STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
Curt Fransen, Director

May 8, 2013

Mr. Michael J. Lidgard
NPDES Permits Unit Manager
EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Subject: Final 401 Certification for the City of Homedale Wastewater Treatment Plant; NPDES Permit No. ID-002042-7

Dear Mr. Lidgard:

On April 12, 2013, EPA provided DEQ with a proposed final draft of the above-referenced permit and requested DEQ provide a final §401 certification of the permits pursuant to section 401 of the Clean Water Act. Upon review of the proposed final permit DEQ prepared and now submits the enclosed draft §401 certification for the permit.

If you have questions or need further information please contact Lauri Monnot at (208) 373-0461 or by email at Lauri.Monnot@deq.idaho.gov.

Sincerely,

Pete Wagner
Regional Administrator
Boise Regional Office

Enclosure: DEQ Final 401 Certification for NPDES Permit No. ID-002042-7

C: Miranda Adams, DEQ 401 Program Coordinator
Lance Holloway, DEQ Boise Regional Water Quality Manager

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Idaho Department of Environmental Quality

Final §401 Water Quality Certification

May 8, 2013

NPDES Permit Number(s): ID-002042-7 City Of Homedale Wastewater Treatment Facility (WWTF)

Receiving Water Body: Snake River

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the above-referenced permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier 1 Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier 2 Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier 3 Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier 1 protection for that use, unless specific circumstances warranting Tier 2 protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The City of Homedale WWTF discharges the following pollutants of concern: BOD_5, TSS, *E. coli* bacteria, pH, chlorine, temperature, and total phosphorus. Effluent limits have been developed for BOD_5, TSS, *E. coli* bacteria, pH, chlorine, and total phosphorus. No effluent limits are proposed for temperature and ammonia.

Receiving Water Body Level of Protection

The City of Homedale WWTF discharges to the Snake River within the Middle Snake-Succor assessment unit (AU) 17050103SW001_07 (Snake River – Marsing (RM 425) to State Line). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation and domestic water supply. Additionally, Idaho WQS provide that all waters of the state be protected for agricultural and industrial water supply, wildlife habitat and aesthetics.

The cold water aquatic life use in the Snake River AU is not fully supported due to excess nutrient/eutrophication biological indicators, flow regime alterations and excess water temperature (2010 Integrated Report). The primary contact recreation beneficial use is fully supported. As such, DEQ will provide Tier 1 protection only for the aquatic life use and Tier 2 protection, in addition to Tier 1, for the recreation beneficial use (IDAPA 58.01.02.051.02; 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier 1 Protection)

As noted above, a Tier 1 review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of designated beneficial uses. The effluent limitations and associated requirements contained in the City of Homedale WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations for point source discharges, which are set at levels designed to help restore the water body to a condition

that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL.

In the absence of a TMDL and depending upon the priority status for development of a TMDL, the WQS stipulate that either there be no further impairment of the designated or existing beneficial uses or that the total load of the impairing pollutant remains constant or decreases (IDAPA 58.01.02.055.04 and 58.01.02.055.05). Discharge permits must comply with these provisions of Idaho WQS. The Snake River (AU 17050103SW001_07) cold water aquatic life use is impaired by excess water temperature (heat). A TMDL for temperature has not yet been developed, but the Snake River is a high priority water for TMDL development; therefore, there must be no net increase of temperature within the watershed. The City of Homedale WWTF is not a new discharge and the design flow of the facility has remained constant at 0.45 million gallons per day (MGD). The 7Q10 flow (lowest seven day average flow that occurs on average once every 10 years) of the Snake River at the nearest upstream gaging station is 4680 cfs (3025 MGD). Based on the magnitude of flow in the Snake River, as compared to the discharge of the facility and the nature of heat dissipation, DEQ believes that there will be no net increase in water temperature caused by the heated discharge from this facility. The permit requires continuous monitoring of the effluent which may demonstrate temperature effects on the receiving water.

The EPA-approved *Mid-Snake River/Succor Creek TMDL* (2003) establishes wasteload allocations for total phosphorus. These wasteload allocations are designed to ensure the Snake River will achieve the water quality necessary to support its existing and designated aquatic life beneficial uses and comply with the applicable numeric and narrative criteria. The effluent limitations and associated requirements contained in the City of Homedale WWTF permit are set at levels that comply with these wasteload allocations.

In sum, the effluent limitations and associated requirements contained in the City of Homedale WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *Mid-Snake River/Succor Creek TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Snake River in compliance with the Tier 1 provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

High-Quality Waters (Tier 2 Protection)

The Snake River is considered high quality for primary contact recreation. As such, the water quality relevant to primary contact recreation uses of the Snake River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to primary contact recreation uses of the Snake River (IDAPA 58.01.02.052.05). These include the following: *E. coli* bacteria and total phosphorus. Effluent limits are set in the proposed and existing permit for these pollutants.

For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed

in the reissued permit or license (IDAPA 58.01.02.052.06.a). For a new permit or license, the effect on water quality is determined by reviewing the difference between the existing receiving water quality and the water quality that would result from the activity or discharge as proposed in the new permit or license (IDAPA 58.01.02.052.06.a).

Pollutants with Limits in the Current and Proposed Permit

For pollutants that are currently limited and will have limits under the reissued permit, the current discharge quality is based on the limits in the current permit or license (IDAPA 58.01.02.052.06.a.i), and the future discharge quality is based on the proposed permit limits (IDAPA 58.01.02.052.06.a.ii). For the City of Homedale WWTF permit, this means determining the permit's effect on water quality based upon the limits for BOD_5, TSS, pH, *E. coli*, and chlorine in the current and proposed permits. Table 1 provides a summary of the current permit limits and the proposed or reissued permit limits.

Table 1. Comparison of current and proposed permit limits for pollutants of concern.

Pollutant	Units	Current Permit			Proposed Permit			Change[a]
		Average Monthly Limit	Average Weekly Limit	Single Sample Limit	Average Monthly Limit	Average Weekly Limit	Single Sample Limit	
Pollutants with limits in both the current and proposed permit								
Five-Day BOD	mg/L	45	65	—	45	65	—	NC
	lb/day	169	244	—	169	244	—	
	% removal	65%	—	—	65%	—	—	
TSS	mg/L	45	65	—	45	65	—	NC
	lb/day	169	244	—	169	244	—	
	% removal	65%	—	—	65%	—	—	
pH	standard units	6.5–9.0 all times			6.5–9.0 all times			NC
E. coli	no./100 mL	126		406	126		406	NC
Total Residual Chlorine (final)	mg/L	0.5	0.75	—	0.5	0.75	—	NC
	lb/day	1.9	2.8	—	1.9	2.8	—	
Pollutants with new limits in the proposed permit								
Total Phosphorus	lb/day (May–Sept)	—	—	Report	11	17		D
Pollutants with no limits in both the current and proposed permit								
Temperature	°C	Report 1/month grab			Report Continuous recording			NC
Total Ammonia	mg/L	Report 1/month grab			Report 1/month grab			NC

[a] NC = no change, I = increase, D = decrease.

The proposed permit limits for pollutants of concern that have limits in Table 1, BOD, TSS, pH, *E. coli*, and chlorine, are the same as, or more stringent than, those in the current permit ("nc" or "D" in change column). Therefore, no adverse change in water quality and no degradation will result from the discharge of these pollutants.

New Permit Limits for Pollutants Currently Discharged

When new limits are proposed in a reissued permit for pollutants in the existing discharge, the effect on water quality is based upon the current discharge quality and the proposed discharge quality resulting from the new limits. Current discharge quality for pollutants that are not currently limited is based upon available discharge quality data (IDAPA 58.01.02.052.06.a.i). Future discharge quality is based upon proposed permit limits (IDAPA 58.01.02.052.06.a.ii).

The proposed permit for City of Homedale WWTF includes new limits for total phosphorus (Table 1). These limits were included in the permit to be consistent with the wasteload allocations in the approved *Mid-Snake River/Succor Creek TMDL*. The total phosphorus limits in the proposed permit reflect a maintenance or improvement in water quality from current conditions. Therefore, no adverse change in water quality and no degradation will occur with respect to these pollutants.

In sum, DEQ concludes that this discharge permit complies with the Tier 2 provisions of Idaho's WQS (IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.06).

Mixing Zones

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a mixing zone that utilizes 25% of the critical flow volumes of Snake River for chlorine and ammonia.

Other Conditions

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Lauri Monnot, Boise Regional Office, (208) 373-0461, Lauri.Monnot@deq.idaho.gov.

Pete Wagner
Regional Administrator
Boise Regional Office