



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
John H. Tippets, Director

September 11, 2015

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

Subject: FINAL 401 Water Quality Certification for the City of Marsing WWTF,
ID-0020427

Dear Mr. Lidgard:

The Boise Regional Office of the Department of Environmental Quality (DEQ) has reviewed the above-referenced permit for the City of Marsing. Section 401 of the Clean Water Act requires that states issue certifications for activities which are authorized by a federal permit and which may result in the discharge to surface waters. In Idaho, DEQ is responsible for reviewing these activities and evaluating whether the activity will comply with Idaho's Water Quality Standards, including any applicable water quality management plans (e.g., total maximum daily loads). A federal discharge permit cannot be issued until DEQ has provided certification or waived certification either expressively, or by taking no action.

This letter is to inform you that DEQ is issuing the attached Final 401 certification subject to the terms and conditions contained therein. Please contact me directly at (208) 373-0564 to discuss any questions or concerns regarding the content of this certification.

Sincerely,

A handwritten signature in black ink that reads "Aaron Scheff".

Aaron Scheff
Regional Administrator
Boise Regional Office

c: John Drabek, EPA Region 10
Nicole Deinarowicz, DEQ State Office



Idaho Department of Environmental Quality Final §401 Water Quality Certification

September 11, 2015

NPDES Permit Number(s): ID0020427, City of Marsing 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 Marsing WWTF discharges the following pollutants of concern: five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), *E. coli* (bacteria), pH, total residual chlorine (TRC), temperature, total phosphorus, and ammonia. Effluent limits have been developed for BOD₅, TSS, *E. coli*, pH, TRC, and total phosphorus. No effluent limits are proposed for temperature and ammonia.

Receiving Water Body Level of Protection

The City of Marsing WWTF discharges to the Snake River within the Middle Snake-Succor Subbasin assessment unit (AU) 17050103SW001_07 (Snake River – Marsing [RM 525] to State Line). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

The cold water aquatic life use in the Snake River is not fully supported due to excess nutrient/eutrophication biological indicators, flow regime alterations, and water temperature (2012 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 recreational benefit 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 Marsing 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.

Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

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. As noted above, prior to the development of a TMDL, the tier 1 protection provisions must be applied to protect and maintain uses. The effluent limits and associated requirements in the permit are set at levels to ensure compliance with the narrative and numeric water quality criteria, and therefore, ensure protection and maintenance of existing uses prior to the development of a temperature TMDL.

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 Marsing 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 Marsing 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 *E. coli* bacteria and new limits are proposed for total phosphorus.

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 (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 Marsing WWTF permit, this means determining the permit's effect on water quality based upon the limits for *E. coli* 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 relevant to uses receiving Tier 2 protection.

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								
<i>E. coli</i>	no./100 mL	126		406	126		406	NC
Pollutants with new limits in the proposed permit								
Total Phosphorus	lb/day (May–Sept)	—	—	Report	8.8	13		D
Pollutants with no limits in both the current and proposed permit								
Total Phosphorus	lb/day (October–April)	Report 1/month grab			Report 1/week grab			D

^a NC = no change, I = increase, D = decrease.

The proposed permit limits for pollutants of concern that have limits in both the current and proposed permit in Table 1, *E. coli*, are the same as those in the current permit (“NC” 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 effluent water quality data (IDAPA 58.01.02.052.06.a.i). Future effluent water quality is based upon proposed permit limits (IDAPA 58.01.02.052.06.a.ii).

The proposed permit for City of Marsing WWTF includes new limits for total phosphorus from May-September (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.

Pollutants with No Limits

There is one pollutant of concern, total phosphorus, relevant to Tier 2 protection of recreation that currently is not limited (October-April) and for which the proposed permit also contains no limit (Table 1). For such pollutants, a change in water quality is determined by reviewing

whether changes in production, treatment, or operation will increase the discharge of these pollutants (IDAPA 58.01.02.052.06.a.ii). With respect to total phosphorus, there is no reason to believe this pollutant will be discharged in quantities greater than those discharged under the current permit. This conclusion is based upon the fact that there have been no changes in the design flow, influent quality, or treatment processes that would likely result in an increased discharge of this pollutant. Because the proposed permit does not allow for any increased water quality impact from this pollutant, DEQ has concluded that the proposed permit should not cause a lowering of water quality for the pollutant with no limit. As such, the proposed permit should maintain the existing high water quality in the Snake River.

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 2% of the critical flow volumes of Snake River for ammonia and 1% of the critical flow volumes of Snake River for chlorine.

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 Lance Holloway, Boise Regional Office, (208) 373-0461, Lance.Holloway@deq.idaho.gov.



Aaron Scheff
Regional Administrator
Boise Regional Office