



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1118 F Street • Lewiston, Idaho 83501 • (208) 799-4370

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

February 3, 2012

Mr. Michael J. Lidgard, Manager
NPDES Permit Unit
US EPA, Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Subject: Final 401 Water Quality Certification for the Red River Ranger Station NPDES Permit No. ID-002069-9

Dear Mr. Lidgard:

The Idaho Department of Environmental Quality (DEQ) has reviewed the final draft NPDES permit for the Red River Ranger Station Waste Water Treatment Plant. Enclosed with this letter are the State of Idaho's final water quality certification and antidegradation review.

If you have any questions or need further information please contact John Cardwell or me at (208) 799-4370.

Sincerely,

A handwritten signature in blue ink that reads "Clayton Steele".

Clayton Steele
Regional Administrator
DEQ Lewiston Regional Office

c: Barry Burnell, DEQ Water Quality Division Administrator
Doug Conde, Deputy Attorney General
Miranda Adams, DEQ State Office



Idaho Department of Environmental Quality Final §401 Water Quality Certification

February 3, 2012

NPDES Permit Number(s): ID-002069-9 Red River Ranger Station Wastewater Treatment Plant

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended, 33 USC 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, including 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.

MIXING ZONES

Pursuant to IDAPA 58.01.02.060, DEQ authorizes a chronic mixing zone that utilizes 25% of the critical flow volumes (as calculated by Idaho USGS StreamStats) of South Fork Red River for total ammonia and total residual chlorine.

ANTIDEGRADATION

The antidegradation provision in Idaho's WQS requires that existing uses and the water quality necessary to protect existing uses shall be maintained and protected (IDAPA 58.01.02.051.01). In addition, where water quality exceeds levels necessary to support uses, that quality shall be maintained and protected unless DEQ finds, after intergovernmental coordination and public participation, that allowing lower water quality is necessary to accommodate important social or economic development in the area in which the waters are located (IDAPA 58.01.02.051.02).

The Red River Ranger Station discharges its wastewater to the South Fork Red River, which does not fully support its aquatic life beneficial uses due to temperature. The antidegradation review for the proposed permit concludes that effluent limitations and

requirements in the proposed permit are the same or more stringent than those in the current permit. This antidegradation review evaluated effluent limits for biological oxygen demand, total suspended solids, E. coli, pH, chlorine, ammonia and temperature.

The proposed permit has a limit for temperature that does not exist in the current permit. The *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Load* (DEQ 2003) addresses temperature and has been approved by EPA. The effluent limitations in the proposed permit are consistent with applicable waste load allocations in the TMDL and are set at levels which ensure the State's numeric and narrative criteria will be met. Because numeric and narrative criteria are set at levels which protect and maintain beneficial uses, DEQ concludes that the limits and requirements in the proposed permit protect and maintain the existing beneficial uses in the South Fork Red River in accordance with IDAPA 58.01.02.051.01.

DEQ concludes that by following the permit requirements the existing level of water quality in South Fork Red River will be maintained and protected and that there will be no degradation of water quality in accordance with IDAPA 58.01.02.051.02.

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 §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 regarding the actions taken in this certification should be directed to John Cardwell, Lewiston Regional Office at 208-799-4370, or at john.cardwell@deq.idaho.gov.



Clayton Steele, Regional Administrator
IDEQ Lewiston Regional Office

ANTIDegradation REVIEW
NPDES Permit # ID-002069-9
Red River Ranger Station Wastewater Treatment Plant Facility

Idaho Department of Environmental Quality
February 3, 2012

Antidegradation Overview

In March 2011, Idaho incorporated new provisions addressing antidegradation implementation in the Idaho Code. The new antidegradation provisions are in Idaho Code § 39-3603. At the same time, Idaho adopted antidegradation implementation procedures in the Idaho Water Quality Standards (WQS). DEQ submitted the antidegradation implementation procedures to EPA for approval on April 15, 2011. On August 18, 2011 EPA approved Idaho's implementation procedures.

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051). The first level of protection (Tier 1 protection) applies to all water bodies subject to Clean Water Act jurisdiction and assures that existing uses of a water body and the level of water quality necessary to protect the existing uses will be maintained (IDAPA 58.01.02.051.01; 58.01.02.052.01). A Tier 1 review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.05). The second level of protection (Tier 2 protection) applies to those water bodies that are considered high quality and assures that no lowering of water quality will be allowed unless it is deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.06). The third level of protection (Tier 3 protection) applies to water bodies that have been designated outstanding resource waters and requires activities to not cause a lowering of water quality (IDAPA 58.01.02.03; 58.01.02.052.07).

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 (Idaho Code §39-3603(2)(b)(i)). 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 (Idaho Code §39-3603(2)(b)(iii)). The most recent federally-approved Integrated Report and supporting data are used to determine support status and the tier of protection (Idaho Code §39-3603(2)(b)).

Pollutants of Concern

The Red River Ranger Station Wastewater Treatment Plant Facility (Red River Ranger Station) discharges the following pollutants of concern: biological oxygen demand (BOD), total suspended solids (TSS), *E. coli*, pH, chlorine, ammonia, and temperature. Effluent limitations have been developed for BOD, TSS, *E. coli*, pH, chlorine, ammonia and temperature. Monitoring will be conducted during the permit cycle for dissolved oxygen.

Receiving Water Body Level of Protection

Red River Ranger Station discharges to South Fork Red River (assessment unit ID17060305CL040_03). This South Fork Red River (SF Red River) assessment unit (AU) has

the following designated beneficial uses: cold water aquatic life; salmonid spawning; secondary contact recreation; aesthetics; wildlife habitat; and agricultural and industrial water supply. There is no other information indicating the presence of existing beneficial uses other than those that are designated.

Idaho has established a water body-by-water body approach for identifying what level of antidegradation protection DEQ will provide when reviewing whether activities or discharges will comply with Idaho's antidegradation policy. This approach relies upon Idaho's most recent federally approved Integrated Report (IR) of water quality status and readily available data. The cold water aquatic life and salmonid spawning beneficial uses in this SF Red River AU are listed as not fully supported due to temperature (DEQ, 2008 IR). According to Idaho Code §39-3603(2)(b)(iii)(1)), a water body that is identified in the IR as not fully supporting aquatic life uses because of temperature shall, nevertheless, be afforded Tier 2 protection if biological or aquatic habitat parameters show a healthy, balanced biological community is present.

Data provided in the South Fork Clearwater TMDL Appendix D (DEQ 2003) documents the presence of several salmonid species as well as char and non-game species of fish. The SF Red River was also identified as an area of high habitat potential for spring Chinook salmon and as having a good bull trout density. In addition, restoration work on the SF Red River has re-established spawning and rearing habitats in the lower meadow reach of SF Red River. Data from that project (2000-2004) indicate a presence of several species of salmonids and non-game fish. Additional data from 1995 (the most recent data available) showed passing scores for fish, macroinvertebrates, and habitat for this AU. When taken together, the data suggest that there is a healthy and balanced biological community present and that this AU should be afforded Tier 2 protection for aquatic life.

The secondary contact recreational use for the SF Red River assessment unit is unassessed. Water bodies identified in the IR as not assessed are provided an appropriate level of protection on a case-by-case basis using information available at the time of a proposal for a new or reissued permit or license. Idaho Code §39-3603(2)(b)(ii). Bacteria data for the SF Red River AU ID17060305CL040_03 and SF Red River AU ID17060305CL038_04 do not exceed the criteria for secondary recreation beneficial use, thus the secondary contact recreation beneficial use is fully supporting (IDAPA 58.01.02.054). Consequently, DEQ will provide Tier 2 protection for the recreation beneficial use (Idaho Code 39-3603(2)(b)).

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 CWA, and requires a showing 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 WQS. The numeric and narrative criteria in the WQS are set at levels to ensure protection of beneficial uses. The effluent limitations and associated requirements contained in the Red River Ranger Station permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS. Additionally, there is no available information indicating the presence of any existing uses other than the designated uses discussed above. Therefore, the

permit ensures that the level of water quality necessary to protect both designated and existing uses is maintained and protected.

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 any water quality limited water body. TMDLs establish waste load allocations (WLAs) 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. The EPA approved *South Fork Clearwater River Subbasin Assessment and Total Maximum Daily Load* (DEQ 2003) indicates that the SF Red River is not supporting its cold water aquatic life or Salmonid spawning beneficial uses due to elevated temperatures. Therefore, a WLA for temperature was established in the TMDL. In addition to establishing a temperature WLA, the TMDL includes a TSS WLA for the Red River Ranger Station in order to meet sediment targets in the South Fork Clearwater River. These effluent limitations and associated requirements contained in the Red River Ranger Station permit are set at levels that are consistent with these WLAs. Therefore, DEQ has determined the permit will ensure that existing uses and the level of water quality necessary to protect existing uses will be maintained and protected in accordance with IDAPA 58.01.02.051.01, IDAPA 58.01.02.052.05, and 40 CFR 131.12(a)(1).

High Quality Waters (Tier 2 Protection)

The Red River Ranger Station discharges to a segment of the SF Red River that is considered high quality for both recreation and aquatic life uses. As such, the quality of SF Red River must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

In order to determine whether degradation will occur, DEQ must evaluate the effect on water quality of the issuance of the permit for each pollutant that is relevant to the designated beneficial uses of the Red River (IDAPA 58.01.02.052.04). These include *E. coli* for the recreational use and temperature, BOD, TSS, pH, ammonia and residual chlorine for the aquatic life use (Table 2). Effluent limits are set in the proposed and existing permit for all listed parameters except temperature for which a new limit is being proposed.

Pollutants with limits in the current and proposed permit

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 58.01.02.052.04.a). For pollutants that currently are 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 58.01.02.052.04.a.i), and the future discharge quality is based on the proposed permit limits (IDAPA 58.01.02.052.04.a.ii). For the Red River Ranger Station permit this means determining the effect on water quality based on the limits for TSS, BOD, pH, ammonia, residual chlorine and *E. coli*. Table 2 provides a summary of the existing permit limits and the proposed reissued permit limits.

New permit limits for pollutant currently discharged

The only new proposed permit limit is for temperature. The current permit does not have a limit as the permit was written prior to the TMDL. When new limits are proposed in a reissued permit for pollutants in the existing discharge, available discharge quality data or other relevant information shall be considered. The TMDL established a WLA for temperature. Since discharge permits must incorporate limitations that are consistent with approved TMDLs, the proposed temperature permit limit of 23 degrees Celsius is set to maintain and protect water quality.

Table 2: Comparison of proposed permit limits with current permit

Parameter	Units	Proposed Permit			Current Permit		
		Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Five-Day BOD	mg/L	30	45	-	30	45	-
	lb/day	1.6	2.3	-	1.6	2.3	-
	% removal	65%	-	-	65%	-	-
TSS	mg/L	30	45	-	30	45	-
	lb/day	1.6	2.3	-	1.6	2.3	-
	% removal	85%	-	-	65%	-	-
pH	s.u.	6.5 – 9.0 all times			6.5 – 9.0 all times		
<i>E. coli</i>	#/100 mL	126		406	126		406
Total Residual Chlorine (final)	mg/L	0.5	0.75	-	0.5	0.75	-
	lb/day	0.03	0.045	-	0.03	0.045	-
Total Ammonia	mg/L	-	-	Report	-	-	Report
Temperature	°C	-	-	23			

In summary, the proposed permit limits in Table 2 are the same as, or more stringent, than those in the current permit. Based on these considerations, DEQ has concluded that this discharge will have no adverse change in water quality and no degradation will occur.