



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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

February 21, 2018

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 Pierce Wastewater Treatment Facility, Permit #ID0020206

Dear Mr. Lidgard:

The Lewiston Regional Office of the Department of Environmental Quality (DEQ) has reviewed the above-referenced permit for the City of Pierce 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 expressly, or by taking no action.

This letter is to inform you that DEQ is issuing the attached 401 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 blue ink that reads "John Cardwell".

John Cardwell  
Regional Administrator  
Lewiston Regional Office

c: Brian Nickel, EPA Region 10  
Loren Moore, DEQ State Office



## Idaho Department of Environmental Quality Final §401 Water Quality Certification

February 21, 2018

**NPDES Permit Number(s):** City of Pierce Wastewater Treatment Facility, Permit #ID0020206

**Receiving Water Body:** Orofino Creek

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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 I 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 I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II 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 III 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 I protection for that use, unless specific circumstances warranting Tier II 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 Pierce WWTF discharges the following pollutants of concern: five-day biological oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), *E. coli*, pH, ammonia, and total residual chlorine (TRC). Effluent limits have been developed for BOD<sub>5</sub>, TSS, *E. coli*, pH, ammonia, and total residual chlorine (TRC).

### ***Receiving Water Body Level of Protection***

The City of Pierce WWTF discharges to Orofino Creek within the Clearwater Subbasin assessment unit (AU) ID17060306CL039\_04 (Orofino Creek – source to mouth). This AU has the following designated beneficial uses: cold water aquatic life, primary contact recreation, and salmonid spawning. 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 2014 Integrated Report, this receiving water body AU is fully supporting its assessed uses (IDAPA 58.01.02.052.05.a). As such, DEQ will provide Tier II protection in addition to Tier I for this water body (IDAPA 58.01.02.051.02; 58.01.02.051.01).

### ***Protection and Maintenance of Existing Uses (Tier I Protection)***

A Tier I 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 and designated uses and the level of water quality necessary to protect existing and designated uses shall be maintained and protected. In order to protect and maintain existing and designated 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 existing and designated beneficial uses. The effluent limitations and associated requirements contained in the City of Pierce WWTF permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

### ***High-Quality Waters (Tier II Protection)***

Orofino Creek is considered high quality for cold water aquatic life, primary contact recreation, and salmonid spawning. As such, the water quality relevant to cold water aquatic life, primary contact recreation, and salmonid spawning uses of Orofino Creek 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, primary contact recreation, and salmonid spawning uses of the Orofino Creek (IDAPA 58.01.02.052.05). These include the following: BOD<sub>5</sub>, TSS, *E. coli*, pH, ammonia, and TRC. Effluent limits are set in the proposed permit for all 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 Pierce WWTF permit, this means determining the permit's effect on water quality based upon the limits for BOD<sub>5</sub>, TSS, *E. coli*, pH, and total residual chlorine in the current and proposed permits. Table 1 provides a summary of the current permit limits and the proposed permit limits.

**Table 1. Comparison of current and proposed permit limits for pollutants of concern relevant to uses receiving Tier II protection.**

Pollutant	Units	Current Permit			Proposed Permit			Change <sup>a</sup>
		Average Monthly Limit	Average Weekly Limit	Single Sample Limit	Average Monthly Limit	Average Weekly Limit	Single Sample Limit	
<b>Pollutants with limits in both the current and proposed permit</b>								
Biochemical Oxygen Demand (BOD <sub>5</sub> )	mg/L	30	45	—	30	45	—	NC
	lb/day	75	113	—	75	113	—	
	% removal	—	—	—	85%	—	—	
TSS	mg/L	30	45	—	30	45	—	NC
	lb/day	75	113	—	75	113	—	
	% 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
Total Residual Chlorine	µg/L	40	—	100	27	—	80	D
	lb/day	0.1	—	0.3	0.07	—	0.20	
<b>Pollutants with new limits in the proposed permit</b>								
Total Ammonia (as N)	mg/L	—	—	Report	17.8	—	46	New
	lb/day	—	—	—	44.5	—	115	
<b>Report Parameters</b>								
Flow	mgd	—	—	Report	—	—	Report	NC
Temperature	°C	—	—	Report	—	—	Report	NC

<sup>a</sup> NC = no change, I = increase, D = decrease.

The proposed permit limits for other pollutants of concern that have limits in Table 1, BOD<sub>5</sub>, TSS, *E. coli*, pH, and total residual 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 Pierce WWTF includes new limits for Total Ammonia (as N) (Table 1). Ammonia criteria in the proposed permit were calculated using the equations found in IDAPA 58.01.02.250.02.d using the 95<sup>th</sup> percentile pH (7.5) and temperature (16.95 °C). An acute WLA was developed using the maximum concentration ammonia criterion, the 1Q10 flow of 5.9 cfs, and a zone of initial dilution of 21%. A chronic WLA was developed using the continuous concentration ammonia criterion, the 30Q5 flow of 9.57 cfs, and a mixing zone of 25%. These limits were included in the permit to be consistent with Idaho water quality standards pertinent to cold water aquatic life uses (IDAPA 58.01.02.250.02.d). The total ammonia water quality based effluent 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 this pollutant.

### **Pollutants with No Limits**

There are no pollutants of concern without effluent limits.

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

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

### **Mixing Zones**

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a zone of initial dilution encompassing 21% of the 1Q10 stream flow and a mixing zone encompassing 25% of the 30Q5 stream flow of Orofino Creek for ammonia and a zone of initial dilution and mixing zone encompassing 25% of the 1Q10 and 7Q10 stream flows, respectively, 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 Sujata Connell at 208-799-4370 or [Sujata.Connell@deq.idaho.gov](mailto:Sujata.Connell@deq.idaho.gov).



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John Cardwell  
Regional Administrator  
Lewiston Regional Office