

## **RESPONSE TO COMMENTS**

### **City of Orofino Wastewater Treatment Plant NPDES Permit # ID-002015-0 June 15, 2011**

On November 18, 2011, the U.S. Environmental Protection Agency (the EPA) issued a public notice for the proposed reissuance of the City of Orofino Wastewater Treatment Plant (WWTP) draft National Pollutant Discharge Elimination System (NPDES) Permit No. ID-0020315-0. This Response to Comments provides a summary of significant comments and provides corresponding the EPA responses. Where indicated, the EPA has made appropriate changes to the final NPDES Permit.

Comments were received from the following:

Justin Hayes, Program Director, Idaho Conservation League (ICL)

#### **Comment**

ICL commented that the draft permit violates the antidegradation policy by authorizing discharges that would degrade water quality. In particular:

- A. For purposes of complying with antidegradation review, the baseline should be existing water quality, not the previous effluent limits. The draft permit reauthorizes the current discharge limits, which are based on the design flow of the wastewater treatment plant. The design flow of the facility is 0.88 million gallons per day (mgd), whereas the average discharge is 0.42 mgd.
- B. The draft permit does not contain an analysis to support increased discharges.
- C. The EPA should develop limits that “lock in” the impacts caused by the facility ‘s discharge at the actual level of discharge.

#### **Response**

The EPA disagrees with this comment. Based on the EPA’s antidegradation evaluation, the EPA concludes that issuance of this permit will not lower water quality in either Tribal or downstream State waters. This conclusion is based on several factors.

The EPA is required under Section 301(b)(1)(C) of the Clean Water Act (CWA) and implementing regulations (40 CFR 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State or Tribal water quality standards, including antidegradation requirements. This permit is being issued to a facility that is located on the Nez Perce Reservation and discharges to Tribal waters. Because the Nez Perce Tribe has not applied for the status of Treatment as a State for purposes of the Clean Water Act, EPA evaluated the facility’s discharge consistent with the Idaho Water Quality Standards to ensure that the effluent limits will meet the downstream State’s water quality standards in both the Tribal and State waters. Further, since the EPA evaluated the discharge consistent with Idaho’s

water quality standards, the EPA utilized IDEQ's antidegradation implementation procedures as guidance to determine whether Idaho's antidegradation water quality standard has been met. The border with the State of Idaho waters is located 39 miles downstream from the facility.

The EPA evaluated the effect on water quality for each monitored pollutant of concern in the discharge, including those with permit limits and those without. For pollutants with limits in the prior permit, The EPA believes that the current water quality should be based on the prior permit limits. This is consistent with both IDEQ's antidegradation implementation procedures and with current flows experienced at the facility. In accordance with the IDEQ antidegradation procedures, in evaluating the effect of the discharge on water quality, for pollutants that are currently limited, the current discharge quality is based on the limits in the current permit. The following pollutants were limited in the prior permit: BOD, TSS, *E. coli*, pH, and total residual chlorine.

The permit limits in both the prior and final permit were based on the design flow of the facility. The design flow of the facility is the flow that the facility is built to handle. In the case of Orofino, the actual flows of the facility are comparable to the design flows of the facility. In their comment, ICL compares the design flow of the facility (0.88 mgd) to the average annual flow of the facility (0.46 mgd). ICL purports that the permitted load limits should be based on "current" actual flows, which ICL equates to the current average annual flows, as opposed to the design flow. The EPA disagrees with ICL's suggested approach. Actual flows vary based on several factors (seasonally, diurnally, etc). Actual flows can be expressed in several forms (i.e. average annual, maximum month, maximum day, peak hour, etc.) The facility is currently experiencing actual maximum monthly flows that are comparable to the design flow. Although the annual average flow is 0.46 mgd, the actual maximum month flow far exceeds that. For example, in 2008, the maximum month flow (i.e. the average flow during the maximum month) was 0.9 mgd. Of course, maximum weekly flows and maximum daily flows are higher still. Developing load limits based on average annual flow is not appropriate since it could force the facility to be out of compliance with the permitted load limits when the facility is discharging at flows higher than the average annual flow, yet meeting concentration limits.

Both reasonable potential and antidegradation are evaluated under critical conditions, not average conditions.

Consistent with Idaho's antidegradation policy, for pollutants with permit limits, the future discharge quality is based on the proposed permit limits. The following pollutants are limited in both the current and final permit: BOD, TSS, *E. coli*, pH and total residual chlorine. The effluent limits in the final permit for all of these parameters are identical to the effluent limits in the prior permit. The EPA concludes that because there is no change in the current discharge quality versus the future discharge quality, there is no change in the receiving water quality for these parameters as a result of the reissued permit. Therefore, there is no degradation or lowering of water quality for these pollutants with issuance of the permit.

The EPA also evaluated the effect on water quality for monitored pollutants of concern in the discharge without permit limits. Under the prior permit cycle and in the final permit, the permittee is required to monitor for ammonia. Based on the reasonable potential evaluation (see Appendix B of the fact sheet), the EPA determined that there is no reasonable potential, consistent with 40 C.F.R. 122.44, for the facility's discharge to exceed numeric water quality criteria for ammonia. Nor is inclusion of an ammonia effluent limit required to ensure that water quality is not lowered with issuance of the final permit. The EPA's review of the permit application and the discharge monitoring report data indicate no anticipated changes in the design flow, actual flow or treatment processes that could result in a new or increased discharge of ammonia. Therefore, because there is no basis to believe that issuance of this permit will result in the discharge of increased concentrations or loadings of ammonia, the EPA concludes that there will be no degradation of water quality in either Tribal or State waters (39 miles downstream).

The EPA did not include monitoring for phosphorus in the prior permit or final permit. The EPA has no reason to believe that the facility is discharging phosphorus at levels that would cause or contribute to an exceedance of phosphorus. For the same reasons outlined above for ammonia, the EPA has no basis to believe that issuance of this permit will result in the discharge of increased concentrations or loadings of phosphorus.

In summary, the EPA concludes that because there is no change in the current discharge quality and future discharge quality, there is no change in the receiving water quality as the result of the reissued permit. Therefore, there is no degradation or lowering of water quality with issuance of the permit.

### **Comment**

Compliance with Reasonable Potential based limits does not equal compliance with antidegradation

### **Response**

The EPA agrees. The EPA evaluated compliance with antidegradation independently.

### **Comment**

The draft permit fails to provide effluent limits for all relevant pollutants (ammonia and phosphorus).

### **Response**

Please see response to Question 1. The EPA is required to include effluent limits in a permit where there is a reasonable potential for a pollutant in the discharge to violate water quality standards. 40 CFR 122.44(d); *see also* Technical Support Document for Water Quality-based Toxics Control (TSD) at p. 56. As shown on pages 21 and 25 of the Fact Sheet, the EPA used TSD procedures, worst case conditions and considered dilution in determining reasonable potential to violate the water quality

criterion for ammonia. The calculations show that there is not a reasonable potential to violate the ammonia water quality criterion; therefore, effluent limits are not required.

Page 48 of the TSD addresses narrative criteria such as phosphorus. Specifically, limits are required “once the permitting authority determines that one or more specific chemicals in an effluent must be controlled.” The Idaho Department of Environmental Quality and the EPA have not determined that phosphorus must be controlled from Orofino based on the following:

1. The Clearwater River is not listed for phosphorus.
2. When water bodies are listed for phosphorus the TMDLs have found minor sewage treatment plants such as Orofino to be miniscule contributors to the listed water bodies and do not need to be controlled. These are *The Upper Snake Rock Subbasin TMDL (1999)*, the *Snake River Hells Canyon TMDL, June, 2004*, and the *King Hill - C.J. Strike Reservoir Subbasin Assessment and Total Maximum Daily Load, March 2006 (TMDL)*.