



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

February 26, 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 Elk City Wastewater Treatment Facility, Permit # ID-0022012

Dear Mr. Lidgard:

On February 6, 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 Elk City 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

cc: Susan Poulson, EPA Region 10
Stephen Berry, DEQ State Office



Idaho Department of Environmental Quality Final §401 Water Quality Certification

February 26, 2015

NPDES Permit Number(s): Elk City Water and Sewer Association Wastewater Treatment Facility NPDES Permit # ID-002201-2

Receiving Water Body: Elk Creek

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 Elk City Water and Sewer Association 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, temperature, dissolved oxygen, total nitrogen, nitrate plus nitrite, total dissolved solids, and oil and grease. Effluent limits have been developed for BOD₅, TSS, *E. coli*, total residual chlorine, pH, temperature and total ammonia. No effluent limits are proposed for dissolved oxygen, total nitrogen, nitrate plus nitrite, total dissolved solids, and oil and grease.

Receiving Water Body Level of Protection

The Elk City Water and Sewer Association Wastewater Treatment Facility discharges to Elk Creek within the South Fork Clearwater assessment unit (AU) ID17060305CL056_03 (Elk Creek – confluence of Big Elk & Little Elk Creeks to mouth). Elk Creek is undesignated. DEQ presumes undesignated waters in the state will support cold water aquatic life and contact recreation beneficial uses; therefore, undesignated waters are protected for these uses (IDAPA 58.01.02.101.01.a). In addition to these uses, salmonid spawning has been identified as an existing use based on the *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Loads* (2004).

The cold water aquatic life and salmonid spawning uses in the Elk Creek AU are not fully supported due to excess temperature (2012 Integrated Report). Data indicate that the secondary contact recreation beneficial use is fully supported. As such, DEQ will provide Tier 1 protection only for the aquatic life use and salmonid spawning 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 Elk City Water and Sewer Association Wastewater Treatment Facility 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.

The EPA-approved *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Loads* (2004) establishes wasteload allocations for temperature. These wasteload allocations are designed to ensure Elk Creek 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 Elk City Water and Sewer Association Wastewater Treatment Facility permit are set at levels that comply with these wasteload allocations.

In sum, the effluent limitations and associated requirements contained in the Elk City Water and Sewer Association Wastewater Treatment Facility permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the wasteload allocations established in the *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Loads*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in Elk Creek 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)

Elk Creek is considered high quality for recreation beneficial uses. As such, the water quality relevant to recreation beneficial uses of Elk 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 recreation beneficial uses of Elk Creek (IDAPA 58.01.02.052.05). This includes *E. coli* bacteria. Effluent limits are set in the proposed and existing permit for this pollutant.

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 Elk City Water and Sewer Association 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.

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	—	30	45	—	D
	lb/day	45	65	—	30	45	—	
TSS	mg/L	70	105	—	30	45	—	D
	lb/day	70	105	—	30	45	—	
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	—	576	I
Total Residual Chlorine (final)	—	0.5 mg/L	0.75 mg/L	—	27 µg/L	—	47 µg/L	D
	lb/day	0.5	0.75	—	0.027	—	0.047	
Pollutants with new limits in the proposed permit								
Temperature May 1 st – May 31 st	°C	—	—	—	—	—	23	New
	Btu (million)/day	—	—	—	—	—	—	
Temperature (Final), June 1 st – September 30 th , see Table 3 in NPDES permit for flow tier	°C	—	—	—	—	—	See part I.B.9 in NPDES permit	New
	Btu (million)/day	—	—	—	—	—	—	
Total Ammonia (< 6 cfs)	mg/l	—	—	—	9	—	19	New
	lbs/day	—	—	—	9	—	19	
Total Ammonia (≥ 6 cfs)	mg/l	—	—	—	25	—	65	New
	lbs/day	—	—	—	25	—	65	

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

The proposed permit limits for pollutants of concern that have limits in Table 1, BOD₅, TSS, total residual chlorine, and pH, are the same as, or more stringent than, those in the current permit (“NC” or “D” in change column). *E. coli* is shown to have an increase because the current permit used the single sample maximum of 406 *E. coli* organisms per 100 mL value for surface water quality for *E. coli* for primary contact recreation. Elk Creek is presumed to support secondary contact recreation; therefore the permit was changed to reflect the single sample maximum of 576 *E. coli* organisms per 100 mL value for surface water quality for secondary contact recreation (IDAPA 58.01.02.251.01.b). Therefore, since Idaho's 126 organisms per 100 mL geometric mean criteria applies in both the current and proposed permits 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 Elk City Water and Sewer Association Wastewater Treatment Facility includes new limits for temperature and total ammonia (Table 1). Temperature limits were included in the permit to be consistent with the wasteload allocations in the approved *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Loads*. Ammonia limits were included in the permit to be consistent with surface water quality criteria for cold water aquatic life use designations (IDAPA 58.01.02.250.02.d). The temperature and ammonia 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

No effluent limits are proposed for dissolved oxygen, total nitrogen, nitrate plus nitrite, total dissolved solids, and oil and grease. However, monitoring is being required to gather effluent and surface water data to determine the nature and effect of these pollutants on the water quality of the receiving water and determine if additional effluent limitations are needed in the future.

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).

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

Additional Monitoring

The permit requires the Elk City Water and Sewer Association Wastewater Treatment Facility to conduct temperature monitoring upstream from the WWTF outfall. This certification does not require any additional monitoring than those set forth in the NPDES permit.

Mixing Zones

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a mixing zone that utilizes 25% of the critical flow volume of Elk Creek for ammonia and chlorine as in the NPDES permit.

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