Fact Sheet

NPDES Permit Number:	IDS028207
Date:	October 25, 2018
Public Comment Period Expiration Date:	November 26, 2018
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 Stormwater Discharges To:

Lakes Highway District, Post Falls Highway District, and East Side Highway District

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 entities listed above. 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 continued implementation of a cooperative, comprehensive stormwater 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, 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. Comments regarding the certification should be directed to:

Idaho Department of Environmental Quality
ATTN: Surface Water Program/June Bergquist
2110 Ironwood Parkway
Coeur d'Alene, ID 83814

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/publicnotices/notices-search/location/Idaho* or *https://www.epa.gov/npdes-permits/stormwater-discharges-municipal-sources-idaho-and-washington*. 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.

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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
EFH	Essential Fish Habitat
ESA	Endangered Species Act
ESHD	East Side Highway District
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
LA	Load Allocation
LHD	Lakes Highway District
LID	Low Impact Development
mg/L	Milligrams per Liter
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
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
PFHD	Post Falls Highway District
SEEP	Panhandle Stormwater Erosion Education Program
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
US	United States
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 3 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 U.S. Environmental Protection Agency (EPA) is reissuing a Permit to authorize stormwater discharges from the regulated small MS4s located in the Coeur d'Alene Urbanized Area owned and/or operated by Lakes Highway District (LHD), Post Falls Highway District (PFHD), and East Side Highway District (ESHD) in Kootenai County, Idaho. This Fact Sheet explains the rationale for proposed Permit terms and conditions for these MS4 discharges.

1.1. Permittees, New Applicant, and Permit History

In accordance with Clean Water Act (CWA) Section 402(p), 33 U.S.C. § 1342(p), and 40 CFR §122.32, the Permit is being reissued on a system-wide basis for the MS4 owned and/or operated by LHD, PFHD and ESHD that are located within the boundaries of the Coeur d'Alene Urbanized Area as defined by the Year 2000 and Year 2010 Decennial Census. See Appendix 3 for maps of the Coeur d'Alene Urbanized Area.

Operator	Physical Address
Lakes Highway District	11341 N. Ramsey Road Hayden, ID 83835
Post Falls Highway District	5629 E. Seltice Way Post Falls, ID 83854
East Side Highway District	6095 E. Mullan Trail Road Coeur d'Alene, ID 83814

The EPA previously issued Permit #IDS028207 for discharges from the LHD MS4, and Permit #IDS028193 for discharges from the PFHD MS4 in November 2008. The EPA modified these permits in December 2009; and both permits subsequently expired in December 2014.

As a result of the Year 2010 Census, the Coeur d'Alene Urbanized Area boundaries expanded to include areas of Kootenai County served by the MS4 owned and/or operated by ESHD.

On June 26, 2013, LHD, PFHD, and ESHD submitted a joint application for coverage under a MS4 Permit. This 2013 Joint Application served as permit renewal requests for

LHD and PFHD, and as a first-time permit application request for ESHD. Pursuant to 40 CFR § 122.6, upon the expiration date of the Permits, the LHD and PFHD permits were administratively extended in July 2013. Therefore, with the exception of ESHD who is a new permittee, the Permits remains in effect until a new permit is reissued. LHD and PFHD continue to implement their stormwater management program (SWMP) activities and submit Annual Reports in compliance with the administratively extended Permits. The 2013 Joint Application cites cooperative implementation of similar SWMP activities in the ESHD area.

The Highway Districts applied for MS4 permit coverage as "co-Permittees," a term defined in the federal regulations as "a permittee to a NPDES permit that is only responsible for Permit conditions relating to the discharge for which it is operator." The EPA recognizes the ongoing cooperative working relationship among these three entities, and collectively refers to the group in the current Permit as "Permittees."

In response to the Permittees' request for a joint MS4 permit, the EPA proposes to reissue and revise NPDES Permit #IDS028207 to authorize the Highway Districts' MS4 discharges under a single NPDES permit. Therefore, as part of this action, the EPA also proposes to terminate the PFHD MS4 Permit, NPDES Permit #IDS028193, upon issuance of the final Permit #IDS028207.

In 2016 and 2017, the EPA was working on a general permit that would cover all Phase II regulated 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 renewal application and Annual Reports, 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 jointly between the EPA and IDEQ will be made solely by IDEQ. Permittees will be notified by IDEQ when this transition occurs.

1.3. Description of Permittees' MS4s and Discharge Locations

The 2013 Joint Application includes the following information:

- The authority to establish highway districts within the State of Idaho is described in Idaho Code Section 40, Chapter 6. The authority over road rights-of-way is described in Idaho Code Section 50-1330. LHD, PFHD and ESHD have the authority and responsibility to construct, operate, and maintain a continuous safe roadway transportation system within Kootenai County but outside of the municipal boundaries of the Cities of Rathdrum, Post Falls, Hauser, Hayden, Hayden Lake, Dalton, Spirit Lake, Coeur d'Alene, Harrison, and Athol.

- Highway districts in Idaho typically control the roadways within their individual districts, and do not have ordinance authority. Control takes the form of dedicated rights-of-way, easements, and prescriptive rights-of-way. LHD, PFHD, and ESHD have elected Commissioners with limited taxing authority through Mill Levies in the County property taxing system and the creation of Local Improvement Districts. These Highway Districts also receive Highway Users Funds for operation, maintenance, and administration budgets.
- LHD operates a MS4 in the Permit Area near the Cities of Hayden and Hayden Lake, Idaho. The MS4 discharges to Hayden Lake and Avondale Lake. The MS4 consists of natural drainage channels, culverts, and ditches along the roadways managed by the LHD. Approximately 28 miles of roadway serving 3.5 square miles are maintained by LHD within the Coeur d'Alene Urbanized Area. A representative latitude/longitude of an outfall located near the center of the LHD MS4 area is 47° 44' 55" N, 116° 44' 15" W. A map of the MS4 showing the locations of approximately 34 culverts and outfalls is available in the Administrative Record.
- PFHD operates a MS4 in the Permit Area near the Cities of Post Falls and Coeur d'Alene, Idaho. The MS4 discharges to the Spokane River and/or its tributaries. The MS4 consists of natural drainage channels, culverts and ditches along the roadways managed by PFHD. A representative latitude/longitude of an outfall located near the center of the PFHD MS4 area is 47° 41' 58.11" N, 116° 52' 35" W. A map of the MS4 showing the locations of 28 culverts and outfalls is available in the Administrative Record.
- ESHD operates a MS4 in the Permit Area near the City of Coeur d'Alene, Idaho. The MS4 discharges to the Fernan Lake and Coeur d'Alene Lakes. The outfalls for the ESHD have not been mapped to date. An estimated representative latitude/longitude of an outfall located near the center of the ESHD MS4 area is 47° 40' 32" N, 116° 44' 29" W.[1]

Based on its status as a first term MS4 permittee, the Permit requires ESHD to develop a detailed system assessment and map during the Permit term. The map must fully define the extent of the MS4 and verify the location of all outfalls, and interconnections with the MS4s of adjacent jurisdictions, that discharge to surface waters within the Permit Area, including but not limited to Fernan Lake and Coeur d'Alene Lake. See also Section 2.4.2 of this Fact Sheet.

1.4. Stormwater Management Program Accomplishments[2]

Since 2009, LHD and PFHD have successfully implemented SWMP control measures in the Coeur d'Alene Urbanized Area, and have begun sharing their expertise with ESHD. Examples of their SWMP accomplishments include:

- Intergovernmental coordination through a cooperative agreement;
- Assisting in the development and ongoing support of the Panhandle Storm Water Erosion Education Program (SEEP). See www.PanhandleSEEP.org;
- Cooperative and creative outreach activities through coordination with other MS4 Permittees and local watershed groups, including City of Coeur d'Alene, the Regional Water Quality Public Education Group, and the SEEP;

[1] See: 2013 Joint Application
[2] See: LHD and PFHD MS4 Annual Reports, 2010 - 2017.

- Regular public information sharing through websites and community events;
- Direct educational training for contractors working within the Permittees' rights of way;
- Current maps of the MS4s;
- Policies/protocols for screening and response to illicit discharges into the MS4s;
- Requirements for erosion and sediment controls at all construction activities that disturb one or more acres; and
- Regular staff training on protecting water quality through illicit discharge response and operation and maintenance practices.

After review of their Annual Reports and EPA inspection reports, the EPA concludes that LHD and PFHD have each effectively implemented the stormwater control measures in compliance with their respective NPDES permits, and have reduced pollutants discharged through their MS4s. See also Part 2.1 of this Fact Sheet.

1.5. 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) *"based on its evaluation of the current permit requirements, record of permittee compliance and program implementation progress, current water quality conditions, and other relevant information."* The permitting authority must consider adjustments in the form of modified permit requirements, where necessary, to reflect current water quality conditions, best management practices (BMP) effectiveness, and other current relevant information. The permitting authority cannot reissue the same permit conditions for subsequent five-year permit term(s) without considering whether more progress can or should be made in meeting water quality objectives (especially in areas where the receiving waters are not attaining the applicable water quality standards*).*[3]

For the North Idaho Highway Districts MS4 Permit, the EPA has considered a variety of information in order to develop the Permit terms and conditions, including but not limited to:

- NPDES Permits #IDS028207 and IDS028193 as issued in 2008, and other EPA issued MS4 permits in Idaho;
- The 2013 Joint NPDES Permit Application;
- Applicable total maximum daily loads (TMDLs) analyses and impaired waters listings by IDEQ for the Spokane River, Hayden Lake, Coeur d'Alene Lake, and Fernan Lake;
- Annual Reports submitted by LHD and PFHD as required by the prior Permits;
- Updated Urbanized Area maps and boundaries, based on the Year 2010 Census;
- Input from stakeholders and the Permittees on the EPA's preliminary draft MS4 general permit(s), which were not issued;
- EPA guidance and national summary information regarding MS4 permits,[4] including:
    - *Compendium Part 1: Six Minimum Control Measure Provisions*, November 2016;

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

  - *Compendium Part 2: Post Construction Performance Standards*, November 2016;
  - *Compendium Part 3: Water Quality-Based Requirement*s, April 2017;
  - *Summary of State Post Construction Stormwater Standards*, July 2016;
  - 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 WLA*s;" 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 effective and feasible methods for the onsite 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 North Idaho Highway Districts MS4 Permit is provided in Section 4 of this Fact Sheet; additional references are available in the Administrative Record for the Permit.

1.6. Average Annual Precipitation in the Coeur d'Alene 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 Coeur d'Alene area has an annual average precipitation of approximately 25.3 inches, and an annual average snowfall of approximately 45.8 inches.

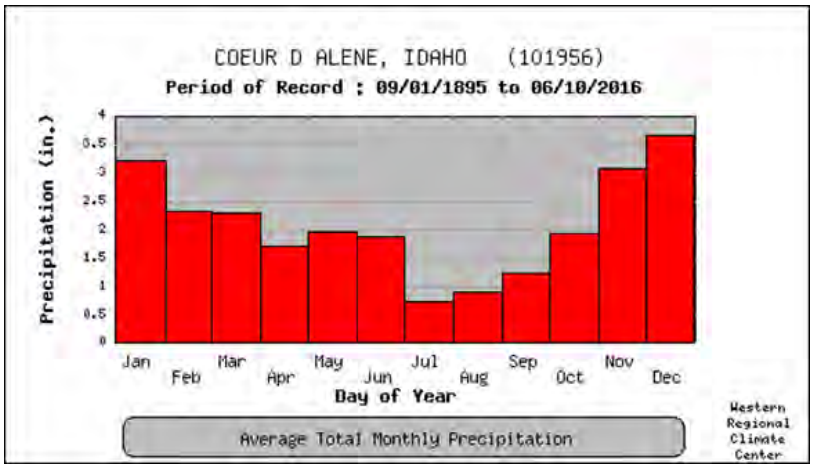

Figure 1. Average Total Monthly Precipitation in Coeur d'Alene Area.

1.7. Receiving Waters

The EPA intends to reissue the Permit authorizing discharges from the MS4s owned and/or operated by LHD, PFHD, and ESHD in the Coeur d'Alene Urbanized Area to waters of the United States (U.S.) that include, but are not limited to, the Spokane River, Hayden Lake, Coeur d'Alene Lake and Fernan Lake. All discharges to waters of the U.S. located 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 5 of this Fact Sheet.

The Idaho Department of Environmental Quality (IDEQ) has classified these waterbodies as fresh water with designated beneficial uses as listed in **Error! Reference source not found.** below.

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.[5] Therefore, regulated MS4 discharges in the Coeur d'Alene Urbanized Area located immediately upstream of the Idaho/Washington border, must also meet the State of Washington water quality standards in addition to those of Idaho; the table below also lists the applicable Washington water quality standards.

[5] See 40 CFR §122.44(d).

Table 1. ***Designated Beneficial Uses for Waters Receiving Regulated MS4 Discharges***		
Receiving Water	**Citation from IDAPA or WAC**	**Designated Beneficial Uses** **Note: All waters in Idaho must also be protected for industrial and agricultural water supply, wildlife habitats, and aesthetics.**
Coeur d'Alene Lake	58.01.02.110.10	Cold water aquatic life, salmonid spawning, primary contact recreation, domestic water supply, and special resource water.
Hayden Lake	58.01.02.110.12	Cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply.
Fernan Lake	58.01.02.110.10	Cold water aquatic life, salmonid spawning, primary contact recreation, domestic water supply.
Spokane River	58.01.02.110.12	Cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply.
Spokane River (Washington Portion, immediately downstream of Idaho)	WAC 173-201A-130	*Spokane River* (*Washington portion, between River Mile 58.0 and RM 96.0*): "Class A" waterbody, site-specific temperature criterion of 20ºC; designated uses: domestic, industrial and agricultural water supply; stock watering; migration, rearing, spawning and harvesting of salmonids and other fish; wildlife habitat; recreation including primary contact recreation, sport fishing, boating, and aesthetic enjoyment; and commerce and navigation. *Lake Spokane (reservoir formed by the Long Lake Dam on Spokane River*): Class A and Lake Class water body; designated uses: domestic, industrial and agricultural water supply; stock watering; migration, rearing, spawning and harvesting of salmonids and other fish; wildlife habitat; recreation including primary contact recreation, sport fishing, boating, and aesthetic enjoyment; and commerce and navigation.

1.7.1. Anti-degradation

The IDEQ has completed an antidegradation review which is included in the draft 401 certification for this permit. The EPA has reviewed this antidegradation analysis and finds that it is consistent with the State's water quality standards and the State's antidegradation implementation procedures. Comments on the 401 Certification, including the antidegradation review, can be submitted to the IDEQ as set forth above (see State Certification on Page 1 of this Fact Sheet).

1.7.2. 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 wasteload allocations (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 waterbody 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).[6] Similarly, Washington Department of Ecology's (WDOE) 2012 Water Quality Assessment Report lists impaired water bodies in Washington. Table 2 (below) summarizes the status of waters receiving the MS4 discharges covered by the Permit; waterbody assessment units, or segments, that IDEQ and WDOE consider impaired; and any applicable TMDL(s) for those segments.

Table 2. ***Status of Waters Receiving Regulated MS4 Discharges***

Panhandle Basin

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Coeur d'Alene Lake	ID17010303PN001L_0L *Coeur d'Alene Lake*	Cadmium; Lead; Zinc	No TMDL completed.
Hayden Lake	ID17010305PN005L_0L *Hayden Lake*	Total Phosphorus	*Sub-Basin Assessment and Total Maximum Daily Loads of Lakes and Streams Located on or Draining to the Rathdrum Prairie (17010305*), November 2000. Approved January 2001.
Fernan Lake	ID17010303PN033 *Fernan Lake*	Total Phosphorus	*Coeur d'Alene Lake & River Subbasin Assessment and Total Maximum Daily Loads: 2013 Fernan Lake Addendum*, October 2013. Approved November 2013.
Spokane River	ID17010305PN004_04 *Spokane R.-Coeur d'Alene Lake to Post Falls Dam* ID17010305PN003_04 *Spokane R.- Post Falls Dam to ID/WA border*	Cadmium; Lead; Total Phosphorus; Zinc	No TMDL completed.
Spokane River	*Spokane R.- Washington portion, downstream of the ID/WA border*	Polychlorinated Biphenyls (PCBs)	No TMDL completed.

See Appendix 5 of this Fact Sheet for further discussion of these impaired waterbodies.

NPDES permit terms and conditions for regulated stormwater discharges must be consistent with the assumptions and requirements of WLAs in TMDLs.[7] 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. The NPDES permitting authority may require use of expanded or better-tailored BMPs in successive permit terms when prior monitoring demonstrates such controls are necessary to implement the WLA and protect water quality.[8]

In order to address the impairment pollutants of concern for Coeur d'Alene Lake and the Spokane River, the Permit requires PFHD and ESHD to each conduct monitoring/assessment activities and at least two (2) pollutant reduction activities. The

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

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

Permittees must develop and submit descriptions of their selected monitoring/assessment and pollutant reduction 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 the 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.

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 maximum extent practicable (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 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."[9] 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 permit terms as: (1) the NPDES permitting authority defining clear, specific, and measurable NPDES permit requirements; (2) the MS4 Permittees implementing the required actions as part of a comprehensive program; and (3) the NPDES permitting authority and MS4 Permittees evaluating the effectiveness of BMPs used to date, current water quality conditions, and other relevant information.

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.

Such stormwater control measures are managerial, physical, and/or structural BMPs that, when used singly or in combination, reduce the downstream quality and quantity impacts of storm water runoff. A variety of studies demonstrate that such stormwater control measures effectively reduce runoff volume and peak flows, and remove pollutants. When designed, implemented, constructed, and maintained correctly as part of a comprehensive stormwater management program (or SWMP), the control measures - in combination with the prohibitions and other conditions of the Permit as described in

[9] See: EPA 1999a, page 68754.

this Fact Sheet below - have a positive effect on water quality and other biological indices.[10]

In order to comply with the MS4 standard during the Permit term, the EPA has defined the SWMP control measures and evaluation requirements that the Permittees must implement. The Permit describes these requirements in more detail than was previously required under the administratively extended Permits to ensure that the terms and conditions are "clear, specific, and measurable." To reduce the discharge of pollutants from the MS4s to the MEP, each Permittee must implement and enforce the control measures outlined in Permit Part 3 (*SWMP Control Measures*). To protect water quality, the 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 a Permittee's 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*).

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 within 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 Permittees' MS4 discharge is causing or contributing to an ongoing excursion above the applicable Idaho water quality standard, the Permittee(s) 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 similar to requirements in the administratively extended Permit.

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 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) allow regulated MS4 entities to jointly apply as a group to obtain discharge authorization under an individual permit. Once a permit is issued to the

[10] EPA 1999a; EPA 1999b; EPA 2006; NRC 2008; EPA 2016b; WERF 2017.

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 the 2013 Joint NPDES Permit Application, the Permittees submitted a draft of their detailed intergovernmental agreement for their respective roles and responsibilities.

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 entity in order to minimize any uncertainty about the other entity's responsibilities to the Permittee. The Permittee(s) remains responsible for compliance with the Permit obligations in the event the outside entity fails to implement the control measure (or any component thereof).[11]

Permit Part 2.5.4 requires regulated small MS4 operators to maintain adequate legal authority to implement and enforce the required stormwater management program (SWMP) control measures as allowed and authorized pursuant to applicable Idaho law.[12] Without adequate legal authority or other mechanisms that allow control over what enters or discharges from the MS4, the Permittee(s) 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. The EPA recognizes that highway districts and other special purpose entities do not have formal ordinance authority under Idaho law. 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.

The EPA has reviewed Annual Reports and other information submitted by the Permittees, and finds that they maintain sufficient legal authority to impose and enforce the required control measure components in their jurisdictions.

Permit Part 2.5.5 requires each Permittee (or the Permittees as a group) to develop, and update as necessary, a written SWMP Document.[13] The SWMP Document summarizes the physical characteristics of the MS4, and describes how the Permittee conducts the required SWMP control measures within 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.[14] The SWMP Document address three audiences and purposes:

1. General Public - The SWMP Document serves to inform and involve the public in implementation of the local stormwater management program;

[11] See 40 CFR §122.35.

[12] See EPA 2010

[13] 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.

[14] 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.

2. EPA and IDEQ - The SWMP Document provides the permitting authority a single document to review to understand how the MS4 Permittee will implement its stormwater management program and comply with Permit requirements; and
3. Elected officials and local staff - The SWMP Document can potentially be used by the Permittee(s) as an internal planning or briefing document.

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

The requirement for the Permittees 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 Permittees may create and subsequently revise the SWMP Document, as necessary, to describe how the stormwater management activities are implemented in compliance with the Permit. Therefore, updates to the SWMP Document may occur without EPA or IDEQ review and approval.

The first iteration of the MS4 Permittees' SWMP Document must be available to the EPA, IDEQ, and the public 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 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 Permittees' 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 2.5.5 requires the Permittees to track indicator statistics and information to document and report on SWMP implementation progress.

Permit Part 2.5.6 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,[15] 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 management 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

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

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 Permittees 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 Permittee(s) the discretion to submit requests to implement one or more Alternative Control Measures (ACM). As outlined in Permit Part 2.6.1, the Permittee(s) 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 time to review the request(s).[16] Upon determining that the ACM request(s) is equivalent to a comparable SMWP 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.[17]

The opportunity for ACM(s) relative to any SWMP control measure, or control measure component, in Permit Part 3 offers the Permittee(s) 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 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 Permittee(s) 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 clear, specific, and measurable requirements to address the minimum control measures in 40 CFR § 122.34(a) and (b) that serve to reduce pollutants 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

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

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 existing programs implemented by LHD and PFHD, and the 2013 Joint Application, during development of the Permit terms and conditions.[18] The EPA has incrementally refined each SWMP control measure component to iteratively clarify the MS4 permit standard for the Permittees and establish expectations for the level of effort necessary to reduce pollutants in MS4 discharges.

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 Involvement

Permit Part 3.1 addresses the required SWMP control measure for public education, outreach, and involvement requirements consistent with 40 CFR §§ 122.34(b)(1) and (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 prior MS4 permits contained public education and involvement requirements. LHD and PFHD actively invested time and energy to conduct a myriad of public education and involvement activities related to their local stormwater programs. The Permittees regularly partnered with other organizations, such as the Panhandle Stormwater Erosion Education Program (SEEP), the Regional Water Quality Public Education Work Group, and other MS4 permittees to conduct creative educational opportunities for citizens (and those working within Highway District right-of-ways) about stormwater quality issues.[19] The EPA strongly encourages such cooperative and broad reaching outreach efforts. Permit Part 3.1 allows the Permittees to choose which education and public involvement activities to continue or initiate during the next permit cycle.

When scoping their intended activities, the EPA also recommends that MS4 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 Permittees to begin, or update and continue, their public education, outreach, and involvement activities in the Permit Area. This provision also defines the date by which any ACM Request must be submitted.
- 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 individual Permittee under Idaho law, the Permittee must work to educate and

[18] See 40 CFR § 122.34(a)(2).
[19] See: LHD and PFHD MS4 Annual Reports, 2011 through 2017.

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 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 successful education programs 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 Permittees to work together within the State, or with other organizations, on specific MS4 topics if they choose to do so.
- Permit Part 3.1.6 requires Permittees to maintain records of their public education, outreach, and involvement activities.
- Permit Part 3.1.7 requires Permittees to provide educational opportunities related to certain SWMP control measures at least twice during the Permit term. Permittees are encouraged to plan opportunities in a manner 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 Permittee's SWMP Document, 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. LHD and PFHD currently have informational websites where they make SWMP information available; see: www.lakeshighwaydistrict.com and http://www.postfallshd.com/. ESHD will need to establish an informational website pursuant to this Permit requirement.

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 Permittee to provide ongoing surveillance and deterrence to prevent pollutant loadings caused by illicit discharges into the Permittee's MS4. 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.

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. To ensure that pollutants from non-stormwater discharges are adequately controlled, Permittees should continue to work cooperatively and use their collective abilities to address illicit discharges in their jurisdictions.

The Illicit Discharge Detection and Elimination (IDDE) SWMP control measure components required by 40 CFR § 122.34(b)(3) direct Permittees to manage illicit discharges to the MS4 by:

- Maintaining a map of the MS4 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 provide for enforcement of 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 illicit discharges and improper disposal of waste, and publicize appropriate public reporting of illicit discharges when they occur.

LHD and PFHD each have an established program to prohibit, detect, and respond to illicit discharges, as appropriate, within their legal power, in their jurisdictions. ESHD intends to implement a similar program during the Permit term. The EPA encourages the Permittees to continue working together to share expertise and knowledge to fully implement this SWMP control measure through the components described below:

- Permit Part 3.2.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittees to update their existing IDDE program activities, and/or to fully impose any new program SWMP control measure components outlined in this Part. The EPA believes this timeframe is justified to allow Permittees adequate opportunity to adjust their existing programs, as necessary, and to ensure all the SWMP control measure components are sufficiently addressed in the Permit Area. This provision also coincides with the date by which any ACM Request(s) must be submitted.
- Permit Part 3.2.2 continues to require all Permittees to maintain a current MS4 map, along with a new requirement for the Permittees to provide an accompanying inventory of the features that comprise the MS4 system. The EPA has refined the content of the MS4 Map and Outfall Inventory, and requires updated materials to be submitted as part of the Permit Renewal Application pursuant to Permit Part 8.2. The purpose of the MS4 Map and Outfall 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.

The EPA notes that both LHD and PFHD completed outfall maps as required by their administratively extended Permits. Soils in much of the Coeur d'Alene Urbanized Area allow for significant infiltration of rain and snowmelt, and the Permittees continue to refine those MS4 maps to accurately reflect the locations and nature of wet weather runoff from their MS4s. ESHD will need to complete an outfall map pursuant to this permit requirement.

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 Permittee 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 in its jurisdiction. As previously noted, the EPA recognizes that highway districts do not have the legal authority to enact enforceable ordinances. In such case, the Permittees may cite to any of its existing policies, standard operating procedures, or other legal means of ensuring that non-stormwater discharges found discharging through their MS4(s) will be eliminated when necessary.

  The EPA reviewed the policy mechanisms currently imposed by the LHD and PFHD, and believes the existing procedures and mechanisms can be used to address the types of non-stormwater flows listed in Permit Part 3.2.3, within the powers available to the Permittees under Idaho law. The EPA clarifies that it is unnecessary for the legal mechanism to cite all the individual prohibitions listed, provided that the Permittees' 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 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 Permittees' Illicit Discharge Complaint Reporting and Response Program. The Permittees must maintain and advertise a publicly accessible and available means to report illicit discharges. The Permittees 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 Permittees' regular screening of their 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 that the Permittees 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 Permittees' 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.

The EPA notes that LHD already complies with this requirement. As reported in its 2017 Annual Report, a possible illicit discharge was identified in 2016 at LHD Outfall No. 10; the concern was reported to Kootenai County Code Enforcement, Panhandle Health Department, and IDEQ. These flows were ultimately identified to be groundwater seeps. Subsequent observations by LHD during 2017 indicated less than a gallon per minute of groundwater flows at this location with no unusual deposits, vegetation, or conditions.

- Permit Part 3.2.7 requires the 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.[20]
- 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.

2.4.3. Construction Site Stormwater 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 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 includes: 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.[21]

Local oversight is 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 (1) or more acres in Idaho are independently subject to

[20] IDEQ 2017.
[21] EPA 1999, pages 68758-68759; EPA 2009a, pages 7-3 through 7-26.

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.

As previously noted, the EPA recognizes that the Permittees are only responsible for the construction and maintenance of roads in their jurisdictions, and do not have legal authority to enact enforceable ordinances. In such cases, the Permittees may cite to existing policies, standard operating procedures, or other legal means of ensuring that construction projects that impact the Permittees' right-of-ways are appropriately controlled to reduce pollutant discharges through their MS4(s).

The Permittees in the Coeur d'Alene Urbanized Area currently have programs in place that meet the required construction runoff control measure components consistent with their legal authority under State law. For example, LHD currently implements Resolution 2009-12 and Resolution 2010-4 to require all construction projects disturbing one (1) or more aces to be performed in accordance with the requirements of the statewide Construction General Permit, Associated Highway District Standards, and the Kootenai County Site Disturbance Ordinance No. 34. Further, any work within LHD right-of-ways requires a LHD permit; special conditions of this LHD permit require contractors to comply with Resolution 2010-4.

The following summarizes the SWMP control measure components under Permit Part 3.3. (*Construction Site Stormwater Runoff Control*):

- Permit Part 3.3.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittees to update their existing programs, if needed, or 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 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. The Permittees assisted in publishing of the "*North Idaho Storm Water Erosion & Sediment Control Field Guide*," and provides this Field Guide to contractors permitted to do work within the Permittees rights-of-way and to interested members of the public.
- 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 the Permittees to conduct prioritized construction site inspections and to enforce the applicable local requirements as needed. At a minimum, the Permittees 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.

2.4.4. Post-Construction Stormwater Management from New Development and Redevelopment

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

Pursuant to 40 CFR § 122.34(b)(5), the prior MS4 Permits for LHD and PFHD required these controls at 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 Permittee(s) must address runoff from new development and redevelopment project sites using a locally appropriate combination of structural and/or non-structural BMP requirements.[22] Further, the Permittee(s) must enforce the requirements using a regulatory mechanism, to the extent allowable under state law, and ensure the adequate long-term operation and maintenance of these BMPs.[23]

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

In general, the EPA believes the Permittees have been adequately implementing such requirements through various cooperative procedures that largely meet the intention of the Permit's post-construction runoff control measure components outlined below. Given the scope of their legal authority under Idaho State law, the EPA acknowledges that the Permittees do not have the authority over new development and redevelopment sites. In areas draining to the Permittees' rights-of-way, Kootenai County is the regulatory authority over private and public property development, and imposes the Kootenai County Site Disturbance Ordinance No. 374. [24]

The Permittees will usually accept responsibility for roads within a private development after the development is complete and construction areas are stabilized. The Permittees implement this SWMP control measure through coordination with Kootenai County and other agencies by assisting with the review of erosion control, site disturbance, and other improvement plans for projects that may affect the Districts' MS4s. As appropriate, the Permittees can, in certain situations, encourage the County to require drywells, or other infiltration features, to ensure all runoff is retained onsite.

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[22] "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).

[23] See EPA 2012; EPA 2009; and 40 CFR §122.34(b)(5).

[24] Although Kootenai County has ordinance authority over public and private properties, it does not own or operate a MS4, and therefore is not subject to NPDES permit requirements.

The EPA understands the jurisdictional authority of the Permittees. To ensure that these minimum requirements apply to relevant areas of the Permittees' jurisdictions, the EPA believes it is still appropriate to include in the Permit all of the following control measure components listed below:

- Permit Part 3.4.1 establishes a compliance deadline of 180 days before the Permit expiration date for Permittees to update their existing Post-Construction Stormwater Runoff Control Program and, if needed, to impose any new SWMP control measure components in the Permit Area. This timeframe is justified to allow Permittees the flexibility to adjust their existing programs as necessary. This provision coincides with the deadline for submitting an ACM Request(s) 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 4 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 Permittee at development sites within their jurisdiction. These specifications must be utilized at sites disturbing at least one (1) acre or more. The EPA notes that PFHD provides an example of how the Permittees have implemented this control measure component during the prior MS4 permit term: in 2013, PFHD completed drainage improvements at Spokane Street near Post Falls, Idaho. Where road runoff previously discharged to the Spokane River untreated though PFHD Outfall #6, the improvement project successfully installed grass swales and two drywells sufficient to eliminate most wet weather discharges to the River.[25]
- 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

[25] See: PFHD MS4 2013 Annual Report.

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 (1) 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 stormwater management programs 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.[26] The Permittees must track those permanent controls that are known to them, or for which they accept ownership, beginning no later than the Permit effective date.

  The Permittees have no control over permanent stormwater management controls located outside of the road right-of-way. With respect to permanent stormwater controls within the road right-of-way, acceptance of such roads by the Board of Highway District Commissioners ensures funding and tasks associated with long-term operation and maintenance. The LHD and PFHD report that each assess private stormwater facilities located outside the right-of-way that discharge to the MS4, and will notify the property owner and/or Kootenai County if a facility is not being maintained or is not functioning properly. As previously noted, the EPA recognizes that highway districts are only responsible for the construction and maintenance of roads in their jurisdiction, and do not have legal authority to conduct maintenance on facilities outside of their rights of way. The EPA considers the LHD and PFHD current practices to meet the intention of this SWMP control measure component, and expects ESHD to operate in a similar manner.
- 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.

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

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). The administratively extended MS4 permits for LHD and PFHD required the implementation of an O&M program "intended to prevent or reduce pollutant runoff from municipal operations;" to develop an employee training program; and to prepare site-specific stormwater pollution prevention plans (SWPPPs) at the Permittees' own maintenance buildings and similar facilities.

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 continue to focus on maintenance of their MS4s to protect water quality. Appropriate procedures and schedules for inspection and maintenance are relevant and necessary for each type of infrastructure/facility. Where needed, 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.

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

LHD and PFHD each outlined their O&M considerations in their 2012 and 2013 MS4 Annual Reports; in addition, the Permittees provide regular, comprehensive training to staff about conducting their work in a manner that protects water quality. In general, the Permittees conduct their road maintenance operations in a manner that is consistent with the Permit's SWMP control measure components outlined below:

- Permit Part 3.5.1 establishes a compliance deadline of 180 days before the Permit expiration date for Permittees to update their existing runoff control program(s), and/or to impose any new program components, in the Permit Area. The EPA believes this timeframe is justified to allow Permittees adequate opportunity to adjust their existing programs, as necessary, and ensure the required actions are sufficiently addressed in the Permit Area. This provision also coincides with the deadline for submitting an ACM Request(s).
- Permit Part 3.5.2 outlines requirements for the inspection of all Permittee 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 this 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 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 continue to be protective of water quality and reduce the discharge of pollutants through the MS4. Part 3.5.3.3 further requires that Permittees 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 Permittees with street, roads, and highway 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. Permittees without street maintenance responsibilities do not have an obligation to comply with this provision. 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.
- Permit Part 3.5.5 requires Permittees with street, road, highway and parking lot responsibilities to document the adequacy of their sweeping activities through a sweeping management plan. Permittees without street sweeping responsibilities do not have an obligation to comply with this provision.
- Permit Part 3.5.6 requires 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. Permittees without such responsibilities do not have an obligation to comply with the individual actions listed in this provision.
- Permit Part 3.5.7 requires Permittees to ensure that their staff, and others operating in public areas owned and/or operated by the Permittees, 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 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. The EPA notes that only PFHD has a maintenance yard located in the Permit Area, and runoff from the PFHD maintenance yard does not discharge to waters of the U.S.
- Permit Part 3.5.9 requires 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 that all staff responsible for the stormwater infrastructure management and O&M activities are trained and/or otherwise qualified to conduct such activities with attention to prevent potential water quality impacts.

2.5. Requirements for Discharges to Water Quality-Impaired Receiving Waters

Consistent with 40 CFR § 122.34(c), Permit Part 4 requires individual Permittees (namely, PFHD and ESHD) to define and conduct quantitative monitoring/assessment and pollutant reduction activities to address the pollutant(s) of concern in MS4 discharges to impaired water quality segments of the Spokane River and Coeur d'Alene Lake, respectively. For the purposes of the Permit, the phrase "pollutant(s) of concern" means any pollutant identified by IDEQ, WDOE, or EPA as a cause of impairment of any waterbody that receives MS4 discharges authorized under the Permit.

Additional discussion of the water quality impairments and/or EPA-approved TMDLs for the Spokane River, Coeur d'Alene Lake, Fernan Lake, and Hayden Lake, is provided in Appendix 5 of this Fact Sheet.

Since 2009, LHD and PFHD both identified their outfall locations and other features of their MS4. After review of LHD and PFHD Annual Reports, evaluation of available water quality assessment information for the impaired receiving waters, and information from the three Highway Districts as submitted in their 2013 Joint Application, the EPA determines that it is necessary and appropriate for PFHD to conduct specific pollutant reduction and monitoring/assessment activities to reduce the pollutants of concern from their MS4 into Spokane River. In addition, the EPA determines that is appropriate for ESHD to conduct specific pollutant reduction and monitoring/assessment activities to reduce the pollutants of concern from their MS4 into Coeur d'Alene Lake. The EPA's rationale for including requirements for PFHD and ESHD, and not including additional requirements for LHD, is described in Appendix 5 of this Fact Sheet.

The EPA includes requirements in Permit Part 4 for PFHD and ESHD to each submit, within 180 days of the Permit effective date, specific monitoring/assessment plan and written description of at least two pollutant reduction activities, to be conducted during the remainder of the Permit term. The EPA, in consultation with IDEQ, will review the submitted materials, and EPA will modify the Permit to incorporate the pollutant reduction activities and monitoring/assessment plan.

The EPA clarifies that PFHD and ESHD are free to choose new activities, or to continue implementation of ongoing efforts designed to reduce the discharge of the pollutants of concern into Spokane River and Coeur d'Alene Lake. They may conduct activities that are new, and independent of the SWMP control measures; alternatively, they can choose to conduct activities that further enhance their existing SWMP control measures. Acceptable activities must be linked to the goal of reducing pollutants of concern into the Spokane River and Coeur d'Alene Lake, coordinated with available water quality management plan(s), and must be designed to measure the relative success or failure of such actions over time. The process will allow Permittees the flexibility to define what and how they will address impairments, consistent with the goals of available water quality assessment documents and watershed advisory groups. Through the Permit modification process, this approach also provides information and transparency about the Permittees' selected actions 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.[27]

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

Consistent with 40 CFR § 122.34(d), Permit Part 6 requires that the Permittees evaluate program compliance, keep records, and submit Annual Reports. Furthermore, 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. Although the regulations allow less-than-annual reporting in a second term MS4 permit, the EPA has instead provided a concise "fillable PDF" Annual Report format for MS4 Permittees to use during the Permit term. The five-year permit term will coincide with EPA's national transition to online reporting for MS4 permits; this transition is expected to be accomplished no later than December 2020.[28] To maintain reporting continuity during this transition, the EPA believes it appropriate to retain annual reporting in the Permit. In efforts to simplify this reporting process, the EPA has developed streamlined fillable report format to replace the previously used narrative-style report. Once primacy for the NPDES stormwater permit program is transferred to IDEQ, the Permittees may negotiate different reporting frequencies in the subsequent MS4 permit, pursuant to 40 CFR § 122.34(d)(3).

2.7.2. Monitoring and/or Assessment Activities

Permit Part 6.2 requires PFHD and ESHD, as named in Part 4, to evaluate the effectiveness of their SWMPs at protecting water quality by quantifying their stormwater pollutant reductions. Implementing monitoring and assessment activities allows the Permittees to evaluate the effectiveness of stormwater management actions, aides in

[27] EPA 2016g.
[28] See EPA 2015c.

determining whether pollutant reduction goals are met, and helps to justify budgets that 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.[29]

Permit Part 6.2. also requires the Permittees to submit a monitoring/assessment plan that supports the terms and conditions of Permit Part 3 and meets the quality assurance objectives at Permit Part 6.2.7 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. Permit Part 6.2.5 summarizes the basic components of any wet weather stormwater discharge monitoring.

While developing this Permit, and other similar MS4 permits for regulated MS4 discharges in Idaho, the EPA considered several options for how Permittees might monitor and/or assess compliance with Permit requirements given the general difficulty and overall expense associated with MS4 discharge monitoring. Options included:

- Require Permittees to continue any stormwater discharge monitoring in the same manner as was directed by the prior MS4 permit(s).
- Authorize Permittees, at their discretion, to propose methods of collecting relevant data that supports the assessment of their stormwater management activities. This option requires Permittees in the watershed to establish specific metrics to measure stormwater quality improvements over time and provides maximum flexibility to the MS4 Permittee, and IDEQ, to establish appropriate assessment methods for the individual receiving waterbody.
- Eliminate all MS4 outfall sampling requirements for regulated small MS4s discharging into impaired waters and require quantitative programmatic assessments of SWMP implementation to be conducted by the Permittee(s). This option increases focus on the effectiveness of the Permittees' on-the-ground implementation of the SWMP control measures, yet provides little direct information about receiving water quality or the relative pollutant contribution from MS4 outfalls in the Urbanized Area.

The EPA is proposing a requirement that Permittee(s) 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 WQS. By including general guidelines for what constitutes monitoring/assessment activities, the EPA recognizes that the Permit 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 facility.

The EPA will modify the Permit to incorporate the Permittees' intended monitoring plan pursuant to federal regulations at 40 CFR § 122.62. 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

[29] CWP 2009.

assessment actions. Monitoring and assessment data contributes to new knowledge, and resulting data should then be made broadly available.[30]

The EPA envisions that there are many possible options Permittees may consider to monitor/assess reductions in pollutant loading from their MS4(s) as a result of implementing their SWMP control measures. For example, Permittees may choose to continue to monitor stormwater discharges from the existing selected MS4 outfall monitoring locations. Alternatively, Permittees may revise their monitoring/assessment activities to better match their current goals and objectives in efforts to increase reductions in pollutant loadings from their MS4 and to improve their overall stormwater management. Examples of monitoring/assessment activities may 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.

Based on the downstream impairment of the Spokane River for polychlorinated biphenyls (PCBs), Part 6.2.6 contains options for PFHD to select from to accomplish PCB monitoring/assessment activities for their MS4 discharges to the Spokane River. Additional discussion of the rationale for this requirement is provided in Appendix 5.2 of this Fact Sheet. During the permit term, the Permit specifies monitoring/assessment of PCB loading in either stormwater discharge, or in sediment collected from catch basins. The Permittee must use either EPA Methods 1668C for discharge sampling, or Method 8082, for assessing catch basin solids. Alternatively, the Permittee may identify and propose some other means of assessing the amount of PCB loading that may be conveyed through their MS4 discharges. This provision is consistent with similar MS4 permit requirements for other regulated MS4 sources in the Spokane River watershed.

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 Permittees 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 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 and 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.

[30] Stein 2013; EPA 2016g; NRC 2008.

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.[31] 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 intending 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 Appendix B of the Permit. In the event that a permit is not reissued 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 discharging under an administrative extension 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, which includes thereafter 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

[31] EPA 2015c.

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 Coeur d'Alene Urbanized Area is not identified as an area where potentially overburdened communities reside.

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) Section 7(a)(2) 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.

In 2008, the EPA reviewed the Kootenai County-wide list of endangered and threatened species from the USFWS, dated June 1, 2008 (14420-2008-SL-0354), where the following species were listed as potentially present in the Coeur d'Alene Urbanized Area: Canada lynx (*Lynx canadensis*), water howellia, (*Howellia aquatilis*), Spalding's catchfly (*Silene spaldingii*) and bull trout (*Salvelinus confluentus*), Contemporaneous species lists available from NOAA-Fisheries did not identify any additional listed endangered or threatened species in the Coeur d'Alene Urbanized Area.

Based on what was known about the physical characteristics of the LHD and PFHD MS4s in 2008, and the presence of ESA-listed species in the Coeur d'Alene Urbanized Area, the EPA concluded that issuance of the MS4 Permits for LHD and PFHD would have no effect on Canada lynx, water howellia, or Spalding's catchfly. Further, the EPA concluded that issuance of these Permits were not likely to adversely affect bull trout, or designated bull trout critical habitat in Coeur d'Alene Lake.[32] The EPA did not receive any formal response from either NOAA-Fisheries or the USFWS at the time.

[32] EPA 2008c, Appendix C; and EPA 2008d, Appendix C.

The Permit discussed in this Fact Sheet for LHD, PFHD and ESHD authorizes MS4 discharges to the Spokane River, Hayden Lake, Fernan Lake, and Coeur d'Alene Lake.

As of the date of this Fact Sheet, the EPA has reviewed the current species lists for both NOAA-Fisheries and USFWS. No threatened or endangered species are listed by NOAA-Fisheries within the Coeur d'Alene Urbanized Area. The USFWS lists the species and critical habitat cited in Table 3 below as potentially occurring within the Coeur d'Alene Urbanized Area and/or that may potentially be affected by the EPA's issuance of the Permit.[33]

Table 3. Protected Species (Scientific Name)	Status	Critical Habitat	
		Status	Overlap with Coeur d'Alene UA
Responsible Agency – USFWS			
Fish			
Bull trout (*Salvelinus confluentus)*	Threatened	Designated	Yes
Mammals			
North American Wolverine (*Gulo gulo luscus)*	Proposed Threatened	None	Not Applicable
Birds			
Yellow-billed Cuckoo (*Coccyzus americanus)*	Threatened	Proposed	No

After reviewing the latest ESA species lists cited above for both NOAA-Fisheries and USFWS, the EPA has tentatively concluded that issuance of the Permit for discharges from the MS4s owned and/or operated by LHD, PFHD, and ESHD in the Coeur d'Alene Urbanized Area will have no effect on the North American Wolverine and Yellow-Billed Cuckoo. Further, EPA tentatively determines that issuance of the Permit is not likely to adversely affect bull trout, or designated critical habitat for bull trout in Coeur d'Alene Lake. Documents supporting this tentative conclusion are available in the Administrative Record. The EPA will complete its consultation with NOAA and USFWS, as required by the ESA, prior to the final issuance of the Permit.

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 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 reviewed the current NOAA-Fisheries maps reflecting EFH for freshwater species, and there is no EFH located in the Coeur d'Alene Urbanized Area.[34] Therefore, the EPA determines that the issuance of the Permit will not affect any EFH species, and consultation is not required for this action.

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

[33] NOAA 2018a; USFWS 2018.
[34] NOAA 2018b.

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.

3.5. National Environmental Policy Act and Other Federal Requirements

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.

3.6. 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.

3.7. 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.

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Appendix 1. CORRESPONDENCE FROM IDEQ REGARDING CWA §401 CERTIFICATION

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814 • (208) 769-1422
www.deq.idaho.gov

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

October 16, 2018

Michael Lidgard, Manager
NPDES Permits Unit
US Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 155 (OWW-191)
Seattle, WA 98101-3123

RE: Draft §401 Water Quality Certification for the Draft NPDES Permit No. IDS028207 for the North Idaho Highway Districts

Dear Mr. Lidgard,

The State of Idaho Department of Environmental Quality (DEQ) received a preliminary draft NPDES permit for North Idaho Highway Districts dated September 6, 2018. After review of the draft permit and fact sheet, DEQ submits the enclosed draft §401 water quality certification which includes a narrative description of our antidegradation review for this permit and conditions necessary to meet these rules. After the public comment period ends, DEQ will address any comments, review the proposed final permit and issue a final certification decision.

Please direct any questions to June Bergquist at 208.666.4605 or june.bergquist@deq.idaho.gov .

Sincerely,

Daniel Redline
Regional Administrator
Coeur d'Alene Regional Office

Enclosure

C: Loren Moore, DEQ State Office
Misha Vakoc, EPA Region 10, Seattle
Laura Winters, P.E. Ruen Yeager & Associates 3201 N Huetter Road, Coeur d'Alene 83814

Idaho Department of Environmental Quality

Draft §401 Water Quality Certification

October 16, 2018

NPDES Permit Number(s): Lakes Highway District, Post Falls Highway District, East Side Highway District (North Idaho Highway Districts) Municipal Separate Storm Sewer Systems; NPDES Permit # IDS028207

Receiving Water Body: Hayden Lake, Spokane River, Coeur d'Alene Lake, Fernan Lake

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 our review of the above-referenced permit and associated fact sheet, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The North Idaho Highway Districts discharge the following pollutants of concern: sediment, nutrients (nitrogen and phosphorus), heat, chlorides, metals, petroleum hydrocarbons, microbial pollution, and organic chemicals (pesticides and industrial chemicals). Compliance with Idaho Water Quality Standards is presumed if permittees are complying with all the terms and conditions of the permit and this certification.

Receiving Water Body Level of Protection

The North Idaho Highway Districts discharges to Hayden Lake, Coeur d'Alene Lake, Fernan Lake and the Spokane River within the Coeur d'Alene and Upper Spokane Subbasin assessment units (AU) 17010303PN001L_0L (Coeur d'Alene Lake); 17010303PN033_03 (Fernan Lake); 17010305PN005L_0L (Hayden Lake); 17010305PN004_04 (Spokane River – Coeur d'Alene Lake to Post Falls Dam); and 17010305PN003_04 (Spokane River – Post Falls Dam to Idaho/Washington border). These AUs have the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. 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 Hayden Lake, Coeur d'Alene Lake and Spokane River AUs are not fully supporting their aquatic life use. Causes of impairment include phosphorus (Hayden Lake) and cadmium, lead, and zinc (Coeur d'Alene Lake) and cadmium, lead, zinc, and phosphorus (Spokane River). The contact recreation beneficial use for Spokane River is assessed and fully supported and the recreation use for Hayden and Coeur d'Alene Lakes are unassessed but data indicates that they are fully supported based on monitoring data collected in 2008 and 2014. As such, DEQ will provide Tier I protection (IDAPA 58.01.02.051.01) for the aquatic life use and Tier II protection (IDAPA 58.01.02.051.02) in addition to Tier I for the contact recreation use (IDAPA 58.01.02.052.05.c). Fernan Lake's recreational use is impaired due to excess phosphorus and its aquatic life use is fully supported. DEQ will provide Tier I protection for the recreation use and Tier I and Tier II for the aquatic life use.

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 discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses. The terms and conditions contained in the North Idaho Highway Districts permit will reasonably assure compliance with the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish 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 EPA-approved *Sub-Basin Assessment and Total Maximum Daily Loads of Lakes and Streams Located on or Draining to the Rathdrum Prairie (17010305)* (November 22, 2000) and *Coeur d'Alene Lake and River Subbasin Assessment and Total Maximum Daily Loads, 2013 Fernan Lake Addendum (HUC 17010303)* (October 2013) establishes wasteload allocations for phosphorus in Hayden Lake and Fernan Lake. The wasteload allocations are designed to ensure that Hayden Lake and Fernan Lake will achieve the water quality necessary to support existing and designated aquatic life beneficial uses when the TMDL is fully implemented. The terms and conditions contained in the North Idaho Highway Districts permit reasonably assure compliance with these wasteload allocations.

In general, the permit contains clear, specific and measureable provisions for the continued implementation of specific controls, management practices, control techniques, and system design and engineering methods to achieve the requirements of the permit. The provisions in this MS4 permit are at least as stringent as those established in the previous individual MS4 permits for the Lakes and Post Falls Highway Districts (note that this is the first MS4 permit for East Side Highway District) thus addressing anti-backsliding.

A TMDL has not yet been developed for Coeur d'Alene Lake; however, a lake management plan has been developed and is being implemented to limit basin-wide nutrient inputs that impair lake water quality conditions, which in turn influence the solubility of mining-related metals contamination contained in lake sediments. The lake management plan was developed in lieu of a CERCLA cleanup plan (remedial action) associated with the Bunker Hill Superfund site.

A subbasin assessment and TMDL for cadmium lead and zinc has not yet been developed for the Spokane River however this effort is currently underway. A TMDL for phosphorus has not yet been developed but recent new lower phosphorus effluent limits for municipal dischargers are being implemented. Support status will be re-evaluated in the future and if found necessary, a new TMDL will be developed. Prior to the development of TMDLs for Coeur d'Alene Lake and the Spokane River, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

Specific terms and conditions of the permit aimed at providing a Tier I level of protection and compliance with the Hayden Lake and Fernan Lake TMDLs include:

- a prohibition on snow disposal directly into surface waters;
- specific prohibitions for non-stormwater discharges;
- a requirement to develop a stormwater management plan that includes five control measures:
  a) public education and outreach,
  b) illicit discharge detection and elimination,
  c) construction site stormwater runoff control,
  d) post-construction stormwater management for new development and redevelopment,
  e) pollution prevention/good housekeeping for MS4 operations;
- monitoring of pollutants removed by BMPs in conjunction with their required maintenance;
- requirements for East Side and Post Falls Highway Districts to implement pollutant reduction activities; 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 permittee must take a series of actions to remedy the situation.

In summary, the terms and conditions contained in the North Idaho Highway Districts permit provide reasonable assurance of compliance with the WQS and are consistent with the wasteload allocations established in the *Sub-Basin Assessment and Total Maximum Daily Loads of Lakes and Streams Located on or Draining to the Rathdrum Prairie* and *Coeur d'Alene Lake and River Subbasin Assessment and Total Maximum Daily Loads, 2013 Fernan Lake Addendum (HUC 17010303)*. Therefore, DEQ has determined the permit will protect and maintain existing and designated beneficial uses in Hayden Lake, Coeur d'Alene Lake, Fernan Lake and the Spokane River 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 Spokane River, Coeur d'Alene Lake, and Hayden Lake are considered high quality for recreational uses and Fernan Lake is considered high quality for cold water aquatic life uses. As such, the water quality relevant to these uses must be maintained and protected, unless a lowering of water quality is deemed necessary to accommodate important social or economic development.

To determine whether degradation will occur, DEQ must evaluate how the permit issuance will affect water quality for each pollutant that is relevant to recreational uses of the Spokane River, Coeur d'Alene Lake and Hayden Lake and for each pollutant that is relevant to aquatic life uses of Fernan Lake (IDAPA 58.01.02.052.05). Pollutants relevant to recreational uses include the following: microbial pollution, nutrients, metals, petroleum hydrocarbons, and organic chemicals (pesticides and industrial chemicals). Pollutants relevant to aquatic life uses include the following: sediment, heat, nutrients, metals, chlorides, petroleum hydrocarbons, and organic chemicals (pesticides and industrial chemicals).

For a reissued permit or license, the effect on water quality is determined by looking at the difference in water quality that would result from the activity or discharge as authorized in the current permit and the water quality that would result from the activity or discharge as proposed in the reissued permit or license (IDAPA 58.01.02.052.06.a). NPDES permits for regulated 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. To achieve this standard, the permittee should continually adapt to current water quality conditions and best management practice (BMP) effectiveness, and should strive to attain water quality standards. Neither the Clean Water Act nor the stormwater regulations provide a precise definition of maximum extent practicable which in turn provides for maximum flexibility in MS4 permitting (Fact Sheet section 2.1). To achieve these goals, the current and proposed MS4 permits rely on iterative practices to identify and reduce discharge of pollutants which are documented in annual reports and subject to EPA review and on-site inspections (Fact Sheet section 1.4). EPA also determined that additional pollutant reduction activities were required for Post Falls Highway District and East Side Highway District.

Reissued Permit- Post Falls Highway District, Lakes Highway District

Due to the nature of MS4 permits, implementing their requirements results in a continual discovery of pollutant sources, use and refinement of BMPs, feedback from BMP implementation and maintenance, additional knowledge through training opportunities, and investigating and resolving complaints. This level of scrutiny and effort combined with requirements to address pollution sources typically leads to improved water quality the longer the permit is in effect. It also generally results in minimal to no adverse change in water quality significant to recreational and aquatic life uses. Although there is no water quality monitoring requirement in the past permits and proposed permit for these MS4s, there are a multitude of

case studies that illustrate that the use of best management practices (which include stormwater management program elements, permit prohibitions, and other permit conditions) have a measurable positive effect on water quality or a biological metric.[1] Therefore, DEQ has reasonable assurance that at a minimum no degradation will result from the discharge of pollutants from the Post Falls and Lakes Highway Districts MS4s. Water quality is expected to improve within the Post Falls Highway District MS4 as a result of conducting two pollutant reduction activities (draft permit part 4.3) that in part, target pollutants causing impairments in the Spokane River.

New Permit – East Side Highway District

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).

In addition to the above requirements for reissued permittees, East Side Highway District must map their MS4 and all associated outfalls and conduct two pollutant reduction activities (draft permit part 4.2) that target pollutants causing impairments in Coeur d'Alene Lake. Pollutant reductions should be realized as each element of the stormwater management plan is developed and implemented during the permit cycle. Again, as studies have demonstrated the implementation of BMPs reduce pollutants if they are correctly designed, constructed, and maintained. EPA oversight through review of annual reports and periodic inspections should ensure pollutant reductions occur. At a minimum, water quality conditions should be maintained from current conditions. Therefore, no adverse change in water quality and no degradation will occur with respect to these pollutants.

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, 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.

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

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

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 June Bergquist, Coeur d'Alene Regional Office at 208-666-4605 or via email at june.bergquist@deq.idaho.gov .

DRAFT
Daniel Redline
Regional Administrator
Coeur d'Alene 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;
- Organic chemicals (pesticides, herbicides, and industrial); and
- Temperature.[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

[35] Shaver, Horner, et al. 2007; EPA 1990 EPA 1999a, and EPA 1999b .

[36] USGS and EPA, 2015, page 61.

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 -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, the 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, the 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 the 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

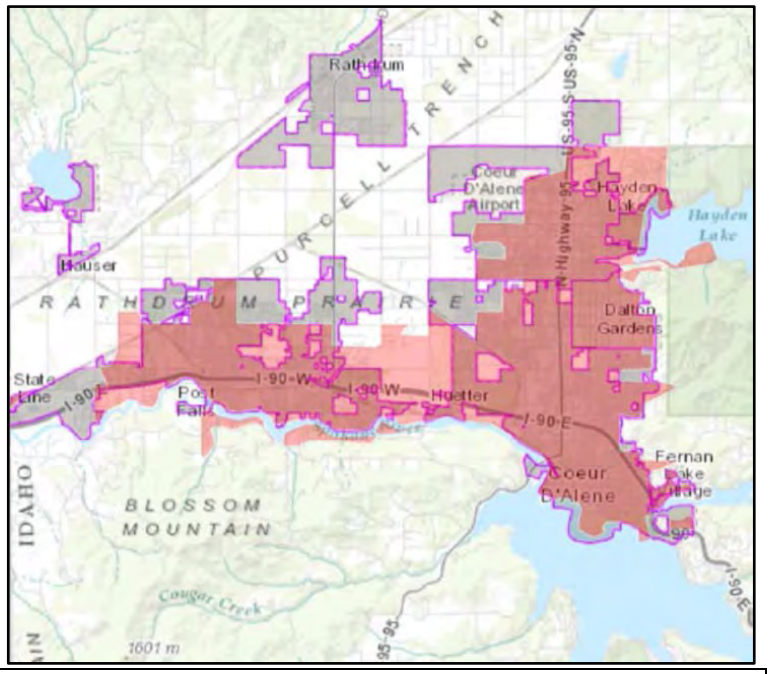
[37] *See*: 40 CFR §122.26(b); 122.32(a); and EPA 1990.
[38] In December 2000, EPA issued a single individual NPDES permit (#IDS027561) for the Phase I MS4 discharges owned/operated by six co-permittees operating in Garden City and Boise, ID; EPA reissued Permit #IDS027561 effective January 2013 -January 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*.

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]

[42] *See:* 40 CFR § 122.34(b) and additional discussion in Section 2 of this Fact Sheet.

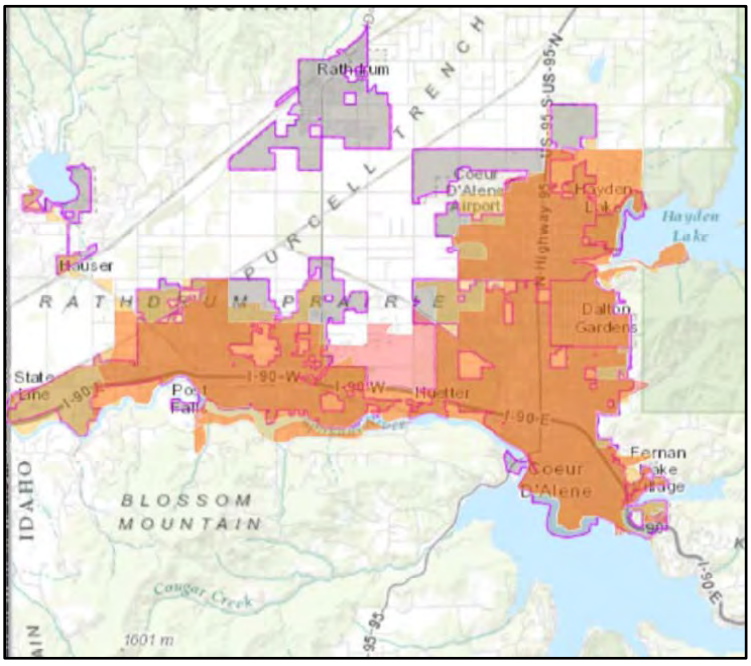
Appendix 3. PERMIT AREA MAPS: COEUR D'ALENE URBANIZED AREA

Figure 2: City and Year 2000 UA Boundaries for the Coeur d'Alene Urbanized Area



Coeur d'Alene UA	Census 2000	http://www2.census.gov/geo/maps/urbanarea/uaoutline/UA2000/ua18451/ua18451_01.pdf
	Census 2010	http://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua18451_coeur_dalene_id/

Figure 3: Combined Year 2000 UA and Year 2010 UA Boundaries for the Coeur d'Alene Urbanized Area



Appendix 4. 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.

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 stormwater 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 onsite, 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 $\leq$ 95th percentile event to be managed entirely onsite, and not discharged to surface waters, in order to fully protect Idaho receiving waters. The *95th 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 NOAA, the EPA analyzed the average rainfall depth occurring in the Idaho MS4 Permit Areas. See Table 4 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 4. ***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 Coeur d'Alene 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 Coeur d'Alene and other areas of Idaho. The EPA believes such a design standard is preferable to using a single, static statewide rainfall

[48] See: Hirschman and Kosco, 2008.

amount (e.g, "0.6 inches total rain"), or a volume calculated from a statistical storm frequency return 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 stormwater 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] EPA 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. 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 5. RATIONALE SUPPORTING REQUIREMENTS IN PERMIT PART 4 FOR MS4 DISCHARGES TO IMPAIRED WATERS

Appendix 5.1 **Coeur d'Alene Lake and Spokane River in Idaho**

Summary: Monitoring/assessment of potential pollutant loading from MS4 discharges, combined with targeted pollutant reduction activities, are necessary and appropriate to address MS4 discharges to waters impaired for cadmium, lead and zinc in the absence of an applicable TMDL.

Urbanized Area/City	Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Coeur d'Alene	Coeur d'Alene Lake	ID17010303PN001L_0L *Coeur d'Alene Lake*	Cadmium; Lead; Zinc	No TMDLs completed
Coeur d'Alene	Spokane River	ID17010305PN004_04 Spokane R.-Coeur d'Alene Lake to Post Falls Dam ID17010305PN003_04 Spokane R.- Post Falls Dam to ID/WA border	Cadmium; Lead; Total Phosphorus; Zinc	

Discussion: ESHD's MS4 discharges to Coeur d'Alene Lake; PFHD's MS4 discharges to Spring Creek and other tributaries to the Spokane River.

IDEQ's *2014 Integrated CWA Section 303(d)/Section 305(b) Report* (2014 Integrated Report), Appendix J [*Category 5 (CWA §303(d) list)—waters of the state for which a TMDL is needed*] lists Coeur d'Alene Lake as impaired for cadmium, lead, and zinc. The 2014 Integrated Report also lists the segments of the Spokane River in Idaho listed in the Table above as impaired for cadmium, lead, total phosphorus, and zinc. No TMDLs have been established for the impairment pollutants in these water bodies.[50] Outflow from Coeur d'Alene Lake creates the Spokane River

[50] In 2000, DEQ and EPA completed a metals TMDL for the Coeur d'Alene River subbasin, including Coeur d'Alene Lake, and the segment of the Spokane River where the City's MS4 outfalls are located. The Idaho Supreme Court subsequently ruled that the required rule making procedures were not followed in setting the TMDL, making it null and void. State legislation in 2003 clarified that for all other waters in Idaho, rulemaking procedures are not required for TMDLs. The legislation, however, kept the rule making requirement identified by the Idaho Supreme Court in place for a metals TMDL for the Coeur d'Alene River subbasin. To date, there is no EPA approved metals TMDL for the Lake, for either State or Tribal areas. Because the State court invalidated the Coeur d'Alene River Basin TMDL under State law, there is no longer an EPA approved TMDL for the Lake or relevant section of the Spokane River. Accordingly, EPA is not required by 40 CFR122.44(d)(1)(vii)(B) to establish permit requirements that are consistent with the assumptions and requirements of the invalidated TMDL's wasteload allocations

that flows west into Washington State.[51]

Existing water quality information for Coeur d'Alene Lake shows that maintaining an oxygenated condition in the bottom waters minimizes the release of dissolved metals from the sediments into the overlying waters.

The Coeur d'Alene Tribe and IDEQ collaboratively developed the 2009 Coeur d'Alene Lake Management Plan (2009 LMP) to protect and improve lake water quality by limiting nutrient inputs that impair lake water quality conditions; excess nutrient loading subsequently influences the solubility of mining-related metals contamination in lake sediments. The 2009 LMP sets lake management goals, objectives, and strategies, including specific actions for water quality management of Coeur d'Alene Lake and its tributaries. The Tribe and IDEQ view the 2009 LMP as a functionally equivalent to a nutrient TMDL.

The 2009 LMP acknowledges the regulated MS4 discharges from LHD and PFHD, and specifies the following recommended actions that directly relate to the improvement and maintenance of road systems managed by Highway Districts and others within the Coeur d'Alene Lake/Spokane River basin:

- All entities with road responsibilities need to identify and prioritize road related water quality improvement needs, and develop long range plans for correcting existing problems (e.g., a five-year workplan)
- Road jurisdiction entities need to improve on the control of erosion and sediment during construction and maintenance activities.
- Develop and enforce regulations as needed to incorporate water quality protection strategies into existing road standards, policies, procedures, and decisions.
- Prevent sediment from entering road ditches from adjacent properties by adopting and enforcing erosion control and grading ordinances or regulations for all land disturbing activities.
- Promote training programs on maintenance and construction BMPs, and regulations which can be used to reduce road impacts to water quality.
- Encourage road jurisdictions to hold public meetings and/or make construction plans available prior to and during project construction.
- Evaluate the level of treatment and stormwater retention needed for roads and highways in the basin; expand regulations and policies as needed to prevent contaminants from reaching the water. (Note: the 2009 LMP states, as an example, that LHD performed an evaluation of stormwater treatment and retention on some roads around Hayden Lake. As a result, LHD obtained a CWA Section 319 grant from IDEQ for a pilot project to treat stormwater run-off before entering Hayden Lake.)

[51] IDEQ & Coeur d'Alene Tribe 2009, page 5.

The Permit requirements are fully consistent with the LMP's management actions listed above for public outreach and education, and for controlling erosion and sediment from construction activities and roadway surfaces.[52]

Conclusion: To quantitatively address the impairment pollutants of concern listed above in their MS4 discharges to Coeur d'Alene Lake and the Spokane River, the EPA requires ESHD and PFHD to conduct (or participate in a cooperative effort with other MS4 permittees) some type of monitoring/assessment activity. Permit Part 4 requires each Permittee to submit one or more 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 ESHD and PFHD to submit descriptions of at least two (2) pollutant reduction activities to target and control discharges of cadmium, lead, zinc, and total phosphorus into Coeur d'Alene Lake and the Spokane River. Such activities may augment existing control measures, or may target new actions, as may be deemed appropriate by the Permittee(s). 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] See: *Coeur d'Alene Lake Management Plan* (IDEQ & Coeur d'Alene Tribe, March 2009) at https://www.deq.idaho.gov/media/468377-_water_data_reports_surface_water_water_bodies_cda_lake_mgmt_plan_final_2009.pdf; especially discussion regarding the basinwide scope of the LMP on pages 8 and 13, and management actions contained in Tables C1, C3, and C4.

Appendix 5.2 **Spokane River, Downstream of the ID/WA border**

Summary: Monitoring/assessment of pollutant loading from MS4 discharges, combined with targeted pollutant reduction activities, is necessary and appropriate to address potential contribution from the PFHD's MS4 into PCB- impaired waters of the downstream affected State in the absence of an applicable TMDL.

Urbanized Area/City	Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Coeur d'Alene	Spokane River	*Spokane R.- downstream of the ID/WA border*	Polychlorinated Biphenyls (PCBs)	No TMDL completed.

Discussion: The PFHD's MS4 discharges into the Spokane River.

Downstream water quality impairments require that the EPA include terms and conditions in the Permit to reflect appropriate WQBELs for impairment parameters. See 40 CFR §122.44 (d)(4) & (d)(5).

The Washington Department of Ecology's (Ecology) *2012 Water Quality Assessment Report* lists the Spokane River, downstream of the Idaho/Washington border, as not meeting the water quality standards for polychlorinated biphenyls (PCBs). Ecology's current water quality criterion for total PCBs is 170 picograms per liter (pg/L). In January 2015, Ecology proposed revisions to its water quality criteria established to protect human health; including a generally applicable narrative water quality criterion that "*[a]ll waters shall maintain a level of water quality when entering downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including the waters of another state."* In addition, the waters of the Spokane Tribe are located further downstream from the segments of the Spokane River that Ecology considers impaired. The Tribe's water quality criterion for total PCBs, approved by the EPA in 2013, is 1.3 pg/L, more than two orders of magnitude lower than the current Washington criterion, and perhaps the lowest PCB criterion in the country.[53]

In response to a U.S District Court order and remand pertaining to the status of a TMDL to address the PCB impairment, (and in consultation with Ecology), the EPA developed a plan (EPA Plan) outlining significant regulatory and non-regulatory actions necessary to identify and address sources of PCB pollution in the Spokane River. In this document, the EPA provides context regarding PCB contamination in the River, and recommendations for monitoring and further control of PCB sources in order to attain both Ecology's and the Spokane Tribes' PCB water quality criteria. The EPA's Plan recommends that NPDES permits continue to use a BMP approach to PCB control and require the use of monitoring methods that are sensitive enough to characterize PCB levels that can be compared to the Washington WQS.

Conclusion: The EPA has determined it is appropriate to include requirements in Permit Part 4 for PFHD to submit descriptions of at least one pollutant reduction activities by which PFHD will

[53] See: *EPA's Plan for Addressing PCBs in the Spokane River, Defendants' Response to the Remand by the Court, Sierra Club, et al. v. McLerran, No. C11-1759-BJR (July 14, 2015),* pages 2-5.

address whether legacy PCBs are discharged through their MS4 into the Spokane River. Such BMP activities may augment existing SWMP control measures, or may focus on completely new actions, as may be deemed appropriate by PFHD. Examples of practices used by other regulated MS4 operators to address PCB loading are available in the Administrative Record for the Permit.

Permit Part 4 also requires the continued monitoring/assessment of PCBs from regulated MS4 discharges into the Spokane River. In the prior individual MS4 permits issued in the Coeur d'Alene Urbanized Area to City of Coeur d'Alene, City of Post Falls and Idaho Transportation Department, the Permittees were required to use the EPA-approved analytical Method 608 to measure PCBs in their MS4 discharges; all sampling conducted to date using EPA Method 608 found non-detectable levels of PCBs.

However, the EPA's Plan discusses the limitations of the EPA-approved analytical methods for PCBs, specifically noting that these currently EPA-approved methods are not sufficiently sensitive to assess PCBs in water at the levels needed to compare with the downstream water quality standards in Washington. The Plan notes that, because actual discharges from Spokane River point sources have been found to be orders of magnitude below the quantification limits of the EPA approved methods, these EPA approved methods provide no quantitative data on the actual loading of PCBs from point sources, no incentive for point sources to reduce discharges, nor any means to determine whether the discharges are increasing or decreasing. The EPA is therefore using its authority to specify in the Permit that, if the PFHD elects to begin monitoring/assessment of their MS4 discharges, they must use EPA Method 1668C for monitoring of PCBs in water.[54]

Alternatively, in order to continue assessment of regulated MS4 discharges as possible source(s) of PCBs into the Spokane River, and to quantify any estimated pollutant removed or prevented from discharging through the MS4, PFHD may instead select to monitor/assess PCBs in accumulated sediment removed from the MS4's catch basins. In such situations, EPA Method 8082 continues to be an appropriate method for sampling PCBs in catch basin solids.

Permit Part 4.3 and Part 6.2.6 provide PFHD with options for monitoring/assessing for PCBs, offering maximum implementation flexibility to determine the appropriate means to address potential PCB loading from their MS4 discharges.

Permit Part 4.3 requires PFHD to submit a Monitoring/Assessment Plan and their pollutant reduction activity descriptions for review and specific incorporation into the Permit no later than 180 days from permit effective date. The EPA and IDEQ will review and consider modifying relevant portions of the Permit to incorporate PFHD's specific pollutant monitoring/assessment and pollutant reduction activities.

[54] See *EPA's Plan for Addressing PCBs in the Spokane River, Defendants' Response to the Remand by the Court, Sierra Club, et al. v. McLerran, No. C11-1759-BJR (July 14, 2015)* Appendix B pages. 2-8.

Appendix 5.3 **Fernan Lake**

Summary: No additional requirements are included in Permit Part 4 to comply with the expectations of the TMDL for Fernan Lake. ESHD's implementation of the comprehensive SWMP control measures (as directed in Permit Part 3) will reduce pollutants in their MS4 discharges to the MEP and protect water quality, consistent with the EPA-approved TMDL.

Urbanized Area	Receiving Water	Waterbody Assessment Unit	Impairment Pollutant	TMDL Status
Coeur d'Alene	Fernan Lake	ID17010303PN033_0L *Fernan Lake*	Total Phosphorus	*Coeur d'Alene Lake and River Subbasin Assessment and Total Maximum Daily Loads: 2013 Fernan Lake Addendum*, October 2013. Approved November 2013.

Discussion: ESHD's MS4 in the Coeur d'Alene Urbanized Area discharges to Fernan Lake.[55] Fernan Lake does not meet the Idaho water quality standards narrative criteria due to periodic blooms of blue-green algae. In the *Coeur d'Alene Lake and River Subbasin Assessment and Total Maximum Daily Loads: 2013 Fernan Lake Addendum* (Fernan Lake TMDL), approved by the EPA on November 6, 2013, IDEQ established a total phosphorus (TP) target of 20 µg/L for all sources, and a target load reduction from current conditions of 35% is assigned to all contributing sources.[56]

The Fernan Lake TMDL states that regulated small MS4s must implement a comprehensive SWMP to control pollutants in stormwater discharges to the maximum extent practicable. The TMDL does not specify any additional, mandatory actions or activities for regulated small MS4 discharges. Compliance with the load reduction targets will be determined using data collected by the Citizen's Volunteer Monitoring Program from the Fernan Lake deep monitoring station. No TMDL Implementation Plan for Fernan Lake exists at this time. IDEQ expects attainment of the beneficial uses in Fernan Lake within 20 years (by Year 2033).

Conclusion: The EPA has determined that no additional requirements for ESHD are necessary to ensure compliance with the assigned load reduction target/WLA for regulated MS4 discharges. ESHD's implementation of the SWMP control measures in Permit Part 3 will sufficiently reduce sediment and total phosphorus loading in MS4 discharges, consistent with the pollutant reduction target discussed above. The EPA and IDEQ will evaluate the required Annual Reports submitted by the Permittees to assess each entity's implementation of the required SWMP measures.

[55] See *Fernan Lake TMDL Appendix B*.

[56] See: http://www.deq.idaho.gov/media/1075241-cda_lake_river_sba_tmdl_fernan_lake_addendum_1013.pdf; in particular, see: Figure 17- *Map of the 2010 Census-Delineated Urbanized Area near Fernan Lake* (page 35) and Table 16- *TP load allocations for Fernan Lake, by source* (page 60).

Appendix 5.4 **Hayden Lake**

Summary: There are no WLAs established by the EPA-approved TMDL for Hayden Lake. Implementation of the comprehensive SWMP by LHD is consistent with the EPA-approved TMDL.

Urbanized Area	Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Coeur d'Alene	Hayden Lake	ID17010305PN005L_0L *Hayden Lake*	Total Phosphorus	*Sub-Basin Assessment and Total Maximum Daily Loads of Lakes and Streams Located on or Draining to the Rathdrum Prairie (17010305*), November 2000. Approved January 2001.[57]

Discussion: LHD operates roadside stormwater conveyances within the MS4 Permit Area in unincorporated Kootenai County at the southern end of Hayden Lake.

Hayden Lake does not meet the Idaho WQS narrative criteria due to periodic algae blooms. The EPA approved the *Sub-Basin Assessment and Total Maximum Daily Loads of Lakes and Streams Located on or Draining to the Rathdrum Prairie (17010305)* (Hayden Lake TMDL) on January 31, 2001. IDEQ established a TP target of 7 µg/L for the lake, and a TP load reduction target of 10.7% from all nonpoint sources discharging into the lake, including residential stormwater runoff. IDEQ did not assign WLAs to any point sources discharging into Hayden Lake.[58]

The Hayden Lake Watershed Association continues to provide ongoing public education resources regarding appropriate best management practices for homeowners that serve to reduce sediment and associated phosphorus loading into Hayden Lake.

LHD must continue to implement SWMP control measures as described in Permit Part 3 to reduce sediment and associated total phosphorus loading from the MS4 discharges. The EPA encourages LHD to work cooperatively with the Hayden Lake Watershed Association to continue using effective erosion control strategies in sub-sewershed drainage areas that could affect water quality in the Lake.

Conclusion: LHD's continued implementation of the comprehensive SWMP as outlined in the Permit Part 3 is consistent with the EPA-approved TMDL for Hayden Lake; no additional requirements are necessary to ensure compliance with the Hayden Lake TMDL's target for total phosphorus.

[57] The TMDL is available online at http://www.deq.idaho.gov/media/452833-upper_spokane_entire.pdf

[58] See: Hayden Lake TMDL, pages 31-35.