Response to Comments on the Draft NPDES Permit for the City of Driggs

NPDES Permit #ID0020401
October 2010

Background

EPA issued a draft NPDES permit for the City of Driggs for public review and comment on October 23, 2009. The public comment period expired on November 23, 2009. EPA received comments on the draft permit from the Idaho Conservation League.

Comments on the Draft Permit

Comment #1

Upon review of the Driggs draft permit and fact sheet, it appears that the fact the receiving waters (both Woods Creek and the Teton River) are on the State's 303(d) list was not taken into consideration. Indeed, this waterway is listed as impaired for pollutants that are discharged from this facility. We ask that EPA review the draft permit to determine if the effluent limits that are proposed are appropriate in light of this omission.

Response #1

As stated in the fact sheet on Page 7, the City of Driggs' immediate receiving water is an unnamed drainage ditch, which is tributary to Woods Creek, which is tributary to the Teton River. Woods Creek as well as its named and unnamed tributaries is on the 2008 303(d) list for E. coli. The permit contains water quality-based effluent limits for E. coli that require compliance with the applicable water quality criteria at the end-of-pipe (see the fact sheet at Pages 10-11 and C-4 through C-5). Because the permit contains effluent limits for E. coli that apply water quality criteria at the end-of-pipe, the E. coli limits are as stringent as necessary to meet water quality standards, as required by the Clean Water Act (CWA) and its implementing regulations (CWA Section 301(b)(1)(C), 40 CFR 122.44(d)(1)). Furthermore, the effluent limits ensure that the authorized discharge will not contribute to the E. coli impairment in Woods Creek. Therefore, it is not necessary to establish effluent limits for E. coli more stringent than those in the draft permit due to 303(d) listing in Woods Creek.

The Teton River is not on the 2008 303(d) list. However IDEQ completed the *Teton River Subbasin Assessment and Total Maximum Daily Load* (Teton River TMDL) for nutrients and sediment, which was approved by EPA in 2003. No TMDL has been established for Woods Creek. Regarding nutrients, the Teton River TMDL states that, "based on available information, the Driggs facility does not appear to contribute increased concentrations of nutrients to the Teton River, where it discharges after flowing through approximately five miles of wet meadow," and that "it is not expected that any nutrients would reach the (Teton) river from (Driggs)." See the TMDL at Pages xx and 205. Regarding sediment, the Teton River TMDL states that "it is not expected that any

sediment would reach the (Teton) river from (Driggs)." See the TMDL at Page 197. Furthermore, the concentration effluent limits for total suspended solids (TSS) of 45 mg/L average monthly and 65 mg/L average weekly are lower (more stringent) than the TMDL's in-stream TSS concentration target of 80 mg/L (see the TMDL at Page 195). Therefore, the City of Driggs does not have the reasonable potential to cause or contribute to elevated sediment and nutrient concentrations in the Teton River, and it is not necessary to establish effluent limits in addition to or more stringent than those in the draft permit, based upon the Teton River TMDL.

Comment #2

Neither the State of Idaho nor the EPA has substantively reviewed the draft permit's effluent limits to ensure that this discharge does not result in an unacceptable degradation of the water quality in the receiving water and waters downstream.

Idaho currently lacks an anti-degradation implementation plan. Since Idaho does not have a lawful anti-degradation policy it is not possible for EPA to assure that the draft permit conditions are sufficient to protect downstream waters from degradation. Statements in the draft permit's fact sheet which state that the draft permit will comply with Idaho's anti-degradation policy are not supported by fact as neither the State nor EPA has conducted an anti-degradation analysis. In other words, irrespective of the fact that Idaho lacks a valid anti-degradation (policy), no analysis was done anyway. As such, the issuance of this permit is arbitrary and capricious and cannot be issued until this matter is resolved.

Response #2

Overview

EPA is required under Section 301(b)(1)(C) of the Clean Water Act (CWA) and implementing regulations (40 CFR 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The fact that the State of Idaho has not identified methods for implementing its antidegradation policy does not necessarily prevent EPA from establishing such permit conditions.

As explained below, the City of Driggs NPDES permit contains limits as stringent as necessary to ensure compliance with all applicable water quality standards, including Idaho's antidegradation policy (IDAPA 58.01.02.051). As explained in detail below, the reissued permit ensures that "the existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected" consistent with the requirements of 40 CFR 131.12(a)(1) and IDAPA 58.01.02.051.01. Relative to the prior permit issued in 2001, the reissued permit does not allow lower water quality for those parameters where the receiving water quality "exceeds levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water," therefore, the reissued permit maintains and protects the existing level of water quality, consistent with 40 CFR 131.12(a)(2) and IDAPA 58.01.02.051.02. Finally, the antidegradation policy for outstanding resource waters is inapplicable in this

reissued permit because no waters of the State of Idaho are designated as "outstanding resource waters" (IDAPA 58.01.02.051.03).

The reissued permit ensures compliance with the State of Idaho's antidegradation policy and CWA regulations because the permit conditions ensure protection of existing uses and do not allow lower water quality relative to the prior permit. Under the circumstances of this reissued permit, EPA may issue an NPDES permit even though the State has not yet identified methods for implementing its antidegradation policy. In its antidegradation analysis below, EPA is applying a parameter-by-parameter approach in determining compliance with Idaho's antidegradation requirements.

EPA Antidegradation Analysis

Protection of Existing Uses (IDAPA 58.01.02.051.01 and 40 CFR 131.12(a)(1))

Neither the unnamed immediate receiving water nor Woods Creek have been designated for specific uses in Sections 110 – 160 of the Idaho Water Quality Standards. However, undesignated surface waters are protected for the uses of cold water aquatic life and primary contact recreation (IDAPA 58.01.02.101.01.a.). In addition, the Idaho Water Quality Standards state that all waters of the State of Idaho are protected for industrial and agricultural water supply (Section 100.03.b and c), wildlife habitats (100.04) and aesthetics (100.05). Therefore, while the receiving waters are not designated for specific uses, the waters are protected for the uses identified above based on Idaho's general use provisions.

Woods Creek and its named and unnamed tributaries are included on the CWA section 303(d) list of impaired waters for bacteria. As explained in the response to comment #1, the E. coli limits in the permit ensure compliance with water quality criteria for bacteria. Furthermore, the limits for other pollutants ensure compliance with water quality criteria for those pollutants. The numeric and narrative water quality criteria are set at levels that ensure protection of the designated uses. As there is no available information indicating the presence of any existing uses other than the designated uses discussed above, the permit ensures that the level of water quality necessary to protect the designated and existing uses is maintained and protected in compliance with IDAPA 58.01.02.051.01 and40 CFR 131.12(a)(1)).

High Quality Waters (IDAPA 58.01.02.051.02 and 40 CFR 131.12(a)(2))

For all parameters other than bacteria, EPA is assuming that the receiving water is a high quality water with water quality levels that exceed "levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water." Therefore, EPA considers the provisions of IDAPA 58.01.02.051.02, for high quality waters, to be applicable to the receiving waters for all parameters except bacteria. Since Woods Creek and its named and unnamed tributaries are on the CWA section 303(d) list for bacteria, the provisions for high quality waters in IDAPA 58.01.02.051.02 are not applicable to bacteria.

As shown in Table 1, below, all of the effluent limits in the reissued permit are as stringent as or more stringent than the corresponding limits in the prior (2001) permit, with the sole exception of fecal coliform. Therefore, for those pollutants for which the

receiving water is high quality (all but bacteria), the reissued permit does not authorize an increased discharge of any pollutant that was limited in the prior permit.

As to those pollutants present in the discharge without effluent limits in both the reissued permit and the prior permit, there is no factual basis to expect that those pollutants will be discharged in greater amounts under the reissued permit than were authorized in the prior permit. Similarly, there is no factual basis to expect that the effluent contains any new pollutants that have not been discharged previously. EPA reached these conclusions because the permit application and the discharge monitoring report data indicate no changes in the design flow, influent quality or treatment processes that could result in a new or increased discharge of pollutants.

Ammonia is present in the discharge and did not have effluent limits in the prior permit, but the reissued permit includes an effluent limit for ammonia. The new effluent limits for ammonia will not allow lower water quality relative to the prior permit. The reissued permit includes a new effluent limit for ammonia because EPA has determined that the discharge has the reasonable potential to cause or contribute to excursions above water quality criteria for ammonia, as explained in the fact sheet in Appendix D. This finding of reasonable potential did not result from an increased discharge of ammonia. The prior two NPDES permits issued to the City of Driggs were issued in 1986 and 2001. Both the 1986 and 2001 permits were administratively continued pending the issuance of new permits. The permittee was required to monitor total ammonia as nitrogen in the effluent under the 2001 permit but not under the 1986 permit. Furthermore, the City did not report the results of any effluent ammonia monitoring on its 1990 permit renewal application. Therefore, at the time the 2001 permit was issued, there were no effluent ammonia data available with which to perform a reasonable potential analysis for ammonia. The finding that the discharge has the reasonable potential to cause or contribute to excursions above water quality criteria for ammonia was based on the ammonia effluent data collected as required by the 2001 permit, as opposed to any increase in the effluent ammonia loading or concentration since the time the 2001 permit was issued. As stated on Page 11 of the fact sheet, "the interim effluent limits apply during the term of the compliance schedule and represent the level of ammonia control currently achieved at the facility," and the final ammonia limits are more stringent than the interim ammonia limits. Therefore, neither the interim nor the final ammonia limits allow lower water quality relative to the prior permit.

The Teton River, downstream from the discharge, is designated as a Special Resource Water in the Idaho water quality standards (IDAPA 58.01.02.150.06). The *Teton River Subbasin Assessment and Total Maximum Daily Load* (Teton River TMDL) states that the Driggs discharge is not a source of nutrients or sediment to the Teton River (see the Teton River TMDL at Pages xx, 197, and 205). Thus, it is unlikely that the Driggs discharge will affect water quality in the Teton River. Even if the Driggs facility does affect water quality in the Teton River, the reissued permit will not allow lower water quality relative to the prior permit, as explained above. Therefore, the reissued permit complies with the Special Resource Water provisions of the Idaho water quality standards (IDAPA 58.01.02.400.01.b).

Summary

In summary, the effluent limits in the reissued permit are as stringent as or more stringent than the corresponding limits in prior permit for all parameters for which the receiving water quality "exceeds levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water." Furthermore, the reissued permit will not authorize an increased discharge of any pollutants that were not subject to effluent limits under the prior permit.

The reissuance of the City of Driggs NPDES permit will therefore not allow lower water quality relative to the prior permit. Consequently, there is no need for the State of Idaho to make a finding that "allowing lower water quality is necessary to accommodate important economic or social development" under IDAPA 58.01.02.051.02. Under these circumstances, EPA may issue an NPDES permit even though the State of Idaho has not yet identified methods for implementing its antidegradation policy.

Table 1: Comparison of 2001 and Current Effluent Limits for the City of Driggs

Parameter	2001 Permit		2009 Permit		Percent Reduction for Average Monthly Limit
	Average Monthly Limit	Average Weekly or Maximum Daily Limit	Average Monthly Limit	Average Weekly or Maximum Daily Limit	
BOD_5 (concentration)	45 mg/L	65 mg/L	45 mg/L	65 mg/L	0%
BOD_5 (mass)	225 lb/day	325 lb/day	225 lb/day	325 lb/day	0%
TSS (concentration)	70 mg/L	105 mg/L	45 mg/L	65 mg	36%
TSS (mass)	350 lb/day	525 lb/day	225 lb/day	325 lb/day	36%
Total Residual Chlorine (concentration)	12.4 µg/L	17.8 µg/L	12.4 µg/L	17.8 µg/L	0%
Total Residual Chlorine (mass)	0.062 lb/day	0.089 lb/day	0.062 lb/day	0.089 lb/day	0%
Total Ammonia as N (interim, concentration)	No Limit	No Limit	23 mg/L	46 mg/L	N/A
Total Ammonia as N (interim, mass)	No Limit	No Limit	115 lb/day	230 lb/day	N/A
Total Ammonia as N (final, concentration)	No Limit	No Limit	0.84 mg/L	1.68 mg/L	N/A[1]
Total Ammonia as N (final, mass)	No Limit	No Limit	4.2 lb/day	8.4 lb/day	N/A
E. Coli	126/100 ml	406/100 ml	126/100 ml	406/100 ml	0%
pH	6.5 – 9.0 s.u.		6.5 – 9.0 s.u.		N/A
Fecal Coliform	No Limit	200	No Limit	No Limit	N/A

Notes:
1. The final water quality-based ammonia concentration limits represent a 96% reduction from the interim limits, which represent the level of ammonia control currently reliably achieved at the facility.

Comment #3

The Idaho Conservation League stated that they do not support the four-year compliance schedule for Ammonia. Such a long compliance schedule will result in unacceptable continued impacts to aquatic health.

Response #3

As stated in the fact sheet on Page 11 of the fact sheet, EPA has proposed a schedule of compliance for ammonia because effluent data indicate that the City cannot comply with the new water quality-based effluent limits for ammonia immediately upon the effective date of the final permit. Idaho's compliance schedule authorizing provision (IDAPA 58.01.02.400.03) does not specify a maximum length of time for a compliance schedule. The federal regulation governing compliance schedules (40 CFR 122.47(a)(1)) states that "any schedules of compliance under this section shall require compliance as soon as possible…."

EPA believes that the compliance schedule proposed in the draft permit, which requires compliance with the water quality-based ammonia limits by October 1, 2013, does, in fact, require compliance with the water quality-based ammonia limits as soon as possible, as required by 40 CFR 122.47(a)(1).

EPA policy states that "factors relevant to a conclusion that a particular compliance schedule requires compliance with the water quality based effluent limit (WQBEL) 'as soon as possible,' as required by 40 C.F.R. § 122.47(a)(1) include: consideration of the steps needed to modify or install treatment facilities, operations or other measures and the time those steps would take" (see memorandum from James Hanlon, EPA Office of Wastewater Management to Alexis Strauss, EPA Region 9, May 10, 2007). In February 2007, the City of Driggs completed the *Driggs Wastewater Treatment Facilities Plan* (FPS). In order to meet current and future wastewater treatment needs, and to comply with NPDES effluent limits, the City intends to construct a membrane bioreactor treatment facility (see the FPS at Page X-16). The estimated cost of the initial membrane bioreactor facility is $18,145,300 in 2006 dollars (see the FPS at Table 10.29). Wastewater treatment plants using membrane bioreactors for secondary treatment can achieve complete nitrification of ammonia (see the FPS at Page X-18).

The Idaho Department of Environmental Quality proposed the roughly 4-year compliance schedule in the draft Clean Water Act Section 401 certification based on the amount of time it is expected to take to complete the steps needed to upgrade the treatment facilities such that the ammonia effluent limits would be met. Specifically, this includes six months for the selected technology to be approved for use in Idaho, six months to apply for a loan or grant under the State Revolving Fund program, six months to one year for design of the upgraded facilities, and two years for construction of the upgraded facilities, for a total of four years (personal communication with Troy Saffle, IDEQ, December 8, 2009).

Thus, the length of the compliance schedule is based on "the steps needed to modify or install treatment facilities…and the time those steps would take," which is consistent with EPA policy. The proposed compliance schedule therefore requires compliance with the ammonia WQBEL as soon as possible, as required by 40 CFR 122.47.

References

EPA. 2007. Memorandum from James Hanlon, EPA Office of Wastewater Management to Alexis Strauss, EPA Region 9. Subject: Compliance Schedules for Water Quality-based Effluent Limits in NPDES Permits. May 10, 2007.

IDEQ. 2003. *Teton River Subbasin Assessment and Total Maximum Daily Load.* Idaho Department of Environmental Quality. Idaho Falls Regional Office. January 10, 2003.

Nelson Engineering. 2007. *Driggs Wastewater Treatment Facilities Plan.* Jackson, Wyoming. February 2007. Project number 05-376-1.