



Idaho Department of Environmental Quality Draft §401 Water Quality Certification

July 24, 2020

NPDES Permit Number(s): NPDES IDS028100, Middleton MS4 Permit

Receiving Water Body: Lower Boise Watershed (Willow Creek, Mill Slough, and Boise 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 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 Middleton discharges the following pollutants of concern: sediment, nutrients (nitrogen and phosphorus), heat, chlorides, metals, petroleum and hydrocarbons, microbial pollution (*Escherichia coli*) and organic chemicals (pesticides and industrial chemicals).

Receiving Water Body Level of Protection

The City of Middleton discharges to Willow Creek, Mill Slough, and the Boise River within the Lower Boise River Subbasin. The designated beneficial uses for each assessment unit (AU) receiving the discharge are listed in Table 1. DEQ presumes undesignated waters in the state will support cold water aquatic life and primary or secondary contact recreation beneficial uses; therefore, undesignated waters are protected for these uses (IDAPA 58.01.02.101.01.a). 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).

For each affected AU, Table 1 lists impairments and the antidegradation tier assigned to it according to DEQ's 2016 Integrated Report. DEQ assigns a Tier I or a Tier II for aquatic life use and recreational use individually.

If a receiving water body's AU is fully supporting an assessed use (IDAPA 58.01.02.052.05.a) DEQ will provide Tier II protection in addition to Tier I for that use. If a receiving water body's AU is not fully supporting its assessed use (IDAPA 58.01.02.051.01) DEQ will provide Tier I protection for that use.

If a beneficial use (aquatic life use or recreational use) is unassessed, DEQ must provide an appropriate level of protection on a case-by-case basis using information available at this time (IDAPA 58.01.02.052.05.b).

Table 1. Receiving Water Bodies

AU	Name	Designated Uses	Beneficial Use Impairments	Aquatic Life Uses	Recreational Uses
17050114SW015_03	Willow Creek 3 rd Order	Undesignated (COLD & PCR or SCR presumed)	COLD: Sedimentation/Siltation	Tier I	Tier II
17050114SW005_02	Mill Slough and East Hartley Gulch	SS, COLD, PCR	SS: Temperature	Tier I	Tier II
17050114SW005_06b	Boise River-Middleton to Indian Creek	SS, COLD, PCR	SS and COLD: Temperature COLD: TP, Sedimentation/Siltation PCR: Fecal Coliform	Tier I	Tier I

SS=salmonid spawning; COLD=cold water aquatic life; PCR=primary contact recreation; SCR = secondary contact recreation

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 MS4 discharge must reduce the discharge of pollutants to the maximum extent practicable. The terms and conditions contained in the City of Middleton's permit and certification require the permittees to reduce the discharge of pollutants to the maximum extent practicable.

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 (IDAPA 58.01.02.055.05).

Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

The EPA-approved TMDLs listed in Table 2 establish wasteload allocations for sediment, bacteria, and Total Phosphorous (TP). These wasteload allocations are designed to ensure the impaired waterbodies will achieve the water quality necessary to support their existing and designated aquatic life and contact recreation beneficial uses and comply with the applicable numeric and narrative criteria. The effluent limitations and associated requirements contained in the City of Middleton permit are set at levels that are consistent with these wasteload allocations.

Table 2. EPA-Approved TMDLs

AU	Name	Beneficial Use Impairments	Approved TMDL
Willow Creek 17050114SW015_03	Willow Creek 3 rd Order	COLD: Sedimentation/Siltation	<i>Lower Boise River TMDL-2015 Sediment and Bacteria Addendum</i>
Boise River 17050114SW005_06b	Boise River-Middleton to Indian Creek	COLD: TP, Sedimentation/Siltation PCR: Fecal Coliform	<i>Lower Boise River TMDL Subbasin Assessment for Fecal Coliform and Sediment (1999)</i> <i>Lower Boise River TMDL-2015 Total Phosphorus Addendum</i>

SS=salmonid spawning; COLD=cold water aquatic life; PCR=primary contact recreation

Permit parts 2, 3, and 4 provide specific terms and conditions aimed at providing a Tier I level of protection and consistency with the wasteload allocations Lower Boise River watershed TMDLs, including :

- A prohibition on snow disposal directly to surface waters;
- Specific prohibitions for non-stormwater discharges;
- Requirements to develop a stormwater management plan with the following control measures:

- Public education and outreach,
- Illicit discharge detection and elimination,
- Construction site stormwater runoff controls,
- Post-construction stormwater management for new and redevelopment,
- Pollution prevention/good housekeeping for MS4 operations;
- Quantitative monitoring/assessment to determine BMP removal of pollutants of concern in all impaired AUs;
- Requirements for the City of Middleton to implement pollutant reduction activities and quantitative monitoring and assessment for discharges into waterbodies listed in Table 1;
- Requirements for the City of Middleton to monitor and assess temperature in discharges; and
- The stipulation that if either EPA or DEQ determine that a MS4 causes or contributes to an excursion above the water quality standards, the permittee must take a series of actions to remedy the situation.

In summary, the terms and conditions contained in the City of Middleton's permit will reduce the discharge of pollutants to the maximum extent practicable and are consistent with the wasteload allocations established in the TMDLs listed in Table 2. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Tier I waterbodies listed in Table 1 in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

High-Quality Waters (Tier II Protection)

As shown in Table 1, Willow Creek, Mill Slough, and East Hartley Gulch are considered high quality for recreation. As such, the water quality relevant to recreational uses in these waterbodies 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 recreational uses of the Willow Creek, Mill Slough, and East Hartley Gulch (IDAPA 58.01.02.052.05). *E.coli* and nutrients are the relevant pollutants of concern for recreational uses in these waterbodies.

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). NPDES permits for regulated MS4s must include terms and conditions to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements under the Clean Water Act. "Maximum extent practicable" is the statutory standard that describes the level of pollutant reduction that MS4 operators must achieve. The proposed MS4 permit relies on practices to identify and reduce discharge of pollutants to the maximum

extent practicable (Permit parts 2 & 3). Further, the permittees' implementation of these practices must be documented in annual reports to EPA and DEQ and is subject to review and on-site inspections. To ensure discharged stormwater will not degrade receiving waters, the permittees are required to manage the effectiveness of these stormwater management practices, monitor discharge and receiving water quality and, if necessary, adapt its management practices. The City of Middleton must map their MS4 and all associated outfalls (Permit part 3.2.2).

Pollutant reductions should be realized as each element of the stormwater management plan is developed and implemented during the permit cycle. Stormwater control measures, when designed, constructed and maintained correctly have demonstrated the ability to reduce runoff, erosive flows, and pollutant loadings.¹ Due to the nature of MS4 permits, implementation requires investigating and resolving complaints; continual discovery of pollutant sources; use, monitoring, and refinement of BMPs; and additional knowledge through training opportunities. Water quality is expected to improve in the receiving waterbodies and the downstream receiving waters in the lower Boise Watershed as a result of conducting these pollutant reduction activities (Permit part 4.3).

This level of scrutiny and effort combined with requirements to address pollution sources is expected to improve water quality the longer the permit is in effect and result in insignificant or no adverse change in existing water quality significant to recreational uses. Therefore, DEQ has reasonable assurance that at a minimum, no degradation will result from the discharge of pollutants from the City of Middleton's MS4.

In summary, 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

Best Management Practices

Best management practices must be designed, implemented, monitored, and maintained by the permittee to fully protect and maintain the beneficial uses of waters of the United States and to improve water quality at least to the maximum extent practicable.

When selecting best management practices the permittees must consider and, if practicable, utilize practices identified in the Idaho Department of Environmental Quality Catalog of Stormwater Best Management Practices for Idaho Cities and Counties (<http://www.deq.idaho.gov/water-quality/wastewater/stormwater/>).

¹ Urban Stormwater Management in the United States, National Research Council, 2008

Pollutant Reduction Activities in Impaired Waterbodies

In carrying out the requirements of Part 4.3 of the permit, the permittee must define and implement at least two activities that are designed to reduce impairment pollutants from the MS4 to Willow Creek, Mill Slough, and the Boise River.

Temperature Monitoring

The permittee must monitor temperature in stormwater discharges from the MS4 to Willow Creek, Mill Slough, and the Boise River to quantify stormwater impacts to these waterbodies.

Reporting of Discharges Containing Hazardous Materials or Deleterious Material

Pursuant to IDAPA 58.01.02.850, all spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the Boise Regional Office at 208-373-0550 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

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 Kati Carberry, Boise Regional Office at 208-373-0434 or via email at kati.carberry@deq.idaho.gov.

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