

**U.S. Environmental Protection Agency, Region IX**

**Response to Comments  
on the  
Goleta Sanitary District Draft NPDES Permit and 301(h) TDD**

A. Kamil S. Azoury of Goleta Sanitary District provided comments on EPA's 301(h) TDD in a letter sent March 22, 2010. The following are EPA's responses to Goleta Sanitary District's comments on EPA's 301(h) TDD.

1. **Goleta Comment #20:** Goleta notes for page 10, paragraph 3, that along with the Class A biosolids, Goleta also produces a Class B biosolids. This material is transported off site, further treated by lime stabilization, and land applied.

**EPA's Response to Comment #20:** Comment noted.

2. **Goleta Comment #21:** Goleta notes for page 10, paragraph 4, that the reclaimed water is distributed by Goleta for landscape irrigation and dust control. Goleta produces the water but does not distribute the reclaimed water to the community.

**EPA's Response to Comment #21:** Comment noted.

3. **Goleta Comment #22:** Goleta states that for page 17, paragraph 2, that the one exceedance of the instantaneous requirement for turbidity is not correct. Goleta met all of the turbidity requirements 100% of the time.

**EPA's Response to Comment #22:** Discharge Monitoring Report (DMR) data recorded into EPA's ICIS database by the State Water Resources Control Board showed one exceedance at 801 NTU in August 2006 of the instantaneous maximum California Ocean Plan Table A requirement (225 NTU) for turbidity. To supplement this comment, Goleta submitted the DMR for August 2006, which reports the instantaneous maximum for turbidity in the effluent to be 72 NTU. EPA followed up with the State Water Resources Control Board and their contractor, who reviewed the original DMR and determined the 801 NTU was a data input error. EPA's final decision document will be updated with this information.

4. **Goleta Comment #23:** Goleta states that for page 19, paragraph 1, that the one exceedance of the instantaneous requirement for BOD is not correct. Goleta met all of the BOD requirements 100% of the time.

**EPA's Response to Comment #23:** Discharge Monitoring Report (DMR) data recorded into EPA's ICIS database by the State Water Resources Control Board showed one exceedance at 1008 mg/L in January 2009 of the maximum at any time effluent limit (150 mg/L) for BOD. To supplement this comment, Goleta submitted the DMR for January 2009, which reports the daily maximum for BOD in the effluent to be 108.0 mg/L. EPA followed up with the State Water Resources Control Board and their

contractor, who reviewed the original DMR and determined the 1008 mg/L was a data input error. EPA's final decision document will be updated with this information.

5. **Goleta Comment #24:** For the April 2006 dissolved oxygen concentrations at station WC-ZID, discussed in the first paragraph under Table 11 of page 24, Goleta notes that the April 2006 receiving water survey was conducted on April 7, 2006 and rainfall records show that a storm passed over the Goleta area beginning on March 31, 2006 and continuing through April 5, 2006. Over four inches of rain fell during this time and indicates the potential effect stormwater runoff has on the receiving water environment.

**EPA's Response to Comment #24:** Comment noted.

- B. In an email sent March 16, 2010, Kathleen Werner of Goleta Sanitary District requested clarification in two areas of the bioaccumulation discussion in EPA's 301(h) TDD. Those comments and EPA's responses are below.

1. **Goleta comment 1 from email:** Goleta states there is a potential error in the bioaccumulation section. According to Goleta, on page 40, in the Total PAHs section, and as shown in figure 9, the values reported for the 2008 annual results are not correct. Goleta's 2008 annual report show than no PAHs were detected in the sanddab muscle tissue from the TB3 samples and the value detected in the muscle tissue from TB6 was 0.3 ug/dry kg. Goleta states, that if this is correct, it would mean that PAHs were only detected in the samples from 2007 and would not be indicative of a trend.

**EPA's Response to Goleta email comment 1:** The 2008 TB6 total PAH value is from the raw data in wet weight concentration, not dry weight concentration. For each year, EPA averaged the results for each PAH in the wet weight data Goleta provided, and then summed the averages to get the total PAH number for fish muscle, so that it could be compared to the wet weight screening level. The 2008 values in the TDD are correct, based on the wet weight data provided by Goleta.

2. **Goleta comment 2 from email:** Goleta states that figure 11, and the discussion on page 41, show PAH detected in the control and B4 bivalve samples for 2006, but that their annual report shows no PAH detected in any of the samples, Control, B3, B4, and B6 for this sampling event.

**EPA's Response to Goleta email comment 2:** The whole bivalve PAH data Goleta provided to EPA in the application reported results at the control and B4 stations for 2006. The result for the control station was 27.50 ug/kg and the result for the B4 station was 6.50 ug/kg. Additionally, the wet and dry weight raw data Goleta provided confirms both the values and the units.

- C. The National Marine Fisheries Service (NMFS) commented on EPA's 301(h) TDD regarding Goleta's request for a consistency determination of the 301(h)-modified NPDES permit with the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation

and Management Act (MSA), and also with the Endangered Species Act (ESA) in a letter dated March 22, 2010. The following is EPA's response to this letter.

**1. NMFS comments on MSA:**

NMFS states the proposed project outfall occurs within EFH for various federally managed fish species under the Pacific Groundfish Species, Coastal Pelagics Species, and Highly Migratory Species fishery management plans. In addition, the project occurs within the vicinity of rocky reef, canopy kelp and seagrass habitats, which are considered habitat areas of particular concern for species in the Pacific Groundfish fishery management plan.

NMFS states "the TDD provides some information related to impacts to marine biological resources. For example, it references the output of SEDDEP model calculations for sediment deposition. Based upon the predicted elliptical deposition area of 1,067 m by 366 m and the predicted deposition rate of organic material, the discharge is expected to result in a changed, organically enriched benthic community over an approximate 75.8 acre area. Specifically, the benthic community in this area is expected to increase in biomass and abundance accompanied by a shift in dominant feeding type. However, based upon monitoring data, EPA has concluded that the outfall is not degrading the fish and macroinvertebrate community structures."

NMFS also states, "based upon the information provided, it does not appear that the proposed project is having a substantial adverse effect to EFH, but the localized organic enrichment of approximately 75.8 acres may still result in some level of adverse effects to EFH. Therefore, NMFS recommends that the EPA develop an EFH assessment that more clearly defines the potential adverse effects to EFH."

**EPA's Response to NMFS comments on MSA:**

In the 301(h) TDD, EPA performed a thorough analysis to determine the effect of the discharge on the local ocean environment, including the benthos, fish and macroinvertebrates. Based on the following information, EPA has determined the continued modified discharge will have no effect on Essential Fish Habitat:

- a. In the application, Goleta asserts that the benthic environment in the vicinity of the outfall is silty-sand bottom and there are no significant rocky reef areas within the influence of the discharge. The application also states that no distinctive habitats of limited distribution are located in areas potentially affected by the discharge. Only shallow areas of cobble, which support patchy ephemeral stands of kelp, are present within the vicinity.
- b. EPA's 301(h) TDD concludes the 0.15 g C/m<sup>2</sup>/day carbon loading, which Goleta estimated using the SEDDEP model total deposition rate, causes some organic enrichment of the benthic community; however, the benthic community is not

degraded. The TDD states: “Researchers (Maughan and Oviatt, 1993) found alteration of the benthic community in response to the discharge of wastewater solids is related to the rate of organic carbon deposition. Little or no change to the benthic community occurs at deposition rates less than 0.1 g C/m<sup>2</sup>/day. A changed benthic community, meaning an increase in biomass and abundance accompanied by a shift in dominant feeding type, is observed at deposition rates between 0.1 g C/m<sup>2</sup>/day and 1.0 g C/m<sup>2</sup>/day. A degraded benthic community is expected at deposition rates greater than 1.5 g C/m<sup>2</sup>/day. Goleta’s estimation of 0.15 g C/m<sup>2</sup>/day falls just within the organic carbon deposition range for a “changed” benthic community, thus there is some enrichment, but the benthic community is not degraded.”

- c. EPA’s 301(h) TDD assessment of sediment monitoring data found no obvious spatial or temporal pattern which would indicate a significant carbon, nutrient, or acid volatile sulfide contribution from the outfall.
- d. EPA’s 301(h) TDD sediment chemistry analysis found no significant difference between pollutant sediment concentrations near the outfall and those at the reference station, pollutant sediment concentrations mostly below NOAA’s Effects Range-Low (ERL) Sediment Quality Guidelines, and low effluent concentrations, which complied with the California Ocean Plan objectives. EPA concluded the outfall is not contributing to increased concentrations of trace metals and complex organics in ocean sediments and those concentrations are below levels which would degrade marine life.
- e. EPA’s 301(h) TDD found the effluent met all water quality objectives of the California Ocean Plan over the last permit term, including the acute and chronic toxicity objectives.
- f. EPA’s 301(h) TDD statistical analysis found, based on both the benthic community metric monitoring results, and the fish and macroinvertebrate community metric monitoring results, that the discharge is not degrading the benthic, fish, or macroinvertebrate communities. There were no significant differences between community metrics measured at the outfall and the community metrics measured at the reference station, located 3,000 meters east of the outfall.

Thus, EPA concludes the discharge will have no effect on Essential Fish Habitat.

## 2. NMFS comments on ESA:

In the March 22, 2010 letter, with regard to the Endangered Species Act, NMFS states:

“There is no new information available that would indicate that the discharge of blended primary and secondary-treated wastewater 1.1 miles offshore of Goleta at a depth of

about 30 meters is having direct impacts on any ESA-listed species under the jurisdiction of NMFS. Based on the information presented in the annual monitoring reports released by Goleta, the range of influence of the discharge on the local benthic environment is difficult to distinguish from the ambient variation in various physical and biological constituents. If the influence of the discharge plume is small, it is likely that any ESA-listed species with mobility (marine mammals, sea turtles, and fish) that might migrate through the area would easily be able to avoid or escape the influence of the discharge plume. NMFS expects that the presence of these ESA-listed species in the vicinity of the discharge would typically be ephemeral. However, the depth of the outfall is located within the depth range in which the more sedentary ESA-listed abalone, white abalone in particular, may be expected to be found. It is unknown if any ESA-listed abalone reside in the vicinity of the outfall. White abalone is a species known to reside in areas of rocky habitat. If this type of habitat is in the vicinity of the outfall, it is possible that white abalone could be found there as well.

At this time, NMFS is not aware of any information that suggests potential indirect impacts associated with long-term bioaccumulation of discharged sediments and constituents by Goleta's blended wastewater discharge are affecting ESA-listed species. However, these processes are generally not well understood or easily attributed to specific point sources given the migratory nature of many marine organisms and the dynamic environment of the ocean.”

#### **EPA's Response to NMFS comments on ESA:**

As discussed above, in the 301(h) TDD, EPA performed a thorough analysis to determine the effect of the discharge on the local ocean environment, including the benthos, fish and macroinvertebrate communities. The information in the previous section shows the continued modified discharge has no significant effect on marine life. For the previous permit term, the discharge met all water quality objectives, including acute and chronic toxicity. EPA found no significant differences between community metrics of the benthos, fish, or macroinvertebrates measured near the outfall and those measured at the reference station. EPA concluded, based on modeling, that the carbon loading from the outfall may cause some organic enrichment, but does not degrade the benthic community. From monitoring data, EPA found no obvious spatial or temporal pattern which would indicate a significant contribution of carbon, nutrients, acid volatile sulfides, trace metals or complex organics from the outfall, and most pollutant concentrations in sediment were below the Effects Range-Low of NOAA's Sediment Quality Guidelines.

EPA's review of fish liver, muscle and whole bivalve tissue monitoring data found the modified discharge complies with California Ocean Plan water quality objectives for biological characteristics of ocean waters, and Goleta asserts in the application that none of the trawl animals were found with disease, such as tumors, lesions, fin rot, deformities, fungal patches, or excessive parasitism.

Lastly, Goleta asserts in the application that the benthic environment in the vicinity of the outfall is silty-sand bottom and there are no significant rocky reef areas within the influence of the discharge. Thus, EPA concludes the discharge will have no effect on the white abalone.

Based on the above analysis, EPA concludes the discharge will have no effect on Endangered or Threatened Species.