



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

November 1, 2012

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

Subject: Final 401 Certification for the Ada County Highway District, Boise State University, City of Boise, City of Garden City, Ada County Drainage District #3, and Idaho Transportation Department District #3 Municipal Separate Storm Sewer systems (MS4s); NPDES Permit No. ID-027561

Dear Mr. Lidgard:

On June 8, 2012, EPA provided DEQ with a proposed final draft of the above-referenced permit and requested DEQ provide a final certification of the permits pursuant to section 401 of the Clean Water Act. Upon review of the proposed final permit DEQ prepared a draft §401 certification for this permit and provided 30 days for public comment.

The draft certification was revised due to public comments received. DEQ is requesting that the permit be modified to include discharge monitoring requirements for mercury in Section IV.A.7 of the permit. DEQ now submits the enclosed §401 certification for the final permit.

If you have questions or need further information please contact Lauri Monnot at (208) 373-0461 or by email at Lauri.Monnot@deq.idaho.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Pete Wagner".

Pete Wagner
Regional Administrator
Boise Regional Office

Enclosure: DEQ Final 401 Certification for NPDES Permit No. ID-0027561

C: Barry Burnell, DEQ Water Quality Administrator
Miranda Adams, DEQ 401 Program Coordinator
Lance Holloway, DEQ Boise Regional Water Quality Manager



Idaho Department of Environmental Quality Final §401 Water Quality Certification

November 1, 2012

NPDES Permit Number/Permittees: IDS-027561; Ada County Highway District, Boise State University, City of Boise, City of Garden City, Drainage District #3, and the Idaho Transportation Department District #3

Receiving Water Body: Boise River and associated tributaries

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 Permittees comply 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 discharges 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 individual permit holders 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 MS4 permit addresses the following pollutants of concern, which are associated with Stormwater discharges: Temperature, Total Phosphorus, Sediment, and *Escherichia coli* (*E. coli*).

Receiving Water Body Level of Protection

The MS4 permit authorizes Stormwater discharges to the Boise River, Fivemile Creek, and Tenmile Creek as listed in Table 1. Designated beneficial uses for the associated assessment units (AUs) are identified in Table 1. Beneficial uses include: cold water aquatic life, primary and secondary contact recreation, salmonid spawning, agricultural water supply, industrial water supply, wildlife habitat, and aesthetics. There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated.

The cold water aquatic life use in the Boise River, Fivemile Creek, and Tenmile Creek is not fully supported due to excess sedimentation, temperature, habitat alterations and/or flow alterations (2010 Integrated Report). As such, DEQ will provide Tier 1 protection only for the aquatic life use in all AUs. Please see Table 1 for pollutants causing impairment to each AU. Pollutants of concern apply to all AUs that the Permittees discharge to since addition of a pollutant upstream may impact cold water aquatic life beneficial use attainment downstream. The primary contact recreation beneficial use in the Boise River from Diversion Dam to River mile 50 is fully supported. However, it is not fully supported in the Boise River downstream from River Mile 50, Fivemile Creek and Tenmile Creek due to *E. coli* bacteria. As such, DEQ will provide Tier 1 protection only for the recreation beneficial use in these AUs, and Tier 2 protection, in addition to Tier 1, for the recreational use for the Boise River from Diversion Dam to River Mile 50 (IDAPA 58.01.02.051.02; 58.01.02.051.01).

Table 1.

Receiving Waterbody Assessment Unit/ Description	Designated Beneficial Uses	Pollutant(s) Causing Impairment
ID17050114SW011a_06 Boise River - Diversion Dam to River Mile 50	CWAL SS PCR	Temperature
ID17050114SW005_06 Boise River -River Mile 50 to Star Bridge ID17050114SW005_06a Boise River – Star to Middleton	CWAL SS PCR	Temperature Sediment <i>E. coli</i>
ID17050114SW005_06b Boise River - Middleton to Indian Creek	CWAL SS PCR	Temperature Total phosphorus Sediment <i>E. coli</i>
ID17050114SW001_06 Boise River Indian Creek to the mouth	CWAL PCR	Temperature Total phosphorus Sediment <i>E. coli</i>
ID17050114SW008_03 Tenmile Creek - 3rd order below Blacks Creek Reservoir	CWAL SCR	Sediment <i>E. coli</i>
ID17050114SW010_02 and 03 Fivemile Creek - 1 st and 2 nd order tributaries	CWAL SCR	<i>E. coli</i>
ID17050114SW010_03 Fivemile Creek 3rd order	CWAL SCR	Sediment <i>E. coli</i>

CWAL – cold water aquatic life

SS – salmonid spawning

PCR – primary contact recreation

SCR – secondary contact recreation

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 discharge limitations and associated requirements contained in the MS4 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 load allocations for nonpoint sources and 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 allocations in the approved TMDL.

In the absence of a TMDL and depending upon the priority status for development of a TMDL, the WQS stipulate that either there be no further impairment of the designated or existing beneficial uses or that the total load of the impairing pollutant remains constant or decreases (IDAPA 58.01.02.055.04 and 58.01.02.055.05). Currently, there is no TMDL for temperature or total phosphorus in this watershed. Discharge permits must comply with these provisions of Idaho WQS.

The EPA-approved *Lower Boise River TMDL* (DEQ 1999) establishes load allocations and wasteload allocations for TSS and bacteria. These allocations are designed to ensure the Boise River, Fivemile Creek, and Tenmile 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 discharge limitations and associated requirements contained in the MS4 permit are set at levels that comply with these allocations.

There is no phosphorus TMDL for the impaired Boise River AUs. There is, however, a *Lower Boise River Implementation Plan Total Phosphorus* (DEQ 2008), which outlines actions necessary to meet the nutrient targets set for the Boise River in the Snake River-Hells Canyon TMDL. As noted in the implementation plan, it is anticipated that the implementation of storm water permits, including the MS4, will result in a reduction in the total phosphorus loading to the Boise River. Therefore, the MS4 is consistent with the requirements of IDAPA 58.01.02.055.04.

There is no temperature TMDL for the impaired Boise River AUs. The MS4 requires the SWMPs to include provisions to reduce the discharge of pollutants, including temperature, to the maximum extent practicable. For example, the SWMPs must include industrial and commercial storm water discharge management provisions that will reduce the discharge of pollutants of concern, including temperature. DEQ believes these provisions will result in the reduction of temperature loading to the impaired AU. Therefore, the MS4 is consistent with the requirements of IDAPA 58.01.02.055.04.

In sum, the best management practices and other requirements contained in the MS4 permit are set at levels that ensure compliance with the narrative and numeric criteria in the WQS and the allocations established in the *Lower Boise River TMDL*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Boise River, Fivemile Creek, and Tenmile Creek in compliance with IDAPA 58.01.02.051.01.

High-Quality Waters (Tier 2 Protection)

The Boise River from the Diversion dam to River Mile 50 is considered high quality for primary contact recreation. As such, the water quality relevant to primary contact recreation 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 of the Boise River (IDAPA 58.01.02.052.05). These pollutants include the following: *E. coli*.

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).

Escherichia coli is a pollutant of concern which is relevant to Tier 2 protection of recreation. The permit contains requirements that will result in a reduction of bacteria. The permit requires that the SWMPs contain provisions to reduce to the maximum extent practicable the discharge of pollutants of concern, including bacteria. The provisions in the proposed MS4 are more stringent than the existing permit. DEQ believes that there will be no increase in bacteria as a result of the MS4, and therefore, no degradation. As such, the proposed permit should maintain the existing high water quality in the Boise River.

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

Mercury Limits

Monitoring requirements for mercury were removed from the proposed final permit. Monitoring data collected to characterize effluent during the previous permit cycle does not conclusively show that mercury is not a pollutant of concern for the receiving water bodies. The permit should contain monitoring requirements for total mercury to ensure compliance with Idaho WQS.

DEQ believes a cooperative monitoring effort that pools resources and redistributes them strategically is most prudent for several reasons:

1. Mercury is ubiquitously deposited from the atmosphere and thus all dischargers may be discharging some mercury,
2. Low concentrations of elemental mercury in the water can lead to unhealthful concentrations of methylmercury in consumable fish through a process of bioaccumulation, and
3. The conditions that favor mercury accumulation in fish may occur quite distant from a source of mercury.

A Methylmercury Fish Tissue Monitoring program was initiated by the City of Boise to collect reliable methylmercury fish tissue data, within a specific geographic area, to determine if fish tissue concentrations of methylmercury are compliant with Idaho's methylmercury fish tissue criterion of 0.3 mg/kg. The monitoring program may also be used to advise the public on safe levels of fish consumption. DEQ encourages other entities which have NPDES permitted discharges to water bodies in the lower Boise River watershed to engage in this as a cooperative effort, even if they do not have monitoring requirements or effluent limits for mercury in their permit.

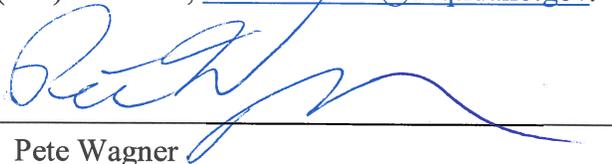
Other Conditions

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 Lauri Monnot, DEQ Boise Regional Office, (208)373-0461, Lauri.Monnot@deq.idaho.gov.



Pete Wagner
Regional Administrator
Boise Regional Office