Fact Sheet

NPDES Permit Number:	IDS028215
Public Comment Period Issuance Date:	May 13, 2020
Public Comment Period Expiration Date:	June 29, 2020
Technical Contact:	Misha Vakoc (206) 553-6650 or (800) 424-4372 vakoc.misha@epa.gov

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

City of Coeur d'Alene

The EPA Region 10 proposes to reissue a NPDES permit authorizing the discharge of stormwater from all municipal separate storm sewer system (MS4) outfalls owned and/or operated by the City of Coeur d'Alene that are located in the Coeur d'Alene Urbanized Area in Kootenai County, Idaho. The City of Coeur d'Alene is referred to in this document as "the City" or the "Permittee." 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 comprehensive stormwater management program (SWMP) and outlines the control measures to be used by the Permittee to reduce pollutants in their stormwater discharges to the maximum extent practicable (MEP), to protect water quality, and to 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

The EPA will request that the Idaho Department of Environmental Quality (IDEQ) certify the permit for this MS4 under Section 401 of the CWA, 33 U.S.C. § 1341. Questions or comments regarding the certification should be directed to:

Idaho Department of Environmental Quality
Coeur d'Alene Regional Office
ATTN: Chantilly Higbee, Compliance Officer
2110 Ironwood Parkway
Coeur d'Alene, ID 83814

(208) 769-1422

Public Comment and Opportunity for Public Hearing

Because of the COVID-19 virus, access to the Region 10 EPA building is limited. Therefore, we request that all comments on EPA's draft permits or requests for a public hearing be submitted via email to Misha Vakoc (vakoc.misha@epa.gov). If you are unable to submit comments via email, please call 206-553-6650.

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

Documents Available for Review

The draft Permit, and other information is available on the EPA Region 10 website at: https://www.epa.gov/npdes-permits/stormwater-discharges-municipal-sources-idaho-and-washington OR https://www.epa.gov/npdes-permits/idaho-npdes-permits.

Because of the COVID-19 response, there is no public access to the EPA Region 10 buildings at this time. Therefore, we cannot make hard copies available for viewing at our offices.

For technical 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.

Contents

Acronyms

ACM	Alternative Control Measure
BMP	Best Management Practice
CFR	Code of Federal Regulations
CGP	Construction General Permit, i.e., the most current version of the NPDES General Permit for Stormwater Discharges from Construction Activities in Idaho
CWA	Clean Water Act
CZARA	Coastal Zone Act Reauthorization Amendments
EFH	Essential Fish Habitat
ESA	Endangered Species Act
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
LA	Load Allocation
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
PCBs	Polychlorinated biphenyls
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UA	Urbanized Area
US	United States
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WA	Washington
WAC	Washington Administrative Code
WD	EPA Region 10 Water Division
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 regulated municipal separate storm sewer systems (MS4s) located in U.S. Census-defined Urbanized Area (UA). Appendix 1 of this Fact Sheet details the types of pollutants typically found in urban stormwater and explains the regulatory background for the MS4 permit program.

The terms "municipal separate storm sewer" and "small municipal separate storm sewer system" are defined at 40 CFR §122.26(b)(8) and (b)(16), respectively. MS4s include any publicly owned conveyance or system of conveyances used for collecting and conveying stormwater that discharge to waters of the United States. MS4s are designed for conveying stormwater only, and are not part of a combined sewer system, nor part of a publicly owned treatment works. Such a system may include roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains.[1] In Idaho, various public entities own and/or operate MS4s, including, but not limited to: cities and counties; local highway districts; Idaho Transportation Department; and colleges and universities.

The EPA is reissuing a Permit authorizing stormwater discharges from the regulated small MS4 located in the Coeur d'Alene UA owned and/or operated by the City of Coeur d'Alene (City). This Fact Sheet explains the rationale for the proposed Permit terms and conditions for these MS4 discharges.

Other entities have responsibilities to manage MS4 discharges in the Coeur d'Alene UA, however this Fact Sheet addresses requirements and responsibilities for the City of Coeur d'Alene only. For example, the City of Post Falls, Idaho Transportation Department-District #1, and local highway districts own and/or operate regulated small MS4s in this area, and the EPA is addressing those discharges through separate NPDES permits. If any other Idaho entities own and/or operate a MS4 in this UA, they must seek NPDES permit coverage for those MS4 discharges by submitting a MS4 permit application.

1.1. Permittee 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 EPA is reissuing the NPDES Permit for the MS4 owned and/or operated by the City of Coeur d'Alene in the Coeur d'Alene UA as defined by the Year 2000 and Year 2010 Decennial Census. See Appendix 3 for maps of the Coeur d'Alene UA.

Permittee	Physical Address
City of Coeur d'Alene Street and Engineering Department	3800 North Ramsey Road Coeur d'Alene, ID 83814

[1] *See*: 40 CFR §122.26(b); 40 CFR §122.32(a); and EPA 1990.

The EPA previously issued Permit #IDS028215 for the City's MS4 discharges in November 2008. The EPA modified the permit in May 2011. The Permit expired in December 2013.

The City submitted a timely and complete application for the reissuance of NPDES Permit #IDS028215 in May 2013. Pursuant to 40 CFR § 122.6, the permit was administratively continued upon the expiration date of the permit. Therefore, the permit remains in effect until a new permit is reissued. The City continues to implement their stormwater management program (SWMP) activities and submit Annual Reports in compliance with the administratively continued Permit.

In 2016 and 2017, the EPA was working on a general permit that would cover all small regulated MS4 discharges in Idaho. During this period of time, the EPA received comments from the Permittee and other stakeholders on two versions of the draft general permit. The EPA subsequently 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. The Idaho Department of Environmental Quality (IDEQ) is 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 the MS4 and Discharge Locations

The City's MS4 drains an area of approximately 1,600 acres within the Coeur d'Alene UA and is comprised of catch basins, storm drains, swales, culverts, ditches and drywells. The City's MS4 discharges through eleven (11) outfalls into the Spokane River, Coeur d'Alene Lake, and Fernan Creek.[2] A representation of the City's MS4 map and drainage areas is provided in Appendix 2.

Table 1. *MS4 Outfall Locations*

MS4 Outfall, Location	Type, Size	Latitude	Longitude
OF1, Spokane River	Ribbed Sewer Pipe, 36"	47.69005433250	-116.80582069900
OF2, Spokane River	PVC, 24"	47.68887327600	-116.80268191600

[2] City of Coeur d'Alene, 2012; 2010. Discharges of stormwater to the ground are otherwise governed by requirements established by the federal Safe Drinking Water Act, the Idaho Department of Environmental Quality, Idaho Department of Water Resources, and Kootenai County, and therefore are not discussed in this document.

Table 1. *MS4 Outfall Locations*			
MS4 Outfall, Location	**Type, Size**	**Latitude**	**Longitude**
OF3, Spokane River	Concrete, 36"	47.68600888660	-116.79762498800
OF4, Spokane River	Concrete, 36"	47.68089272490	-116.79815054-300
OF5, Coeur d'Alene Lake	Corrugated Metal, 12"	47.67280967310	-116.78553253200
OF6, Coeur d'Alene Lake	Concrete, 15"	47.67280047510	-116.78528494500
OF7, Coeur d'Alene Lake	PVC, 12"	47.67193382400	-116.78307001500
OF8, Coeur d'Alene Lake	Concrete, 24"	47.67139376680	-116.78297070700
OF9, Coeur d'Alene Lake	Corrugated Metal, 12"	47.66621940200	-116.77105664300
OF10, Coeur d'Alene Lake	PVC, 12"	47.66614368290	-116.76947822600
OF11, Fernan Creek	Concrete, 30"	47.66766929430	-116.75247757300

1.4. Stormwater Management Program Accomplishments

Since 2009, the City has successfully implemented SWMP control measures as required by the prior MS4 permit; the following are a few examples of their SWMP accomplishments:

- Adoption of ordinances, including Coeur d'Alene Municipal Code Chapter 13.30, *Storm Water Management Ordinance,* Chapter 13.32 *Illicit Discharge and Drainage System Connection Ordinance;* Chapter 13. 35, *Drainage System Utility*,
- Ongoing education and public engagement through the City's website and community events;
- Current detailed MS4 map;
- Policies/protocols for screening and response to illicit discharges into the MS4s;
- Site plan review procedures for project sites that disturb one or more acres; and
- MS4 discharge monitoring between 2009 – 2019.

After review of the Annual Reports and other information provided by the City, the EPA concludes that the City has effectively implemented the stormwater control measures in compliance with the prior NPDES permit in a manner that has reduced pollutants discharged through the MS4 to the maximum extent practicable (MEP). 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 City of Coeur d'Alene MS4 Permit, the EPA considered a variety of information in order to develop the Permit terms and conditions, including but not limited to:

- NPDES Permit #IDS028215 as issued in 2008 and subsequent EPA-issued MS4 permits in Idaho;
- Permit renewal application materials submitted by the City in 2013;
- IDEQ's 2016 *Integrated Report*, describing IDEQ's assessment of waters in the portion of the Spokane River within the Coeur d'Alene UA; and impaired waters listings by the State of Washington;
- Annual Reports submitted by the Permittee as required by the prior Permit;
- Updated UA maps and boundaries based on the Year 2010 Census;
- Input from stakeholders and the Permittees on the EPA's preliminary draftMS4 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;*
    - *Compendium Part 2: Post Construction Performance Standards, November 2016;*
    - *Compendium Part 3: Water Quality-Based Requirements, April 2017;*
    - *Summary of State Post Construction Stormwater Standards, July 2016;*
    - The EPA's November 2014 Memo entitled *Revisions to the November 22, 2002 Memorandum "Establishing TMDL Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs;" and the*
    - *MS4 Permit Improvement Guide, April 2010.*
- Conclusions and recommendations from the National Research Council Report entitled *Urban Stormwater Management in the United States*, dated October 2008;
- Technical developments in the field of stormwater management, including recent research and information on effective and feasible methods for the on-site management and treatment of stormwater using practices commonly referred to as "low impact development" (LID), "green infrastructure" (GI) and/or "green stormwater infrastructure" (GSI) techniques.

[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

- Other MS4 permits issued by the EPA for regulated MS4s in Washington, Puerto Rico, Massachusetts, and New Mexico, as well as MS4 permits issued by other state NPDES permitting authorities.

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

1.6. Average Annual Precipitation in the Coeur d'Alene Urbanized, Idaho 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 UA receives an annual average precipitation of approximately 25.3 inches, and an annual average snowfall of approximately 45.8 inches.

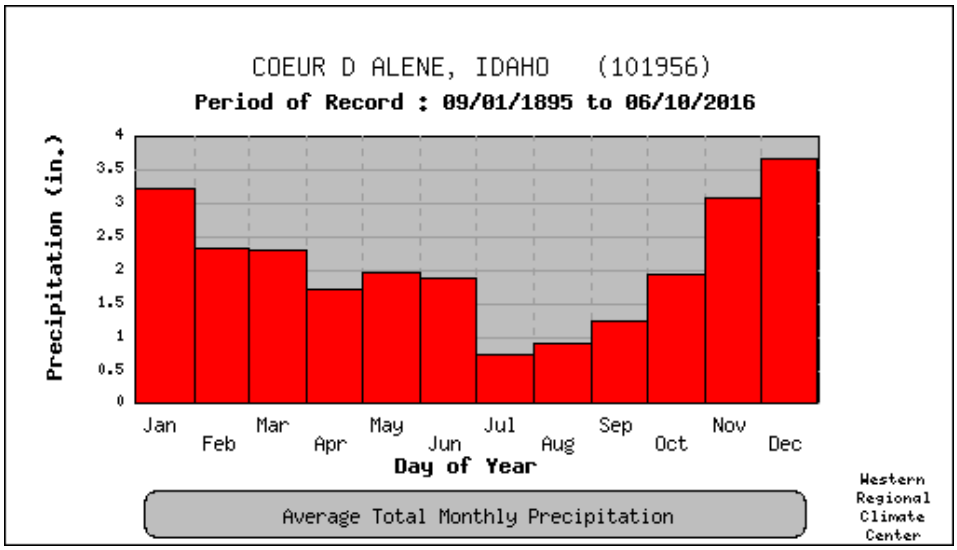

Figure 1. Average Total Monthly Precipitation in the Coeur d'Alene Urbanized Area.

1.7. Receiving Waters

The EPA intends to reissue the Permit authorizing discharges from the MS4 owned and/or operated by the City of Coeur d'Alene in the Coeur d'Alene UA to waters of the United States (U.S.) that includes the Spokane River, Coeur d'Alene Lake, and Fernan Creek. 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 3.7 of this Fact Sheet.

IDEQ has classified the Spokane River as fresh water with designated beneficial uses as listed in Table 2 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. The Spokane River originates in Idaho and flows west into Washington. Therefore, in addition to meeting Idaho water quality requirements, the permit conditions must also meet the applicable State of Washington water quality

standards. See 40 CFR § 122.4(d). Table 2 includes the applicable water quality standards for Washington.

Table 2*. Designated Beneficial Uses for Waters Receiving Regulated MS4 Discharge*s

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*
Fernan Creek	58.01.02.110.10	Cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply.
Coeur d'Alene 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 EPA is required under Section 301(b)(1)(C) of the CWA, 33 U.S.C. § 1311(b)(1)(C), and implementing regulations (40 CFR §§ 122.4(d) and 122.44(d)) to establish conditions in NPDES permits that ensure compliance with State water quality standards, including antidegradation requirements. The State of Idaho has an EPA-approved antidegradation policy as well as antidegradation implementation procedures (IDAPA 58.01.02.051). The EPA expects that IDEQ will provide an antidegradation analysis in the CWA §401 certification. Once the EPA has received a final §401 certification, the EPA will review the antidegradation analysis to ensure that it is consistent with CWA Section 301(b)(1)(C).

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 total maximum daily load (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 2016 *Integrated Section 303(d)/Section 305(b) Report* (2016 Integrated Report) contains the list of impaired water bodies in Idaho required by CWA Section 303(d).[5] Similarly, the Washington Department of Ecology's (WDOE) 2012 Water Quality Assessment Report lists impaired water bodies in Washington. Table 3 below summarizes the status of waters receiving the MS4 discharges covered by the Permit; including waterbody assessment units, or segments, that IDEQ and WDOE consider impaired.

Table 3. *Status of Waters Receiving Regulated MS4 Discharges*

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Fernan Creek	ID17010303PN032_03 *Fernan Creek - Fernan Lake to mouth*	Temperature	*Coeur d'Alene Lake Tributaries Temperature TMDLs* EPA approved November 2012
Coeur d'Alene Lake	ID17010303PN001L_0L *Coeur d'Alene Lake*	Cadmium; Lead; Zinc	No TMDL completed.
Spokane River	ID17010305PN003_04 *Spokane R.- Post Falls Dam to ID/WA border*	Lead; Zinc, Total Phosphorus	Under development.
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 impairments.

NPDES permit terms and conditions for regulated stormwater discharges must be consistent with the assumptions and requirements of applicable WLAs or LAs in the TMDLs.[6] In general, the EPA's guidance recommends that the NPDES permitting authority use BMPs to implement WLAs and load reduction targets for MS4 discharges in a NPDES 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. In this case, because there are no applicable TMDLs for the Spokane River or Coeur d'Alene Lake, the EPA's guidance also recommends that the NPDES permitting authority include permit terms and conditions that can characterize pollutant loading and BMP effectiveness.[7]

[5] The IDEQ's 2016 Integrated Report is available online at: https://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report.aspx.
[6] See: 40 C.F.R. §§ 122.34(c)(1) and 122.44(d)(1)(vii)(B).
[7] See: EPA 1996; EPA 2002; EPA 2014a; EPA 2014b; and EPA 2016b. See also EPA 2008b.

Therefore, to continue appropriately addressing the impairment pollutants discharged from the City's MS4 into the Spokane River, Fernan Creek, and Coeur d'Alene Lake – particularly during the development of one or more TMDLs - the Permit requires the City to continue conducting monitoring/assessment activities and to conduct at least two (2) pollutant reduction activities during the permit term. The Permittee must update and submit descriptions of their selected monitoring/assessment and pollutant reduction activities within two years of the Permit effective date. Upon EPA and IDEQ review, the permitting authority will revise the Permit to incorporate explicit reference to the specific activities that the City plans on undertaking. 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 TMDLs for the receiving waters listed above, and those TMDL(s) contain WLA(s) for regulated MS4s, the permitting authority may 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 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."[8] 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 Permittee implementing the required actions as part of a comprehensive program; and (3) the NPDES permitting authority and MS4 Permittee evaluating the effectiveness of BMPs used to date, current water quality conditions, and other relevant information.[9]

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.[10]

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 this Fact Sheet below - have a positive effect on water quality and other biological indices.[11]

In order for the Permittee to comply with the MS4 standard during the Permit term, the EPA has defined the stormwater management control measures and evaluation requirements that the Permittee must implement. The Permit describes these requirements in more detail than was previously required under the administratively continued Permit to ensure that the terms and conditions are "clear, specific, and measurable." To reduce the discharge of pollutants from the MS4 to the MEP, the Permittee must implement and enforce the stormwater management control measures

[8] EPA 1999, pages 68753-68734/
[9] EPA 2016 pages 89338.-89339; 40 CFR 122.34(a)(2)
[10] See 40 CFR 122.34(a).
[11] EPA 1999a; EPA 1999b; EPA 2006; NRC 2008; EPA 2016b; WERF 2017.

outlined in Permit Part 3 (*SWMP Control Measures*). To protect water quality, the Permittee must conduct monitoring and/or assessment activities targeted at reducing the impairment pollutants in Permit Part 4 (*Special Conditions for Discharges to Impaired Waters*). Where the 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 Permittee's MS4 within the Permit Area, provided that the Permittee complies with the Permit's terms and conditions. Where monitoring or other information shows that a pollutant in a Permittee's MS4 discharge is causing or contributing to an ongoing excursion above the applicable Idaho water quality standard, the Permittee must comply with the notification and other adaptive management requirements in Permit Part 5 (*Required Response to Excursions of Idaho Water Quality Standards*). See also Section 2.6 of this Fact Sheet.

The Permit outlines conditions and prohibitions related to snow disposal (Permit Part 2.2); stormwater discharges associated with industrial and construction activities (Permit Part 2.3); and discharges unrelated to precipitation events (i.e., "non-stormwater discharges;" Permit Part 2.4) that are similar to requirements in the administratively continued 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 the Permittee 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 in Permit Parts 3.2.5 and 3.2.6.

2.3. Permittee Responsibilities

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

Permit Part 2.5.1 allows the Permittee to implement one or more of the control measures by sharing responsibility with an entity other than another MS4 Permittee. The Permittee must enter into a written agreement with the outside party, in order to minimize any uncertainty about the other entity's responsibilities to the Permittee. The Permittee remains responsible for compliance with the Permit obligations in the event the other entity fails to implement the control measure (or any component thereof). See 40 CFR §122.35.

Permit Part 2.5.2 requires the Permittee to maintain adequate legal authority to implement and enforce the required SWMP control measures as allowed and authorized pursuant to applicable Idaho law.[12] Without adequate legal authority or other

[12] See EPA 2010.

mechanisms that allow control over what enters or discharges from the MS4, the Permittee cannot perform vital stormwater management functions, such as conducting inspections, requiring installation and proper operation of pollutant control measures within its jurisdiction, and/or enforcing such requirements. In the event that some portion of required legal authority does not exist, the EPA provides the Permittee with a compliance deadline of 4.5 years to establish the authority to comply with the Permit.

The EPA reviewed the Annual Reports and other information submitted by the Permittee and finds that the City maintains sufficient legal authority to impose and enforce the required control measure components in their jurisdiction; the City's ordinances can be reviewed at https://www.cdaid.org/files/Engineering/DrainageUtilityOrd.pdf

Permit Part 2.5.3 requires the Permittee to maintain, 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 in its jurisdiction. The EPA notes the City has a SWMP Document, which is available online at: https://www.cdaid.org/files/Engineering/StormwaterManagementPlan.pdf

The requirement for the Permittee to maintain a SWMP Document is an enforceable condition of the Permit. However, the contents of the SWMP Document are not directly enforceable as requirements of the Permit. As a result, the Permittee 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 the EPA or IDEQ review and approval.

The Permittee must update its SWMP Document under the reissued Permit and make it 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. 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. At a minimum, the SWMP Document must be updated to reflect the Permittee's current implementation of their control measures and submitted with the Permit Renewal Application required by Permit Part 8.2, no later than 180 days prior to the expiration date of the Permit.

Permit Part 2.5.4 requires the Permittee to track indicator statistics and information to document and report on SWMP implementation progress.

Permit Part 2.5.5 requires the Permittee to provide adequate financial support, staffing, equipment, and other support capabilities to implement the SWMP control measures and other Permit requirements. The Permittee demonstrates compliance with this provision by fully implementing the requirements of the Permit. The Permittee is not required to keep track of, or report, their implementation costs, though it might be appropriate and helpful for the Permittee 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.

[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.

In 2012, the City adopted Municipal Code Chapter 13.35 *Drainage System Utility*, which provides a stable funding source for the "maintenance, operations improvement regulatory requirements and program costs" of the MS4." The EPA supports such comprehensive long-term investments in stormwater infrastructure and system management that complement other community development initiatives and promote economic vitality.[14]

Permit Part 2.5.6 requires the Permittee to extend its stormwater control measures to all areas under its direct control when new areas served by the MS4 are annexed, or when areas previously served by the MS4 are transferred to another entity. The Permittee must report changes in ownership or operational authority to the EPA and IDEQ through the SWMP Document and Annual Reports. The Permittee is 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 (or SWMP) control measures, or control measure components. Where a Permittee must revise or update SWMP control measures, or control measure components, full implementation must be accomplished no later than 180 days prior to the Permit expiration date. To provide implementation flexibility, the Permit allows the Permittee the discretion to submit requests to implement one or more Alternative Control Measure(s) (ACM).

As outlined in Permit Part 2.6.1, the Permittee may submit supplemental or individualized documents, plans, or programs that are deemed equivalent to a comparable SWMP control measure, or control measure component, in Permit Part 3, along with supporting rationale and information. Requests for ACM(s) must be submitted no later than two years after the Permit effective date.[15] Upon determining that the ACM request(s) is equivalent to a comparable Permit SWMP control measure, or control measure component, and results in a modification of the Permit terms and conditions, the EPA will provide opportunity for public comment and, if requested, a public hearing. The EPA will consider all comments received on the ACM and resulting change in permit terms and conditions before issuing a final agency decision.[16]

The opportunity for ACM(s) relative to any SWMP control measure, or control measure component, in Permit Part 3 offers the Permittee maximum flexibility for SWMP implementation. For example, the Permittee 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 Permittee may request that the EPA consider an alternative SWMP control measure component, such as the specific requirement in Part 3.3.3 (*Construction Site Runoff Control Specifications*).

Pursuant to Permit Part 2.6.2, an ACM also includes the Permittee's individual or collective plans or programs to address discharges to impaired waters, as specified by

[14]See: Municipal Code Chapter 13.35.020. The EPA notes that technical resources, such as the *Water Finance Clearinghouse* developed by EPA's Water Infrastructure and Resiliency Finance Center, are available to help Permittees create and maintain sustainable funding solutions. See: https://www.epa.gov/waterfinancecenter

[15] Pursuant to Permit Part 8.1, no provision is stayed until the modification process to recognize the ACM is complete.

[16] EPA 2016b.

Permit Part 4 (*Special Conditions for Discharges to Impaired Waters*). The opportunity to modify the Permit to incorporate specific monitoring/assessment and pollutant reduction activity(ies) offers flexibility for the Permittee to specify how it intends to make continued progress toward applicable water quality improvement targets for the 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 in MS4 discharges to the MEP. For each control measure, the EPA has outlined specific tasks, BMPs, design requirements, performance requirements, adaptive management requirements, schedules for implementation and maintenance, and/or frequency of actions. Each minimum control measure is comprised of actions and activities that the EPA refers to as SWMP control measure components.

The EPA considered the existing control measures implemented by the City, and the 2013 renewal application, during development of the Permit terms and conditions. The EPA has incrementally refined each SWMP control measure component to iteratively clarify the MS4 permit standard for the Permittee 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 guides 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 measures 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 permit contained public education and involvement requirements. The City has consistently conducted a wide variety of clean water education activities in cooperation with schools and other local entities. The EPA encourages the City to continue working cooperatively with the other entities, particularly the Idaho Transportation Department, City of Post Falls, and the local highway districts in the Coeur d'Alene UA, and others throughout the State, to assist with stormwater education and public involvement activities that are both meaningful and relevant to their local needs.[17] When scoping their intended activities, the EPA also recommends that Permittees consider the recommendations found in the EPA document, *Promising*

[17] See the City's Annual Reports available at https://www.cdaid.org/623/departments/finance/utilitybilling/stormwater/annual-reports.

Practices for Permit Applicants Seeking EPA-Issued Permits: Ways to Engage Neighboring Communities. See also Section 3.1 of this Fact Sheet.

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

- Permit Part 3.1.1 establishes a compliance deadline of one year from the Permit effective date for the Permittee to begin, or update and continue, their public education, outreach, and involvement activities in the Permit Area. This provision also establishes a deadline of 180 days after the effective date of the permit for the submission of any ACM Request under this provision.
- Permit Part 3.1.2 specifies requirements for the Public Education, Outreach and Involvement Program. To the extent allowable pursuant to the authority granted the Permittee under Idaho law, the Permittee must work to educate and engage interested stakeholders in the development and implementation of the SWMP control measures.
- Permit Part 3.1.3 requires the Permittee 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 Permittee to consider as its focus during the Permit term.
- Permit Part 3.1.5 requires the Permittee to assess, or to participate in an effort to assess, the understanding and adoption of behaviors by the target audience(s). A vital, yet challenging, component of a successful education program is the assessment of whether the Permittee's efforts are achieving the goals of increasing public awareness and behavior change to improve water quality. The EPA recognizes and encourages the long-term nature of such assessment activities, and notes that there may be opportunities for the Permittee to work together within the State, or with other watershed organizations, on specific MS4 topics if they choose to do so.
- Permit Part 3.1.6 requires the Permittee to maintain records of its education, outreach, and public involvement activities.
- Permit Part 3.1.7 requires the Permittee to provide educational opportunities related to certain SWMP control measures at least twice during the Permit term. The Permittee may plan opportunities in a manner such that the relative success of their educational efforts can be articulated as required by Permit Part 3.1.5.
- Permit Part 3.1.8 requires the Permittee to maintain and promote at least one publicly - accessible website to provide relevant SWMP information to the public. Relevant 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. The City currently has an informational website where SWMP information is available; see: https://www.cdaid.org/611/departments/finance/utilitybilling/stormwater

2.4.2. Illicit Discharge Detection and Elimination

Permit Part 3.2 contains requirements for the Permittee to address illicit discharges and spill response within their jurisdiction. At a minimum, the EPA requires the Permittee 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.

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

The Illicit Discharge Detection and Elimination (IDDE) SWMP control measure required by 40 CFR § 122.34(b)(3) directs the Permittee 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 illegal discharges and improper disposal of waste and publicize appropriate public reporting of illicit discharges when they occur.

The City has an established program to prohibit, detect, and respond to illicit discharges, in their jurisdiction. The EPA encourages the Permittee to continue working with the neighboring jurisdictions as needed to share expertise and knowledge and to continue implementing 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 Permittee to update their existing IDDE program activities, and/or to fully impose any new SWMP control measure components outlined in this Part. The EPA believes this timeframe is justified to allow the Permittee adequate opportunity to adjust its existing programs, as necessary, 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 must be submitted.
- Permit Part 3.2.2 continues to require the Permittee to maintain a current MS4 map and 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 the Permittee to know the locations and characteristics of all outfalls that it owns and/or operates through mapping their infrastructure and associated assets. The Permittee is encouraged to couple the outfall 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 City's MS4 map is available in Appendix 7 of the 2010 Annual Report, online at https://www.cdaid.org/files/engineering/2010_ANNUAL_REPORT.pdf

Soils in the Coeur d'Alene Urbanized Area allow for significant infiltration of rain and snowmelt, and much of the City's drainage system is not part of the MS4 because it does not discharge to waters of the United States. The City must continue to maintain accurate MS4 mapping and inventory reflecting the locations and nature of wet weather discharges from their MS4.

Permit Part 3.2.2 also requires the Permittee 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. The City regularly conducts dry weather screening of their outfalls.[18]

- Permit Part 3.2.3 requires the Permittee 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 the Permittee to enforce within its jurisdiction.

  The City's existing ordinances at Municipal Code Chapter 13.32 can fully prohibit the flows listed in Part 3.2.3. The EPA clarifies that the ordinance is not required to cite all the individual prohibitions listed within the Permit provided that the Permittee's legal mechanism can be used to address such discharges if they are found discharging to the MS4. This provision provides a minimum expectation for the local ordinance/legal mechanism to prohibit the breadth of possible non-stormwater discharges that negatively impact water quality.
- Permit Part 3.2.4 describes the EPA's expectations for the Permittee's Illicit Discharge Complaint Reporting and Response Program. The Permittee must maintain and advertise a publicly accessible and available means to report illicit discharges. The Permittee must respond to reports within two (2) days and maintain records regarding actions taken. These programs can be promoted to the public in concert with the public education requirements in Permit Part 3.1. Staff assigned to handle calls should be trained in stormwater issues and emergency response in order to gather and transfer the right information to responders. Conducting an

[18] Coeur d'Alene Annual Reports 2010, et al.

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

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

  Appropriate threshold limits for dry weather monitoring results are important to distinguish pollutant spikes from normal background conditions at a particular outfall. For example, the Ada County Highway District has established threshold levels for their dry weather screening program that, when exceeded, result in retesting to determine whether the sample was an isolated event or an ongoing water quality issue.[19] The Permittee should 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 the Permittee 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 Permittee 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

[19] ACHD 2019.

in the Annual Report of the MS4 outfall location, and the Permittee's determination of the source as either irrigation return flows or groundwater seepage. The EPA encourages the Permittee 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 at the time of the permit renewal to tailor future control measures to appropriately address non-stormwater discharges that may be contributing excess nutrient loads to receiving waters.

- Permit Part 3.2.7 requires the Permittee 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 CWA Section 401 certifications for prior MS4 permits issued by the EPA.[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. The Permittee may comply with this requirement by continuing their outreach and public education efforts on proper recycling and disposal of used oil and household hazardous waste in their jurisdiction.
- Permit Part 3.2.9 requires the Permittee 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 the Permittee to control construction site runoff discharges into their MS4s. 40 CFR § 122.34(b)(4) requires the Permittee 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

[20] IDEQ 2017, IDEQ 2020.

effective erosion and sedimentation controls. Examples include the use of construction sequencing, and vegetative- or non-vegetative stabilization techniques.[21]

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

The City's ordinance at Chapter 13.30 requires developers to implement erosion and sediment controls at construction sites; the City maintains adequate site plan review and inspection/enforcement procedures as required by the administratively continued MS4 permit. The Permit continues to require that the City implement its current construction site stormwater runoff program and, as part of the iterative process, has refined what the City is required to have as part of that program

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

- Permit Part 3.3.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittee to update its 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 Permittee's legal mechanism to reduce and prevent runoff from construction sites in its jurisdiction that disturb one (1) or more acres.
- 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 Permittee has the discretion to determine how best to control sediment and other pollutants in runoff from different sized construction sites.
- Permit Part 3.3.4 requires a preconstruction site plan review process to address construction site activity that will result in land disturbance of one (1) or more acres and includes consideration of public input. This review can be conducted using a checklist or similar process to consider and address potential water quality impacts from the site activities.
- Permit Part 3.3.5 requires that the Permittee conduct prioritized construction site inspections and to enforce the applicable local requirements as needed. At a minimum, the Permittee must inspect and enforce their requirements at construction sites occurring in their jurisdictions that disturb one (1) or more acres.
- Permit Part 3.3.6 requires the Permittee 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 Permittee to provide proper training for construction staff conducting plan review and inspections.

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

Ensuring that construction sites use appropriate erosion and sedimentation controls through BMP specifications, site plan review, in field inspection and enforcement has been shown to significantly reduce sediment loadings to nearby water bodies the Spokane River. By reducing sediment discharges, the City also commensurately reduces nutrients and other pollutants that bind to the sediment particles. Such control measures, when properly implemented, reduce overall pollutant loading, and are therefore consistent with the pollutant reduction expectations in the 2009 Coeur d'Alene Lake Management Plan (LMP). See Appendix 5 for additional discussion of the 2009 LMP and water quality impairments in the Spokane River, Coeur d'Alene Lake and Fernan Creek.

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

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

Pursuant to 40 CFR § 122.34(b)(5), the City must impose 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 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 must enforce the requirements using an ordinance or other regulatory mechanism and ensure the adequate long-term operation and maintenance of the BMPs.[23]

The reissued 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 EPA Region 10 since 2012.

Through its ordinance, the City has sufficient requirements in place to comply with the following control measures:

- Permit Part 3.4.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittee to update their existing Post-Construction Stormwater Management control program and, if needed, to impose any new SWMP control measure components in the Permit Area. This timeframe is justified to allow the Permittee the flexibility to adjust their existing programs as necessary. This provision also defines the date by which any ACM Request(s) must be submitted.
- Permit Part 3.4.2 requires the Permittee to update their legal regulatory mechanism if needed to incorporate an onsite stormwater retention standard or require a treatment equivalent to the onsite retention standard, for new development and redevelopment

[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).

sites. The purpose of this requirement is to prevent the creation of excess stormwater discharges and pollutant loading- from the impervious surfaces associated with urban development. Use of onsite stormwater management controls 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 this provision is provided in Appendix 4 of this Fact Sheet.

The City of Coeur d'Alene storm water management code requires all new development projects to direct runoff to infiltration basins or an approved BMP. The City of Coeur d'Alene storm water management code, Chapter 13.30 is available at: https://www.cdaid.org/files/Engineering/DrainageUtilityOrd.pdf.

The City's continued implementation of their code is consistent with Permit Part 3.4.2.

- Permit Part 3.4.3 requires the Permittee 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) or more acres.
- Permit Part 3.4.4 requires the Permittee to review and approve site plans for permanent stormwater controls at sites resulting from land disturbance of one (1) or more acres. Specific standards are a critical component of the program, but even the best local requirements must be supported by a review component to ensure that the locally established performance standards are met. To comply with this requirement, the Permittee 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 Permittee to inspect and enforce their requirements for permanent stormwater controls at sites resulting from land disturbance of one or more acres. Inspection of permanent control measures is key to ensuring water quality protection over the long term. Without periodic inspection or maintenance, the permanent controls can instead become pollutant sources, rather than a means of prevention. An effective local inspection process, combined with appropriate enforcement if necessary, ensures that onsite controls are built according to approved plans and specifications, and use proper materials and installation techniques. The EPA expects the Permittee 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 Permittee to ensure the long-term operation and maintenance (O&M) of permanent stormwater controls through the use of a database inventory to track and manage the operational condition of permanent stormwater controls within its jurisdiction. This database inventory can take the form of a computerized maintenance management system or asset management system that allows for the electronic logging of O&M tasks. Ongoing O&M is necessary to ensure that the BMPs will perform as designed over time. Inadequate maintenance of existing stormwater management controls is a primary shortcoming for most local SWMPs across the country. As with any infrastructure, deferred maintenance can increase costs and negatively affect receiving waters. Unmaintained BMPs will ultimately fail to perform their design functions and can become a nuisance and/or

pose safety problems.[24] The Permittee must track those permanent controls which are known to them, or for which they accept ownership, beginning no later than the Permit effective date.

- Permit Part 3.4.7 requires the Permittee 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.

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 continued MS4 permit for the City of Coeur d'Alene requires 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. The Permit continues to require that the City implement its current O&M program, and, as part of the iterative process for MS4 permits, the EPA has refined what the City must implement as part of the O&M program.

Permit Part 3.5 requires the Permittee 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 Permittee must continue to focus on maintenance of their MS4s to protect water quality. Due to the diverse nature of MS4 facilities, ensuring appropriate inspection and maintenance schedules are in place for all types of infrastructure/facility is both relevant and necessary. 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. Individual SWMP control measure components under the Pollution Prevention/Good Housekeeping control measure in Part 3.5 are reasonable, practicable, and consistent with other MS4 permits issued by the EPA Region 10 since 2012. Given the relative size and scope of the City's MS4, associated drainage areas, and other relevant information, the City has demonstrated that the implementation of their pollution prevention/good housekeeping SWMP control measures that are required pursuant to the administratively continued permit are controlling pollutants from the MS4.

The specific requirements are summarized below:

- Permit Part 3.5.1 establishes a compliance deadline of 180 days before the Permit expiration date for the Permittee to update its existing program(s), and/or to impose any new program components, in the Permit Area. The EPA believes this timeframe is justified to allow the Permittee adequate opportunity to adjust its existing programs, as necessary, and ensure the required actions are sufficiently addressed in the Permit Area. This provision also defines the date by which any ACM Request(s) must be submitted.

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

- 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 the Permit Area, and other Urbanized Areas of Idaho the EPA has included explicit provisions for appropriate stormwater management through O&M activities for roads, streets, highways and parking lots.

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

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

- Part 3.5.4 requires the Permittee with street maintenance responsibilities to ensure that road material stockpiles (such as sand, salt, or sand with salt stockpiles) are managed in a manner that prevents pollutants from discharging to the MS4 or into any receiving water. An inventory of all such street materials must be maintained. No later than 180 days prior to the Permit expiration date, as part of the Permit Renewal Application required by Permit Part 8.2, the Permittee 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 a Permittee with street, road, highway and parking lot responsibilities to document the adequacy of their sweeping activities through a sweeping management plan.

- Permit Part 3.5.6 requires the Permittee to review and update their O&M procedures for a variety of other typical municipal activities to ensure procedures protect water quality and reduce the discharge of pollutants through the MS4.

- Permit Part 3.5.7 requires the Permittee to ensure that their staff, and others operating in public areas owned and/or operated by the Permittee, are appropriately handling and/or using pesticides, herbicides, and fertilizers used within the Permit Area. This provision is consistent with the *NPDES General Permit for Discharges from The Application of Pesticides, for the State of Idaho,* NPDES Permit No. IDG870000.

- Permit Part 3.5.8 requires the Permittee to manage onsite materials at their maintenance yards and other City-operated locations that discharge into the MS4, and to prevent pollutants in runoff through use of SWPPPs.

The EPA notes that the City's Street/Fleet Maintenance Department and Wastewater Treatment Plant manage runoff on site and do not discharge to the MS4. The EPA clarifies that Part 3.5.8 specifically requires controls at City-operated locations that discharge into the MS4.[25]

- Permit Part 3.5.9 requires the Permittee to work cooperatively to reduce litter in their jurisdiction to prevent the conveyance of trash and other material through the MS4.
- Permit Part 3.5.10 requires the Permittee to ensure appropriate training for responsible staff such that O&M activities are conducted properly and 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 the City to continue pollutant reduction activities, and to quantitatively monitor/assess the effectiveness of those activities, to address impairment pollutants in MS4 discharges to the water quality impaired segments of the Spokane River, Coeur d'Alene Lake, and Fernan Creek. For the purposes of the Permit, the phrase "impairment pollutants" means any pollutant identified by IDEQ, WDOE, or the EPA as a cause of impairment of any waterbody that receives MS4 discharges authorized under the Permit.

Since 2009 and in compliance with the administratively continued Permit, the City has regularly monitored MS4 discharges from Outfall #1 into the Spokane River and Outfall #11 into Fernan Creek which flows into Coeur d'Alene Lake for total suspended solids, total phosphorus, total nitrogen, lead, zinc, hardness, flow, temperature and total PCBs. The permit required a minimum of four samples to be collected each calendar year, with at least one sample collected during the each of the following periods: March - April, May - June, July - August, September - October. The permit further specified that such sampling be collected using either grab or automated method and occur within the first 30-60 minutes of storm events to catch the 'first flush.' In its Annual Reports, the City reported this collected data. The resulting data is useful for assessing overall SWMP effectiveness and, if continued, can provide a baseline against which future improvements may be measured.[26]

After review of the City's Annual Reports, monitoring data, available water quality assessment information for the Spokane River, Coeur d'Alene Lake, and Fernan Creek, the 2013 renewal application and information related to the issuance of other Idaho MS4 permits, the EPA determines that it is appropriate for the City to continue actions that reduce and monitor/assess impairment pollutants from their MS4 into these waterbodies. Additional discussion of the water quality impairments for the Spokane River, Coeur d'Alene Lake, and Fernan Creek, as well as the EPA's rationale for continuing to include such requirements, is described in Appendix 5 of this Fact Sheet

The EPA clarifies that the City is free to choose new activities, or to continue existing actions, designed to measure, quantify, and reduce the discharge of the impairment pollutants into the Spokane River, Coeur d'Alene Lake and Fernan Creek. These actions/activities must be linked and coordinated to the water quality goals and available

[25] City of Coeur d'Alene 2010.
[26] Coeur Post Falls 2018, pages 64-66.

water quality management plan(s); in addition, the City must continue to measure the relative success or failure of such actions over time.

Permit Part 4 requires the Permittee to submit, within two years of the Permit effective date, an updated written description of at least one pollutant reduction activity, and an updated monitoring/assessment plan, to be conducted during the remainder of the Permit term. The EPA and IDEQ will review the submitted materials, and the NPDES permitting authority will modify the Permit to incorporate the pollutant reduction activity and monitoring/assessment plan.

The Permit allows the City to work collaboratively with other entities and provides the City with flexibility to define what/how they will continue reducing impairment pollutants consistent with the available receiving water quality assessments and watershed advisory group directives. Through the Permit modification process, the approach specified in Part 4 (namely, requiring a current written description of the continued or new actions to be submitted for inclusion in the Permit) also provides transparency to interested members of the public about the Permittee's actions.

2.6. Requirements for Excursions above the Idaho Water Quality Standards

Permit Part 5 sets forth requirements for the Permittee 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 MS4 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 the Permittee 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-range planning and implementation schedules, Permit Part 5 provides opportunity for the Permittee 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 Permittee 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.

[27] EPA 2016g.

2.7.1. Compliance Evaluation

Permit Part 6.1 requires the Permittee 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 use during the Permit term. The five-year permit term will coincide with the EPA's national transition to online reporting for MS4 permits; this transition is expected to be accomplished no later than December 2020. 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 Permittee may request different reporting frequencies in the subsequent MS4 permit, pursuant to 40 CFR § 122.34(d)(3).[28]

2.7.2. Monitoring and/or Assessment Activities

As noted in Section 2.5 of this document, Permit Part 6.2 provides supplemental detail to the requirements in Permit Part 4 and requires the Permittee to evaluate the effectiveness of their SWMP at protecting water quality by quantifying stormwater pollutant reductions. Conducting monitoring and/or assessment activities provides a means for the Permittee to measure the effectiveness of specific management actions, aides in determining whether pollutant reduction goals in applicable watershed plans 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) and 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 Permittee to submit a revised or updated monitoring/assessment plan as directed by Permit Part 4 that meets the quality assurance objectives at Permit Part 6.2.7 no later than two years after the Permit effective date. This deadline is consistent with other MS4 permits issued by the EPA in Idaho since 2019. Standard NPDES permit conditions are included in Part 6.2 related to representative sampling, additional monitoring, and use of sufficiently sensitive testing methods. If the Permittee elects to continue monitoring MS4 discharges, Part 6.2.5 summarizes the basic components of any wet weather stormwater discharge monitoring.

As previously noted, the administratively continued Permit requires the City to conduct stormwater discharge sampling four times per year from one outfall discharging to Spokane River and one outfall discharging to Coeur d'Alene Lake. The resulting data collected during calendar years 2009 – 2019 is useful for assessing overall SWMP effectiveness over time.[30]

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[28] EPA 2015c.
[29] CWP 2009.
[30] The City's monitoring data and assessment information is available through the City's Annual Reports available on the City's website,
https://www.cdaid.org/623/departments/finance/utilitybilling/stormwater/annual-reports

While developing this and other similar MS4 permits for regulated MS4 discharges in Idaho, the EPA considered several options for how the City and other Permittees might continue monitoring and/or assessing compliance with Permit requirements, given the general difficulty and overall expense associated with MS4 discharge monitoring. The EPA envisions that there are many possible options a Permittee 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.

The EPA recognizes that the MS4 permits in Idaho should not impose a "one size fits all" monitoring and assessment approach. The guidelines at Permit Part 6.2. provide the Permittee the flexibility to develop and implement monitoring/assessment activities that are appropriate for their MS4. The NPDES permitting authority will modify the Permit to incorporate the Permittee's intended plan. MS4 stakeholders around the country have found that relevant watershed-level questions must drive a Permittee's monitoring and assessment choices. Because water quality benefits will only be realized over the long-term, it is important for MS4 Permittees to invest their time and energy into long-term implementation mechanisms that are linked to appropriate monitoring and assessment actions. Monitoring and assessment data contribute to new knowledge and resulting data should then be made broadly available.[31]

Examples of monitoring/assessment activities that the Permittee may consider include:

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

Based on the downstream impairment of the Spokane River for polychlorinated biphenyls (PCBs), Part 6.2.6 contains direction for Permittees to consider continued PCB monitoring/assessment activities associated with 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. Where the Permittee elects to assess PCB loading in sediment collected from catch basins, the Permittee must use EPA Method 8082 for measuring PCBs in 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 actions of other regulated MS4 sources in the Spokane River watershed.

Permit Part 6.2.7 requires Permittee to create, or revise any existing, Quality Assurance Project Plans (QAPP) to guide the intended monitoring/assessment activities.

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

2.7.3. Recordkeeping and Reporting

Permit Part 6.3 requires the Permittee to keep all records associated with the Permit for a period of at least five years and submit such records only when requested by EPA. The Permittee 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 Permittee to provide their SWMP Document to the public electronically via one or more dedicated websites.

Permit Part 6.4 describes the overall reporting requirements, including the schedule and required content for the Annual Report, the final monitoring/assessment report, and the pollutant reduction activity report. At a minimum, Permittee must submit Annual Reports of progress to both EPA and IDEQ using the recommended Annual Report format provided in the Permit Appendix no later than 61 days after the close of relevant reporting period. The Annual Report format will prompt the Permittee for appropriate information according to compliance dates specified in the final Permit.

No later than December 21, 2020, all NPDES reports submitted in compliance with an applicable permit must be submitted electronically through 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.[32] Until the electronic system is available, the Permittee must submit signed versions of their Annual Reports to 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 have been included in other Idaho MS4 NPDES permits issued by EPA since 2012. EPA notes that if a particular provision in Permit Parts 7 or 8 does not apply to the Permittee's MS4 discharges or facilities, the Permittee does 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 the Permittee to submit an NPDES permit renewal application no later than 180 days before the Permit expiration date if it intends to continue operational control and management of MS4 discharges after 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 Permittee must submit the attachments listed

[32] EPA 2015c.

in Permit Part 8.2.1 to demonstrate how they have complied with the current Permit requirements.

The Permittee must submit a 5th Year Annual Report, by the Permit expiration date, using the format provided in the Permit. In the event that a new permit is not issued on or before the Permit expiration date, any Permittee that has submitted a Permit Renewal Application in accordance with Part 8.2, may be authorized to continue discharging under an administrative extension of the Permit. If the Permittee is granted an administrative extension, they must continue to adhere to the terms and conditions of the Permit, which includes submitting the Annual Report(s) by the anniversary of the Permit expiration date, until coverage under a reissued or replacement Permit is available.

3. Other Legal Requirements

3.1. Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, directs each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high, and adverse human health or environmental effects of its programs, policies, and activities." 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, 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, 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 relevant USFWS list of endangered and threatened species potentially present in the Couer d'Alene UA, dated June 1, 2008 (14420-2008-SL-0354), which included Canada lynx (*Lynx canadensis*), water howellia, (*Howellia aquatilis*), Spalding's catchfly (*Silene spaldingii*) and bull trout (*Salvelinus confluentus*), The contemporaneous species list available from NOAA-Fisheries did not identify any additional species in the UA, and therefore the EPA concluded the MS4 permit would have no effect on any NOAA-Fisheries-listed species. With regard to USFWS species, the EPA concluded at the time that issuance of the City's MS4 Permit had no effect on Canada lynx, water howellia, or Spalding's catchfly, and the Permit was not likely to adversely affect bull trout, or designated bull trout critical habitat in Coeur d'Alene Lake. The EPA did not receive formal responses from either NOAA-Fisheries or the USFWS at the time.

This Fact Sheet discusses the reissuance of the City's MS4 Permit authorizing MS4 discharges to the Spokane River, Coeur d'Alene Lake, and Fernan Creek. The EPA has reviewed current species lists for both USFWS and NOAA-Fisheries.

NOAA-Fisheries does not list any threatened or endangered species in the Coeur d'Alene UA. Therefore, the EPA concludes that consultation with NOAA-Fisheries is not required because reissuance of the City of Coeur d'Alene MS4 Permit will have no effect on any NOAA-Fisheries-listed species.[33]

USFWS lists the species and critical habitat cited in Table 4 below as potentially occurring in the UA and/or that may potentially be affected by the EPA's reissuance of the Permit.[34]

Table 4. Protected Species (*Scientific Name*)	**Status**	**Critical Habitat Status**
Fish		
Bull trout (*Salvelinus confluentus)*	Threatened	Designated
Birds		
Yellow-billed Cuckoo (*Coccyzus americanus)*	Threatened	Proposed

The EPA concludes that reissuance of the City of Coeur d'Alene MS4 Permit has *no effect* on the Yellow-Billed Cuckoo, and therefore consultation with USFWS is not required for this species.

Further, the EPA determines that reissuance 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 conclusion are available in the Administrative Record.

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 EPA to consult with the NOAA-Fisheries if a

[33] NOAA 2020a
[34] USFWS 2020.

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.[35] 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 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, the Permittee is 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.

[35] NOAA 2020b.

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 October 1, 2020. 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 additional monitoring requirements to ensure that the permit complies with water quality standards, or treatment standards established pursuant to any State law or regulation.

As previously noted, the EPA will request that IDEQ certify the permit for the City's MS4 discharges. Questions or comments regarding the IDEQ's CWA §401 certification should be directed to the IDEQ's Coeur d'Alene Regional Office at (208) 799-1422.

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.

Ada County Highway District (ACHD), 2019. Phase I Stormwater Management Plan, Appendix 17, *Dry Weather Outfall Screening Plan*, specifically: *Appendix E: Thresholds for Documented Flowing Outfalls*. Ada County Highway District. December 2019. Permit No. IDS-027561. At: https://www.achdidaho.org/Documents/Engineering/Stormwater/StormwaterManagementPlanPhaseI.pdf

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

Coeur d'Alene, City of. 2010, et al. Annual Report, including City of Coeur d' Alene MS4 Stormwater Utilities Map. See also Annual Reports submitted for Years 2011 – 2019. At: https://www.cdaid.org/623/departments/finance/utilitybilling/stormwater/annual-reports

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

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

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APPENDIX 1 - 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.[36]

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.[37]

Statutory and Regulatory Background for the MS4 Permit Program

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

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

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

MS4, includes roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man- made channels, and/or storm drains.[38]

In 1990, EPA developed the first phase of federal stormwater regulations as directed by the CWA. The "Phase I" regulations established NPDES permit application and related requirements for discharges from large MS4s and medium MS4s. The Phase I regulation identified the large- and medium MS4s nationally based on the 1990 Census population. Based on the 1990 Census in Idaho, the Phase I stormwater regulations automatically designated MS4 operators discharging within the boundaries of Garden City and Boise as medium MS4s.[39]

In 1999, EPA developed the "Phase II" stormwater regulations, and designated additional small MS4s as needing NPDES permits. Regulated small MS4s include any MS4 discharge not already covered by Phase I that is located (partially or wholly) within an Urbanized Area (UA) as defined by the latest decennial Census. Regulated small MS4s in Idaho are located in Census-defined UAs of Coeur d'Alene; Lewiston; Nampa; Boise; Pocatello; and Idaho Falls. The Phase II regulation also defines regulated small MS4s as those systems with a UA that serve military bases or other properties owned by the United States; colleges and universities; large hospital or prison complexes; and highway systems.[40] In Idaho, various public entities own and/or operate regulated small MS4s within UAs, including, but not limited to: cities and counties; local highway districts; ITD; and state or community colleges and universities.

The Phase II regulation includes authority for EPA (or states that administer the NPDES program as the permitting authority) to require NPDES permits for other unregulated stormwater discharges by a designation process.[41]

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.[42] The MS4 permittee must control pollutants in their MS4 discharges to the MEP by addressing the six "minimum control measures," i.e., public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, and pollution prevention and good housekeeping. A regulated small MS4 operator may seek NPDES permit coverage under an available general permit, or the operator may apply for an individual permit.[43]

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[38] *See*: 40 CFR §122.26(b); 122.32(a); and EPA 1990.
[39] In 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; reissued Permit #IDS027561 effective January 2013 -January 2018.
[40] *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 available at http://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/.
[41] *See:* 40 CFR § 122.26(a)(9)(i)(C) and (D)
[42] *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*.
[43] *See:* 40 CFR § 122.34(b) and additional discussion in Section 2 of this Fact Sheet.

APPENDIX 2 – MAP: CITY OF COEUR D'ALENE MS4 AND OUTFALL LOCATIONS

The City of Coeur d'Alene's MS4 map is available online in Appendix 7 of the City's 2010 Annual Report; see: https://www.cdaid.org/files/engineering/2010_ANNUAL_REPORT.pdf

The map below is a representation of the City's MS4 drainage basins, and is excerpted from the City's *Quality Assurance Project Plan for MS4 Discharge Sampling* dated February 2010, at: https://www.cdaid.org/files/Engineering/QAPP%20Final.pdf

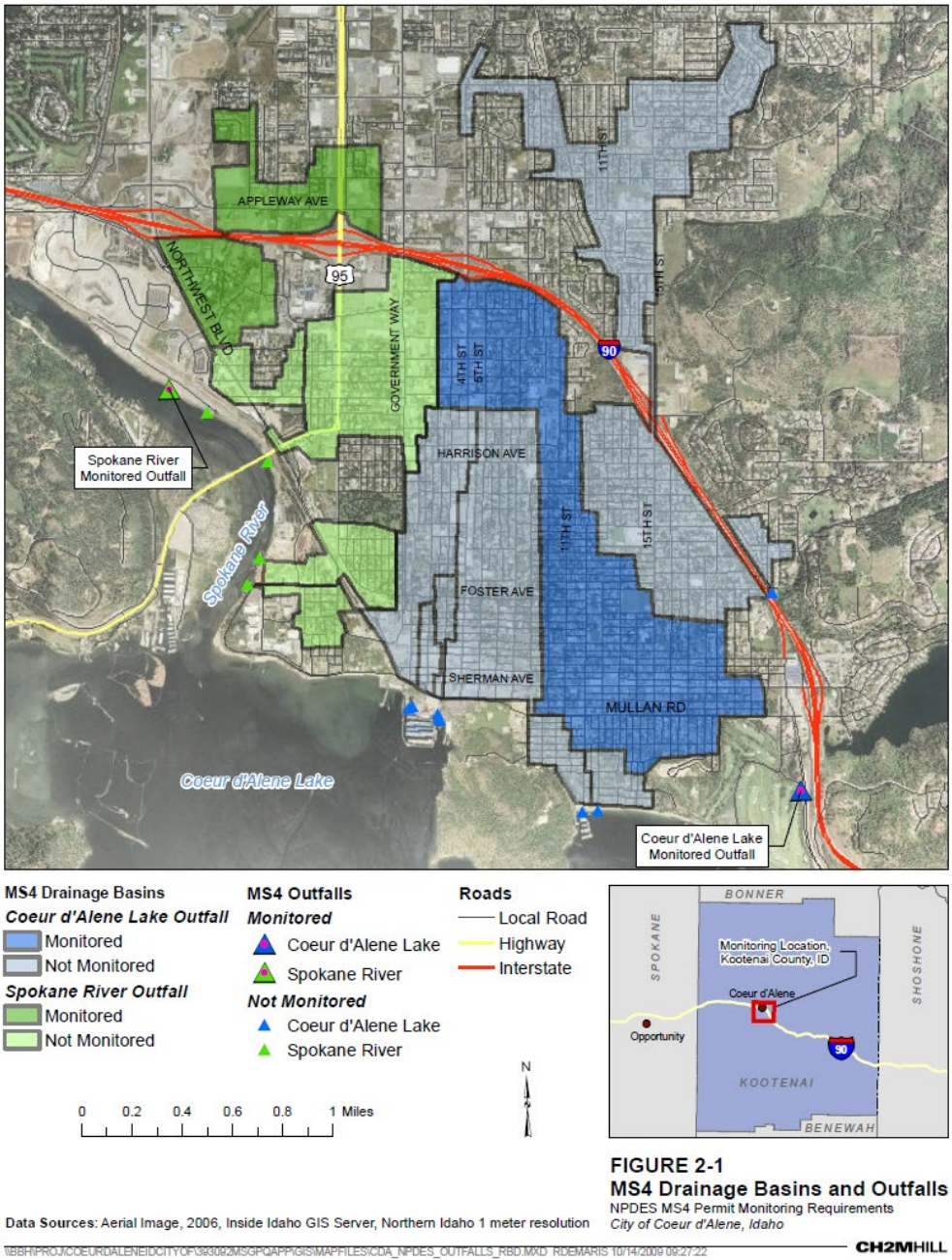

FIGURE 2-1
MS4 Drainage Basins and Outfalls
NPDES MS4 Permit Monitoring Requirements
City of Coeur d'Alene, Idaho

Data Sources: Aerial Image, 2006, Inside Idaho GIS Server, Northern Idaho 1 meter resolution

\\BBH\PROJ\COEURDALENEID\CITYOF\393092\MSGP\QAPP\GIS\MAPFILES\CDA_NPDES_OUTFALLS_RBD.MXD RDEMARIS 10/14/2009 09:27:22

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APPENDIX 3 – MAP: COEUR D'ALENE URBANIZED AREA

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

Figure 1: City and Year 2000 UA Boundaries for the Coeur d'Alene Urbanized Area

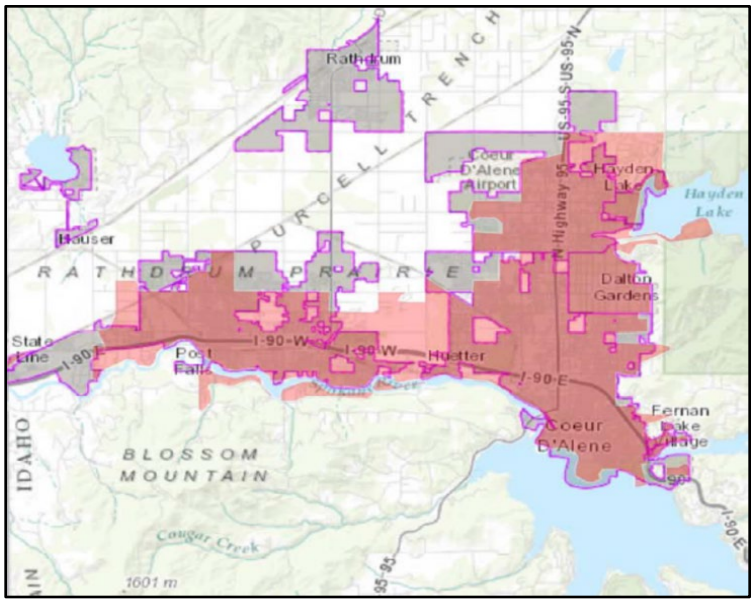
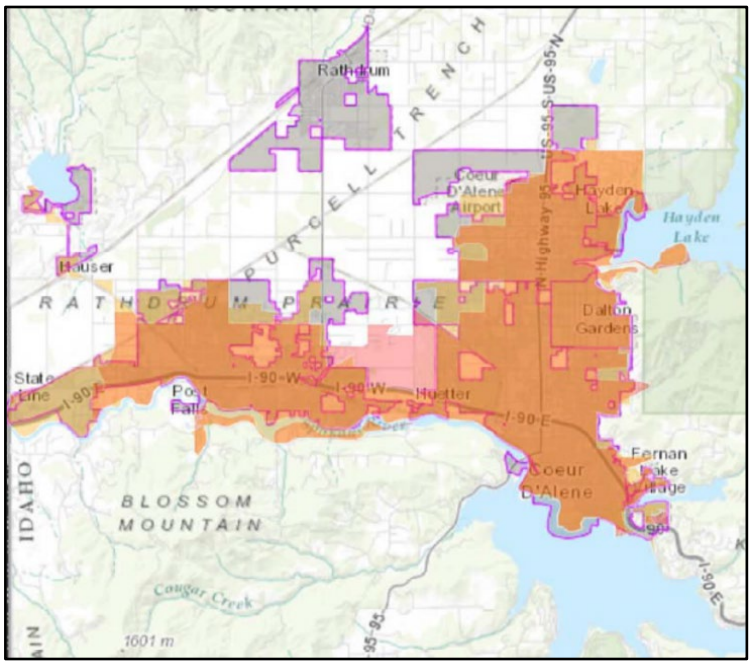


Figure 2: Combined Year 2000 UA and Year 2010 UA Boundaries for the Coeur d'Alene Urbanized Area



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.

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

It is well understood nationally that uncontrolled runoff from new development and redeveloped areas negatively affects receiving water bodies.[44] 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.[45]

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.[46]

"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:

[44] EPA 1983; EPA 1999.
[45] Shaver, et al., 2007. Holz, 2008; and Horner, 2008.
[46] 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.[47]

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

Many GSI/LID strategies involve bioretention, or infiltrating runoff through soil. Bioretention practices include use of porous pavements, green roofs, bioswales, and rain gardens. Various studies confirm the effectiveness of GSI/LID practices to reduce contaminants, restore hydrology, and protect the health of aquatic species. Research and on-the-ground experience suggest 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.[48]

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 Permittee 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 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 $\leq$0.1 of an inch of rainfall or less (because such small

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

[48] 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 events typically do not result in any measurable runoff due to absorption, interception, and evaporation by permeable, impermeable, and vegetated surfaces).[49]

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

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

Urbanized Area/ Permit Area	Rainfall Depth (in)	NOAA Station Location; Period of Record
	95th	
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 greater 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 amount (e.g, "0.6 inches total rain"), or a volume calculated from a statistical storm frequency return interval using historic rainfall data.

[49] See: Hirschman and Kosco, 2008.

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.[50] 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.

[50] 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

Water quality impairments within and downstream of the City of Coeur d'Alene MS4 Permit Area require that the EPA include permit terms and conditions to reflect appropriate requirements that address impairment pollutants. See 40 CFR § 122.44(d)(4) & (d)(5).

Appendix 5.1 – Fernan Creek, Coeur d'Alene Lake and Spokane River in Idaho

Summary: Ongoing monitoring/assessment of pollutant loading from MS4 discharges, combined with targeted pollutant reduction activities, are necessary and appropriate to address MS4 discharges to Fernan Creek and Coeur d'Alene Lake, to address impairments for cadmium, lead and zinc in the absence of an applicable TMDL. Similar actions are appropriate to address impairments for lead, zinc and total phosphorus into the Spokane River. No additional requirements are needed to address the temperature impairment in Fernan Creek.

The EPA recognizes that additional monitoring/assessment, or other actions, may be necessary based on the result of the EPA's consultation with USFWS. In the event additional actions are required, the EPA will propose to modify Permit Part 4 following the permit modification requirements of 40 CFR § 122.62.

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Fernan Creek	ID17010303PN032_03 *Fernan Creek - Fernan Lake to mouth*	Temperature	*Coeur d'Alene Lake Tributaries Temperature TMDLs* EPA approved Nov. 2012
Coeur d'Alene Lake	ID17010303PN001L_0L *Coeur d'Alene Lake*	Cadmium; Lead; Zinc	No TMDLs completed.
Spokane River	ID17010305PN004_04 *Spokane River - Coeur d'Alene Lake to Post Falls Dam*	Lead; Zinc; Total Phosphorus;	No TMDL Completed.

Discussion: The MS4 owned and/or operated by the City discharges both directly and indirectly to Coeur d'Alene Lake, Fernan Creek, and the Spokane River. In addition, the MS4 is interconnected with the ITD1 MS4 at various locations as described in Section 1.3 of this Fact Sheet. See also City MS4 maps in Appendix 2.

IDEQ's *2016 Integrated CWA Section 303(d)/Section 305(b) Report* (2016 Integrated Report) lists Coeur d'Alene Lake as water quality impaired for cadmium, lead, and zinc; Fernan Creek as impaired for temperature; and the portion of the Spokane River between Coeur d'Alene Lake and the Post Falls Dam as impaired for lead, zinc and total phosphorus.

Regarding Coeur d'Alene Lake: There is no TMDL established for the impairment pollutants in the Lake.[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 NPDES-regulated MS4 discharges in the watershed, and specifies the following recommended actions that directly relate to the improvement and maintenance of road systems managed by the City and other responsible parties within the Coeur d'Alene Lake 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.

The Permit requirements are fully consistent with the 2009 LMP's management actions listed above for public outreach and education, for controlling erosion and sediment from construction

[51] In 2000, IDEQ and the EPA completed a metals TMDL for the Coeur d'Alene River subbasin, including Coeur d'Alene Lake. The ID 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 ID, rulemaking procedures are not required for TMDLs but kept the rule making requirement identified by the 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 Court invalidated the TMDL under State law, there is no longer an EPA approved TMDL for the Lake. Accordingly, the EPA is not required by 40CFR122.44(d)(1)(vii)(B) to establish permit requirements consistent with assumptions and requirements of the invalidated TMDL's WLAs.

activities and roadway surfaces, and for evaluation of treatment and retention needed to prevent contaminants from reaching the water.[52]

To quantitatively address the impairment pollutants listed above in the City's MS4 discharges to Coeur d'Alene Lake, the EPA requires the City to continue to conduct (or participate in a cooperative effort with other MS4 permittees) some type of monitoring/assessment activity. Permit Part 4 requires the City to submit an updated Monitoring/Assessment Plan for the EPA and IDEQ review no later than two (2) years from the Permit effective date. Impairment pollutants listed in Permit Table 4.2 which include nutrients in the form of total phosphorus. Consistent with the strategy described above, by controlling nutrients in water discharges to the Lake, the release of metals from the Lake sediments is also controlled. In addition, Permit Part 4 requires the City to submit descriptions of at least one (1) pollutant reduction activity to further target and control discharges of cadmium, lead, zinc, total phosphorus, and temperature into Coeur d'Alene Lake. Such activities may augment existing control measures, or target new actions, as deemed appropriate by the Permittee. The EPA and IDEQ will review and consider modifying relevant sections of the Permit to incorporate the Permittee's individual (or cooperative) pollutant monitoring/assessment and pollutant reduction activities.

Regarding Fernan Creek: The *Coeur d'Alene Lake Tributaries Temperature TMDLs* (Temperature TMDL) contains no wasteload allocations (WLAs) for MS4 discharges. However, the TMDL, establishes effective shade targets as load allocations (LA) for 20 waterbody assessment units, including Fernan Creek; these targets are based on the concept of maximum shading under potential natural vegetation resulting in the lowest possible natural stream temperatures. The targets are based on average summer loads during the April – September period.[53] The Temperature TMDL also notes that unique hydrologic conditions exist at the lower portions of tributaries to Coeur d'Alene Lake- such as Fernan Creek – that may limit the implementation of TMDL load allocations to these tributaries. For example, many of the lake's tributaries including Fernan Creek have a wedge of water-deposited alluvium (deltaic sediments) at the lowest portions of the watershed, which influence the hydrologic characteristics, and can result in subsurface flow into Coeur d'Alene Lake during the summer months. In addition, the TMDL states that the segment of Fernan Creek below Fernan Lake (where the City and ITD1 MS4s discharge) has other "confounding conditions" that make attaining the load allocation targets on this segment of Fernan Creek difficult. For example, because this reach is directly below the outlet to Fernan Lake it is heavily influenced by temperatures in Fernan Lake. In addition, there is a dam, operated by another local jurisdiction, that controls the water elevation of Fernan Lake directly above this reach, and that results in this reach being significantly dewatered during the late summer months. As noted by commenters reviewing the TMDL, this segment of Fernan Creek also has a very low gradient, and during sudden spring runoffs, when the Coeur d'Alene Lake rises faster than Fernan Creek, Fernan Creek often will reverse its flow backwards toward Fernan Lake. As such, IDEQ states plainly

[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.

[53] IDEQ 2012. See also https://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/coeur-dalene-lake-subbasin/

that..." meeting shade targets in this reach may not be realistic…" [54]

The Temperature TMDL also states that regulated stormwater discharges from construction activities disturbing one or more acres will be in compliance with the TMDL, provided those discharges are authorized under the most recent version of the CGP. The City is not identified as a designated management agency with TMDL implementation responsibilities.

The City of Coeur d'Alene MS4 Permit requirements are fully consistent with the Temperature TMDL insofar as the Permit addresses the full implementation of appropriate erosion and sediment controls from construction activities and roadway surfaces and requires both quantitative and qualitative analysis of management measures used to control pollutants from the MS4. The EPA determines that no additional requirements are needed to address the temperature impairment in Fernan Creek.

Regarding the portion of the Spokane River in Idaho: IDEQ's 2016 Integrated Report (2016 Integrated Report), lists the segment of the Spokane River from the Coeur d'Alene Lake to Post Falls Dam as impaired for lead, total phosphorus, and zinc. No TMDLs have been established for this segment of the River.[55] However, IDEQ is currently conducting a subbasin assessment and development of a TMDL for lead and zinc for the Spokane River is currently underway. A formal TMDL for phosphorus will be considered if IDEQ's evaluation of water quality status determines it necessary.[56]

Permit Part 4 requires the City to submit a description of at least one pollutant reduction activity that will continue controlling the discharge of lead, zinc, and total phosphorus from the MS4 into the Spokane River. The action may augment existing control measures, or target new actions, as deemed appropriate by the Permittee. The EPA and IDEQ will review and consider modifying relevant sections of the Permit to incorporate the Permittee's individual or joint pollutant monitoring/assessment and pollutant reduction activity(ies).

Regarding any additional requirements: As outlined in Section 3.2, the EPA will submit a biological evaluation of potential effects on ESA listed bull trout and bull trout critical habitat in Coeur d'Alene Lake, and seeks USFWS concurrence with its conclusion that reissuance of the City of Coeur d'Alene MS4 Permit is not likely to adversely affect bull trout or bull trout critical habitat. It is possible that additional refinement to the monitoring directives and/or other SWMP actions may be recommended by USFWS as a condition of its concurrence with the EPA's determination. In the event that additional actions are required, and the Permit must be modified, the EPA will follow the permit modification requirements of 40 CFR § 122.62.

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[54] IDEQ 2012; see pages 27-28, and also page 158.

[55] In 2000, DEQ and EPA completed a metals TMDL for the Coeur d'Alene River subbasin, including Coeur d'Alene Lake and the Spokane River, including the segment of the Spokane River where the City's MS4 outfalls are located. The Idaho Supreme Court subsequently ruled that 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 in place the rule making requirement identified by the Court for a metals TMDL for the Coeur d'Alene River subbasin. To date, there is no EPA approved metals TMDL for the Lake or the Spokane River. 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

[56] IDEQ 2019.

Appendix 5.2 – Spokane River downstream of ID/WA Border

Receiving Water	Waterbody Assessment Unit	Impairment Pollutants	TMDL Status
Spokane River	Spokane R.- downstream of the ID/WA border	Polychlorinated Biphenyls (PCBs)	No TMDL Completed.

Background:

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 City's prior MS4 permit required PCB monitoring in MS4 discharges; using the EPA approved Method 8082 for assessing water discharges; all of the City's data collected using this test method between 2009- 2018 showed non-detectable levels of PCBs in the MS4 discharges.

The WDOE's *2012 Water Quality Assessment Report* lists the Spokane River, downstream of the ID/WA 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 addition, 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.[57]

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 WDOE), the EPA developed a plan (EPA Plan) outlining both regulatory and non-regulatory actions necessary to identify and address PCB pollution sources 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 WDOE'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.[58]

The City previously monitored their MS4 discharges for the presence of total PCBS, using Method 8082; this monitoring activity did not identify PCBs at detectable levels in the MS4 discharge. PCBs do not readily dissolve in water but tend to bind to particles; particle-bound PCBs can be transported through stormwater and end up in sediment. WDOE and the Washington Department of Health identify stormwater as the largest delivery pathway to surface waters for PCBs statewide, and further states that the long-term goal is to prevent PCBs from entering stormwater by continuing to work on stormwater management. The City of Great Falls, Montana, is an example of a Phase II MS4 permittee that has chosen to address the PCB impairment issue in the Missouri River, in the absence of an applicable TMDL, by conducting limited PCB sampling of catch basin solids using Method 8082.[59] The EPA believes that this is a reasonable activity for the City of Coeur d'Alene to consider conducting.

Conclusion: The EPA determines it appropriate to continue including provisions- in Permit Parts 4.3, and 6.2 – for the City to consider assessing for the presence of PCBs discharged in

[57] See: EPA 2015d.
[58] EPA 2015d.
[59] WDOE and WDOH 2015; Great Falls, MT 2018.

solids from the MS4. Given the additional information available in the Spokane River watershed since the City's previous permit was issued in 2008, the EPA believes that at a minimum, the sampling of sediment from MS4 catch basins is a relevant activity that the City could consider conducting in support of the broader Spokane River watershed efforts. At this time, the EPA is not requiring the use of more sensitive monitoring methods to detect PCBs in water.