

**Response to Comments**  
**NPDES Permit No. ID-002066-4**  
**City of Buhl, Idaho**

On June 6, 2007, EPA issued a notice of proposed reissuance of a National Pollutant Discharge Elimination System (NPDES) permit for a discharge from the City of Buhl's Wastewater Treatment Plant. The facility treats domestic sewage from local residents and commercial establishments. The wastewater from the facility is discharged to an un-named ditch. The public review and comment period expired on July 6, 2007.

Written comments regarding the proposed permit for the facility were received from the City of Buhl, through a letter from Charles Sheridan, the Mayor. The following summarizes and responds to each comment raised.

1. Comment: The receiving water is listed as "East Fork Mud Creek." However, the actual discharge is to an irrigation ditch that drains to East Fork Mud Creek.

Response: The final permit has been revised to reflect that the discharge is to a drainage ditch which flows into East Fork Mud Creek.

2. Comment: The City is in the process of building a new wastewater treatment facility and requests the Quality Assurance Plan and the Operation and Maintenance Plan be updated upon completion of the new facility, otherwise the documents will have to be updated twice.

Response: The City's 1999 permit contains a condition that requires the permittee to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit (see Section III. E.). The City should already have some standard operating procedures in place to ensure that the facility is properly operated. Since the City's new plant will be not be operational for over three years (2010), it is important that the facility properly maintain the current facility to ensure that it complies with the effluent limits and other terms and conditions in the permit. The final permit retains the requirement to develop and implement an Operation and Maintenance Plan within 90 days of the effective date of the permit.

The Quality Assurance Plan is needed to ensure that the monitoring data submitted by the permittee is complete, accurate and representative of the effluent condition (as required by the federal regulation at 40 CFR 122.41(j)). The permittee's monitoring data will be used by EPA to ensure the facility is meeting its effluent limitations, therefore it is important that the procedures for collecting complete, accurate and representative data are in place. The City should already have a QAP in place for effluent monitoring, as this is a requirement of the City's current permit. The QAP will need to be updated to include procedures for receiving water monitoring. The QAP procedures for receiving water monitoring do not need to be in place until the receiving water monitoring starts (i.e., 180 days after the effective date of the permit). Therefore, there should be adequate time for the City to

prepare the documents. The final permit retains the requirements for the Quality Assurance Plan.

3. Comment: The first paragraph in section I.B. (page 5) indicates the permit will be effective through December 31, 2009, this appears to be in error based on the probable date of the permit and the compliance schedule in I.B.4.

Response: The City is correct, the final permit has been corrected.

4. Comment: It appears that the mass loadings in Table 1 are based on a design flow of 1.0 mgd. Currently, the average day and maximum month design flows are 0.67 mgd and 0.93 mgd, respectively. The mass loading should probably be revised to reflect the maximum month flow of 0.93 mgd. (NOTE: Comment # 13 submitted by the City clarifies that the design average day and maximum month flows for the *new* WWTP in Buhl are 0.67 and 0.93 mgd, respectively.)

Response: The regulation at 40 CFR 122.45(b) requires that effluent limitations for POTWs be calculated based on the design flow of the facility. The mass loadings for BOD<sub>5</sub> and total residual chlorine in the draft permit are based on a design flow of 1 mgd which the City's contractor stated would likely be the design flow of the new facility. The final effluent loading limits for BOD<sub>5</sub> and total residual chlorine have been revised to reflect a monthly average design flow of 0.93 mgd. Additionally, since the chlorine limits are not quantifiable using EPA analytical methods, the permittee will be in compliance with the effluent loading limits for chlorine provided the average monthly, and maximum daily chlorine residual loadings are at or below the compliance evaluation level of 0.8 lbs/day.

The loading limits for phosphorus are based on the WLA provided in the *Middle Snake River Watershed Management Plan*, and the loading limits for TSS are based on the WLA provided in the *Upper Snake Rock Watershed Management Plan*.

5. Comment: The 2000 *Upper Snake Rock Watershed Management Plan* recommended a TSS waste load allocation (WLA) of 28.8 tons per year. The City understands that this WLA was based on the loading at the facility in 1999. IDEQ subsequently modified the TSS WLAs for aquaculture facilities and POTWs. The City of Buhl WLA increased to 70.0 tons per year. It is the City's understanding that these new WLAs still meet the water quality standards for the Snake River and its tributaries. The City requests that the permit reflect the revised WLAs included in the *Upper Snake Rock TMDL Modification (2005)* as IDEQ is considering holding public hearings regarding the modified TSS WLAs contained in the TMDL.

Response: As stated in the fact sheet, federal regulations (40 CFR 122.44(d)(1)(vii)) require effluent limits in NPDES permits to be consistent with a TMDL that has been prepared by the IDEQ when it is based on IDEQ's water quality standards and *approved* by EPA. Since the WLAs for WWTPs contained in the *Upper Snake Rock TMDL Modification (2005)* have not been approved by EPA, they cannot be incorporated into the final permit.

In a March 13, 2007 letter to IDEQ, EPA asked the IDEQ to advise us as to whether they intend to submit the WLAs contained in the *Upper Snake Rock TMDL Modification (2005)* for review and approval. The letter also stated that if IDEQ intends to adopt the revised WLAs they must provide EPA with additional explanation as to the rationale and justification for the revisions, as well as confirmation that the public notice process occurred. To date IDEQ has not responded to EPA.

Federal regulations at 40 CFR 122.62 allow a permit to be modified for cause, and this is included in the permit in Section V.A (Permit Actions). Cause for modification includes, among other things, new information. Therefore, if the EPA approves the revised TMDL for WWTPs, the permittee may request that their permit be modified to include the conditions in the revised TMDL.

6. Comment: The City requests that the mass limits for chlorine be removed from the final permit because note 4 of Table 1 states the City will be in compliance with the chlorine limits if the chlorine levels are at or below 100 µg/L. At a concentration of 100 µg/L and a maximum design flow of 0.93 mgd, the monthly loading would be approximately 0.78 lbs/day. As such it appears the City would not be able to meet the mass loading limit of 0.1 lb/day that is in the draft permit.

Response: The federal regulation at 40 CFR 122.45(f) requires that effluent limits be expressed in terms of mass, if possible. Since the chlorine limits are not quantifiable using EPA analytical methods, the permittee will be in compliance with the effluent loading limits for chlorine provided the average monthly and maximum daily chlorine residual loadings are at or below the compliance evaluation level of 0.8 lbs/day (i.e., 100 µg/L X 0.93 mgd X 8.34). The final permit has been revised to include the compliance evaluation level of 0.8 lbs/day for chlorine.

7. Comment: The City requests that temperature monitoring of the influent be removed from the permit. This data may be collected but is not necessary to determine heat loads to the receiving water.

Response: This condition was incorporated into the draft permit because it was a condition of IDEQ's draft 401 certification of the NPDES permit. IDEQ's final 401 certification has retained this requirement as a condition of their certification, therefore, it has been retained in the final permit.

8. Comment: The City would like to request that the temperature monitoring in Table 1 be reduced to hourly data points. From a data management perspective, it will become cumbersome to compile, summarize and manage data point taken over a 15 minute intervals for a 5 year period. Additionally, data points at 1 hour intervals will most likely capture temperature variations.

Response: This condition was incorporated into the draft permit because it was a condition of IDEQ's draft 401 certification of the NPDES permit. In its final 401 certification, IDEQ

revised this requirement to allow 1 hour intervals. The final permit has been changed to require temperature monitoring at 1 hour intervals, 24 hours per day for 5 years.

9. Comment: The draft permit specifies a grab-composite sample for most major parameters. The City would like to know if a 24-hour composite is acceptable.

Response: A 24-hour composite sample is preferable and the final permit has been revised to require this type of sample.

10. Comment: The existing lagoon system cannot consistently meet an upper permit limit of 9.0 s.u. for pH. This is primarily due to algae growth in the existing lagoon system, which can cause elevated pH levels. Although EPA's fact sheet states that the 9.0 s.u. was exceeded twice in the last three years, a review of data indicates that this limit actually would have been exceeded on 8 occasions from 2004 through 2006. The City would like to request an upper limit of 9.5 s.u. as an interim limit until the new WWTP is constructed.

Response: The 9.0 s.u. effluent limit is a technology-based limit that was required to be met by all publicly owned treatment works no later than July 1, 1977. The federal regulations do not provide any exceptions for lagoon systems. Therefore, the 9.0 s.u. for pH will be retained in the final permit.

11. Comment: The current project schedule targets completion and start-up of the new treatment plant by approximately May 2010. The draft permit requires the City comply with the new permit limits in Table 1 by January 1, 2010. To allow for seeding and commissioning of the new WWTP, process stabilization, and potential delays in the design and construction process, the City would like to request that the compliance date in the permit be changed to December 31, 2010.

Response: The final permit has been revised to change the compliance date to January 1, 2011. However, EPA would like to clarify that the permit only defers compliance with the final effluent limits for BOD, TSS and total residual chlorine until January 1, 2011. The limitations for E. coli, total phosphorus, and pH must be met upon the effective date of the permit, and the interim limits for BOD and TSS must be met upon the effective date of the permit.

12. Comment: As illustrated by the historical data and summarized in EPA's fact sheet the existing lagoon system cannot consistently meet the interim limits outlined in the draft permit. The City would like to request that the interim limits remain at the levels in the current permit: 70 mg/L average monthly and 105 mg/L average weekly.

Response: The 1999 permit erroneously included TSS limits of 70 mg/L average monthly and 105 mg/L average weekly. These limits were based on "Alternative Treatment Requirements" language contained in previous versions of Idaho's water quality standards (see IDAPA 58.01.02.420, 2005 for the language). This language established an average monthly TSS limit of 70 mg/L for lagoons which achieved 65% BOD removal using a trickling filter or lagoon as the principal treatment process. However, in order to use 70

mg/L as an average monthly limit in NPDES permits these alternate limits had to be approved by EPA and published in the federal register. This did not occur, and is explained in more detail below.

The regulation at 40 CFR 133.103(c) allows for TSS limits for waste stabilization ponds to be set at the effluent concentration achieved 90% of the time by waste stabilization ponds that are achieving the BOD requirements established in 133.102(a) (i.e., an average monthly limit of 30 mg/L, average weekly limit of 45 mg/L, and a 30 day average percent removal of 85%).

When developing the acceptable TSS limit for waste stabilization ponds, each State was considered separately, and appropriate contiguous geographic areas within a State or group of States were also considered. The analysis was done by the State or by EPA regional offices in cooperation with the State.

The results of the analysis were published in the November 15, 1978 federal register (FR43, No. 221, page 53161). This federal register notice published “*no change*” to the existing TSS limitations for the State of Idaho. Therefore, this exception is not applicable in the State of Idaho. Additionally, Idaho has revised their water quality standards and the 2007 water quality standards no longer contain the “Alternative Treatment Requirements” language.

As stated in the fact sheet the lagoon system is eligible for limitations based on treatment equivalent to secondary (40 CFR 133.105). The draft permit contains the highest allowable values for treatment equivalent to secondary, and these limits will be retained in the final permit.

13. Comment: Part D of Form 2A specifies that expanded effluent testing is required for treatment facilities with a design flow greater than or equal to 1 mgd. The design average day and maximum month flows for the new WWTP in Buhl are 0.67 and 0.93 mgd, respectively. As such, it appears that the City should not be required to conduct the expanded effluent testing since the design flows are less than 1 mgd. The City requests that this section be removed from the permit.

Response: The NPDES application regulations for municipal facilities (40 CFR 122.21) states:

“The following applicants must sample and analyze for the pollutants listed in appendix J, table 2 of this part....(A) All POTWs with a design flow rate equal to or greater than one million gallons per day;...;(C) Other POTWs, as required by the Director...”

Additionally, section 308 of the Clean Water Act provides EPA with broad authority to gather effluent and surface water data to determine if additional effluent limitations are required in the future, and/or to monitor effluent impacts on receiving water quality. A review of the facilities DMRs show that the daily discharges from the facility vary from 0.42 mgd to 1.4 mgd. The facility discharges to a drainage ditch which discharges to a small creek. Given this information, the facility may be impacting the receiving waters,

therefore, EPA has retained the requirements for expanded effluent testing. However, EPA has reduced the sampling events from three to two.

14. Comment: The City states that WET testing is required for WWTPs with design flows greater than or equal to 1.0 mgd. Since the design flow of the new facility is less than 1.0 mgd the City requests that this requirement be removed from the final permit.

Response: The NPDES application regulations for municipal facilities (40 CFR 122.21) states:

“...the following applicants must submit to the Director the results of valid whole effluent toxicity tests for acute or chronic toxicity...(A) All POTWs with a design flow rates equal to or greater than one million gallons per day;...(C) Other POTWs, as required by the Director...”

Additionally, section 308 of the Clean Water Act provides EPA with broad authority to gather effluent and surface water data to determine if additional effluent limitations are required in the future, and/or to monitor effluent impacts on receiving water quality. A review of the facilities DMRs show that the daily discharges from the facility vary from 0.42 mgd to 1.4 mgd. The facility discharges to a drainage ditch which discharges to a small creek. Given this information, the facility may be impacting the receiving waters, therefore, EPA has retained the requirements for whole effluent toxicity testing. However, EPA has reduced the sampling events from three to two.

15. Comment: The draft permit currently specifies collecting a grab sample for WET testing. The City requests that a 24 hour composite sample be used to help reduce the possibility of a “spike” in the effluent.

Response: The final permit has been revised to allow 24-hr composite sampling.

16. Comment: Re-sampling for WET test within 14 days (see I.C.3.(ii)) of receipt of test results that are found to violate test acceptability criteria does not provide sufficient time to obtain sample collection and shipping containers and schedule work with a qualified lab. The City requests that the permit allow at least 30 days to resample.

Response: The final permit has been revised to allow 30 days to resample.

17. Comment: The City requests 180 days to install the surface water monitoring stations. This will allow time for evaluating appropriate monitoring locations, obtaining approval from IDEQ, and installing monitoring equipment.

Response: The final permit has been revised to allow 180 days before surface water monitoring is required.

18. Comment: The City states that it could be problematic to establish upstream and downstream monitoring locations because it does not know exactly where the irrigation ditch to which the effluent is discharged drains into the East Fork of Mud Creek. IDEQ

recommends that flow monitoring occur downstream of the discharge point, even if it is not required in the NPDES permit because this will be useful in validating and verifying EPA's evaluations (modeling) of potential impacts on the receiving water.

Response: The final permit has been revised to require the receiving water stations to be established in the unnamed drainage ditch.

19. Comment: The City requests that temperature monitoring in surface water monitoring be reduced to hourly data points. From a data management perspective, it will become cumbersome to compile, summarize and manage data points taken over a 15 minute interval for a 5 year period. Additionally, data points at 1 hour increments will most likely capture temperature variations.

Response: This condition was incorporated into the draft permit because it was a condition of IDEQ's draft 401 certification of the NPDES permit. In its final 401 certification, IDEQ revised this requirement to allow 1 hour intervals. The final permit has been changed to require temperature monitoring at 1 hour intervals, 24 hours per day for 5 years.

20. Comment: The City asks if it should be responsible for collecting flow and quality data for the receiving streams, or does their responsibility terminate at the end of the effluent discharge point? Are the regulatory agencies responsible for the receiving waters? It is the City's understanding that this data is being collected to help establish TMDLs and to verify modeling efforts on the receiving stream. However, public health and safety issues associated with this data appear minimal. Perhaps this data should be collected but not subject to the penalties outlined in the permit.

Response: As stated previously, Section 308 of the CWA provides EPA with broad authority to gather effluent and surface water data to determine if additional effluent limitations are required in the future, and/or to monitor effluent impacts on receiving water quality. The receiving water monitoring requirements for flow, pH, ammonia, and temperature have been incorporated into the permit so that EPA can evaluate whether the discharge is impacting aquatic life, and to determine if ammonia limits are required to ensure that the effluent discharge does not adversely impact aquatic life. This evaluation will be done during the next permitting cycle. Additionally, IDEQ is in the process of developing a temperature TMDL and has requested continuous temperature monitoring be conducted for the TMDL development.

The samples collected from the receiving water are not required to meet any "limitations." The penalties outlined in the permit would be applied if the facility did not collect the required samples, follow its established Quality Assurance Plan, or knowingly provided false information.

21. Comment: Biosolids are currently stored in the bottom of the lagoons. During or following construction of the new WWTP, the biosolids may need to be removed and disposed of. The City requests that this section of the permit be changed to read "...is on file with EPA prior to removal and disposal of biosolids."

Response: There is certain information EPA needs from wastewater treatment plants that use their lagoons for long-term storage of sludge. EPA obtains this information through the application process. The final permit retains the language that was in the draft permit.

22. Comment: The second paragraph in Part III. A. contains the phrase "...the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample" may suggest that continuous monitoring is required to capture any possible discharge event that could result in violation. As discussed above, it is reasonable to expect that the effluent from the current lagoon system could exceed the draft TSS and pH limits. However, the City does not know or have control over when these exceedances will occur. The City requests that this phrase be changed to read "...the permittee should collect additional samples at the appropriate outfall when a known discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample."

Response: The federal regulation at 40 CFR 122.41(j) requires that samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The specific language cited by the City in their comment is intended to ensure that any spills, bypasses, treatment plant upsets, or other non-routine events are monitored and will not result in violation of the effluent limits. This language will be retained in the final permit. Additionally, it is the City's responsibility to ensure they are operating their facility such that all limitations and conditions are met.

23. Comment: IDEQ has indicated that they are considering revisiting the TSS WLA and potentially holding public hearings on the WLA values contained in the 2005 *Upper Snake Rock TMDL Modification*. If the result of these efforts impacts the City's permit limits, the City would like to request that the permit be reopened and modified appropriately.

Response: If the revised TMDL is approved by EPA the City must submit, to EPA, a request to modify their permit (see response to comment #5).

24. Comment: The design flow of the WWTP is currently shown as 1.8 mgd, it should be noted that the facility is currently not complying with the current permit limits at lower flows due to loadings above the design levels.

Response: EPA notes this, and reminds the facility that it is their responsibility to meet all of the effluent limitations in their permit.