

RESPONSE TO COMMENTS

Fort Lewis NPDES Permit No. WA-0021954

Comment:

Thurston County suggested requiring nitrogen and ammonia monitoring of the effluent to provide information about nitrogen loading into southern Puget Sound.

Response:

The permittee is required to conduct monitoring for nitrogen and report the detected concentrations of ammonia as N, total Kjeldahl nitrogen, nitrate and nitrite nitrogen. Nitrogen and ammonia in the effluent have no reasonable potential to cause a violation of state water quality criteria in the immediate receiving waters. Modeling to determine mixing of the effluent discharge in receiving water was conducted during development of the existing permit. The results of this modeling determined that mixing at the boundary of the acute mixing zone was approximately 175 to 1. Effluent at the boundary of the chronic mixing zone is diluted between 975 to 1425 to 1. Effluent concentrations of nitrate-nitrite nitrogen have been monitored to range between 0.55 to 2.4 mg/l. Nitrogen monitoring is necessary to complete studies quantifying pollutant loading and the potential cumulative effects of many discharges and nonpoint sources on South Puget Sound water quality.

Comment:

Thurston County suggested using alternate disinfection techniques other than chlorination because of potential toxicity associated with chlorine.

Response:

The permittee was informed about this concern and agreed to consider disinfection alternatives as part of future plant improvements. Water quality-based effluent limitations of 0.5 mg/l for chlorine are established in the existing permit as a monthly average. The permittee has achieved compliance with the current limitation. This limitation is being changed in the proposed permit to be a daily maximum limitation. This change will better address fluctuations in chlorine residual in the discharge. Rapid initial mixing of effluent in receiving water (175:1) and the low concentrations of chlorine means there is no reasonable potential for chlorine in the effluent to exceed water quality criteria or cause any impact on receiving water quality.

Comment:

Thurston County suggested toxicity testing be conducted on pre- and post-chlorinated effluent.

Response:

EPA policy is to require compliance monitoring be conducted on effluent that most closely represents the final discharge. If toxicity at levels of concern is detected in subsequent WET results, the permittee will most likely test unchlorinated effluent as one of the first steps in determining the source of that toxicity.

Comment:

Washington Department of Health (DOH) identified some changes needed to update wording applicable to monitoring for bacteria. DOH also suggested an outfall evaluation should be conducted during the term of the permit.

Response:

These suggestions were included in the revised permit. A requirement to conduct an underwater examination of the outfall and diffusers was added to the revised permit.

Comment:

Nisqually Delta Association (NDA) submitted numerous comments about past noncompliance with permit limitations in the mid- 1990s. NDA suggested EPA require the permittee to construct a new treatment facility.

Response:

The permittee entered into a Federal Facilities Compliance Agreement with EPA in response to noncompliance with permit limitations. The permittee complied with the terms of the agreement and subsequent DMR data shows exemplary performance and no violations of effluent limitations in recent years. The permittee has also implemented an inflow and infiltration program that has resulted in significant reduction in influent flow and commensurate improvement in wastewater treatment efficiency.

Comment:

NDA expressed concerned about potential impacts of effluent on the Nisqually River delta and shellfish in the vicinity.

Response:

The Fort Lewis effluent has been routinely tested for whole effluent toxicity and other pollutant parameters. Marine sediment in the vicinity of the outfall has also been analyzed in accordance with Washington Department of Ecology testing protocols. The results of this testing and the significant immediate initial dilution of the effluent as it mixes in receiving waters demonstrates there is little likelihood the discharge has any effects on receiving waters. EPA may reissue or modify the permit if information

becomes available that indicates the discharge is causing a violation of water quality standards or degrading beneficial uses. The permit may also be modified to include waste load allocations if established in a TMDL.

Comment:

NDA asserts that this discharge is contributing to downgrades in shellfish beds in the general vicinity of the outfall.

Response:

There is no information on which to base this assertion. Closure of shellfish beds near Nisqually head are not the result of discharges of fecal coliform from the Fort Lewis WWTP. As stated above, recent monitoring of the effluent has demonstrated the discharge is not exceeding limitations of the permit. Washington Department of Health closes all shellfish beds to commercial harvesting that are located within a certain distance of an outfall discharging treated domestic wastewater. This precautionary restriction is imposed regardless of the quality of the effluent to protect human health. The likely causes of shellfish harvesting restrictions are increased monitoring of ambient shellfish waters by WDOH which demonstrates the effects of agricultural activities, urban development and natural sources in the Nisqually River watershed.

Comment:

NDA expressed concern about oil and grease that might potentially be discharged.

Response:

The Fort Lewis collection system does receive treated storm water runoff from areas such as vehicle wash racks that might potentially contain some petroleum products. Although there have been no reports of oil sheen near the outfall, the permit has been revised to include requirements to monitor the effluent for total petroleum hydrocarbons (TPH). TPH testing will provide information about the potential presence of gasoline, motor oils and diesel fuel in the effluent.

Comment:

NDA asserts that EPA should conduct a Section 7 consultation with NMFS about the potential impact of this discharge on Threatened and Endangered Fish Species.

As identified in the fact sheet, EPA notified both NMFS and USFWS of its intent to propose a reissuance of this permit. EPA believes discharges from the Fort Lewis WWTP that are in compliance with effluent limitations of the permit will have no effect on any listed species or its habitat. EPA will conduct a formal consultation with the appropriate federal agency if information becomes available that there was any likelihood

the discharge might affect these species. The factors which support EPA's decision include:

- the discharge does not demonstrate toxicity using very sensitive test organisms;
- priority pollutant testing of the effluent indicates there is no reasonable potential for state water quality standards established for the protection of aquatic life to be exceeded as the result of this discharge;
- testing of marine sediment in the vicinity of the outfall did not document any increased accumulation of pollutants (compared to sediment outside of the influence of the discharge);
- The effluent is very well mixed immediately after discharge. The military entities discharging wastewater into the Solo Point collection system are inventoried annually to verify that none of them send wastes to the plant which might pass through the plant into receiving waters, inhibit treatment processes, or contaminate biosolids.
- Finally, local state fishery staff were consulted to ascertain if they were aware of any environmental effects of the discharge on salmonids or their habitat. Their response was they were unaware of any such problems and reported that the area in the vicinity of the outfall is actually a popular area for recreational and tribal salmon fishing.

Comment:

NDA expressed concerns about the effluent plume traveling south to impact aquatic life in the Nisqually delta. NDA cited nitrates in the effluent may be a concern based on photo imagery taken by aerial overflights.

Response:

See response to first comment above.

Comment:

NDA expressed concerns about the age of the Fort Lewis WWTP and requested EPA require it be upgraded to provide tertiary treatment.

Response:

As demonstrated by monitoring, the existing wastewater treatment plant is reliably producing an effluent that meets effluent limitations based on federal secondary treatment requirements (40 CFR Part 133). This performance in combination with other information about discharge characteristics and about the receiving water does not indicate that additional treatment is warranted.

Comment:

The permittee asked for permission to treat about 6600 gallons per day of wastewater that contains a maximum concentration of approximately 3% sodium chloride (salt). The source of this wastewater is from cleanup activities at the Fort Lewis Logistics Center CERCLA NPL site.

Response:

This request is considered an addendum to the permit application in which wastewaters being accepted for treatment and discharge from the Fort Lewis WWTP were characterized. The permittee has not certified to EPA that adding this small amount of salt to the influent will cause no effect treatment plant performance or the quality of the effluent. Therefore, it remains the responsibility of the permittee to immediately curtail routing this, or any other waste stream to the WWTP if it negatively affects treatment plant performance or the quality of the effluent. The permittee cannot allow addition of waste streams to the WWTP influent except as allowed by the permit (condition II.m).