



California Regional Water Quality Control Board Central Valley Region

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Donner Summit Public Utilities District 10 February 2009 Meeting Handout

What Is The Regional Water Quality Control Board?

The Regional Water Board is the State agency responsible for protecting surface and ground water quality, including the aquatic life and human health beneficial uses of the water.

What are a National Pollutant Discharge Elimination System (NPDES) Permit and Cease and Desist Order?

An NPDES Permit, issued by the Regional Water Board, allows a discharge of wastewater to surface and ground water. The Permit sets forth limitations, requirements and prohibitions to protect the beneficial uses of the receiving waters. A Cease and Desist Order, also issued by the Regional Water Board, is an enforcement Order that provides a Discharger an identified time period and requires specific actions to comply with NPDES Permit requirements.

Why are an NPDES Permit and Cease and Desist Order Necessary for the Donner Summit Public Utilities District (DSPUD)?

The DSPUD provides its customers with collection and advanced treatment of domestic wastewater. After treatment, the wastewater is discharged to land during summer months and to the South Yuba River during the months of October thru July. By law, wastewater can be discharged to rivers only under an NPDES Permit. If the discharger cannot comply with some or all of the NPDES Permit, the Regional Water Board has a number of enforcement options, a Cease and Desist Order is one of those options. DSPUD cannot comply with all the effluent limitation in the proposed NPDES Permit, so a new Cease and Desist Order is also proposed

Why are the NPDES Permit and Cease and Desist Order being changed at this time?

- Under Federal law an NPDES Permit must be renewed every five years whether or not any change is needed. The DSPUD Permit is more than five years old and needs to be renewed.
- The current NPDES Permit contains effluent limitations for nitrate that the DSPUD cannot comply with consistently, so the current Cease and Desist Order contains a time schedule to achieve compliance with the nitrate effluent limitations. The current Permit and Cease and Desist Order need to be updated to address this issue.

Why is nitrogen (ammonia and nitrate) in the wastewater discharge a concern?

- Nitrates can harm the health of fetuses and young children. The Department of Public Health drinking water standard is 10 mg/L as nitrogen (or 45 mg/L as nitrate).
- Ammonia can kill fish. The safe concentration of ammonia varies with the pH and temperature of the water. Ammonia will slowly convert to nitrates in the environment, reducing fish toxicity, but increasing the drinking water concern from nitrates.
- Both nitrate and ammonia act as a fertilizer to stimulate algae growth in rivers. There are many factors that contribute to algae growth including other sources of nitrogen (animal wastes, septic tanks, soil erosion), phosphorous (also acts as a fertilizer and also is in the wastewater discharge), water temperature, dilution, water turbidity, and other factors. It is not clear that reduction in effluent nitrogen will resolve the observed algae problem observed downstream of the DSPUD discharge.

California Environmental Protection Agency

What is NOT CHANGED in the newly proposed NPDES Permit?

- The discharge flow limit has not changed. The treatment plant does have capacity to serve additional connections. The DSPUD decides how the available capacity is used.
- Land disposal is the preferred method of disposal. Discharge to the South Yuba River is only allowed when snow or rain conditions make land disposal impossible. A new prohibition against discharge to the South Fork Yuba has been added to clarify this restriction.
- Disinfection requirements to protect the public from disease are unchanged. The disinfection requirement for river and snowmaking discharges essentially eliminate the risk of disease from contact with the wastewater. Land application of wastewater has a lower level of disinfection, but exposure of the public to the wastewater is prohibited.

What is CHANGED in the newly proposed NPDES Permit?

- New or more stringent pollutant limitations for aluminum, ammonia, dichlorobromomethane, aldrin, alpha BHC, copper, cyanide, manganese, silver and zinc
- A dilution credit applied to the new dichlorobromomethane limitations. This chemical is a byproduct of wastewater chlorination. The proposed effluent limitations are set to protect someone from a one-in-one-million increased risk of cancer if they drink one liter of river water every day for 70 years under the most critical conditions. Normally the risk will be much lower.
- Study requirements to examine the treated wastewater's contribution to biostimulation of aquatic growths in the South Yuba River. Depending on the results of the Study, future changes in the NPDES Permit are possible. If the Permit is changed in the future, the same public review and comment process will occur prior to Regional Water Board adoption.
- A new cross-stream effluent diffuser is required to incorporate more rapidly mixing of the discharged wastewater and river flow, reducing the possibility that a fish or human will be exposed to concentrated wastewater. The effluent limitations (with the possible exceptions of nitrates and dichlorobromomethane) are set to be protective for undiluted effluent. The new diffuser further reduces any risk of harmful impact from the wastewater discharge.
- Nitrate effluent limitations in the existing NPDES Permit are currently set at the Department of Public Health drinking water standard. DSPUD has requested allowing higher nitrate concentrations in the effluent, but meeting the drinking water standard in the river, that is, after dilution. This is the major technical issue of the proposed NPDES permit renewal.
- A newly Cease and Desist Order providing the DSPUD a time schedule to comply with pollutant limitations.

What is in the Tentative NPDES Permit Renewal Package Issued for Public Comments?

The tentative NPDES Permit Renewal Package includes

- (1) The tentative NPDES Permit and Cease and Desist Order containing permit limitations that allow for dilution credits applied to nitrate and dichlorobromomethane limitations, and
- (2) Tentative NPDES Permit Options that do not allow for dilution for either or both of these human health constituents.

PUBLIC COMMENTS DUE BY 6 MARCH 2009

QUESTIONS? CALL DIANA MESSINA, REGIONAL BOARD STAFF, AT (916) 464-4828