/cm is an interim performance-based limit for the term of the proposed permit. A site-specific study for salinity in the receiving water is not required since the EC level is below the 700 umhos/cm screening value.

ISSUES:

Aluminum: The maximum effluent concentration (MEC) for Aluminum is 310 ug/L. All other aluminum effluent data from the Facility ranged between 17 ug/L and 200 ug/L. The criteria for protection of aquatic life or 750 ug/L, and Department of Public Health's maximum contaminant level of 200 ug/L were applied to establish the final aluminum effluent limitations. The Discharger is unable to comply with the resulting final monthly-average effluent limitation of 301 ug/L. The Discharger is requesting an interim maximum daily limitation of 750 ug/L. However, to prevent backsliding of the Discharger's existing treatment and/or control of aluminum, a performance-based interim monthly-average aluminum limitation of 310 ug/L is proposed in the tentative permit. A three year time schedule is also proposed for compliance with the final monthly-average effluent limitation.

Dual Set of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) Effluent Limitations: The treatment facility includes tertiary storage basins to allow high pollutant concentrations in the tertiary-treated wastewater to equalize prior to discharge. The proposed permit applies tertiary-level BOD and TSS effluent limitations at a location downstream of the tertiary and disinfection treatment process, but upstream of the storage basins, to prevent the Discharger of having to re-treat the equalized discharge to tertiary standards. A second set of secondary-level BOD and TSS effluent limitations are established at the discharge location to the receiving stream to meet federal secondary treatment requirements. This dual effluent limitation approach to regulating BOD and TSS, site-specific to this facility, was established in the existing NPDES Permit and addresses the further contribution of BOD and TSS to the wastestream for natural growth of algae in the storage basins, downstream of the tertiary treatment processes. The Central Valley Clean Water Association (CVCWA) expressed concern regarding the two sets of effluent limitations. A detailed discussion regarding this issue and staff's response to CVCWA's public comments is provided in the Staff Response to Comments.

Salinity/EC: The maximum EC level in the effluent was 688 umhos/cm, which is less than screening level of 700 umhos/cm. (The Basin Plan does not contain a numerical objective for salinity in the receiving water.) The proposed NPDES permit includes an interim performance-based EC limitation of 690 umhos/cm as an annual

average, but does not require a site-specific salinity study for the receiving stream to be conducted since the effluent salinity level is below the most stringent criterion for salt-sensitive crops. EC influent monitoring is required to observe the potential change in salinity as surrounding communities hook up into this regional facility (due to differing water supplies and in-community salt contribution to the influent wastewater).

Mgmt. Review _____

Legal Review LTO

23/24 October 2008

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