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June 16, 2014

Ms. Jill Nogi
Permit Writer
EPA Region 10
Director, Office of Water and Watersheds (OWW-130)
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Re: **Star Sewer and Water District, Idaho - Comments to Draft National Pollution Discharge Elimination System (NPDES) Preliminary Permit #ID-0023591**

Dear Ms. Nogi:

Please find this as comment letter to the Draft NPDES Permit #ID-0023591 for the Star Sewer and Water District (District). Where possible, we have numbered our comments, stated the section and part of the permit, showed the change, addition/deletion requested (in bold), and included an explanation for why the comment is provided for your convenience.

1. The Permit and Fact Sheet should Acknowledge Allocations Greater Than those Proposed in the draft Permit will satisfy the Snake River Hells Canyon TMDL.

    a. The phosphorus TMDL is scheduled to be completed in December 2014. Preliminary allocations (IDEQ, 2014) and USGS Mass Balance Analysis (USGS, 2014) show that the Snake River – Hells Canyon TMDL allocation of 70 ug/l can be met with wastewater controls of 70-300 ug/l for the May – September timeframe. The Fact Sheet should be updated to include this information and the permit should provide for a reopener to include final EPA approved LBR TP TMDL allocations as required at 40CFR122.44.D.vii.(B).

2. The Permit and Fact Sheet incorrectly identify the designated use of the receiving stream. The Lawrence Kennedy Canal is a man-made water way and as such is to be protected for the use for which it was created. This use and the "man-made" designation for the Lawrence Kennedy Canal were correctly identified by EPA as agricultural water supply in the 1999 NPDES permit fact sheet. The state has not modified nor has EPA approved a change in the designated use for Lawrence Kennedy canal since issuance of the 1999 permit so the same designated use should apply for this permit.

    The Lawrence-Kennedy Canal was constructed in the 1880s by local farmers to collect and convey excess drainage from their agricultural activities to the Boise River. The Lawrence-Kennedy Canal's usage has not changed since then, and will continue to be utilized for similar purposes into the foreseeable future. Today, Drainage District #2

maintains the Lawrence-Kennedy Canal. They do not allow any persons to fish, swim, recreate, or participate in any similar activities in or near the canal. There are no public access points along the canal.

In a letter from Bill Allred (Regional Administrator for Idaho DEQ in the Twin Falls Regional Office) dated May 3, 2012, he clarifies a receiving water body's level of protection for a private man-made canal. The following is an excerpt from the Receiving Water Body Level of Protection paragraph on page 3 of the letter (the full letter can be found in the appendix).

"The Jerome Cheese Company discharges to a private man-made canal, Lateral 12 that eventually discharges into the Snake River assessment unit (AU) ID 17040212SK007_07 (Snake River - Rock Creek to Box Canyon Creek). The Lateral 12 is considered a man-made waterway in the Idaho WQS. For this reason, DEQ only affords protections adequate to protect the use for which it was developed, that is agricultural water conveyance (IDAPA 58.01.02.101.02). Because man-made canals are not protected for aquatic life or recreational uses, DEQ provides only tier 1 antidegradation protection."

Based on precedent concerning private, man-made canals, the Lawrence-Kennedy Canal requires protecting agricultural water supply consistent with EPA's development of the 1999 permit. The District's position is that Tier 1 antidegradation protection is the appropriate protection.

3. Article I.E - Surface Water Monitoring: The new permit requires extensive water monitoring in the receiving stream. First, access to the receiving stream for anything other than discharge of effluent at the outfall, including monitoring, must be obtained by the District from the owner of the Lawrence-Kennedy Canal (Ada County Drainage District No. 2). The District's compliance with the required flow monitoring will be contingent on approval from the owner of the Lawrence-Kennedy Canal. The District is unable to comply with the surface water monitoring requirements without legal authorization from Drainage District No. 2.

4. Article I.C - Compliance Schedule: The District's understanding is that the compliance schedule was developed with the intent to allow the District to continue to operate the lagoons while they District completes planning, design, secures funding, and constructs improvements to displace the lagoons and simultaneously comply with the final effluent limits including phosphorus and ammonia. We have the following comments regarding the compliance schedule:

    a. Based on historical data, without undergoing upgrades the District is not able to meet E. coli Bacteria concentration limits with the combined wastewater treatment effluent. Due to engineering and funding requirements, the required upgrades are physically impossible to meet within 30 days after the effective date of the permit.

       The wastewater treatment process is not currently equipped with any dechlorination facilities. Since there is no flow pacing nor dechlorination

facilities, it is necessary for the District to establish a high chlorine dosing rate to ensure adequate bacteria kill. Even then, upsets or high TSS events in the lagoon treatment process occasionally cause higher bacteria counts.

Consequently, the District requests a 10-year compliance schedule similar to the compliance schedule for Phosphorus for meeting the new E-coli limits which will enable the District to construct improvements to abandon the lagoons. Once this occurs, the District can confidently meet the new E-coli limits.

b. The design of the lagoons does not include ammonia removal. The surface aerators do not provide sufficient air to meet the oxygen demand for nitrification as flows and loads to the lagoons increase. Ammonia removal during lower temperature months is also a factor that slows down/stops nitrification. Based on historical data in the last five years, the District would have five violations of the proposed interim ammonia Average Monthly concentration limit. Use of the 95th percentile of historical data ensures the District will have violations of the new 5.4 mg/l limit and does not account for future growth. As growth occurs and the flows and loading increase into the WWTP, the ammonia effluent concentrations out of the lagoon will increase until the plant is upgraded. Consequently, the District requests that EPA preferably remove the interim limits or at a minimum increase the interim "Average Monthly Limit" concentration from 5.4 to a level that reflects both the MBR and the lagoon's ability or lack of ability to remove ammonia. The proposed ammonia limit of 5.4 mg/l is appropriate for the MBR which is projected to treat 68% of the influent into the plant. However, since the lagoon is not configured to nitrify, we propose the interim ammonia limit to reflect the average ammonia concentration measured in the influent which was 19.5 mg/l for 2013 for the portion of flow (32%) treated by the lagoons. Consequently, we propose the composite interim ammonia limit for the combined effluent to be 9.9 mg/l (calculated as weighted average = 5.4 mg/l*0.68 + 19.5 mg/l*0.32).

c. Based on historical data, the District is not able to meet the interim total residual chlorine (TRC) limits with current infrastructure due to the absence of flow pacing on the chlorine dosing pump and absence of dechlorination facilities on the lagoon treatment process as explained in more detail in Comment 4.a. Consequently, the technology based limit of 0.5 mg/l is not appropriate for the District. As evidenced in the historical data included in the fact sheet, the District is far from being able to comply with the proposed 0.5 mg/l limit for TRC with current treatment infrastructure. Consequently, the District requests the interim limits be eliminated to avoid constructing temporary improvements in the next few months that will be replaced with more permanent improvements in the next three to four years to comply with the final TRC limits. At a minimum, the District requests a one year compliance schedule from the effective date of the permit to construct improvements necessary to meet the interim total residual chlorine limits.

d. The design of the lagoons does not include phosphorus removal. Based on historical data in the last five years, the District would have four violations of the proposed interim phosphorus Average Monthly concentration limit. Use of the 95th percentile of historical data ensures the District will have violations of the new 4.5 mg/l limit and does not account for future growth. As growth occurs and the flows and loading increase into the WWTP, the phosphorus effluent concentrations out of the lagoon will increase until the plant is upgraded. Consequently, the District requests that EPA preferably remove the interim limits or at a minimum increase the interim "Average Monthly Limit" concentration from 4.5 mg/l to 7 mg/l which is more consistent with historical plant performance and includes a contingency as the District grows and more flow is forced through the lagoons.

e. Based on historical data in the last five years, the District would have two violations of the proposed TSS Average Weekly concentration limit. As growth occurs and the flows increase into the WWTP, the TSS effluent concentrations out of the lagoon will likely increase until the plant is upgraded. Consequently, the District requests that EPA preferably remove the interim limits or at a minimum increase the interim "Average Weekly Limit" concentration from 45 to 60 mg/l. Use of secondary treatment standards does not recognize the existence of the lagoon treatment process.

I. Limitations and Monitoring Requirements (Page 6)

5. **Table 1** (Page 7)

a. Total Residual Chlorine Final Limits. The concentration limits in the table are replaced by limits in footnote 5. It would be less confusing if the limits from footnote 5 were in Table 1 and footnote 5 was deleted. However, the loading limits are not changed in footnote 5 and at the concentration of 50 ug/L, a flow of 0.36 mgd would be required to meet the loading limit. The loading limits in footnote 5 should be changed to 0.77 lbs/day for both Average Monthly Limit and Maximum Daily Limit.

b. Footnote 5 (related to Item "a" above). Change the permit TRC concentration levels in the permit to the levels indicated in the footnote and eliminate confusion. If the District cannot measure below 50 ug/L and their flow is 1.85 mgd (the design flow), then their effluent load will be 0.77 ppd and in violation of the permit. In order to be in compliance, the flow would have to be less than 0.36 mgd. Change the loading limits in the footnote to 0.77 ppd and 0.77 ppd or change the limits and loads in Table 1 and delete footnote 5.

c. All metals should be total recoverable. See chromium in Table 1 pg. 8

d. This sample frequency for expanded effluent testing is excessive for a small discharger like the District. This sampling frequency is the same as that for the City of Boise. A more reasonable sample frequency would be "Sampling must occur at least once during the 4th year of the permit term."

6. **F.** (Page 19)
   The District does not consider the WWTP to be a contributor for mercury in the lower Boise River based on available sampling data from the single round of Part D Expanded Effluent Data used in the 2013 permit application, (EPA method 245.7 was used, < 0.1 ug/L was the reported result). Therefore, the District would like to be excluded from I. F. page 19 for the current draft permit at this time. District proposes that data collected during the new permit period be used to determine District potential contribution, or lack of, mercury to the lower Boise River and either assign the methylmercury fish tissue sampling criteria for the next permit cycle or exclude the District completely

7. **Attachment A Table** (Page 40)
   The table provides values for minimum level (ML) where minimum detection level (MDL) is more appropriate. For some constituents such as BOD there is no ML. Further, the ML can vary and labs will only certify levels at the MDL or above.

8. **Attachment A Table** (Page 42 and 43)
   District request the use of the 8000 series test used for testing clean water in order to provide the required level of detection for volatile and semi volatile compounds.

We look forward to your response to our comments.

Sincerely,

KELLER ASSOCIATES, INC.

Justin Walker, P.E.
District Engineer

cc: Star Sewer and Water District (Hank Day, Ken Vose)
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