

ANNUAL REPORT
January 01, 2011 to December 31, 2011
Municipal Separate Storm Sewer System (MS4)
Federal Storm Water
National Pollutant Discharge Elimination System Permit
(IDS-028215)

Submitted To:

United States Environmental
Protection Agency
NPDES Compliance Unit
1200 6th Avenue, Suite 900 (OCE-133)
Seattle, Washington 98101

&

Idaho Department of Environmental Quality
Coeur d'Alene Regional Office
2110 Ironwood Parkway
Coeur d'Alene, Idaho 83814

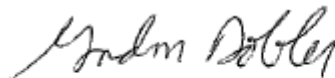
Submitted By:

City of Coeur d'Alene
710 E. Mullan Avenue
Coeur d'Alene, Idaho 83814

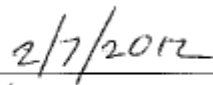
Report Certification

City of Coeur d'Alene NPDES Municipal Separate Storm Sewer System Annual Report for Permit Year 2011

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Gordon Dobler, P.E.
City Engineer



Date

TABLE OF CONTENTS

Permit Part	SWMP Activity Summary	Compliance Date
General Requirements - Summary		Page vi
Part II.C	Submit written description of how SWMP actions are targeted to control the discharge of pollutants of concern, and how permittee will evaluate the effectiveness of those actions	One year from permit effective date, update annually thereafter
Part II.D and IV.C	Conduct an annual review of SWMP implementation and submit an Annual Report to EPA and IDEQ	February 15 of each year, beginning in 2010
Part IV.A	Develop a Quality Assurance Plan for storm water discharge monitoring, provide written notice to EPA and IDEQ	Within 270 days of permit effective date
	Begin monitoring	18 months from permit effective date
Public Education and Outreach (40 CFR §122.34(b)(1)) Pages 1-3		
Part II.B.1	Implement an ongoing public education program to educate the community about the impacts of storm water discharges on local water bodies and the steps that citizens and businesses can take to reduce pollutants in storm water runoff. (II.B.1.a)	Two years from effective date of this permit
	Distribute storm water educational materials to target audiences (II.B.1.b)	At least once per year
	Distribute SWMP information to local media (II.B.c)	At least once per year
Public Involvement and Participation (40CFR §122.34(b)(2)) Pages 4-7		
Part II.B.2	Post all SWMP documentation and Annual Reports on the permittee's website (II.B.2.b)	Two years from permit effective date, ongoing thereafter
	Organize and promote Adopt a Street and Litter Pick Up Day(s) (II.B.2.c)	Once per year, each program
	Conduct public forum regarding SWMP activities (II.B.2.d)	At least once annually
	Create, maintain, and promote a telephone hotline; track complaints (II.B.2.e)	Within three years, ongoing thereafter
	Organize and conduct a storm drain stenciling program.	Within one year of the effective date of this permit
	At least 100 storm drains stenciled per year (II.B.2.f)	Within two years of permit effective date, ongoing thereafter

Illicit Discharge Detection and Elimination (40 CFR §122.34(b)(3))		Pages 8-11
Part II.B.3	Development, implement and enforce a program to detect and eliminate illicit discharges into the MS4 (II.B.3.a)	Two years from the permit effective date
	Adopt an ordinance or other control measure to prohibit illicit discharges to the MS4(s); prohibit any specific non-storm water discharge, if necessary (II.B.3.b & c)	Two years from the permit effective date
	Develop/update a comprehensive storm sewer system map (II.B.3.d)	Two years from the permit effective date
	Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste (II.B.3.e)	Two years from the permit effective date
	Screen 50% of outfalls for dry weather flows. (II.B.3.f)	No later than permit expiration date
	Inventory the industrial facilities discharging storm water within the Urbanized Area (II.B.3.g)	Three years from the permit effective date
Construction Site Storm Water Runoff (40CFR §122.34(b)(4)) Pages 12-16		
Part II.B.4	Implement and enforce a construction site runoff control program for sites disturbing one or more acres of land; review and update the program as necessary (II.B.4.a)	Two years from the permit effective date, ongoing thereafter
	Provide adequate direction to project proponents regarding the EPA Construction General Permit (II.B.4.b)	Upon permit effective date
	Adopt an ordinance or other control measure to require construction site operators to practice erosion, sediment and waste control (II.B.4.c)	Two years from the permit effective date
	Publish and distribute written requirements for construction site best management practices (II.B.4.d)	Two years from the permit effective date
	Develop, or review/update as necessary, procedures for reviewing pre-construction site plans & accepting public input and complaints (II.B.4.e & f)	Two years from the permit effective date
	Implement site inspection & enforcement procedures. Inspect all construction sites at least once per construction season. (II.B.4.g)	Two years from the permit effective date
	Ensure all permittee-owned construction projects comply with EPA's Construction General Permit (II-B.4.h)	Upon permit effective date
	Conduct at least one training for construction industry (II.B.4.i)	Three years from the permit effective date

Post-Construction Storm Water Management (40 CFR §122.34(b)(5))		Pages 17-18
Part II.B.5	Develop and implement a program to address post-construction storm water runoff from new development and redevelopment projects (II.B.5.a)	Three years from the permit effective date
	Adopt an ordinance to address post-construction runoff from new development and redevelopment projects (II.B.5.b)	Three years from the permit effective date
	Ensure proper long term operation and maintenance of post construction storm water BMPs. (II.B.5.c)	Three years from the permit effective date
	Develop and implement a site plan review process and site inspection program to ensure proper installation and long-term operation and maintenance of post-construction storm water management controls (II.B.5.d)	Four years from the permit effective date
Pollution Prevention/Good Housekeeping (40 CFR§122.34(b)(6))		Pages 19-23
	Develop and implement an operation and maintenance program intended to prevent or reduce pollutant runoff from municipal operations (II.B.6.a)	Two years from the permit effective date
	Develop and conduct appropriate training for municipal personnel (II.B.6.b)	Two years from the permit effective date, annually thereafter
	Prepare storm water pollution prevention plans for the fleet maintenance/street department site and the water treatment plant (II.B.6.c)	Two years from the permit effective date
Monitoring Requirements		Pages 24-25
Part IV.A.2	Evaluate City's compliance with the identified BMP's and progress toward achieving the minimum control measures and document in each annual report	Two years from the permit effective date
	Monitor the quality of storm water discharges from the MS4 / Conduct a storm water discharge monitoring program	18 months from the permit effective date
	Develop a quality assurance plane (QAP) monitoring storm water discharge. Must be submitted for review to EPA and IDEQ	Quality Assurance Project Plan, developed, reviewed, signed, submitted February 09,2010
Appendices		Pages 26

Summary

Information for Reviewers

This 2011 City of Coeur d'Alene Urbanized Area NPDES MS4 Annual Report is presented in a text format. This text document comprises the majority of the report and discusses each of the required reporting elements for the permit. Copies of the Annual Report will be available through the City of Coeur d'Alene website at www.cdaid.org.

Introduction

Region 10 of the U.S. Environmental Protection Agency (EPA) issued a draft National Pollutant Discharge Elimination System (NPDES) permit to the City of Coeur d'Alene Urbanized Area Municipal Storm Sewer Systems (MS4) on February 29, 2008. Following review by the City of Coeur d'Alene and meetings with local Idaho Department of Environmental Quality (DEQ) and Region 10 EPA staff, and a public hearing, a final permit became effective on January 1, 2009.

This report presents and documents the actions required by the permit and taken by the permittee for the Year 3 reporting period (January 1, 2011 – December 31, 2011). Individual requirements of the permit are presented in the order of the permit outline. The report has been certified by the appropriate officials.

Quality Assurance Project Plan for Coeur d'Alene Urbanized Area

Quality Assurance Project Plan - As required by Part IV.A of the permit, the City of Coeur d'Alene developed, reviewed, signed and submitted a Quality Assurance Project Plan (QAPP) on February 09, 2010 for the water quality monitoring requirements of the permit (Part IV). The QAPP is included with our 2009 and 2010 annual reports on our website.

Storm Water Management Program Review

The Coeur d'Alene Urbanized Area Storm Water Management Program (SWMP) review for the reporting year 2009 consists of developing a SWMP. The SWMP is designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, and to protect water quality in receiving waters. The SWMP actions and activities are outlined in the following pages of this 2011 Annual Report. The SWMP is available with 2009 and 2010 annual reports and on our website.

Public Education & Outreach

Public Education and Outreach		
Part II.B.1	1) Implement an ongoing public education program to educate the community about the impacts of storm water discharges on local water bodies and the steps that citizens and businesses can take to reduce pollutants in storm water runoff. (II.B.1.a)	Two years from effective date of this permit
	2) Distribute storm water educational materials to target audiences (II.B.1.b)	At least once per year
	3) Distribute SWMP information to local media (II.B.c)	At least once per year

1) Within two years of the effective date of this permit, the permittee must develop and implement a public education program to educate the community about the impacts of storm water discharges on local water bodies and the steps that citizens and businesses can take to reduce pollutants in storm water runoff.

- CDA TV Channel 19 – The mission of CDA TV Channel 19 (Government/Public Education channel for the Greater Coeur d’Alene area) is to enhance the community’s public information and communications system, involve the community in local government decision making, and provide useful local government/public education information to general and specialized audiences.
- Panhandle Erosion Education Program (SEEP) sponsored an 8 minute Public Service Announcement (PSA) to educate the community about the impacts of storm water discharges on Coeur d’Alene Lake and the Spokane River. The SEEP Storm Water Public Service Announcement played an average of 20 times per week and started May and continued to run through July.
- “After the Storm” co-produced by the EPA and The Weather Channel was aired on our Channel 19, beginning in May and running through June 2011.
- April 23, 2011 Earth Day, Library Community Room: Stormwater Pollution Prevention display. (Enviroscape model) 200 attendees.
- Storm water Best Management Practices Newsletter, developed and distributed to Downtown Business Owners and Operators, July 2011. The newsletter included basic storm water information, pollution prevention, spill reporting, prevention and cleanup.

Public Education & Outreach

- May 19, 2011 Storm water Presentation at Silverwood Science Day. Middle school students from the region attended. The presentations demonstrated how pollutants enter our waters and practical everyday things we can all do for pollution prevention.



- September 26, 2011, presented our “Coeur d’Alene Canines for Clean Water” program to the parks commission. The meeting was televised on our local channel. The program is designed for citizens to take a clean water pledge and they are then sent a pet bandana and educational information about stormwater pollution prevention. The program is advertised on our website and at pet waste disposal sites and dog parks.
- September 27, 2011, Hosted the 2nd Annual Environmental Open House. The open house included several local agencies demonstrating how they are working to preserve and improve our environment. Our stormwater management plan was displayed along with demonstration of stormwater pollution sources with our enviroscape model. Comment forms were available, of the five received all were favorable.

2) At least once per year, the permittee must distribute appropriate storm water educational materials to the target audiences.

- Educational Materials – The City of Coeur d’Alene Engineering Department worked together with Panhandle Storm Water Erosion and Sediment Control Education Program (SEEP) to produce a field guide which includes storm water education materials. On September 27, 2011 the City of Coeur d’Alene hosted an environmental open house. The field guides were made available to the public at this event. The guide is also available in the customer service center at city hall.
- April 23, 2011 Earth Day, passed out flyer detailing our storm water management plan which included tips to improve our storm water quality. Provided hands on demonstrations using our enviroscape stormwater model.

Public Education & Outreach

- Stormwater Best Management Practices Newsletter developed and distributed to Downtown Business Owners and Operators, July 2011. The newsletter included basic storm water information, pollution prevention, spill reporting, prevention and cleanup.
- May 19, 2011 Stormwater Presentation, Silverwood Theme Park 6th-8th grades. Using our enviroscape model a demonstration of how pollutants enter our waters was presented. Storm water brochures with pollution prevention tips and reusable bags were distributed.
- October 4, 2011 Boy Scout Troop cleaned scuppers and distributed pollution prevention and swale maintenance tips in the Echo Glenn neighborhood.
- October 6, 2011 Development Review Open House, presentation to contractors and developers, discussion of best management practices.

3) At least once per year, the permittee will prepare and distribute appropriate information relevant to the SWMP to the local newspaper and at least one other media outlet.

- September 15, 2011 Presented our stormwater management plan and activities to Aquifer Protection Council.
- September 22, 2011 Article in the Coeur d'Alene Press featuring Eagle Scout project which consisted of stenciling storm drains, application of metal storm drain markers and scupper cleaning.
- September 26, 2011 "Coeur d'Alene Canines for Clean Water Program" presented at Parks Commission meeting. The program consists of a pledge from pet owners stating that they will properly dispose of pet waste. A pet bandana and stormwater protection tips are given to those who take the pledge. The program is a joint effort between stormwater management and our parks department. The presentation was aired and repeated on our Channel 19 and on our website.
- Development Review Open House, October 6, 2011 televised on our local channel 19. Best management practices and inspections were discussed. Developers were given the opportunity to ask questions.

Public Involvement and Participation

Public Involvement and Participation		
Part II.B.2	1) Post all SWMP documentation and Annual Reports on the permittee's website (II.B.2.b)	Two years from permit effective date, ongoing thereafter
	2) Organize and promote Adopt a Street and Litter Pick Up Day(s) (II.B.2.c)	Once per year, each program
	3) Conduct public forum regarding SWMP activities (II.B.2.d)	At least once annually
	4) Create, maintain, and promote a telephone hotline; track complaints (II.B.2.e)	Within three years, ongoing thereafter
	5) Organize and conduct a storm drain stenciling program. At least 100 storm drains stenciled per year (II.B.2.f)	Within one year of the effective date of this permit Within two years of permit effective date, ongoing thereafter

1) The permittee must make all relevant SWMP documents and all Annual Reports required by this permit available to the public. Within two years of the effective date of this permit, all SWMP document and Annual Reports must be posted online through its regularly maintained website (or a website sponsored by the permittee).

The 2009, 2010 & 2011 Annual Reports, Storm Water Management Program and Quality Assurance Protection Plan are posted on the City of Coeur d'Alene website.

2) At least once per year, the permittee must organize and promote citizen participation in each of its Adopt a Street and Annual Litter Pick-up programs.

The Adopt-A-Street program was authorized by the City Council in August of 2000. The program is a partnership, which includes an adopting group, family, or individual. They pick up the trash, and the City provides signage, vests, and orange litter bags, and also collects the bags the next working day after they have been filled. A quarterly pick up of trash is encouraged with a minimum being twice per year. There are currently 34 Adopt-A-Street volunteer groups. During this permit year, **16.2** tons of trash was removed from our MS4 by our volunteers. Our city website contains information for citizens about this program and how to volunteer.

Public Involvement and Participation

3) At least once per year, the permittee must conduct a public open house or other forum to solicit input from the public on the permittee's implementation of the SWMP activities.

September 27, 2011 the City of Coeur d' Alene Stormwater Utility hosted our 2nd annual Environmental Open House. The City of Coeur d'Alene partnered with several agencies in presenting stormwater management information, water and energy conservation, recycling and proper hazardous waste disposal. We had approximately 60 people attend with five comments given, all favorable. The partnering efforts with the open house have allowed other permit holders and area agencies to share information and training tools.



ENVIRONMENTAL Multi-Agency
OPEN HOUSE 2011

For more information, contact:
Kim Harrington, City of Coeur d'Alene
(208)769-2214 or kimh@cedaid.org

Please join us for educational presentations, prize drawings, and give a-ways!

Come and visit with your local agencies as they demonstrate how they are working to preserve and improve our environment.

Sponsored by:

City of Coeur d'Alene Stormwater	Lakes Highway District
Post Falls Highway District	Community Action Partnership
City of Coeur d'Alene Water	City of Post Falls
Coeur d'Alene Green Team	City of Coeur d'Alene Wastewater
Waste Management	Aquifer Protection District
Idaho Transportation Department	University of Idaho
Kootenai Environmental Alliance	Kootenai County Solid Waste
Stormwater Erosion Education Program	City of Coeur d'Alene Parks Dept.
Panhandle Health District	Department of Environmental Quality

Kootenai County Utilities Council, One Call 811

City of Coeur d'Alene Library Community Room
September 27, 2011
3:00 pm to 6:00 pm

4) Within three years of the permit effective date, the permittee will create, maintain, and promote a "hotline" telephone number to receive, track, and respond as necessary to information submitted by the public regarding storm water pollution concerns.

A hotline was established for reporting spills, illegal dumping or for stormwater questions. The number is posted on the city's website and on educational materials. As of December 2011, 4 calls have been received pertaining to stormwater.

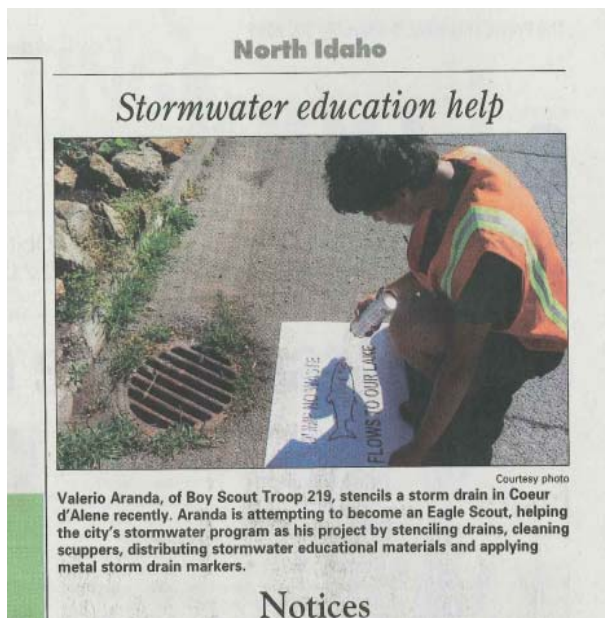
Hot line calls for 2011.

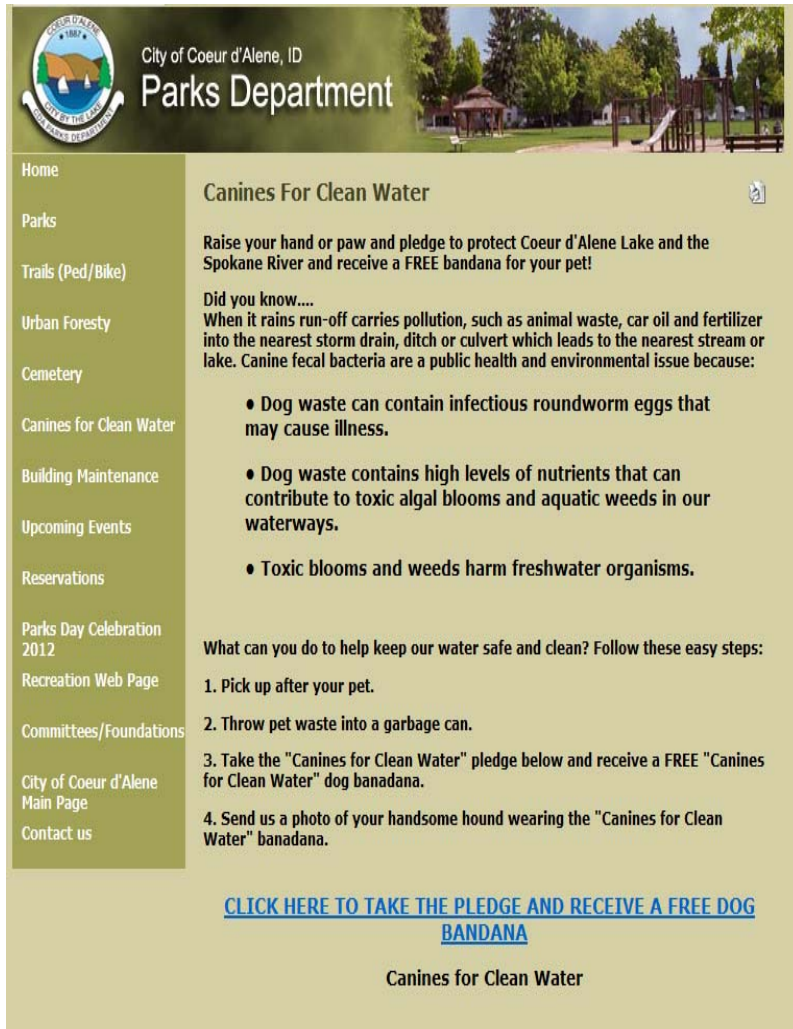
Public Involvement and Participation

- Possible spill “illicit discharge” Bellerive outfall, investigation upstream did not identify the source. BMP’s utilized to contain diesel.
- January 14, 2011 Silt fence on vacant lot failed. Run off flowing into roadway. Owner of lot was contacted and situation was rectified within two hours.
- February 15, 2011 Citizen calling concerning 816 A St. Fuel leaking from the bed of a truck at the residence; had a barrel in back of their truck. Source was identified and stopped, cleanup with absorbent pads.
- May 28, 2011 55 gallon barrel containing used kitchen oil tipped with 1-2 gallons of oil entering the storm drain. There was a sufficient amount to warrant removal from the drain, the contents were then disposed of at the wastewater treatment plant.

5) The permittee must organize promote and conduct a storm drain stenciling program. Within two years of the effective date of this permit, at least 100 storm drains, catch basins or inlets throughout the permittee’s jurisdiction must be stenciled per year.

During this permit year, **200** drains have been stenciled or a metal drain marker has been applied by an Eagle Scout Candidate and his troop. In addition to the stenciling and metal drain marker application they also cleaned scuppers and distributed approximately **300** door hangers in residential areas, providing stormwater education and pollution prevention tips.





The screenshot shows the City of Coeur d'Alene Parks Department website. The header includes the city logo and the text 'City of Coeur d'Alene, ID Parks Department'. A navigation menu on the left lists various services. The main content area is titled 'Canines For Clean Water' and features a list of reasons why dog waste is harmful to the environment, followed by a list of four steps for pet owners to help keep water safe. A blue link at the bottom of the page reads 'CLICK HERE TO TAKE THE PLEDGE AND RECEIVE A FREE DOG BANDANA'.

City of Coeur d'Alene, ID
Parks Department

Home
Parks
Trails (Ped/Bike)
Urban Forestry
Cemetery
Canines for Clean Water
Building Maintenance
Upcoming Events
Reservations
Parks Day Celebration 2012
Recreation Web Page
Committees/Foundation
City of Coeur d'Alene Main Page
Contact us

Canines For Clean Water

Raise your hand or paw and pledge to protect Coeur d'Alene Lake and the Spokane River and receive a FREE bandana for your pet!

Did you know....
When it rains run-off carries pollution, such as animal waste, car oil and fertilizer into the nearest storm drain, ditch or culvert which leads to the nearest stream or lake. Canine fecal bacteria are a public health and environmental issue because:

- Dog waste can contain infectious roundworm eggs that may cause illness.
- Dog waste contains high levels of nutrients that can contribute to toxic algal blooms and aquatic weeds in our waterways.
- Toxic blooms and weeds harm freshwater organisms.

What can you do to help keep our water safe and clean? Follow these easy steps:

1. Pick up after your pet.
2. Throw pet waste into a garbage can.
3. Take the "Canines for Clean Water" pledge below and receive a FREE "Canines for Clean Water" dog bandana.
4. Send us a photo of your handsome hound wearing the "Canines for Clean Water" bandana.

[CLICK HERE TO TAKE THE PLEDGE AND RECEIVE A FREE DOG BANDANA](#)

Canines for Clean Water

Coeur d'Alene Canine's for Clean Water



Illicit Discharge Detection and Elimination

Illicit Discharge Detection and Elimination		
Part II.B.3	1) Development, implement and enforce a program to detect and eliminate illicit discharges into the MS4 (II.B.3.a)	Two years from the permit effective date
	2) Adopt an ordinance or other control measure to prohibit illicit discharges to the MS4(s); prohibit any specific non-storm water discharge, if necessary (II.B.3.b & c)	Two years from the permit effective date
	3) Develop/update a comprehensive storm sewer system map (II.B.3.d)	Two years from the permit effective date
	4) Inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste (II.B.3.e)	Two years from the permit effective date
	5) Screen 50% of outfalls for dry weather flows. (II.B.3.f)	No later than permit expiration date
	6) Inventory the industrial facilities discharging storm water within the Urbanized Area (II.B.3.g)	Three years from the permit effective date

1) Within two years from the effective date of this permit, the permittee must develop and implement a program to detect and eliminate illicit discharges into their MS4, including roadways and associated drainage facilities, ditches, pipes, culverts, catch basins and retention ponds in its jurisdiction. This program must include written spill response procedures to ensure protection of the permittee's MS4. The program must include written procedures for detention, identification of the source, and removal of non-storm water discharges from the MS4. This program must also address illegal dumping into the MS4, and include training for City staff on how to respond to reports of illicit discharges. The permittee must develop an information management database system to track the activities and actions of the program in concert with the hotline required in Part II.B.2.

Our illicit discharge detection and elimination program outline was submitted with 2010 annual report. Municipal employees have received training in the recognition of and response to illicit discharges.

- 28 Staff Members from: Fire, Building, Engineering, Parks, Police, Water, Wastewater, Recreation and Street Departments.
- April 27, 2011 Spill Prevention & Containment Classroom Training for staff.
- May 26, 2011 Spill Prevention & Containment Field Training for staff.

Illicit Discharge Detection and Elimination

Information on reported illicit discharges and action taken is kept in our City Track database.

2-1) Within two years from the effective date of this permit, the permittee must effectively prohibit non-storm water discharges into the MS4 through an ordinance or other regulatory mechanism to the extent allowable under State or local law. The permittee must implement appropriate enforcement procedures and actions, including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders.

October 5, 2010

Ordinance 3396, amending the municipal code of the City of Coeur d'Alene, Kootenai County, Idaho adopting a new chapter 13.32, Entitled Illicit Discharge and Stormwater Sewer Connection, to provide for regulation of all water directly or indirectly entering the city stormwater system, including definitions, discharge regulation, monitoring and reporting requirements, prohibiting illicit connections and providing that any violation of the chapter is a misdemeanor punishable by a fine of not more than \$1,000.00 or by imprisonment not to exceed 180 days or both.

The complete ordinance was submitted with 2010 annual report and is also available on our website.

2-2) Through the ordinance or other regulatory mechanism set forth in Section II.B.3.b, the permittee must prohibit any of the non-stormwater flows listed in Part I.C.1.c only if such flows are identified (by EPA or the permittee) as a source of pollutants to the MS4. The permittee must document to EPA in the Annual Report any existing local controls or conditions placed on the types of non-storm water discharges in Part I.C.1.c.

The City of Coeur d'Alene, Ordinance 3396, prohibits all non-storm water discharges to the MS4 with the exception of discharges detailed in our NPDES permit Part 1.C.1.c.

The complete ordinance was submitted with 2010 annual report and is also available on our website

Illicit Discharge Detection and Elimination

3) Within two years from the effective date of this permit, the permittee must update and complete its comprehensive MS4 map. At a minimum, the map(2) must show jurisdictional boundaries, the location of all City-owned or operated storm sewers, culverts, ditches, and other conveyances, the location of all inlets and outfalls, points at which the permittee' s MS4 is interconnected with other MS4s, names and locations of all waters that receive discharges from those outfalls, and locations of all municipally-owned or operated facilities, including all maintenance/storage facilities and public or private snow disposal sites. Locations of all outfalls must also be provided in latitude and longitude, and the diameter of all outfalls must be provided with the map. The maps must be available in electronic or digital format as appropriate. A copy of the completed map(s), as both a report and as an electronic file via Arc GIS format, must be submitted to EPA and IDEQ as part of the corresponding Annual Report.

The City of Coeur d'Alene MS4 map was included with the 2010 annual report. No additional conveyances were added or removed in 2011.

4) Within two years from the effective date of this permit, the permittee must begin an ongoing education program to inform users of the MS4, especially public employees, businesses, and the general public, of hazards associated with illegal discharges and improper disposal of waste. This program must be conducted in concert with the public education requirements outlined in Part II.B.1.

- June 2011, Stormwater Best Management Practices Newsletter to Downtown Business Owners and Operators developed and distributed. Information included best management practices for waste, spill prevention and proper cleanup methods.
- Spill Prevention & Containment Municipal Staff Training, Classroom April 27, 2011
- Spill Prevention & Containment Municipal Staff Training, Field May 26, 2011
- September 26, 2011 Presented Canines for Clean Water Program
- September 27, 2011 Hosted 2nd Annual Environmental Open House
- October 4, 2011 Municipal storm water pollution prevention training; Building Department Staff
- December 2011, Municipal storm water pollution prevention training; Fire Department Staff

Illicit Discharge Detection and Elimination

5) Within three years from the effective date of this permit, the permittee must begin dry weather field screening for non-storm water flows from all storm water outfalls. By the expiration date of the permit, at least 50% of the permittee's outfalls within the Coeur d'Alene Urbanized Area must be screened for dry weather flows. The screening should include field tests of selected parameters as indicators of discharge sources. Screening level tests may utilize less expensive "field test kits" using test methods not approved by EPA under 40 CFR Part 136, provided the manufacturer's published detention ranges are adequate for the illicit discharge detention purposes. The permittee must investigate any illicit discharge within fifteen (15) days of its detection, and must take action to eliminate the source of the discharge within 45 days of its detention.

August 2011, Dry weather field screening was conducted at 7 of our outfalls. Four of the outfalls were dry and three with trickle flow. Outfalls with flows were investigated upstream of the outfall and flow was determined to be from irrigation. The upstream manhole at one of the outfalls was being used as an ashtray. The debris from this manhole emptied directly into the lake. The owner of the property was contacted and within three days and before the next rain event, drain was cleaned and use stopped.

6) Within three years from the effective date of this permit, the permittee must inventory all industrial facilities that discharge directly to the permittee's MS4 or directly to waters of the United States located within the Coeur d'Alene Urbanized Area and submit this inventory as part of the corresponding Annual Report. The types of industrial facilities that must be inventoried are set forth in 40 CFR §122.26(b)(14)(i-ix) and (xi). This inventory must include the location of the facility, the location of its outfall, and the NPDES permit status for its storm water discharges.

There is only one business that fits the criteria of this permit requirement; Deming Industries located at 2945 N. Government Way in Coeur d'Alene, Outfall#11.

The research for this program requirement utilized information from our wastewater department, Panhandle Health, City of Coeur d Alene building permit data and EPA's NOI site.

Construction Site Storm Water Runoff Control

Construction Site Storm Water Runoff		
Part II.B.4	1) Implement and enforce a construction site runoff control program for sites disturbing one or more acres of land; review and update the program as necessary (II.B.4.a)	Two years from the permit effective date, ongoing thereafter
	2) Provide adequate direction to project proponents regarding the EPA Construction General Permit (II.B.4.b)	Upon permit effective date
	3) Adopt an ordinance or other control measure to require construction site operators to practice erosion, sediment and waste control (II.B.4.c)	Two years from the permit effective date
	4) Publish and distribute written requirements for construction site best management practices (II.B.4.d)	Two years from the permit effective date
	5) Develop, or review/update as necessary, procedures for reviewing pre-construction site plans & accepting public input and complaints (II.B.4.e & f)	Two years from the permit effective date
	6) Implement site inspection & enforcement procedures. Inspect all construction sites at least once per construction season. (II.B.4.g)	Two years from the permit effective date
	7) Ensure all permittee-owned construction projects comply with EPA's Construction General Permit (II-B.4.h)	Upon permit effective date
	8) Conduct at least one training for construction industry (II.B.4.i)	Three years from the permit effective date

1) Within two years from the effective date of this permit, the permittee must implement and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction activities resulting in land disturbance of greater than or equal to one acre. This program must also include controls for pollutants in such storm water discharges from activity disturbing less than one acre, if that construction activity is part of a larger common plan of development or sale that disturbs one acre or more.

Ordinance 3397, adopted December 07, 2010 amending the municipal code of the City of Coeur d'Alene,,KootenaiCounty,,Idaho,,Amending.Sections 13.30.010,13.30.020,13.30.040,13.30.050,13.30.606 and adopting a new section 13.30.075 to the Stormwater Management Ordinance to provide additional definitions, adopting additional standards for erosion, sediment and construction waste control and providing for inspections; repealing all ordinances and parts of ordinances in conflict herewith and providing a severability clause. Complete ordinance is available with 2010 annual report or in the code section on the City of Coeur d Alene website.

Construction Site Storm Water Runoff Control

2) The permittee must provide appropriate information and direction to representatives of proposed new development and redevelopment construction projects concerning the NPDES General Permit for Storm Water Discharges for Construction Activity in Idaho, #IDR 10-0000 (Construction General Permit).

The “Notice to Contractors” is located on our City of Coeur d’Alene website, is posted in the customer service center at city hall and has been electronically distributed to the North Idaho Building Contractors Association. The information is also included in all project reviews packets. The notice is include with 2009 and 2010’s annual reports, available on our website. Also, available in our customer service center is an E.P.A produced brochure; “Does Your Construction Site Need A Stormwater Permit.”

October 6, 2011 Development Forum, Best Management Practice requirements were discussed.

3) Within two years from the effective date of this permit, the permittee must adopt an ordinance or other regulatory mechanism to the extent allowable under state or local law that requires all construction site operators to practice appropriate erosion, sediment and waste control. This ordinance or regulatory mechanism must include sanctions to ensure compliance. The permittee may evaluate any existing procedures, policies, and authorities pertaining to activities occurring on their property that may be used to assist in the development of the required regulatory mechanism.

Ordinance No. 3397, An ordinance amending the municipal code of the City of Coeur d’Alene, Kootenai County, Idaho, amending sections 13.30.010, 13.30.020, 13.30.040, 13.30.050, 13.30.060 and adopting a new section 13.30.075 to the Stormwater Management Ordinance to provide additional definitions, adopting additional standards for erosion, sediment and construction waste control and providing for inspections. The complete ordinance is with our 2010 annual report and is also available on the City of Coeur d Alene website.

4) Within two years from the effective date of this permit, the permittee must publish and distribute requirements for construction site operators to implement appropriate erosion and sediment control BMPs and to control waste (such as discarded building materials, concrete truck washout, chemicals, litter and sanitary waste at a construction site) that may cause adverse impacts to water quality.

October 05, 2010 The City of Coeur d’Alene Resolution No. 10-038 adopting the Idaho Department of Environmental Quality Best Management Practices as the city’s BMP’s. The
Page | 13

Coeur d’Alene Urbanized Area NPDES MS4

Construction Site Storm Water Runoff Control

information was presented at public works, city council meeting, North Idaho Building Contractors Association and mailed to builders, contractors, landscaper and architects. The information is also on our website and posted in the customer service center. The information is also made available to permit applicants at project review stage.

The City inspectors, during our site inspection process have distributed bmp requirements to the on- site operators.

April 2011, Standard Drawings for Construction Site Entrances were updated to include the adopted Best Management Practices which included waste management and concrete washout. The standards were updated on our website and distributed in our customer service center.

5-1) Within two years from the effective date of this permit, the permittee must develop procedures for reviewing all pre-construction site plans for potential water quality impacts, including erosion and sediment control, control of other wastes, and any other impacts according to the requirements of the law, ordinance, or other enforceable mechanism created to comply with Part II.B.4.c. These procedures must include provisions for receipt and consideration of information submitted by the public.

Storm water Management Ordinance 3397: states that storm water management plans are required for all land disturbing building permits with the exceptions listed in Section 3 13.30.040. Complete ordinance was submitted with the 2010 annual report and is available on our website.

Plans are reviewed and approved as a condition of issuance of the permits. All required erosion and sediment controls will be included on the storm water management plans, reviewed and approved by the City engineer or his designee. In addition, these plans are available to the public for input.

Inspection of construction sites are performed at least once per construction season to ensure placement and proper functioning of required erosion control elements.

During the 2011 construction season all sites were inspected prior to site disturbance, after a storm event and before the issuance of a certificate of occupancy.

5-2) Within two years from the effective date of this permit, the permittee must implement a program to receive, track, and review information submitted by the public regarding construction site erosion and sediment control complaints.

The City of Coeur d Alene Stormwater Utility established a stormwater hotline and an on line communication link. The hotline number is included in our educational handouts, on our website, included in our municipal training and has been included in several newspaper articles. The reporting and tracking program includes an on line reporting form and database to track and save information. If a complaint or concern is called in or given in person, the staff member taking the information will enter it into our “City Track” system for appropriate action and

Construction Site Storm Water Runoff Control

documentation. No construction site erosion and sediment control complaints were received from the public in 2011.

6) Within three years from the effective date of this permit, the permittee must develop and implement procedures for site inspection and enforcement of control measures established as required in Parts II.B.4.c and d, including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders. The permittee must inspect all construction sites in their jurisdiction for appropriate erosion/sediment/waste control practices as least once per construction season.

Storm water Management, Ordinance 3397 Section 6 13.30.075 Inspections

Prior to site inspection, plans are reviewed to confirm storm water management plan requirements. During on-site inspection, all bmp's are evaluated to ensure proper installation and functionality.

Any bmp's that are found to be incorrectly installed or missing will be noted and a correction notice given to the person in charge at the site. If no one is available on site, a correction notice will be left and a call will be placed to the permit applicant. The correction notice will state the amount of time allowed for permittee to comply. An additional inspection will be made to ensure corrections have been addressed. If compliance is not achieved a stop work order is issued.

During this permit year, **299** erosion/sediment control inspection were completed. Of those inspections **29** correction notices were issued. All construction sites in the city were inspected a minimum of two times; prior to site disturbance and on final inspection before the issuance of a certificate of occupancy.

7) The permittee must comply with the Construction General Permit and all relevant local requirements for erosion, sediment and onsite materials control on public construction projects. The permittee must ensure that all contractors working on behalf of the permittee are complying with the Construction General Permit and all relevant local requirements for erosion, sediment, and onsite materials control on construction projects. The permittee must incorporate specific language in all contracts ensuring appropriate storm water management on all public construction projects.

It is the City of Coeur d'Alene policy that all projects disturbing over 1 acre of ground must obtain an NPDES general permit and comply with the permits requirements for erosion, sediment and on site materials control. Additionally, it is the City's policy that all projects disturbing any ground must implement BMP's for erosion and sediment control.

Construction Site Storm Water Runoff Control

8) Within three years from the effective date of this permit, the permittee must develop and conduct at least one training session for the local construction/design/engineering audience related to the construction ordinance and BMP requirements referenced in Parts II.B.4.c and d.

The City of Coeur d' Alene has completed training session for local construction/design/engineering audiences each permit year. In 2011, the city hosted a development forum which provided best management practices and requirements for construction sites.

Post-Construction Storm Water Management

Post-Construction Storm Water Management in New Development and Redevelopment		
Part II.B.5	1) Develop and implement a program to address post-construction storm water runoff from new development and redevelopment projects (II.B.5.a)	Three years from the permit effective date
	2) Adopt an ordinance to address post-construction runoff from new development and redevelopment projects (II.B.5.b)	Three years from the permit effective date
	3) Ensure proper long term operation and maintenance of post construction storm water BMPs. (II.B.5.c)	Three years from the permit effective date
	4) Develop and implement a site plan review process and site inspection program to ensure proper installation and long-term operation and maintenance of post-construction storm water management controls (II.B.5.d)	Four years from the permit effective date

1) Within three years from the effective date of this permit, the permittee must implement and enforce a program to address post-construction storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre (including projects less than one acre that are part of a larger common plan of development or sale) and that result in discharge into the permittee's MS4. The program must ensure that controls are enacted that will prevent or minimize water quality impacts from newly developed or redeveloped areas.

Storm Water Management, Ordinance 3397 addresses all items listed in this required action. The ordinance was submitted with our 2010 annual report and is also available on our website.

2) Within three years from the effective date of this permit, the permittee must adopt an ordinance or other regulatory mechanism to the extent allowable under State or local law to address post-construction runoff from new development and redevelopment projects. If such requirements do not currently exist, development and adoption of an ordinance is required. The permittee may evaluate existing procedures, policies, and authorities pertaining to activities occurring on their property that may be used to assist in the development of the required regulatory mechanism.

Storm Water Management, Ordinance 3397 addresses all items listed in this required action. The ordinance was submitted with our 2010 annual report and is also available on our website.

Post-Construction Storm Water Management

3) Within three years from the effective date of this permit, the permittee must ensure proper long term operation and maintenance of all permanent storm water management controls located within its jurisdiction.

Storm Water Management Code, Section 3, 13.30.010 C3A, requires owners of private permanent storm water controls to ensure the long term operation and maintenance. The City of Coeur d' Alene performs periodic inspections of their controls.

As part of the City's storm water facilities and conveyances maintenance plan, inspections are performed annually. The results are used to plan the appropriate measures necessary to ensure proper long term operation.

4) Within four years from the effective date of this permit, the permittee must develop and implement a process for pre-construction plan review of permanent storm water management controls and inspection of such controls to ensure proper installation and appropriate long-term operation and maintenance.

The City of Coeur d' Alene has utilized a pre-construction plan review process since the early 1980's. In relation to storm water management controls and inspection, the following is our procedure:

- A Storm Water Management Plan is required prior to issuance of a building permit.
- The City Engineer reviews and approves the plan.
- The applicant is required to submit a percolation test and a letter signed by the design professional stating that the swales were constructed in accordance with their recommendations.

Storm Water Management Code Section 13.30.070 Guarantee of Installation, and 13.30.075 Inspections, address this permit requirement. The complete code was submitted with our 2010 annual report and is also available on our website.

Pollution Prevention and Good Housekeeping for Municipal Operations

Pollution Prevention and Good Housekeeping for Municipal Operations		
Part II.B.6	1) Develop and implement an operation and maintenance program intended to prevent or reduce pollutant runoff from municipal operations (II.B.6.a)	Two years from the permit effective date
	2) Develop and conduct appropriate training for municipal personnel (II.B.6.b)	Two years from the permit effective date, annually thereafter
	3) Prepare storm water pollution prevention plans for the fleet maintenance/street department site and the water treatment plant (II.B.6.c)	Two years from the permit effective date

1) Within two years from the effective date of this permit, the permittee must develop and implement an operation and maintenance program intended to prevent or reduce pollutant runoff from municipal operations. This program must address municipal activities occurring within the permittee's jurisdiction with potential for negative storm water related water quality impacts, including: the use of sand and road deicers; fleet maintenance and vehicle washing operations; street cleaning and maintenance; grounds/park and open space maintenance operations; building maintenance, solid waste transfer activities; water treatment plant operations; storm water system maintenance; and snow disposal site operation and maintenance. Examples of other municipal activities which may also be evaluated as relevant to the jurisdiction include, but are not limited to: materials storage; hazardous materials storage; used oil recycling; spill control and prevention measures for municipal refueling facilities; municipal golf course maintenance; municipal new construction and land disturbances; and snow removal practices.

During this permit year the City of Coeur d'Alene has continued to update our procedures for the operations and activities of our departments with the potential for negative storm water quality impacts. Our focus is to identify and evaluate our existing best management practices in our municipal operations and activities to determine areas for improvement.

2011 Storm Water Work Plan Progress

Video of Storm Lines 19,322 feet
Catch Basins Cleaned 1784
Street Sweeping 1079 center miles / 2018 tons of debris
City Wide Leaf Pick-up 1,837.09 tons

Pollution Prevention and Good Housekeeping for Municipal Operations

Existing and Updated Best Management Practices for Pollution Prevention by Department

Water Department:
Employee training in storm water basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
Supervisor performs storm water pollution potential evaluation on site prior to commencement of operations, repair or maintenance projects
BMP's applied to water line construction, repair and maintenance activities
Spill Kits in vehicles
Street Department:
Maintains aggressive street sweeping program to improve air and water quality
City wide Leaf Pickup
CSB to enhance salt brine de-icer, which results in less salt used on roadways.
Snow storage practices; snow is stored on permeable surface away from storm conveyance
BMP's applied to construction and repair projects
Spill Kits in vehicles
Annual training includes storm water basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
Five department employees have completed a SEEP training class (Storm water Erosion Education Program)
Partners with Urban Forestry in the tree trimming program, for enhanced sweeping clearance
Vehicle wash water discharges to sanitary sewer. Drain is equipped with an oil water separator that is cleaned yearly

Pollution Prevention and Good Housekeeping for Municipal Operations

Parks Department continued:
Promotion and organization of Community Bike to Work Week
Employee training in storm water basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
7 Employees have a Professional Applicators License issued by the Idaho Department of Agriculture to handle and apply pesticides and herbicides
Soil sampling before fertilizer application
Water Conservation Irrigation Systems
Installation of an additional 10 Pet Waste Dispensers, and applied stickers to all dispensers promoting our “Canines for Clean Water” program.
Trash pick-up along all City managed bike paths and hiking trails year round (except when snow is on the ground). Trash is picked up 3 times a week in the summer, two times a week in the colder seasons, and once a week in the winter
Public trees planted in 2011: 549 & 2400 seedlings (within the right of way or in parks)
All trails are mowed and tree limbs trimmed up regularly in the spring, winter, and fall. The Parks Department also runs a public education program to encourage increased use of the trail system
Parks / Cemetery Shop were issued a Critical Materials Compliance Certificate from Panhandle Health Districts Aquifer Protection Program
Waste Water Department
Employee training in storm water basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
All on-site storm water is processed with the sanitary sewer before discharge
Treatment Plant operates under NPDES permit ID-002285-3
Treatment Plant has a Critical Materials Compliance Certificate, issued by Panhandle Health Districts Aquifer Protection Program
Fire Department

Pollution Prevention and Good Housekeeping for Municipal Operations

The Fire Department incorporates storm water pollution prevention in their Standard Operation Procedures
S.O.P NO. 8-05 Haz-Mat Response Process
S.O.P NO. 8-01 Haz Mat Incident, Basic Operations
Fire Department Presented a Spill Control & Containment Classroom Training in April 2011, 28 employees attended. Training included: Risk Assessment, Prevention, Control, Clean Up, Proper Disposal and development of contingency plan tailored to individual department. A Field Training for Spill Control & Containment was conducted May 2011.

2) Within two years from the effective date of this permit and annually thereafter, the permittee must develop and conduct appropriate training for municipal employees related to optimum maintenance practices for protection of water quality. This training must be conducted at least once annually and address the activities specified in Part II.B.6.a.

For this permit requirement, “Storm Watch: Municipal Storm Water Pollution Prevention,” produced by Excal Video, which addresses best management practices including good housekeeping, spill prevention, vehicle and equipment washing, and maintenance, spill reporting and response, street maintenance, illicit or illegal connections, outdoor storage of materials and wastes, and landscaping and lawn care is used. Additional information is presented to staff in the identification and reporting of illicit discharges to the MS4.

April 27, 2011 Spill Control & Containment Training for city staff.

May 26, 2011 Field Training for Spill Control & Containment.

Appropriate city staff have completed annual refresher courses on spill prevention, control & containment.

Individual departments address best management practices in relation to their job tasks as a standing topic in their staff meetings. Appropriate training is conducted.

3) Within two years from the effective date of this permit, the permittee must prepare and implement storm water pollution prevention plans for the permittee’s fleet maintenance/street department site and waste water treatment plant.

The Street / Fleet Maintenance Department are not located on or near the storm water conveyance system. Although not located near the conveyance system, our street department has developed best management practices in relation to pollution prevention. Routine maintenance

Pollution Prevention and Good Housekeeping for Municipal Operations

and vehicle washing on site is performed indoors and any discharge from these activities goes to the sanitary sewer. The street department is inspected by the Panhandle Health District Aquifer Protection Program and was issued a Critical Materials Compliance Certificate.

The City's Waste Water Treatment Plant captures all on-site storm water and processes it as it does sanitary sewer. The plant operates under their own NPDES permit number ID-002285-3, which was issued May 13, 2004 and has been administratively extended by EPA Region 10. The plant is also inspected by the Panhandle Health District Aquifer Protection Program and was issued a Critical Materials Compliance Certificate.

Storm water Monitoring Requirements

Monitoring Requirements		
Part IV.A.2	Evaluate City's compliance with the identified BMP's and progress toward achieving the minimum control measures and document in each annual report	Two years from the permit effective date
	Monitor the quality of storm water discharges from the MS4 / Conduct a storm water discharge monitoring program	18 months from the permit effective date
	Develop a quality assurance plane (QAP) monitoring storm water discharge. Must be submitted for review to EPA and IDEQ	Quality Assurance Project Plan, developed, reviewed, signed, submitted February 09,2010

1) Within 1 year from the effective date of this permit, the permittee must develop a monitoring plan that includes the quality assurance requirements defined in Part IV.A.6. The permittee must develop and implement a monitoring program to:

- a) estimate the pollutant loading currently discharged from the MS4
- b) assess the effectiveness and adequacy of control measures implemented through this permit; and
- c) identify and prioritize those portions of the MS4 requiring additional controls

The Quality Assurance Project Plan was developed, reviewed, signed and submitted on February 09, 2010. The QAPP was included with the 2010 Annual Report and is available on our website.

A. Load Calculations, Appendix 1

B. Eleven samples were collected during this permit year. Six samples from our 19th Street station and five from our Bellerive station. Additional sampling years are needed to assess the effectiveness and adequacy of the control measures implemented in the permit.

C. Additional data collection / evaluation are necessary to determine the need for additional control actions and to determine the priority of the actions.

Storm water Monitoring Requirements

- 2) No later than 18 months from the effective date of this permit, the permittee must conduct a storm water discharge monitoring program which meet the following minimum requirements:**
- a) the permittee must sample at least one storm water outfall discharging to the Spokane River, and at least one storm water outfall discharging to Lake Coeur d'Alene, each representing the largest or highest flow discharges from the MS4**
 - b) the permittee must monitor the storm water discharges for the pollutants as identified in Table IV.A.**

This is year two of our monitoring program. The City began our program with the installation of two automatic monitoring sites. Station 1, discharges to Lake Coeur d'Alene and Station 2, discharges into the Spokane River. During this permit year, six samples were obtained from Station 1 and five from Station 2. The samples were tested for pollutants as identified in the permit, Table IV.A. The monitoring results are contained in Appendix 2.

Appendix 1
 CITY OF COEUR D'ALENE STORMWATER MONITORING ANALYTICAL REPORT FOR 2011 SAMPLES

STATION 1 (19TH)

SAMPLE DATED RESULTS
 (SDR)

POLLUTANT	24-Jan-11	15-Feb-11	25-Apr-11	2-Jun-11	31-Aug-11	4-Oct-11	UNIT
Calcium	8.42	5.55	14.7	15.5	40.9	13.6	mg/L
Lead	0.014	<0.0075	0.0298	0.0112	0.13	0.0177	mg/L
Magnesium	2.92	1.76	4.87	3.65	6.99	3.3	mg/L
Zinc	0.0899	0.0663	0.299	0.131	0.494	0.189	mg/L
Hardness (as CaCO3)	33.1	21.1	56.7	53.7	189	47.5	mg/L
Total Nitrogen	0.966	0.612	2.04	2.08	5.68	2.59	mg/L
Total Susp. Solids	148	41	171	65	308	51	mg/L
Phosphorus	0.61	0.166	0.338	0.504	1.33	0.302	mg/L
PCB	0	0	0	0	0	0	ug/L

MONTHLY FLOWS

POLLUTANT	JAN		FEB		MARCH		APRIL		MAY		JUNE	
	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL
Calcium	29037.8	539.03	2712.03	33.18	23107.1	282.73	12785.6	414.36	16361.2	530.23	7331.5	250.53
Lead	29037.8	0.8962435	2712.03	0.00	23107.1	0.00	12785.6	0.84	16361.2	1.07	7331.5	0.18
Magnesium	29037.8	186.93	2712.03	10.52	23107.1	89.66	12785.6	137.27	16361.2	175.66	7331.5	59.00
Zinc	29037.8	5.7551634	2712.03	0.40	23107.1	3.38	12785.6	8.43	16361.2	10.79	7331.5	2.12
Hardness (as CaCO3)	29037.8	2118.9756	2712.03	126.16	23107.1	1074.89	12785.6	1598.23	16361.2	2045.18	7331.5	867.96
Total Nitrogen	29037.8	61.840799	2712.03	3.66	23107.1	31.18	12785.6	57.50	16361.2	73.58	7331.5	33.62
Total Susp. Solids	29037.8	9474.5738	2712.03	245.14	23107.1	2088.64	12785.6	4820.05	16361.2	6168.02	7331.5	1050.61
Phosphorus	29037.8	39.050608	2712.03	0.99	23107.1	8.46	12785.6	9.53	16361.2	12.19	7331.5	8.15
PCB	29037.8	0	2712.03	0.00	23107.1	0.00	12785.6	0.00	16361.2	0.00	7331.5	0.00

POLLUTANT	JULY		AUG		SEPT		OCT		NOV		DEC		TOTAL POLLUTANT LOAD	
	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	BY SUM	
Calcium	1419.55	48.51	731.978	66.00	1068.25	96.32	4243.2	127.22	19800.4	593.67	13041.4	391.02	3372.8059	lbs.
Lead	1419.55	0.04	731.978	0.21	1068.25	0.31	4243.2	0.17	19800.4	0.77	13041.4	0.51	4.990273	lbs.
Magnesium	1419.55	11.42	731.978	11.28	1068.25	16.46	4243.2	30.87	19800.4	144.05	13041.4	94.88	968.01096	lbs.
Zinc	1419.55	0.41	731.978	0.80	1068.25	1.16	4243.2	1.77	19800.4	8.25	13041.4	5.43	48.682399	lbs.
Hardness (as CaCO3)	1419.55	168.06	731.978	305.00	1068.25	445.11	4243.2	444.35	19800.4	2073.49	13041.4	1365.69	12633.084	lbs.
Total Nitrogen	1419.55	6.51	731.978	9.17	1068.25	13.38	4243.2	24.23	19800.4	113.06	13041.4	74.47	502.18861	lbs.
Total Susp. Solids	1419.55	203.42	731.978	497.03	1068.25	725.37	4243.2	477.09	19800.4	2226.27	13041.4	1466.32	29442.526	lbs.
Phosphorus	1419.55	1.58	731.978	2.15	1068.25	3.13	4243.2	2.83	19800.4	13.18	13041.4	8.68	109.9118	lbs.
PCB	1419.55	0.00	731.978	0.00	1068.25	0.00	4243.2	0.00	19800.4	0.00	13041.4	0.00	0	lbs.

Appendix 1
CITY OF COEUR D'ALENE STORMWATER MONITORING ANALYTICAL REPORT FOR 2011 SAMPLES

STATION 2 (BELLERIVE)

**SAMPLE DATED RESULTS
(SDR)**

POLLUTANT	24-Jan-11	15-Feb-11	25-Apr-11	2-Jun-11	31-Aug-11	4-Oct-11	UNIT
	no sample						
Calcium	0	19	18.4	14.1	22.8	11.8	mg/L
Lead	0	0.0313	0.0192	0.0109	0.0341	0.0075	mg/L
Magnesium	0	11.7	5.75	3.39	6.99	2.65	mg/L
Zinc	0	0.488	0.269	0.153	0.494	0.148	mg/L
Hardness (as CaCO3)	0	95.6	69.5	49.2	85.7	40.4	mg/L
Total Nitrogen	0	0.701	1.94	1.84	5.68	2.36	mg/L
Total Susp. Solids	0	556	176	104	308	59	mg/L
Phosphorus	0	0.566	0.359	0.274	1.33	0.302	mg/L
PCB	0	0	0	0	0	0	ug/L

MONTHLY FLOWS

POLLUTANT	JAN		FEB		MARCH		APRIL		MAY		JUN	
	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL
Calcium	21050.1	881.74301	5507.28	230.688	16226.1	679.6761	10416	422.5256	16936	687.009793	4305.65	133.842
Lead	21050.1	1.4525556	5507.28	0.380028	16226.1	1.119677	10416	0.440896	16936	0.71687978	4305.65	0.10347
Magnesium	21050.1	542.96806	5507.28	142.0552	16226.1	418.5374	10416	132.0393	16936	214.69056	4305.65	32.179
Zinc	21050.1	22.646873	5507.28	5.925039	16226.1	17.45694	10416	6.177141	16936	10.0437845	4305.65	1.45233
Hardness (as CaCO3)	21050.1	4436.5595	5507.28	1160.725	16226.1	3419.844	10416	1595.953	16936	2594.95547	4305.65	467.023
Total Nitrogen	21050.1	32.531676	5507.28	8.511173	16226.1	25.07647	10416	44.5489	16936	72.4347281	4305.65	17.4659
Total Susp. Solids	21050.1	25802.585	5507.28	6750.66	16226.1	19889.47	10416	4041.549	16936	6571.39802	4305.65	987.203
Phosphorus	21050.1	26.26666	5507.28	6.872074	16226.1	20.24719	10416	8.243842	16936	13.4041585	4305.65	2.6009
PCB	21050.1	0	5507.28	0	16226.1	0	10416	0	16936	0	4305.65	0

POLLUTANT	JULY		AUG		SEPT		OCT		NOV		DEC		TOTAL POLLUTANT LOAD	
	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	Flow	TPL	BY SUM	
Calcium	2139.99	66.521972	508.568	25.56337	1118.33	56.2133	4162.27	108.2796	15485	402.835259	8226.61	214.012	3908.91	lbs.
Lead	2139.99	0.0514248	508.568	0.038233	1118.33	0.084073	4162.27	0.068822	15485	0.25603936	8226.61	0.13602	4.85	lbs.
Magnesium	2139.99	15.993581	508.568	7.837192	1118.33	17.23381	4162.27	24.31702	15485	90.4672404	8226.61	48.0619	1686.38	lbs.
Zinc	2139.99	0.7218342	508.568	0.553873	1118.33	1.217955	4162.27	1.358083	15485	5.05251003	8226.61	2.68421	75.29	lbs.
Hardness (as CaCO3)	2139.99	232.11922	508.568	96.08688	1118.33	211.293	4162.27	370.7199	15485	1379.19868	8226.61	732.717	16697.19	lbs.
Total Nitrogen	2139.99	8.6808815	508.568	6.368419	1118.33	14.00402	4162.27	21.65591	15485	80.5670519	8226.61	42.8023	374.65	lbs.
Total Susp. Solids	2139.99	490.65852	508.568	345.3298	1118.33	759.3726	4162.27	541.3978	15485	2014.1763	8226.61	1070.06	69263.86	lbs.
Phosphorus	2139.99	1.2926965	508.568	1.491197	1118.33	3.279109	4162.27	2.771223	15485	10.3098516	8226.61	5.47724	102.26	lbs.
PCB	2139.99	0	508.568	0	1118.33	0	4162.27	0	15485	0	8226.61	0	0.00	lbs.

Note: If the sample result shows 0, the result is less than the reporting limit.

Appendix 2



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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LAB #	W1A0353-01	W1B0257-01	W1B0257-02	W1D0434-01	W1D0434-02	W1F0069-01
SAMPLE ID	Station 1 (19th Street) 01/24/2011	Station 1 (19th Street) 02/15/2011	Station 2 (Bellerive) 02/15/2011	Station 1 (19th Street) 04/25/2011	Station 2 (Bellerive) 04/25/2011	Station 1 (19th St) 06/02/2011
Reporting Limit	14:10	08:50	09:05	15:10	15:15	13:40

Metals (Total Recoverable--reportable as Total per 40 CFR 136) (Water)

Calcium	0.040 mg/L	8.42	5.55	19.0	14.7	18.4	15.5
Hardness (as CaCO3)	0.347 mg/L	-	-	-	-	-	53.7
Hardness (as CaCO3)	0.347 mg/L	-	-	-	56.7	69.5	-
Hardness (as CaCO3)	0.347 mg/L	33.1	21.1	95.6	-	-	-
Lead	0.0075 mg/L	0.0140	<0.0075	0.0313	0.0298	0.0192	0.0112
Magnesium	0.060 mg/L	2.92	1.76	11.7	4.87	5.75	3.65
Zinc	0.0100 mg/L	0.0899	0.0663	0.488	0.299	0.269	0.131

Classical Chemistry Parameters (Water)

Total Nitrogen	0.500 mg/L	0.966	0.612	0.701	2.04	1.94	2.08
Total Susp. Solids	5.0 mg/L	148	41.0	556	171	176	65.0
Phosphorus	0.010 mg/L	0.610 [1]	0.166	0.566	0.338	0.359	0.504

EPA 8082 (Water)

Aroclor 1016 (PCB-1016)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1221 (PCB-1221)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1232 (PCB-1232)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1242 (PCB-1242)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1248 (PCB-1248)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1254 (PCB-1254)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
Aroclor 1260 (PCB-1260)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2
PCB (total)	0.2 ug/L	<0.2	-	-	<0.2	<0.2	<0.2

John Kern
Laboratory Director

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Kellogg ID 83837-0929

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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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LAB #	W1F0069-02	W1I0017-01	W1I0017-02	W1J0057-01	W1J0057-02	
SAMPLE ID	Station 2 (Bellerive)	Station 1 (19th St)	Station 2 (Bellerive)	Station 1 (19th St)	Station 2 (Bellerive)	
Reporting Limit	06/02/2011 14:00	08/31/2011 20:10	08/31/2011 19:50	10/04/2011 13:33	10/04/2011 13:57	-

Metals (Total Recoverable--reportable as Total per 40 CFR 136) (Water)

Calcium	0.040 mg/L	14.1	40.9	22.8	13.6	11.8	-
Hardness (as CaCO3)	0.347 mg/L	49.2	189	85.7	47.5	40.4	-
Lead	0.0075 mg/L	0.0109	0.130	0.0341	0.0177	<0.0075	-
Magnesium	0.060 mg/L	3.39	21.2	6.99	3.30	2.65	-
Zinc	0.0100 mg/L	0.153	0.941	0.494	0.189	0.148	-

Classical Chemistry Parameters (Water)

Total Nitrogen	0.500 mg/L	1.84	9.00	5.68	2.59	2.36	-
Total Susp. Solids	5.0 mg/L	104	1990	308	51.0	59.0	-
Phosphorus	0.010 mg/L	0.274	2.83 [2]	1.33 [2]	0.354	0.302	-

EPA 8082 (Water)

Aroclor 1016 (PCB-1016)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1221 (PCB-1221)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1232 (PCB-1232)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1242 (PCB-1242)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1248 (PCB-1248)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1254 (PCB-1254)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
Aroclor 1260 (PCB-1260)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-
PCB (total)	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	<0.2	-

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Laboratory Director

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(208) 784-1258

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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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Quality Control Data

Blank Data								
Method	Analyte	Units	Result	MDL	RL	Batch ID	Notes	Analyzed

Metals (Total Recoverable--reportable as Total per 40 CFR 136)								
EPA 200.7	Calcium	mg/L	<0.040	0.006	0.040	W124261		14-Jun-11
EPA 200.7	Calcium	mg/L	<0.040	0.006	0.040	W136347		14-Sep-11
EPA 200.7	Calcium	mg/L	<0.040	0.006	0.040	W141202		17-Oct-11
EPA 200.7	Calcium	mg/L	<0.040	0.008	0.040	W105146		01-Feb-11
EPA 200.7	Calcium	mg/L	<0.040	0.008	0.040	W108195		22-Feb-11
EPA 200.7	Calcium	mg/L	<0.040	0.008	0.040	W118022		01-May-11
EPA 200.7	Lead	mg/L	<0.0075	0.0012	0.0075	W118022		01-May-11
EPA 200.7	Lead	mg/L	<0.0075	0.0017	0.0075	W124261		14-Jun-11
EPA 200.7	Lead	mg/L	<0.0075	0.0017	0.0075	W136347		14-Sep-11
EPA 200.7	Lead	mg/L	<0.0075	0.0017	0.0075	W141202		17-Oct-11
EPA 200.7	Lead	mg/L	<0.0075	0.0020	0.0075	W105146		01-Feb-11
EPA 200.7	Lead	mg/L	<0.0075	0.0020	0.0075	W108195		22-Feb-11
EPA 200.7	Magnesium	mg/L	<0.060	0.010	0.060	W118022		01-May-11
EPA 200.7	Magnesium	mg/L	<0.060	0.010	0.060	W124261		14-Jun-11
EPA 200.7	Magnesium	mg/L	<0.060	0.010	0.060	W136347		14-Sep-11
EPA 200.7	Magnesium	mg/L	<0.060	0.010	0.060	W141202		17-Oct-11
EPA 200.7	Magnesium	mg/L	<0.060	0.012	0.060	W105146		01-Feb-11
EPA 200.7	Magnesium	mg/L	<0.060	0.012	0.060	W108195		22-Feb-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W105146		01-Feb-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W108195		22-Feb-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W118022		01-May-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W124261		14-Jun-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W136347		14-Sep-11
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W141202		17-Oct-11

Classical Chemistry Parameters								
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W105212		28-Jan-11
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W109107		22-Feb-11
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W119303		06-May-11
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W124044		07-Jun-11
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W138215		15-Sep-11
SM 4500-P-E	Phosphorus	mg/L	<0.010	0.004	0.010	W143046		17-Oct-11
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.019	0.500	W105079		27-Jan-11
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.019	0.500	W109175		23-Feb-11
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.019	0.500	W119117		04-May-11
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.019	0.500	W125225		16-Jun-11
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.019	0.500	W137040		12-Sep-11
SM 2540 D	Total Susp. Solids	mg/L	<5.0		5.0	W118154		27-Apr-11
SM 2540 D	Total Susp. Solids	mg/L	<5.0		5.0	W123248		06-Jun-11
SM 2540 D	Total Susp. Solids	mg/L	<5.0		5.0	W136307		06-Sep-11
SM 2540 D	Total Susp. Solids	mg/L	<5.0		5.0	W141424		10-Oct-11

John Kern
 Laboratory Director

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One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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Laboratory Control Sample Data			LCS	LCS	%	Acceptance			
Method	Analyte	Units	Result	True	Rec.	Limits	Batch ID	Notes	Analyzed
Metals (Total Recoverable--reportable as Total per 40 CFR 136)									
EPA 200.7	Calcium	mg/L	20.6	20.0	103	85 - 115	W105146		01-Feb-11
EPA 200.7	Calcium	mg/L	19.3	20.0	96.6	85 - 115	W118022		01-May-11
EPA 200.7	Calcium	mg/L	20.0	20.0	100	85 - 115	W124261		14-Jun-11
EPA 200.7	Calcium	mg/L	19.3	20.0	96.4	85 - 115	W136347		14-Sep-11
EPA 200.7	Calcium	mg/L	20.2	20.0	101	85 - 115	W141202		17-Oct-11
EPA 200.7	Calcium	mg/L	18.8	20.0	94.0	85 - 115	W108195		22-Feb-11
EPA 200.7	Lead	mg/L	1.06	1.00	106	85 - 115	W105146		01-Feb-11
EPA 200.7	Lead	mg/L	0.995	1.00	99.5	85 - 115	W118022		01-May-11
EPA 200.7	Lead	mg/L	1.01	1.00	101	85 - 115	W124261		14-Jun-11
EPA 200.7	Lead	mg/L	0.997	1.00	99.7	85 - 115	W136347		14-Sep-11
EPA 200.7	Lead	mg/L	1.01	1.00	101	85 - 115	W141202		17-Oct-11
EPA 200.7	Lead	mg/L	0.958	1.00	95.8	85 - 115	W108195		22-Feb-11
EPA 200.7	Magnesium	mg/L	20.7	20.0	103	85 - 115	W105146		01-Feb-11
EPA 200.7	Magnesium	mg/L	19.7	20.0	98.5	85 - 115	W118022		01-May-11
EPA 200.7	Magnesium	mg/L	20.1	20.0	101	85 - 115	W124261		14-Jun-11
EPA 200.7	Magnesium	mg/L	18.2	20.0	91.2	85 - 115	W136347		14-Sep-11
EPA 200.7	Magnesium	mg/L	20.1	20.0	100	85 - 115	W141202		17-Oct-11
EPA 200.7	Magnesium	mg/L	19.1	20.0	95.4	85 - 115	W108195		22-Feb-11
EPA 200.7	Zinc	mg/L	1.04	1.00	104	85 - 115	W105146		01-Feb-11
EPA 200.7	Zinc	mg/L	0.971	1.00	97.1	85 - 115	W118022		01-May-11
EPA 200.7	Zinc	mg/L	1.02	1.00	102	85 - 115	W124261		14-Jun-11
EPA 200.7	Zinc	mg/L	1.01	1.00	101	85 - 115	W136347		14-Sep-11
EPA 200.7	Zinc	mg/L	1.01	1.00	101	85 - 115	W141202		17-Oct-11
EPA 200.7	Zinc	mg/L	0.954	1.00	95.4	85 - 115	W108195		22-Feb-11
Classical Chemistry Parameters									
SM 4500-P-E	Phosphorus	mg/L	0.868	0.877	99.0	90 - 110	W119303		06-May-11
SM 4500-P-E	Phosphorus	mg/L	0.846	0.877	96.4	90 - 110	W124044		07-Jun-11
SM 4500-P-E	Phosphorus	mg/L	0.838	0.877	95.6	90 - 110	W138215		15-Sep-11
SM 4500-P-E	Phosphorus	mg/L	0.834	0.877	95.1	90 - 110	W143046		17-Oct-11
SM 4500-P-E	Phosphorus	mg/L	0.890	0.877	102	90 - 110	W109107		22-Feb-11
SM 4500-P-E	Phosphorus	mg/L	0.825	0.877	94.0	90 - 110	W105212		28-Jan-11
ASTM D-5176	Total Nitrogen	mg/L	10.1	10.0	101	80 - 120	W119117		04-May-11
ASTM D-5176	Total Nitrogen	mg/L	9.37	10.0	93.7	80 - 120	W137040		12-Sep-11
ASTM D-5176	Total Nitrogen	mg/L	10.6	10.0	106	80 - 120	W142080		13-Oct-11
ASTM D-5176	Total Nitrogen	mg/L	9.86	10.0	98.6	80 - 120	W125225		16-Jun-11
ASTM D-5176	Total Nitrogen	mg/L	10.4	10.0	104	80 - 120	W109175		23-Feb-11
ASTM D-5176	Total Nitrogen	mg/L	10.4	10.0	104	80 - 120	W105079		27-Jan-11

John Kern
 Laboratory Director

Appendix 2



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

City of Coeur d'Alene			Project: Stormwater Monitoring				Sampled: 02-Jun-11 to 31-Aug-11			
710 E. Mullan Ave.							Received: 01-Sep-11 to 25-Apr-11			
Coeur d Alene, ID 83814							Reported: 23-Dec-11 10:04			
Duplicate Sample Data										
Method	Analyte	Units	Duplicate Result	Sample Result	RPD	Limit	Batch ID	Notes	Source Sample:	Analyzed
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	mg/L	7.05	7.10	0.7	20	W105079			Duplicate 27-Jan-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	82.9	85.0	2.4	20	W105146			Duplicate 01-Feb-11
EPA 200.7	Lead	mg/L	0.0027	0.0028	3.4	20	W105146			01-Feb-11
EPA 200.7	Magnesium	mg/L	8.73	8.96	2.6	20	W105146			01-Feb-11
EPA 200.7	Zinc	mg/L	0.0150	0.0155	3.2	20	W105146			01-Feb-11
Classical Chemistry Parameters										
SM 2540 D	Total Susp. Solids	mg/L	2970	2990	0.7	5	W105112			Duplicate 27-Jan-11
Classical Chemistry Parameters										
SM 4500-P-E	Phosphorus	mg/L	0.029	0.028	2.8	20	W105212			Duplicate 28-Jan-11
Classical Chemistry Parameters										
SM 4500-P-E	Phosphorus	mg/L	0.168	0.166	1.7	20	W109107			Station 1 (19th Street) 01-Feb-11
ASTM D-5176	Total Nitrogen	mg/L	0.618	0.612	0.9	20	W109175			23-Feb-11
Classical Chemistry Parameters										
SM 2540 D	Total Susp. Solids	mg/L	3530	3580	1.4	5	W108153			Duplicate 16-Feb-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	60.8	62.6	2.9	20	W108195			Duplicate 22-Feb-11
EPA 200.7	Lead	mg/L	<0.0075	0.0020	UDL	20	W108195			22-Feb-11
EPA 200.7	Magnesium	mg/L	36.6	37.7	2.7	20	W108195			22-Feb-11
EPA 200.7	Zinc	mg/L	0.0890	0.0916	2.9	20	W108195			22-Feb-11
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	mg/L	0.184	0.183	0.4	20	W119117			Duplicate 04-May-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	437	450	2.9	20	W118022			Duplicate 01-May-11
EPA 200.7	Lead	mg/L	<0.0075	<0.0075	UDL	20	W118022			01-May-11
EPA 200.7	Magnesium	mg/L	39.0	38.7	0.8	20	W118022			01-May-11
EPA 200.7	Zinc	mg/L	<0.0100	<0.0100	UDL	20	W118022			01-May-11
Classical Chemistry Parameters										
SM 4500-P-E	Phosphorus	mg/L	0.373	0.338	9.8	20	W119303			Station 1 (19th Street) 06-May-11
Classical Chemistry Parameters										
SM 2540 D	Total Susp. Solids	mg/L	9.0	7.0	25.0	5	W118154	R1		Duplicate 27-Apr-11
Classical Chemistry Parameters										
SM 4500-P-E	Phosphorus	mg/L	0.115	0.106	7.6	20	W124044			Duplicate 07-Jun-11
Classical Chemistry Parameters										
SM 2540 D	Total Susp. Solids	mg/L	10.0	6.0	50.0	5	W123248	R1		Duplicate 06-Jun-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	15.4	15.5	0.8	20	W124261			Station 1 (19th St) 14-Jun-11
EPA 200.7	Lead	mg/L	0.0111	0.0112	1.6	20	W124261			14-Jun-11
EPA 200.7	Magnesium	mg/L	3.62	3.65	1.0	20	W124261			14-Jun-11
EPA 200.7	Zinc	mg/L	0.129	0.131	1.6	20	W124261			14-Jun-11
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	mg/L	2.40	2.08	14.6	20	W125225			Station 1 (19th St) 16-Jun-11
Classical Chemistry Parameters										
SM 2540 D	Total Susp. Solids	mg/L	8.0	4.0	66.7	5	W123248	R1		Duplicate 06-Jun-11
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	mg/L	1.14	1.18	3.4	20	W137040			Duplicate 12-Sep-11

John Kern
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Appendix 2



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Kellogg ID 83837-0929

(208) 784-1258

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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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Duplicate Sample Data (cont'd)		Duplicate	Sample	RPD	RPD	Batch ID	Notes	Analyzed
Method	Analyte	Units	Result	Result	Limit			
Classical Chemistry Parameters						Source Sample:		Duplicate
SM 2540 D	Total Susp. Solids	mg/L	3.0	6.0	66.7	10	W136307 R1	06-Sep-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)						Source Sample:		Duplicate
EPA 200.7	Calcium	mg/L	0.420	0.404	3.9	20	W136347	14-Sep-11
EPA 200.7	Lead	mg/L	<0.0075	<0.0075	UDL	20	W136347	14-Sep-11
EPA 200.7	Magnesium	mg/L	0.035	0.028	20.5	20	W136347	14-Sep-11
EPA 200.7	Zinc	mg/L	<0.0100	<0.0100	UDL	20	W136347	14-Sep-11
Classical Chemistry Parameters						Source Sample:		Duplicate
SM 4500-P-E	Phosphorus	mg/L	0.021	0.020	3.4	20	W138215	15-Sep-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)						Source Sample:		Duplicate
EPA 200.7	Calcium	mg/L	4.66	4.66	0.1	20	W141202	17-Oct-11
EPA 200.7	Lead	mg/L	<0.0075	<0.0075	UDL	20	W141202	17-Oct-11
EPA 200.7	Magnesium	mg/L	1.96	1.97	0.3	20	W141202	17-Oct-11
EPA 200.7	Zinc	mg/L	<0.0100	<0.0100	UDL	20	W141202	17-Oct-11
Classical Chemistry Parameters						Source Sample:	Station 1 (19th St)	
SM 4500-P-E	Phosphorus	mg/L	0.353	0.354	0.4	20	W143046	17-Oct-11
ASTM D-5176	Total Nitrogen	mg/L	2.54	2.59	1.8	20	W142080	13-Oct-11
Classical Chemistry Parameters						Source Sample:		Duplicate
SM 2540 D	Total Susp. Solids	mg/L	13.0	13.0	0.0	10	W141424	10-Oct-11
Classical Chemistry Parameters						Source Sample:		Duplicate
SM 2540 D	Total Susp. Solids	mg/L	1.0	1.0	0.0	10	W141424	10-Oct-11

John Kern
Laboratory Director

Appendix 2



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

City of Coeur d'Alene	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11
710 E. Mullan Ave.		Received: 01-Sep-11 to 25-Apr-11
Coeur d Alene, ID 83814		Reported: 23-Dec-11 10:04

Matrix Spike Data										
Method	Analyte	Units	Spike Result	Sample Result	Spike Level	% Rec.	Acceptance Limits	Batch ID	Notes	Analyzed
								Source Sample:		Matrix Spike
ASTM D-5176	Total Nitrogen	mg/L	12.3	7.10	5.00	104	80 - 120	W105079		27-Jan-11
								Source Sample:		Matrix Spike
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	105	85.0	20.0	101	70 - 130	W105146	M3	01-Feb-11
EPA 200.7	Lead	mg/L	1.04	0.0028	1.00	104	70 - 130	W105146		01-Feb-11
EPA 200.7	Magnesium	mg/L	30.3	8.96	20.0	107	70 - 130	W105146		01-Feb-11
EPA 200.7	Zinc	mg/L	0.998	0.0155	1.00	98.3	70 - 130	W105146		01-Feb-11
								Source Sample:		Matrix Spike
SM 4500-P-E	Phosphorus	mg/L	0.496	0.028	0.500	93.6	75 - 125	W105212		28-Jan-11
								Source Sample:		Station 1 (19th Street)
SM 4500-P-E	Phosphorus	mg/L	0.665	0.166	0.500	100	75 - 125	W109107		22-Feb-11
ASTM D-5176	Total Nitrogen	mg/L	5.96	0.612	5.00	107	80 - 120	W109175		23-Feb-11
								Source Sample:		Matrix Spike
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	82.4	62.6	20.0	99.3	70 - 130	W108195		22-Feb-11
EPA 200.7	Lead	mg/L	0.944	0.0020	1.00	94.2	70 - 130	W108195		22-Feb-11
EPA 200.7	Magnesium	mg/L	57.4	37.7	20.0	98.4	70 - 130	W108195		22-Feb-11
EPA 200.7	Zinc	mg/L	1.02	0.0916	1.00	92.6	70 - 130	W108195		22-Feb-11
								Source Sample:		Matrix Spike
ASTM D-5176	Total Nitrogen	mg/L	5.04	0.183	5.00	97.1	80 - 120	W119117		04-May-11
								Source Sample:		Matrix Spike
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	472	450	20.0	110	70 - 130	W118022	M3	01-May-11
EPA 200.7	Lead	mg/L	0.907	<0.0075	1.00	90.7	70 - 130	W118022		01-May-11
EPA 200.7	Magnesium	mg/L	59.0	38.7	20.0	101	70 - 130	W118022		01-May-11
EPA 200.7	Zinc	mg/L	0.927	<0.0100	1.00	92.7	70 - 130	W118022		01-May-11
								Source Sample:		Station 1 (19th Street)
SM 4500-P-E	Phosphorus	mg/L	0.836	0.338	0.500	99.6	75 - 125	W119303		06-May-11
								Source Sample:		Matrix Spike
SM 4500-P-E	Phosphorus	mg/L	0.631	0.106	0.500	105	75 - 125	W124044		07-Jun-11
								Source Sample:		Station 1 (19th St)
EPA 200.7	Calcium	mg/L	35.7	15.5	20.0	101	70 - 130	W124261		14-Jun-11
EPA 200.7	Lead	mg/L	1.04	0.0112	1.00	103	70 - 130	W124261		14-Jun-11
EPA 200.7	Magnesium	mg/L	23.9	3.65	20.0	101	70 - 130	W124261		14-Jun-11
EPA 200.7	Zinc	mg/L	1.13	0.131	1.00	99.9	70 - 130	W124261		14-Jun-11
								Source Sample:		Station 1 (19th St)
ASTM D-5176	Total Nitrogen	mg/L	6.44	2.08	5.00	87.3	80 - 120	W125225		16-Jun-11
								Source Sample:		Matrix Spike
ASTM D-5176	Total Nitrogen	mg/L	7.61	1.18	5.00	129	80 - 120	W137040	M1	12-Sep-11
								Source Sample:		Matrix Spike
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	19.7	0.404	20.0	96.7	70 - 130	W136347		14-Sep-11
EPA 200.7	Lead	mg/L	1.01	<0.0075	1.00	101	70 - 130	W136347		14-Sep-11
EPA 200.7	Magnesium	mg/L	18.2	0.028	20.0	90.9	70 - 130	W136347		14-Sep-11
EPA 200.7	Zinc	mg/L	1.01	<0.0100	1.00	101	70 - 130	W136347		14-Sep-11
								Source Sample:		Matrix Spike
SM 4500-P-E	Phosphorus	mg/L	0.537	0.020	0.500	103	75 - 125	W138215		15-Sep-11

John Kern
Laboratory Director

Appendix 2



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Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project: Stormwater Monitoring	Sampled: 02-Jun-11 to 31-Aug-11 Received: 01-Sep-11 to 25-Apr-11 Reported: 23-Dec-11 10:04
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Matrix Spike Data (cont'd)										
Method	Analyte	Units	Spike Result	Sample Result	Spike Level	% Rec.	Acceptance Limits	Batch ID	Notes	Analyzed
Metals (Total Recoverable--reportable as Total per 40 CFR 136)								Source Sample:		Matrix Spike
EPA 200.7	Calcium	mg/L	24.3	4.66	20.0	98.4	70 - 130	W141202		17-Oct-11
EPA 200.7	Lead	mg/L	0.994	<0.0075	1.00	99.4	70 - 130	W141202		17-Oct-11
EPA 200.7	Magnesium	mg/L	21.5	1.97	20.0	97.5	70 - 130	W141202		17-Oct-11
EPA 200.7	Zinc	mg/L	0.997	<0.0100	1.00	99.7	70 - 130	W141202		17-Oct-11
Metals (Total Recoverable--reportable as Total per 40 CFR 136)								Source Sample:		Matrix Spike
EPA 200.7	Calcium	mg/L	24.5	5.20	20.0	96.4	70 - 130	W141202		17-Oct-11
EPA 200.7	Lead	mg/L	0.947	<0.0075	1.00	94.7	70 - 130	W141202		17-Oct-11
EPA 200.7	Magnesium	mg/L	20.4	1.34	20.0	95.2	70 - 130	W141202		17-Oct-11
EPA 200.7	Zinc	mg/L	0.951	<0.0100	1.00	95.1	70 - 130	W141202		17-Oct-11
Classical Chemistry Parameters								Source Sample:		Station 1 (19th St)
SM 4500-P-E	Phosphorus	mg/L	0.842	0.354	0.500	97.5	75 - 125	W143046		17-Oct-11
ASTM D-5176	Total Nitrogen	mg/L	7.73	2.59	5.00	103	80 - 120	W142080		13-Oct-11

Matrix Spike Duplicate Data										
Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	Batch ID	Notes	Analyzed
Classical Chemistry Parameters								Source Sample:		Matrix Spike Dup
SM 4500-P-E	Phosphorus	mg/L	0.636	0.631	0.500	0.7	20	W124044		07-Jun-11
Classical Chemistry Parameters								Source Sample:		Matrix Spike Dup
SM 4500-P-E	Phosphorus	mg/L	0.538	0.537	0.500	0.3	20	W138215		15-Sep-11

Special Notes

- 1 | D1 = Sample required dilution due to matrix.
- 2 | D2 = Sample required dilution due to high concentration of target analyte.
- 3 | M1 = Matrix spike recovery was high, but the LCS recovery was acceptable.
- 4 | M3 = The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The LCS was acceptable.
- 5 | R1 = RPD exceeded the method acceptance limit.

John Kern
 Laboratory Director