



Grizzly Lake Community Services District

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May 1, 2012

Greg Cash
California Regional Water Quality Control Board
415 Knollcrest Drive, Suite 100
Redding, CA 96002

Delleker Wastewater Treatment Plant NPDES Draft Permit CA0081744

Mr. Cash:

The Grizzly Lake CSD has reviewed the draft WDR/NPDES Permit CA0081744 in its entirety. While this permit represents and includes major changes and additional requirements, we have no objections, save one. We believe the requirements of the permit are generally fair and reasonable, especially in giving consideration to time schedules for implementation of various studies and reports.

We have one objection and requested change which we believe is relatively minor within the context and intent of the draft permit. Specifically, we request deletion of one item in Section 4. **Construction, Operation and Maintenance Specifications, a. Treatment Pond Operating Requirements, v.** “Ponds shall not have a pH less than 6.0 or greater than 9.0”

We believe it is inappropriate and counterproductive to achieving discharge requirements by establishing constraints on a specific operating condition of a natural treatment system. It is well known that algae growing in natural treatment ponds affect pH as it relates to uptake of carbon dioxide (CO₂) during the diurnal cycle. During daylight hours, algae use CO₂ as their carbon source while concurrently taking up and converting nitrogen. As this occurs, the pH of the treatment system will naturally elevate during daylight hours, often in excess of pH 10. Then, during dark hours, when algal activity becomes dormant and CO₂ production resumes, the pH will decrease.

This is a part of a natural cycle and there is no practical means to adequately and economically control pH in the existing treatment process. The requirement, as put forth, would require design and installation of expensive chemical feed and pond mixing systems.

Further, reduction of the pH in the treatment system would affect natural uptake of CO₂ and reduce the treatment efficiency of the process. Under natural conditions, absence of CO₂ during this period of the cycle limits the production of algae, which otherwise contributes to particulate BOD and TSS in the final effluent. Arbitrarily reducing the pH of the treatment process would likely result in additional algal production, which will result in elevated BOD and TSS in the discharge. This is counterproductive to the intent of the permit.

Alternatively, the Discharger intends to implement pH control of the effluent prior to discharge to meet specific permit requirements. This will also be a component of the Salinity Reduction Plan and will result in reduced consumption of disinfection and dechlorination chemicals, which contribute to salinity and electrical conductivity. The discharger intends to meet permit requirements for pH, BOD and TSS without disruption of or expensive modifications to the treatment system.

Therefore, we respectfully request that this specific requirement, which pertains solely to operating conditions, not discharge, be deleted from the permit.

Thank you for your consideration of our request. If you would like to discuss this further please feel free to contact me at the office 530-832-5225.

Sincerely,

Julita G. Thompson
General Manager
GLCSD

Cc: Jacqueline Matthews