

U.S. Environmental Protection Agency Region 10

Response to Comments on the Draft NPDES Permit for the City of Franklin Wastewater Treatment Facility: Permit Number ID0025569 March 5, 2018

Background

On November 29, 2017, the United States Environmental Protection Agency (EPA) Region 10 issued a draft National Pollutant Discharge Elimination System (NPDES) permit for public review and comment for the wastewater treatment facility at the City of Franklin, Idaho (NPDES Permit Number ID0025569). The public comment period closed on December 29, 2017. The EPA received comments on the draft permit from the Idaho Conservation League (ICL) dated December 11, 2017, as shown in the Appendix.

The EPA's response to the comments received are set forth below. The EPA has included each comment verbatim from the commenter. No changes were made to the permit as the result of comments received on the draft permit. However, in preparing the final permit the EPA corrected an error in Part I.C. 5 *Surface Water Monitoring Report*. The EPA removed Note 5: "The flow rate must be measured as near as practicable to the time that other ambient parameters are sampled." Flow monitoring is not required in the receiving water in either the draft or final permit. Therefore, this note is unnecessary.

Comment #1

Anti-Backsliding

We appreciate that EPA is retaining existing effluent limits on chlorine rather than removing those limits based on "No Reasonable Potential" calculations, in accordance with anti-backsliding provisions. This particular limit is especially important given the facility's prior violations of the chlorine standard.

Response #1

Comment noted. No changes to the Draft Permit resulted from this comment.

Comment #2

TMDL Compliance

We have concerns that the total phosphorus (TP) effluent limits set forth in this draft permit will violate the 2013 TMDL for the Bear River/Malad Subbasin, specifically the TP wasteload allocation (WLA) for the City of Franklin WWTP. To set the TP effluent limits in this permit, the EPA took the daily WLA (3.56 lbs/day for March-April period) and applied a standard statistical treatment to translate that daily limit to a weekly and monthly limit (pg. 51 of Fact Sheet). While it is necessary to develop weekly and monthly limits based on that daily average,

the resultant limits appear to allow for the violation of the relevant daily WLA. Whether the average weekly and monthly limits are expressed in terms of mass or concentration, they must be consistent with the maximum daily limit for TP. The purpose of having a daily WLA is to prohibit facilities from discharging high volumes of pollutants on a single day, even if the facilities ultimately do not exceed the weekly and/or monthly standards as a result. The current average weekly limit allows for up to 11.10 lbs/day of TP; however, this is over three times the maximum daily limit. This is inconsistent with the TMDL and must be corrected. We request that EPA develop new average weekly and monthly TP limits for this facility that would not cause them to concurrently violate the daily WLA in the TMDL.

Response #2

The average monthly effluent limits and average weekly effluent limits are consistent with the assumptions and requirements of the WLA in the TMDL for the reasons explained below.

The WLAs in the TMDL are seasonal averages not maximum daily WLAs

The WLAs for the City of Franklin are found in Table 26 of the TMDL (Addendum to the Bear River/Malad Subbasin Assessment and Total Maximum Daily Load Plan, revised February 2013):

Season	Daily	Monthly	Annually	Time Frame for Meeting Allocation
May – February	0.05 lbs/day	1.4 lbs/month	14 lbs/year	Presently met
March - April	3.56 lbs/day	106.8 lbs/month	214 lbs/year	Presently met

The EPA recognizes that the heading of the column is “Daily,” however, as explained further in the TMDL, the WLAs are “...annual averages, unless allocations vary during the year, in which case the wasteload allocations are averages for the seasonal periods specified by the allocations. NPDES permit limits based on the WLAs should be expressed in the permits in a manner consistent with these averaging periods.” See TMDL at p. 29.

To be consistent with the averaging period, the permit includes the WLAs as seasonal averages. See 40 CFR 122.44(d)(1)(B)(vii). In other words, 3.56 lbs/day is a seasonal average for the period from March 1 through April 30, and 0.05 lbs/day is a seasonal average for the period from October 1 through February 28/29.

Parameter	Units	Effluent Limitations			Monitoring Requirements			
		Average Monthly	Average Weekly	Maximum Daily	Sample Location	Sample Frequency	Sample Type	
Total Phosphorus (as P) October 1 – February 28/29	mg/l	Report	Report	---	Effluent	1/week	Grab	
	lbs/day	0.07	0.14	---			Seasonal Average = 0.05 lbs/day	Calculation ³
Total Phosphorus (as P) March 1 – April 30	mg/l	Report	Report	---	Effluent	1/week	Grab	
	lbs/day	5.52	11.10	---			Seasonal Average = 3.56 lbs/day	Calculation ³

In addition, the NPDES regulations require that effluent limitations for continuous discharges from POTWs be expressed as average monthly and average weekly limits, unless impracticable (40 CFR 122.45(d)(2)). Therefore, EPA calculated average monthly and average weekly limits for TP based on the assumption that the WLA represents the Long-Term Average.

The TSD Was Properly Used to Calculate the Average Monthly and Average Weekly Limits in the Draft Permit.

The EPA’s NPDES Permit Writers Manual (*U.S. EPA NPDES Permit Writers’ Manual*, 2010) specifically addresses the development of water quality based effluent limits using the procedures from EPA’s Technical Support Document for Water Quality-based Toxics Control (TSD). (See chapter 6 of the Permit Writer’s Manual). Therefore, the EPA used the TSD to calculate the average monthly and average weekly limits in the draft permit.

In particular, as explained in the Fact Sheet, the EPA used the equation set forth in the TSD to calculate the average monthly and average weekly limits. See the TSD at Table 5-2, page 106. This statistical methodology was used to calculate the total phosphorus (TP) limits as shown on pages 49-50 of the Fact Sheet.

Average Weekly and Average Monthly Limits Must Be Set Higher Than a Seasonal Average WLA to Account for Effluent Variability

The goal of a water quality-based effluent limit is to ensure a low probability that water quality standards will be exceeded in the receiving water as a result of a discharge, while considering the variability of the pollutant in the effluent (see TSD at Section 5.3.1). The average monthly and average weekly loading limits for TP are calculated based on the Seasonal Average wasteload allocation as well as the variability of the effluent TP load, using the relationship shown in Table 5-2 of the TSD.

As explained in Section 5.2.2 of the TSD, “all permit limits, whether technology-based or water quality-based, are set at the upper bounds of acceptable performance. The purpose of a permit

limit is to specify an upper bound of acceptable effluent quality.” In Section 5.3.1, the TSD states that “the limits must ‘force’ treatment plant performance, which, after considering acceptable effluent variability, will only have a low statistical probability of exceeding the WLA and will achieve the desired loadings.”

In general, federal regulations require effluent limits for continuously discharging POTWs to be expressed as average monthly and average weekly discharge limitations, meaning the highest allowable averages of discharges measured over a calendar month or a calendar week (40 CFR 122.2, 122.45(d)(2)). Because effluent discharges are not constant, an effluent limit that specifies the maximum allowable average discharge over a short period of time (e.g., a month or week) must be set higher than the long-term average discharge that the limit is intended to achieve. If such a short-term effluent limit were set equal to an annual average WLA, it would be more stringent than intended.

Using the established methodologies described from sources cited above, and as shown in the Fact Sheet, the EPA calculated the short-term (average weekly and average monthly) effluent limits in Table 1 of the Draft Permit, which as expected, are higher than the seasonal daily load in the TMDL that accounted for effluent variability.

The EPA Has Assured that the Permit Will Meet the Seasonal WLA

As shown in Table 1 of the permit, for TP, the EPA has required Seasonal Average loading effluent limits of 0.05 lbs/day (from October 1 – February 28/29), and 3.56 lbs/day (from March 1 – April 30).

These Seasonal Average loadings in the draft permit are consistent with the WLAs for the City of Franklin found in Table 26 of the TMDL (Addendum to the Bear River/Malad Subbasin Assessment and Total Maximum Daily Load Plan, revised February 2013).

No changes to the Draft Permit resulted from this comment.

Comment #3

Discharging to the Cub River

This facility is authorized to discharge to the Cub River during the non-growing season (October-April). In the Fact Sheet, EPA states “the facility will likely only need to discharge to the Cub River on a reduced frequency, such as during the month of April...” due to recent construction of a 24-MG winter storage lagoon and increased acreage for land application of treated effluent. Given the predicted lack of need for continuous discharge, we request that the EPA specify the scenarios in which the facility is likely to discharge to the Cub River.

Response #3

The facility is authorized to discharge to the Cub River from October to April. Due to the construction of a winter storage lagoon and the increase of acreage for land application, the EPA

believes that there would be a reduced need to discharge; however, based upon the City's NPDES permit application, the City continues to need the NPDES permit. No changes to the Draft Permit resulted from this comment.

Comment #4

NPDES Permit Renewal

The most recent NPDES permit for this facility expired on April 30, 2009 and has been administratively extended up until now – a delay of over seven and a half years. While we understand the challenges of NPDES permitting, 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 #4

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 Draft Permit resulted from this comment.

Appendix



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December 11, 2017

Kai Shum
U.S. EPA Region 10
1200 Sixth Avenue (OWW-191)
Seattle, Washington 98101

Submitted via e-mail to: shum.kai@epa.gov

Re: Reissuing of NPDES Permit ID0025569

Dear Mr. Shum:

Thank you for considering our comments on the proposed permit to be reissued for the City of Franklin wastewater treatment plant (NPDES Permit ID0025569).

Since 1973, the Idaho Conservation League has had a long history of involvement with water quality issues. As Idaho's largest state-based conservation organization we represent over 30,000 supporters who have a deep personal interest in ensuring that our water quality is protected throughout the state.

We thank you for the opportunity to submit comments and ask that you please send us subsequent documents for this project. We look forward to continuing to work with the Environmental Protection Agency on this project and others in the future. Please feel free to contact us if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Johnson", is written over a light blue horizontal line.

Josh Johnson, Central Idaho Conservation Associate
Idaho Conservation League
jjohnson@idahoconservation.org
(208) 726-7485 x 2

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