

Response to Comments

City of Mackay

NPDES Permit Number: ID0023027

4/18/2018

On January 25, 2018, the U.S. Environmental Protection Agency Region 10 (EPA) issued a public notice for the proposed reissuance of the City of Mackay draft National Pollutant Discharge Elimination System (NPDES) Permit No. ID0023027. The public comment period closed on February 26, 2018.

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

- Oksana Roth, Keller Associates on behalf of the City of Mackay
- Josh Johnson, Idaho Conservation League (ICL)
- Kenneth Day, City of Mackay

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

- Change 1: Daily grab sampling of effluent temperature in lieu of continuous monitoring using a thermistor.
- Change 2: Surface Water Monitoring of flow may be reported using the discharge data measured by USGS 13127000, BIG LOST RIVER BL MACKAY RES NR MACKAY. Data to be reported must be measured as near as practicable to the time that other ambient parameters are sampled.

Furthermore, IDEQ's Final 401 Certification changes two interim due dates in the compliance schedule for Total Residual Chlorine and Total Ammonia (as N). The Final Design is now due April 1, 2022 (instead of February 28, 2022) and the Award Bid for Construction is now due May 1, 2022 (instead of March 31, 2022). The final date the permittee must meet effluent limitations for TRC and Ammonia remains November 1, 2022.

Comment 1. Temperature Monitoring (Keller Associates)

“Given the choice, ‘The permittee may elect to conduct daily or continuous monitoring of temperature. Grab samples are required for daily monitoring while a thermistor is required for continuous monitoring.’, the Permittee would prefer to conduct daily monitoring of temperature and requests that this change is made in the final permit.”

Response 1.

Comment noted. The draft permit included temperature monitoring requirements consistent with EPA's recommendation in its approval of the 2011 TMDL. The WWTP will be required to monitor effluent temperature daily or continuously.

The temperature sample frequency and type requirements in Table 1. *Effluent Limitations and Monitoring Requirements* of the Permit has been changed to reflect daily temperature monitoring using a grab sample.

Comment 2. Chlorine Limit (Keller Associates)

“Based on the 2013-2017 DMRs and the proposed total residual chlorine limit, the existing system will not comply with the proposed permit limit and will require modifications of the existing chlorination system to meet the new limit.”

Response 2.

EPA agrees that the existing system will not comply with the permit limit and will require modifications. To accommodate the challenges of upgrading the chlorination system, the draft included a 5-year compliance schedule with interim limits equivalent to the current permit effluent limits for Total Residual Chlorine (TRC). The permittee must comply with the Final TRC effluent limits no later than November 1, 2023. The Idaho Department of Environmental Quality (IDEQ) has included this compliance schedule in their Final 401 Water Quality Certification.

No changes to the permit resulted from this comment.

Comment 3. NPDES Permit Renewal (ICL)

“The most recent NPDES permit for this facility expired on May 31, 2009 and has been administratively extended up until now – a delay of over seven and a half years. We are concerned by the lack of regularity in reissuing permits every five years. With the impending shift in NPDES permitting responsibility in Idaho to IDEQ, we would like to know what lessons EPA has learned over the years that will be communicated to IDEQ once they are responsible for permitting and enforcement.”

Response 3.

Due to the general nature of this comment and the fact that the comment concerns a different process that the commenter can participate in, this comment is outside the scope of the public comment to this specific draft permit.

No changes to the permit resulted from this comment.

Comment 4. Outdated receiving water quality data (ICL)

“Table 3 in the Fact Sheet details the receiving water quality data used to determine water quality criteria and create appropriate water quality-based effluent limits. In order for the water quality-based effluent limits to be as effective as possible, they need to be based upon the most up-to-date receiving water data possible because river conditions can change over a period of five to ten years. However, the most recent receiving water quality data available for these calculations were collected by the permittee between March 2005 and February 2009. It appears that more recent data is not available because the previous permit expired in 2009. This issue is

an unfortunate consequence of permits being administratively extended rather than being renewed in a timely manner.

We appreciate that EPA will require collection of the relevant data during this permit cycle (Table 2 of Draft Permit) so that up-to-date data can be incorporated into water quality criteria calculations when the permit is renewed in five years. As it is currently written, “surface water monitoring must start beginning 180 days after the effective date of the permit and continue until the expiration of the permit.” We request that EPA amend that language in the Draft Permit to require the facility to continue to collect receiving water quality data even if they are operating on an administrative extension after the permit has expired. When administratively extended, the permittee must still adhere to the permit’s effluent limits; it should be no different for the monitoring requirements.”

Response 4.

The EPA agrees with the commenter. Under an administratively extended permit, all conditions of the permit remain in effect until a new permit is issued (40 CFR 122.6(b)). This includes the surface water monitoring requirement.

No changes to the permit resulted from this comment.

Comment 5. Groundwater connections and water quality (ICL)

“The Big Lost River presents a unique hydrologic situation where the river naturally disappears into the Eastern Snake River Plain Aquifer at the Big Lost Sinks. Given this hydrologic connection to the groundwater in a sole source aquifer that provides water to nearly 200,000 people, we request that EPA and DEQ address what the effect the effluent discharge from the Mackay WWTP on the overall water quality in the Big Lost River in regards to groundwater and safe drinking water standards. Is the water from the Big Lost River meeting Idaho’s Ground Water Quality Standards (IDAPA 58.01.11.200) when it goes into the ground and enters the aquifer? If not, does the effluent discharge from the Mackay WWTP contribute to the violation of those standards?”

Response 5.

EPA’s permitting jurisdiction is over waters of the US, not waters of the State. IDEQ has jurisdiction over waters of the State. IDEQ has not included any additional provision in their certification related to groundwater.

No changes to the permit resulted from this comment.

Comment 6. Temperature monitoring (ICL)

“Consistent with the EPA’s approval letter for the 2011 TMDL, this permit includes daily effluent temperature monitoring requirements. We request that EPA expound upon how this temperature data will be used. For instance, is there a temperature threshold that would trigger additional actions if exceeded?”

Response 6.

Effluent temperature data will be used during the next permit cycle to assess reasonable potential and/or inform any necessary revisions for the 2011 TMDL.

No changes to the permit resulted from this comment.

Comment 7. Temperature (City of Mackay)

“The City would elect to conduct daily grab samples for temperature. The City has a NIST traceable thermometer meeting the requirements of 40 CFR 136. This same thermometer can be used for the required data collection of temperature from the surface water of the Big Lost River. Standard Quality Assurance Procedures will be used to assure the accuracy of data.

The purchase and installation of a recording thermistor and the increased maintenance on that unit would be a new additional cost for the City.

Response 7.

Comment noted. The draft permit included temperature monitoring requirements consistent with EPA’s recommendation in its approval of the 2011 TMDL. The WWTP will be required to monitor effluent temperature daily or continuously. See response to comment 1.

The temperature sample frequency and type requirements in Table 1. *Effluent Limitations and Monitoring Requirements* of the Permit has been changed to reflect daily temperature monitoring using a grab sample.

Comment 8. Surface Water Flow Data (City of Mackay)

“It is the intention of the City to use flow rates available from the United States Geological Service for the Big Lost River. The nearest gauge upstream from the discharge of the Mackay Wastewater Treatment facility is USGS 13127000, BIG LOST RIVER BL MACKAY RES NR MACKAY. The flow data is available on the USGS Web page <https://waterdata.usgs.gov/id/nwis/rt>. Although the gauging station is 3.0 river miles above the discharge from the Mackay Wastewater Treatment Plant, I believe it would be more accurate than any survey station developed by the City for the sole purpose of complying with this Discharge permit. No known significant diversions or withdrawals or point source inputs such as creeks or springs occur between the gauging station and the Mackay Treatment facility.

The flow at this gauging station is recorded every 15 minutes. The City intends to use the recorded flow closest to the time the Surface Water Monitoring Samples are collected. This would be done for consistency rather than determine some factor for flow velocity between the gauge and the treatment discharge. Or the City could use the daily average flows for the day the samples are collected.”

Response 8.

The EPA agrees that using discharge data from USGS 13127000, BIG LOST RIVER BL MACKAY RES NR MACKAY will be sufficient for the quarterly sampling of flow requirement

found in Part I.C *Surface Water Monitoring Report (SWMRP)* and Table 2. *Surface Water Monitoring Requirements* of the Permit. The permittee may report the flow rate nearest to the time that other ambient parameters are sampled for the day surface water samples are collected as stated in Part I.C.3 of the Permit. The permittee may use USGS 13127000 data to report flow only, the permittee may not use data from the station to report Temperature, pH, or Total Ammonia as N.

Table 2 of the permit has been changed to reflect that quarterly surface water flow may be monitored using USGS 13127000.

Comment 9. Chlorine Residual (City of Mackay)

“The City of Mackay has some concern about proposed Chlorine Residual limitations. The current limit of 0.50 mg/L provides an adequate level of disinfection as shown by the E. coli levels. The operator’s experience is that even small reductions in Chlorine result in significant increases in E. coli. Although the bacterial counts have been within permit limits, extended discharge at those levels could have a greater negative impact on the Big Lost River than the current levels of Chlorine residual.”

Response 9.

The EPA has found the City of Mackay WWTP has the reasonable potential to exceed the State of Idaho Water Quality Standards for Total Residual Chlorine, therefore more stringent TRC limits are necessary to protect water quality in the Big Lost River. Because TRC limits will be more stringent at the end of a five-year compliance schedule does not imply that *E. coli* discharges will increase. The EPA believes this compliance schedule will allow enough time for the City to upgrade its disinfection program so that it can meet both *E. coli* and TRC limits. If all limits are met, then water quality standards will be met as well.

No changes to the permit resulted from this comment.