



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

October 9, 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 City of Lewiston Wastewater Treatment Facility, ID-0022055

Dear Mr. Lidgard:

On September 18, 2015, the Lewiston Regional Office of the Idaho Department of Environmental Quality (DEQ) received the proposed final draft of the above-referenced permit for the City of Lewiston Wastewater Treatment Facility. 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, the 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 §401 Water Quality Certification subject to the terms and conditions contained therein.

Please contact me directly at (208) 799-4370 to discuss any questions or concerns regarding the content of this certification.

Sincerely,

A handwritten signature in black ink that reads "John Cardwell".

John Cardwell
Regional Administrator
Lewiston Regional Office

c: Kai Shum, EPA Region 10
Nicole Deinarowicz, DEQ State Office
Cynthia Barrett, DEQ Lewiston Regional Office



Idaho Department of Environmental Quality Final §401 Water Quality Certification

October 9, 2015

NPDES Permit Number(s): City of Lewiston Wastewater Treatment Facility,
ID0022055

Receiving Water Body: Clearwater 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 Lewiston Wastewater Treatment Facility discharges the following pollutants of concern: biochemical oxygen demand (BOD₅), total suspended solids (TSS), *Escherichia coli* (*E. coli*), total residual chlorine, pH, total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature. Effluent limits have been developed for biochemical oxygen demand (BOD₅), total suspended solids (TSS), *E. coli*, total residual chlorine, and pH. No effluent limits are proposed for total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature.

Receiving Water Body Level of Protection

The City of Lewiston Wastewater Treatment Facility discharges to the Clearwater River within the Clearwater Subbasin assessment unit (AU) ID17060306CL001_07 (Lower Granite Dam pool). 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).

According to DEQ's 2012 Integrated Report, this receiving water body AU is fully supporting the cold water aquatic life and primary contact recreation designated beneficial uses (IDAPA 58.01.02.052.05.a). As such, DEQ will provide Tier 2 protection in addition to Tier 1 for this water body (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 Lewiston Wastewater Treatment Facility permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

High-Quality Waters (Tier 2 Protection)

The Clearwater River is considered high quality for cold water aquatic life and contact recreation. As such, the water quality relevant to cold water aquatic life and contact recreation uses of the Clearwater 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 cold water aquatic life and contact recreation uses of the Clearwater River (IDAPA 58.01.02.052.05). The pollutants relevant to the aquatic life use include the following: biochemical oxygen demand (BOD₅), total suspended solids (TSS), total residual chlorine, pH, total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature. Effluent limits are set in the proposed and existing permit for all these pollutants except total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature. *E. coli* bacteria is the only pollutant relevant to the contact recreation beneficial use

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 Lewiston Wastewater Treatment Facility permit, this means determining the permit's effect on water quality based upon the limits for biochemical oxygen demand (BOD₅), total suspended solids (TSS), *E. coli*, total residual chlorine and pH 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								
BOD ₅	mg/L	30	45	—	30	45	—	NC
	lb/day	1430	2145	—	1430	2145	—	
	% removal	—	—	—	85%	—	—	
TSS	mg/L	30	45	—	30	45	—	NC
	lb/day	1430	2145	—	1430	2145	—	
	% removal	—	—	—	85%	—	—	
pH	standard units	6.5–9.0 all times			6.5–9.0 all times			NC
<i>E. coli</i>	no./100 mL	126	—	406	126	—	406	NC
Fecal coliform ^b	no./100 mL	—	200	—	—	—	—	—
Total Residual Chlorine (final)	µg/L	340	—	700	340	—	700	NC
	lb/day	14.29	—	33.33	14.29	—	33.33	
Pollutants with no limits in both the current and proposed permit								
Total Ammonia	mg/L	—	—	—	Report	—	Report	NC
	lbs/day							
Total Phosphorus	mg/L	—	—	—	Report	—	Report	NC
	lbs/day							
Dissolved Oxygen	mg/L	—	—	—	Report	—	Report	NC
Total Kjeldahl Nitrogen	mg/L	—	—	—	Report	—	Report	
Nitrate + Nitrite	mg/L	—	—	—	Report	—	Report	NC
Temperature	°C	—	—	—	—	Report	Report	NC

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

^b DEQ is requesting that EPA remove the fecal coliform limits. See discussion below.

The existing permit for the City of Lewiston Wastewater Treatment Facility contains effluent limits for fecal coliform and *E. coli*. In 1986, EPA updated its criteria to protect recreational use of water by recommending an *E. coli* criterion as a better indicator of the pathogenic bacteria at levels that may cause gastrointestinal distress in swimmers. In 2000, DEQ changed its bacteria criterion from fecal coliform to *E. coli*. The *E. coli* limits are in the existing permit to reflect the bacteria criterion that DEQ adopted to protect the contact recreation beneficial use (IDAPA 58.01.02.251.01).

The fecal coliform limit is in the current permit because the permit was issued before the Idaho WQS established a disinfection requirement for sewage wastewater treatment plant effluent. The Idaho WQS were revised in 2002 to reflect the change in the bacteria criterion from fecal coliform to *E. coli* for the disinfection requirement. The current *E. coli* limits are as or more protective of water quality than the former fecal coliform limit. Omission of the fecal coliform limit from the permit will not cause or contribute to a violation of Idaho's WQS criteria. The proposed final permit contains *E. coli* effluent limits that comply with current numeric "end-of-pipe" criteria. Thus, removal of the fecal coliform limits complies with both the Tier 1 and Tier 2 components of Idaho's antidegradation policy.

The proposed permit limits for other pollutants of concern that have limits in Table 1, biochemical oxygen demand (BOD₅), total suspended solids (TSS), *E. coli*, total residual chlorine, and pH, 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.

Pollutants with No Limits

The pollutants of concern with no limits are total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature and may be relevant to Tier 2 protection of aquatic life and recreation beneficial uses (Table 1). For such pollutants, a change in water quality is determined by reviewing whether changes in production, treatment, or operation that will increase the discharge of these pollutants are likely (IDAPA 58.01.02.052.06.a.ii). With respect to total ammonia, total phosphorus, dissolved oxygen, total Kjeldahl nitrogen, nitrate plus nitrite, and temperature, there is no reason to believe these pollutants 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 these pollutants. Because the proposed permit does not allow for any increased water quality impact from these pollutants, DEQ has concluded that the proposed permit should not cause a lowering of water quality for the pollutants with no limit. As such, the proposed permit should maintain the existing high water quality in the Clearwater 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 58.01.02.052.08).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Mixing Zones

The Lewiston WWTF uses chlorine disinfection only as a backup for the ultraviolet disinfection system. No chlorine has been used for disinfection at the WWTF since 1998, and no chlorine was used for disinfection during the last permit cycle. However, in the event there is a failure with the ultraviolet disinfection system and chlorine disinfection needs to be used, DEQ authorizes a mixing zone that utilizes 25% of the critical flow volumes of the Clearwater River for chlorine.

DEQ authorizes the mixing zone identified in Appendix E and Table E-1: Reasonable Potential Analysis (RPA) of the City of Lewiston NPDES Permit Fact Sheet (IDAPA 58.01.02.060).

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 Sujata Connell, Lewiston Regional Office at 208-799-4370 or Sujata.Connell@deq.idaho.gov.



John Cardwell

Regional Administrator

Lewiston Regional Office