Fact Sheet

NPDES Permit Number:	IDS028061
Public Comment Period Issuance Date:	December 19, 2018
Public Comment Period Expiration Date:	February 4, 2019
Technical Contact:	Misha Vakoc (206) 553-6650 or (800) 424-4372 vakoc.misha@epa.gov

The U.S. Environmental Protection Agency (EPA) Proposes to Issue a National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges To:

City of Lewiston and Lewis-Clark State College

The EPA Region 10 proposes to issue a NPDES permit authorizing the discharge of stormwater from all municipal separate storm sewer system (MS4) outfalls owned and/or operated by the City of Lewiston and Lewis-Clark State College. These entities are referred to collectively in this document as "the Permittees." Permit requirements are based on Section 402(p) of the Clean Water Act (CWA), 33 U.S.C. § 1342(p), and EPA regulations for permitting municipal stormwater discharges (40 CFR §§ 122.26, 122.30-35, and 123.35; see also 64 FR 68722 [Dec. 8, 1999] and 81 FR 89320 [Dec. 9, 2016].

The Permit requires the implementation of a cooperative, comprehensive storm water management program (SWMP), and outlines the control measures to be used by the Permittees to reduce pollutants in their stormwater discharges to the maximum extent practicable (MEP), protect water quality, and satisfy the appropriate water quality requirements of the CWA. Annual reporting is required to reflect the status of the SWMP implementation.

This Fact Sheet includes:
- information on public comment, public hearing, and appeal procedures;
- descriptions of the regulated MS4 discharges to be covered under the Permit; and
- explanation of the control measures and other Permit terms and conditions.

The EPA requests public comment on all aspects of the Permit.

State CWA Section 401 Certification

Upon the EPA's request, the Idaho Department of Environmental Quality (IDEQ) has provided a draft certification of the permit under Section 401 of the CWA, 33 U.S.C. § 1341. Comments regarding the certification should be directed to:

Idaho Department of Environmental Quality
ATTN: Sujata Connell, Surface Water Quality Manager
1118 "F" Street
Lewiston, ID 83501

Public Comment and Opportunity for Public Hearing

Persons wishing to comment on, or request a Public Hearing for, the draft Permit must do so in writing by the expiration date of the Public Comment period. A request for Public Hearing must state the nature of the issues to be raised as well as the requester's name, address and telephone number. All comments and requests for Public Hearings must be in writing and should be submitted to the EPA as described in the Public Comments Section of the attached Public Notice.

After the comment period ends, and all comments have been considered, the EPA's Regional Director for the Office of Water and Watersheds will make a final decision regarding permit issuance. If the EPA receives no comments, the tentative conditions in the draft permit will become final. If comments are submitted, the EPA will prepare a response to comments document and, if necessary, will make changes to the draft Permit. After making any necessary changes, the EPA will issue the Permit with a response to comments document, unless issuance of a new draft Permit is warranted pursuant to 40 CFR § 122.14. The Permit will become effective no earlier than thirty (30) days after the issuance date, unless the permit is appealed to the Environmental Appeals Board within 30 days pursuant to 40 CFR § 124.19.

Documents Available for Review

The draft Permit, and other information is available on the EPA Region 10 website at: https://www.epa.gov/npdes-permits/stormwater-discharges-municipal-sources-idaho-and-washington OR https://www.epa.gov/npdes-permits/idaho-npdes-permits. The draft Permit and related materials can be reviewed in person by contacting the EPA Region 10 Operations Office in Boise or in Region 10's Regional Office in Seattle, between 8:30 a.m. and 4:00 p.m. (Mountain Time), Monday through Friday:

U.S. Environmental Protection Agency, Region 10
Idaho Operations Office
950 W. Bannock Street, Suite 900
Boise, ID 83702
(208) 378-5746

U.S. Environmental Protection Agency, Region 10
Office of Water and Watersheds
1200 Sixth Avenue, Suite 155, OWW-191
Seattle, Washington 98101
(800) 424-4372, and request x-0523

For questions regarding the Permit or Fact Sheet, contact Misha Vakoc at the phone number or E-mail listed above. Services for persons with disabilities are available by contacting Audrey Washington at (206) 553-0523.

Table of Contents

Acronyms

ACM	Alternative Control Measure
BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, i.e., the most current version of the *NPDES General Permit for Stormwater Discharges from Construction Activities in Idaho*
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments
DDE	4,4 dichlorodiphenyldichloro-ethylene
DPS	Distinct Population Segment
EFH	Essential Fish Habitat
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
EPA	United States Environmental Protection Agency, Region 10
FR	Federal Register
GI	Green Infrastructure
GSI	Green Stormwater Infrastructure
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
ITD	Idaho Transportation Department
LCSC	Lewis-Clark State College
LA	Load Allocation
LGDP	Lower Granite Dam Pool
LID	Low Impact Develoopment
LLPs	Lewiston Levee and Pumping Plants
mg/L	Milligrams per Liter
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OWW	EPA Office of Water and Watersheds
PCBs	Polychlorinated biphenyls
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TCDD	2,3,7,8 Tetrachlorodibenzo-p-dioxin
TMDL	Total Maximum Daily Load
UA	Urbanized Area
US	United States
USACOE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WA	Washington
WAC	Washington Administrative Code
WDOE	Washington Department of Ecology
WLA	Wasteload Allocation
WQS	Water Quality Standards

1 Introduction

Stormwater is the surface runoff that results from rain and snow melt. Urban development alters the land's natural infiltration, and human activity generates a host of pollutants that can accumulate on paved surfaces. Uncontrolled stormwater discharges from urban areas can negatively impact water quality. The National Pollutant Discharge Elimination System (NPDES) regulations establish permit requirements for discharges from certain municipal separate storm sewer systems (MS4s) located in Census-defined Urbanized Areas. Appendix 2 of this Fact Sheet details the types of pollutants typically found in urban stormwater, and explains the regulatory background for the MS4 permit program.

The terms "municipal separate storm sewer" and "small municipal separate storm sewer system" are defined at 40 CFR §122.26(b)(8) and (b)(16), respectively. MS4s include any publicly-owned conveyance or system of conveyances used for collecting and conveying stormwater that discharge to waters of the United States. MS4s are designed for conveying stormwater only, and are not part of a combined sewer system, nor part of a publicly owned treatment works. Such a system may include roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains. In Idaho, various public entities own and/or operate MS4s, including, but not limited to: cities and counties; local highway districts; Idaho Transportation Department; and colleges and universities.

The U.S. Environmental Protection Agency (EPA) is proposing to issue a NPDES Permit authorizing stormwater discharges from the regulated small MS4s located in the Lewiston Urbanized Area (UA) that are owned and/or operated by the City of Lewiston (City) and Lewis-Clark State College (LCSC). This Fact Sheet explains the rationale for the proposed Permit terms and conditions for these MS4 discharges.

Other entities may have responsibilities to manage MS4 discharges in the Lewiston UA, however this Fact Sheet addresses requirements and responsibilities for the City and LCSC only. For example, Idaho Transportation Department-District #2 (ITD2) owns and/or operates a regulated small MS4 in this area, and the EPA is concurrently proposing a separate NPDES permit to address their discharges. If other Idaho entities own and/or operate a MS4 in this UA, they must seek NPDES permit coverage for those MS4 discharges by submitting a MS4 permit application.[1]

1.1 Applicants, Permit Area, and Permit History

In accordance with CWA Section 402(p), 33 USC § 1342(p), and federal regulations at 40 CFR §122.32, the EPA is proposing to issue a NPDES permit on a system-wide basis for the MS4s owned and/or operated by the City and LCSC located in the boundaries of the Lewiston UA as defined by both the Year 2000 and Year 2010 Decennial Census. See Appendix 3 for maps of the Lewiston UA and other relevant

[1] For example, the EPA notes that 1) this Urbanized Area extends west into the State of Washington; the Cities of Asotin and Clarkston, and Asotin County, WA are also owners/operators of regulated small MS4s, and implement stormwater management programs as required by a similar MS4 permit issued by the WA Department of Ecology; and 2) the Port of Lewiston and the Lewiston-Nez Perce County Regional Airport do not own/operate regulated small MS4s, and are not required to obtain MS4 permit coverage.

information. The Permit Area includes all areas within the Lewiston UA that are served by the City and LCSC MS4s. See also Section 1.3.3 of this Fact Sheet.

Operators	Physical Address
City of Lewiston	1134 F Street Lewiston, Idaho 83501
Lewis–Clark State College	500 8th Avenue Lewiston Idaho 83501-2698

The EPA received the City's MS4 permit application on March 5, 2003, and a progress report dated March 30, 2005, which describes a Storm Water Management Program (SWMP) to reduce pollutants in discharges from the MS4s to the maximum extent practicable (MEP).

In August 2007, the EPA proposed for public comment a draft permit for the City's MS4 discharges, but did not complete all of the necessary procedural steps to issue the final permit as a result of that proposal. The City submitted comments on the 2007 draft permit, including an updated MS4 map and description of its drainage areas which the EPA has referenced during the development of this revised Permit.

LCSC submitted a MS4 permit application in January 2011. In March 2012, the City and LCSC submitted a joint request that the EPA consider them co-Permittees under a single MS4 permit.[2] The EPA recognizes this cooperative working relationship in the Permit, and refers to the City and LCSC collectively as "Permittees."

In June 2012, the EPA shared a preliminary draft MS4 permit with the Applicants and Idaho Department of Environmental Quality (IDEQ). However, the EPA did not propose that revised draft permit for public comment.

In 2016 and 2017, the EPA was working on a general permit that would cover all regulated small MS4s in Idaho. During this period of time, the EPA received comments from the Permittees and other stakeholders on two versions of the draft general permit. The EPA has decided to issue individual permits instead of a general permit. However, the information received, in conjunction with the permit applications from the City and LCSC, has been used to inform the current draft Permit. All of these materials are available as part of the Administrative Record.

1.2 Idaho NPDES Program Authorization

On June 5, 2018, the EPA approved Idaho's application to administer and enforce the Idaho Pollutant Discharge Elimination System (IPDES) program. IDEQ will be taking the IPDES program in phases over a four-year period in accordance with the Memorandum of Agreement (MOA) between IDEQ and the EPA, and subject to EPA oversight and enforcement. IDEQ will obtain permitting authority for the stormwater phase on July 1, 2021. At that time, all documentation required by the permit will be sent to IDEQ rather than to the EPA and any decision under the permit stated to be made by the EPA or

[2] "Co-Permittees," is defined in the federal regulations at 40 CFR 122.26(b) as "a permittee to a NPDES permit that is only responsible for Permit conditions relating to the discharge for which it is operator."

jointly between the EPA and IDEQ will be made solely by IDEQ. Permittees will be notified by IDEQ when this transition occurs.

1.3 Discharge Locations and the Permittees' MS4s

The Permittees' interconnected MS4s in the Permit Area discharge to the Lower Granite Dam Pool, Lindsay Creek, and (to a limited degree) Tammany Creek. In addition, stormwater from the regulated MS4s in the Lewiston UA, including the City and LCSC, flows into the Lewiston Levee and Pumping Plants (LLPs), as discussed below.[3]

See Appendix 3 for maps of the Lewiston UA Permit Area, and associated watershed; and Appendix 4 for a map of the LLPs configuration and flow patterns.

1.3.1 Lower Granite Dam Pool

The Lewiston UA is located at the confluence of the Clearwater River and the Snake River, with the Snake River forming the boundary between Idaho and Washington, and continuing downstream into Washington. Upstream of the City, river flows in both the North Fork Clearwater and Snake Rivers are regulated by multiple dams. Completion of the Lower Granite Dam, 39 miles downstream on the lower Snake River, created an impoundment of water behind the dam that is now known as the Lower Granite Dam Pool (LGDP).[4] The LGDP ends in the Snake River near Asotin, Washington, and in the Clearwater River near Lewiston, and includes the confluence of the Snake and Clearwater Rivers.[5] Water quality description of the LGDP, and the other receiving waters, is provided in Section 1.6 of this Fact Sheet.

1.3.2 Lewiston Levee and Pumping Plants

To compensate for increased water levels, contain the rivers, and protect the City from inundation, the U.S. Army Corps of Engineers (USACOE) built approximately 7.6 miles of levees along the Snake and Clearwater Rivers called the Lewiston Levee and Pumping Plants (LLPs). See map, Appendix 4.

An interconnected series of holding ponds on the landward side of each levee serve to capture interior runoff drainage from the urban area as well as seepage from the levees. At four locations (specifically, Ponds A and B behind the North Lewiston Levee; West Pond behind the West Lewiston Levee; and East Pond behind the East Lewiston Levee), accumulated pond water is periodically pumped through the levees back into the LGDP. Without the pumps, the ponds would exceed their storage capacity and back flood into the City. Pump settings are based on pond storage capacity, and are automatically activated by level switches. Pump intake structures are gated to prevent trash and debris from entering the LGDP.

USACOE also occasionally siphons water from the LGDP back into the ponds for irrigation and to maintain pond water quality. In addition, at two locations, tunnels constructed through the East Lewiston Levee allow both Lindsay Creek and the City's

[3] See Attachment 3 in Lewiston 2007
[4] In its 2014 Integrated Report, IDEQ refers to this waterbody segment as the LGDP, and the EPA uses this nomenclature in the Permit and this Fact Sheet. The EPA notes that the combined confluence is also referred to as *Lower Granite Reservoir*, *Lower Granite Lake,* and/or individually as either the *Snake River* or the *Clearwater River*.
[5] EPA 2003

MS4 to flow directly into the LGDP.[6,7]

1.3.3 Description of the Permittees' MS4s and Discharge Locations

The EPA summarizes the following MS4 descriptions from the permit applications and supplemental information submitted by the City and LCSC. See Appendix 3, Figure 3.4 for a map of general watershed features.

The City is built on four distinct geomorphic features: 1) low-lying flood plains along both sides of the Clearwater River, and along the Snake River, where the Downtown and North Lewiston areas are located; 2) ice-aged flood deposits forming the residential area known as Normal Hill; 3) a gently inclined basalt plateau forming the area known as the Orchards; and 4) a series of steep draws, gullies, ravines, breaklands, etc. around the edge of the Orchards plateau, where the landscape drops off sharply to the west towards Snake River; to the south, towards Tammany Creek, and to the west, towards Lindsay Creek.

The interconnected MS4s belonging to the City and LCSC drain stormwater runoff from the North Lewiston, Downtown/Normal Hill, and Orchards areas as follows:

- North Lewiston includes the Port District, Lewiston Hill, and Northeast Lewiston, and slopes toward the south; this area is served by a variety of MS4 structures that flow to the LLP North Levee infrastructure prior to discharge into the Clearwater Arm of the LGDP.
- The Downtown/Normal Hill area slopes to the north and the west, and is drained by numerous MS4 conveyance structures of various sizes. LCSC, a public state college that occupies approximately 40 acres (~10 city blocks) in the Normal Hill area, maintains a MS4 that includes retention ponds, swales, sub-surface catch basins, collection reservoirs, and associated drainage lines that connect to the City's MS4. The City's MS4 draining from this area to the north/north west flows into the LLP West Levee infrastructure prior to discharge into the Clearwater Arm of the LGDP. Included in this general area description are the Southway, Bryden Canyon, and Country Club subdrainage areas, which slope steeply to the west, and discharge to the Snake River Arm of the LGDP.
- The Orchards area includes a variety of MS4 structures, roadside ditches, and natural drainage ways. The southern portion of the Orchards plateau slopes to the south and east toward Tammany Creek; this area is drained predominately by roadside ditches. Three separate piped and open channel MS4s drain from the Orchards plateau to the north, and converge to discharge into the Clearwater Arm of the LGDP through the LLP East Levee drainage tunnel called the "380 Structure." The eastern portion of the Orchards plateau, including East Lewiston, drains through the MS4 towards Lindsay Creek; Lindsay Creek then flows through its own drainage structure in the LLP East Levee to the Clearwater Arm of the LGDP.
- Finally, through a cooperative agreement with ITD2, the City operates and

[6] Steevens, et al 2005; Schwarz 2004; EPA 2003; USACOE 1972.

[7] Water pumped from the LLPs to the LGDP is a water transfer; water transfers are exempt from NPDES permitting. See 40 CFR §122.3 and EPA 2008c.

maintains State of Idaho highway routes within City limits, which includes storm sewer and culvert maintenance for U.S. Highway 12 and its Frontage Road, U.S. 95 and State Highway 128 in the Downtown and North Lewiston areas. Within City limits, ITD2 retains responsibility for snow removal, culvert maintenance, and maintenance of unimproved roadsides on U.S. 95 and State Highway 128 only.

1.4 Permit Development

The NPDES permitting authority must include terms and conditions in each successive MS4 permit that meet all of the requirements of 40 CFR § 122.34(a)(2) "…..*establish in specific, clear, and measurable terms what is required to reduce the discharge of pollutants to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the CWA. …For permits being issued to a small MS4 for the first time, [the NPDES permitting authority] may specify a period of up to five years from the date of permit issuance for the permittee to fully comply with the permit and to implement necessary best management practices*." [8]

As noted in Section 1.1, the EPA developed other draft permits for the MS4 discharges from the City and LCSC, but has not yet issued a final permit. Because the Permit discussed in this document will be issued for the first time, 40 CFR § 122.34(a)(1) allows the NPDES permitting authority to specify a period of up to five years to fully comply with the conditions of the first term MS4 permit. Although the Permittees each have components of their stormwater management programs (SWMPs) in place, the EPA will allow the Permittees up to 4.5 years to fully implement all required stormwater management control measures as set forth in the Permit.

The EPA has considered a variety of information to develop the Permit terms and conditions, including but not limited to:

- The individual and combined MS4 permit application materials from the City and LCSC;
- Other EPA issued MS4 permits in Idaho;
- Applicable total maximum daily loads (TMDL) analyses, and impaired waters listings by IDEQ for Lindsay Creek and Tammany Creek, and by the State of Washington for the LGDP;
- Updated Urbanized Area maps and boundaries, based on the Year 2010 Census;
- Input from Idaho stakeholders on the EPA's preliminary draft MS4 permit(s);
- EPA guidance and national summary information regarding MS4 permits,[9] including:
    - *Compendium Part 1: Six Minimum Control Measure Provisions*, November 2016;
    - *Compendium Part 2: Post Construction Performance Standards*, November 2016;
    - *Compendium Part 3: Water Quality-Based Requirements*, April 2017;

[8] See 40 CFR §122.34(a), EPA 2016a, and EPA 2016b.
[9] The EPA documents listed here are available at https://www.epa.gov/npdes/stormwater-discharges-municipal-sources

- *Summary of State Post Construction Stormwater Standards*, July 2016;
- The EPA's November 2014 Memo entitled *Revisions to the November 22, 2002 Memorandum "Establishing TMDL Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs*;" and the
- *MS4 Permit Improvement Guide*, April 2010.

- Conclusions and recommendations from the National Research Council Report entitled *Urban Stormwater Management in the United States*, dated October 2008;
- Technical developments in the field of stormwater management, including recent research and information on the effective and feasible methods for the on-site management and treatment of stormwater using practices commonly referred to as "low impact development" (LID), "green infrastructure" (GI) and/or "green stormwater infrastructure" (GSI) techniques.
- Other MS4 permits issued by the EPA for regulated MS4s in Washington, Puerto Rico, Massachusetts, and New Mexico, as well as MS4 permits issued by other state NPDES permitting authorities.

A partial list of references supporting the development of the Permit is provided in Section 6 of this Fact Sheet; additional references are available in the Administrative Record for the Permit.

1.5 Average Annual Precipitation in the Lewiston Urbanized Area

The National Oceanic and Atmospheric Administration's (NOAA's) Western Regional Climate Center maintains historical climate information for various weather stations throughout the western United States. The Lewiston area has an annual average precipitation of approximately 12.62 inches, and an annual average snowfall of approximately 15.2 inches.

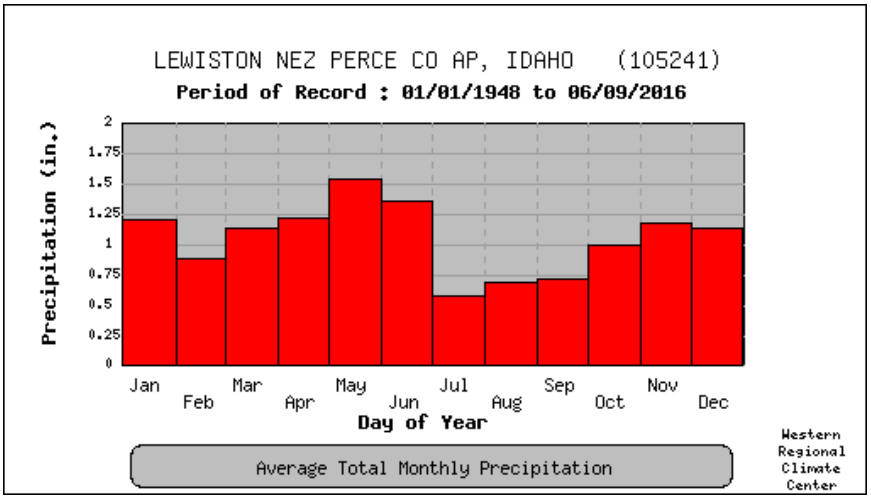


Figure 1. Average Total Monthly Precipitation in the Lewiston, Idaho Area.

1.6 Receiving Waters

The EPA intends to issue the Permit authorizing discharges from the MS4s owned and/or operated by the City and LCSC in the Lewiston UA to waters of the United States that include LGDP, Lindsay Creek, and Tammany Creek. All discharges to waters of the U.S. in the Permit Area must also comply with any limitations that may be imposed by the State as part of its water quality certification pursuant to CWA Section 401, 33 U.S.C. §1341. See also Section 3.5 of this Fact Sheet.

IDEQ has classified these waterbodies as fresh water with designated beneficial uses as listed in Table 1.

NPDES permit conditions must also meet the applicable water quality requirements of affected States other than the State in which the discharge originates, which may include downstream States.[10] The portion of the Snake River that flows into Washington is called Lower Granite Lake. Therefore, in addition to meeting Idaho water quality requirements, the permit conditions must also meet the State of Washington water quality standards. Table 1 includes the applicable water quality standards for Washington.

Table 1. Designated Beneficial Uses for Waters Receiving Regulated MS4 Discharges

Receiving Water	Citation from IDAPA or WAC	Designated Beneficial Uses*
Lower Granite Dam Pool	58.01.02.120.08	Cold water aquatic life, primary contact recreation, domestic water supply.
Lindsay Creek	58.01.02.120.08	Cold water aquatic life and secondary contact recreation.
Tammany Creek	58.01.02.130.02	Cold water aquatic life and secondary contact recreation.
Snake River (*Asotin River to Lower Granite Dam Pool*)	58.01.02.130.02	Cold water aquatic life, primary contact recreation, domestic water supply.
Snake River (*Washington Portion - Lower Granite Lake*)	WAC 173-201A-602	Salmonid spawning, rearing and migration; primary contact recreation; domestic, industrial, and agricultural water supply; stock watering; wildlife habitat; harvesting; commerce and navigation; boating; and aesthetics

**Note: All waters in Idaho must also be protected for industrial and agricultural water supply, wildlife habitats, and aesthetics.*

1.6.1 Anti-degradation

IDEQ completed a draft anti-degradation analysis as part of its CWA Section 401 certification for the Permit; see Appendix 1 of this Fact Sheet. Upon receipt of the final CWA Section 401 certification from IDEQ, the EPA will review the anti-degradation analysis to ensure it is consistent with the State's CWA Section 401 certification requirements and the State's anti-degradation implementation procedures.

[10] See 40 CFR §122.44(d).

1.6.2 Water Quality and Total Maximum Daily Loads

Any water body that does not, and/or is not, expected to meet the applicable State water quality standards is described as "impaired" or as a "water quality-limited segment." Section 303(d) of the CWA requires States to identify impaired water bodies in the State and develop TMDL management plans for those impaired water bodies. TMDLs define both WLAs for point sources and load allocations (LAs) for non-point sources that specify how much of a particular pollutant can be discharged from both regulated and unregulated sources, respectively, such that the water body will again meet State water quality standards.

IDEQ's 2014 Integrated Section 303(d)/Section 305(b) Report (2014 Integrated Report) contains the list of impaired water bodies in Idaho required by CWA Section 303(d). [11] Similarly, the Washington Department of Ecology's (WDOE) 2014 Water Quality Assessment Report lists impaired water bodies in Washington. The table below summarizes the status of waters receiving the MS4 discharges covered by the Permit, including: the waterbody assessment units, or segments, that IDEQ and WDOE considers impaired; and the status of any applicable TMDL(s) for those segments.

See Appendix 3, Figure 3.4 of this Fact Sheet for a map of the Lewiston City boundaries relative to the surrounding watersheds.

Table 2. Status of Waters Receiving Regulated MS4 Discharges

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Lower Granite Dam Pool	ID17060306CL001_07 *Lower Granite Dam Pool*	None- Fully Supporting beneficial uses.	Not applicable.
Lindsay Creek	ID17060306CL003_02 Lindsay Creek -*Source to mouth* ID17060306CL003_03 Lindsay Creek - *Source to mouth*	*E.* coli Nutrient/ Eutrophication Biological Indicators Sedimentation/ Siltation	*Lindsay Creek Watershed Assessment and Total Maximum Daily Loads*, December 2006, Amended March 2007. Approved, June 2007.
Tammany Creek	ID17060103SL014_02 *WBID 015 to unnamed trib.* ID17060103SL014_03 *Unnamed Trib. to mouth* ID17060103SL016_02 *Source to Unnamed Trib.*	*E. coli* Nitrogen, Nitrate, Total Phosphorus Sedimentation/ Siltation	*Tammany Creek Watershed(HUC 17060103) TMDL Addendum;* September 2010. Approved, December 2010.

[11] The IDEQ's 2014 Integrated Report is available online at: https://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report.aspx.

Table 2. Status of Waters Receiving Regulated MS4 Discharges			
Receiving Water	**Waterbody Assessment Unit**	**Impairment Pollutants**	**TMDL Status**
Snake River	ID17060103SL001_0*8 Snake River - Asotin River (Idaho/Oregon border) to LGDP*	Temperature	No TMDL completed.
Snake River *(Washington Portion)*	170601070201_01_01 Snake River (Lower Granite Lake)	Total Dissolved Gas	*TMDL for Lower Snake River Total Dissolved Gas,* August 2003. WDOE Publication No. 03-03-020; EPA Approved,{date unknown).
		2,3,7,8 Tetrachlorodibenzo-p-dioxin (TCDD, or Dioxin)	*TMDL to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin,* February 1991.
		pH Temperature Dissolved Oxygen Polychlorinated biphenyls (PCBs); 4,4' dichlorodiphenyldichloro-ethylene (DDE)	No TMDL(s) completed.

As previously described in Section 1.3 of this Fact Sheet, Lindsay Creek is a tributary of the Clearwater River; Tammany Creek is a tributary of the Snake River, and the confluence of the Snake and Clearwater Rivers form the Lower Granite Dam Pool.

IDEQ lists the Snake River Arm of the LGDP as impaired for temperature. IDEQ's TMDL for Tammany Creek establishes WLAs for stormwater point sources discharging nutrients, bacteria, and sediment to impaired segments. IDEQ's TMDL for Lindsay Creek establishes municipal stormwater WLAs for bacteria and sediment, but does not assign a WLA for nutrients.

Downstream of the Lewiston UA, WDOE considers the portion of the Snake River known as Lower Granite Lake to be impaired for total dissolved gas; 2,3,7,8 tetrachlorodibenzo-p-dioxin (TCDD, or dioxin); pH, temperature, dissolved oxygen, polychlorinated biphenyls (PCBs); and 4,4 dichlorodiphenyldichloro-ethylene (DDE). TMDLs have been completed for total dissolved gas and dioxin, but neither TMDL contains WLAs for municipal stormwater discharges. Specifically, WDOE's 2003 *TMDL for Lower Snake River Total Dissolved Gas* identifies water spilling over dams on the Snake River as the cause of total dissolved gas levels above the state water quality criteria, and establishes associated load allocations only for those Snake River dams. With regard to dioxin, the EPA issued the multi-state *TMDL to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin* in 1991. This TMDL for dioxin establishes WLAs only for chlorine bleaching pulp mills, and does not establish WLAs or LAs for other point or non-point

sources, nor identify any specific actions or expectations for potential sources of dioxin.

See Appendix 6 of this Fact Sheet for further discussion of these impaired waterbodies, and the associated TMDLs.

NPDES permit terms and conditions for regulated stormwater discharges must be consistent with the assumptions and requirements of WLAs in TMDLs.[12] In general, the EPA's guidance recommends that the NPDES permitting authority use BMPs to implement applicable WLAs and load reduction targets in a MS4 permit. When using BMPs as narrative permit limitations to implement a WLA or load reduction target, the NPDES permit must include a monitoring mechanism to assess compliance.[13]

To ensure that the Permit is consistent with the assumptions of the WLAs in the IDEQ TMDLs mentioned above, the Permit requires the Permittees to conduct at least two (2) pollutant reduction activities, and appropriate monitoring/assessment activities. The Permittees must develop and submit descriptions of their selected pollutant reduction and monitoring/assessment activities within 180 days of the Permit effective date. Upon EPA and IDEQ review, the EPA will revise the Permit to incorporate explicit reference to those specific activities. Additional discussion of the EPA's rationale for these provisions is provided in Section 2.5 of this Fact Sheet.

In the event that the EPA approves other TMDLs for the receiving waters listed above and those TMDL(s) contain WLA(s) for one or more regulated MS4s, the EPA may, after consultation with IDEQ, choose to modify the Permit to incorporate additional provisions, if needed. Permit Part 8.1 addresses such a permit modification, consistent with the NPDES regulations at 40 CFR §§ 122.62, 122.64 and 124.5.

[12] See: 40 C.F.R. §§ 122.34(c)(1) and 122.44(d)(1)(vii)(B).
[13] See: EPA 1996; EPA 2002; EPA 2014a; EPA 2014b; and EPA 2016b.

2 Basis for Permit Conditions

2.1 General Information

NPDES permits for regulated small MS4s must include terms and conditions to reduce the discharge of pollutants from the MS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements under the CWA. At a minimum, MS4 permit terms and conditions must satisfy the requirements set forth in the federal regulations at 40 CFR § 122.34(a) through (e).

MEP is the statutory standard that describes the level of pollutant reduction that MS4 operators must achieve. What constitutes MEP "should continually adapt to current (*water quality*) conditions and BMP effectiveness, and should strive to attain water quality standards."[14] Neither the CWA nor the stormwater regulations provide a precise definition of MEP which provides for maximum flexibility in MS4 permitting.

The EPA has described the iterative process of imposing the MS4 standard, including what is necessary to reduce pollutants to the MEP, over consecutive (future) permit terms as: (1) the NPDES permitting authority defining clear, specific, and measurable NPDES permit requirements; (2) the MS4 Permittee implementing the required actions as part of a comprehensive program; and (3) the NPDES permitting authority and MS4 Permittee evaluating the effectiveness of BMPs used to date, current water quality conditions, and other relevant information.[15]

All MS4 permits must include terms and conditions that are "clear, specific, and measurable," and consist of narrative, numeric, and/or other types of requirements. Examples include: implementation of specific tasks or practices; BMP design requirements; performance requirements; adaptive management requirements; schedules for implementation, maintenance, and/or frequency of actions.[16]

As discussed in Section 1.4 of this Fact Sheet, this is the first permit for the City and LCSC, and the Permit allows them to work towards compliance with the required terms and conditions during the first 4.5 years (5-year permit term) to establish compliance with the terms and conditions. In order for Permittees to comply with the MS4 standard, the EPA has defined the stormwater management control measures and evaluation requirements that Permittees must implement. To reduce the discharge of pollutants from the MS4s to the MEP, Permittees must implement and enforce the stormwater management control measures outlined in Permit Part 3 (*SWMP Control Measures*). To protect water quality, Permittees must conduct monitoring and/or assessment activities targeted at reducing the impairment pollutants of concern in Permit Part 4 (*Special Conditions for Discharges to Impaired Waters*). Where Permittees' MS4 discharge(s) may be contributing to an ongoing excursion above an applicable water quality standard, and a long-term solution is needed to address the MS4 contribution, the Permit establishes an adaptive management process in Permit Part 5 *(Required Response to Excursions of Idaho Water Quality Standards*). Evaluation and reporting requirements are outlined in Permit Part 6 (*Monitoring, Recordkeeping and Reporting*).

[14] EPA 1999, pages 68753-68734/
[15] EPA 2016 pages 89338.-89339; 40 CFR 122.34(a)(2)
[16] See 40 CFR 122.34(a).

2.2 Discharges Authorized By The Permit

Permit Part 1.2 conditionally authorizes municipal stormwater discharges, and certain types of non-stormwater discharges, from the Permittees' MS4s in the Permit Area, provided that the Permittees comply with the Permit's terms and conditions. Where monitoring or other information shows that a pollutant in a Permittee's MS4 discharge is causing or contributing to an ongoing excursion above the applicable Idaho water quality standard, the Permittee must comply with the notification and other adaptive management requirements in Permit Part 5 (*Required Response to Excursions of Idaho Water Quality Standards*). See also Section 2.6 of this Fact Sheet.

The Permit outlines conditions and prohibitions related to snow disposal (Permit Part 2.2); stormwater discharges associated with industrial and construction activities (Permit Part 2.3); and discharges unrelated to precipitation events (i.e., "non-stormwater discharges;" Permit Part 2.4) that are consistent with the requirements found in other MS4 NPDES Permits issued by the EPA in Idaho.

The EPA acknowledges that, in some urban Idaho watersheds, non-stormwater sources (in the form of landscape irrigation, springs, rising ground waters, and/or groundwater infiltration) are routinely present during dry weather discharges from the MS4(s). The Permit requires the Permittees to determine whether a detected dry weather MS4 discharge is an "allowable" discharge. Section 2.4.2 of this Fact Sheet discusses the related dry weather outfall screening requirements included as Permit Parts 3.2.5 and 3.2.6.

2.3 Permittee Responsibilities

Permit Part 2.5 outlines Permittee responsibilities. In general, each Permittee is independently responsible for Permit compliance related to their MS4 and associated discharges.

40 CFR §122.33(b)(2)(iii) allows regulated MS4 entities to jointly apply as a group to obtain discharge authorization under an individual permit. Once a permit is issued to the group, each entity is responsible for compliance with the Permit's terms and conditions. A written agreement between the parties is required to clarify agreed-upon roles and responsibilities. In their March 2012 joint application letter, the City and LCSC identified their intention to develop such an agreement during the first year of the Permit.

Permit Part 2.5.3 allows a Permittee (or Permittees) to implement one or more of the control measures by sharing responsibility with an outside entity other than another MS4 Permittee. The Permittee(s) must enter into a written agreement with the outside party in order to minimize any uncertainty about the other entity's responsibilities to the Permittee. The Permittee(s) remain responsible for compliance with the Permit obligations in the event the other entity fails to implement the control measure (or any component thereof).[17]

Permit Part 2.5.4 requires the Permittees to maintain adequate legal authority to implement and enforce the required SWMP control measures as allowed and authorized pursuant to applicable Idaho law.[18] Without adequate legal authority or other

[17] See 40 CFR §122.35.
[18] See EPA 2010

mechanisms that allow control over what enters or discharges from the MS4, the Permittee cannot perform vital stormwater management functions, such as conducting inspections, requiring installation and proper operation of pollutant control measures within its jurisdiction, and/or enforcing such requirements. In the event that such legal authority does not currently exist, the EPA provides the Permittee with a compliance deadline of 4.5 years to establish the necessary authority to comply with the Permit. The EPA recognizes that special purpose entities (like colleges and universities) do not have formal ordinance authority. In such cases, the EPA expects the Permittee to control pollutants into and from the MS4 by using all relevant regulatory mechanisms available pursuant to applicable Idaho law.

Permit Part 2.5.5 requires each Permittee (or the Permittees as a group) to develop, and update as necessary, a written SWMP Document.[19] The SWMP Document summarizes the physical characteristics of the MS4, and describes how the Permittee conducts the required SWMP control measures in its jurisdiction. The EPA has provided a suggested format for the SWMP Document as an appendix to the Permit, and notes that other MS4 Permittees have already developed such documents that can be used as examples.[20] The SWMP Document addresses three audiences and purposes:

1. General Public – The written SWMP serves to inform and involve the public in implementation of the local SWMP;
2. The EPA and IDEQ - The written SWMP provides the permitting authority a single document to review to understand how the MS4 Permittee will implement its SWMP and comply with Permit requirements; and
3. Elected officials and local staff - The written SWMP can potentially be used by the Permittee(s) as an internal planning or briefing document.

The SWMP Document should also describe the Permittee's unique implementation issues such as cooperative or shared responsibilities with other entities.

The requirement for the Permittee(s) to develop a SWMP Document is an enforceable condition of the Permit. However, the contents of the SWMP Document are not directly enforceable as requirements of the Permit. As a result, the Permittee(s) may create and subsequently revise the SWMP Document, as necessary, to reflect how the stormwater management activities are implemented in compliance with the Permit. Therefore, updates to the SWMP Document may occur without approval by the EPA or IDEQ.

The first iteration of the Permittee's SWMP Document must be available to the EPA, IDEQ, and the public by posting the Document on a publicly available website (required by Permit Part 3.1.8) no later than the due date of the 1st Year Annual Report. If

[19] See 40 CFR §122.34(b) and discussion of the relationship between the SWMP and required permit terms and conditions in *EPA 2016b* at pages 89339-89341. In contrast, the purpose of the Annual Report is to summarize the Permittee's activities during the previous reporting period, and to provide an assessment or review of the Permittee's compliance with the Permit.

[20] See, for example, SWMP plan documents authored by the City of Coeur d'Alene (http://www.cdaid.org/files/Engineering/Storm waterManagementPlan.pdf); City of Nampa (http://www.cityofnampa.us/DocumentCenter/View/1513); and Boise State University (http://www.partnersforcleanwater.org/media/182277/2014_boise_state_university_swmp.pdf). Other examples include the Cities of Bellevue, WA; Tacoma, WA; and/or available through the Permit's Administrative Record.

applicable, the SWMP Document must be updated to include any waterbody specific requirements pursuant to Permit Part 4, no later than the due date of the 2nd Year Annual Report. Finally, the SWMP Document must be updated to reflect the Permittee's current implementation of their control measures and submitted with the Permit Renewal Application, as required by Permit Part 8.2 no later than 180 days prior to the expiration date of the Permit.

Permit Part 2.5.6 requires the Permittees to track indicator statistics and information to document and report on SWMP implementation progress.

Permit Part 2.5.7 requires the Permittees to provide adequate financial support, staffing, equipment, and other support capabilities to implement the SWMP control measures and other Permit requirements. The Permittees demonstrate compliance with this provision by fully implementing the requirements of the Permit. Permittees are not required to keep track of, or report, their implementation costs, though it might be appropriate and helpful for the Permittees to track their program investment in some manner. The Permit does not require specific staffing or funding levels, thus providing flexibility and incentive for Permittees to adopt the most efficient methods to comply with Permit requirements. The EPA encourages Permittees to establish stable funding sources for ongoing SWMP implementation, and enter cooperative working relationships with other regulated small MS4s. Technical resources, such as the *Water Finance Clearinghouse* developed by the EPA's Water Infrastructure and Resiliency Finance Center,[21] are available to help Permittees identify sustainable funding solutions. The EPA supports comprehensive long-term planning to identify investments in stormwater infrastructure and system management that complement other community development initiatives and promote economic vitality.

Permit Part 2.5.8 requires Permittees to extend their stormwater control measures to all areas under their direct control when new areas served by the MS4 are annexed, or when areas previously served by the MS4 are transferred to another entity. Permittees must report changes in ownership or operational authority to the EPA and IDEQ through the SWMP Document and Annual Reports. Permittees are reminded to make associated revisions to MS4 system maps or other records as soon as possible.

2.3.1 Alternative Control Measure Requests

The Permit requires the implementation of stormwater management program (or SWMP) control measures, or control measure components. Where a Permittee must revise or update SWMP control measures, or control measure components, full implementation must be accomplished no later than 180 days prior to the Permit expiration date. To provide implementation flexibility, the Permit allows the Permittees the discretion to submit requests to implement one or more Alternative Control Measures (ACM).

As outlined in Permit Part 2.6.1, a Permittee may submit supplemental or individualized documents, plans, or programs that are deemed equivalent to a comparable SWMP control measure, or control measure component, in Permit Part 3, along with supporting rationale and information. Requests for ACM(s) must be submitted no later than 180 days after the Permit effective date to ensure that the EPA and IDEQ have adequate

[21] See: https://www.epa.gov/waterfinancecenter

time to review the request(s).[22] Upon determining that the ACM request(s) is equivalent to a comparable Permit SWMP control measure, or control measure component, and results in a modification of the Permit terms and conditions, the EPA will provide opportunity for public comment and, if requested, a public hearing. The EPA will consider all comments received on the ACM and resulting change in permit terms and conditions before issuing a final agency decision.[23]

The opportunity for ACM(s) relative to any SWMP control measure, or control measure component, in Permit Part 3 offers the Permittee maximum flexibility for SWMP implementation. For example, the Permittees may request the EPA and IDEQ to consider an alternative means of implementing a SWMP control measure as a whole (such as the Construction Site Runoff control measure specified by Part 3.3); or, the Permittees may request the EPA consider an alternative SWMP control measure component, such as the specific requirement in Part 3.3.3 (*Construction Site Runoff Control Specifications*).

Pursuant to Permit Part 2.6.2, an ACM also includes the Permittee's individual or collective plans or programs to address discharges to impaired waters, as specified by Permit Part 4 (*Special Conditions for Discharges to Impaired Waters*). The opportunity to modify the Permit to incorporate specific monitoring/assessment and pollutant reduction activities offers flexibility for Permittees to specify how they intend to make continued progress toward applicable TMDL targets for their watershed. A Permittee may work independently, or with others, to conduct reasonable, meaningful, and necessary actions that reduce pollutants from the MS4 and protect water quality.

2.4 SWMP Requirements

Permit Part 3 contains the clear, specific, and measurable requirements to address the minimum control measures in 40 CFR § 122.34(a) and (b) that serve to reduce pollutants in MS4 discharges to the MEP. For each control measure, the EPA has outlined specific tasks, BMPs, design requirements, performance requirements, adaptive management requirements, schedules for implementation and maintenance, and/or frequency of actions. Each minimum control measure is comprised of actions and activities that the EPA refers to as SWMP *control measure components.*

The EPA considered the individual and combined City and LCSC permit applications, other related materials, and the existing SWMPs implemented by other MS4 Permittees in Idaho during development of the Permit terms and conditions. The Permit establishes expectations for the level of effort necessary to reduce pollutants in MS4 discharges and therefore defines the MS4 permit standard for the City and LCSC. The EPA recognizes that each regulated MS4 is unique, and that each operator has different circumstances that guide their approach to stormwater management and pollutant control. To address these unique circumstances, the Permit allows implementation flexibility, while setting consistent expectations through clear, specific, and measurable permit requirements.

2.4.1 Public Education, Outreach, and Public Involvement/Participation

Permit Part 3.1 addresses the required SWMP control measures for public education, outreach, and involvement requirements consistent with 40 CFR §§ 122.34(b)(1) and

[22] Pursuant to Permit Part 8.1, no provision is stayed until the modification process to recognize the ACM is complete.
[23] EPA 2016b.

(b)(2). Public education, outreach, and involvement are essential parts of any plan to reduce stormwater pollutants, because the daily activities of people contribute significantly to the types and sources of pollutants in urban settings. As citizens learn about the impacts of their actions on local water resources, they are more likely to change their behaviors.

The Permittees' individual and combined application materials refer to a range of public education and public involvement actions related to stormwater management.[24] The EPA strongly encourages the Permittees to work cooperatively with others in the Lewiston area, and throughout the State, to choose education and public involvement activities that are both meaningful and relevant to their local needs.

When scoping their intended activities, the EPA also recommends that Permittees consider the recommendations found in the EPA document, *Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways to Engage Neighboring Communities*. See also Section 3.1 of this Fact Sheet.

The Permit contains the following Public Education, Outreach, and Involvement SWMP control measure components:

- Permit Part 3.1.1 establishes a compliance deadline of one year from the Permit effective date for the Permittees to begin, or update and continue, their public education, outreach, and involvement activities in the Permit Area. This provision also establishes a deadline of 180 days after the effective date of the permit for the submission of any ACM Request under this provision.
- Permit Part 3.1.2 specifies requirements for the Public Education, Outreach and Involvement Program. To the extent allowable pursuant to the authority granted the Permittee under Idaho law, the Permittees must work to educate and engage interested stakeholders in the development and implementation of the SWMP control measures.
- Permit Part 3.1.3 requires the Permittees to distribute and/or offer a minimum of eight educational messages to at least one of the four audiences listed in Part 3.1.4 during the Permit term.
- Permit Part 3.1.4 identifies target audiences (i.e., General Public; Business/Industrial/Commercial/Institutions; Construction/Development Professionals; and Elected Officials, Land Use Policy and Planning Staff). For each audience, the Permit includes a non-exclusive list of suggested topics for the Permittees to consider as its focus during the Permit term.
- Permit Part 3.1.5 requires the Permittees to assess, or to participate in an effort to assess, the understanding and adoption of behaviors by the target audience(s). A vital, yet challenging, component of a successful education program is the assessment of whether the Permittees' efforts are achieving the goals of increasing public awareness and behavior change to improve water quality. The EPA recognizes and encourages the long-term nature of such assessment activities, and notes that there may be opportunities for the Permittees to work together within the

[24] See: Lewiston 2003; LCSC 2011.

State, or with other watershed organizations, on specific MS4 topics if they choose to do so.

- Permit Part 3.1.6 requires the Permittees to maintain records of its education, outreach, and public involvement activities.
- Permit Part 3.1.7 requires the Permittees to provide educational opportunities related to certain SWMP control measures at least twice during the Permit term. The Permittees may plan opportunities in a manner such that the relative success of their educational efforts can be articulated as required by Permit Part 3.1.5.
- Permit Part 3.1.8 requires the Permittees to maintain and promote at least one publicly-accessible website to provide relevant SWMP information to the public. Relevant SWMP information includes the Permittees' SWMP Document(s), links to relevant public education material, and easily identifiable (and up to date) Permittee contact information such that members of the public may easily call or email to report spills or illicit discharges, and/or ask questions, etc.

2.4.2 Illicit Discharge Detection and Elimination

Permit Part 3.2 contains requirements for the Permittees to address illicit discharges and spill response within their jurisdictions. At a minimum, the EPA requires the Permittees to maintain the ability to prohibit, detect, and eliminate illicit discharges from their MS4s.

The purpose of this SWMP control measure is to require the Permittees to provide ongoing surveillance and deterrence to prevent pollutant loadings caused by illicit discharges into the Permittees' MS4s. Illicit discharges can enter the MS4 through direct connections (e.g., wastewater piping mistakenly or deliberately connected to the storm drains), or through indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain inlets, or discarded paint or used oil dumped directly into a drain). Both types of illicit discharge can contribute excessive pollutants into the MS4, and as a result, can negatively affect water quality. Investigating for and eliminating such illicit discharges from entering the MS4 improves water quality.

The Permittees are responsible for the quality of the discharges from their MS4 and, therefore, have an interest in locating and discontinuing any uncontrolled non-stormwater discharges into and from their MS4.

The Illicit Discharge Detection and Elimination (IDDE) SWMP control measure required by 40 CFR § 122.34(b)(3) directs the Permittees to manage illicit discharges to the MS4s by:

- Maintaining a map of the MS4s showing the location of all outfalls and names of the receiving waters;
- Effectively prohibiting discharges of non-stormwater to the MS4 through the use of an ordinance or other regulatory mechanism, and enforcing that prohibition as needed;
- Implementing a program to detect and address non-stormwater discharges, including procedures to identify problem areas in the community, determine sources of the problem(s), remove the source if one is identified, and document the actions taken; and

- Informing public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste, and publicize appropriate public reporting of illicit discharges when they occur.

In its application materials, the City identified a schedule for implementing each of the activities listed above. The Permit allows the City to review and update its existing program, and to identify cooperative efforts with LCSC, in order to accomplish the SWMP control measure components described below. Full implementation of a comprehensive IDDE program can effectively reduce as yet unknown discharges containing bacteria, sediment, and nutrients through the MS4, consistent with the pollutant load reduction goals of the Lindsay Creek and Tammany Creek TMDLs.

- Permit Part 3.2.1 establishes a compliance deadline 180 days before the Permit expiration date for the Permittees to update their existing illicit discharge program activities, and/or to fully impose any new program components outlined in this Part. The EPA believes this timeframe is justified to allow Permittees adequate opportunity to adjust their existing programs, as necessary, to ensure all the components are sufficiently addressed in the Permit Area. This provision also defines the date by which any ACM Request must be submitted

- Permit Part 3.2.2 continues to require the Permittees to maintain a current MS4 map, and an accompanying inventory of the features that comprise the MS4 system. A updated MS4 Outfall Map and Inventory must be submitted as part of the Permit Renewal Application pursuant to Permit Part 8.2. The purpose of the MS4 Outfall Map and Inventory is to record and verify MS4 outfall locations, including relevant descriptive system characteristics. The EPA expects each Permittee to know the locations and characteristics of all outfalls that it owns/operates through mapping their infrastructure and associated assets. Permittees are encouraged to couple the Inventory with other SWMP control measures, such as the operation and maintenance requirements in Permit Part 3.5, to help inform their inspection and/or maintenance prioritization.

  Additionally, Permit Part 3.2.2 requires the Permittees to identify and characterize any MS4 outfall(s) with ongoing dry weather flows as a result of irrigation return flows and/or groundwater seepage. Knowing both the location and characteristics of such outfall(s) is an important data point in areas where the MS4 discharges to phosphorus- and/or nitrogen- impaired waters. The MS4 Map and Outfall Inventory can be collectively reassessed by the EPA, IDEQ, and the Permittees at the time of the Permit renewal to tailor future control measures in the next permit term in efforts to address potential non-stormwater discharges that may be contributing to the impairment.

- Permit Part 3.2.3 requires Permittees to prohibit non-stormwater discharges into the MS4 through enforcement of an ordinance or other legal mechanism to the extent allowable under Idaho state law. Part 3.2.3 identifies minimum prohibitions that the EPA expects Permittees to enforce within their jurisdictions. The EPA clarifies that it is unnecessary for the ordinance/legal mechanism to cite all the individual prohibitions listed, provided that the Permittee's legal mechanism can be used to address such discharges if they are found discharging to the MS4. This provision provides a minimum expectation for the local ordinance/legal

mechanism to prohibit the breadth of possible non-stormwater discharges that negatively impact water quality.

- Permit Part 3.2.4 describes the EPA's expectations for a Permittee's Complaint Reporting and Response Program. The Permittee must maintain and advertise a publicly accessible and available means to report illicit discharges. The Permittee must respond to reports within two (2) days and maintain records regarding actions taken. These programs can be promoted to the public in concert with the public education requirements in Permit Part 3.1. Staff assigned to handle calls should be trained in stormwater issues and emergency response in order to gather and transfer the right information to responders. Conducting an investigation as soon as possible after the initial complaint report is crucial to the success of this program.

- Permit Part 3.2.5 requires the Permittees to conduct a dry weather analytical and field screening monitoring program to identify non-stormwater flows from MS4 outfalls during dry weather. Additionally, this program must emphasize screening activities to detect and identify illicit discharges and illegal connections, and to reinvestigate potentially problematic MS4 outfalls throughout the Permit Area. The EPA has added prescriptive requirements to (1) prioritize visual screening of at least 50 outfalls per year throughout the Permittee's jurisdiction (Permit Part 3.2.5.2); (2) use appropriate screening and monitoring protocols when flows are identified during dry weather (Permit Part 3.2.5.3.); and (3) ensure proper recordkeeping/documentation (Permit Part 3.2.5.4).

  Data collected through the Permittee's regular screening of its outfalls during dry weather, and through the public reporting of illicit discharges and connections, can reveal important trends in the types of pollutants generated within and transported into the MS4. Permit Part 3.2.2.6 requires the Permittee to locate and map the occurrences of illicit discharges in order to target appropriate response actions over time. The EPA recommends that samples taken during dry weather screening be analyzed for pH, total chlorine, detergents, total copper, total phenols, fecal coliform bacteria, and/or turbidity to assist in source identification.

  Appropriate threshold limits for dry weather monitoring results are important to distinguish pollutant spikes from normal background conditions at a particular outfall. For example, through its Stormwater Investigation Manual, the Ada County Highway District established threshold levels that, when exceeded, result in retesting to determine whether the sample was an isolated event or an ongoing water quality issue. The Permittees should also consider establishing a visual baseline for each outfall type to aid in determining what constitutes "normal" dry weather flows, and to distinguish between background conditions (uncontaminated ground water infiltration, for example) versus abnormal, non-stormwater flows that are prohibited by the Permit.

- Permit Part 3.2.6 requires mandatory follow-up actions for recurring illicit discharges (identified through complaint reports and/or Permittee screening activities). Response activities must begin within 30 days of identifying elevated concentrations of screening parameters, and action must be taken to eliminate problem discharges within 60 days. Specific timelines are included to direct

timely initiation of actions to reduce or fully eliminate a known or newly identified problem.

Due to the diverse nature and sources of water quality impacts in urban settings in Idaho, both the EPA and IDEQ are concerned about inputs of irrigation return flows and/or groundwater seepage through MS4s. Permit Part 3.2.6 requires Permittees to list identified MS4 outfall locations where irrigation return flows and/or groundwater seepage are present during dry weather See also Permit Part 3.2.2.6. This is a first, interim step towards an assessment of water quality impacts resulting from these specific non-stormwater discharges. For any MS4 outfall where ongoing dry weather discharges are identified by the Permittees as associated with irrigation return flows and/or groundwater seepage, the term "appropriate action" in Permit Part 3.2.6 means, at a minimum, documentation in the Annual Report of the MS4 outfall location, and the Permittee's determination of the source as either irrigation return flows or groundwater seepage. The EPA encourages the Permittees to take action to eliminate such flows if it is identified as a source of pollutants pursuant to Permit Part 2.4.5.2. At a minimum, a summary list of all such outfall locations must be submitted with the Permit Renewal Application. This information will be collectively reassessed by the EPA, IDEQ, and the Permittee(s) at the time of the permit renewal to tailor future control measures to appropriately address non-stormwater discharges that may be contributing excess nutrient loads to receiving waters.

- Permit Part 3.2.7 requires Permittees to respond to spills, and maintain appropriate spill prevention and response capabilities as appropriate within their jurisdiction. Through coordination with state and/or local agencies (under this provision, "agencies" refers to the organizations responsible for spill response), the goal is to provide maximum water quality protection at all times.The EPA has included an explicit requirement directing the Permittee to notify the appropriate IDEQ regional office, Idaho State Communications Center, and/or the National Response Center, as specified by IDEQ in its comments submitted on the EPA's 2017 draft MS4 General Permit.[25]
- Permit Part 3.2.8 requires coordination with appropriate agencies to ensure the proper disposal of used oil and toxic materials by employees and the public.
- Permit Part 3.2.9 requires the Permittees to appropriately train staff to respond to spills, complaints, and illicit discharges/connections to the MS4. Permittee staff can be the "eyes and ears" of the stormwater program if they are trained to identify illicit discharges and spills or evidence of illegal dumping.

Full implementation of a comprehensive illicit discharge detection and elimination program can effectively reduce as yet unknown discharges potentially containing bacteria, sediment, nutrients or other toxic materials through the MS4, consistent with the pollutant load reduction goals of the TMDLs for Lindsay Creek and Tammany Creek.

2.4.3 Construction Site Storm Water Runoff Control

This SWMP control measure requires Permittees to control construction site runoff discharges into their MS4s. 40 CFR §122.34(b)(4) requires Permittees to use an

[25] IDEQ 2017.

ordinance or regulatory mechanism to require proper construction site controls for sediment, erosion, and waste management at sites with land disturbance of one (1) or more acres. Additionally, construction activities disturbing less than one (1) acre are subject to this regulation if that activity is part of a common plan of development or sale that exceeds one (1) acre. Other mandatory control measure components are procedures for site plan review that considers potential water quality impacts; procedures for site inspection and enforcement; and procedures for the receipt and consideration of information submitted by the public.

Construction activities (such as clearing vegetation and excavating, moving, and compacting earth and rock) significantly change the land surface. The consequences of construction activities during rainfall events include: reduced stormwater infiltration, increased runoff volume and intensity, and higher soil erosion rates. While sediment and other pollutants are readily mobilized by precipitation during land disturbance activity, such discharges can be effectively prevented through the use of reasonable and effective erosion and sedimentation controls. Examples include the use of construction sequencing, and vegetative- or non-vegetative stabilization techniques.[26]

Local ordinances and requirements are key to ensuring that construction site operators use appropriate techniques to prevent pollutant discharges to the MS4s. Although discharges from all construction sites disturbing one or more acres in Idaho are independently subject to the *NPDES General Permit for Storm Water Discharges from Construction Activity*, #IDR120000 (Construction General Permit or CGP), it is appropriate for the MS4 operators to directly impose local construction site management requirements to prevent construction-related pollutants from entering the MS4s.

In their respective permit application materials, each of the Permittees identify how they intend to comply with the required construction runoff control measure components. The City intends to adopt an ordinance and establish the associated specifications, plan review, and inspection control measure components. As a public college, LCSC does not have ordinance power, but requires erosion, sediment, and waste management controls at construction sites occurring on campus through project specific contracts administered by the Idaho Department of Public Works; these contracts require compliance with the State's relevant construction related *Standards for Public Works*.

Individual components of the Permit's Construction Site Runoff Control Measure are described below:

- Permit Part 3.3.1 establishes a compliance deadline of 180 days before the expiration date for the Permittees to update their existing programs, if needed, to impose any new or revised control components in the Permit Area. This provision also defines the date by which any ACM Request must be submitted.
- Permit Part 3.3.2 outlines the expected scope of the Permittees' legal mechanism to reduce and prevent runoff from construction sites in its jurisdiction that disturb one (1) acre or more.
- Permit Part 3.3.3 requires written specifications to define appropriate site level controls for construction activities within the Permittee's jurisdiction. The EPA clarifies that the type and extent of site-level erosion, sediment, and waste

[26] EPA 1999, pages 68758-68759; EPA 2009a, pages 7-3 through 7-26.

management controls will likely be different depending on site size and location. Therefore, the Permittees have the discretion to determine how best to control sediment and other pollutants in runoff from different sized construction sites.

- Permit Part 3.3.4 requires a preconstruction site plan review process to address construction site activity that will result in land disturbance of one (1) or more acres, and includes consideration of public input. This review can be conducted using a checklist or similar process to consider and address potential water quality impacts from the site activities..
- Permit Part 3.3.5 requires that the Permittees conduct prioritized construction site inspections and to enforce the applicable local requirements as needed. At a minimum, the Permittee must inspect and enforce their requirements at construction sites occurring in their jurisdictions that disturb one (1) or more acres.
- Permit Part 3.3.6 requires the Permittees to have a written enforcement response policy or plan to guide and prioritize their oversight, inspection, and enforcement efforts.
- Permit Part 3.3.7 requires the Permittees to provide proper training for construction staff conducting plan review and inspections.

Full implementation of a comprehensive construction site runoff control program can effectively reduce the discharge of sediment and other materials through the MS4, consistent with the pollutant load reduction goals of the TMDLs for Lindsay Creek, and Tammany Creek.

2.4.4 Post Construction Stormwater Management from New Development and Redevelopment

Permit Part 3.4 requires Permittees to implement and enforce a program to control runoff from new development and redevelopment project sites, including projects involving streets and roads.

Pursuant to 40 CFR 122.34(b)(5), these controls must be imposed, at a minimum, at new development and redevelopment sites disturbing one (1) or more acres and at sites less than one (1) acre, which are part of a common plan of development or sale that exceeds one (1) acre. The Permittees must address runoff from new development and redevelopment projects using a locally appropriate combination of structural and/or non-structural BMP requirements.[27] Further, the Permittees must enforce the requirements using an ordinance or other regulatory mechanism, to the extent allowable under state or local law, and ensure the adequate long-term operation and maintenance of these BMPs.[28]

The Permit uses the term “permanent stormwater controls” instead of “post-construction stormwater management controls” to mean those controls that will treat or control pollutants in stormwater runoff from the development site on a permanent basis after

[27] “Non-structural requirements” include, but are not limited to, planning, zoning, and other local requirements such as buffer zones. “Structural controls” include, but are not limited to, the use of storage, infiltration basins, or vegetative practices such as rain gardens or artificial wetlands. *See*: 40 CFR§122.34(b)(5)(iii).
[28] See EPA 2012; EPA 2009; and 40 CFR §122.34(b)(5).

construction is complete. This terminology is consistent with other MS4 permits issued by the EPA Region 10 since 2012.

In their permit application materials, each of the Permittees identify how they intend to comply with the required post-construction runoff control measure components. The existing City requirements for permanent runoff management emphasizes control of runoff quantity; some of the methods used to control quantity also provide water quality benefits. As previously noted, development projects on LCSC campus are administered through the Idaho Department of Public Works, and project design follows the State's relevant *Standards for Public Works*.

- Permit Part 3.4.1 establishes a compliance deadline of 180 days before the Permit expiration date for Permittees to refine the existing runoff control program, if needed, to impose any new SWMP control measure components in the Permit Area. This timeframe is justified to allow the Permittees the flexibility to adjust their existing programs as necessary. This provision also defines the date by which any ACM Request must be submitted.
- Permit Part 3.4.2 requires the Permittees to update their legal regulatory mechanism to incorporate an onsite stormwater retention standard, or require treatment equivalent to the onsite retention standard, for new development and redevelopment sites. The purpose of this requirement is to prevent the creation of excess stormwater discharges, and pollutant loadings, from the impervious surfaces associated with the urban development. Use of onsite stormwater management controls at such sites will reduce pollutants in regulated MS4 discharges to the MEP and proactively protect Idaho receiving waters by ensuring that water quality protections continue over the long term.

  Additional rationale for including the requirement for onsite retention of stormwater runoff from new development and redevelopment is provided Appendix 5 of this Fact Sheet.

  Permit Part 3.4.2 also allows for alternative mitigation in situations where complete onsite retention of the target runoff volume is infeasible. The Permittees may apply an alternative standard if it is deemed to be equally protective, or more protective, of the onsite stormwater management design standard as articulated in the Permit. For example, alternative local compliance with the Permittees' calculated stormwater management design standard could take the form of off-site mitigation or payment in lieu programs. The Permittees could consider creating an inventory of appropriate alternative stormwater management techniques, and/or using planning mechanisms (such as completed sub-watershed plans or other appropriate means) to identify priority areas within sub-watersheds of their jurisdiction(s) where off-site mitigation, and/or public stormwater mitigation projects, could be implemented.
- Permit Part 3.4.3 requires the Permittees to maintain written specifications for the permanent stormwater controls allowed by the Permittees at development sites within their jurisdiction. These specifications must be utilized at sites disturbing at least one (1) or more acres.
- Permit Part 3.4.4 requires the Permittees to review and approve site plans for permanent stormwater controls at sites resulting from land disturbance of one (1) or

more acres. Specific standards are a critical component of the program, but even the best local requirements must be supported by a review component to ensure that the locally established performance standards are met. To comply with this requirement, the Permittees must have the authority to withhold approvals when it determines that the controls at a specific site are not designed to meet established standards for permanent stormwater control.

- Permit Part 3.4.5 outlines the requirement for the Permittees to inspect and enforce their requirements for permanent stormwater controls at sites resulting from land disturbance of one or more acres. Inspection of permanent control measures is key to ensuring water quality protection over the long term. Without periodic inspection or maintenance, the permanent controls can instead become pollutant sources, rather than a means of prevention. An effective local inspection process, combined with appropriate enforcement if necessary, ensures that onsite controls are built according to approved plans and specifications, and use proper materials and installation techniques. The EPA expects the Permittees to prioritize their inspection and enforcement to include any new permanent stormwater controls installed after the Permit effective date.
- Permit Part 3.4.6 requires the Permittees to ensure the long-term operation and maintenance (O&M) of permanent stormwater controls through the use of a database inventory to track and manage the operational condition of permanent stormwater controls within its jurisdiction. This database inventory can take the form of a computerized maintenance management system or asset management system that allows for the electronic logging of O&M tasks. Ongoing O&M is necessary to ensure that the BMPs will perform as designed over time. Inadequate maintenance of existing stormwater management controls is a primary shortcoming for most local SWMPs across the country. As with any infrastructure, deferred maintenance can increase costs and negatively affect receiving waters. Unmaintained BMPs will ultimately fail to perform their design functions, and can become a nuisance and/or pose safety problems.[29] The Permittees must track those permanent controls which are known to them, or for which they accept ownership, beginning no later than the Permit effective date.
- Permit Part 3.4.7 requires the Permittees to ensure that their staff are sufficiently trained and/or qualified to review site plans for permanent stormwater controls, and/or for inspecting the installation and operation of permanent stormwater controls.

Full implementation of a comprehensive permanent stormwater management program can effectively reduce the discharge of pollutants through the MS4, consistent with the pollutant load reduction goals of the TMDLs for Lindsay Creek and Tammany Creek.

2.4.5 Pollution Prevention and Good Housekeeping for MS4 Operations

As noted above, O&M is an integral part of any SWMP, and, when coupled with good housekeeping and pollution prevention principles, reduces the risk of water quality problems from MS4 discharges. The minimum requirements for this control measure are set forth in 40 CFR § 122.34(b)(6), which includes the implementation of an O&M program “intended to prevent or reduce pollutant runoff from municipal operations” and an employee training program. The EPA has also included requirements for site-specific

[29] NRC 2008; Shaver, et al 2007.

stormwater pollution prevention plans (SWPPPs) at the Permittee's own maintenance buildings and similar facilities that discharge stormwater into the MS4.

Permit Part 3.5 requires the Permittees to properly operate and maintain their MS4s, actively manage runoff from Permittee owned and/or operated facilities, and conduct their municipal activities to prevent or reduce the discharge of pollutants from the MS4.

The Permittees must focus on maintenance of their MS4s to protect water quality. Due to the diverse nature of MS4 facilities, ensuring appropriate inspection and maintenance schedules are in place for all types of infrastructure/facility is both relevant and necessary. O&M procedures should include some manner or protocol for testing and safely disposing of waste materials and any associated decant water collected from catch basins or other MS4 infrastructure.

Individual SWMP control measure components under the Pollution Prevention/Good Housekeeping control measure in Part 3.5 are reasonable, practicable, and consistent with other MS4 permits issued by the EPA Region 10 since 2012. The specific requirements are summarized below:

- Permit Part 3.5.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittees to update its existing program(s), and/or to impose any new program components, in the Permit Area. The EPA believes this timeframe is justified to allow the Permittees adequate opportunity to adjust its existing programs, as necessary, and ensure the required actions are sufficiently addressed in the Permit Area. This provision also defines the date by which any ACM Request(s) must be submitted.
- Permit Part 3.5.2 outlines requirements for the inspection of all Permittee-owned catch basins and inlets within the MS4 service area at least once every five years, and requires appropriate cleaning and/or maintenance activities based on the findings of those inspections.

Because roads and streets function as an integral part of the drainage conveyance systems within the Permit Area, and other Urbanized Areas of Idaho, the EPA has included explicit provisions for appropriate stormwater management through O&M activities for roads, streets, highways and parking lots.

- Permit Part 3.5.3 requires the Permittees to review and update their O&M procedures for streets, roads, highways, and parking lots that are owned, operated, and/or maintained by the Permittees to ensure procedures are protective of water quality and reduce the discharge of pollutants through the MS4.

  Permit Part 3.5.3.3 also requires the Permittees to consider using water conservation measures for all landscaped areas associated with streets, roads, highways, and parking lots to prevent landscape irrigation water from discharging through the MS4. Excessive landscape watering can contain fertilizers and other compounds that, when discharged through the MS4, can increase nitrogen and phosphorus loading to impaired waters. Landscape irrigation can be considered an allowable non-stormwater discharge only when it is not a source of pollution under the Idaho WQS. See Permit Part 2.4. Permit.

- Part 3.5.4 requires the Permittees with street maintenance responsibilities to ensure that road material stockpiles (such as sand, salt, or sand with salt stockpiles) are managed in a manner that prevents pollutants from discharging to the MS4 or into any receiving water. An inventory of all such street materials must be maintained. No later than 180 days prior to the Permit expiration date, as part of the Permit Renewal Application required by Permit Part 8.2, the Permittees must assess their Material Storage Locations for water quality impacts, and must describe any structural or non-structural improvements made by the Permittee to prevent runoff from discharging to the MS4 or directly to a receiving water. A Permittee without street maintenance responsibilities does not have an obligation to comply with this provision.
- Permit Part 3.5.5 requires a Permittee with street, road, highway and parking lot responsibilities to document the adequacy of their sweeping activities through a sweeping management plan. A Permittee without street sweeping responsibilities does not have an obligation to comply with this provision.
- Permit Part 3.5.6 requires the Permittees to review and update their O&M procedures for a variety of other typical municipal activities to ensure procedures protect water quality and reduce the discharge of pollutants through the MS4.
- Permit Part 3.5.7 requires the Permittees to ensure that their staff, and others operating in public areas owned and/or operated by the Permittee, are appropriately handling and/or using pesticides, herbicides, and fertilizers used within the Permit Area. This provision is consistent with the *NPDES General Permit for Discharges from The Application of Pesticides, for the State of Idaho,* NPDES Permit No. IDG870000.
- Permit Part 3.5.8 requires the Permittees to manage onsite materials at their maintenance yards and to prevent pollutants in runoff through use of SWPPPs. Plans developed for such locations can use the basic SWPPP framework identified in various EPA guidance materials, and may follow a “template plan” to establish basic requirements that can be tailored to the location/responsible staff.
- Permit Part 3.5.9 requires the Permittees to work cooperatively to reduce litter in their jurisdictions to prevent the conveyance of trash and other material through the MS4.
- Permit Part 3.5.10 requires the Permittees to ensure appropriate training for responsible staff such that O&M activities are conducted properly and with attention to prevent potential water quality impacts.

Full implementation of a comprehensive pollution prevention/good housekeeping program can effectively reduce the discharge of pollutants through the MS4, consistent with the pollutant load reduction goals of the TMDLs for Lindsay Creek and Tammany Creek.

2.5 Requirements for Discharges to Water Quality-Impaired Receiving Waters

Consistent with 40 CFR § 122.34(c), Permit Part 4 requires the Permittees to define and conduct quantitative monitoring/assessment and pollutant-reduction activities to address the pollutants of concern in MS4 discharges, consistent with the WLAs and pollutant

reduction targets for MS4 related discharges in the TMDLs for Lindsay Creek and Tammany Creek. Appendix 6 of this Fact Sheet contains additional discussion of the TMDLs and impairment listings, including the rationale for monitoring/assessment and pollutant reduction activities required by Permit Part 4.

For the purposes of the Permit, the phrase "pollutant(s) of concern" means any pollutant identified by IDEQ, WDOE, or the EPA as a cause of impairment of any water body that receives MS4 discharges authorized under the Permit.

The EPA believes it is appropriate for the Permittees to determine what pollutant reduction and monitoring/assessment activities they choose to continue, and/or begin, to continue to make interim progress towards attaining the pollutant reduction goals in the applicable TMDLs.

The EPA has included requirements in Permit Part 4 for the Permittees to submit, within 180 days of the Permit effective date, a written description of at least two (2) pollutant reduction activities, and a specific monitoring/assessment plan, to be conducted during the remainder of the Permit term. The EPA, in consultation with IDEQ, will review the submitted materials, and the EPA will modify the Permit to incorporate by reference the pollutant reduction activities and monitoring/assessment plan.

The EPA clarifies that the Permittees are free to choose new activities, or to continue implementation of ongoing efforts designed to implement the WLAs and pollutant reduction goals of these TMDLs. The Permittees may conduct activities that are independent of the SWMP control measures; or, actions that enhance one or more of the existing SWMP control measures. Acceptable activities must be linked to the goal of reducing pollutants of concern into Lindsay Creek and Tammany Creek, and must be designed to measure the relative success or failure of such actions over time.

The EPA seeks to provide maximum flexibility that allows the Permittees to define what and how they will address impairment pollutants consistent with the goals of these TMDLs and the goals of the associated watershed advisory group(s). Through the Permit modification process, this approach also provides information and transparency to interested members of the public.

2.6 Requirements for Excursions above the Idaho Water Quality Standards

Permit Part 5 sets forth requirements for Permittees to report and address excursions above the Idaho WQS as directed by Permit Part 2.1. The EPA has outlined an adaptive management approach for use when there are ongoing discharges from the MS4s that cause or contribute to excursions above the applicable Idaho WQS and are not being addressed by other SWMP control measure requirements.

Permit Part 5 provides Permittees with the opportunity to use adaptive management principles to scope corrective action steps to address ongoing, prolific pollutant source(s). Where such solutions may involve structural controls, require capital expenditures, and/or that necessitate long term planning and implementation schedules, Permit Part 5 provides opportunity for the Permittee(s) to define and articulate such long-range investment plans.

The EPA supports robust long-term planning for stormwater management by MS4 communities, and recognizes that the most successful stormwater planning uses multi-benefit approaches to solve stormwater pollution control challenges. It also recognizes that for a plan to be more affordable, communities need to make financial investments over a time horizon of sufficient length to allow for cost efficiencies through working with other municipal programs.[30]

Any Permittee that submits information pursuant to Permit Part 5 will be prompted to report on their incremental progress towards their identified milestones in both their Annual Report, and as part of a complete Permit Renewal Application.

2.7 Monitoring, Recordkeeping and Reporting Requirements

All MS4 Permittees must evaluate and assess program compliance, keep records, and submit Annual Reports. See 40 CFR §122.34(d). Section 308 of the CWA, federal regulation 40 CFR §122.44(i), and subsequent EPA guidance requires monitoring to determine compliance with terms and conditions of a NPDES permit.

2.7.1 Compliance Evaluation

Permit Part 6.1 requires the Permittees to assess their compliance with the Permit requirements annually and to document the evaluation through the submittal of an Annual Report. The EPA has provided a concise "fillable PDF" Annual Report format for use during the Permit term. The five-year permit term will coincide with the EPA's national transition to online reporting for MS4 permits; this transition is expected to be accomplished no later than December 2020. Once primacy for the NPDES stormwater permit program is transferred to IDEQ, the Permittee may negotiate different reporting frequencies in the subsequent MS4 permit, pursuant to 40 CFR § 122.34(d)(3).[31]

2.7.2 Monitoring and/or Assessment Activities

Permit Part 6.2. requires the Permittees to evaluate the effectiveness of their SWMP at protecting water quality by quantifying their stormwater pollutant reductions. Implementing monitoring and/or assessment activities allows the Permittees to assess the effectiveness of stormwater management actions, aides in determining whether pollutant reduction goals in applicable TMDLs are met, and to justify budgets that

[30] EPA 2016e.
[31] EPA 2015c.

support stormwater programs. While many MS4 program goals are output-based (e.g. number of stormwater treatment practices installed, number of educational brochures distributed), which can be useful from a program accounting standpoint, such measurements often cannot be used to quantify changes in water quality resulting from MS4 program activities.[32]

The EPA proposes that the Permittees collect objective data that can be used to evaluate the relative success of SWMP control measures and can be used to assess whether MS4 discharges cause or contribute to violations of Idaho water quality standards. Permit Part 6.2 requires the Permittees to submit a monitoring/assessment plan that supports the terms and conditions of Permit Part 4 and meets the quality assurance objectives at Permit Part 6.2.6 no later than 180 days after the Permit effective date. Standard NPDES permit conditions are included in Part 6.2 related to representative sampling, additional monitoring, and use of sufficiently sensitive testing methods. If the Permittee elects to monitor MS4 discharges, Part 6.2.5 summarizes the basic components of any wet weather stormwater monitoring.

The EPA recognizes that the MS4 permits in Idaho should not impose a "one size fits all" monitoring and assessment approach. The guidelines at Permit Part 6.2. provide the Permittees the flexibility to develop and implement monitoring/assessment activities that are appropriate for their MS4. The EPA will modify the Permit to incorporate the Permittee's intended plan. MS4 stakeholders around the country have found that relevant watershed-level questions must drive a Permittee's monitoring and assessment choices. Because water quality benefits will only be realized over the long-term, it is important for MS4 Permittees to invest their time and energy into long-term implementation mechanisms that are linked to appropriate monitoring and assessment actions. Monitoring and assessment data contributes to new knowledge, and resulting data should then be made broadly available.[33]

Monitoring/assessment activities that the Permittees may consider include:

- Conducting biological or macroinvertebrate sampling, instream monitoring, or other means to assess certain parameters or watershed outcomes.
- Focused efforts to influence human behavior through outreach and educational efforts.
- Working collaboratively with other entities within a watershed or across the state to accomplish the SWMP goals.

Permit Part 6.2.6 requires the Permittees to create, or revise any existing, Quality Assurance Project Plans (QAPP) to guide the intended monitoring/assessment activities.

2.7.3 Recordkeeping and Reporting

Permit Part 6.3 requires the Permittees to keep all records associated with the Permit for a period of at least five years, and submit such records only when requested by the EPA. The Permittee(s) must ensure that SWMP materials are available to the public, and they may charge a reasonable fee for copies and/or require a member of the public

[32] CWP 2009.
[33] Stein 2013; EPA 2016g; NRC 2008.

to provide advance notice of their request. As previously noted, Permit Part 3.1 requires the Permittees to provide their SWMP Document(s) to the public electronically via one or more dedicated websites.

Permit Part 6.4 describes the overall reporting requirements, including the schedule and required content for the Annual Reports, the final monitoring/assessment reports, and the pollutant reduction activity reports. At a minimum, Permittees must submit Annual Reports of progress to both the EPA and IDEQ using the recommended Annual Report format provided in the Permit Appendix no later than 60 days after the close of relevant reporting period. The Annual Report format will prompt the Permittees for appropriate information according to compliance dates specified in the final Permit.

No later than December 21, 2020, all NPDES reports submitted in compliance with an applicable permit must be submitted electronically through the EPA's national electronic reporting system. However, the MS4 Permit program is one of the last types of NPDES permits to be accommodated by this new system.[34] Until the electronic system is available, the Permittees must submit signed versions of their Annual Reports to the EPA and IDEQ addresses provided in the Permit.

2.8 Standard Permit Conditions

Permit Parts 7 and 8 contain standard regulatory language that must be included in all NPDES permits. The standard regulatory language addresses compliance responsibilities, and other general requirements. Although certain provisions may not strictly apply to MS4 facilities (for example, the upset or bypass provisions), it is mandatory that each of the standard provisions be included in a NPDES permit. Such provisions were previously included in the prior MS4 permit. The EPA notes that if a particular provision in Permit Parts 7 or 8 does not apply to the Permittees MS4 discharges or facilities, the Permittees do not need to comply with that provision.

2.8.1 Duty to Reapply

In accordance with 40 CFR §122.46(a), NPDES permits are in effect for a fixed term not to exceed five (5) years. Permit Part 8.2 requires any MS4 Permittee intendingintending to continue its operational control and management of MS4 discharges after the permit expiration date to submit an application no later than 180 days before the permit expiration date.

Because there are no NPDES application forms for the MS4 permit program, Permit Part 8.2.1 describes the expected content of a complete Permit Renewal Application. The deadline for the Permit Renewal Application (180 days before the permit expiration date) corresponds to the Permit's implementation/compliance dates; therefore, as part of any request for continued permit coverage, the Permittees must submit the attachments listed in Permit Part 8.2.1 to demonstrate how they have complied with the current Permit requirements.

All MS4 Permittees are expected to submit a 5th Year Annual Report by the Permit expiration date, using the format provided in the Permit. In the event that a new permit is not issued on or before the Permit expiration date, any Permittee that has submitted a Permit Renewal Application in accordance with Part 8.2, may be authorized to continue

[34] EPA 2015c.

discharging under an administrative continuanceextension of the Permit. If the Permittee(s) are granted an administrative extension, they must continue to adhere to the terms and conditions of the Permit, including submitting their Annual Report(s) by the anniversary of the permit expiration date, until coverage under a reissued or replacement Permit is available.

3 Other Legal Requirements

3.1 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high, and adverse human health or environmental effects of its programs, policies, and activities." The EPA strives to enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process for EPA-issued permits, including NPDES permits. "Overburdened" communities can include minority, low-income, tribal, and indigenous populations, or communities that potentially experience disproportionate environmental harms and risks. As part of an agency-wide effort, the EPA Region 10 will prioritize enhanced public involvement opportunities for EPA-issued permits that may involve activities with significant public health or environmental impacts on already overburdened communities. For more information, please visit https://www.epa.gov/environmentaljustice/learn-about-environmental-justice

As part of the permit development process, the EPA Region 10 conducted a screening analysis to determine whether the Permit action could affect overburdened communities. The EPA uses a nationally consistent geospatial tool that contains demographic and environmental data for the United States at the Census block group level. This tool is used to identify permits for which enhanced outreach may be warranted.

Based on this screening, the Lewiston Urbanized Area is identified as an area where potentially overburdened communities reside. In order to ensure that individuals in this area are able to participate meaningfully in the NPDES permit process, the EPA will work to ensure that interested stakeholders in the area, and throughout the state, are informed and able to provide their input on appropriate local stormwater management activities.

The EPA encourages all MS4 Permittees to review (and to consider adopting, where appropriate) *Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways To Engage Neighboring Communities* as described in the EPA document available at https://www.federalregister.gov/articles/2013/05/09/2013-10945/epa-activities-to-promote-environmental-justice-in-the-permit-application-process#p-104.

3.2 Endangered Species Act

The Endangered Species Act (ESA) requires federal agencies to consult with the National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA Fisheries) and the U.S. Fish and Wildlife Service (USFWS) regarding potential effects an action may have on listed endangered species.

The EPA reviewed current maps and species lists from both NOAA Fisheries and

USFWS, and the endangered and threatened species in the vicinity of the Lewiston Urbanized Area are summarized in Table 3. As required by the ESA, the EPA is completing a Biological Evaluation to determine the effects of EPA's issuance of the permit for the City of Lewiston and Lewis-Clark State College MS4 discharges on these species, and will consult with NOAA-Fisheries and USFWS as required by the ESA.

Table 3. Protected Species and Critical Habitat Evaluated in the Lewiston Urbanized Area

Protected Species(Scientific Name)	Status	Critical Habitat	
		Status	Overlap with Lewiston UA
Responsible Agency – NMFS			
Fish			
Snake River fall-run Chinook salmon ESU *(Oncorhynchus tshawytscha)*	Threatened	Designated	Yes
Snake River spring/summer-run Chinook salmon ESU (*O. tshawytscha)*	Threatened	Designated	Yes
Snake River sockeye salmon ESU (*O. nerka)*	Endangered	Designated	Yes
Snake River Basin steelhead trout (DPS) *(O. mykiss)*	Threatened	Designated	Yes
Responsible Agency – USFWS			
Plants			
Spalding's catchfly (*Silene spaldingii)*	Threatened	N/A	N/A
Fish			
Bull trout (*Salvelinus confluentus)*	Threatened	Designated	Yes

3.3 Essential Fish Habitat

Essential fish habitat (EFH) is the waters and substrate (sediments, etc.) necessary for fish spawning, breeding, feeding, or growing to maturity. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) requires the EPA to consult with the NOAA-Fisheries if a proposed action has the potential to adversely affect (by reducing the quality and/or quantity of) EFH.

The EPA is evaluating the effects on EFH for the Chinook Salmon (*Oncorhynchus tshawytscha*)and Coho Salmon (*Oncorhynchus kisutch*) in the vicinity of the Lewiston Urbanized Area, and will consult with NOAA-Fisheries as required by the MSFCMA

3.4 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of federal undertakings on historic properties listed on, or eligible for listing on, the National Register of Historic Places. The term federal "undertaking" in NHPA regulations to include a project, activity, or program of a federal agency that can result on changes in the character or use of historic properties, if any historic properties are located in the area of potential effects for that project, activity or program. See 36 CFR § 802(o). Historic Properties include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. See 36 CFR § 802(e). Federal undertakings include the EPA's issuance of a NPDES permit.

The EPA has determined that the reduction of pollutants in runoff through compliance

with a MS4 discharge permit will not result in the disturbance of any site listed or eligible for listing in the National Historic Register. Therefore, the EPA believes that the actions associated with the Permit are also in compliance with the terms and conditions of the National Historic Preservation Act.

Pursuant to Permit Part 8.10, Permittees are reminded that they must comply with applicable state, Tribal and local laws, including those concerning protection of historic properties. If any permitted entity engages in any activity which meets all of the following criteria, then they must consult with and obtain approval from the State Historic Preservation Office prior to initiating the activity:

- The permitted entity is conducting the activity in order to facilitate compliance with the MS4 Permit;
- The activity includes excavation and/or construction; and
- The activity disturbs previously undisturbed land.

Examples of actions that may meet the above criteria include, but are not limited to: retention/detention basin construction; storm drain line construction; infiltration basin construction; dredging; and stabilization projects (*e.g*., retaining walls, gabions). The requirement to submit information on plans for future earth disturbing is not intended for activities such as maintenance and private development construction projects.

40 CFR § 122.49 lists the federal laws that may apply to the issuance of permits i.e., ESA, NHPA, the Coastal Zone Act Reauthorization Amendments (CZARA), NEPA, and Executive Orders, among others. The NEPA compliance program requires analysis of information regarding potential impacts, development, and analysis of options to avoid or minimize impacts; and development and analysis of measures to mitigate adverse impacts.

The EPA has not promulgated effluent limitation guidelines or new source performance standards specific to MS4 discharges. Therefore, MS4 permits are not subject the NEPA.

Idaho is not located in the U.S. coastal zone, so CZARA does not apply to the issuance of the Permit. In addition, the Permit will not authorize the construction of any water resources facility or the impoundment of any water body. No regulated small MS4s are located in areas with Wild and Scenic River designations. Therefore, the EPA determines that the Fish and Wildlife Coordination Act, 16 USC § 661 et seq., and the Wild and Scenic Rivers Act, 16 USC § 470 et seq., does not apply to the issuance of the Permit.

3.5 Permit Dates

The Permit will expire five years from the effective date. As proposed, the Permit assumes an effective date of December 31, 2018. Compliance dates for SWMP control measure implementation, Annual Report submittals, etc., are tentatively identified in the Permit (in the upfront Schedule and in pertinent text) based on the final Permit's effective date.

During discussions Idaho stakeholders in late 2016 and early 2017 regarding preliminary draft MS4 documents, the EPA was reminded to remain cognizant of local government budget planning cycles (based on a fiscal year calendar October – September) when

establishing implementation deadlines in the Permit. In response, the EPA previously considered calculating MS4 Permit compliance dates assuming an effective date of October 1.

3.6 State Certification of the Draft Permit

Section 401 of the CWA requires the EPA to seek State certification before issuing a final permit. As a result of the certification, the State may require more stringent permit conditions or additionally monitoring requirements to ensure that the permit complies with water quality standards, or treatment standards established pursuant to any State law or regulation. A copy of the draft 401 certification is provided in Appendix 1 of this Fact Sheet.

4 References Used in this Permitting Decision

The following is a partial list of references supporting the development of the Permit; additional references are available in the Administrative Record for the permit action.

Ahiablame, et al 2012. *Effectiveness of low impact development practices: Literature review and suggestions for future research.* Ahiablame, L. M.; Engel, B. A.; Chaubey, I. Water, Air, Soil Pollut. 2012, 223 (7), 4253−4273.

American Rivers 2013. *Permitting Green Infrastructure: A Guide to Improving Municipal Stormwater Permits and Protecting Water Quality*; American Rivers. January 2013.

Bozeman, City of. Montana, 2017. *Construction Site Management Program – Best Management Practices Manual for Construction Sites*. Version 6, June 30, 2017. Available at: https://www.bozeman.net/home/showdocument?id=4739

Brown and Pitt 2004. *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments.* E. D. Caraco and R. Pitt. Center for Watershed Protection, Ellicott City, MD.

CWP 2009*. Monitoring to Demonstrate Environmental Results: Guidance to Develop Local Stormwater Monitoring Studies Using Six Example Study Designs.* August 2009.

Defenders of Wildlife v. Browner. 191 F.3d 1159 (9th Cir. 1999).

EPA 1983. *Results of the Nationwide Urban Runoff Program. Executive Summary* US EPA. National Technical Information Service (NTIS) Accession Number PB84-185545; *Volume 1 – Final Report*, NTIS Accession Number PB84-185552; and *Volume 2- Appendices.*

EPA 1990. NPDES Stormwater Phase I Regulations Final Rule (55 FR 47990, November 16, 1990).

EPA 1991. *TMDL to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin.* Available at https://fortress.wa.gov/ecy/publications/documents/0910058.pdf

EPA 1996. *Interim Permitting Policy for Water Quality Based Effluent Limitations in Stormwater Permits* (61 FR 43761, November 26, 1996).

EPA 1999. NPDES Stormwater Phase II Regulations Final Rule (64 FR 68722, Dec. 8, 1999).

EPA 1999b. *Preliminary Data Summary of Urban Stormwater Best Management Practices.* August 1999*.* EPA-821-R-99-012. https://www.epa.gov/sites/production/files/2015-11/documents/urban-stormwater-bmps_preliminary-study_1999.pdf

EPA 2002. EPA Office of Water Memo (November 22, 2002) "*Establishing Total Maximum Daily Load Waste Load Allocations for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs."*

EPA 2003. *Biological Evaluation of the Potlatch Corporation Pulp and Paper Mill National Pollutant Discharge Elimination System (NPDES) Permit (NPDES Permit No.: ID0001163) for the U.S. Fish and Wildlife Service and the NOAA Fisheries* Region 10, Seattle, Washington: United States Environmental Protection Agency.

EPA 2006. *National Management Measures to Control Nonpoint Source Pollution from Urban Areas*, EPA-841-B-05004, January 2006.

EPA et al, 2007a. *Report to West Virginia Department of Environmental Protection: Options for WV's General Stormwater Permit under NPDES Phase II*. US EPA and Tetratech, Inc., November 2007.

EPA 2008. NPDES Permit No. IDS028231, Ci*ty of Post Falls MS4* including *Fact Sheet*, and *Response to Comments.*

EPA 2008b. *Fact sheet for NPDES Permit No. IDS028118 (City of Caldwell)* pages 21-23

EPA 2008c. *National Pollutant Discharge Elimination System Water Transfers Rule; Final Rule*. 73 FR 33697, June 13, 2008.

EPA 2009*. Technical Guidance on Implementing Section 438 of the Energy Independence and Security Act*, US EPA, December 2009.

EPA 2009a*. Development Document For Final Effluent Guidelines And Standards For The Construction & Development Category*, November 2009. https://www.epa.gov/sites/production/files/2015-06/documents/construction_development_dd_2009_chapters_1-11.pdf

EPA 2009b. *Development Document for Final Effluent Guidelines and Standards for the Construction and Development Category, Appendices A – I*, November 2009. https://www.epa.gov/sites/production/files/2015-06/documents/construction_development_dd_2009_app_a-i.pdf

EPA 2009c. *Economic Analysis of Final Effluent Limitation Guidelines and Standards for the Construction and Development Industry*, November 23, 2009. https://www.epa.gov/sites/production/files/2015-06/documents/construction_development_economic_analysis_2009.pdf

EPA 2009d. *Environmental Impact and Benefits Assessment for Final Effluent Guidelines and Standards for the Construction and Development Category,* November 2009. https://www.epa.gov/sites/production/files/2015-06/documents/cd_envir-benefits-assessment_2009.pdf

EPA 2009e. *Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category; Final Rule*. 74 FR 62996 (December 1, 2009). https://www.gpo.gov/fdsys/pkg/FR-2009-12-01/pdf/E9-28446.pdf

EPA 2010. *MS4 Permit Improvement Guide,* April 2010. EPA 833-R-10-001.

EPA 2012. *NPDES Permit No. IDS-027561*, including *Fact Sheet*,pages 22-25, and *Response to Comments on the NPDES Permit No. IDS-027561, December 11, 2012 – Final.* Responses to Comments #18 and #22.

EPA 2014a. EPA Office of Water memo "*Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs*;" November 26, 2014.

EPA 2014b. *Municipal Separate Storm Sewer System Permits- Post Construction Performance Standards and Water Quality Based Requirements- A Compendium of Permitting Practices*. EPA Office of Wastewater Management. June 2014. EPA 833-R-14-003.

EPA. 2015a. *Helpful Practices for Addressing Point Sources and Implementing TMDLs in NPDES Permits,* Prepared by EPA Region 9. June 2015.

EPA 2015b. *Small Residential Lot Stormwater Pollution Prevention Plan Template - 2012 EPA Construction General Permit*. December 2015. At https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates, See: *cgp_small_residential_lot_swppp_template_final_draft_11-30-15_0.docx*

EPA 2015c. *NPDES Electronic Reporting Rule*. (80 FR 64064, October 22, 2015).

EPA 2016a. *NPDES Municipal Separate Storm Sewer System General Permit Remand, Proposed Rule* (81 FR 415, January 6, 2016.)

EPA 2016b. *NPDES Municipal Separate Storm Sewer System General Permit Remand, Final Rule* (81 FR 89320, Dec. 9, 2016.)

EPA 2016c. *Compendium of MS4 Permitting Approaches- Part 1: Six Minimum Control Measures.* EPA Office of Wastewater Management, November 2016. EPA-810-U-16-001.

EPA 2016d. *Compendium of MS4 Permitting Approaches- Part 2: Post Construction Standards.* EPA Office of Wastewater Management, November 2016. November 2016. EPA-810-R-16-017.

EPA 2016e. EPA Memorandum: *Community Solutions for Stormwater Management: A Guide for Voluntary Long-Term Planning* (and associated draft EPA guidance document). Office of Wastewater Management. October 26, 2016.

EPA 2017. *Compendium of MS4 Permitting Approaches- Part 3: Water Quality Based Requirements.* EPA Office of Wastewater Management, April 2017. EPA-810-R-17-001.

Georgiadis, N.2016. *Adaptive Management: What, Why, and How?* Tacoma, WA: University of Washington Puget Sound Institute.

Hirschman and Kosco. 2008. *Managing Stormwater in Your Community: A Guide for Building an Effective Post-Construction Program,* Center for Watershed Protection. July 2008. EPA Publication No: 833-R-08-001.

Holz testimony, 2008. *Written Direct Testimony of Thomas W. Holz (Phase I) Pollution Control Hearings Board For The State Of Washington PCHB Nos. 07-021, 07-026, 07-027, 07-028, 07-029, 07-030, 07-037.*

Horner, 2008*. Direct Testimony of Dr Richard Horner (Phase 1*); *Pollution Control Hearings Board For The State Of Washington PCHB NOS. 07-021, 07-026, 07-027, 07-028, 07-029, 07-030, 07-037.*

Idaho Department of Environmental Quality (IDEQ) 2001. *Tammany Creek Sediment Tmdl Subbasin Assessment And Total Maximum Daily Load Analysis*. September 2001. Available at: http://deq.idaho.gov/media/452543-tammany_creek_entire.pdf

IDEQ 2007a. *Lindsay Creek Watershed Assessment and Total Maximum Daily Loads*, December 2006, Amended March 2007. Available at: http://deq.idaho.gov/media/454943-_water_data_reports_surface_water_tmdls_lindsay_creek_lindsay_creek_entire_final.pdf

IDEQ 2007b. Letter from Michael McIntyre, Surface Water Programs Manager, IDEQ, to Jay Krauss, Lewiston City Manager, *Re: Comments Pertaining to the Draft City of Lewiston MS4 NPDES Permit and Fact Sheet*, dated October 12, 2007.

IDEQ 2007c. Letter from Kerby Cole, Regional Administrator – IDEQ Lewiston Regional Office, to Thomas Dechert, City of Lewiston, dated October 23, 2007.

IDEQ 2010. *Tammany Creek Watershed (HUC 17060103) TMDL Addendum*. September 2010. Available at: http://deq.idaho.gov/media/452571-tammany_creek_addendum.pdf.

IDEQ 2017. *Draft §401 Water Quality Certification NPDES Permit Number(s): Regulated Small Municipal Separate Storm Sewer Systems Within the State of Idaho IDR040000*. December 22, 2017.

Lewis-Clark State College (LCSC) 2011. *Lewis-Clark State College NPDES Stormwater Permit Application*. January 13, 2011.

Lewiston, City of. 2003. *NPDES Phase 2 Permit Application for Local MS4*. March 5, 2003.

Lincoln, City of, Nebraska. *Individual Lot NOI Application Instructions*; I*ndividual Lot NOI Application and SWPPP Form*; and *Typical Site Plans for Individual Lots; and Sediment Barrier Installations Details*. Available at http://www.lincoln.ne.gov/city/pworks/watershed/erosion/noi-swppp-lot.htm.

McIntyre, J.K, et al. 2015. *Severe Coal Tar Sealcoat Runoff Toxicity to Fish is Prevented by Biolretention Filtration*. Environ. Sci. Technol. 2016, 50, 1570−1578.

McIntyre, J.K, et al. 2016. *Confirmation of Stormwater Bioretention Treatment Effectiveness Using Molecular Indicators of Cardiovascular Toxicity in Developing Fish*. Environ. Sci. Technol. 2016, 50, 1561−1569

National Research Council (NRC). 2008. *Urban Stormwater Management in the United States,* Committee on Reducing Stormwater Discharge Contributions to Water Pollution of the National Research Council. October 2008.

Owens, et al 1997. Owens, D.W., P. Jopke, D.W. Hall, J. Balousek and A. Roa. 1997. "Soil Erosion from Small Construction Sites in Dane County, Wisconsin." Draft Report. USGS and Dane County Land Conservation Department, WI, *as cited in* EPA 1999 (page 68730).

Schwarz, T. 2005. *Interior Drainage Evaluation – April 2005 - Lewiston Levee near Lewiston, Idaho.* US Army Corps of Engineers Walla Walla District.

Shaver, Horner, et al. 2007. *Fundamentals of Urban Runoff Management: Technical and Institutional Issues*, 2nd Edition, 2007.

Spromberg, J.A. et al. 2016. *Coho salmon Spawner Mortality in Western US urban Watersheds: Bioinfiltration prevents lethal stormwater impacts*. Journal of Applied Ecology 2016, 53, 398–407.

Stein 2013. Presentation: *Assessments for Stormwater Monitoring And Management*. May 20, 2013. At http://www.sfestuary.org/wp-content/uploads/2013/05/EricStein_AssessmentsForStormwaterMonitoring_052013.pdf

Steevens, J. A., J. E. Mirecki, and T. S. Bridges (2005). Summary and analysis of dioxin, metal, and nutrient concentrations in outflow of levee ponds in Lewiston, Idaho. U.S. Army Corps of Engineers, Wally Walla District.

U.S. Army Corps of Engineers. 1972. Memorandum. Subject: Lower Granite Project, Snake River; Design Memorandum 29.1, East Lewiston Levee. August 4, 1972.

U.S Bureau of the Census. 2011. Bureau's definition of an Urbanized Area for the purposes of the Year 2010 Census is found in Federal Register, August 24, 2011. Vol. 76 No. 164 p. 53030. At http://www.census.gov/geo/reference/pdfs/fedreg/fedregv76n164.pdf

U.S. Bureau of the Census.2012. 2010 Census of Population and Housing, *Population and Housing Unit Counts*, *CPH-2-14, Idaho*. July 2012.

U.S. Bureau of the Census. *Lot Size of New Single-Family Houses Completed 2009-2016*. Available at: http://www.census.gov/construction/chars/pdf/lotsize.pdf

U.S. Bureau of the Census: *Building Permits Survey > Permits by Metropolitan Area, 2004-2016*. Available at: https://www.census.gov/construction/bps/msamonthly.html.

U.S. Geological Survey and EPA. 2015. *Draft: EPA-USGS Technical Report: Protecting Aquatic Life from Effects of Hydrologic Alteration: U.S. Geological Survey Scientific Investigations Report 2015–5160, U.S. Environmental Protection Agency EPA Report 822-P-15-002*. At https://www.epa.gov/sites/production/files/2016-03/documents/aquatic-life-hydrologic-alteration-report.pdf.

WDOE 2003. *TMDL for Lower Snake River Total Disolved Gas.* August 2003. WDOE Publication No. 03-03-020. Available at: https://fortress.wa.gov/ecy/publications/documents/0303020.pdf

WDOE and WDOH 2015. *PCB Chemical Action Plan*. February 2015. Available at: https://fortress.wa.gov/ecy/publications/documents/1507002.pdf

APPENDIX 1 – CORRESPONDENCE FROM IDEQ REGARDING CWA §401 CERTIFICATION

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1118 F Street • Lewiston, Idaho 83501 • (208) 799-4370
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippets, Director

November 13, 2018

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

Subject: DRAFT 401 Water Quality Certification for the City of Lewiston and Lewis-Clark State College Municipal Separate Sewer System (MS4), NPDES Permit #IDS028061

Dear Mr. Lidgard:

The Lewiston Regional Office of the Department of Environmental Quality (DEQ) has reviewed the above-referenced permit for the City of Lewiston and Lewis-Clark State College MS4. 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 expressly, or by taking no action.

This letter is to inform you that DEQ is issuing the attached Draft 401 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,

John Cardwell
Regional Administrator
Lewiston Regional Office

c: Misha Vakoc, EPA Region 10
Loren Moore, DEQ State Office

Idaho Department of Environmental Quality

Draft §401 Water Quality Certification

November 13, 2018

NPDES Permit Number(s): City of Lewiston and Lewis-Clark State College, IDS028061

Receiving Water Body: Clearwater River (Lower Granite Dam Pool), Lindsay Creek, Tammany Creek, and the Snake 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 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 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 Lewiston and Lewis-Clark State College discharge the following pollutants of concern: sediment, nutrients (nitrogen and phosphorous), heat, chlorides, metals, petroleum hydrocarbons, microbial pollution (*Escherichia coli*) and organic chemicals (pesticides and industrial chemicals).

Receiving Water Body Level of Protection

The City of Lewiston and Lewis-Clark State College discharge to the Clearwater River- Lower Granite Dam Pool, Lindsay Creek, the Snake River, and Tammany Creek within the Clearwater and Lower Snake Asotin Subbasin assessment units (AU) ID17060306CL001_07 (Lower Granite Dam Pool), ID17060306CL003_02 (Lindsay Creek – source to mouth), ID17060306CL003_03 (Lindsay Creek – source to mouth), ID17060103SL001_08 (Snake River), ID17060103SL016_02 (Tammany Creek – source to Unnamed Tributary (T34N, R04W, Sec19)), ID17060103SL014_02 (Tammany Creek – WBID 015 to unnamed tributary), ID17060103SL014_03 (Tammany Creek – Unnamed Tributary to mouth).

These AUs are all designated for cold water aquatic life beneficial uses. In addition, ID17060306CL001_07 (Lower Granite Dam Pool) and ID17060103SL001_08 (Snake River) are designated for primary contact recreation and domestic water supply beneficial uses and ID17060306CL003_02 (Lindsay Creek – source to mouth), ID17060306CL003_03 (Lindsay Creek – source to mouth), ID17060103SL016_02 (Tammany Creek – source to Unnamed Tributary (T34N, R04W, Sec19)), ID17060103SL014_02 (Tammany Creek – WBID 015 to unnamed tributary), ID17060103SL014_03 (Tammany Creek – Unnamed Tributary to mouth) are designated for secondary contact recreation beneficial uses. 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).

According to DEQ's 2014 Integrated Report, the Lindsay Creek and Tammany Creek AUs are not fully supporting their aquatic life or contact recreation beneficial uses. Causes of impairment include nutrients, sediment/siltation, and *Escherichia coli* (*E. coli*). The Snake River AU is not fully supporting its aquatic life use. The cause of impairment is temperature. The contact recreation beneficial use for the Snake River is unassessed in DEQ's 2014 Integrated Report; however, data collected by DEQ in 2017 indicate that recreation beneficial use is fully supported. The aquatic life and recreation beneficial uses for the Clearwater River are fully supported. As such, DEQ will provide Tier I protection (IDAPA 58.01.02.051.01) for the aquatic life and recreation beneficial uses in the Lindsay Creek and Tammany Creek AUs and Tier I protection for the aquatic life use in the Snake River AU. Tier II protection (IDAPA 58.01.02.051.02) in

addition to Tier I will be provided for the contact recreation use in the Snake River and Clearwater River AUs (IDAPA 58.01.02.052.05.c) as well as the aquatic life use in the Clearwater River AU.

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 Lewiston and Lewis-Clark State College permit and this 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.

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 Snake River is in Idaho's 2014 Integrated Report in Category 5 as impaired by temperature but does not have a current TMDL. The EPA-approved *Lindsay Creek Watershed Assessment and Total Maximum Daily Loads* (June 2007), *Tammany Creek Sediment TMDL* (February 2002), and *Tammany Creek Watershed (HUC 17060103): TMDL Addendum* (December 2010) establish wasteload allocations for *E. coli* bacteria, nutrients, and sediment. These wasteload allocations are designed to ensure that Lindsay Creek and Tammany Creek will achieve the water quality necessary to support existing and designated aquatic life and contact recreation beneficial uses and comply with the applicable numeric and narrative criteria. The terms and conditions contained in the City of Lewiston and Lewis-Clark State College permit and the conditions of this certification are consistent with the applicable waste load allocations in the TMDLs.

Specific terms and conditions of the permit aimed at providing a Tier I level of protection and compliance with the Lindsay Creek and Tammany Creek TMDLs include (Permit part 2 & 3):

- 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 Lewiston and Lewis-Clark State College to implement pollutant reduction activities and quantitative monitoring and assessment for discharges to Lindsay Creek and Tammany Creek;
- Requirements for the City of Lewiston and Lewis-Clark State College to monitor and assess temperature in discharges to the Snake River; and
- The stipulation that if either EPA or DEQ determine that an MS4 causes or contributes to an excursion above the water quality standards, the permittees must take a series of actions to remedy the situation.

In summary, the terms and conditions contained in the City of Lewiston and Lewis-Clark State College permit will reduce the discharge of pollutants to the maximum extent practicable and are consistent with the wasteload allocations established in the *Lindsay Creek Watershed Assessment and Total Maximum Daily Loads*, *Tammany Creek Sediment TMDL*, and *Tammany Creek Watershed (HUC 17060103): TMDL Addendum*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in the Lindsay Creek and Tammany Creek 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)

The Clearwater River – Lower Granite Dam Pool is considered high quality for cold water aquatic life and primary contact recreation. The Snake River is considered high quality for primary contact recreation. As such, the water quality relevant to cold water aquatic life and primary contact recreation uses of the Clearwater River – Lower Granite Dam Pool and the Snake River 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 cold water aquatic life and primary contact recreation uses of the Clearwater River – Lower Granite Dam Pool and the Snake River (IDAPA 58.01.02.052.05). These include *E.* coli, sediment, heat, nutrients, metals, chlorides, petroleum hydrocarbons, and organic chemicals (pesticides and industrial chemicals).

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). NPDES permits for regulated small municipal separate storm sewer systems (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 part 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 Lewiston and Lewis-Clark State College 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 Lindsay Creek and Tammany Creek, and the downstream receiving waters of the Clearwater River and Snake River, as a result of conducting pollutant reduction activities (Permit part 4.3).

This level of scrutiny and effort combined with requirements to address pollution sources should lead to improved water quality the longer the permit is in effect and should result in minimal to 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 from the City of Lewiston and Lewis-Clark State College MS4s.

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/media/622263-Stormwater.pdf).

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

Pollutant Reduction Activities in Tammany Creek and Lindsay Creek

In carrying out the requirements of Part 4.3 of the permit, the permittees must define and implement at least one (1) pollutant reduction activity designed to reduce *E. coli*, nitrogen, phosphorus, and sediment loadings from the MS4 into Tammany Creek.

In carrying out the requirements of Part 4.3 of the permit, the permittees must define and implement at least one (1) pollutant reduction activity designed to reduce *E. coli*, nutrients, and sediment loadings from the MS4 into Lindsay Creek.

Temperature Monitoring in Discharge to the Snake River

The permittees must monitor temperature in stormwater discharges from the MS4 to the Snake River to quantify stormwater impacts to the waterbody.

Reporting of Discharges Containing Hazardous Materials or Deleterious Material

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 Coeur d'Alene Regional Office at 208-769-1422 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 Sujata Connell, Lewiston Regional Office at 208-799-4370 or via email at Sujata.Connell@deq.idaho.gov .

DRAFT

John Cardwell
Regional Administrator
Lewiston Regional Office

APPENDIX 2 – STATUTORY AND REGULATORY OVERVIEW

Pollutants Typically Found in Urban Runoff

Stormwater is the surface runoff that results from rain and snow melt. Urban development alters the landscape's natural infiltration, and human activity generates pollutants that accumulate on paved or impervious surfaces. Uncontrolled pollutants and flow associated with stormwater discharges from urban areas can negatively affect water quality. Contaminants enter stormwater from a variety of sources in the urban landscape. Urban stormwater is often a contributing factor where there is a water quality standard impairment in a particular water body. Stormwater or urban runoff typically contains a mixture of pollutants, including the following major constituents:

- Sediment;
- Nutrients (nitrogen and phosphorus);
- Chlorides;
- Trace metals;
- Petroleum hydrocarbons;
- Microbial pollution; and,
- Organic chemicals (pesticides, herbicides, and industrial).[35]

An increase in impervious surface cover will increase the amount of runoff. Effects of runoff generally take one of two forms. First, an increase in the type and quantity of pollutants in stormwater runoff, where these pollutants become suspended in runoff and are carried to receiving waters, and can impair the aquatic life uses of these waters. The second kind of runoff effect occurs by increasing the quantity of water delivered to the water body as a result of storms. Increased impervious surface area (such as, parking lots, driveways, and rooftops) interrupts the natural process of gradual percolation of water through vegetation and soil, and the water that would percolate under natural conditions may instead be discharged through the MS4. The effects of this alteration include streambank scouring and downstream flooding, which can affect aquatic life and damage property.[36]

Statutory and Regulatory Background for the MS4 Permit Program

The federal Clean Water Act (CWA) Section 402(p), 33 U.S.C. § 1342(p) and the National Pollutant Discharge Elimination System (NPDES) stormwater regulations establish permit requirements for regulated MS4 discharges. Section 402(p)(3)(B) of the CWA, 33 U.S.C. §1342(p)(3)(B) requires any NPDES permit for MS4 discharges to effectively prohibit non-precipitation related flows from entering the MS4, and require controls to reduce the discharge of pollutants to the maximum extent practicable (MEP), including management practices, control techniques, and system design and engineering methods, and such other provisions determined to be appropriate by the NPDES permitting authority.

Definitions of relevant terms, such as "*municipal separate storm sewer*," and "*small MS4*," are found at 40 CFR §122.26(b). In general, a *municipal separate storm sewer* includes any publicly

[35] Shaver, Horner, et al. 2007; EPA 1990; and EPA 1999.
[36] USGS and EPA, 2015, page 61.

-owned conveyance or system of conveyances that discharges to waters of the United States, is designed or used for collecting and conveying stormwater, is not a combined sewer, and is not part of a publicly owned treatment works. A *municipal separate storm sewer system*, or MS4, includes roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man- made channels, and/or storm drains.[37]

In 1990, EPA developed the first phase of federal stormwater regulations as directed by the CWA. The "Phase I" regulations established NPDES permit application and related requirements for discharges from large MS4s and medium MS4s. The Phase I regulation identified the large- and medium MS4s nationally based on the 1990 Census population. Based on the 1990 Census in Idaho, the Phase I stormwater regulations automatically designated MS4 operators discharging within the boundaries of Garden City and Boise as medium MS4s.[38]

In 1999, EPA developed the "Phase II" stormwater regulations, and designated additional small MS4s as needing NPDES permits. Regulated small MS4s include any MS4 discharge not already covered by Phase I that is located (partially or wholly) within an Urbanized Area (UA) as defined by the latest decennial Census. Regulated small MS4s in Idaho are located in Census-defined UAs of Coeur d'Alene; Lewiston; Nampa; Boise; Pocatello; and Idaho Falls. The Phase II regulation also defines regulated small MS4s as those systems with a UA that serve military bases or other properties owned by the United States; colleges and universities; large hospital or prison complexes; and highway systems.[39] In Idaho, various public entities own and/or operate regulated small MS4s within UAs, including, but not limited to: cities and counties; local highway districts; ITD; and state or community colleges and universities

The Phase II regulation includes authority for EPA (or states that administer the NPDES program as the permitting authority) to require NPDES permits for other unregulated stormwater discharges by a designation process.[40]

Permits for small MS4 discharges must include terms and conditions to reduce the discharge of pollutants from the MS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act.[41] The MS4 permittee must control pollutants in their MS4 discharges to the MEP by addressing the six "minimum control measures," i.e., public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, and pollution prevention and good housekeeping. A regulated small MS4 operator may seek NPDES permit coverage under an available general permit, or the operator may apply for an individual permit.[42]

---

[37] *See*: 40 CFR §122.26(b); 122.32(a); and EPA 1990.
[38] In December 2000, EPA issued a single individual NPDES permit (#IDS027561) for the Phase I MS4 discharges owned/operated by six co-permittees operating in Garden City and Boise, ID; EPA reissued Permit #IDS027561 effective January 2013 -January 2018.
[39] *See*: 40 CFR §§ 122.26(b)(16) and 122.30 through 37; and EPA 1999. U.S. Census maps for the Coeur d'Alene, Lewiston (ID)-Clarkston (WA), Nampa, Boise, Pocatello, and Idaho Falls UAs are available at http://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/.
[40] *See:* 40 CFR § 122.26(a)(9)(i)(C) and (D)
[41] *See*: CWA Section 402(p)(3); 40 CFR §122.34(a); EPA 2016a and 2016b. EPA now refers to this phrase as the *MS4 permit standard*.
[42] *See:* 40 CFR § 122.34(b) and additional discussion in Section III of this Fact Sheet.

APPENDIX 3 – PERMIT AREA MAPS: LEWISTON URBANIZED AREA

Lewiston UA	Census 2000	http://www2.census.gov/geo/maps/urbanarea/uaoutline/UA2000/ua49312/
	Census 2010	http://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua49312_lewiston_id--wa/

Figure 3..2: City Boundaries for City of Lewiston

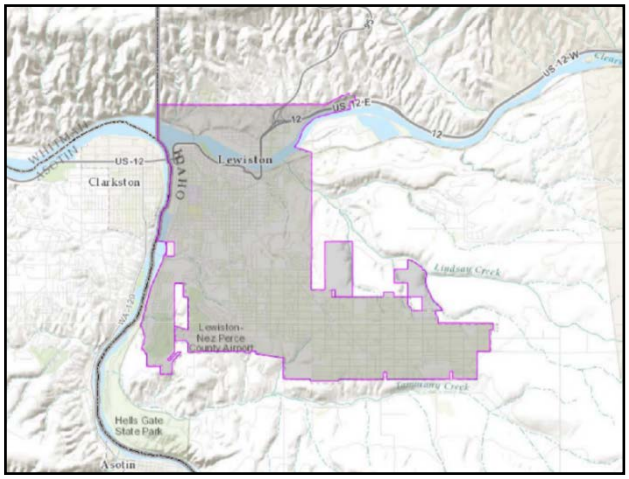


Figure 3.2:

City and Year 2000 UA Boundaries for the Lewiston, ID-Clarkston,,WA Urbanized Area

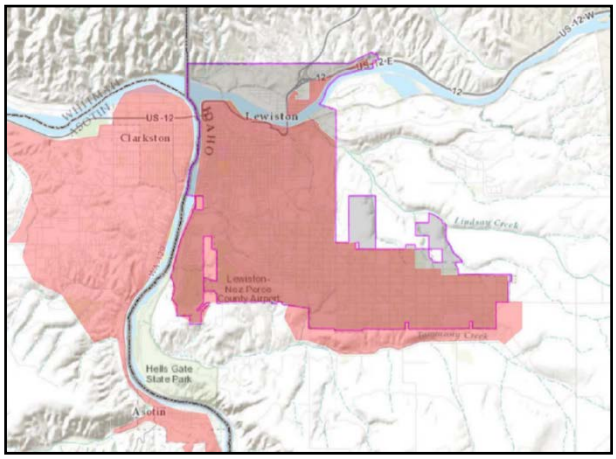


Figure 3.3:

Combined City, Year 2000 UA, and Year 2010 UA Boundaries for Lewiston, ID-Clarkston,,WA Urbanized Area

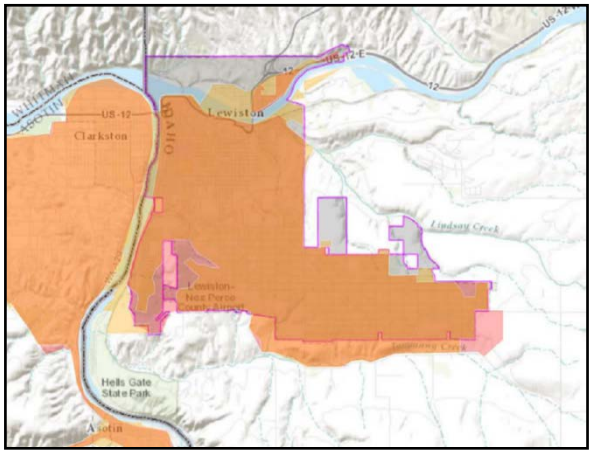
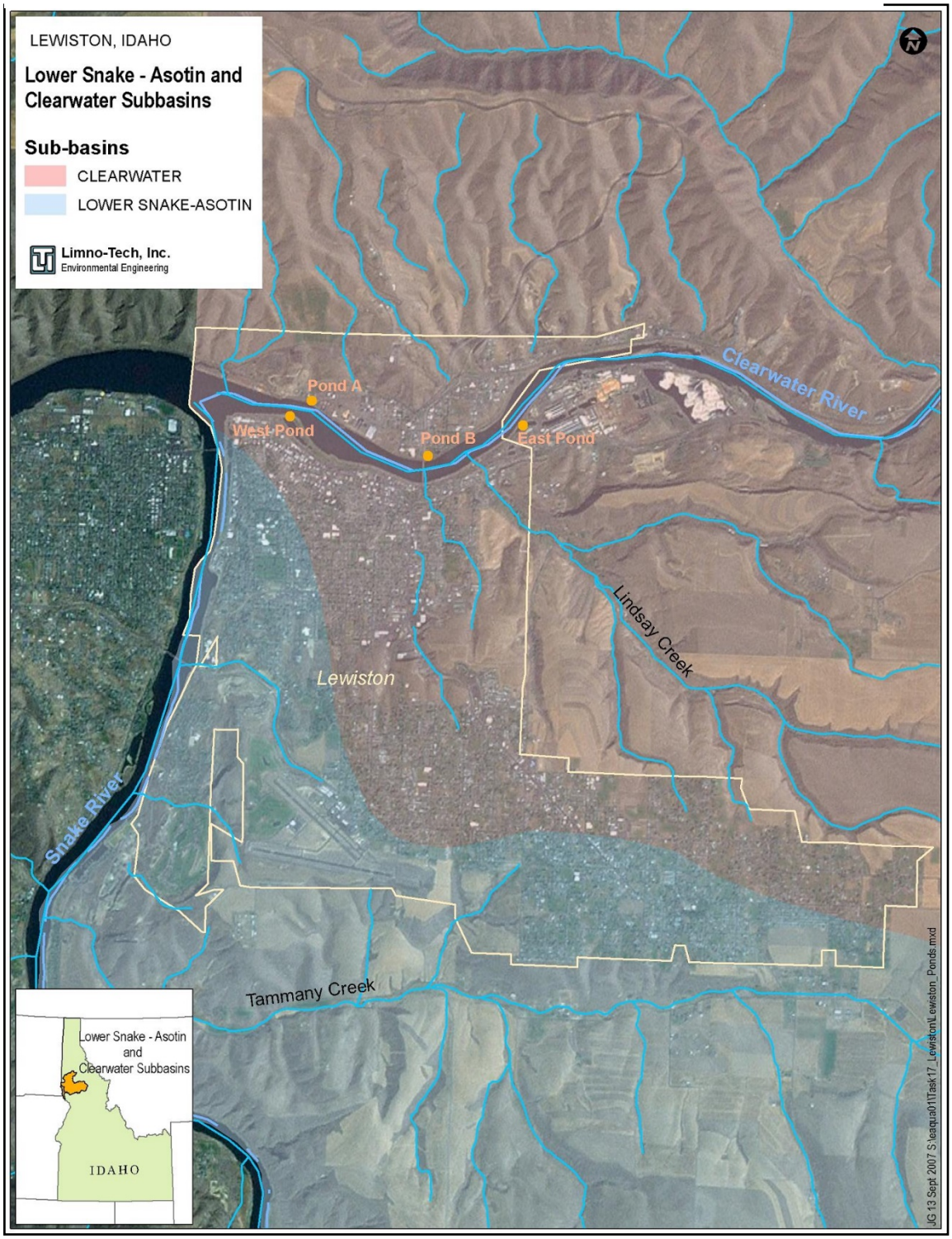
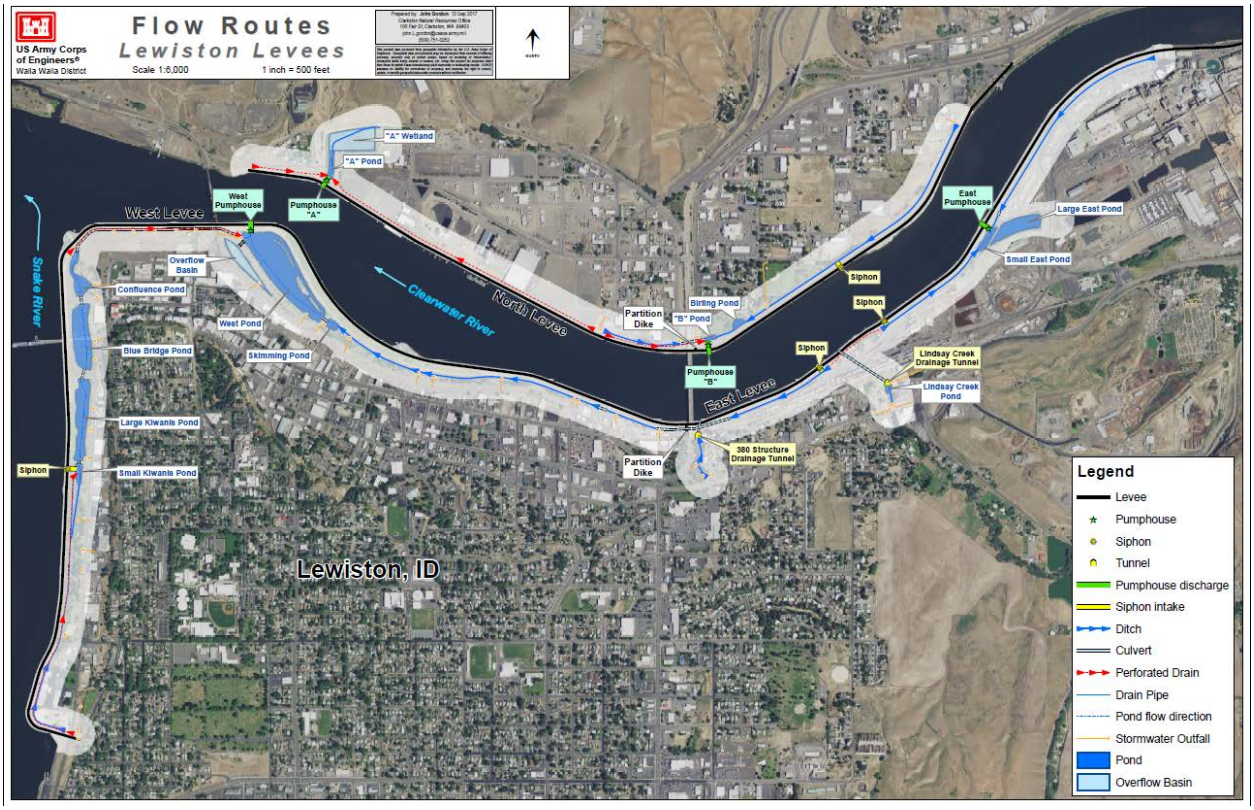


Figure 3.4:

Watershed Map of the Lower Snake -Asotin and Clearwater Subbasins



APPENDIX 4 – MAP OF LEWISTON LEVEE & PUMPING PLANTS



APPENDIX 5 - RATIONALE FOR THE ONSITE STORMWATER RETENTION STANDARD OR TREATMENT EQUIVALENT IN PERMIT PART 3.4

The requirements in Permit Part 3.4 will improve upon the site design specifications, guidelines, and other policy documents that are currently required by MS4 Permittee jurisdictions in Idaho. The purpose of requiring an onsite stormwater design standard in this and other Idaho MS4 permits is to reduce pollutants in regulated MS4 discharges to the MEP, and improve upon the protection of water quality in Urbanized Areas of Idaho by helping to maintain or restore stable hydrology in adjacent receiving waters.

The following discussion provides additional background on the EPA's rationale for including this requirement being necessary to meet the MS4 permit standard in the Lewiston UA.

It is well understood nationally that uncontrolled runoff from new development and redeveloped areas negatively affects receiving water bodies.[43] Pavement and other impervious surfaces in urban settings prevent infiltration of precipitation, and the resulting runoff increases both in volume and velocity, which in turn causes the erosion of stream banks and scouring of streambeds. Fine sediments and pollutants from automobiles, landscape pesticides, and fertilizers enter waterbodies, and can damage fish spawning areas and other aquatic habitat. Where traditional stormwater management practices typically employ engineered, end-of-pipe practices, (that tend to control only peak flow rates and total suspended solids concentrations), such conventional practices typically fail to address widespread and cumulative hydrologic modifications within a watershed that increase runoff volumes and rates, causing excessive erosion and stream channel degradation. Traditional practices also fail to treat runoff for nutrients, pathogens, and metals pollutants typically found in urban settings.[44]

Permanent stormwater control measures that involve prevention- such as product substitution, better site design, downspout disconnection, and conservation of natural areas - as well as watershed and land use planning, can dramatically reduce both the volume of runoff and pollutant loads from new development and redevelopment. In particular, site-level stormwater control measures that harvest, infiltrate, and evapotranspire stormwater runoff are critical to reducing the volume and pollutant loading associated with smaller storms.[45]

"Green Infrastructure" (GI) or "green stormwater infrastructure" (GSI), are terms used to describe the type of permanent stormwater management techniques that are cost-effective, sustainable, and environmentally friendly. Such techniques, including site level "Low Impact Development" (LID) practices, at new development or redevelopment projects involve both stormwater management and land development strategies emphasizing conservation and integration of natural features with small scale engineered hydrologic controls to more closely mimic predevelopment hydrologic function. A comprehensive approach to long-term stormwater management using GI/GSI, and LID seeks to:

[43] EPA 1983; EPA 1999.

[44] Shaver, et al., 2007. Holz, 2008; and Horner, 2008.

[45] NRC 2008.

- Preserve, protect and enhance natural landscape features, such as undisturbed forests, meadows, wetlands, and other undisturbed areas that provide natural stormwater management;
- Reduce overall land consumption, and use land efficiently, to reduce total watershed or regional impervious cover;
- Recycle land by directing new development to already degraded land, e.g., parking lots, vacant buildings, abandoned malls; and
- Direct stormwater into the ground near where it fell through infiltration, prevent rainfall from falling to the ground through interception, return water back to the atmosphere through evapotranspiration, and/or otherwise manage storm water through reuse techniques.[46]

Since 2008, the EPA has encouraged MS4 jurisdictions to employ a volume-based approach to stormwater management at new development and redevelopment sites. This approach includes requirements for the design, construction, and maintenance of permanent stormwater practices that manage rainfall on-site, to generally prevent the off-site discharge of precipitation from all rainfall events below a certain size. The EPA considers a volume-based stormwater management approach to be appropriate in this and other MS4 permits in Idaho because such techniques are widely acknowledged as a means of preventing pollutants from entering the receiving water; further, such techniques directly address the need to maintain and, where necessary, restore predevelopment hydrology for duration, rate, and volume of stormwater flows.

Many GSI/LID strategies involve bioretention, or infiltrating runoff through soil. Bioretention practices include use of porous pavements, green roofs, bioswales, and rain gardens. Various studies confirm the effectiveness of GSI/LID practices to reduce contaminants, restore hydrology, and protect the health of aquatic species. Research and on-the-ground experience suggests that all LID practices can perform effectively in a wide variety of geographic areas as long as procedures for proper design, implementation, and maintenance are established and followed.[47]

Many MS4 Permittees in Idaho currently require onsite retention and infiltration practices at development sites in their jurisdictions, and integrate aspects of a GSI/LID approach for such new development and redevelopment sites. Based on evidence that such GSI/LID approaches are indeed practicable for use in Idaho communities, the EPA is now requiring such site design approaches in this and other MS4 permits in Idaho to better address post-construction stormwater discharges.

The Permit requires the Permittees to use local ordinances or regulatory mechanisms to require the volume of water from storms $\leq 95^{th}$ percentile event to be managed entirely onsite, and not discharged to surface waters, in order to fully protect Idaho receiving waters. The *95^{th} percentile*

[46] See: American Rivers 2013; EPA 2006*;* EPA 1999*,* at pages 68725 – 68728 and 68759; EPA 2008; and EPA 2009.

[47] For example, see Ahiablame, et al, 2012; Spromberg, J.A. et al. 2016; and McIntyre, J.K, et al. 2016; and other references in the Administrative Record.

rainfall event is the rainfall event that is greater than 95% of all rainfall events over a period of record (typically using a minimum 30-year period of record). In general, this calculation excludes extremely small rain events that are ≤0.1 of an inch of rainfall or less (because such small rainfall events typically do not result in any measurable runoff due to absorption, interception, and evaporation by permeable, impermeable, and vegetated surfaces).[48]

The EPA has previously calculated example target design storm volumes, as illustrated below. Using available 24-hour precipitation data through 2012 from the National Oceanic and Atmospheric Administration, EPA analyzed the average rainfall depth occurring in the Idaho MS4 Permit Areas. See Table A below. In the Urbanized Areas of Idaho, approximately 95% of all storms result in rainfall volumes of approximately 0.82 inches or less, ranging between 0.57 inches to 0.82 inches.

Table A: ***Analysis of the 95th Percentile Storm Runoff Volumes for Idaho MS4 Permit Areas***

Urbanized Area/ Permit Area	Rainfall Depth (in) 95th	NOAA Station Location; Period of Record
Coeur d' Alene	0.81888	*COEUR D ALENE, ID (GHCND:USC00101956);1895-2012*
Moscow	0.8188	*MOSCOW U OF I, ID (GHCND:USC00106152);1893-2012*
Caldwell	0.6102	*BOISE AIR TERMINAL, ID (GHCND:USW00024131); 1940-2012*
Nampa	0.5708	*NAMPA 2 NW, ID US ZIP:83687; 1948-2012*
Boise	0.6102	*BOISE AIR TERMINAL, ID (GHCND:USW00024131); 1940-2012*
Lewiston	0.6299	*LEWISTON NEZ PERCE CO AIRPORT, ID (GHCND:USW00024149); 1940-2012*
Pocatello	0.6495	*POCATELLO REGIONAL AIRPORT, ID (GHCND:USW00024156); 1939-2012*
Idaho Falls	0.688	*IDAHO FALLS, ID 83402 ZIP:83402; 1913-2012*

The EPA recommends the 95th percentile storm volume be calculated for the Lewiston Urbanized Area at the start of the Permit term and revisited at the time of permit renewal so that a consistent standard is applied for the duration of the Permit term.

Including a stormwater design standard for onsite stormwater retention in this and other MS4 Permits, expressed as a calculated runoff volume, serves to acknowledge the predicted, incremental increase in storm event volumes in Lewiston and other areas of Idaho. The EPA believes such a design standard is preferable to using a single, static statewide rainfall amount (e.g, "0.6 inches total rain"), or a volume calculated from a statistical storm frequency return

[48] See: Hirschman and Kosco, 2008.

interval using historic rainfall data.

The EPA has evaluated the potential extreme storm event return interval for 24-hour storm events in each of the MS4 Permit Areas in Idaho.[49] The evaluation reflects estimated changes in rainfall patterns over 30-year averages, centered around the years 2035 and 2060, as compared to historical or present-day conditions. Under all evaluated scenarios, the predicted trends in Idaho MS4 Permit Areas show a general increase in ambient temperatures throughout the calendar year, and increased storm magnitude for all return frequencies (i.e., the 5 year, 10 year, …, and 100 year events). The evaluation also suggests significantly decreased summer precipitation statewide, balanced by increased precipitation during other seasons. Expressing the stormwater design standard for onsite storm water retention in Permit Part 3.4 as a calculated runoff volume therefore defines a practicable and feasible performance standard for permanent stormwater control at new development and redevelopment that will protect Idaho water quality over the long term.

[49] The PA Region 10's analysis of the extreme storm event return interval for the Idaho MS4 Permit Areas is available as part of the Administrative Record. The EPA used a risk assessment application designed to help water utilities in adapting to extreme weather events through a better understanding of current and long-term weather conditions; it is available online at https://www.epa.gov/crwu/build-resilience-your-utility.

APPENDIX 6 – RATIONALE SUPPORTING REQUIREMENTS IN PERMIT PART 4 FOR MS4 DISCHARGES TO IMPAIRED WATERS

Appendix 6.1 Tammany Creek

Summary: Consistent with the WLAs established in the EPA-approved TMDL, the Permittees must conduct monitoring/assessment and targeted pollutant reduction activities to reduce sediment, nutrients, and *E. coli* in MS4 discharges to impaired segments of Tammany Creek.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Tammany Creek	ID17060103SL014_02 *Tammany Creek - WBID 015 to unnamed tributary* ID17060103SL014_03 *Tammany Creek - Unnamed Tributary to mouth* ID17060103SL016_02 *Tammany Creek-source to Unnamed Tributary(T34N, R04W, Sec19)*	*E. coli* Nitrogen, Nitrate Total Phosphorus Sedimentation/ Siltation	*Tammany Creek Sediment TMDL,* September 2001. EPA Approved February 2002. *Tammany Creek Watershed (HUC 17060103) TMDL Addendum,* September 2010. EPA Approved December 2010.

Discussion:City of Lewiston's MS4 discharges to Tammany Creek.[50]

IDEQ's *Tammany Creek Sediment TMDL* (Tammany Sediment TMDL) attributed sediment impairment to suburban, rural and agricultural development in the watershed, established load allocations (LAs) for non-point sources, but did not include a WLA for discharges from the City of Lewiston's MS4. In 2010, IDEQ updated the TMDL through its *Tammany Creek Watershed TMDL Addendum* (Tammany TMDL Addendum), to establish both LAs for non-point sources, and WLAs for point sources, for discharges of sediment, bacteria, and nutrients (nitrite plus nitrate as nitrogen and total phosphorus) to the impaired segments of Tammany Creek.[51]

IDEQ establishes LAs in the TMDL Addendum as summarized below.

- For sediment, the TMDL Addendum sets monthly sediment targets, and estimates that sediment reductions of up to 83% are necessary to attain these sediment target(s).
- For bacteria, the TMDL Addendum sets an instream target for *E. coli* equal to the Idaho WQS (30-day geometric mean concentration of 126 cfu/100ml), and estimates that a pollutant reduction of up to 72% from all sources is needed to meet the instream target.
- For nutrients, the TMDL Addendum provides numeric interpretation of the Idaho WQS to reflect both nitrite plus nitrate as nitrogen, and total phosphorus, (i.e., 0.072 mg/L and 0.03 mg/L, respectively), and sets monthly load allocations for each. Overall, reductions

[50] Note: The MS4 owned/operated by LCSC does not discharge to Tammany Creek; the LCSC is interconnected to the portion of the City's MS4 that discharges to the LGDP. See Section 1.3.3 of this Fact Sheet.
[51] See IDEQ 2001, and IDEQ 2010, Available at: http://deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/snake-lower-asotin-subbasin/

of up to 98% of the nitrogen loading, and up to 89% of the total phosphorus loading, is needed from all sources to meet these instream targets.

IDEQ then allocates 6% of the LA for each pollutant to the City of Lewiston and other regulated stormwater discharges in the watershed. Another 1.5 % of the available loading allows for future development growth in the watershed.

In IDEQ correspondence to the City of Lewiston regarding the EPA's initial 2007 proposed NPDES permit for the City of Lewiston MS4 discharges, IDEQ stated that the City's stormwater discharges to Tammany Creek should be monitored for the impairment pollutants of concern.[52]

Conclusion: To quantitatively assess sediment, bacteria, and nutrients in their MS4 discharges to Tammany Creek, the EPA requires the Permittees to conduct (or participate in a cooperative effort with others) some type of monitoring/assessment activity to address these impairment pollutants of concern. Permit Part 4 requires the Permittees to submit a Monitoring/Assessment Plan(s) for the EPA and IDEQ review no later than 180 days from Permit effective date.

In addition, Permit Part 4 requires Permittees to submit a description of at least one (1) pollutant reduction activity to target and control discharges of sediment, *E.coli*, nitrogen and phosphorus laodings from the MS4 intoTammany Creek, in keeping with the condition cited in the IDEQ draft CWA Section 401 water quality certification. See Appendix 1 of this Fact Sheet.

Such activities may augment existing SWMP control measures, or may target new actions, as deemed appropriate by the Permittees. The EPA will review and consider modifying relevant sections of the Permit to incorporate the Permittees' individual or joint pollutant monitoring/assessment and pollutant reduction activities.

[52] IDEQ 2007b; IDEQ 2007c.

Appendix 6.2 Lindsay Creek

Summary: Consistent with the WLAs established in the EPA-approved TMDL, the Permittees must conduct monitoring/assessment and targeted pollutant reduction activities to reduce sediment, nutrients, and *E. coli* in MS4 discharges to impaired segments of Lindsay Creek.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Lindsay Creek	ID17060306CL003_02 *Source to mouth* ID17060306CL003_03 *Source to mouth*	*E. coli* Nutrient/Eutrophication/ Biological Indicators Sedimentation/ Siltation	*Lindsay Creek Watershed Assessment and Total Maximum Daily Loads*, December 2006, Amended March 2007. Approved, June 2007.

Discussion: The City of Lewiston's MS4 discharges to Lindsay Creek.[53]

IDEQ's *Lindsay Creek Watershed Assessment & TMDLs (*Lindsay Creek TMDL) set load allocations for *E.coli*, nutrients, and sediment. In anticipation of the EPA issuing a NPDES permit for regulated MS4 discharges, and based on estimated land use in the Lindsay Creek watershed showing that the City occupies a relatively small (11.4%) portion of watershed, IDEQ then allocated a portion of the pollutant loads for *E.coli* and sediment as WLAs for the City's MS4 discharges to Lindsay Creek.

- For *E. coli* IDEQ established an instream target for equal to the Idaho WQS (30-day geometric mean concentration of 126 cfu/100ml), and estimates that a 66% reduction is needed from all contributing bacteria sources in order to meet the instream target.
- For sediment, IDEQ set an average monthly target of 50 mg/L TSS, not to exceed a maximum daily average of 80 mg/L. Reductions of up to 81% necessary are likely necessary during some months in order to attain the sediment target.

IDEQ allocates 3% of the LA for sediment as a WLA for the City of Lewiston's MS4 discharges, and allows 8% of the available loading for sediment to allow for future development growth in the Lewiston Orchards area of the watershed. IDEQ states that the WLA and reserve allocation for growth are temporary, and subject to future revision, until more current and applicable data becomes available.[54]

The Lindsay Creek TMDL does not assign a WLA to urban runoff for nutrients, attributing the nutrient loading in Lindsay Creek to agricultural sources elsewhere in the watershed.

In IDEQ correspondence to the City of Lewiston regarding the EPA's initial 2007 proposed NPDES permit for the City of Lewiston MS4 discharges, IDEQ stated that the City's MS4 discharges to Lindsay Creek should be monitored for the impairment pollutants of concern.[55]

Conclusion: To quantitatively assess sediment, *E.coli,* and nutrients in their MS4 discharges to Lindsay Creek, the EPA requires the Permittees to conduct (or participate in a cooperative effort

[53] Note: The MS4 owned/operated by LCSC does not discharge to Lindsay Creek; the LCSC is interconnected to the portion of the City's MS4 that discharges to the LGDP. See Section 1.3.3 of this Fact Sheet.
[54] IDEQ 2007a, page 56.
[55] IDEQ 2007b; IDEQ 2007c.

with others) some type of monitoring/assessment activity to address these impairment pollutants of concern. Permit Part 4 requires the Permittees to submit a Monitoring/Assessment Plan(s) for the EPA and IDEQ review no later than 180 days from Permit effective date.

In addition, Permit Part 4 requires Permittees to submit a description of at least one (1) pollutant reduction activity to target and control discharges of sediment, *E.coli*, and nutrients from the MS4 into Lindsay Creek, in keeping with the condition cited in the IDEQ draft CWA Section 401 water quality certification. See Appendix 1 of this Fact Sheet.

Such activity(ies) may augment existing SWMP control measures, or may target new actions, as deemed appropriate by the Permittees. The EPA will review and consider modifying relevant sections of the Permit to incorporate the Permittees' individual or joint pollutant monitoring/assessment and pollutant reduction activity(ies).

Appendix 6.3 Snake River Arm of the Lower Granite Dam Pool (Idaho)

Discussion and Conclusion: The City of Lewiston's MS4 discharges to the Snake River Arm of the Lower Granite Dam Pool, which is listed by IDEQ as impaired for temperature.[56]

IDEQ includes a condition in their draft CWA Section 401 water quality certification requiring temperature monitoring of the MS4 discharges to the Snake River arm of the Lower Granite Dam Pool. See Appendix 1 of this Fact Sheet.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Snake River Arm of the Lower Granite Dam Pool	ID17060103SL001_08 *Snake River - Asotin River* *(Idaho/Oregon border to Lower Granite Dam Pool)*	*Temperature*	*No TMDL Completed.*

[56] Based on available maps of the Permittees' MS4s, the MS4 owned/operated by LCSC does not discharge to the Snake River. The LCSC MS4 is interconnected to the portion of the City's MS4 that ultimately discharges to the Clearwater Arm of the LGDP. See Section 1.3.3 of this Fact Sheet.

Appendix 6.4 Clearwater River Arm of the Lower Granite Dam Pool

Summary: Additional monitoring/assessment, or other actions, may be necessary based on the result of the EPA's consultation with NOAA-Fisheries and USFWS. In the event additional actions are required, the EPA will follow the permit modification requirements of 40 CFR § 122.62.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Lower Granite Dam Pool	ID17060306CL001_07 *Lower Granite Dam Pool*	None- Fully Supporting beneficial uses.	Not applicable.

Discussion and Conclusion: MS4 discharges from the City and LCSC enter the LGDP directly, and indirectly, at several locations described in Section 1.3 of this Fact Sheet.

The Clearwater River Arm of the LGDP is not considered to be water quality impaired by IDEQ. Based on this status, the EPA has not included additional SWMP control requirements or other actions in the Permit.

However, as discussed in Section 3.3 of this Fact Sheet, the LGDP is considered to be in the designated critical habitat area for threatened and endangered species, specifically that of bull trout, Chinook and sockeye salmon, and steelhead trout. The LGDP is also considered essential fish habitat for Chinook and coho salmon.

The EPA is completing a biological evaluation of potential effects on these ESA listed species resulting from its issuance of the Permit. The EPA will consult with NOAA-Fisheries and USFWS as required by the ESA. Additional requirements, in the form of monitoring and/or other SWMP actions, may be added to the Permit based on the results of the EPA's consultation. In the event additional actions are required, the EPA will follow the permit modification requirements of 40 CFR § 122.62.

Appendix 6.5 Lower Granite Lake (Snake River) downstream of ID/WA Border

Summary: No additional requirements are included in the Permit.The EPA determines that the Permittees' implementation of SWMP control measures required by Permit Part 3 will reduce the discharge of pollutants to the maximum extent practicable, protect water quality, and satisfy appropriate requirements of the Clean Water Act.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Snake River *(Washington Portion)*	170601070201_01_01 Snake River (Lower Granite Lake)	Total Dissolved Gas	*TMDL for Lower Snake River Total Disolved Gas,* August 2003. WDOE Publication No. 03-03-020; EPA Approved,{date unknown).
		2,3,7,8 Tetrachlorodibenzo-p-dioxin (TCDD, or Dioxin)	*TMDL to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin*, February 1991. WDOE Publication No. 09-10-058. Approved (date unknown).
		pH Temperature Dissolved Oxygen Polychlorinated biphenyls (PCBs); 4,4' dichlorodiphenyldichloro-ethylene (DDE)	No TMDL(s) completed.

Discussion and Conclusion:

MS4 discharges from the City and LCSC enter the Idaho portion of LGDP directly, and indirectly, at several locations described in Section 1.3 of this Fact Sheet.

Downstream of the Lewiston UA, WDOE considers the portion of the Snake River known as Lower Granite Lake to be impaired for total dissolved gas; dioxin; pH; temperature; dissolved oxygen; PCBs; and DDE.

TMDLs have been completed for total dissolved gas and dioxin; neither TMDL contains WLAs for municipal stormwater discharges. Specifically, WDOE's 2003 *TMDL for Lower Snake River Total Dissolved Gas*[57] identifies water spilling over dams on the Snake River as the cause of total dissolved gas levels above the WA water quality criteria, and establishes associated load allocations only for those Snake River dams. With regard to dioxin, the EPA issued the multi-state *TMDL to Limit Discharges of 2,3,7,8-TCDD (Dioxin) to the Columbia River Basin* in 1991. This TMDL for dioxin establishes WLAs only for chlorine bleaching pulp mills, and does not

[57] WDOE 2003.

establish WLAs or LAs for other point or non-point sources, nor does it identify specific actions or expectations for potential sources of dioxin.[58]

No TMDLs have yet been established for pH, temperature, dissolved oxygen, PCBs, or DDE. WDOE's impairment listings for pH, temperature, and dissolved oxygen are based on water quality monitoring, while listings for PCBs and DDE are based on fish tissue sampling.

PCBs do not readily dissolve in water but tend to bind to particles; particle-bound PCBs can be transported through stormwater and end up in sediment. WDOE and the Washington Department of Health identify stormwater as the largest delivery pathway to surface waters for PCBs statewide, and states that the long-term goal is to prevent PCBs from entering stormwater by continuing to work on stormwater management.[59]

WDOE requires the regulated MS4s discharging to Snake River (Cities of Asotin and Clarkston, and Asotin County, WA) to implement a comprehensive SWMP through its *Eastern Washington Phase II Municipal Stormwater General Permit.* The EPA has outlined SWMP control measures in the Permit for the City and LCSC that are comparable to the *Eastern Washington Phase II Municipal Stormwater General Permit,* and therefore has not included any additional SWMP control requirements or other actions at this time.

As discussed in Sections 3.2 and 3.3 of this Fact Sheet, the portion of the LGDP in Idaho is considered designated critical habitat area for threatened and endangered species, specifically bull trout, Chinook and sockeye salmon, and steelhead trout. The LGDP is also considered essential fish habitat for Chinook and coho salmon.

The EPA is completing a biological evaluation of potential effects on these ESA listed species resulting from its issuance of the Permit. The EPA will consult with NOAA-Fisheries and USFWS as required by the ESA. Additional requirements, in the form of monitoring and/or other SWMP actions, may be added to the Permit based on the results of the EPA's consultation. In the event additional actions are required, the EPA will follow the permit modification requirements of 40 CFR § 122.62.

[58] EPA 1991
[59] WDOE and WDOH 2015.