



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

March 29, 2021

**NPDES Permit Number(s):** IDS027561 Boise-Garden City Area MS4

**Receiving Water Bodies:** Stewart Gulch, Cottonwood Creek, Crane Creek, Dry Creek, Currant Creek, Spring Valley Creek, Fivemile Creek, Eightmile Creek, Ninemile Creek, and the Boise River

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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***

Boise-Garden City Area 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 Boise-Garden City Area discharges to Stewart Gulch, Cottonwood Creek, Crane Creek, Dry Creek, Currant Creek, Spring Valley Creek, Fivemile Creek, Eightmile Creek, Ninemile Creek, and the Boise River within the Lower Boise River Subbasin. The presumed or designated beneficial uses for each assessment unit (AU) receiving the discharges are listed in Table 1. The designated uses for these waterbodies are identified in the WQS (IPAPA 58.01.02.140.12). 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).

In addition to the waterbodies listed above, the Boise-Garden City Area MS4 system discharges to several conveyances including laterals, drains, and canals that are not within the AU database maintained by DEQ, nor are they part of the National Hydrography Dataset. These conveyances are not designated in Idaho's water quality standards, and, if they are waters of the United States, are considered man-made waterways (IDAPA 58.01.02.010.58). DEQ protects such waterways for the use for which they were developed, namely agricultural water supply (IDAPA 58.01.02.101.02). As such, DEQ will provide Tier I protection only for these conveyances.

For each affected AU, Table 1 lists impairments and the antidegradation tier assigned to it according to DEQ's 2018/2020 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**

HUC	Receiving Waters (Name)	Waterbody Unit	Designated or Presumed Uses	Assessment Unit	Beneficial Use Impairments	Aquatic Life Use	Recreational Use
17050114	Stewart Gulch, Cottonwood and Crane Creeks	SW-12, Stewart Gulch, Cottonwood and Crane Creeks - source to mouth	COLD (Presumed)  SCR (Existing)	17050114SW012_02	COLD: Combined Biota/Habitat SCR: <i>Escherichia Coli</i>	Tier I	Tier I
	Dry Creek	SW-13, Dry Creek – source to mouth	COLD (Presumed)  SCR (Presumed)	17050114SW013_03	Fully Supporting	Tier II	Tier II
	Fivemile Creek, Eightmile Creek, Ninemile Creek	SW-10, Fivemile Creek – Source to Miller Canal	COLD  SCR	17050114SW010_02	COLD: Low Flow Alterations SCR: <i>Escherichia Coli</i>	Tier I	Tier I
	Fivemile Creek			17050114SW010_03	COLD: Cause Unknown, Nutrients Suspected, Chlorpyrifos, Sedimentation/Siltation SCR: <i>Escherichia Coli</i>	Tier I	Tier I
	Boise River	SW-5, Boise River - river mile 50 (T04N, R02W, Sec. 32) to Indian Creek	SS  COLD  PCR	17050114SW005_06	SS and COLD: Temperature COLD: Low Flow Alterations, Physical Substrate Habitat Alterations, and Sedimentation/Siltation PCR: Fecal Coliform	Tier I	Tier I
	Boise River	SW-5, Boise River - river mile 50 (T04N, R02W, Sec. 32) to Indian Creek	SS  COLD  PCR	17050114SW005_06a	SS and COLD: Temperature COLD: Flow Regime Modification, Physical Substrate Habitat Alterations, and Sedimentation/Siltation PCR: Fecal Coliform	Tier I	Tier I
	Boise River	SW-5, Boise River - river mile 50 (T04N, R02W, Sec. 32) to Indian Creek	SS  COLD  PCR	17050114SW005_06b	SS and COLD: Temperature COLD: Flow Regime Modification, Physical Substrate Habitat Alterations, Sedimentation/Siltation, and Total Phosphorus PCR: Fecal Coliform	Tier I	Tier I
	Boise River	Boise River - Diversion Dam to river mile 50 (T04N, R02W, Sec. 32)	SS  COLD  PCR  Domestic Water Supply	17050114SW011a_06	SS and COLD: Flow Regime Modification, Physical Substrate Habitat Alterations	Tier II	Tier II

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 Boise-Garden City Area's permit and certification require the Boise-Garden City Area 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 phosphorus. 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 Boise-Garden City Area permit is set at levels that are consistent with these wasteload allocations.

**Table 2. EPA-Approved TMDLs**

Assessment Unit	Waterbody Name	Beneficial Use Impairments	Approved TMDL
17050114SW012_02	Cottonwood and Crane Creeks - source to mouth	COLD: Combined Biota/Habitat SCR: <i>Escherichia Coli</i>	<i>Lower Boise River TMDL-2015 Sediment and Bacteria Addendum</i>
17050114SW010_02	Fivemile, Eightmile, and Ninemile Creeks-1 <sup>st</sup> and 2 <sup>nd</sup> order	COLD: Low Flow Alterations SCR: <i>Escherichia Coli</i>	<i>Lower Boise River TMDL-2015 Sediment and Bacteria Addendum</i>
17050114SW010_03	Fivemile Creek-3 <sup>rd</sup> order	COLD: Cause Unknown, Nutrients Suspected, Chlorpyrifos, Sedimentation/Siltation SCR: <i>Escherichia Coli</i>	<i>Lower Boise River TMDL-2015 Sediment and Bacteria Addendum</i>
17050114SW005_06	Boise River-Veterans Memorial Parkway to Star Bridge	SS and COLD: Temperature COLD: Low Flow Alterations, Physical Substrate Habitat Alterations, and Sedimentation/Siltation PCR: Fecal Coliform	<i>Lower Boise River TMDL Subbasin Assessment for Fecal Coliform and Sediment (1999)</i>
17050114SW005_06a	SW-5, Boise River - river mile 50 (T04N, R02W, Sec. 32) to Indian Creek	SS and COLD: Temperature COLD: Low Flow Alterations, Physical Substrate Habitat Alterations, and Sedimentation/Siltation PCR: Fecal Coliform	<i>Lower Boise River TMDL Subbasin Assessment for Fecal Coliform and Sediment (1999)</i>
17050114SW005_06b	SW-5, Boise River - river mile 50 (T04N, R02W, Sec. 32) to Indian Creek	SS and COLD: Temperature COLD: Flow Regime Modification, Physical Substrate Habitat Alterations, Sedimentation/Siltation, and Total Phosphorus 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

The Boise-Garden City Area permittee continues to effectively implement stormwater control activities that demonstrate a Tier I level of protection and consistency with the wasteload allocations in the Lower Boise River watershed TMDLs, including:

- Continued implementation of a cooperative jurisdiction-wide Stormwater Management Program (SWMP);
- Continued public education and outreach program to inform the public about stormwater impacts and assessment of those efforts;
- Permittee-led training for personnel, consultants and construction contractors working within the Permittee's rights of way in Boise and Garden City;
- Relevant stormwater management information posted on readily available website(s);
- Ongoing litter removal from the I-84 right of way through the Adopt a Highway Program;
- Current MS4 maps and detailed outfall inventories;
- Policies and protocols for screening and response to illicit discharges into the MS4s;

- Requirements for erosion and sediment controls at all construction sites that disturb one or more acres;
- Ongoing inspection and maintenance of the road/highway systems and other stormwater management facilities in each jurisdiction;
- Ongoing identification and characterization of MS4 outfalls with ongoing dry weather flows;
- Response to spills and spill prevention activities;
- Ongoing MS4 discharge monitoring;
- Continued implementation of green infrastructure techniques where appropriate;
- Continued and updated as needed street, road, highway, and/or public parking lot sweeping management plans;
- Quantitative monitoring/assessment to determine BMP removal of pollutants of concern in all impaired AUs;
- Requirements for Boise-Garden City Area MS4 to monitor and assess temperature in discharges to the Boise River; 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 Boise-Garden City Area's MS4 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, Dry Creek and the Boise River (Diversion Dam to Veterans Parkway 17050114SW011a\_06) is considered high quality for recreation and aquatic life beneficial uses. As such, the water quality relevant to recreation and aquatic life 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 recreation and aquatic life uses of Dry Creek and the Boise River (IDAPA 58.01.02.052.05). Sediment, nutrients (nitrogen and phosphorus), heat, chlorides, metals, petroleum and hydrocarbons, microbial pollution (*Escherichia coli*), and organic chemicals (pesticides and industrial chemicals) are the relevant pollutants of concern for recreational and aquatic life uses in this 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 that identify and reduce discharge of pollutants to the maximum extent practicable (Permit parts 2 & 3).

To ensure discharged stormwater will not degrade receiving waters, the permittees are required to effectively prohibit non-stormwater from entering the MS4; and are required to implement controls to reduce pollutants in MS4 discharges to the maximum extent practicable including implementation of best management practices, control techniques, system design and engineering methods, and other such provisions determined appropriate for the control of pollutants.

In each annual report the permittee must include a general summary of the results of their dry weather screening program activities. Additionally Boise-Garden City Area permittees must submit an enforcement response policy (ERP) or plan for construction site runoff. The ERP must address enforcement of construction site runoff controls for all construction projects within their jurisdiction, to the extent allowable under Idaho state law (Permit part 3.3.6).

With the exception of individual one or two family dwelling development or redevelopment and the infill or redevelopment of public pedestrian infrastructure projects, all new development and redevelopment projects that result in land disturbance of 5,000 square feet or more must control stormwater runoff and ensure that permanent controls or practices are utilized to protect water quality. (Permit part 3.4) The permittee must complete one update to the existing green infrastructure strategy and incorporate consideration of options for additional innovative approaches to control stormwater quality and quantity (Permit part 3.4.2.3).

Pollutant reductions should be realized as each element of the SWMP is implemented and must be updated if necessary to impose the required SWMP control measures. Additionally, the permittee must ensure that their industrial and commercial stormwater management programs include the required SWMP measure components (Permit part 3.6).

Stormwater control measures, when designed, constructed and maintained correctly have demonstrated the ability to reduce runoff, erosive flows, and pollutant loadings.<sup>1</sup> 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

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<sup>1</sup> Urban Stormwater Management in the United States, National Research Council, 2008



no adverse change in existing water quality significant to recreational and aquatic life uses. Therefore, DEQ has reasonable assurance that at a minimum, no degradation will result from the discharge of pollutants Boise-Garden City Area'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](#).

### ***Notification***

The permittee must notify DEQ within 30 days of becoming aware that a discharge from the permittee's MS4 is causing or contributing to an excursion above Idaho Water Quality Standards. Upon notification DEQ may determine that an adaptive management report from the permittee is required.

### ***Temperature Monitoring***

To ensure the permitted discharges will comply with temperature criteria for the protection of aquatic life (IDAPA 58.01.02.250.02.(b), .(f)), the permittee must monitor temperature in stormwater discharges from the MS4 to the Boise River including assessment units 17050114SW005\_06, 17050114SW005\_06a, and 17050114SW005\_06b, to quantify stormwater impacts to this waterbody.

### ***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](mailto:kati.carberry@deq.idaho.gov).



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