

## Response to Comments

City of Harrison Wastewater Treatment Plant

NPDES Permit Number: ID0021997

June 25, 2018

On May 11, 2018, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed reissuance of the City of Harrison Wastewater Treatment Plant (Harrison WWTP) draft National Pollutant Discharge Elimination System (NPDES) Permit No. ID0021997. The public comment period closed June 11, 2018.

During the public comment period, the EPA received comments from the following:

- City of Harrison (Harrison)
- Idaho Conservation League (ICL)

This document presents the comments received and provides corresponding response to those comments. As a result of comments received, the following revisions were made to the permit:

- The EPA has revised the Quality Assurance Plan (QAP) due date to be developed and implemented from 180 days to 1 year after the effective date of the Final Permit in the Schedule of Submissions and Part II.B. (Comment 1)
- The EPA has revised the Operations and Maintenance (O&M) Plan due date to be developed and implemented from 180 days to 1 year after the effective date of the Final Permit in the Schedule of Submissions and Part II.A. (Comment 1)
- The EPA has revised the Emergency Response and Public Notification Plan due date to be developed and implemented from 180 days to 1 year after the effective date of the Final Permit in the Schedule of Submissions and Part II.F. (Comment 1)
- The EPA has changed Part I.B., Table 1 to 78% removal for biochemical oxygen demand (BOD) and 75% removal for total suspended solids (TSS). (Comment 2)
- The EPA has changed Part I.B., Table 1, Note 1 to: “Loading (in lbs/day) is calculated by multiplying the concentration (in mg/L) by the corresponding flow (in mgd) for the day of sampling and a conversion factor of 8.34. For more information on calculating, averaging, and reporting loads and concentrations see the *NPDES Self-Monitoring System User Guide* (EPA 833-B-85-100, March 1985).” (Comment 3)
- The EPA has changed Part I.C.2 to: “Monitoring stations must be established in wetlands northwest of Anderson Slough and in Anderson Slough.” (Comment 4)
- The EPA has changed Part II.C., Table 4 tasks to be consistent with IDEQ’s final 401 certification. The EPA has changed:
  - Year 3 task from a final facility plan to a draft facility plan;
  - Year 4 task from the facility funding progress report to final facility plan;
  - Year 5 task from the facility design to facility funding progress report; and
  - Year 6 task to include construction bid awarded. (Comment 6)

**Comment 1.** Due dates for QAP, O&M, and Emergency Response and Public Notification Plans (Harrison)

The required QAP, O&M, and Emergency Response and Public Notification Plan may require reserves that the City does not currently have for these tasks. City requests these be required within the first 1 year to allow time to secure funds. (Schedule of Submissions, page 2 and Part II.A, B, page 10-11)

**Response.** Although Harrison has these plans in place, Harrison needs to update the plans to align them with state guidelines. Therefore, the EPA is revising the permit to allow the Permittee to develop and implement the QAP, O&M Plan, and Emergency Response and Public Notification Plan within 1 year of the effective date of the permit.

**Comment 2.** 85 percent removal requirements for BOD and TSS (Harrison)

Percent Removal requires 85 percent removal, minimum for BOD and TSS. The City does not typically have an issue meeting this requirement; however, the City completes routine cleaning of the collection system's septic tanks which reduces the influent level into the Facility. Thus, at those times, meeting the percent removal will not be possible. Federal Code 40 CFR 133.103(d) indicates that a lower percent removal can be required if the following conditions are met:

- a. The treatment works is consistently meeting, or will consistently meet, its permit effluent concentration limits but its percent removal requirements cannot be met due to less concentrated influent wastewater.
  - i. This would be the case during routine maintenance and cleaning of the collection system.
- b. To meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards.
  - i. This would be the case during routine maintenance and cleaning of the collection system.
- c. The less concentrated influent wastewater is not the result of excessive I/I (infiltration and inflow).
  - i. The system has very little I/I as it is a pressurized septic tank effluent system. Additionally, the system has a total inflow of less than 275 gallons per capita per day.

(Effluent Limitations and Monitoring, Part I.B., Table 1)

**Response.** 40 CFR 133.103(d) provide the basis for evaluating whether percent removals lower than 85 percent for BOD and TSS may be allowed in a permit. Three parts must be met as described in Harrison's comment above and in 40 CFR 133.103(d)(1)-(3).

To evaluate 40 CFR 133.103(d)(1), the EPA reviewed Harrison WWTP's DMR data from 2008 to 2017, the period when treatment plant operations were stabilized and effluent data more characteristic of how the plant operates. The previous permit had no percent removal requirements, so the EPA calculated the percent removal achieved by the Harrison WWTP. From

2008 to 2017, the 85% removal for TSS was not met in 9 instances for TSS and not met in 10 instances for BOD. However, Harrison WWTP achieved their monthly and weekly average effluent limits for BOD and TSS in all the times that the 85% removal for BOD and TSS were not met. In addition, there were very few violations of BOD and TSS in this same period as shown in the Fact Sheet, Part III.A., Table 2. Therefore, Harrison WWTP has consistently met its permit effluent concentration limits for BOD and TSS.

40 CFR 133.103(d)(2) states that to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards. Harrison WWTP also meets this criterion, since BOD and TSS effluent limits would need to be lower to reduce low influent levels by 85 percent, and these exceedances have occurred regularly one to two times every year between 2008 to 2017.

40 CFR 133.103(d)(3) states that a lower percent removal requirement is acceptable when the above conditions are met and “the less concentrated influent wastewater is not the result of excessive I/I.” This is defined at 40 CFR 35.2005(b)(16) as “the quantities of infiltration/inflow which can be economically eliminated from a sewer system as determined in a cost-effectiveness analysis that compared the costs for correcting the infiltration/inflow conditions to the total costs for transportation and treatment of the infiltration/inflow.” The EPA believes that Harrison’s pressurized tank system should preclude excessive I/I, such that low influent levels are not due to I/I.

Based on this evaluation, the EPA has concluded that a lower percent removal is reasonable. To evaluate the new percent removal limits, the EPA calculated the 5<sup>th</sup> percentile of BOD and TSS percent removal rates between 2008-2017. The EPA used this process to develop a percent removal rate low enough to accommodate reasonably anticipated variability within control of the facility, but to still be a reasonable level to reduce BOD and TSS, when influent levels are low.

The 5<sup>th</sup> percentile Harrison WWTP achieved between 2008 and 2017 was 78 percent removal for BOD and 75 percent removal for TSS. These will be applied as the new percent removal requirements for BOD and TSS. Since the previous permit had no percent removal requirements for BOD and TSS, there is no anti-backsliding. In the next permit cycle, BOD and TSS percent removals will be evaluated against 40 CFR 133.103(d) to determine whether percent removals lower than 85 percent should be maintained. The EPA has changed Part I.B., Table 1 to 78% removal for BOD and 75% removal for TSS.

**Comment 3.** Calculating loads for effluent reporting (Harrison)

Note 1 indicates the loading is calculated by multiplying the concentration by the design flow. We interpret this to indicate the limit is calculated this way. It appears the Fact Sheet indicates this is the case. However, in the day to day operation of the Facility, the loading is calculated by multiplying the concentration by the observed flow (often less than the design flow). This needs to be clarified in the permit text. (Effluent Limitations and Monitoring, Part I.B., Table 1)

**Response.** The EPA agrees that the loading should be calculated by multiplying the concentration by the corresponding flow for the day of sampling, not the design flow. The EPA

has changed Part I.B., Table 1, Note 1 to: “Loading (in lbs/day) is calculated by multiplying the concentration (in mg/L) by the corresponding flow (in mgd) for the day of sampling and a conversion factor of 8.34. For more information on calculating, averaging, and reporting loads and concentrations see the *NPDES Self-Monitoring System User Guide* (EPA 833-B-85-100, March 1985).”

**Comment 4.** Monitoring in wetlands northwest of Anderson Slough and Anderson Lake (Harrison)

Surface Water Monitoring Report (SWMRP) Part I.C discusses monitoring in the wetlands northwest of Anderson Slough and in Anderson Lake; however, Table 2 only shows the wetlands as a monitoring location. This should be clarified. Additionally, the Operator has indicated the wetlands do freeze during the winter months as well as dry out in certain times during the year. The Operator may need to adjust his or her monitoring location to allow for these issues. (Surface Water Monitoring Report (SWRMP) Part I.C)

**Response.** Surface water monitoring is required in Anderson Slough and the wetlands northwest of Anderson Slough. The EPA has changed Part I.C.2 to: “Monitoring stations must be established in wetlands northwest of Anderson Slough and in Anderson Slough.” If conditions in Anderson Slough or the wetlands require that monitoring locations change, these should be described in the Surface Water Monitoring Report. In addition, Part I.C.3 of the permit requires that IDEQ approve the monitoring locations. This will serve as notice of new monitoring locations if conditions warrant them.

**Comment 5.** Additional time for ammonia monitoring in compliance schedule (Harrison)

The compliance schedule allows for 2 years of monitoring and adjustment for the treatment process reviewing ammonia levels. The likely sequence of this would be the following:

- a. First year: monitor
- b. Second year: adjust and test

It would be beneficial to have a third year to confirm the adjustments have proven and will produce the required limits. Thus, the City proposes a third year of testing be included in the first phase of the compliance schedule. (Special Conditions, Part II.C., Table 3)

**Response.** Per the compliance schedule for ammonia authorized by IDEQ in its Clean Water Act Section 401 certification, the EPA is not including a third year of testing and has not changed Part II.C., Table 3.

**Comment 6.** Additional time for Facility Plan in compliance schedule (Harrison)

The compliance schedule allows for only 1 year after the monitoring (or 3 years after the date of the permit) to complete and submit a draft Facility Plan to DEQ for review. Completing a DEQ-approved Facility Plan often takes more than 1 year to complete, as discussed in the “Applicant’s Guide to Idaho’s Public Wastewater Facilities Planning Grant Program”, Part 9. Additionally, the City’s population is seasonal in nature and thus timing the public participation components of the Facility plan during the peak season is important to the success of the project. Thus, the City

proposes 2 years from the monitoring to complete the Facility Plan (or 5 years after the date of the permit). (Special Conditions, Part II.C., Table 4)

**Response.** Per the compliance schedule for ammonia authorized by IDEQ in its Clean Water Act Section 401 certification, the EPA has changed Part II.C., Table 4 tasks to be consistent with IDEQ's final 401 certification. The EPA has changed:

- Year 3 task from a final facility plan to a draft facility plan;
- Year 4 task from the facility funding progress report to final facility plan;
- Year 5 task from the facility design to facility funding progress report; and
- Year 6 task to include construction bid awarded.

**Comment 7.** Culvert between Anderson Lake and Anderson Slough (Harrison)

Appendix F in the Fact Sheet, Part B, Chemical-Specific Effects, Chlorine, Number 3, page 53 discusses Anderson Lake as connected to Anderson Slough through a culvert which is not discussed anywhere else in the permit or Fact Sheet. What culvert is this section referring to? This should be clarified. (Fact Sheet, Appendix F, Part B, Chemical-specific Effects, Chlorine, Number 3, page 53)

**Response.** As a general matter, the EPA does not revise Fact Sheets, which accompany draft permits. However, the EPA agrees there is no information that a culvert between Anderson Lake and Anderson Slough exists.

**Comment 8.** Bull trout as a designated critical habitat (Harrison)

Appendix F in the Fact Sheet, Part B, Critical Habitat, page 54 discusses Anderson Slough as designated critical habitat for bull trout. However, we could not locate this in the preliminary research we conducted (IPAC) and conflicts with the language in the earlier section of this document. This should be clarified to read "Anderson Slough is not designated critical habitat for bull trout." (Fact Sheet, Appendix F, Part B, Critical Habitat, page 54)

**Response.** As a general matter, the EPA does not revise Fact Sheets, which accompany draft permits. The Fact Sheet, Appendix F, Part B states that "bull trout is a threatened species under USFWS jurisdiction occurring in the vicinity of the Harrison WWTP." The Fact Sheet does not state the Anderson Slough is designated as critical habitat for bull trout. The following website provides a screening tool showing bull trout is a threatened species in the vicinity of the outfall: <https://ecos.fws.gov/ipac/location/index>.

**Comment 9.** Outfall and receiving water coordinate locations (ICL)

We request EPA include a map identifying the outfall location of the permittee's facility and Anderson Slough. At page 12 of the Fact Sheet, EPA states that Highway 97 separates Anderson Slough from Anderson Lake and the wetlands northwest of Anderson Slough. We are unsure how Highway 97 can separate Anderson Slough from Anderson Lake and the wetlands northwest of the slough given the location of Highway 97 and Anderson Lake. We request EPA clarify this in the Fact Sheet and include more precise coordinates for the permittee's outfall

location. We also request EPA provide the precise coordinates of where the permittee samples the receiving water quality.

**Response.** As a general matter, the EPA does not revise Fact Sheets, which accompany draft permits. However, EPA has included an image below of the outfall location of the permittee's facility with an arrow in Anderson Slough locating the approximate outfall location. The permit outfall coordinates are included in the draft permit and Fact Sheet, Latitude 47°27'31" N, Longitude 116°46'06" W.



Part I.C. of the permit requires that the permittee establish sampling locations in the receiving water and seek approval for these locations from IDEQ. The permittee has not determined these locations, so the EPA is not able to provide coordinates for the receiving water monitoring locations.

**Comment 10.** Preliminary 401 certification – Chlorine Limits (ICL)

We request DEQ revise Table 1 in the 401 Certification to reflect an increase from the current permit to the proposed permit for Total Residual Chlorine. Currently Table 1 states there was no change between the permits. However, the average monthly limit increased from 0.007 mg/L to 0.009 mg/L. (IDEQ, Preliminary 401 Certification)

**Response.** This comment pertains to the 401 certification. Therefore, IDEQ is responsible for this comment.

**Comment 11.** Preliminary 401 certification – Tier II Antidegradation Analysis (ICL)

We request DEQ issue a determination as to whether the permittee's discharge of total residual chlorine (as proposed in the draft permit) will cause degradation and, subsequently, analyze the impact of increased average monthly discharges of total residual chlorine (as proposed in the draft permit) on the assimilative capacity of Anderson Slough.

DEQ is required to conduct a Tier II analysis for Anderson Slough's high water cold water aquatic life and recreation uses. It appears that the proposed effluent limit increase for total residual chlorine will cause degradation. Accordingly, DEQ must determine whether the degradation is insignificant. DEQ failed to make this determination, and we request DEQ revise its 401 Certification so as to properly comply with the Tier II analysis requirements of Idaho's Water Quality Standards. IDAPA 58.01.02.052.08. (IDEQ, Preliminary 401 Certification)

**Response.** This comment pertains to the 401 certification. Therefore, IDEQ is responsible for this comment.