

United States Environmental Protection Agency Region 10

Response to Comments on the Draft NPDES Permits for the City of Orofino Water Treatment Plant, ID0001058, and Riverside Water and Sewer District Water Treatment Plant, ID0021237.

August 30, 2017

Overview

The United States Environmental Protection Agency (EPA) Region 10 issued draft National Pollutant Discharge Elimination System (NPDES) permits for the City of Orofino Water Treatment Plant (ID0001058) (Orofino WTP) and the Riverside Water and Sewer District Water Treatment Plant (ID0021237) (Riverside WTP). The public comment period closed on July 3, 2017. The EPA received comments from the Idaho Conservation League (ICL) in a letter dated June 28, 2017. ICL's comments below are as stated from their letter.

Comments Received During the Public Comment Period

Comment #1: *E. Coli and BOD₅ Effluent Limits*

After reviewing the EPA's Fact Sheet for these proposed permits, we are confused over the lack of discussion on effluent limits for E. coli and BOD₅. Using the EPA's Enforcement and Compliance History Online (ECHO) database, we noted that the Riverside WTP has a number of reported violations for exceeding BOD₅ and E. coli limits¹. However, the Fact Sheet prepared for this permit renewal lacked discussion of BOD₅ and E. coli limits both in terms of previous effluent limits and proposed effluent limits. Given that exceedances were reported on ECHO we presume these effluent limits must exist, yet we do not understand why they are not represented in historic or proposed effluent limits.

In any case, if the previous permit contained effluent limits for BOD₅ and E. coli then the proposed permit must also include these limits. In accordance with the anti-backsliding requirements, the effluent limits must be at least as stringent as the previous permit.

¹ Data available online: <https://echo.epa.gov/detailed-facility-report?fid=110010829238>

Response #1

As stated above, the proposed permitting action is for reissuance of the NPDES permits for the Riverside WTP. The effluent limit violations identified in the comment are violations that occurred at the Riverside wastewater treatment plant (ID0024503), not the Riverside WTP. Neither *E.coli* or BOD₅ are pollutants of concern for the Riverside WTP. In addition, the previous permit does not have effluent limits for these two parameters, thus, there is no backsliding.

No changes to resulted from this comment.

Comment #2: Temperature Effluent Limit

Designated uses for the Clearwater River include cold-water aquatic life and salmonid spawning. In addition, the Clearwater River provides critical habitat for threatened Steelhead and Bull Trout. The applicable state water-quality standards associated with these designated uses and threatened species can be found at IDAPA 58.01.02.250.02 under subheadings b, f(ii), and g, respectively. The most stringent water temperature criteria are set by the salmonid spawning (f(ii)) and Bull Trout (g) requirements, which stipulate that water temperatures during spawning periods are not to exceed thirteen (13) degrees C or less with a maximum daily average of no greater than nineteen (19) degrees C.

According to Discharge Monitoring Reports (DMR) from the Riverside plant (Table 2 in Fact Sheet, p. 12), this facility has discharged effluent with a temperature of up to twenty-seven and seven tenths (27.7) degrees C into the Clearwater River, well above even the least stringent water quality standard of nineteen (19) degrees C. The effect of these warm discharges is compounded by the fact that the receiving water has a temperature of twenty-five (25) degrees C (Table 3 in Fact Sheet, p. 14). At present, the Clearwater River is not meeting its temperature criteria required by its designated uses, and discharges from the Riverside WTP are likely contributing to that problem.

Pursuant to 40 CFR 122.44(d)(1)(i), the EPA is obligated to control all pollutants or pollutant parameters that may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. As presently written, a reasonable potential analysis (RPA) has not been performed for temperature discharges from Riverside's facility. This analysis should be performed in order to comply with 40 CFR 122.44(d)(1)(i).

In addition, according to the Idaho Department of Environmental Quality's 2014 Integrated Report² the Clearwater River is listed under Category 3 –waters with insufficient data to determine if any beneficial uses are being met. In the absence of data, the EPA must ensure that protective provisions are included in this permit in order to ensure that any aquatic life uses are not unduly harmed due to a lack of knowledge regarding the current

² The 2014 Integrated Report is the most recent publicly available report released by DEQ. Data was accessed via <https://mapcase.deq.idaho.gov/wq2014/>

status of the water body. Excluding such provisions from the proposed permit could create a scenario where Riverside's effluent is degrading habitat for aquatic life and thereby negatively influencing any beneficial use surveys that may occur throughout the duration of this permit. These protective provisions could be in the form of end-of-pipe limits or effluent limits that utilize an appropriately sized mixing zone. Regardless of what method the EPA ultimately selects, it is necessary that some version of these protective measures is included in Riverside's permit.

Response #2

Due to a number of factors, EPA has concluded that there is no reasonable potential to exceed Idaho Water Quality Standards:

- (a) Small and intermittent discharge. The discharge from the Riverside WTP is generated primarily from the backwashing of its filters which produce typically a small amount of effluent. According to facility schematics, the facility would normally discharge an average of 0.043 mgd which is a relatively small amount. In addition, due to the facility's batch-processes, this discharge is also intermittent, averaging about an hour, every 2 to 3 days. Therefore, due to the small intermittent discharge relative to the much higher volume of continuous flow in the Clearwater River, there is no evidence that the facility has contributed to temperature exceedances of the water quality standards.
- (b) Temperature is a non-conservative pollutant. In "EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards", dated April 2003, EPA Region 10 believes that in some situations numeric criteria end-of-pipe effluent limits for temperature may not be necessary to meet applicable WQS and protect salmonids in impaired waters. This is because the temperature effects from point source discharges generally diminish downstream quickly as heat is added and removed from a waterbody through natural equilibrium processes. The effects of temperature are unlike the effects of chemical pollutants, which may remain unaltered in the water column and/or accumulate in sediments and aquatic organisms. Further, temperature impairments in Pacific Northwest waters are largely caused by non-point sources; therefore, temperature effects from the discharge at the Riverside WTP is expected to diminish quickly.
- (c) High dilution factors; no measurable temperature increase. Even during critical conditions (i.e. low river flows during the summer months when temperature is highest) there is high dilution in the receiving water. Using a 25% mixing zone results in a dilution factor of 167.7 for the Chronic Criterion and 141.3 for the Acute Criterion for the Riverside WTP. The volume of effluent discharged is small when compared to the volume of river water. Therefore, even if the effluent is 2.7° C warmer than the ambient water, the mixing in the river together with natural heat dissipation will not cause a measurable difference beyond the mixing zone. Using the dilution factor for the Chronic Criterion, if the effluent is 2.7° C higher than the ambient river water of 25°C, this would cause an increase of 0.016°C. Similarly, with the dilution factor for the Acute Criterion, the temperature increase would be 0.019°C. Neither amount is measurable considering the Minimum Level for temperature measurement of 0.2°C. Further, when taking into account natural heat dissipation combined with the entire river flow, the actual temperature increase in the river would be even less.

Therefore, there is no evidence that the facility has reasonable potential to cause or contribute to the exceedance of the WQS for temperature. Therefore, no effluent limit for temperature is necessary.

No changes resulted from this comment.

Comment #3: Consultation with U.S. Fish and Wildlife Service

The introductory paragraph for Appendix D states: On December 30, 2016, EPA referred to U.S. Fish and Wildlife website (IPaC Information for Planning and Conservation) at <https://ecos.fws.gov/ipac/>. Based on our reading of the Fact Sheet, it appears that the EPA considers its review of this website as sufficient consultation to satisfy the requirements of section 7 of the Endangered Species Act (ESA). If this is in fact true then we have concerns over the efficacy of accessing a webpage in order to assess impacts to endangered species and fulfill the consultation requirements of the ESA.

For example, the discussion on impacts to Bull Trout in Appendix D list the following three factors as particularly significant in terms of contributing to the decline of Bull Trout in the Columbia River Basin:

- 1. Habitat destruction and/or fragmentation, altered water flow and temperature regimes as a result of dam building and water diversions*
- 2. Degradation of spawning ground due to alterations in sedimentation rates and water temperatures*
- 3. Introduction and spread of nonnative species*

Despite the fact that two of the three prominent contributions to the decline of Bull Trout are temperature related, the EPA concludes their Bull Trout analysis by stating:

The discharges do not contribute to the factors responsible for the bull trout's decline as described above. The characteristics of the discharge and permit conditions will not cause any harmful or beneficial effects to the Bull Trout. The bull trout is a highly mobile species, discharge is not from a major facility, and the effluent is treated, as well as meeting State Water Quality Standards;

Riverside's effluent has been discharged at temperatures nearly fifteen (15) degrees C warmer than the state water quality standards for Bull Trout, and the EPA has not performed an RPA for temperature from this facility (see previous comment) so it is unclear how they are capable of making the determination that discharges do not contribute to exceedances in water quality that affect Bull Trout.

The ESA consultation performed for this permitting decision has not satisfied the requirement to assess impacts to endangered species, as directed by section 7 of the ESA³. The EPA cannot approve this permit until sufficient ESA consultation – such as including an

³ See 50 CFR 402

analysis of temperature impacts to aquatic species – has been performed. It seems necessary to consult with actual USFWS biologists on this matter as well, rather than relying solely on the IPaC website.

Response #3

The Riverside WTP produces a small volume of intermittent effluent that has been treated. In addition, its source water originates from the river. Discharges from WTPs are typically very clean due to the nature of its processes, and as discussed above, there is no measurable temperature change to the river that is caused by the facility. Therefore, upon review of potential ESA species that may be affected, there is no evidence that the facility would cause any measureable impact to species. Accordingly, the EPA determined that there is No Effect to ESA Species. When no effect is determined for a NPDES permit action, it is not necessary to consult with the Services.

No changes resulted from this comment.