

CITY OF COEUR D' ALENE STORM WATER MANAGEMENT
ANNUAL REPORT
January 1, 2010 to December 31, 2010



**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)
FEDERAL STORM WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM PERMIT (IDS-028215)**

SUBMITTED TO

**United States Environmental
Protection Agency**
Attention: Storm Water Program
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
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CITY OF COEUR D'ALENE

ENGINEERING SERVICES DEPARTMENT

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Report Certification

City of Coeur d'Alene NPDES Municipal Separate Storm Sewer System Annual Report For Permit Year 2010

“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

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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
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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
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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

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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
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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

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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
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	Develop and conduct appropriate training for municipal personnel (II.B.6.b)	Two years from the permit effective date, annually thereafter
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Part IV.A.2	Evaluate City's compliance with the identified BMPs, 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	18 months from the permit effective date
	Conduct a storm water discharge monitoring program	18 months from the permit effective date
	Develop a quality assurance plan (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
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Information for Reviewers

This 2010 City of Coeur d'Alene Urbanized Area NPDES MS4 Annual Report outlines and discusses each of the required reporting elements of the permit. The appendices of this report are contained on a disk, and are available from the city. The Annual Report will be available through the City of Coeur d'Alene website at www.cdaid.org.

This report presents and documents the actions required by the permit and taken by the permittee for the Year 2 reporting period (January 1, 2010 – December 31, 2010). Individual requirements of the permit are presented in the order of the permit outline. The report has been certified by the appropriate officials.

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.

The City of Coeur d'Alene hosted and participated in several storm water public education programs and events in 2010.

- A Storm Water Public Service Announcement intended to educate the community about the impacts of storm water discharges on Coeur d'Alene Lake and the Spokane River was aired an average of 20 times per week, starting the last two weeks of December, 2009 through April, 2010.
- June 23, 2010: Home Owners Association meeting. Thirty (30) in attendance. Storm water education and storm drain marking program presented.
- July, 2010: CDA TV channel 19, Public Service Announcement: Storm Drain Marking Program airing an average of 30 times per week. Program contents provide citizens with practical ways they can make a difference in our storm water quality.
- July, 2010: Public library storm water display, providing information on what kids can do to make a difference in our storm water quality. (July 2010)
- July 22, 2010: Kids storm water display including puzzles, storm water educational materials. Held in the Library Community Room.
- August 12, 2010: Storm water education presentation for Department of Labor Summer Youth Program, held in the Library Community Room.
- August & September 2010: Storm drain stenciling and the distribution of 1500 Storm Water Pollution Prevention Tips door hangers in residential areas.
- September 09, 2010: Hosted First Annual Environmental Open House.

Public Education & Outreach

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

Educational materials were made available and distributed to residential neighborhoods, to local contractors and the general public through out this permit year.

- July & August, 2010: 1500 door hangers with storm water information and pollution prevention tips were distributed in residential neighborhoods as storm drains were marked. The materials contained tips on improving storm water quality and the city hotline number for reporting spills and illegal dumping.
- November 4, 2010: The City of Coeur d’Alene partnered with the Panhandle Storm Water Erosion and Sediment Control Education Program (SEEP) in a BMP Demonstration Day. BMP information and installation techniques were provided to construction operators, municipal employees and landscapers.
- An EPA produced publication entitled “Does Your Construction Site Need a Permit” and the Storm Water Erosion and Sediment Control Field Guide are available in the Customer Service Center of city hall and from the city engineering department.
- 50 EPA-produced bookmarks were distributed at our library. The bookmarks contain storm water pollution prevention information.

See Appendix 1

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.

The City of Coeur d’Alene distributed several media releases in reference to our Storm Water Management Program during this reporting year

- June 14, 2010: Storm Drain Marking Program. The Coeur d’Alene Press article, which was featured on June 23, 2010, introduced our program and provided storm water educational tips. Information was also aired on CDA TV Channel 19 for 60 days.
- May 19, 2010: Litter pickup. The Coeur d’Alene Press article marked the 10th anniversary of the City of Coeur d’Alene Adopt a Street Program. It provided information on how to volunteer and recognized volunteers.

Public Education & Outreach

- August 22, 2010: Lessons in Basic Draining. The Spokesman Review article featured our storm water stenciling and education program. It also provided information about pollution prevention and our storm water utility.
- September, 2010: Environmental Open House article in Coeur d'Alene Press.
- September, 2010: Two local television stations, KHQ and KREM TV, posted the Environmental Open House information on their community calendars of events and ran the information during their newscasts.

See Appendix 2

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 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. The frequency of trash pickup is encouraged to be at a minimum of twice per year. There are currently 34 Adopt-A-Street volunteer groups which include a City of Coeur d'Alene employee group.

- An article in the Coeur d'Alene Press on May 19, 2010 marked the 10th Anniversary of the City of Coeur d'Alene Adopt-a-Street Program. It provided information on how to volunteer and recognized volunteers.
- The Adopt-a-Street Litter Pick-up program information was presented at the May 2010 city council meeting which is televised on CDA TV channel 19. The information is also available on the City of Coeur d'Alene website and in brochures at city hall.

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 09, 2010: The City of Coeur d' Alene Storm Water Utility hosted our first annual Environmental Open House. The City of Coeur d'Alene partnered with several agencies in presenting storm water management information, water and energy conservation, recycling, and proper hazardous waste disposal. We had 62 people sign the attendance sheet and a form was also provided for written public comments. There were no written comments given.

See Appendix 3

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 storm water questions. The number is posted on the city's website and on educational materials. The calls are entered into a "city track" data base. The callers are given a tracking number if necessary to enable them to check the status of their request. As of December 2010, three calls have been received.

- August 26, 2010: Call from municipal employee, reporting a hose coming out of a commercial business emptying into a storm drain. Upon investigation, it was found that the business was discharging its pool water. They were told to stop the discharge and provided with proper disposal procedures.
- September 29, 2010: Call from citizen on hotline, inquiring if washing cars and hosing drive way is acceptable. She was provided with alternatives to the discharges going into the storm drain.
- October 08, 2010: Call from citizen in reference to a swale in his neighborhood not functioning properly and requesting the city to check it.

Public Involvement and Participation

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.

The City of Coeur d'Alene Storm Water Utility has initiated a storm drain marking program. Using stencils which state "DUMP NO WASTE – FLOWS TO OUR LAKE." and metal medallion markers stating "NO DUMPING – DRAINS TO LAKE." The program is promoted on our website and has been featured in several newspaper articles and at our environmental open house.

The storm drain marking program was implemented in June, 2010. As of August, 2010, 600 drains have been stenciled by the Idaho Department of Labor Summer Youth Program participants. In addition to the stenciling, approximately 1,500 door hangers were posted in residential areas, providing storm water education and pollution prevention tips.

September 23, 2010: Eighty (80) metal storm drain markers were applied in the downtown business and heavy pedestrian traffic areas as part of the United Way Day of Caring. In addition to the storm drain markers, flyers were distributed to businesses which included storm water education and practical tips for the prevention of storm water pollution.

See Appendix 4

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.

The City of Coeur d'Alene has developed and implemented an illicit discharge detection & elimination program during this permit year. The main component used in the detection of illicit discharges is our program of videoing storm lines. During this permit year, 24,487 feet of storm lines were visually inspected and cleaned. Program details are provided with this report in **Appendix 5**

One illicit discharge was detected and rectified during this permit year.

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

Illicit Discharge Detection and Elimination

and actions, including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders.

On October 5, 2010 the City of Coeur d'Alene adopted 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 Storm Water Sewer Connection, to provide for regulation of all water directly or indirectly entering the city storm water 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 is provided with this report as **Appendix 6** Additional requirements under this section are found in **Appendix 5**

2-2) Through the ordinance or other regular mechanism set forth in Section II.B.3.b, the permittee must prohibit any of the non-storm water 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, (**Appendix 6**) prohibits all non-storm water discharges to the MS4 with the exception of discharges detailed in our NPDES permit Part 1.C.1.c.

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 is provided with this report in **Appendix 7**.

Illicit Discharge Detection and Elimination

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.

September 09, 2010: The City of Coeur d' Alene Storm Water Utility hosted our first annual environmental open house. Several environmental topics were presented with an emphasis on storm water pollution prevention, and illicit and illegal discharges. The event was well attended by the general public, business community and public employees.

Annual municipal storm water pollution prevention training was conducted for employees of the City of Coeur d'Alene's Water and Parks Departments. The topics included: good housekeeping and spill prevention, illicit discharge identification and reporting, vehicle and equipment washing, vehicle and equipment maintenance, spill reporting and response, street maintenance, outdoor storage of materials and wastes, and landscaping and lawn care.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

Illicit Discharge Detection and Elimination

7) 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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

Construction Site Storm Water Runoff

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 Number 3397, adopted December 07, 2010 amending the municipal code of the City of Coeur d'Alene, Kootenai County, Idaho, and adopting a new section 13.30.075 to the Storm Water Management Ordinance to provide additional definitions, adopting additional standards for erosion, sediment and construction waste control and providing for inspections of all sites. **See Appendix 8**

Construction Site Storm Water Runoff

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” (**Appendix 9**) is located on our City of Coeur d’Alene website, posted in the Customer Service Center at city hall, and has been electronically distributed to the North Idaho Building Contractors Association. The information is included in all project reviews packets. Also, available in our Customer Service Center is an EPA produced brochure “Does Your Construction Site Need a Storm Water Permit?”

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 Number 3397, (**Appendix 8**), was adopted December 07, 2010 amending the municipal code of the City of Coeur d’Alene, Kootenai County, Idaho, and adopting a new section 13.30.075 to the Storm Water Management Ordinance to provide additional definitions, adopting additional standards for erosion, sediment and construction waste control and providing for inspections.

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’s Resolution No. 10-038, adopting the Idaho Department of Environmental Quality Storm Water Best Management Practices for Idaho Cities and Counties as the city’s BMP’s. The information was presented at public works and city council meetings, which are also televised. The information was included in a presentation to North Idaho Building Contractors Association and mailed to builders, contractors, landscapers, and architects. The information is on all site plans and also on our website and posted in the Customer Service Center.

Construction Site Storm Water Runoff

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 plans are currently required for all land-disturbing building permits. These 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 and reviewed and approved by city staff. In addition, these plans will be made available to the public for input.

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

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 Storm Water Utility established a storm water 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 online reporting form and database to track and save information. If a complaint 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 documentation.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

Construction Site Storm Water Runoff

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 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 permit's 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.

2010 City Projects:

- Howard Street NOI IDR10CC89
- Wastewater Treatment Plant Expansion NOI IDR10CB00

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.

November 04, 2010: Partnered with Panhandle Storm Water and Erosion Education Program (SEEP), in the presentation of Best Management Practices. Demonstration's included structural, non-structural, and planning practices that control, prevent, or minimize pollution including site run-off, spillage, leaks and waste disposal. Our target audience was construction site operators and landscapers.

November 16, 2010: Presentation to North Idaho Builders Contractors Association in reference to the new ordinance, construction site erosion, sediment, and construction waste controls and the adoption of Idaho Department of Environmental Quality Catalog of Storm water Best Management Practices for Idaho Cities and Counties as the storm water best management practices for the City of Coeur d'Alene.

November 22, 2010: Presentation repeated at public works meeting, aired live on CDA TV channel 19 and repeated three times a day for 30 days.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

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.

No action has been taken on this permit requirement during the 2010 permit reporting timeframe.

Pollution Prevention & 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 developed an evolving guide 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.

2010 Storm Water Work Plan Progress:

Video of Storm Lines	24,487 feet
Catch Basins Cleaned	1,800
Street Sweeping	1,823 lane miles
City Wide Leaf Pickup	1,551 tons

Pollution Prevention & Good Housekeeping for Municipal Operations

Existing Best Management Practices for Pollution Prevention

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
- Employee training in 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

Parks Department:

- Employee training in storm water basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
- Soil sampling before fertilizer application
- Water Conservation Irrigation Systems
- Installation of 18 Pet Waste Dispensers
- 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
- 428 public trees planted (within the right of way or in parks) for this permit year

Pollution Prevention & Good Housekeeping for Municipal Operations

- 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

- 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

See Appendix 10

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.

An annual training program has been established for municipal employees during this permit year. The training, "Storm Watch: Municipal Storm Water Pollution Prevention," produced by Excal Video, 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. Additional information was presented in the identifying and reporting of illicit discharges to the MS4. During the 2010 permit year 75 employees from the Parks Department and Water Department attended the training sessions.

Pollution Prevention & Good Housekeeping for Municipal Operations

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 is 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 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, Recordkeeping, and Reporting

Monitoring Requirements		
Part IV.A.2	Evaluate City's compliance with the identified BMPs, 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	18 months from the permit effective date
	Conduct a storm water discharge monitoring program	18 months from the permit effective date
	Develop a quality assurance plan (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. **See Appendix 11**

A. Although some sampling was successfully completed in 2010, insufficient data is available to make cumulative total pollutant load projections.

B. The data collected in 2010 is insufficient to assess the effectiveness and adequacy of the control measures implemented in the permit.

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

Storm Water Monitoring, Recordkeeping, and Reporting

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.

The City began its storm water discharge monitoring 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, two samples from each location were taken. The samples were tested for pollutants as identified in the permit, Table IV.A. The monitoring results are in contained in **Appendix 12**.

Storm Water Monitoring, Recordkeeping, and Reporting



Table IV.A Monitoring Requirements

Parameter	Sample Location	Sample Frequency	Sample Type
Flow (cfs)	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Temperature	Spokane River Lake Coeur d' Alene	4 times/yr	Recording
Total Suspended Solids (mg/L)	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Total Nitrogen	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Total Lead (mg/L)	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Total Zinc (mg/L)	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Hardness	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Total Phosphorus (mg/L)	Spokane River Lake Coeur d' Alene	4 times/yr	Grab
Total Polychlorinated Biphenyls	Spokane River Lake Coeur d' Alene	4 times/yr	Grab

Outfall discharge locations: Lake Coeur d'Alene (station 1) and Spokane River (station 2.)

A minimum of four (4) samples must be collected in a calendar year. Monitoring should occur at least once during each of the following periods: March – April, May – June, July –August, September – October. Outfall sampling should occur within the first 30-60 minutes of storm events to catch the “first flush.” Grab samples may be taken manually or with an automatic water sampler.

ANALYTICAL REPORT FOR 2010 SAMPLES

STATION 1 (19TH)

POLLUTANT	<u>SAMPLE DATED RESULTS (SDR)</u>			UNIT	<u>MONTHLY FLOWS</u>			
	2-Jul-10	25-Oct-10	SDR AVE.		SEPT.	OCT.	NOV.	DEC.
Calcium	5.83	6.74	6.285	mg/L		13270.66	15066.74	
Lead	0	0.0125	0.00625	mg/L		13270.66	15066.74	
Magnesium	0.899	1.58	1.2395	mg/L		13270.66	15066.74	
Zinc	0.0177	0.0983	0.058	mg/L		13270.66	15066.74	
Hardness (as CaCO3)	18.3	23.4	20.85	mg/L		13270.66	15066.74	
Total Nitrogen	0.871	0.983	0.927	mg/L		13270.66	15066.74	
Total Susp. Solids	7	44	25.5	mg/L		13270.66	15066.74	
Phosphorus	0.15	0.63	0.39	mg/L		13270.66	15066.74	
PCB	0	0	0	ug/L		13270.66	15066.74	

	<u>TOTAL</u> <u>MONTHLY FLOW</u>	<u>UNIT</u>	<u>TOTAL</u> <u>POLLUTANT LOAD</u>	<u>UNIT</u>
Calcium	28337.4	m3	392.64	lbs.
Lead	28337.4	m3	0.39	lbs.
Magnesium	28337.4	m3	77.44	lbs.
Zinc	28337.4	m3	3.62	lbs.
Hardness (as CaCO3)	28337.4	m3	1302.57	lbs.
Total Nitrogen	28337.4	m3	57.91	lbs.
Total Susp. Solids	28337.4	m3	1593.07	lbs.
Phosphorus	28337.4	m3	24.36	lbs.
PCB	28337.4	m3	0.00	lbs.

STATION 2 (BELLERIVE)

POLLUTANT	<u>SAMPLE DATED RESULTS (SDR)</u>			UNIT	<u>MONTHLY FLOWS</u>			
	2-Jul-10	25-Oct-10	SDR AVE.		SEPT.	OCT.	NOV.	DEC.
Calcium	18	13.2	15.6	mg/L	1794.3	7141	10858.8	10214.9
Lead	0	0.016	0.008	mg/L	1794.3	7141	10858.8	10214.9
Magnesium	3.7	4.03	3.865	mg/L	1794.3	7141	10858.8	10214.9
Zinc	0.0539	0.346	0.19995	mg/L	1794.3	7141	10858.8	10214.9
Hardness (as CaCO3)	60.1	49.4	54.75	mg/L	1794.3	7141	10858.8	10214.9
Total Nitrogen	2.98	1.06	2.02	mg/L	1794.3	7141	10858.8	10214.9
Total Susp. Solids	40	116	78	mg/L	1794.3	7141	10858.8	10214.9
Phosphorus	0.39	0.43	0.41	mg/L	1794.3	7141	10858.8	10214.9
PCB	0	0	0	ug/L	1794.3	7141	10858.8	10214.9

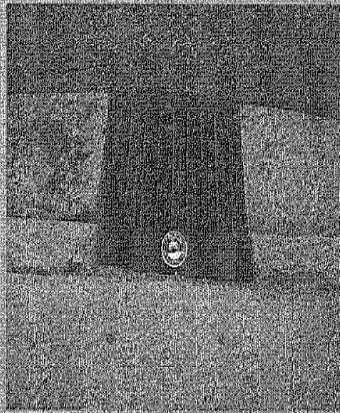
	<u>TOTAL</u> <u>MONTHLY FLOW</u>	<u>UNIT</u>	<u>TOTAL</u> <u>POLLUTANT LOAD</u>	<u>UNIT</u>
Calcium	30009.05	m3	1032.07	lbs.
Lead	30009.05	m3	0.53	lbs.
Magnesium	30009.05	m3	255.70	lbs.
Zinc	30009.05	m3	13.23	lbs.
Hardness (as CaCO3)	30009.05	m3	3622.19	lbs.
Total Nitrogen	30009.05	m3	133.64	lbs.
Total Susp. Solids	30009.05	m3	5160.37	lbs.
Phosphorus	30009.05	m3	27.13	lbs.
PCB	30009.05	m3	0.00	lbs.

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

Appendices

Appendix 1	City Produced Educational Materials
Appendix 2	Newspaper Articles
Appendix 3	Open House Flyer
Appendix 4	Examples of Stencil, Drain Markers and Door Hangers
Appendix 5	Illicit Discharge & Detection Elimination Program
Appendix 6	Ordinance 3396 Illicit Discharge and Storm Water Sewer Connection
Appendix 7	MS4 Map
Appendix 8	Ordinance 3397 Storm Water Management
Appendix 9	Notice to Contractors
Appendix 10	Pollution Prevention & Good Housekeeping Program
Appendix 11	Quality Assurance Project Plan Storm Water Management Plan
Appendix 12	Monitoring Results

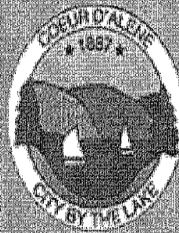
Water from rain and melting snow that does not immediately soak into the ground is Stormwater Runoff



Storm drains lead straight to our lake and river. When contaminants enter storm drains they can pollute our water resources.

For information regarding commercial calculations, contact Engineering at (208) 676-7402

For billing questions, please contact Utility Billing at (208) 769-2226



710 E. Mullan Avenue
Coeur d'Alene, ID 83814

Phone: (208) 769-2300

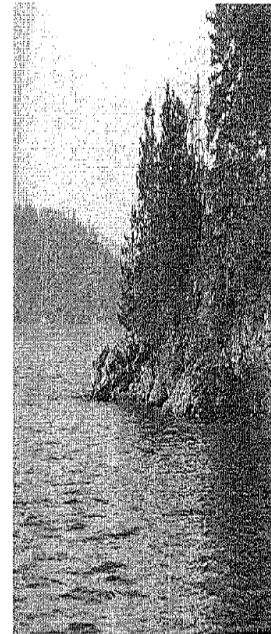
Fax: (208) 769-2284

Email: kimh@cdaid.org



"For the Sake of our Lake"

STORMWATER MANAGEMENT



For Stormwater Concerns, Spill Reporting, or to Report Illegal Dumping, call the City of Coeur d'Alene
HOTLINE
(208) 676-7405
www.cdaid.org

What we all can do! “For the Sake of Our Lake”

AT HOME:

- Dispose of dirty carpet cleaning solution down a sink or toilet

- Clean paint supplies in a utility sink, not onto the street, or storm drain.

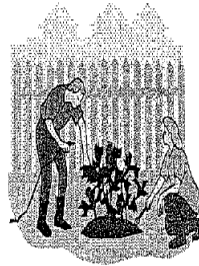


- Dispose of animal waste by picking it up, bagging it and placing in garbage.
- Use biodegradable soap when washing exterior walls and windows.
- De-ice with sand instead of salts and chemicals. Sweep up the sand before the next rainstorm.
- Dispose of household hazardous waste properly.

- For information on proper disposal contact the **Kootenai County Transfer Station at 446-1430**
- Report Stormwater issues, concerns and illegal dumping

IN OUR YARDS:

- Sweep driveway and sidewalk instead of hosing debris into the street or storm drain.
- Compost or recycle yard waste when possible
- Have soil tested before applying fertilizers.
- Use pesticides and fertilizers sparingly.
- Clean tools over grass or soil



covered area where wash water will not enter the street.

- Empty pool or spa water into the sewer or when chlorine residual is zero, use for irrigation water.

WITH OUR CARS:

- Recycle used motor oil, for information contact Kootenai County Transfer Station at 446-1430.



- Use a drain pan to catch automotive fluid when changing oil, antifreeze or other fluids.
- Use sawdust, cat litter or other absorbent material on spills, sweep up and dispose of in garbage.
- Use biodegradable soap to wash your car.
- Wash the car on your lawn or at a commercial carwash, which disposes of the wash water properly.

For Immediate Release
June 14, 2010

Storm Drain Marking Program Introduced June 21st

On Monday, June 21st, at 2:00 p.m., in the Third Street Parking Lot (by the boat launch), the City of Coeur d'Alene will launch its Storm Drain Marking Program, "For The Sake of Our Lake." The Storm Drain Marking Program will remind citizens to not dump anything down storm water drains.

Stormwater is water from rain and melting snow that does not immediately soak into the ground. Stormwater flows across impervious surfaces such as concrete, streets, roofs, parking lots, and sidewalks into catch basins, storm drains, swales, culverts, ditches, and drywells, and eventually empties into the lake and aquifer. Stormwater can carry pollutants like lawn chemicals, motor oil, pet waste, and sediments to lakes and rivers.

The Storm Drain Marking Program offers opportunities for everyone to learn how to help reduce pollutants that can enter lakes and rivers from the storm water system.

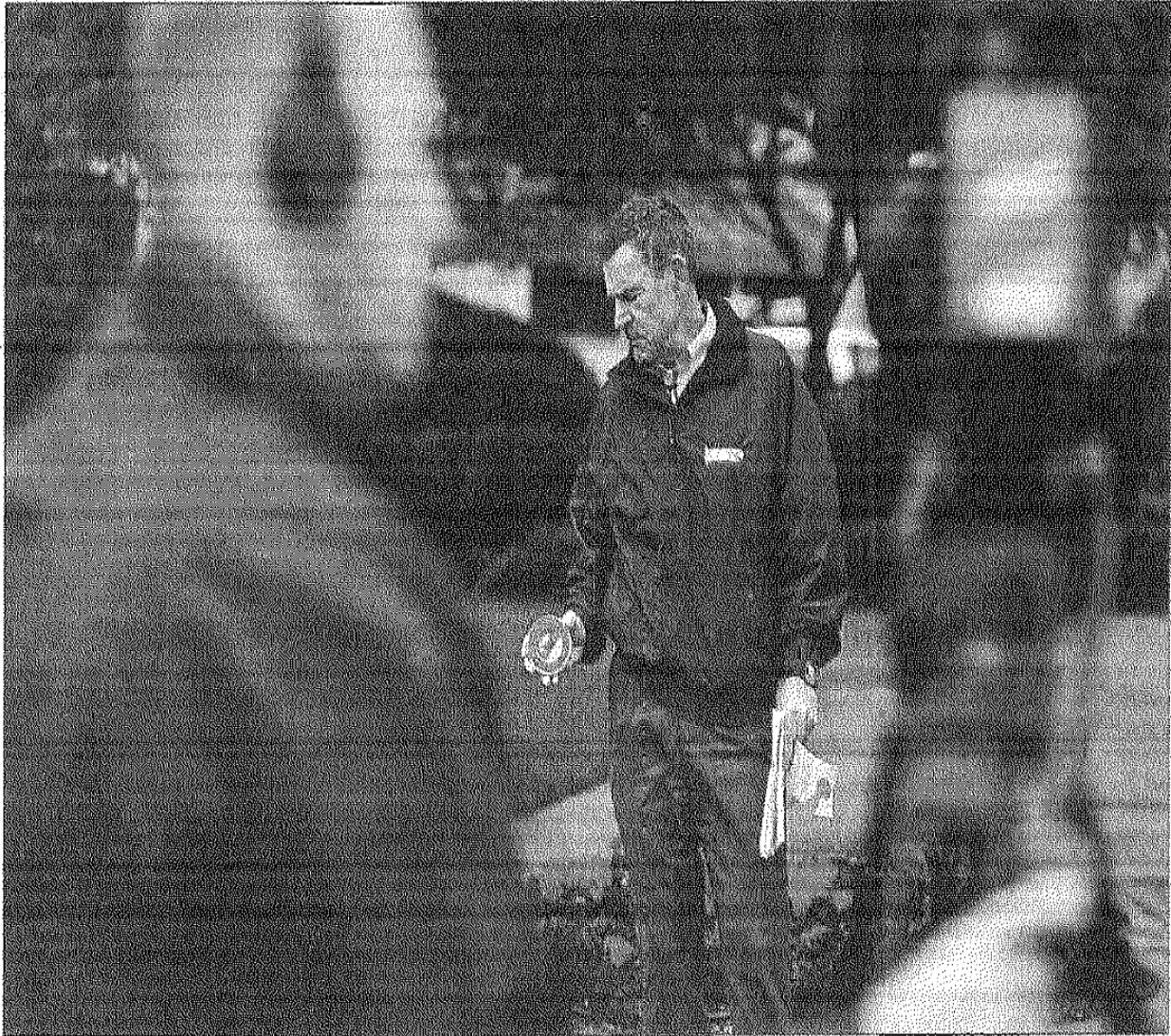
How does the program help? Storm water drains in heavy pedestrian traffic zones such as the downtown corridor and mid-town area will be marked with a stainless steel marker reading: "No Dumping Drains to Lake." Residential area drains will be stenciled with: "Dump No Waste, Flows to Our Lake." Volunteers in residential areas will also be distributing educational materials.

The City of Coeur d'Alene Stormwater Utility was authorized by the City Council on October 1, 2004 to manage stormwater for the protection of the public's health, safety, and water quality, to meet federally-mandated regulations for discharging stormwater, and to finance the associated stormwater-related infrastructure costs, improvements, and maintenance. The Stormwater Utility focuses on reducing the potential for stormwater pollution and improving the city's stormwater infrastructure while protecting water quality.

The operation of our stormwater collection system is regulated by the EPA through our Stormwater Discharge Permit. We must meet strict requirements set forth in our permit. The purpose of those requirements is to reduce pollutants being discharged in Lake Coeur d'Alene and the Spokane River through our stormwater collection system.

To volunteer or for more information, please contact Kim Harrington, Assistant Project Manager, at kimh@cdaid.org or 769-2214. You can also find information on the city's website www.cdaid.org and the Stormwater Hotline 676-7405.

For the Sake of Our Lake



SHAWN GUST/Press

Jon Ingalls, deputy administrator for the city of Coeur d'Alene, displays a plaque to be placed near storm water drains throughout town during the filming of an advertisement for Channel 19. The ad was made as part of "For the Sake of Our Lake," the city's program aimed at raising awareness about pollution through storm drains. To volunteer or for more information, please call 769-2214.

Adopt-a-Street nears milestone

Authorized by the City Council in June 2000, the Adopt-a-Street Program was intended primarily for the city's more rural streets (e.g., Atlas, Kathleen, North 15th, etc.).

The program is a partnership between the city and the citizen who adopts the street. The "adopting" individual, family, or group picks up the trash, while the city provides signage, vests, and orange litter-bags. The city also collects the bags the next working day after they have been filled.

For each Adopt-a-Street group, the city

City Streets

asks that a leader is chosen. That person is responsible for each participant's "Hold Harmless" Agreement.

In addition, the leader schedules and announces the litter pick-up outings, makes sure that a minimum number of participants are available to complete the task, and also receives and stores the group's safety vests and the trash bags provided by the Street Maintenance Department. Once litter

pick-up outings are completed, the leader calls the department to collect the filled, trash bags.

Adopt-a-Street volunteers are encouraged to patrol their areas a minimum of two times per year. Shared areas are coordinated by leaders to increase the frequency of garbage pick up to meet the needs of their adopted street.

Special thanks go to all Adopt-a-Street volunteers, past and present, for their service. For more information about the Adopt-a-Street Program, please call 769-2235.



Robert Langdon, 17, participates in Coeur d'Alene's For the Sake of Our Lake stenciling and handout campaign, organized by the city storm water utility and engineering department on Wednesday. The group of students are part of the Idaho Department of Labor Summer Youth Employment Program sponsored by the Idaho Department of Labor in Coeur d'Alene.

KATHY PLONKA kathypl@spokesman.com

Teens spray reminders to keep wastewater clean for lake's sake

By Jacob Livingston
jackliverpoole@yahoo.com

As far as first jobs go, 17-year-old Darin Bonie believes he'll have fond memories of his summer gig.

In his workday, Bonie and four other teenagers walk several miles of streets, spray painting the ground at certain spots and distributing educational handouts as they march along. Their work is an important part of the Coeur d'Alene Stormwater Utility's summer project to spread one clear-cut message: what goes into the city's storm water drains ends up in the water where people go to play.

"It's great, I like it. The way I look at it we're getting paid to tag a sidewalk," said Bonie, the sun beating down on the

troop of teens on a recent weekday morning.

Supervisor Emily Davis led the group, bedecked with orange safety vests and hand tools, as they canvassed midtown. One person interpreted a Google Maps image that pinpointed the area's scattered storm drains, while another hung bright green informational fliers on each house. The rest took turns sweeping away the debris around the drain and spray painting a stenciled image on the surface.

The group of area high school students represents the tip of the spear for the storm drain marking program, For The Sake of Our Lake. The program reminds citizens to not dump anything down storm water drains.

Informational fliers advocate, among other things, washing cars on the lawn instead of hard pavement surfaces and using pesticides and fertilizers sparingly. "Dump no waste, flows to our lake," read the stencils on the streets.

"The goal is to protect the river, lake and aquifer. We drink it, we fish in it, we eat the fish - we want to keep it clean," said engineering project manager Dennis Grant of Coeur d'Alene Stormwater Utility. "So why would we want to have pet waste in there or change your oil or pour antifreeze down there or even wash a car (on the driveway). All those suds and crud get down into our storm sewer, and that flows right into the river untreated. Our job is to minimize that, so we're trying to promote this as much as we can."

Why the danger?

Storm water, according to a definition on the city's website, is rain or snow that has bonded with chemical pollutants, such as those from cars and power plants, as it

falls through the atmosphere, in a process known as atmospheric wet deposition, but has not soaked into the ground. As the contaminated water molecules smack the ground, impervious surfaces such as roadways, parking lots, driveways and roofs carry the runoff to the nearest storm drain, collecting additional pollutants along the way.

By the time the untreated water flows into the nearest body of water through one of 13 outfalls that flow into the lake or Spokane River, the contaminated mixture can include oil, grease, heavy metals, pet waste and a variety of other impurities.

The For the Sake of Our Lake project aims to remind North Idaho residents that what goes down the drains ends up at the beach. The project shares many of the same principles that govern the city's storm water utility: reducing the potential for storm water pollution and improving the underground

See **STORM DRAINS** 6

Environmental open house set

COEUR d'ALENE — What are the city of Coeur d'Alene and other agencies doing to be more environmentally responsible?

Come find out as several partners will present information on the environment from 3-6 p.m. Thursday during an open house in the Community Room of the Coeur d'Alene Public Library.

Avista Utilities, city engineering, water, and wastewater departments, the

Idaho Transportation Department and other agencies will share what they are doing to be environmentally responsible. They'll also seek public comments and suggestions from the public.

Stormwater management, single stream recycling, and water and energy conservation, are some of the topics they will discuss.

Information: Kim Harrington, 769-2214

ENVIRONMENTAL OPEN HOUSE

Date: September 9, 2010

Time: 3:00 PM - 6:00 PM

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

Topics Include:

- Stormwater Management
- Single Stream Recycling
- Water Conservation and Xeriscaping
- River Water Quality
- Hazardous Waste Disposal
- Energy Conservation
- Stormwater Erosion Control Education Program

Coeur d'Alene Public Library Community Room

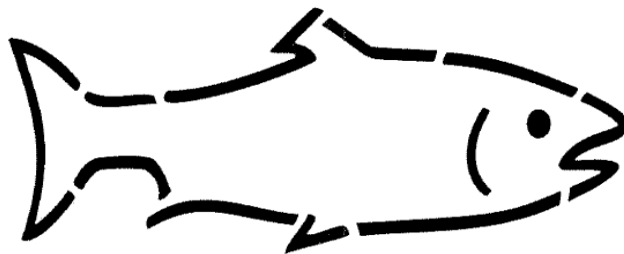
Participants:

- City of CdA Engineering Dept
- Waste Management
- City of CdA Water Dept
- City of CdA Wastewater Dept
- Kootenai County Solid Waste
- Community Action Partnership
- Kootenai Environmental Alliance
- Avista Utilities
- Lakes Highway District
- City of Post Falls Public Works
- Panhandle Area Council
- Idaho Transportation Dept
- CDA Green Team



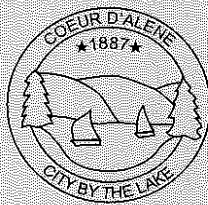
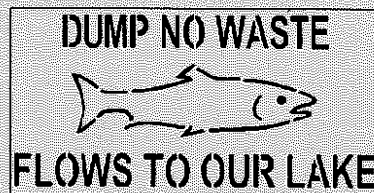


DUMP NO WASTE



FLOWS TO OUR LAKE

For the Sake of Our Lake
Volunteers are in your
neighborhood stenciling the
storm drains!



*Please remember,
anything entering a
storm drain is
discharged untreated
into the water we use
for activities such as
fishing, boating, and
swimming.*

***** WHAT YOU CAN DO! *****

- Never Dump Anything into Storm Drains
- Wash Cars on Lawn or at Commercial Car Washes
- Check Cars for Leaks
- Use Fertilizers & Pesticides Sparingly
- Sweep Up Yard Debris
- Compost or Recycle Waste
- Clean Up After Your Pets

**REPORT ILLEGAL DUMPING OR SPILLS
CITY OF COEUR D'ALENE HOTLINE
(208)676-7405 or www.cdaid.org**



The City of Coeur d'Alene Stormwater Management

Illicit Discharge Detection and Elimination Program



Purpose

The purpose of the Illicit Discharge Detection & Elimination Program is to prevent, find and fix illicit discharges. The City of Coeur d'Alene has developed this plan with the intent to provide guidance to municipal employees in the detection and elimination of illicit discharges within our MS4 jurisdictional boundaries including roadways and associated drainage facilities, ditches, pipes, culverts, catch basins and retention ponds.

Program Components

Components of the program include the following:

- Illicit Discharge / Illegal Connection Defined
- Ordinance Prohibiting Illicit Discharges and Illegal Connections
- Examples of Illicit Discharge
- Detection, Identification of Source and Removal
- Spill Response Plan
- Municipal Employee Training
- Illegal Dumping
- Documentation
- Corrective Action & Escalation



What is an Illicit Discharge

Illicit Discharge per Regulation 40 CFR 122.26(b) (2) is defined as any discharge to an MS4 that is not composed entirely of stormwater, except allowable discharges pursuant to an NPDES permit.

Some Allowable Discharges

Water Line Flushing	Individual Residential Car Washing
Irrigation Water	De-chlorinated Pool Water
Diverted Stream Flows	Fire Fighting
Footing Drains	Air Conditioning Condensation
Foundation Drains	Street Wash Water
Discharges from Potable Water Source	
Uncontaminated Ground Water Infiltration	

ORDINANCE

ORDINANCE NO. 3396

COUNCIL BILL NO. 10-1021

AN ORDINANCE 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; AMENDING SECTION 13.30.080 TO AUTHORIZE THE ADOPTION OF STORMWATER BEST MANAGEMENT PRACTICES BY RESOLUTION OF THE CITY COUNCIL; REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SEVERABILITY CLAUSE; PROVIDE FOR THE PUBLICATION OF A SUMMARY OF THIS ORDINANCE AND AN EFFECTIVE DATE HEREOF.

WHEREAS, after recommendation by the Public Works Committee, it is deemed by the Mayor and City Council to be in the best interests of the City of Coeur d'Alene that said amendments be adopted; NOW, THEREFORE,

BE IT ORDAINED, by the Mayor and City Council of the City of Coeur d'Alene:

SECTION 1. *That a new Chapter 13.32, entitled Illicit Discharge and Stormwater Sewer Connection, is hereby added to the Coeur d'Alene Municipal Code as follows:*

Chapter 13.32
ILLICIT DISCHARGE AND STORMWATER SEWER
CONNECTION

SECTION 2. *That Coeur d'Alene Municipal Code Section 13.32.010, is hereby added to read as follows:*

13.32.010: TITLE:

This chapter is known as the ILLICIT DISCHARGE AND STORMWATER SEWER CONNECTION.

SECTION 3. *That Coeur d'Alene Municipal Code Section 13.32.020, is hereby added to read as follows:*

13.32.020: PURPOSE:

The purpose of this chapter is to comply with the requirements of the city's National Pollutant Discharge Elimination System (NPDES) permit, the federal clean water act, and to provide for the health, safety, and general welfare of the citizens of Coeur d Alene through the regulation of non-stormwater discharges to the storm drainage system as required by federal and state law. This chapter establishes methods to control the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to meet the following objectives:

- A. To regulate the contribution of pollutants to the municipal separate storm sewer system by stormwater discharges by any user.
- B. To prohibit illicit connections and discharges to the municipal separate storm sewer system.
- C. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance of this chapter.
- D. To establish penalties associated with violations of this chapter.

SECTION 4. *That Coeur d'Alene Municipal Code Section 13.32.030, is hereby added to read as follows:*

13.32.030: DEFINITIONS:

Unless a provision states otherwise, the following terms and phrases used in this chapter, have the provided meanings. In the event of a dispute or discrepancy regarding the definition of a term used in this chapter, the definition contained in the federal water pollution control act (33 USC section 1251 et seq.), also known as the Clean Water Act, and any subsequent amendments thereto, are the controlling authority.

AS BUILT DRAWINGS: See section 13.30.020.

BEST MANAGEMENT PRACTICES (BMPs): Schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating

procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

CITY: The City of Coeur d Alene, Idaho

CITY ENGINEER: The person hired or appointed by the Mayor and City Council of the City to serve as City Engineer or his or her designee.

CLEAN WATER ACT: The federal water pollution control act (33 USC section 1251 et seq.) and any subsequent amendments thereto.

CONVEYANCE: A mechanism for transporting water from one point to another, including pipes, ditches, and channels.

CONVEYANCE SYSTEM: The drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of stormwater.

DISCHARGE: Any addition or introduction of any pollutant, stormwater, or any other substance whatsoever into the municipal storm sewer system (MS4), waters of the state, or into waters of the United States.

DISCHARGER: Any person who causes, allows, permits, or is otherwise responsible for, a discharge, including, without limitation, any operator or owner of a construction site or industrial facility.

HAZARDOUS MATERIALS: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILLICIT DISCHARGE: Any discharge to a storm drain that is not composed entirely of stormwater except discharges made in compliance with a NPDES permit.

ILLICIT CONNECTIONS (DISCHARGE): An illicit connection is defined as either of the following:

- A. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including, but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency, or

- B. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by the city.

INDUSTRIAL ACTIVITY: Activities subject to NPDES industrial permits as defined in 40 CFR section 122.26(b)(14).

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): All parts of the city of Coeur d Alene stormwater conveyance system, including roads, alleyways, streets, gutters, catch basins, pipe, culverts, ditches, and other conveyances which normally convey stormwater.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT: A permit issued by the EPA (pursuant to 33 USC section 1342(b)) which authorizes the discharge of stormwater from any point source to waters of the United States.

NON-STORMWATER DISCHARGE: Any discharge to the storm drain system that is not composed entirely of stormwater.

NOTICE OF INTENT (NOI): Electronic or written notice completed under provisions of the federal construction general permit and filed with the EPA in accordance with current requirements.

PERSON: Any individual, firm, association, club, organization, corporation, partnership, business trust, company or other entity which is recognized by law as the subject of rights or duties.

POLLUTANT: Objects and materials that, when discharged to water or air, cause or contribute to water or air pollution, or as defined by the federal water pollution control act (also known as the Clean Water Act.)

POLLUTANTS OF CONCERN: Objects and materials identified in the clean water act 303(d) are: sediment, oil and grease, coliform bacteria (E. coli), nitrogen, phosphorus, metals and temperatures.

PREMISES: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP): A document which describes the best management practices and activities to be implemented by a person to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

STORMWATER: Surface runoff generated by rainstorm events and snowmelt.

STORMWATER MANAGEMENT: The process of collection, conveyance, storage, treatment, and disposal of stormwater to ensure control of the magnitude and frequency of runoff and to minimize the hazards associated with flooding. Also includes implementing controls to reduce the discharge of pollutants including management practices, control techniques and systems, design and engineering methods.

WASTEWATER: Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

WATERCOURSE: Any natural or artificially managed channel through which water flows on a regular or routine basis.

WATERS OF THE UNITED STATES: Those waters described in the context of wetlands and interstate commerce described at 33 CFR part 328.

SECTION 5. *That Coeur d'Alene Municipal Code Section 13.32.040, is hereby added to read as follows:*

13.32.040: APPLICABILITY:

This chapter applies to all water directly or indirectly entering the stormwater system (municipal separate storm sewer system [MS4]) which is generated on any developed or undeveloped lands unless explicitly exempted by the city or an authorized enforcement agency.

SECTION 6. *That Coeur d'Alene Municipal Code Section 13.32.050, is hereby added to read as follows:*

13.32.050: ADMINISTRATION:

The City Engineer will administer, implement, and enforce the provisions of this chapter.

SECTION 7. *That Coeur d'Alene Municipal Code Section 13.32.060, is hereby added to read as follows:*

13.32.060: DISCLAIMER:

The standards established by this chapter are minimum standards, as such compliance by any person with this chapter does not guarantee that there will be no contamination, pollution, or unauthorized discharge of pollutants. This chapter does not create liability on the part of the city, any agent or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

SECTION 8. *That Coeur d'Alene Municipal Code Section 13.32.070, is hereby added to read as follows:*

13.32.070: DISCHARGE REGULATIONS:

Non-Stormwater Discharges. No person shall directly or indirectly discharge non-stormwater to the MS4, except where such discharges satisfy one of the following three conditions:

- A. The non-stormwater discharges are in compliance with a separate NPDES permit, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted by the city for any discharge to the storm drain system.
- B. The non-stormwater discharges result from a spill and are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge; or consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges.
- C. The non-stormwater discharges satisfy all of the following conditions:
 1. The discharges consist of uncontaminated water line flushing; potable water sources; landscape irrigation (provided all pesticides, herbicides and fertilizer have been applied in accordance with the manufacturer's instructions); flows from riparian habitats and wetlands; diverted stream flows; springs; rising ground waters; uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers; uncontaminated pumped ground water or spring water; foundation and footing drains (where flows are not contaminated with process materials such as solvents); uncontaminated air conditioning or compressor condensate; water from crawlspace pumps; individual residential car washing; dechlorinated swimming pool discharges; routine external building wash down which does not use detergents; street and pavement wash waters, where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed); fire hydrant flushing; dye testing; or flows from emergency firefighting activities; and
 2. The discharges are not sources of pollution to waters of the United States. As described in IDAPA 58.01.02.200. For purposes of this provision, a discharge is considered a source of pollution to waters of the United States if it:
 - (a) Contains hazardous materials in concentrations found to be of public health significance or to impair beneficial uses in receiving waters. (Hazardous materials are those that are harmful

to humans and animals from exposure, but not necessarily ingestion);

(b) Contains toxic substances in concentrations that impair designated beneficial uses in receiving waters. (Toxic substances are those that can cause disease, malignancy, genetic mutation, death, or similar consequences);

(c) Contains deleterious materials in concentrations that impair designated beneficial uses in receiving waters. (Deleterious materials are generally substances that taint edible species of fish, cause taste in drinking waters, or cause harm to fish or other aquatic life);

(d) Contains radioactive materials or radioactivity at levels exceeding the values listed in 10CFR Part 20 in receiving waters;

(e) Contains floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or in concentrations that may impair designated beneficial uses in receiving waters;

(f) Contains excessive nutrients that can cause visible slime growths or other nuisance aquatic growths that impair designated beneficial uses in receiving waters;

(g) Contains oxygen-demanding materials in concentrations that would result in anaerobic water conditions in receiving waters; or

(h) Contains sediment above quantities specified in IDAPA 58.01.02.250.02(e) or in the absence of specific sediment criteria, above quantities that impair beneficial uses in receiving waters, or

(i) Contains material in concentrations that exceed applicable natural background conditions in receiving waters (IDAPA 58.01.02.200.09), Temperature levels may be increased above natural background conditions when allowed under IDAPA 58.01.02.401.

SECTION 9. *That Coeur d'Alene Municipal Code Section 13.32.080, is hereby added to read as follows:*

13.32.080: PROHIBITION OF ILLICIT CONNECTIONS:

- A. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- B. This prohibition expressly includes, without limitation, illicit connections made prior to the enactment of this chapter, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- C. A person is considered to be in violation of this chapter if the person connects a line conveying sewage or other non-stormwater discharges to the municipal separate storm sewer system, or allows such a connection to continue, without written approval from the city engineer.

SECTION 10. *That Coeur d'Alene Municipal Code Section 13.32.090, is hereby added to read as follows:*

13.32.090: SUSPENSION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ACCESS:

- A. **Suspension Due To Illicit Discharges In Emergency Situations:** The City Engineer may, without prior notice, suspend municipal separate storm sewer system discharge access to a person or entity when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the municipal separate storm sewer system or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the city engineer may take such steps as deemed necessary to prevent or minimize damage to the municipal separate storm sewer system or waters of the United States, or to minimize danger to persons.
- B. **Termination Due To The Detection Of Illicit Discharge:** Any person discharging to the municipal separate storm sewer system in violation of this chapter may have their municipal separate storm sewer system access terminated if such termination would abate or reduce an illicit discharge. The city will notify the violator of the proposed termination of its municipal separate storm sewer system access. Notification will be made in writing by certified mail to the owner of the property from which the illicit discharge is being made at the last known mailing address of said property owner on record with the Kootenai County assessor. The notice will include a description of the violation and set forth the time allowed for compliance.

C. Written Approval Required For Reinstatement: Any person who reinstates municipal separate storm sewer system access to premises terminated pursuant to this section, without the prior written approval of the City Engineer or authorized enforcement agent is guilty of a misdemeanor.

SECTION 11. *That Coeur d'Alene Municipal Code Section 13.32.100, is hereby added to read as follows:*

13.32.100: INDUSTRIAL OR CONSTRUCTION ACTIVITY DISCHARGES:

Any person subject to an industrial or construction activity NPDES stormwater discharge permit must comply with all provisions of such permit. Proof of compliance with the permit may be required by the city prior to allowing of discharges to the municipal separate storm sewer system.

SECTION 12. *That Coeur d'Alene Municipal Code Section 13.32.110, is hereby added to read as follows:*

13.32.110: MONITORING OF DISCHARGES:

A. Applicability: This section applies to all facilities that have stormwater discharges associated with commercial, industrial activity and/or construction activity.

B. Access To Facilities:

1. The City Engineer or his authorized representative must be permitted to enter and inspect facilities subject to regulation under this chapter as often as may be necessary to determine compliance with this chapter. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger must make the necessary arrangements to allow access to the City Engineer or his authorized representative.

2. Facility operators must allow the City Engineer or his authorized representative ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law related to said discharges.

3. The City Engineer has the right to set up on any permitted facility such devices as are necessary in the opinion of the City Engineer or authorized representative to conduct monitoring and/or sampling of the facility's stormwater discharge.

4. The City Engineer has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment must be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality must be calibrated as required by the manufacturer's operation manual to ensure their accuracy.
5. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled must be promptly removed by the operator at the written or oral request of the City Engineer and may not be replaced. The costs of clearing such access will be borne by the operator.
6. Unreasonable delays in allowing the City Engineer access to a permitted facility is a violation of a stormwater discharge permit and of this chapter.
7. If the City Engineer or authorized agent has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this chapter, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, he or she may seek issuance of a search warrant from any court of competent jurisdiction.

SECTION 13. *That Coeur d'Alene Municipal Code Section 13.32.120, is hereby added to read as follows:*

13.32.120: NOTIFICATION OF SPILLS:

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, the municipal separate storm sewer system, or waters of the U.S., that person must take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of a release of hazardous materials that person must immediately notify emergency response agencies and the Idaho department of environmental quality of the occurrence via emergency dispatch services. In the event of a release of nonhazardous materials, the person must notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city engineer within three (3) business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial

establishment, the owner or operator of the establishment must also retain an on site written record of the discharge and the actions taken to prevent its recurrence. Such records must be retained for at least three (3) years from the date of the discharge.

SECTION 14. *That Coeur d'Alene Municipal Code Section 13.32.130, is hereby added to read as follows:*

13.32.130: VIOLATIONS CONSTITUTE MISDEMEANORS:

The knowing violation of any provision or failure to comply with any requirement of this chapter shall constitute a misdemeanor punishable as provided in Municipal Code section 1.28.010.

SECTION 15. *That Coeur d'Alene Municipal Code Section 13.32.140, is hereby added to read as follows:*

13.32.140: ACTS RESULTING IN VIOLATION OF FEDERAL LAWS AND REGULATIONS:

Any person who violates any provision of this chapter, or discharges any pollutant or causes pollution, may also be in violation of federal laws or regulations, and may be subject to the sanctions of those laws or regulations, including civil or criminal penalties, notwithstanding any legal action taken by the city.

SECTION 16. *That Coeur d'Alene Municipal Code Section 13.30.080, is hereby amended to read as follows:*

13.30.080: ADOPTION OF SUPPLEMENTAL MATERIALS AND BEST MANAGEMENT PRACTICES:

The City of Coeur d'Alene may, by resolution, adopt additional design standards, definitions of terminology, administrative procedures, stormwater best management practices, etc., intended to implement the general requirements and performance standards set forth in this chapter. Changes in the design standards, best management practices or other adopted materials may be accomplished by subsequently adopted resolution. Adopted ~~Such~~ design standards may be complied with in alternative ways that will contribute to rational achievement of the general requirements and performance standards set forth in this chapter.

SECTION 17. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

SECTION 18. Neither the adoption of this ordinance nor the repeal of any ordinance shall, in any manner, affect the prosecution for violation of such ordinance committed prior to the effective date of this ordinance or be construed as a waiver of any license or penalty due under any such ordinance or in any manner affect the validity of any action

heretofore taken by the City of Coeur d'Alene City Council or the validity of any such action to be taken upon matters pending before the City Council on the effective date of this ordinance.

SECTION 19. The provisions of this ordinance are severable and if any provision, clause, sentence, subsection, word or part thereof is held illegal, invalid, or unconstitutional or inapplicable to any person or circumstance, such illegality, invalidity or unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this ordinance or their application to other persons or circumstances. It is hereby declared to be the legislative intent that this ordinance would have been adopted if such illegal, invalid or unconstitutional provision, clause sentence, subsection, word, or part had not been included therein, and if such person or circumstance to which the ordinance or part thereof is held inapplicable had been specifically exempt therefrom.

SECTION 20. After its passage and adoption, a summary of this Ordinance, under the provisions of the Idaho Code, shall be published once in the official newspaper of the City of Coeur d'Alene, and upon such publication shall be in full force and effect.

Passed under suspension of rules upon which a roll call vote as duly taken and duly enacted an ordinance of the City of Coeur d'Alene, at a regular session of the City Council on October 5, 2010.

ILLICIT DISCHARGE EXAMPLES

Examples of Land Use, Generating Sites and Activities that have the Potential to Produce Indirect Illicit

Residential	<ul style="list-style-type: none"> • Apartments • Multi-family • Single Family 	<ul style="list-style-type: none"> • Car Washing • Driveway Cleaning • Dumping/Spills (e.g., leaf litter and RV/boat holding tank effluent) • Equipment Wash downs • Lawn/Landscape Watering • Septic System Maintenance • Swimming Pool Discharges
Commercial	<ul style="list-style-type: none"> • Campgrounds/RV parks • Car Dealers/Rental Car Companies • Car Washes • Commercial Laundry/Dry Cleaning • Gas Stations/Auto Repair Shops • Marinas • Nurseries and Garden Centers • Oil Change Shops • Restaurants • Swimming Pools 	<ul style="list-style-type: none"> • Building Maintenance (power washing) • Dumping/Spills • Landscaping/Grounds Care (irrigation) • Outdoor Fluid Storage • Parking Lot Maintenance (power washing) • Vehicle Fueling • Vehicle Maintenance/Repair • Vehicle Washing • Wash down of greasy equipment and grease traps
Industrial	<ul style="list-style-type: none"> • Auto recyclers • Beverages and brewing • Construction vehicle washouts • Distribution centers • Food processing • Garbage truck washouts • Marinas, boat building and repair • Metal plating operations • Paper and wood products • Petroleum storage and refining • Printing 	<ul style="list-style-type: none"> • All commercial activities • Industrial process water or rinse water • Loading and un-loading area wash downs • Outdoor material storage (fluids)
Institutional	<ul style="list-style-type: none"> • Cemeteries • Churches • Corporate Campuses • Hospitals • Schools and Universities 	<ul style="list-style-type: none"> • Building Maintenance (e.g., power washing) • Dumping/Spills • Landscaping/Grounds Care (irrigation) • Parking Lot Maintenance (power washing) • Vehicle Washing
Municipal	<ul style="list-style-type: none"> • Landfills • Maintenance Depots and Waste Storage • Municipal Fleet Storage Areas • Public Works Yards • Streets and Highways 	<ul style="list-style-type: none"> • Building Maintenance (power washing) • Dumping/Spills • Landscaping/Grounds Care (irrigation) • Outdoor Fluid Storage • Parking Lot Maintenance (power washing) • Road Maintenance • Spill Prevention/Response • Vehicle Fueling • Vehicle Maintenance/Repair • Vehicle Washing

Discharges



Illicit Discharges: Direct and In-Direct

Direct: The discharge is directly connected to the storm drain pipe through a sewage pipe, shop drain, or other kind of pipe. Direct entry usually produces discharges that are continuous or intermittent. Direct entry usually occurs when two different kinds of ‘plumbing’ are improperly connected.

Examples of Direct Illicit Discharges

- Sanitary waste piping that is directly connected from a home to the storm sewer.
- Shop floor drain that is connected directly to a storm sewer.
- Cross connection between a sanitary sewer and a storm sewer.

Examples of In-Direct Discharges

- Spills / Accidents
- Intentional Dumping
- Failing septic system that is causing surface discharge into the storm sewer.

Spill Response Plan

Purpose

To ensure all hazardous substances spilled with the City of Coeur d' Alene are properly and safely dealt with to ensure materials do not contaminate waters within our MS4.

Emergency Contact Information:

If a hazardous substance spill has been released to soil, surface water or drains the following notifications must be performed:

<u>Contact</u>	<u>Phone Number</u>
Coeur d Alene Fire Department	911
Kootenai County Hazmat	911
Idaho Department of Environmental Quality	(208)769-1422
Panhandle Health District	(208)415-5200

Spill Response for Municipal Operations:

Only employees with training in spill response should attempt to contain or clean up a hazardous spill.

Once a spill has occurred, the employee needs to decide whether the spill is small enough and safe enough to handle without outside assistance.

Spill control equipment should be located wherever significant quantities of hazardous materials are received or stored. Consult your supervisor, for locations.

- Assess the situation, if you can not clean up safely or have not been properly trained, do not attempt to clean spill. Contact your supervisor or 911.
- Consult your supervisor and the MSDS for proper spill and waste disposal procedures.
- Control the spill by stopping or securing the spill source.
- Put spill material and absorbents in secure containers.
- In some instances, the area of the spill should not be washed with water. Use dry cleanup methods and **never** wash spills down the drain, onto a storm drain or onto a driveway or parking lot.
- Both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with local, state and federal environmental regulations. For disposal information contact: Kootenai County Solid Waste Department at (208)446-1430.

For any spill that cannot be identified or enters a storm drain; call 911 for assistance.



Illicit discharges and spills with the potential to impact the stormwater system must be documented and reported to the Engineering Department. See Exhibit A for the reporting form.

Detection, Identification of Source and Removal of Non-Stormwater Discharges

Detection:

The City of Coeur d'Alene utilizes the following methods in the detection of illicit or illegal stormwater discharges:

- Prioritize areas for Illicit Discharge Potential (past complaints, age of development, density of outfalls, dry weather water quality data, zoning)
- MS4 map review for areas or site with potential to discharge
- Review of aging infrastructure (e.g. sewer lines)
- Outfall inspection

- Video of storm lines for visual inspection
- Visual Inspection at manholes and catch basins
- Public Education
- Municipal Employee Education
- Hot line, on-line reporting tools
- Review of Industrial, Commercial or Construction sites for potential discharge

Identification of Source:

Components used in identification of illicit discharge source:

- Testing of water to determine type of contaminant (if applicable)
- Review of MS4 map (watershed, storm line locations etc.)
- Review of Industrial, Commercial or Construction sites as the potential discharger
- Visual Inspection at manholes and catch basins
- Video of storm line for visual inspection
- Dye Testing and/or Smoke Testing

Removal:

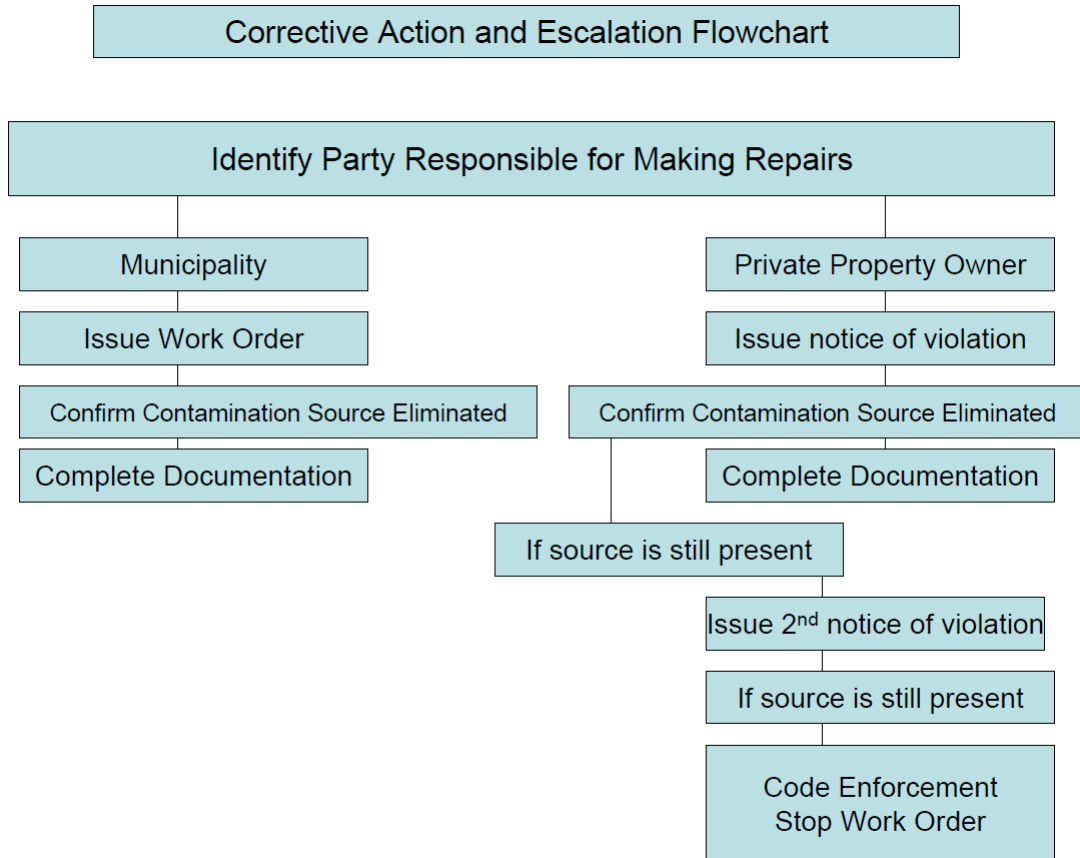
Steps for removal of illicit or illegal discharges:

- On site Inspection
- Spill Response / Clean Up
- Stop work order / Order to stop discharge
- Enforcement / Fines

Examples of Methods to Fix Illicit Discharges

<u>Type</u>	<u>Source</u>	<u>Removal Action(s)</u>
Sewage	Break in Right of Way Commercial or Industrial Direct Connection Residential Direct Connection Infrequent Discharge (e.g. RV Dumping) Straight Pipes / Septic	Repair by city Enforcement Enforcement Enforcement Enforcement
Wash Water	Commercial or Industrial Direct Connection Residential Direct Connection Power Wash / Car Wash (commercial) Commercial Wash Down (e.g. parking lots) Residential Car Wash in Street or Driveway Household Maintenance Related Activities	Enforcement Enforcement Enforcement Enforcement Education Education
Liquid Waste	Commercial oil change / car maintenance Heating Oil / Solvent Dumping Residential Oil Change and Other Liquid (e.g. paint)	Enforcement / Spill Response Enforcement / Spill Response Warning, Education, Fines

Corrective Action and Escalation Flow Chart to Fix Illicit Discharges



Staff Training

The City of Coeur d'Alene conducts annual training to all municipal personnel in the recognition of illicit or illegal discharges and the proper reporting procedures. Proper spill response, clean up and stormwater pollution prevention and detection training will be provided to field staff annually.

Illegal Dumping

In the event of an illegal dumping within the City of Coeur d'Alene MS4, notify the supervisor and proceed as directed. If the materials can not be identified or are deemed to be hazardous, the supervisor shall contact 911 for proper clean up and disposal. If material is not considered hazardous proceed with direct cleanup and disposal of materials.

If a vehicle identification or license is obtained, contact the City of Coeur d'Alene Police Department for enforcement action. Documentation of events is to be provided to Engineering Department.

Documentation

All actions relating to illicit discharge reports, detection or removal action will be recorded in a database administered by the City of Coeur d'Alene Engineering Department. The database will be organized by MS4 outfall and drainage area and will contain information such as: complaints received, outfalls inspected, dye or smoke test conducted. Illicit discharge detection activities will also be documented on the storm sewer system map.

EXHIBIT "A"



CITY OF COEUR D'ALENE
STORMWATER UTILITY

ILLCIT DISCHARGE OR SPILL INCIDENT REPORT

DATE OF INCIDENT: _____ REPORT DATE: _____

REPORTING PARTY

NAME: _____

ADDRESS: _____

PHONE NUMBER: _____

INCIDENT INFORMATION

LOCATION OF ILLICIT DISCHARGE OR SPILL: _____

DESCRIPTION: _____

***NOTE—Attach all supporting documentation such as pictures, statements, etc.*

ACTION TAKEN

FURTHER ACTION REQUIRED? YES: NO:

INSPECTOR: _____ DATE: _____

ORDINANCE NO. 3396
COUNCIL BILL NO. 10-1021

AN ORDINANCE 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; AMENDING SECTION 13.30.080 TO AUTHORIZE THE ADOPTION OF STORMWATER BEST MANAGEMENT PRACTICES BY RESOLUTION OF THE CITY COUNCIL; REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SEVERABILITY CLAUSE; PROVIDE FOR THE PUBLICATION OF A SUMMARY OF THIS ORDINANCE AND AN EFFECTIVE DATE HEREOF.

WHEREAS, after recommendation by the Public Works Committee, it is deemed by the Mayor and City Council to be in the best interests of the City of Coeur d'Alene that said amendments be adopted; NOW, THEREFORE,

BE IT ORDAINED, by the Mayor and City Council of the City of Coeur d'Alene:

SECTION 1. That a new Chapter 13.32, entitled Illicit Discharge and Stormwater Sewer Connection, is hereby added to the Coeur d'Alene Municipal Code as follows:

**Chapter 13.32
ILLICIT DISCHARGE AND STORMWATER SEWER CONNECTION**

SECTION 2. That Coeur d'Alene Municipal Code Section 13.32.010, is hereby added to read as follows:

13.32.010: TITLE:

This chapter is known as the ILLICIT DISCHARGE AND STORMWATER SEWER CONNECTION.

SECTION 3. That Coeur d'Alene Municipal Code Section 13.32.020, is hereby added to read as follows:

13.32.020: PURPOSE:

The purpose of this chapter is to comply with the requirements of the city's National Pollutant Discharge Elimination System (NPDES) permit, the federal clean water act, and to provide for the health, safety, and general welfare of the citizens of Coeur d Alene through the regulation of non-stormwater discharges to the storm drainage system as required by federal and state law. This chapter establishes methods to control the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to meet the following objectives:

- A. To regulate the contribution of pollutants to the municipal separate storm sewer system by stormwater discharges by any user.
- B. To prohibit illicit connections and discharges to the municipal separate storm sewer system.
- C. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance of this chapter.
- D. To establish penalties associated with violations of this chapter.

SECTION 4. *That Coeur d'Alene Municipal Code Section 13.32.030, is hereby added to read as follows:*

13.32.030: DEFINITIONS:

Unless a provision states otherwise, the following terms and phrases used in this chapter, have the provided meanings. In the event of a dispute or discrepancy regarding the definition of a term used in this chapter, the definition contained in the federal water pollution control act (33 USC section 1251 et seq.), also known as the Clean Water Act, and any subsequent amendments thereto, are the controlling authority.

AS BUILT DRAWINGS: See section 13.30.020.

BEST MANAGEMENT PRACTICES (BMPs): Schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

CITY: The City of Coeur d Alene, Idaho

CITY ENGINEER: The person hired or appointed by the Mayor and City Council of the City to serve as City Engineer or his or her designee.

CLEAN WATER ACT: The federal water pollution control act (33 USC section 1251 et seq.) and any subsequent amendments thereto.

CONVEYANCE: A mechanism for transporting water from one point to another, including pipes, ditches, and channels.

CONVEYANCE SYSTEM: The drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of stormwater.

DISCHARGE: Any addition or introduction of any pollutant, stormwater, or any other substance whatsoever into the municipal storm sewer system (MS4), waters of the state, or into waters of the United States.

DISCHARGER: Any person who causes, allows, permits, or is otherwise responsible for, a discharge, including, without limitation, any operator or owner of a construction site or industrial facility.

HAZARDOUS MATERIALS: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILLCIT DISCHARGE: Any discharge to a storm drain that is not composed entirely of stormwater except discharges made in compliance with a NPDES permit.

ILLCIT CONNECTIONS (DISCHARGE): An illicit connection is defined as either of the following:

- A. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including, but not limited to, any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency, or
- B. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by the city.

INDUSTRIAL ACTIVITY: Activities subject to NPDES industrial permits as defined in 40 CFR section 122.26(b)(14).

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4): All parts of the city of Coeur d'Alene stormwater conveyance system, including roads, alleyways, streets, gutters, catch basins, pipe, culverts, ditches, and other conveyances which normally convey stormwater.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT: A permit issued by the EPA (pursuant to 33 USC section 1342(b)) which authorizes the discharge of stormwater from any point source to waters of the United States.

NON-STORMWATER DISCHARGE: Any discharge to the storm drain system that is not composed entirely of stormwater.

NOTICE OF INTENT (NOI): Electronic or written notice completed under provisions of the federal construction general permit and filed with the EPA in accordance with current requirements.

PERSON: Any individual, firm, association, club, organization, corporation, partnership, business trust, company or other entity which is recognized by law as the subject of rights or duties.

POLLUTANT: Objects and materials that, when discharged to water or air, cause or contribute to water or air pollution, or as defined by the federal water pollution control act (also known as the Clean Water Act.)

POLLUTANTS OF CONCERN: Objects and materials identified in the clean water act 303(d) are: sediment, oil and grease, coliform bacteria (E. coli), nitrogen, phosphorus, metals and temperatures.

PREMISES: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP): A document which describes the best management practices and activities to be implemented by a person to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

STORMWATER: Surface runoff generated by rainstorm events and snowmelt.

STORMWATER MANAGEMENT: The process of collection, conveyance, storage, treatment, and disposal of stormwater to ensure control of the magnitude and frequency of runoff and to minimize the hazards associated with flooding. Also includes implementing controls to reduce the discharge of pollutants including management practices, control techniques and systems, design and engineering methods.

WASTEWATER: Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

WATERCOURSE: Any natural or artificially managed channel through which water flows on a regular or routine basis.

WATERS OF THE UNITED STATES: Those waters described in the context of wetlands and interstate commerce described at 33 CFR part 328.

SECTION 5. *That Coeur d'Alene Municipal Code Section 13.32.040, is hereby added to read as follows:*

13.32.040: APPLICABILITY:

This chapter applies to all water directly or indirectly entering the stormwater system (municipal separate storm sewer system [MS4]) which is generated on any developed or undeveloped lands unless explicitly exempted by the city or an authorized enforcement agency.

SECTION 6. *That Coeur d'Alene Municipal Code Section 13.32.050, is hereby added to read as follows:*

13.32.050: ADMINISTRATION:

The City Engineer will administer, implement, and enforce the provisions of this chapter.

SECTION 7. *That Coeur d'Alene Municipal Code Section 13.32.060, is hereby added to read as follows:*

13.32.060: DISCLAIMER:

The standards established by this chapter are minimum standards, as such compliance by any person with this chapter does not guarantee that there will be no contamination, pollution, or unauthorized discharge of pollutants. This chapter does not create liability on the part of the city, any agent or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

SECTION 8. *That Coeur d'Alene Municipal Code Section 13.32.070, is hereby added to read as follows:*

13.32.070: DISCHARGE REGULATIONS:

Non-Stormwater Discharges. No person shall directly or indirectly discharge non-stormwater to the MS4, except where such discharges satisfy one of the following three conditions:

- A. The non-stormwater discharges are in compliance with a separate NPDES permit, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted by the city for any discharge to the storm drain system.
- B. The non-stormwater discharges result from a spill and are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge; or consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges.
- C. The non-stormwater discharges satisfy all of the following conditions:
 - 1. The discharges consist of uncontaminated water line flushing; potable water sources; landscape irrigation (provided all pesticides, herbicides and fertilizer have been applied in accordance with the manufacturer's instructions); flows from riparian habitats and wetlands; diverted stream flows; springs; rising ground waters; uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers; uncontaminated pumped ground water or spring water; foundation and footing drains (where flows are not contaminated with process materials such as solvents); uncontaminated air conditioning or compressor condensate; water from crawlspace pumps; individual residential car washing; dechlorinated swimming pool discharges; routine external building wash down which does not use detergents; street and pavement wash waters, where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed); fire hydrant flushing; dye testing; or flows from emergency firefighting activities; and
 - 2. The discharges are not sources of pollution to waters of the United States. As described in IDAPA 58.01.02.200. For purposes of this provision, a discharge is considered a source of pollution to waters of the United States if it:
 - (a) Contains hazardous materials in concentrations found to be of public health significance or to impair beneficial uses in receiving waters. (Hazardous materials are those that are harmful to humans and animals from exposure, but not necessarily ingestion);
 - (b) Contains toxic substances in concentrations that impair designated beneficial uses in receiving waters. (Toxic substances are those that can cause disease, malignancy, genetic mutation, death, or similar consequences);
 - (c) Contains deleterious materials in concentrations that impair designated beneficial uses in receiving waters. (Deleterious materials are generally

- substances that taint edible species of fish, cause taste in drinking waters, or cause harm to fish or other aquatic life);
- (d) Contains radioactive materials or radioactivity at levels exceeding the values listed in 10CFR Part 20 in receiving waters;
 - (e) Contains floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or in concentrations that may impair designated beneficial uses in receiving waters;
 - (f) Contains excessive nutrients that can cause visible slime growths or other nuisance aquatic growths that impair designated beneficial uses in receiving waters;
 - (g) Contains oxygen-demanding materials in concentrations that would result in anaerobic water conditions in receiving waters; or
 - (h) Contains sediment above quantities specified in IDAPA 58.01.02.250.02(e) or in the absence of specific sediment criteria, above quantities that impair beneficial uses in receiving waters, or
 - (i) Contains material in concentrations that exceed applicable natural background conditions in receiving waters (IDAPA 58.01.02.200.09), Temperature levels may be increased above natural background conditions when allowed under IDAPA 58.01.02.401.

SECTION 9. *That Coeur d'Alene Municipal Code Section 13.32.080, is hereby added to read as follows:*

13.32.080: PROHIBITION OF ILLICIT CONNECTIONS:

- A. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- B. This prohibition expressly includes, without limitation, illicit connections made prior to the enactment of this chapter, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
- C. A person is considered to be in violation of this chapter if the person connects a line conveying sewage or other non-stormwater discharges to the municipal separate storm sewer system, or allows such a connection to continue, without written approval from the city engineer.

SECTION 10. *That Coeur d'Alene Municipal Code Section 13.32.090, is hereby added to read as follows:*

13.32.090: SUSPENSION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ACCESS:

- A. **Suspension Due To Illicit Discharges In Emergency Situations:** The City Engineer may, without prior notice, suspend municipal separate storm sewer system discharge access to a person or entity when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the municipal separate storm sewer system or waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the city engineer may take such steps as deemed necessary to prevent or minimize damage to the municipal separate storm sewer system or waters of the United States, or to minimize danger to persons.
- B. **Termination Due To The Detection Of Illicit Discharge:** Any person discharging to the municipal separate storm sewer system in violation of this chapter may have their municipal separate storm sewer system access terminated if such termination would abate or reduce an illicit discharge. The city will notify the violator of the proposed termination of its municipal separate storm sewer system access. Notification will be made in writing by certified mail to the owner of the property from which the illicit discharge is being made at the last known mailing address of said property owner on record with the Kootenai County assessor. The notice will include a description of the violation and set forth the time allowed for compliance.
- C. **Written Approval Required For Reinstatement:** Any person who reinstates municipal separate storm sewer system access to premises terminated pursuant to this section, without the prior written approval of the City Engineer or authorized enforcement agent is guilty of a misdemeanor.

SECTION 11. *That Coeur d'Alene Municipal Code Section 13.32.100, is hereby added to read as follows:*

13.32.100: INDUSTRIAL OR CONSTRUCTION ACTIVITY DISCHARGES:

Any person subject to an industrial or construction activity NPDES stormwater discharge permit must comply with all provisions of such permit. Proof of compliance with the permit may be required by the city prior to allowing of discharges to the municipal separate storm sewer system.

SECTION 12. *That Coeur d'Alene Municipal Code Section 13.32.110, is hereby added to read as follows:*

13.32.110: MONITORING OF DISCHARGES:

- A. **Applicability:** This section applies to all facilities that have stormwater discharges associated with commercial, industrial activity and/or construction activity.
- B. **Access To Facilities:**

1. The City Engineer or his authorized representative must be permitted to enter and inspect facilities subject to regulation under this chapter as often as may be necessary to determine compliance with this chapter. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger must make the necessary arrangements to allow access to the City Engineer or his authorized representative.
2. Facility operators must allow the City Engineer or his authorized representative ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law related to said discharges.
3. The City Engineer has the right to set up on any permitted facility such devices as are necessary in the opinion of the City Engineer or authorized representative to conduct monitoring and/or sampling of the facility's stormwater discharge.
4. The City Engineer has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment must be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality must be calibrated as required by the manufacturer's operation manual to ensure their accuracy.
5. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled must be promptly removed by the operator at the written or oral request of the City Engineer and may not be replaced. The costs of clearing such access will be borne by the operator.
6. Unreasonable delays in allowing the City Engineer access to a permitted facility is a violation of a stormwater discharge permit and of this chapter.
7. If the City Engineer or authorized agent has been refused access to any part of the premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this chapter, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this chapter or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, he or she may seek issuance of a search warrant from any court of competent jurisdiction.

SECTION 13. *That Coeur d'Alene Municipal Code Section 13.32.120, is hereby added to read as follows:*

13.32.120: NOTIFICATION OF SPILLS:

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation, has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, the municipal separate storm sewer system, or waters of the U.S., that person must take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of a release of hazardous materials that person must immediately notify emergency response agencies and the Idaho department of environmental quality of the occurrence via emergency dispatch services. In the event of a release of nonhazardous materials, the person must notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the city engineer within three (3) business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of the establishment must also retain an on site written record of the discharge and the actions taken to prevent its recurrence. Such records must be retained for at least three (3) years from the date of the discharge.

SECTION 14. *That Coeur d'Alene Municipal Code Section 13.32.130, is hereby added to read as follows:*

13.32.130: VIOLATIONS CONSTITUTE MISDEMEANORS:

The knowing violation of any provision or failure to comply with any requirement of this chapter shall constitute a misdemeanor punishable as provided in Municipal Code section 1.28.010.

SECTION 15. *That Coeur d'Alene Municipal Code Section 13.32.140, is hereby added to read as follows:*

13.32.140: ACTS RESULTING IN VIOLATION OF FEDERAL LAWS AND REGULATIONS:

Any person who violates any provision of this chapter, or discharges any pollutant or causes pollution, may also be in violation of federal laws or regulations, and may be subject to the sanctions of those laws or regulations, including civil or criminal penalties, notwithstanding any legal action taken by the city.

SECTION 16. *That Coeur d'Alene Municipal Code Section 13.30.080, is hereby amended to read as follows:*

13.30.080: ADOPTION OF SUPPLEMENTAL MATERIALS AND BEST MANAGEMENT PRACTICES:

The City of Coeur d'Alene may, by resolution, adopt additional design standards, definitions of terminology, administrative procedures, stormwater best management practices, etc., intended to implement the general requirements and performance standards set forth in this chapter. Changes in

the design standards, best management practices or other adopted materials may be accomplished by subsequently adopted resolution. Adopted ~~Such~~ design standards may be complied with in alternative ways that will contribute to rational achievement of the general requirements and performance standards set forth in this chapter.

SECTION 17. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

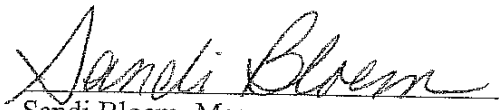
SECTION 18. Neither the adoption of this ordinance nor the repeal of any ordinance shall, in any manner, affect the prosecution for violation of such ordinance committed prior to the effective date of this ordinance or be construed as a waiver of any license or penalty due under any such ordinance or in any manner affect the validity of any action heretofore taken by the City of Coeur d'Alene City Council or the validity of any such action to be taken upon matters pending before the City Council on the effective date of this ordinance.

SECTION 19. The provisions of this ordinance are severable and if any provision, clause, sentence, subsection, word or part thereof is held illegal, invalid, or unconstitutional or inapplicable to any person or circumstance, such illegality, invalidity or unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this ordinance or their application to other persons or circumstances. It is hereby declared to be the legislative intent that this ordinance would have been adopted if such illegal, invalid or unconstitutional provision, clause sentence, subsection, word, or part had not been included therein, and if such person or circumstance to which the ordinance or part thereof is held inapplicable had been specifically exempt therefrom.

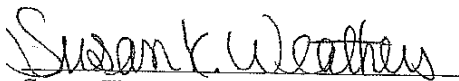
SECTION 20. After its passage and adoption, a summary of this Ordinance, under the provisions of the Idaho Code, shall be published once in the official newspaper of the City of Coeur d'Alene, and upon such publication shall be in full force and effect.

Passed under suspension of rules upon which a roll call vote was duly taken and duly enacted an ordinance of the City of Coeur d'Alene at a regular session of the City Council on October 5, 2010.

APPROVED, ADOPTED and SIGNED this 5th day of October, 2010.

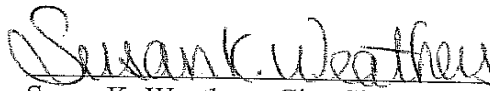

Sandi Bloem, Mayor

ATTEST:


Susan K. Weathers, City Clerk

SUMMARY OF COEUR D'ALENE ORDINANCE NO. 3396
Adopting a new Municipal Code Chapter 13.32 entitled
ILLCIT DISCHARGE AND STORMWATER SEWER CONNECTION


AN ORDINANCE 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; AMENDING SECTION 13.30.080 TO AUTHORIZE THE ADOPTION OF STORMWATER BEST MANAGEMENT PRACTICES BY RESOLUTION OF THE CITY COUNCIL; REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HEREWITH AND PROVIDING A SEVERABILITY CLAUSE. THE ORDINANCE SHALL BE EFFECTIVE UPON PUBLICATION OF THIS SUMMARY. THE FULL TEXT OF THE SUMMARIZED ORDINANCE NO. 3396 IS AVAILABLE AT COEUR D'ALENE CITY HALL, 710 E. MULLAN AVENUE, COEUR D'ALENE, IDAHO 83814 IN THE OFFICE OF THE CITY CLERK.


Susan K. Weathers, City Clerk

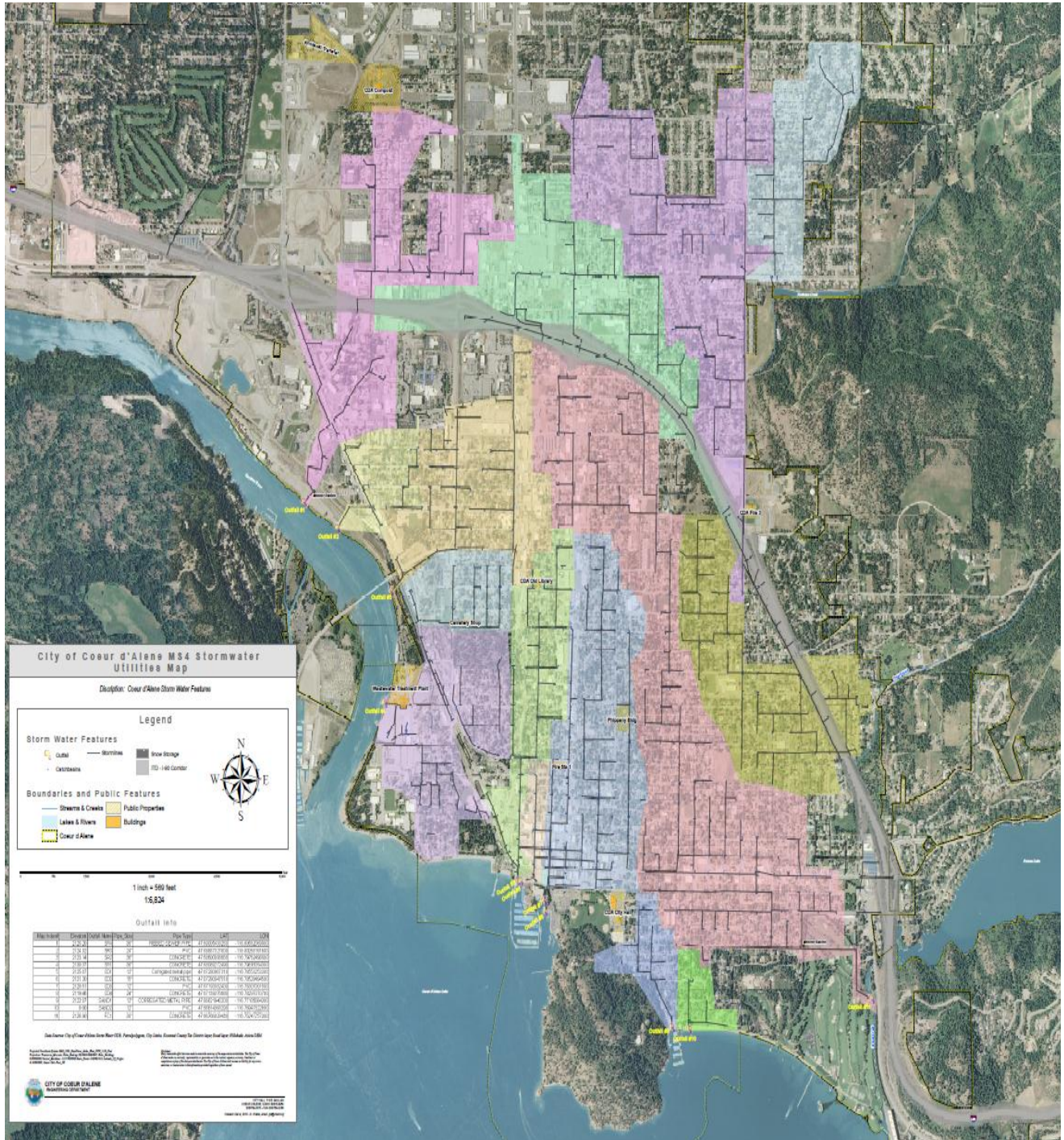
STATEMENT OF LEGAL ADVISOR

I, Warren J. Wilson, am a Deputy City Attorney for the City of Coeur d'Alene, Idaho. I have examined the attached summary of Coeur d'Alene Ordinance No. 3396, Adopting a new Municipal Code Chapter 13.32 entitled ILLICIT DISCHARGE AND STORMWATER SEWER CONNECTION, and find it to be a true and complete summary of said ordinance which provides adequate notice to the public of the context thereof.

DATED this 5th day of October, 2010.


Warren J. Wilson, Chief Deputy City Attorney

Appendix 7



ORDINANCE NO. 3397
COUNCIL BILL NO. 10-1025

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; REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HERewith; PROVIDING A SEVERABILITY CLAUSE; PROVIDE FOR THE PUBLICATION OF A SUMMARY OF THIS ORDINANCE AND AN EFFECTIVE DATE HEREOF.

WHEREAS, after recommendation by the Public Works Committee, it is deemed by the Mayor and City Council to be in the best interests of the City of Coeur d'Alene that said amendments be adopted; NOW, THEREFORE,

BE IT ORDAINED, by the Mayor and City Council of the City of Coeur d'Alene:

SECTION 1. That Coeur d'Alene Municipal Code Section 13.30.010 is amended to read as follows:

13.30.010: TITLE AND PURPOSE:

These regulations shall be known as the *STORMWATER MANAGEMENT ORDINANCE*. The purpose of these regulations is to require implementation of stormwater management techniques, which rely upon natural on site treatment, and recycling of stormwater as opposed to collection and conveyance of untreated stormwater into ground water sources or into surface bodies of water. The underlying purposes to be achieved by implementation of such regulations are the protection of ground water quality through pretreatment of stormwater prior to infiltration, protection of surface and subsurface water resources from the effects of contaminants, erosion, sedimentation, and erosion and construction waste from land disturbing activities, and providing for adequate drainage of stormwater and the protection of properties from increased runoff and flooding.

SECTION 2. That Coeur d'Alene Municipal Code Section 13.30.020 is amended to read as follows:

13.30.020: DEFINITIONS:

Unless a provision states otherwise, the following terms and phrases used in this chapter, have the following meanings:

AS BUILT DRAWINGS: Design plans that have been revised to reflect all changes to the plans that occurred during construction. These plans must be signed and stamped by the responsible qualified, licensed professional.

BEST MANAGEMENT PRACTICES (BMPs): Schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater collection systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage. Physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water and flooding.

CITY: The City of Coeur d'Alene

CLEAN WATER ACT: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

CLEARING: The removal of vegetation, trees, structures, pavement, etc., by manual, mechanical, or chemical methods.

CONVEYANCE: A mechanism for transporting water from one point to another, including pipes, ditches, and channels.

CONVEYANCE SYSTEM: The drainage facilities, both natural and manmade, which collect, contain, and provide for the flow of surface water.

DESIGN STORM: A rainfall event of specific return frequency and duration that is used to calculate the runoff volume and peak discharge rate.

DETENTION: A temporary storage of storm runoff in a BMP, which is used to control the peak discharge rates, and which provides for gravity settling of pollutants and sediments.

DISCHARGE: Any addition or introduction of any pollutant, stormwater, or any other substance whatsoever into the stormwater collection system, waters of the state, or into waters of the United States.

DISCHARGER: Any person who causes, allows, permits, or is otherwise responsible for a discharge, including, without limitation, any operator of a construction site or industrial facility.

EROSION: The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

EROSION/SEDIMENT CONTROL: Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation.

GROUND WATER: Water in a saturated zone or stratum beneath the land surface or a surface water body.

HAZARDOUS MATERIAL: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILICIT CONNECTION: An illicit connection is defined as either of the following: Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

ILICITDISCHARGE: Any discharge to a storm drain that is not composed entirely of stormwater except discharges pursuant to a NPDES permit.

IMPERVIOUS SURFACE: Has the same meaning as subsection 17.02.070A of this code.

INDUSTRIAL ACTIVITY: Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 14).

INFILTRATION: The downward movement of water through the soil. Infiltration capacity is expressed in terms of inches per hour.

INFILTRATION BASIN: Depressions created by excavation or berms to provide for short term ponding of surface runoff until it percolates into the soil through the basin's floor and sides.

INTERMITTENT STREAM: A stream or portion of a stream that flows only seasonally. Typically it is dry for several months of a year.

LAND DISTURBING ACTIVITY: Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing topography. Land disturbing activities include, but are not limited to, demolition, construction, clearing, grading, filling, and excavation.

NUTRIENTS: Essential chemicals needed by plants or animals for growth. Excessive amounts of nutrients can lead to degradation of water quality and algae blooms. Some nutrients can be toxic at high concentrations.

NON-STORMWATER DISCHARGE: Any discharge that is not entirely composed of stormwater.

NPDES: National Pollutant Discharge Elimination System permit, a permit issued by the U.S. EPA, in compliance with the Federal Clean Water Act for the discharge of pollutants from any point source into the waters of the United States.

POLLUTANT: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coli form and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

QUALIFIED, LICENSED PROFESSIONAL: A registered civil engineer or registered landscape architect, licensed in the state of Idaho.

RETENTION: The holding of runoff in a basin without release except by means of evaporation, infiltration, or emergency bypass.

RUNOFF: Rainfall or snowmelt that does not infiltrate into the soil, but remains on the surface and travels over land to either natural or manmade collection facilities.

SECURITY: A surety bond, cash deposit or escrow account, assignment of savings, irrevocable letter of credit or other means acceptable to or required by the city to guarantee that work is completed in compliance with the project's drainage plan and in compliance with all local government requirements.

SEDIMENT: Material that originates from weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

SEDIMENTATION: The deposition of sediment usually in basins or watercourses.

STORM FREQUENCY: The time interval between storms of predetermined intensity, e.g., a 2-year, 25-year, or 100-year storm.

STORMWATER: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORMWATER COLLECTION SYSTEM: A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basin, curb, gutter, ditches, manmade channels, grassed swales, infiltration basins, shallow injection wells, or storm drains) owned or operated by the city.

STORMWATER RUNOFF: Runoff generated by storms.

STORMWATER MANAGEMENT PLAN: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

SWALE: A shallow infiltration basin with relatively gentle side slopes.

TREATMENT AND DETENTION BMP: A BMP that is intended to detain runoff and remove pollutants from stormwater. A few examples of treatment and detention BMPs are detention ponds, oil/water separators, biofiltration swales, and constructed wetlands.

UNDEVELOPED STATE: The natural soils and vegetation in place prior to the start of any construction or clearing activity on the site.

SECTION 3. That Coeur d'Alene Municipal Code Section 13.30.040 is amended to read as follows:

13.30.040: STORMWATER MANAGEMENT PLAN:

- A. Stormwater Management Plan Required: Any activity regulated by this chapter shall require the development of a comprehensive stormwater management plan meeting the requirements of sections 13.30.050 and 13.30.060 of this chapter. Stormwater management plans shall be approved by a qualified, licensed professional and submitted for review by the city engineer.
1. Exceptions:
 - a. Stormwater management plans for new single-family residential structures or additions to single-family residential structures are not required to be designed by a qualified, licensed professional unless required by the city engineer under subsection A1b of this section.
 - b. The city engineer may require that the stormwater management plan be signed by a registered civil engineer if the city engineer determines that off site drainage or adjacent property rights are affected by the plan.
- B. General Plan Requirements: Each stormwater management plan must contain the following general elements:
1. The necessary maintenance system, including an acceptable plan for sustained functioning of the collection and treatment system. Unless the plan identifies another responsible party, the parties identified in section 13.30.090 of this chapter shall be responsible for maintenance of all elements of the stormwater collection and treatment system. Maintenance activities shall include (but not be limited to), watering, mowing and fertilizing of infiltration basins, sod renovation of infiltration basins (unless otherwise provided in this chapter), sediment and debris removal from detention basins, debris removal and cleaning of all inlets, piping, outlet structures, slope protection, etc.
 2. The easements necessary to provide continued maintenance of the system.
 3. Clearly identified stormwater facilities including, but not limited to, pipes, inlets, catch basins, infiltration basins, basins, and swales.

- C. Required Stormwater Plan Elements: In addition to the general plan requirements required by subsection B of this section, stormwater management plans must contain the following parts:
1. Design Calculations: The plan shall present all pertinent calculations necessary to determine the required size of elements of the system. These elements include, but are not limited to, off site drainage onto the property, pre- and post-development runoff, infiltration basins, detention and/or retention facilities, pipes, swales, culverts, ditches, and catch basins.
 2. Site Plan: The site plan shall include the following:
 - a. Property boundaries and all existing natural and manmade features and facilities within fifty feet (50') of the site, including streets, utilities, easements, topography, structures, and drainage channels.
 - b. Final contours.
 - c. Location of all proposed improvements, including paving, structures, utilities, landscaped areas, flat work, and stormwater control facilities.
 - d. Proposed drainage patterns including ridgelines and tributary drainage areas.
 - e. Stormwater control facilities, including invert elevations, slopes, length, cross sections, and sizes. Construction details shall be shown for infiltration basins, and/or detention/retention/construction waste facilities.
 - f. Existing and proposed drainage/stormwater easements.
 - g. Location of all BMP's, temporary and permanent.
 - h. Final vegetation, landscape, and permanent stabilization measures.
 3. Erosion, Sediment and Construction Site Waste Control Standards: The design, testing, installation, and maintenance of erosion, sediment and construction site waste controls shall be in accordance with the City of Coeur d'Alene approved Best Management Practices (BMP's) as adopted. (13.30.080)
 An erosion, sediment and construction waste control plan shall be submitted and approved prior to initiation of any site clearing, excavation, and grading or other development activity. Both temporary and permanent erosion, sediment and construction waste control measures shall be included. The plan shall represent the minimum requirements for the site. Additional measures may be required by the city in the event of unexpected storm occurrences, repair or maintenance of existing systems, or replacement of nonfunctioning systems.
 - a. The permit holder and owner of the property are responsible for maintenance and upkeep of both temporary and permanent erosion, sediment and construction waste control measures unless the erosion, sediment and construction waste control plan identifies another person or entity as the responsible party.

SECTION 4. That Coeur d'Alene Municipal Code Section 13.30.050 is amended to read as follows:

13.30.050: PERFORMANCE STANDARDS:

The following performance standards are applicable to all design, construction, implementation, and maintenance of stormwater management systems pursuant to this chapter:

- A. All activities subject to the requirements of this chapter shall be carried out in a manner that ensures that runoff of storm or other natural surface waters shall not be accelerated, concentrated, or otherwise conveyed beyond the exterior property lines or project boundaries of the project in question. Existing and/or proposed off site public street drainage shall be detained separately from the on site drainage. All stormwater facilities and BMPs required for the project must be constructed within the project boundary or property lines.
1. Exceptions: Runoff of storm or other surface waters may be conveyed beyond the exterior property lines or project boundaries if:
 - a. Done in accordance with the provisions of a joint stormwater management agreement approved in writing by the city; or
 - b. The downstream property received drainage prior to development. In this case, flow may not be concentrated onto downstream properties where sheet flow previously existed. In no event will there be a measurable increase in the peak rate of runoff from the site after development when compared with the runoff rate in the undeveloped state for a 25-year storm.
- B. Erosion, sediment, or discharge of pollutants, resulting from construction activities, which enter onto public property or private property not controlled by the permit holder, shall be eliminated to the maximum extent practicable unless otherwise permitted or exempted under this chapter.
- C. All construction activity commenced pursuant to an approved stormwater management plan or site development permit must at all times comply with the conditions of the plan or permit. The permit holder is responsible for ensuring their contractor(s), subcontractor(s), utility trenching subcontractor(s), and all other persons entering the site abide by the conditions of the permit. The permit holder's signature or that of his authorized agent on the permit shall constitute an agreement by the permit holder to accept responsibility for meeting the conditions of the permit.
- D. No construction activity shall take place without a valid stormwater management plan. If a permit has been suspended or revoked, or has expired, all work covered by the plan shall cease until a new plan is issued.
- E. All necessary action shall be taken to minimize the depositing and tracking of mud, dirt, sand, gravel, rock or debris on or onto the public right of way. The owner of the site of the construction activity or the permit holder with respect to the construction site shall be responsible for any cleanup of the public rights of way or private property not under the permit holder's control necessitated from any tracking or depositing of mud, dirt, sand, gravel, rock or debris, or shall reimburse the city for any expenses incurred by the city to effectuate the cleanup. At a minimum, all public rights of way shall be cleaned curb to curb on a weekly basis.
- F. Construction ramps shall be constructed of material that will not erode or deteriorate under adverse conditions, and shall not be placed in a manner as to interfere with or block the passage of stormwater runoff.
- G. No debris, dirt, aggregate or excavated materials, or construction supplies, shall be placed on the public right of way unless specifically permitted by the City of Coeur d Alene in writing. In addition, public sidewalks shall not be removed, blocked, or otherwise rendered unusable by construction activity, equipment or materials, or portable toilets, unless a safe, usable alternate walkway, as approved by the City of Coeur d Alene, is placed on the same side of the right of way by the contractor.

- H. No owner or lessee of real property shall allow the property to be unoccupied, unused, vacant or undeveloped after the topsoil has been disturbed or the natural cover removed, unless control measures are undertaken to prevent mud, sand, dirt and gravel, or other material from migrating off site and entering the public right of way or a stormwater system.
- I. All temporary erosion /sediment and construction waste control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within twenty one (21) days from removal of the temporary measures.
- J. Channels which collect or concentrate stormwater shall be protected against erosion and contain energy dissipation measures to prevent erosion on adjoining lands. Existing unprotected channels shall be protected against further erosion in the course of site development. Any site development or construction shall preserve the existing stormwater management improvements.
- K. Sediment resulting from erosion of disturbed soils shall be detained on site. Sediment shall either be stabilized on site or removed in an approved manner.
- L. Any and all collected stormwater runoff shall be directed to infiltration basins or to an approved BMP. Permanent treatment of stormwater runoff shall be accomplished by directing all runoff to an infiltration basin or to an approved BMP.
 - 1. Exceptions: Runoff may be discharged directly into dry wells or other overflow structures under the following circumstances:
 - a. When the increase in impervious surface, resulting from new construction or addition to existing structures, is less than three thousand (3,000) square feet.
 - b. Runoff from roofs.
- M. When existing streets are widened or otherwise improved, runoff from the new impervious surface may be directed into existing storm drain facilities if the existing storm drain facility has sufficient capacity to accommodate the increased runoff.

SECTION 5. That Coeur d'Alene Municipal Code Section 13.30.060 is amended to read as follows:

13.30.060: DESIGN STANDARDS:

- A. General Standards: All stormwater facilities shall incorporate the following design standards:
 - 1. All conveyance facilities shall be designed to accommodate a 25-year storm event.
 - 2. When on site facilities must accommodate drainage from off site, such conveyance facilities shall be designed to accommodate a 50-year storm event.
 - 3. Peak flows shall be calculated by the rational method for areas ten (10) acres or less. Peak flows shall be calculated by the soil conservation service (SCS) method TR-55, for areas greater than ten (10) acres. Other methods may be approved by the city engineer.
 - 4. The intensity-duration curves from the Idaho transportation department shall be used for the rational method.
- B. Erosion, Sediment and Construction Site Waste Control: The design, testing, installation, and maintenance of erosion, sediment and construction site waste controls, as detailed in the stormwater management plan, shall be in accordance with the City of Coeur d Alene Best Management Practices (BMP's).
- C. Infiltration Basins: All infiltration basins shall incorporate the following design standards:

1. Infiltration basins shall be designed either to retain and treat a volume equal to one-half inch ($\frac{1}{2}$ ") of runoff over the tributary impervious area, including roofs or to infiltrate a storm event of 0.1 inches per hour.
2. Infiltration basins designed to detain the treatment volume shall be a maximum of six inches (6") from the lowest point of the swale to the inlet of the overflow structure.
3. Infiltration basins shall have a minimum infiltration rate of 0.5 inches per hour.
4. Infiltration basins shall be planted and maintained with grass and/or other vegetative cover approved by the city. An encroachment permit issued by the city pursuant to chapter 12.44 of this code must be obtained before starting any landscaping work in infiltration basins located in city rights of way.
5. Infiltration basins must be renovated when they do not meet the minimum infiltration rate or when the vegetative cover dies.
6. Infiltration basins shall contain dry wells, or an equivalent approved by the city engineer, to accommodate overflow.
7. Where infiltration basins will be located between curb and sidewalk, both curb and sidewalk shall be considered an integral part of the storm management system and shall be installed with the infiltration basin.

SECTION 6. That a new Municipal Code Section 13.30.075, entitled Inspections, is adopted as follows:

13.30.075: INSPECTIONS:

All construction activities which require a permit or have the potential to impact stormwater discharge or create a discharge to the stormwater collection system shall be subject to the inspection provisions of this section.

- A. The city maintains the right to inspect any site of construction activity that has been issued a permit or is required to have a permit issued.
- B. Sites shall be required to undergo and pass a city inspection upon completion of the installation of temporary erosion /sediment and construction waste controls, and upon completion of the final grading and/or the permanent drainage and erosion control facilities. The permit holder shall be responsible for scheduling these inspections through the City of Coeur d' Alene Building Department. Inspections must be requested at least forty eight (48) hours prior to the desired time of inspection. Additional inspections may also occur as deemed necessary by the city.
- C. When an inspection is required under this chapter, no work shall proceed until completion of the inspection and approval from the authorized city agent conducting the inspection.

SECTION 7. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

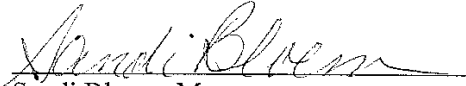
SECTION 8. Neither the adoption of this ordinance nor the repeal of any ordinance shall, in any manner, affect the prosecution for violation of such ordinance committed prior to the effective date of this ordinance or be construed as a waiver of any license or penalty due under any such ordinance or in any manner affect the validity of any action heretofore taken by the City of Coeur d'Alene City Council or the validity of any such action to be taken upon matters pending before the City Council on the effective date of this ordinance.

SECTION 9. The provisions of this ordinance are severable and if any provision, clause, sentence, subsection, word or part thereof is held illegal, invalid, or unconstitutional or inapplicable to any person or circumstance, such illegality, invalidity or unconstitutionality or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this ordinance or their application to other persons or circumstances. It is hereby declared to be the legislative intent that this ordinance would have been adopted if such illegal, invalid or unconstitutional provision, clause sentence, subsection, word, or part had not been included therein, and if such person or circumstance to which the ordinance or part thereof is held inapplicable had been specifically exempt therefrom.


SECTION 10. After its passage and adoption, a summary of this Ordinance, under the provisions of the Idaho Code, shall be published once in the official newspaper of the City of Coeur d'Alene, and upon such publication shall be in full force and effect.

Passed under suspension of rules upon which a roll call vote was duly taken and duly enacted an ordinance of the City of Coeur d'Alene at a regular session of the City Council on December 7, 2010.

APPROVED, ADOPTED and SIGNED this 7th day of December, 2010.


Sandi Bloem, Mayor

ATTEST:


Susan K. Weathers, City Clerk

SUMMARY OF COEUR D'ALENE ORDINANCE NO. 3397
Amending Chapter 13.30 – Stormwater Regulations

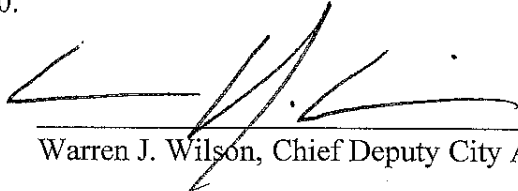
AN ORDINANCE AMENDING THE MUNICIPAL CODE OF THE CITY OF COEUR D'ALENE, KOOTENAI COUNTY, IDAHO, AMENDING SECTIONS 13.30.010, 13.30.020, 13.30.040, 13.30.050, 13.30.060 AND ADOPTING A NEW SECTION 13.30.075 TO THE STORMWATER MANAGEMENT ORDINANCE TO PROVIDE ADDITIONAL DEFINITIONS, ADOPTING ADDITIONAL STANDARDS FOR EROSION, SEDIMENT AND CONSTRUCTION WASTE CONTROL AND PROVIDING FOR INSPECTIONS; REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HERewith AND PROVIDING A SEVERABILITY CLAUSE. THE ORDINANCE SHALL BE EFFECTIVE UPON PUBLICATION OF THIS SUMMARY. THE FULL TEXT OF THE SUMMARIZED ORDINANCE NO. 3397 IS AVAILABLE AT COEUR D'ALENE CITY HALL, 710 E. MULLAN AVENUE, COEUR D'ALENE, IDAHO 83814 IN THE OFFICE OF THE CITY CLERK.


Susan K. Weathers, City Clerk

STATEMENT OF LEGAL ADVISOR

I, Warren J. Wilson, am a Deputy City Attorney for the City of Coeur d'Alene, Idaho. I have examined the attached summary of Coeur d'Alene Ordinance No. 3397, Amending Chapter 13.30 - Stormwater Regulations, and find it to be a true and complete summary of said ordinance which provides adequate notice to the public of the context thereof.

DATED this 7th day of December, 2010.


Warren J. Wilson, Chief Deputy City Attorney



CITY OF COEUR D'ALENE

ENGINEERING DEPARTMENT

CITY HALL, 710 E. MULLAN
COEUR D'ALENE, IDAHO 83816-3964
208/769-2285 – FAX 208/769-2284

APPENDIX 9

NOTICE TO CONTRACTORS, BUILDERS, AND DEVELOPERS.

Any **CONSTRUCTION ACTIVITY** resulting in a land disturbance of one acre or more that has the potential to discharge storm water into the City of Coeur d'Alene storm water collection system or any other "waters of the United States" **MUST BE PERMITTED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)**. This includes direct or indirect discharges to Lake Coeur d'Alene, Spokane River, Fernan Lake, French Gulch, Nettleton Gulch, and Fernan Creek.

The EPA has issued a General Permit for Storm water Discharges from Construction Activities that covers most construction related discharges. However, in order to be eligible to obtain coverage under this permit, the construction site operators must meet certain requirements set forth by the EPA.

FOR COMPLETE DETAILS OF ELIGIBILITY AND FILING REQUIREMENTS PERTAINING TO THE EPA GENERAL PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES, PLEASE VISIT THE EPA'S WEBSITE:

[http://www.epa.gov/npdes/storm water](http://www.epa.gov/npdes/storm%20water)

For any questions related to this notice you may contact a representative from our Engineering Department.

City of Coeur d'Alene
Stormwater Pollution Prevention and Good Housekeeping Program
For Municipal Operations & Activities



Program Goal

Identify, evaluate and train municipal employees in the application of the appropriate best management practices for preventing and reducing pollutant runoff generated by municipal operations and activities.

Identify

All city department heads or their designee will at a minimum, annually perform a review of best management practices as they apply to the individual department activity, operations and maintenance. Because of the diversity of operations within the city each department will determine and evaluate their focus areas.

The following is a partial list of activities, operation and maintenance tasks requiring review.

- Construction project management
- Street Repair, Sweeping and Maintenance
- Water Line / Sanitary Sewer Line Operation & Maintenance
- Storm Drain Maintenance
- Building Maintenance
- Employee Training
- Park and Landscape Maintenance

Evaluate

Pollution prevention/good housekeeping involves identifying the municipal operations that may influence water quality. All municipal operations and activities are to be evaluated to determine where improvements can be made.

An evaluation of existing best management practices is to be performed for pollution reduction and prevention.

Municipal Operations with Potential for Pollution Producing Activities

- Water Department
- Street Department
- Parks Department
- Waste Water Department
- Fire Department

Existing Best Management Practices for Pollution Prevention

Water Department:

- Employee training in stormwater basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
- Supervisor performs stormwater 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
- Leaf Pickup
- CSB to enhance salt brine de-icer, which results in less salt used on roadways.
- Snow storage practices
- BMP's applied to construction and repair projects
- Spill Kits in vehicles
- Employee training in stormwater basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting.
- 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.

Parks Department:

- Employee training in stormwater basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
- Soil sampling before fertilizer application
- Water Conservation Irrigation Systems
- Installation of 18 Pet Waste Dispensers
- 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. 428 public trees planted (within the right of way or in parks) for this permit year.
- 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 was issued a Critical Materials Compliance Certificate from Panhandle Health Districts Aquifer Protection Program.

Waste Water Department

- Employee training in stormwater basics, pollution prevention, spill prevention and response, illicit discharge detection and reporting
- All on-site stormwater 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

- The Fire Department incorporates stormwater 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

Municipal Project / Stormwater Protection Checklist

Department:	
Responsible Person:	Supervisor:
Location of project:	
Type of Project:	
Date started:	Date completed:
BEST MANAGEMENT PRACTICES CHECKLIST	
<input type="checkbox"/> Project Evaluation (potential to create or impact stormwater discharges)	
<input type="checkbox"/> Project does not have the potential to impact stormwater system.	
<input type="checkbox"/> Project does require BMP implementation	BMP's (circle each used)
<input type="checkbox"/> Site Inspection: (locate catch basins, conveyances etc.)	Silt Fence De-Chlorination Tablets Cover Dirt Piles Site Access
List areas requiring bmp's: (example: catch basin 1 st & Front)	Fabric Wattles Dust Control Check Dams Waste Control Other: _____ _____
<input type="checkbox"/> Temporary BMP's removed	<input type="checkbox"/> Permanent BMP's Applied
Notes:	
Signature:	Date:

Employee Training

Employees will receive training to effectively incorporate pollution prevention / good housekeeping techniques into municipal operations and activities.

All employees performing tasks which have the potential to impact stormwater quality will have at a minimum the following annual training.

- Stormwater Basics to include: pollution prevention, spill prevention and response, illicit discharge detection and reporting
- Spill Prevention & Response (based on department activity)
- Best Management Application (based on department activity)

Additional training requirements will be determined by the department head.

FINAL

Quality Assurance Project Plan
Municipal Separate Storm Sewer
System Discharge Sampling
City of Coeur d'Alene, Idaho
NPDES Permit No. IDS-028215

Prepared for
City of Coeur d'Alene, Idaho

February 2010

Prepared by
CH2MHILL

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Quality Assurance Project Plan
Municipal Separate Storm Sewer System Discharge Sampling
City of Coeur d'Alene, Idaho
NPDES Permit No. IDS-028215

Plan approvals:

Dennis Grant
City of Coeur d'Alene Project Manager

Gordon Dobler, PE
City of Coeur d'Alene

USEPA NPDES Compliance Unit

Idaho Department of Environmental Quality

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Distribution List

Dennis Grant	City of Coeur d'Alene, Idaho
Gordon Dobler	City of Coeur d'Alene, Idaho
NPDES Compliance Unit	USEPA Storm Water Program
Coeur d'Alene Regional Office	Idaho Department of Environmental Quality

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¹ Information in parenthesis indicates the applicable QAPP element or group prescribed by Chapter 3 of USEPA (2001) to be addressed in a QAPP. This is also consistent with Uniform Federal Policy for Quality Assurance Plans.

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Appendix

A Data Quality Objectives	
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Acronyms and Abbreviations

CCC	Chronic Criteria
CLP	Contract Laboratory Program [USEPA]
DQO	data quality objective
HSP	Health and Safety Plan
IDEQ	Idaho Department of Environmental Quality
MS	matrix spike
MS4	municipal separate storm sewer system
NPDES	National Pollutant Discharge Elimination System
PCB	polychlorinated biphenyl
PM	project manager
QA	quality assurance
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
QC	quality control
RPD	Relative percent difference
RSD	Relative standard deviation
RTL	review team leader
SRM	standard reference material
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey

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SECTION 1

Introduction

This Quality Assurance Project Plan (QAPP) presents the policies, organizations, objectives, and functional activities/procedures for discharge sampling of the municipal separate storm sewer system (MS4) for the City of Coeur d'Alene, Idaho (City) identified in Section IV of National Pollutant Discharge Elimination System (NPDES) Permit Number IDS-028215. The QAPP and its supporting attachment (Attachment A, Data Quality Objectives) have been developed to document the type, quantity, and quality of data needed for developing pollutant load estimates and making decisions regarding the effectiveness and adequacy of control measures implemented under the NPDES permit. This QAPP has sufficient detail to also serve as the work plan for the MS4 NPDES discharge monitoring program activities.

This QAPP follows Uniform Federal Policy for Quality Assurance Project Plans and USEPA guidelines contained in *USEPA Guidance for Quality Assurance Project Plans* (USEPA, 1998, 2002a), and *USEPA Requirements for Quality Assurance Project Plans* (USEPA, 2001). The development review, approval, and implementation of the QAPP is part of USEPA's mandatory Quality System, which requires all organizations to develop and operate management structures and processes to ensure that data used in decisions are of the type and quality needed for their intended use. The following sections of this document correlate with the subtitles found in the USEPA guidelines (USEPA, 2001) and are consistent with Uniform Federal Policy for Quality Assurance Project Plans.

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SECTION 2

Project Management

2.1 Project/Task Organization (A4)

The City of Coeur d'Alene MS4 NPDES discharge monitoring program will begin no later than June 2010 and will be conducted by the City of Coeur d'Alene. The activities included in the QAPP are managed by the City project manager (PM), Dennis Grant. The PM manages the financial, schedule, staffing, and technical aspects of the work.

Gordon Dobler is the review team leader (RTL) for the City. The RTL will review project planning documents, data evaluation, and deliverables. The primary responsibility for project quality rests with the PM, and independent quality control (QC) is provided by the RTL.

Analysis of water samples, with the exception of polychlorinated biphenyl (PCB) samples, will be performed at SVL Analytical in Kellogg, Idaho. Analysis of water samples for PCBs will be performed at Anatek Labs, Inc in Spokane, Washington. The analytical laboratories are responsible for assuring that the analyses performed meet the requirements of this QAPP, the laboratory standard operating procedures, and the laboratory-specific QAPP.

All samples will be sent from the City directly to SVL Analytical. SVL will be responsible for packaging and shipping the sample for PCB testing to Anatek Labs, as well as overseeing Anatek's quality assurance/quality control (QA/QC) procedures.

Contact information for SVL Analytical is:

Christine Meyer, Client Services Manager

SVL Analytical

One Government Gulch Road

P.O. Box 929

Kellogg, ID 83837-0929

208-784-1258

Contact information for Anatek Labs, Inc is:

Kathy Sattler

Anatek Labs, Inc

504 E Sprague Ste D

Spokane, WA 99202

509-838-3999

Where quality assurance problems or deficiencies requiring special action may be uncovered, the PM will identify the appropriate corrective action to be initiated by field data collection teams or the laboratory.

2.2 Problem Definition/Background (A5)

2.2.1 Purpose

This QAPP presents the policies, organizations, objectives, and functional activities/procedures for the City's MS4 NPDES discharge monitoring program. The QAPP was developed by CH2M HILL under contract to the City of Coeur d'Alene to document the type, quantity, and quality of data needed for environmental decisions and to describe the methods for collecting and assessing those data.

2.2.2 Problem Statement

The goal of the MS4 NPDES discharge monitoring program is to address the monitoring requirements identified in the NPDES permit. Section IV.A.6 of the permit requires the development and implementation of a QAPP for all monitoring required under Section IV of the permit. In Section IV of the permit, the following monitoring objectives are identified:

- a) Estimate the pollutant load currently discharged from the MS4s;
- b) Assess the effectiveness and adequacy of control measures implemented through the permit; and
- c) Identify and prioritize those portions of the MS4 requiring additional controls.

Data collected by the MS4 NPDES discharge monitoring program will be used to address the monitoring objectives listed above.

The City's MS4 (Figure 2-1) services an area of approximately 1,600 acres within the Coeur d'Alene Urbanized Area. There are a total of 12 outfalls associated with the MS4, seven discharge to Lake Coeur d'Alene and five discharge to the Spokane River. Currently, there are no hydrologic or water quality data available for MS4 discharge.

2.3 Project Description (A6)

Under the NPDES permit, the City is required to collect water quality and discharge data from two of the MS4 outfalls, one to Lake Coeur d'Alene and one to the Spokane River.

Data collected as part of monitoring will be used to estimate pollutant loading from the City's MS4, assess the effectiveness and adequacy of control measures implemented as part of the permit, and to identify and prioritize those portions of the City's MS4 system that may require additional control measures beyond those identified in the NPDES permit to address MS4 water quality.

2.3.1 Description of Work Tasks

Activities to be performed as part of the City of Coeur d'Alene MS4 NPDES monitoring includes:

- Acquisition and installation of monitoring locations (new manholes) and water quality and discharge monitoring equipment.
- Collection of discharge and water quality data at two MS4 outfalls using the monitoring schedule and parameter list provided in the permit.
- Data evaluation, including estimating pollutant loading from the MS4 system and the impacts of control measures on water quality.

2.3.2 Project Schedule

Acquisition and installation of monitoring location equipment, structures, and associated infrastructure components are expected to occur in late 2009. Sample collection, data acquisition, and analysis activities are expected to begin upon USEPA and Idaho Department of Environmental Quality (IDEQ) review and approval of this QAPP.

2.4 Quality Objectives and Criteria (A7)

2.4.1 Project Quality Objectives

Project-specific data quality objectives (DQOs) were identified through the DQO process/planning tool (USEPA, 1994a, 2000b, and 2006) to meet the data user's needs for each activity. The specific data needs for the MS4 NPDES discharge monitoring focus on the collection of storm water discharge flow and water quality data to estimate pollutant loads and the adequacy and effectiveness of control measures implemented as part of the NPDES permit. Appendix A presents the DQO decision-making process findings for the MS4 NPDES discharge monitoring program.

The data needs as determined through the DQO process for the MS4 NPDES discharge monitoring program are presented in Table 2-1. This table lists the specific analytes; data uses, data users, and needed detection levels. The listed detection levels in Table 2-1 represent the same detection limits identified in the *QAPP for the Coeur d'Alene Lake Management Plan* (IDEQ and Coeur d'Alene Tribe, 2009) where common monitoring parameters are present. For those parameters that are required to be monitored as part of the permit, the needed detection limit corresponds with the lowest regulatory, risk, or technical criterion identified for the specific analyte.

The required levels shown in Table 2-1 were taken into consideration in selecting appropriate analytical methodology. The selected analytical methodology and associated laboratory and field analytical reporting limits are shown in Table 2-2 and described in Section 2.4.2. For PCBs, the reporting limit used is for waters designated for aquatic life uses. The regulatory limit for PCBs for waters designated for human health for the consumption of water and organisms is lower than that for aquatic life uses. The higher limit was used because no practicable methodology for lower detection is available.

2.4.2 Measurement Performance Criteria

The quality assurance (QA) objective of this plan is to identify procedures and criteria that will provide data of known and appropriate quality for the needs identified in Section 2.4.1. Data quality is assessed by representativeness, comparability, accuracy, precision, and completeness. These parameters, the applicable procedures, and level of effort are described below.

The applicable quality control (QC) procedures, quantitative target limits, and level of effort for assessing data quality are dictated by the intended use of the data as well as the nature of the analytical methods. Analytical parameters, analytical methods, applicable detection levels, analytical precision, accuracy, and completeness in alignment with needs identified in Section 2.4.1 and are presented in Table 2-2. Analytical methods and quality control procedures are further detailed in Section 3.

Following are definitions and levels of effort for the data assessment parameters:

Representativeness is a measure of how closely the results reflect the actual concentration or distribution of the chemical compounds in the matrix samples. Sampling plan design, sampling techniques, and sample-handling protocols (for example, for storage, preservation, and transportation) have been developed, and are discussed in subsequent sections of this document. The proposed documentation will establish that protocols have been followed and sample identification and integrity are ensured.

Comparability expresses the confidence with which one data set can be compared to another. Data comparability will be maintained using defined procedures and the use of consistent methods and consistent units.

Accuracy is an assessment of the closeness of the measured value to the true value. For samples, accuracy of chemical test results is assessed by spiking samples with known standards and establishing the average recovery. For a matrix spike, known amounts of a standard compound identical to the compounds being measured are added to the sample. A quantitative definition of average recovery accuracy is given in Section 5.3. Accuracy measurement will be carried out with a minimum frequency of 1 in 20 samples analyzed or once per sampling event.

Precision of the data is a measure of the data spread, when more than one measurement has been taken on the same sample. Precision can be expressed as the relative percent difference; a quantitative definition is given in Section 5.3. The level of effort for precision measurements will be a minimum of 1 in 20 samples or once per sampling event.

Completeness is a measure of the amount of valid data obtained from the analytical measurement system and the complete implementation of defined field procedures. The quantitative definition of completeness is given in Section 5.3. The target completeness objective will be 95 percent; the actual completeness may vary depending on the intrinsic nature of the samples. The completeness of the data will be assessed during QC reviews.

2.5 Special Training/Certification (A8)

All project staff working on the site will follow the health and safety policies set forth by the City. The City's health and safety policies describe the specialized training required for personnel on this project. Documentation and tracking of this training will be the responsibility of the PM.

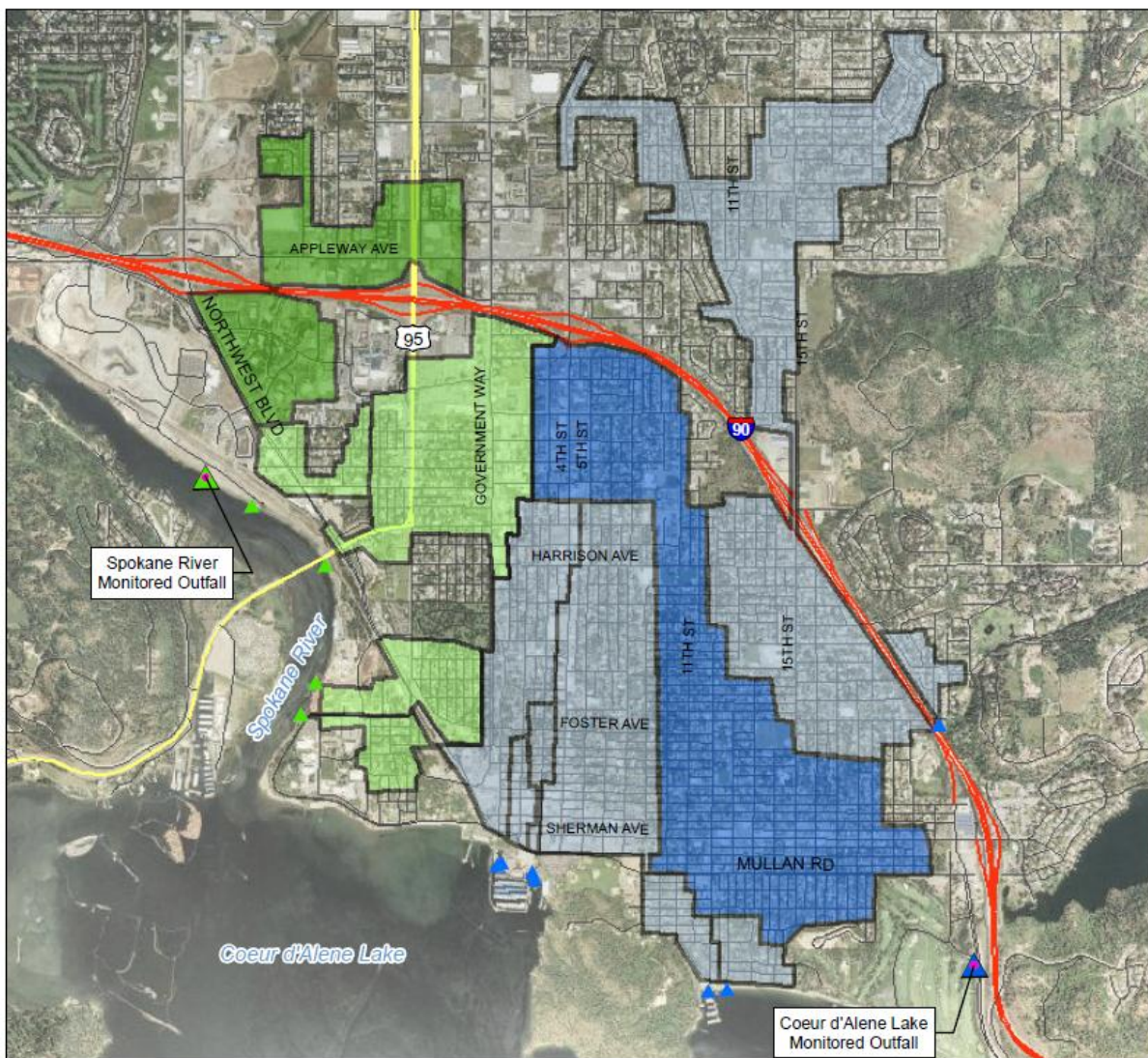
2.6 Documents and Records (A9)

Field activities, discharge monitoring, sampling results, and data analysis and evaluation will be documented as required in Section IV.B. This information will also be summarized in the Storm Water Discharge Monitoring Report and subsequent annual reports as identified in Section IV.C of the permit.

Laboratory documentation will be provided in accordance with methods and QA protocols listed in Sections 3.4 and 3.5 of this QAPP. Laboratory data will be recorded in USEPA Contract Laboratory Program (CLP) or similar format, including sample identification, analysis data, parameter values, and detection limits.

Analytical data from the laboratory and field collected measurements will be managed and retained in hard copy and electronically by the PM as required in Section IV.B of the permit.

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- | | | |
|-----------------------------------|----------------------|--------------|
| MS4 Drainage Basins | MS4 Outfalls | Roads |
| Coeur d'Alene Lake Outfall | Monitored | — Local Road |
| ■ Monitored | ▲ Coeur d'Alene Lake | — Highway |
| ■ Not Monitored | ▲ Spokane River | — Interstate |
| Spokane River Outfall | Not Monitored | |
| ■ Monitored | ▲ Coeur d'Alene Lake | |
| ■ Not Monitored | ▲ Spokane River | |

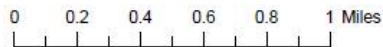


FIGURE 2-1
MS4 Drainage Basins and Outfalls
 NPDES MS4 Permit Monitoring Requirements
 City of Coeur d'Alene, Idaho

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

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TABLE 2-1
Data Needs and Uses for MS4 Sampling
QAPP for the City of Coeur d'Alene, ID

Analyte	Units	Criterion Continuous Concentration for Aquatic Life (chronic criteria)	Criterion Maximum Concentration for Aquatic Life (acute criteria)	Data Use	Data User
Flow	cfs	N/A	N/A	Develop estimated pollutant loading currently discharged from the MS4s and to determine the effectiveness and adequacy of control measures implemented through the permit.	Regulators, Hydrologists, Biologists, Engineers
Temperature	deg. C	22C	Max. daily avg. of no greater than 19C		
Total suspended solids	mg/L	Narrative criteria	IDAPA 58.01.02.200.05		
Total phosphorous ¹	mg/L	Narrative criteria	IDAPA 58.01.02.200.06		
Total Nitrogen ¹	mg/L	Narrative criteria	IDAPA 58.01.02.200.06		
Total lead	µg/L	0.7 µg/L ²	17 µg/L ²		
Total zinc	µg/L	42 µg/L ²	42 µg/L ²		
Hardness	mg/L	0.30 mg/L	0.30 mg/L		
Total Polychlorinated Biphenyls (PCB)	µg/L	0.014 µg/L ³	N/A		

Notes:

¹ Other criteria may also apply to these pollutants.

² Calculated using a hardness of 30 mg/L.

³ Both the Spokane River and Coeur d'Alene Lake have designated uses that include drinking water. The PCB human health criteria for consumption of water and organisms is 0.000064 µg/L.

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TABLE 2-2
Analytical Methods for MS4 Sampling
QAPP for the City of Coeur d'Alene, ID

Analyte	Analytical Method	Target Reporting Limit	Precision & Accuracy/ Completeness
Flow	N/A	N/A	N/A
Temperature	SM 2550B	N/A	N/A
Total suspended solids	SM 2540D	N/A	
Total phosphorous ¹	EPA 365.3 / SM 4500-P-E	2 µg/L	
Total Nitrogen ¹	SM D-5176	50 µg/L	
Total lead ¹	EPA 200.8	0.13 µg/L	+/- 25%
Total zinc ¹	EPA 200.7	5.0 µg/L	95%
Hardness ¹	SM 2340B	0.30 mg/L	
Total Polychlorinated Biphenyls (PCB)	EPA 608	0.014 µg/L ²	

Notes:

¹ Analytical methods are from the Quality Assurance Project Plan, Addendum 2009 for Coeur d'Alene Lake, ID.

² The numeric criterion listed for PCB is the Aquatic Life Chronic Criteria (CCC).

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SECTION 3

Data Generation and Acquisition (EPA Group B)

3.1 Sampling Design (Experimental Design) (B1)

The sampling design for the MS4 NPDES discharge monitoring program is dictated by the requirements of the permit. Therefore, sampling locations, frequencies, and parameters/analytes are consistent with the requirements of the permit.

3.1.1 Monitoring Locations

The locations of the MS4 outfalls and their associated service areas within the Coeur d'Alene Urbanized Area are shown on Figure 2-1. A total of 12 outfalls are associated with the City's MS4, seven discharge to Lake Coeur d'Alene and five discharge to the Spokane River. The service areas associated with the outfalls are variable.

Section IV.A.5.a of the permit requires that two outfalls that represent the largest or highest discharges from the MS4 system to the Spokane River and Lake Coeur d'Alene be monitored as part of the MS4 NPDES discharge monitoring program. Currently, no hydrologic data regarding the volumes or flows of discharge from the MS4 outfalls is available. Therefore, the outfall locations and service areas were used to select the two MS4 NPDES discharge monitoring outfall locations shown in Figure 2-1 and described below:

Lake Coeur d'Alene Outfall – This storm sewer drainage basin is located in the southeast portion of the City and is bordered by Coeur d'Alene Lake to the south and Interstate 90 (I-90) to the northeast. The basin is approximately 554 acres. This outfall is located near the intersection of S. Floating Green Dr. and S. 24th St.

Spokane River Outfall – This storm sewer drainage basin contains area to the north and south of I-90. It collects stormwater along Northwest Boulevard, south of I-90, and also collects runoff from a large area north of I-90 on both the east and west sides of U.S. 95. The basin is approximately 222 acres. This outfall is adjacent to Bellerive Ln, near the end of N. Lakewood Dr.

During high water conditions in Lake Coeur d'Alene and the Spokane River, the majority of the City's MS4 outfalls are located below the high water elevation. Therefore, in order to collect discharge and water quality data that is representative of actual MS4 conditions, it is necessary to move the monitoring locations upstream within the MS4 system. At each of the MS4 NPDES discharge monitoring locations, new manholes and automated sampling and discharge monitoring equipment will be installed.

3.1.2 Monitoring Frequency and Timing

The permit requires a minimum of 4 samples to be collected from the two monitoring locations listed above during the calendar year. The four monitoring time periods identified in the permit are: March – April, May – June, August, and September – October.

The timing for the collection of water quality samples from the MS4 NPDES discharge monitoring locations is dictated by the occurrence of storm events. In the *NPDES Storm Water Sampling Guidance Document* (USEPA, 1992) a storm event is defined to mean the following: the depth of the storm must be greater than 0.1 inch accumulation; the storm must be preceded by 72 hours of dry weather; and where feasible, the depth of the rain and duration of the event should not vary by more than 50 percent of the average depth and duration. For the MS4 NPDES discharge monitoring program, precipitation will be tracked using the weather station located at the Coeur d'Alene Municipal Airport (http://www.wunderground.com/US/ID/Coeur_D_Alene.html or <http://weather.noaa.gov/cgi-bin/iwszone3#t1>). When the above conditions are met, water quality samples will be collected from the outfalls within the first 30 to 60 minutes of the storm event.

In the event that precipitation data from the Coeur d'Alene Municipal Airport weather station is found to be insufficient to quantify storm events in a manner that allows for sampling to occur in a timely manner, a separate precipitation monitoring location within the MS4 service area may be established.

The sampling and monitoring equipment at each outfall will be hard-wired for both electricity and telephony. The telephony feature will allow the sampling and monitoring equipment to relay real-time information to data users and allow for remote activation of sampling equipment in response to weather conditions. It is anticipated that as monitoring of the MS4 continues, that a correlation between storm events and changes in discharge monitored at the MS4 outfalls may be developed. This would allow automated sampling of the MS4 outfalls to occur in response to actual discharge conditions measured within the outfall.

3.1.3 Monitoring Parameters

Parameters required for monitoring as part of the MS4 NPDES discharge monitoring program are defined in the NPDES permit and are shown in Tables 2-1 and 2-2. Table 3-1 provides a summary of recommended container sizes, container types, sample preservation and holding times for each analysis along with the number of samples and QC samples to be collected during monitoring event. The standard practices and protocols for the collection of physical measurements and water quality samples are detailed in Section 3.2.

3.2 Sampling Methods (B2)

This section describes the procedures to be used for sample collection and laboratory analysis of stormwater samples collected under the MS4 monitoring program.

3.2.1 Physical Parameters Measured by Instrumentation

Flow measurements will be collected using an area-velocity sensor (Isco 4250 or equivalent) to monitor open-channel flow at the two monitoring locations. This flow meter will continuously record flow rate and temperature data. Figure 3-1 shows a schematic of the monitoring location. The sensor is mounted with a scissor ring in the influent pipe to the manhole and is connected via cable to the module, which is housed in an above-ground box nearby. The box will be located inside the city right-of-way at an easily accessible location

along the road. This configuration will remove the need to reroute traffic and access the manhole to obtain discharge measurements.

Also housed in the box will be a telephone modem (Isco 4200 series telephone modem or equivalent) which will transmit data from the flow meter. The modem will allow for remote retrieval of flow meter data, providing two-way communication between the on-site flow meter and a base computer. A computer running appropriate software (Isco Flowlink 5.1 or equivalent) will interrogate the flow meter at programmed increments. The software can also be used to organize, graph and report the data.

The system is powered with battery packs (Isco 913 or equivalent) which are plugged into AC-powered chargers.

3.2.2 Water Sample Collection

Water quality samples will be collected using an automated sampling device (Isco 3700 or equivalent) that will be collocated with the flow monitoring equipment discussed above and shown in Figure 3-1.

As mentioned in 3.1.2, it will be necessary at the beginning of the monitoring program for the PM or designated staff to remotely trigger the sampling system when storm event conditions are met. This will be required until a correlation can be developed between precipitation and changes in flow rates measured at the outfalls. When a correlation has been developed, the sampling system will be set to collect samples when flow conditions exhibit a change consistent with the storm event. When these conditions are met, the sampling system will automatically trigger water quality sample collection and the phone modem will dial up to three pre-programmed phone numbers and send messages that sampling is underway.

Once the sampling process is initiated, the automatic sampling system will draw eight 1-liter samples of stormwater at each outfall. The glass 1-liter bottles in the sampling unit will be purchased from the manufacturer of the automatic sampler to ensure proper functionality of the system.

After the automatic sampler has completed sample withdrawal, the 1-liter bottles will then be retrieved as soon as possible from the sampling unit and composited using a churn sample splitter. Samples for laboratory analysis will be withdrawn from the churn sample splitter into the appropriate sample bottles identified in Table 3-1. Where preservatives are required, pre-preserved sample bottles will be used. QC samples will be collected at each outfall as identified in Table 3-1.

Following sample collection and bottling, the samples will be labeled, placed in a Ziploc bag, and placed in a cooler with ice. The ice will be double bagged in Ziploc bags to prevent leakage during shipment. The samples will be shipped via express carrier for same-day or overnight delivery to SVL Analytical in Kellogg, Idaho. At the discretion of the PM, samples may be hand delivered to the laboratory depending on the timing of sample collection. Samples for PCB analysis will be shipped from SVL to Anatek for analysis.

Samples collected from the two different outfalls will be kept separate at all times and shipped in separate coolers. The churn splitter and 1-liter glass bottles from the automatic

sampler will be decontaminated after sample collection using a 5% HCL wash (per USGS methods) and an Alconox/water solution, followed by a rinse with deionized water.

3.3 Sample Handling and Custody (B3)

A sample is physical evidence collected from the immediate environment, or from another source. Because of the potential evidentiary nature of samples, the possession of samples must be traceable from the time the samples are collected until they are introduced as evidence. In addition to field notebooks, there are a number of documents for tracking sample custody.

Field documents including sample custody seals, and chain-of-custody records will be obtained from the laboratory. Chain-of-custody procedures will be used to maintain and document sample collection and possession. After sample packaging, the appropriate chain-of-custody form will be completed. The PM will be responsible for retaining and tracking chain-of-custody forms for the program.

Copies of the form will be filled out and distributed in accordance with the instructions for sample shipping and documentation.

The following subsections detail the sample management and documentation procedures that will be used during the MS4 NPDES discharge monitoring program.

3.3.1 Chain of Custody

Because samples collected during monitoring could be used as evidence, their possession must be traceable from the time the samples are collected until they are introduced as evidence in legal proceedings. Chain-of-custody procedures are followed to document sample possession as described below:

Definition of Custody

A sample is under custody if one or more of the following criteria are met:

- It is in your possession
- It is in your view, after being in your possession
- It was in your possession and then you locked it up to prevent tampering
- It is in a designated secure area

Field Custody

In collecting samples for evidence, only enough volume to provide a good representation of the media being sampled will be collected. To the extent possible, the quantity and types of samples and sample locations are determined before the actual fieldwork. As few people as possible should handle samples.

The field sampler is personally responsible for the care and custody of the samples collected until they are transferred or dispatched properly.

The PM determines whether proper custody procedures were followed during the field work, and decides whether additional samples are required.

Transfer of Custody and Shipment

Samples are accompanied by a chain-of-custody record. When transferring samples, the individuals relinquishing and receiving the samples sign, date, and note the time on the record. This record documents custody transfer from the sampler, often through another person, to the analyst at the laboratory.

Samples are packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate chain-of-custody record accompanying each shipping container. Shipping containers will be sealed with custody seals for shipment to the laboratory. Courier names and other pertinent information are entered in the "Received by" section of the chain-of-custody record.

All shipments are accompanied by the chain-of-custody record identifying its contents. The original record and one copy accompany the shipment to the laboratory, and a second copy is retained by the PM.

Freight bills, postal service receipts, and bills of lading are retained as part of the permanent documentation.

3.3.2 Custody Seals

When samples are shipped to the laboratory, they must be placed in containers sealed with custody seals. One or more custody seals must be placed on each side of the shipping container.

3.3.3 Field Notebooks

In addition to chain-of-custody records, a bound field notebook will be maintained by the PM or sample collection staff to provide a daily record of significant events, observations, and measurements during sample collection. All entries will be signed and dated. The notebook will be retained by the City as a permanent record.

These notebooks are intended to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project, and to refresh the memory of the field personnel if called upon.

3.3.4 Corrections to Documentation

All original data recorded in field notebooks, sample identification tags field data forms, and receipts-for-sample forms will be written in waterproof ink, unless prohibited by weather conditions. Chain of custody forms will be obtained from the laboratory. None of these accountable documents are to be destroyed or thrown away, even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made on an accountable document the field team leader may make corrections simply by drawing a single line through the error and entering the correct information. The erroneous information should not be obliterated. Any subsequent error discovered on an accountable document should be corrected by the person who made the entry. All subsequent corrections must be initialed and dated.

3.4 Analytical Methods (B4)

Project analytes, methods, and required detection levels are listed in Table 2-2. The recommended container sizes, container types, sample preservation, and holding times for each analysis as well as the number of samples and QC samples to be collected during each monitoring event are presented in Table 3-1.

3.5 Quality Control (B5)

QC requirements are detailed in the following subsections.

3.5.1 Field Quality Control Procedures

QC requirements related to the sample collection process (i.e., sample design, sampling methods, sample handling, and sample custody) are described in Sections 3.1 to 3.3.

The sampling program includes collection of field QC samples, including field duplicates and laboratory QC samples (for matrix spikes [MSs]). The QC samples will be collected immediately following collection of target samples and using the same procedures as the collection of the target sample. QC samples will be collected from alternating sampling locations for each sampling event.

3.5.2 Laboratory Quality Control Procedures

Laboratory QC procedures will include the following:

- Analytical methodology and QC according to methods listed in Table 2-2
- Instrument calibration and standards as defined in the methods listed in Table 2-2
- Laboratory blank measurements at a minimum 5 percent or 1-per-batch frequency
- Accuracy and precision measurements at a minimum of 1 in 20, 1 per set
- Data reduction and reporting according to the methods listed in Table 2-2
- Laboratory documentation equivalent to the USEPA CLP

3.6 Instrument/Equipment Testing, Inspection, and Maintenance (B6)

Instrument maintenance logbooks are maintained in laboratories at all times. The logbooks, in general, contain a schedule of maintenance as well as a complete history of past maintenance, both routine and non-routine.

Preventative maintenance is performed according to the procedures described in the manufacturer's instrument manuals, including lubrications, source cleaning, detector cleaning, and the frequency of such maintenance. Precision and accuracy data are examined for trends and excursions beyond control limits to determine evidence of instrument malfunction. Maintenance will be performed when an instrument begins to degrade as

evidenced by the degradation of peak resolution, shift in calibration curves, decrease in sensitivity, or failure to meet one or another of the QC criteria.

Instrument downtime is minimized by keeping adequate supplies of all expendable items, where expendable means an expected lifetime of less than 1 year. These items include gas tanks, filters, syringes, ferrules, printer paper and ribbons, and pump oil. Preventative maintenance for field equipment (for example, pH meters) will be carried out in accordance with procedures and schedules outlined in the particular model's operation and maintenance handbook.

3.7 Instrument/Equipment Calibration and Frequency (B7)

Laboratory calibration procedures are specified in the methods referenced in Table 2-2. All calibrations unless specified otherwise by method (such as for metals), at a minimum will be at the following level of effort:

Initial calibration unless specified otherwise by standard EPA method will include, at a minimum, three-point calibration before a run.

Continuing calibration for all methods will include a mid-range (or as defined by method) calibration standard after every tenth sample or every 12 hours

3.8 Inspection/Acceptance of Supplies and Consumables (B8)

Supplies and consumables will be acquired and inspected in accordance with acquisition specifications upon receipt. All sample containers that will be used for the project will be "certified clean".

3.9 Nondirect Measurements (B9)

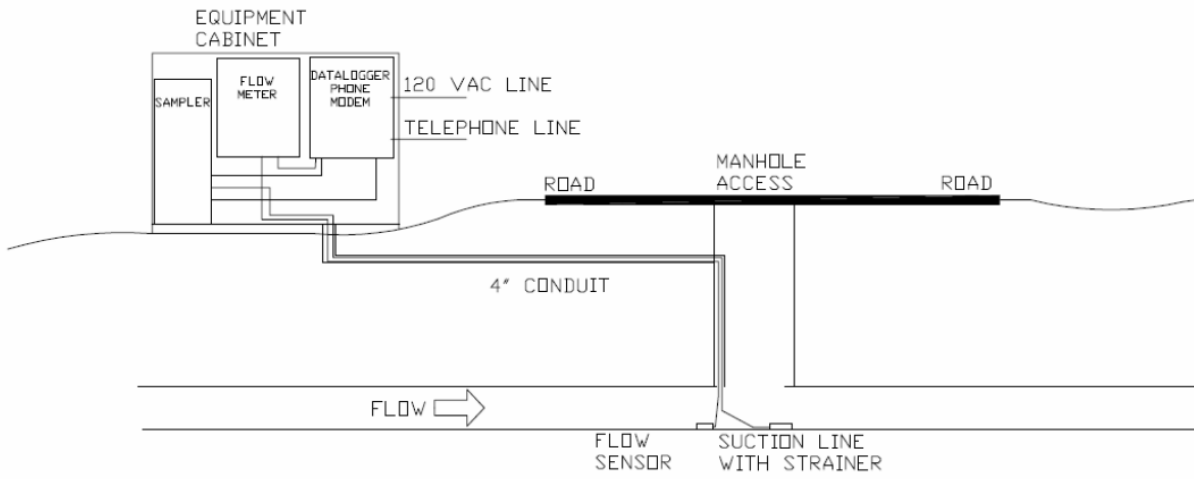
This section describes data that were obtained from non-direct measurement sources such as computer databases, programs, literature files, and historical databases that may be used in making decisions. During the course of the MS4 NPDES monitoring program, precipitation data from the weather station located at the Coeur d'Alene Municipal Airport (http://www.wunderground.com/US/ID/Coeur_D_Alene.html or <http://weather.noaa.gov/cgi-bin/iwszone3#t1>) will be used to determine the timing for sampling events. Where this data is used, it will be identified in the records for the project and required reporting documents.

3.10 Data Management (B10)

Data obtained as part of the MS4 NPDES discharge monitoring program will be maintained in Excel spreadsheets and other electronic databases (continuous discharge/temperature data), as required. All data will undergo review and validation as described in Section 5.

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FIGURE 3-1
Monitoring System Schematic



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TABLE 3-1
MS4 Sampling Containers, Preservation, Holding Times, and Sample Number
QAPP for the City of Coeur d'Alene, ID

Analyte	Container Type	Container Preparation	Container Size	Preservation	Holding Times	Number of Samples Per Event Per Outfall ²
Flow	N/A	N/A	N/A	N/A	N/A	N/A
Temperature	N/A	N/A	N/A	N/A	N/A	N/A
Total suspended solids	Resistant-glass or plastic bottles	N/A	500 mL	Cool to 4C	24hrs (7 days max)	2
Total phosphorous ¹	Opaque polyethylene	Pre-preserved with H2SO4 to pH<2	500 mL	Cool to 4C	28 days	2
Total nitrogen ¹	Opaque polyethylene	2-40mL glass vials preloaded with HCL, supplied by lab	500 mL	Cool to 4C	28 days	2
Total lead ¹	Certified clean, pre-acid rinsed opaque polyethylene	Pre-preserved with HNO3 to pH<2	500 mL		6 months	2
Total zinc ¹	Certified clean, pre-acid rinsed opaque polyethylene	Pre-preserved with HNO3 to pH<2	500 mL		6 months	2
Hardness ¹	Certified clean, pre-acid rinsed polyethylene	Pre-preserved with HNO3 to pH<2	500 mL		6 months	2
Total Polychlorinated Biphenyls (PCB)	Amber glass with Teflon lid	N/A	500 mL	Cool to 4C	72 hrs	2

Notes:

¹ Data from the Quality Assurance Project Plan, Addendum 2009 for Coeur d'Alene Lake, ID.

² There are four sampling events per year. One of the two samples from each sampling event will be a QC sample: either a duplicate or MS sample. The source of these QC samples will alternate between outfalls between sampling events. The QC samples should include field blanks using certified inorganic bland water (IBW) or equivalent (USGS).

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SECTION 4

Assessment and Oversight (EPA Group C)

4.1 Assessments and Response Actions (C1)

The RTL and PM will monitor the performance of the QA procedures. If problems arise the RTL may conduct an audit. The audit may be scheduled to evaluate (1) the execution of sample identification, chain-of-custody procedures, field notebooks, sampling procedures, and field measurements; (2) whether trained personnel staffed the sample event; (3) whether equipment was in proper working order; (4) availability of proper sampling equipment; (5) whether appropriate sample containers, sample preservatives, and techniques were used; (6) whether sample packaging and shipment were appropriate; and (7) whether QC samples were properly collected.

Audits will be followed up with an audit report prepared by the auditor. The auditor will also debrief the PM or field team at the end of the audit and request that the field team comply with the corrective action report.

If QC audits result in detection of unacceptable conditions or data, the PM will be responsible for developing and initiating corrective action. The PM will decide whether any corrective action should be pursued. Corrective action may include the following:

- Reanalyzing samples if holding time criteria permit
- Re-sampling and analyzing
- Evaluating and amending sampling and analytical procedures
- Accepting data acknowledging a level of uncertainty

4.2 Reports to Management (C2)

The RTL may request a QA report to be made by the PM on the performance of sample collection and data quality. The report will include the following:

- Assessment of measurement data accuracy, precision, and completeness
- Results of performance audits
- Results of systems audits
- Significant QA problems and recommended solutions

Progress reports, prepared as needed, will summarize overall project activities and any problems encountered. QA reports generated on sample collection and data quality will focus on specific problems encountered and solutions implemented. Alternatively, in lieu of a separate QA report, sampling and field measurement data quality information may be summarized and included in the annual reports summarizing sampling activities. The objectives, activities performed, overall results, sampling, and field measurement data quality information for the project will be summarized and included in reports along with any QA reports.

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SECTION 5

Data Validation and Usability (EPA Group D)

5.1 Data Review, Verification, and Validation (D1)

Data verification will be conducted by the laboratory prior to submission to the City. The PM will review the data to determine if the data are of sufficient quality to support the project objectives. After the data review is completed, data qualifiers may be appended to the measurement values.

5.2 Verification and Validation Methods (D2)

Initial data reduction, validation, and reporting at the laboratory will be performed as described in the laboratory standard operating procedures. The PM will review the laboratory data reduction, validation, and reporting. The PM will communicate with the laboratory QA manager to determine the cause of any poor results noted and plot out a corrective action that will be documented in the project records.

5.3 Reconciliation with User Requirements (D3)

Results obtained from the project will be reconciled with the requirements specified in Table 2-2. Assessment of data for precision, accuracy, and completeness will be performed by the City in accordance with the quantitative definitions in the following subsections and will be documented in the annual reports.

5.3.1 Precision

If calculated from duplicate measurements, use the following:

$$RPD = \frac{(C_1 - C_2) \times 100\%}{(C_1 + C_2) / 2}$$

where:

- RPD = relative percent difference
- C₁ = larger of the two observed values
- C₂ = smaller of the two observed values

If calculated from three or more replicates, use relative standard deviation (RSD) rather than relative percent difference (RPD), as follows:

$$\text{RSD} = (s / \bar{y}) \times 100\%$$

where:

RSD = relative standard deviation
s = standard deviation
 \bar{y} = mean of replicate analyses

Standard deviation, s, is defined as follows:

$$s = \sqrt{\frac{\sum_{i=1}^n (y_i - \bar{y})^2}{n - 1}}$$

where:

s = standard deviation
 y_i = measured value of the i^{th} replicate
 \bar{y} = mean of replicate analyses
n = number of replicates

5.3.2 Accuracy

For measurements where matrix spikes are used, use the following:

$$\%R = 100\% \times \left[\frac{S - U}{C_{sa}} \right]$$

where:

%R = percent recovery
S = measured concentration in spiked aliquot
U = measured concentration in unspiked aliquot
 C_{sa} = actual concentration of spike added

For situations where a standard reference material (SRM) is used instead of or in addition to matrix spikes, use the following:

$$\%R = 100\% \times \left[\frac{C_m}{C_{sm}} \right]$$

where:

%R = percent recovery
 C_m = measured concentration of SRM
 C_{sm} = actual concentration of SRM

5.3.3 Completeness (Statistical)

Defined as follows for all measurements:

$$\%C = 100\% \times \left[\frac{V}{T} \right]$$

where:

%C = percent completeness
V = number of measurements judged valid
T = total number of measurements

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SECTION 6

References

Guidelines Establishing Test Procedures for the Analysis of Pollutants. Code of Federal Regulations Title 40, Pt. 136, 2009.

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U.S. Environmental Protection Agency (USEPA). 1998 and 2002a. *EPA Guidance for Quality Assurance Project Plans. (QA/G-5)*. (EPA/240/R-02-009). Washington, D.C.

USEPA. 1992. *NPDES Storm Water Sampling Guidance Document*. (EPA/833/B-92-001).

USEPA. 1994b, 1999, 2002 and 2004. *Contract Laboratory Program National Functional Guidelines for Inorganic/Organic Data Review*. OSWER 9240.1-45. (EPA/540/R-04-004). Washington, D.C.

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APPENDIX A

Data Quality Objectives

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APPENDIX A

Data Quality Objectives

On November 19, 2008, the United States Environmental Protection Agency (USEPA) authorized Permit Number IDS-028215 under the National Pollutant Discharge Elimination System (NPDES) to the City of Coeur d'Alene, Idaho (City) for storm water discharges from the City's existing municipal separate storm sewer system (MS4) outfalls to Lake Coeur d'Alene, the Spokane River, and other waters of the United States within the Coeur d'Alene Urbanized Area. Monitoring requirements for the City's MS4 outfalls are presented in Section IV of the permit. In Section IV, the following monitoring objectives are identified:

- a) Estimate the pollutant load currently discharged from the MS4s;
- 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.

Based on these monitoring objectives and the monitoring requirements identified in Section IV of the permit, data quality objectives (DQOs) have been developed to ensure that the right type, quantity, and quality of data needed to develop pollutant loading estimates and support decisions associated with permit requirements are collected.

This attachment contains three sections: Section A.1 describes the data quality objectives (DQO) process, Section A.2 presents the DQOs for the monitoring program, and Section A.3 presents the references used to develop this attachment.

A.1 Data Quality Objectives Process

The USEPA DQO process was used to identify the specific needs for the monitoring program and to establish decision rules for the collection and analysis of storm water monitoring data from the City's MS4 outfalls as required in the NPDES permit. The DQO process is a seven-step iterative planning approach used to prepare plans for environmental data collection activities and is intended to help site managers plan to collect data of the right type, quality, and quantity to support defensible site decisions. The seven steps are as follows:

1. State the Problem – Summarize the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop the conceptual site model.
2. Identify the Decision – Identify the decision that requires new environmental data to address the problem.
3. Identify Inputs to the Decision – Identify the information needed to support decisions and specify which inputs require new environmental measurements.

4. Define the Study Boundaries – Specify the spatial and temporal aspects of the environmental media that the data must represent to support the decision.
5. Develop a Decision Rule – Develop a logical “if...then...” statement that defines the conditions that would cause the decision-maker to choose among alternative actions.
6. Specify Limits on Decision Errors – Specify the decision-maker’s acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data.
7. Optimize the Design for Obtaining Data – Identify the most resource-effective sampling and analysis design for generating data that are expected to satisfy the DQO

A.2 Municipal Separate Storm Sewer System Discharge Sampling Data Quality Objectives

This section details the DQOs as they relate to the City of Coeur d'Alene NPDES MS4 outfall monitoring program. This section uses the format presented in *Guidance on Systematic Planning Using the Data Quality Objectives Process* (EPA QA/G-4, EPA, 2006).

Step 1. State the Problem

1	Develop a concise description of the problem	As part of the NPDES Permit for the City of Coeur d'Alene's MS4 outfalls, monitoring of discharge and water quality at outfalls following storm events is required. The monitoring data are intended for use to estimate the current pollutant loading from the MS4, assess effectiveness and adequacy of control measures implemented as part of the permit, and to identify and prioritize portions of the MS4 that may require additional controls.
2	Identify the primary decision-maker and the planning team	<p>Decisions regarding the MS4 NPDES outfall monitoring program will be made by the City of Coeur d'Alene with input from USEPA and the Idaho Department of Environmental Quality (IDEQ).</p> <p>The planning team for the development of the DQOs and QAPP for the MS4 NPDES outfall monitoring program included the City of Coeur d'Alene and their contractor CH2M HILL.</p>
3	Specify available resources and relevant deadlines for the study	<p>Available resources for the study include:</p> <ul style="list-style-type: none"> • Climatological data from the weather station located at the Coeur d'Alene airport, north of the City of Coeur d'Alene • Surface water quality data from the USGS monitoring location on the Spokane River near the Coeur d'Alene Lake Outlet (USGS Number 12417610) • Schematics of the City of Coeur d'Alene MS4 system outfalls and service areas associated with each outfall. <p>Relevant deadlines for the study include:</p> <ul style="list-style-type: none"> • The NPDES permit requires that monitoring of 2 MS4 outfalls (one to Lake Coeur d'Alene and one to the Spokane River) be monitored four times per year in response to storm events (one sampling

		<p>event for the following periods: March - April, May - June, July - August, and September - October). The permit requires that the MS4 outfall sampling program be initiated within 18 months of the permit effective date (June 1, 2010).</p>
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Step 2. Identify the Goal of the MS4 Monitoring Program

1	<p>Identify the principal study questions.</p>	<p>A. What is the estimated pollutant loading currently discharged from the MS4s for the parameters identified in Table IV.A of the permit?</p> <p>B. What is the effectiveness and adequacy of control measures implemented through the permit?</p> <p>C. Is there a need for additional control measures for portions of the MS4 and what are the priority of these control measures?</p>
2	<p>Define alternative actions that could result from resolution of the principal study questions.</p>	<p>Principal study questions A and B are estimation problems.</p> <p>For Question A, the principal estimation measure will be the load of pollutants currently discharging from the City's MS4. Estimates of current pollutant loading will be based on measurements of discharge and water quality, at 2 monitoring locations, collected prior to the implementation of control measures required by the permit and will act as the baseline for future comparisons to address Question B. The impacts of the highly variable impacts of storm event based sampling on pollutant loadings will need to be taken into consideration when developing the estimates as hydrologic and weather conditions tend to be highly variable between years. Further, estimates for the entire MS4 will be based on conditions measured at 2 locations. If significant differences between service areas associated with outfalls are believed to be present then adjustments to the estimates may be necessary.</p> <p>For Question B, the principal estimation measure, pollutant loading from the City's MS4, will be the same as for Question A. MS4 pollutant loading data collected after the implementation of control measures required by the permit will be compared to the baseline conditions established in Question A. Similar to Question A above, the impact of the variability</p>

		<p>associated with hydrologic and weather conditions between years and potentially service areas will need to be evaluated.</p> <p>For Question C the alternative actions are:</p> <ul style="list-style-type: none">• No further control measures are necessary.• Additional data collection/evaluation is necessary to determine the need for additional control actions and to determine the priority of the actions.• Develop, prioritize, and implement additional control actions. <p>Because pollutant loading is driven in large part by discharge, we anticipate that there will be a high degree of variability in the data between monitoring events over the span of the monitoring program. This is a direct result of changes in hydrologic and weather pattern conditions over time. Therefore, when comparing data, these conditions will need to be taken into consideration to determine the effectiveness and adequacy of control measures on pollutant loading. Similar to question A before, the concentrations of pollutants measured will be compared with baseline concentrations, Idaho water quality standards, and downstream water quality concentrations measured at the USGS monitoring station on the Spokane River.</p> <p>C. The alternative actions for question C are:</p> <p>No Action</p> <p>Additional data collection is required</p> <p>Develop and implement additional control measures.</p> <p>The estimates will be developed using discharge and water quality measurements collected at the 2 MS4 outfalls where monitoring will occur. The load estimates developed for the 2 monitored MS4 outfalls will be developed by using continuous discharge monitoring data and the water quality recorded during the 4 sampling events required by the NPDES permit. As discussed later in the DQOs and the QAPP, the water quality measured during the 4 sampling events will represent the likely "worst case" scenario for water quality from the outfalls and therefore, the sc and the size of the service areas associated with each</p>
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		<p>outfall will be used to develop loading estimates for the remaining MS4 outfalls by assuming similar water quality for the remaining MS4 outfalls and scaling the contribution of total loading from the MS4 according to service area size of the remaining outfalls. monitored and 4 water quality samples collected throughout the water year. The results of these estimates will be used to develop estimates for other MS4 outfalls not monitored based on their service acreage with respect to the monitored outfalls. As discussed later in the DQOs and in the QAPP, the water quality samples collected will represent the likely "worst-case" water quality scenario for these outfalls and therefore, estimates generated for pollutant loading from the MS4s will be conservative.</p> <p>For question B, the principle estimation measure will be based on the difference in pollutant loading following the implementation of control measures identified in the Storm Water Management Plan. These estimates will be limited to control measures conducted in the service area of those MS4 outfalls being monitored. Effectiveness and adequacy estimates will be related to non-monitored outfalls based on the results obtained from monitored outfalls.</p> <p>In addition to the estimation of pollutant loading, the concentrations of pollutants identified for monitoring in the permit will also be compared against Idaho water quality standards and water quality measured at the USGS monitoring location on the Spokane River.</p> <p>C. The alternative actions for question C are:</p> <ul style="list-style-type: none"> No Action Additional data collection is required Develop and implement additional control measures.
3	Combine the principal study questions and the alternative actions into a decision statement	A. Discharge from the 2 MS4 outfalls that are monitored will be combined with water quality data to determine loading occurring at these outfalls. The resultant loads from the measured outfalls will be used to estimate loading from non-monitored MS4 outfalls and estimate total loading from the MS4 system occurring prior to the

		<p>implementation of control actions required in the permit.</p> <p>B. After the implementation of control measures identified in the Storm Water Management Plan, pollutant loading estimates for the 2 MS4 outfalls will be developed and to estimate loading from the MS4 system and compared with estimates generated as part of Question A. The comparison of pre- and post-implementation pollutant loading will be used to evaluate the effectiveness and adequacy of the control measures.</p> <p>C. After the implementation of control measures identified in the Storm Water Management Plan, pollutant loading estimates will be evaluated to determine if no action, additional data collection, or additional control measures are required.</p>
4	Organize multiple decisions	<p>A and B are estimation problems and the multiple decision statement is the same as shown above in Step 2, part 3.</p> <p>Principal Study Question C:</p> <ol style="list-style-type: none"> 1. If the control measures identified in the Storm Water Management Plan are shown to be effective and adequate in controlling pollutant loading from the MS4 system, then no further action may be necessary. 2. If the control measures identified in the Storm Water Management Plan do not appear to be effective and adequate with a high level of uncertainty with respect to monitoring results and hydrologic and weather conditions, then additional data collection may be necessary. 3. If the control measures identified in the Storm Water Management Plan do not appear to be effective and adequate in controlling pollutant loading from the MS4 system with a low level of uncertainty with respect to monitoring results and hydrologic and weather conditions, then additional control measures may need to be developed.

Step 3. Identify Inputs to the Decision

1	Identify information that will be required to resolve the	The data needs for all principal study questions are
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	decision statement	<p>identical.</p> <ul style="list-style-type: none"> • Precipitation data to determine the timing of sample collection with respect to storm event conditions. • Acreages of the service areas for each MS4 outfall • Continuous discharge data for monitored outfalls • Water quality data for the parameters listed in Table IV.A of the permit.
2	Determine the sources for each item of information required	<p>Precipitation data will be obtained from the weather station located at the Coeur d'Alene Municipal Airport. If this data is found to be insufficient for the purpose of identifying sample collection times, then the establishment of a precipitation monitoring unit will be evaluated.</p> <p>The acreages of the service areas for each MS4 outfall will be estimated using a GIS system and drawings of the current layout of the MS4 system.</p> <p>Continuous discharge data collection devices will be installed in the outfalls identified for monitoring.</p> <p>Automatic samplers will be installed in the outfalls identified for monitoring. Automated samplers will be activated based on precipitation conditions that indicate a storm event is occurring. Over time, it is anticipated that a correlation between storm event occurrence and changes in discharge measured by the discharge data collection devices will be established and that automated sampling will be aligned with these changes.</p>
3	Identify the information that is needed to establish the action level	<p>Action levels for question B and C are based on pre- and post-control measure implementation water quality and pollutant loading. The concentrations of parameters listed in Table IV.A will also be compared with applicable water quality standards and with water quality data collected by the USGS at their monitoring location on the Spokane River.</p>
4	Confirm the appropriate measurement methods exist to provide the necessary data	<p>Methods consistent with the above needs are identified in the QAPP. The method reporting and detection limits selected are based on the Idaho water quality standards where appropriate.</p>

Step 4. Define the Boundaries for the Study –

1	Specify the characteristics that define the population of interest	The population of interest is storm water conveyed by the MS4 system during storm events.
2	Define the spatial boundary of the decision statement	Estimates and decisions will be made for storm water conveyed by the MS4 system.
3	Define the temporal boundary of the decision statement	Monitoring of the MS4 storm water will be conducted in response to storm events four times per year in accordance with the permit until the expiration of the NPDES permit (December 31, 2014).
4	Define the scale of decision-making	Estimates and decisions will be made for storm water conveyed by the MS4 system.
5	Identify practical constraints on data collection	<p>Discharge and water quality monitoring will be conducted using automated sampling devices located in manholes upstream of the outfalls. It was determined that sampling upstream of the actual outfall location was optimal because the majority of outfalls associated with the City's MS4 are typically submerged during high water conditions.</p> <p>Monitoring under this plan is conducted in response to storm events within a certain bracketed time period. The potential exists that during one of the bracketed time periods conditions that define a storm will not occur. This would result in no sampling of storm conditions for this time period.</p> <p>At this time, it is unclear if precipitation data measured at the Coeur d'Alene Municipal Airport will be indicative of conditions in the MS4 service area. If the precipitation data from the Coeur d'Alene Municipal Airport monitoring location are found to be insufficient for the purposes of this monitoring program, a precipitation monitoring location within the service area may be established.</p>

Step 5. Develop a Decision Rule

1	Specify the statistical parameter that characterizes the population of interest	Instantaneous discharge measurements linked to the time of collection of water quality samples will be used to estimate instantaneous pollutant loads associated with the MS4 outfalls for discrete storm conditions. These loads will be used to correlate discharge with load (and/or concentrations) using
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		standard curve fitting techniques available in Microsoft Excel to estimate pollutant loads (concentrations) under other storm and non-storm conditions that may not be monitored. Annual pollutant loads and concentration ranges will be estimated for the monitored outfalls based on the continuous discharge and discrete water quality samples. These estimates will be used to estimate pollutant loads for other unmonitored MS4 outfalls based on their service area with respect to the monitored area. The data will be further evaluated to estimate mean daily pollutant loading, median pollutant loading, and loading associated with various storm events to the extent that particular storm events occur and are monitored and that extrapolation can be performed.
2	Specify the action level for the study	The decision problems associated with the MS4 monitoring plan are estimate problems and therefore an action level is not applicable. However, water quality samples collected from the MS4 will be compared with applicable State and Federal water quality criteria/standards on a sample-specific basis.
3	Develop a decision rule (an "if....then...." statement)	Principal study questions A and B are estimation problems and do not require a decision rule. For principal study question C see Step 2, part 4 above.

Step 6. Specify Performance Metrics and Acceptable Levels of Uncertainty

1	Determine the range of the parameters of interest	Current discharge and water quality associated with the MS4 outfalls is unknown.
2	Identify the decision errors and choose a null hypothesis	The sampling design for the MS4 monitoring is judgmental as the locations, frequency, and parameters are prescribed as part of the permit. Therefore, a null hypothesis is not applicable. The PARCC criteria in the QAPP will be used to evaluate the usability of data in estimating pollutant loads and comparing data with water quality criteria/standards.
3	Specify a range of possible values of the parameter of interest where the consequences of decision error are relatively minor	Because the error for precision and accuracy for water quality samples is on average about 35%, the consequences of estimate errors based on sample results are less than half the specified quantitation level or greater than twice the specified quantitation level are expected to be relatively small. In general, because the collection water quality samples is skewed

		to coincide with "first flush" conditions of storms, the estimates produced using this data are expected to be significant overestimates of actual conditions and therefore more conservative than other options.
4	Assign probability values to points above or below the action level that reflect the tolerable probability for the occurrence of decision errors.	As sampling is judgmental and pre-defined, probability values are not applicable.

Step 7. Optimize the Design

1	Review the DQO outputs and existing data	See steps 1 through 6.
2	Develop general data collection design alternatives	Data collection frequency (4 times per year at within specific time frames) is dictated by the conditions of the permit. Discharge measurements will be collected on a continuous basis to assist with the correlation of pollutant concentrations with various discharge levels and conditions. Automated sampling devices triggered by storm events (initially in response to measured precipitation and then by recognizing changes in discharge at the monitoring location) will be used to collect water quality samples in a timely manner and within the time periods identified in the permit.
3	Formulate the mathematical expressions necessary for each design alternative	Statistical design was not used to develop the monitoring program, thus mathematical formulas are not applicable.
4	For each data collection design alternative, select the optimal size that satisfies the DQOs	The number of samples to be collected is consistent with the number of samples required by the permit.
5	Select the most resource-effective data collection design that satisfies the DQOs	The sampling design is consistent with the requirements of the permit and uses automated sampling and continuous recording devices to ensure that data can be collected using the most resource-effective methodology available.
6	Document the operational details and theoretical assumptions of the selected	Operational details of the selected design are included in the QAPP.

	design in the sampling and analysis plan	
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Appendix 11

STORM WATER MANAGEMENT PLAN

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INTRODUCTION

The City of Coeur d'Alene was issued a discharge permit by EPA, effective January 1, 2009. The permit allows the City to discharge storm water into Lake Coeur d'Alene and the Spokane River with certain requirements and restrictions. The permit covers all areas within the Coeur d'Alene Urbanized Area served by the municipal separate storm sewer system (MS4) owned or operated by the City.

In order to fulfill the requirements of that permit, the City is in the process of developing and implementing a Storm Water Management Program (SWMP) that is designed to reduce the discharge of pollutants from the municipal storm sewer system to the maximum practicable, and to protect the water quality of Lake Coeur d'Alene and the Spokane River. The SWMP includes Best Management Practices (BMP's), system design, engineering methods, and other provisions appropriate to control discharge of pollutants from the storm sewer system.

The SWMP activities and actions are identified in the minimum control measures and monitoring measures outlined in this document. The goal of the SWMP is to provide the following;

- BMP's that are selected, implemented, maintained, and updated to ensure, to the maximum extent practicable, that storm water discharges do not cause or contribute to an exceedance of State water quality standards, as described in IDAPA 58.01.02; and
- Measurable goals, including interim milestones, for each BMP. The City will define how SWMP actions are targeted to control the discharge of pollutants of concern, and evaluate the effectiveness of those actions.

An annual review of the SWMP implementation will be conducted by the City and a report submitted to EPA and IDEQ. The annual review is due February 15th of every year, beginning in 2010.

PUBLIC EDUCATION AND OUTREACH

The City of Coeur d'Alene is in the process of developing and implementing a public education program. The program will be designed 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.

Key components of this program will include the following;

- Placing educational advertisements in the local newspaper
- Periodic press releases highlighting relevant storm water prevention activities
- Providing flyers and brochures to the public
- Distributing educational materials to the local schools
- Placing TV and radio public service announcements
- Showing educational videos on the Cities public television channel
- Making all education materials available on the City's website

Education and outreach will target the following audiences and subjects.

1) General Public

- Impacts of storm water discharges into local water bodies
- Impacts from impervious surfaces
- Best management practices (BMP's) and environmental stewardship actions relating to pet waste, vehicle maintenance, and application of pesticides, herbicides, and fertilizers.

2) Businesses

- BMP's for use and storage of chemicals, hazardous cleaning supplies, carwashes
- Impacts of illicit discharges

3) Developers, Engineers, Contractors.

- Standards for storm water and erosion control plans
- Low impact development techniques
- Maintenance of BMP's

The program will be developed and implemented by January 2011. Public education and outreach activities, such as the type and amount of materials distributed, the number and nature of complaints, will be tracked and documented in the annual report.

PUBLIC INVOLVMENT AND PARTICIPATION

Public involvement in storm water management can provide a sense of ownership and responsibility for the health of the watershed. The City's SWMP will include ongoing opportunities for public involvement through stewardship programs, environmental activities, and other similar activities. These programs and activities will target the general public and include the following;

- Organize and promote an Adopt a Street and Litter Pick up Day
- Public Forums on SWMP activities
- Create and maintain a telephone hotline and track complaints
- Organize and conduct a storm drain stenciling program and track results

In addition, the City will make the SWMP, annual reports, and all other submittals required by the discharge permit available on its website. Data such as the number of groups participating and the number of events, how many road miles in the program, pounds of debris collected, number of complaints received and action taken, and the number of forums conducted and attendance, will be tracked and documented in the annual report.

ILLICIT DISCHARGE, DETECTION, AND ELIMINATION

Illicit discharge, detection and elimination (IDDE) is an important part of the overall SWMP and is a requirement of the discharge permit. The goal of IDDE is to detect, remove and prevent illicit connections, discharges, and improper disposal, including spills, into the storm water system, thereby reducing pollutant discharge. The IDDE program will contain the following elements.

Storm water collection system inventory and mapping.

The City is in the process of updating the map of the storm water drainage system. This includes all the City owned and operated storm sewers, culverts, ditches, and other conveyances, inlets, outfalls (including diameter and latitude and longitude), connection points with other systems, and all City maintenance and storage facilities. The map will be available in digital format when it is completed.

Prohibition of non-storm water discharges.

The City will adopt an ordinance that prohibits non-storm water discharges into the storm water collection system. The ordinance will include enforcement procedures and penalties for violations. It will also list what types of discharges are permitted and which are not.

Discharge detection and elimination program.

The City is in the process of developing a program to detect and eliminate illicit discharges into the storm water conveyance system. The program will have several components including the following;

- Procedures for response to spills
- Procedures for detection, source identification, and removal of illicit discharges
- Procedures for addressing illegal dumping into the storm water system
- Training for City staff on proper response to reports of illicit discharges
- Development of a database management system to track actions related to IDDE program

Public Education.

Informing and educating the public about the hazards associated with illegal discharges is another component of the IDDE program. This includes public employees, businesses, and the general public. The City is developing public service announcements, press releases, flyers, and other methods to inform the public. This is an on going effort.

Dry weather outfall screening.

Screening of the outfalls during periods of dry weather is another component of the IDDE program. This will facilitate detection of non-storm water discharges. Field tests for selected parameters will be performed on outfall discharges. Because these tests are simple indicators of illicit discharges, it is not necessary to follow the same rigorous procedures as the storm water sampling. At least 50% of the outfalls will be screened in the next 5 years. Any illicit discharges will be investigated within 15 days of detection and action taken by the City to eliminate the discharge within 45 days of detection.

Inventory of industrial discharges.

Industrial facilities that discharge into the storm water collection system or into Lake Coeur d' Alene or the Spokane river are required to obtain a separate Industrial Discharge Permit from the EPA. As part of the IDDE program, these facilities will be inventoried and the status of their permits verified. This information will be forwarded to the EPA in the Annual Report.

The program will be implemented by 2011. The effectiveness of the program will be measured by collecting and tracking the data on the each portion (i.e. number of illegal connections removed, complaints received, type and number of materials distributed, etc.) and documenting these in the annual report.

CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

The City of Coeur d'Alene is developing a program to reduce the discharge of polluted storm water runoff from construction sites. The program is applicable to all construction sites that disturb one acre or more, or less than one acre if they are a part of larger common plan of development. The program also includes municipal projects and public works projects.

In addition to the City's requirements, construction site operators are required to satisfy the requirements of EPA's Construction General Permit. That information will be distributed to developers and contractors. City public works projects are also required to comply with the requirements of EPA's Construction General Permit. These records are kept on file at the City and are available to the public.

Control of erosion, sediment, and waste construction products on construction sites is a key element of the construction site runoff program. Therefore, the City will adopt and implement an ordinance requiring construction site operators to implement measures to control these elements at their construction sites. These requirements will be published and distributed to the appropriate building permit applicants.

Storm water management plans are currently required for all land disturbing building permits. These 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 and reviewed and approved by City staff. In addition, these plans will be made available to the public for input.

Inspection of construction sites will be performed at least once per construction season to ensure placement and proper functioning of required erosion control elements. In addition, a program will be implemented to receive and track public complaints related to storm water.

As a part of the public education element of the SWMP, at least one training session will be held for local contractors, engineers, and architects to review the requirements for erosion and sediment control and Best Management Practices.

Data such as number of reviews, permits, inspections, violations, and enforcement actions will be tracked and documented in the annual report.

POST-CONSTRUCTION STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT

The City's Storm water Management Ordinance sets forth strict requirements for post construction storm water management in new development and we are currently developing standards and requirements for redevelopment projects. The purpose of these requirements is to reduce the amount of pollutants discharged from private developments.

The following are the highlights of the ordinance requirements.

- All new development is required to retain storm water runoff on-site, treat the runoff with approved BMP's and then discharge it to a shallow injection well.
- Grassed swales are the only allowed treatment at this time. This is controlled by Idaho Department of Water Resources who has jurisdiction over shallow injection wells over the aquifer.
- Owners are required to operate and maintain their BMP's.
- Each development is required to submit a storm water management plan for review and approval by the Engineering Department, prior to issuance of a building or site development permit.
- Prior to issuance of a Certificate of Occupancy, each development is inspected by the City and the Project Engineers are required to submit a letter of conformance to the plans and specifications.

The number of plan reviews, certificates of occupancy, existing connections removed, and impervious area removed, will be tracked and documented in the annual report.

POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Many of the maintenance activities performed by the City have a direct or indirect impact on the water quality for storm water runoff covered under our discharge permit. The City is developing a maintenance and operation plan that will address processes and procedures meant to minimize the impact of our maintenance operations on water quality. These include;

- The use of sand and road de-icers
- Fleet maintenance and vehicle washing operations
- Street cleaning and maintenance repairs
- Grounds, Park, and open space maintenance operations
- Building maintenance
- Storm water system maintenance
- Snow disposal site operation and maintenance
- Materials storage

In addition to identifying processes and procedures, there will also be a training component designed to familiarize the appropriate staff with these required maintenance procedures. Training will be conducted annually.

Data such as the number and type of maintenance repairs completed, number of catch basins and manholes cleaned, tons of debris and dirt cleaned, road miles swept, and the amount and type of pesticide or herbicide applied, will be tracked and documented in the annual report.

DISCHARGES TO LAKE COEUR D'ALENE, SPOKANE RIVER, AND ASSOCIATED TRIBUTARIES

The City is in the process of establishing two outfall monitoring stations in order to assess whether the storm water system discharges and pollutants of concern, either directly or indirectly, into Lake Coeur d'Alene, the Spokane River, or any of their associated tributaries. One station will sample discharges into Lake Coeur d'Alene and one will sample discharges into the Spokane River. The EPA has established the pollutants of concern as metals (lead and zinc), nutrients (phosphorus, and nitrogen), sediment, dissolved oxygen, total polychlorinated biphenyls (PCB), and temperature. Samples will be taken four times a year, assuming the minimum flow criteria are met, with one sample collected during each of the following periods; March-April, May-June, July-August, and September-October. A Quality Assurance Plan outlining the sampling procedures and protocols has been developed and approved by the EPA and Idaho DEQ.

Appendix 12



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 Name: Stormwater Monitoring Work Order: W0G0074 Reported: 16-Jul-10 13:00
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
Station 1 (19th)	W0G0074-01	Surface Water	02-Jul-10 09:55	Kim Harrington	02-Jul-2010
Station 2 (Bellerive)	W0G0074-02	Surface Water	02-Jul-10 12:24	Kim Harrington	02-Jul-2010

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

(Q6) SVL received the following containers outside of published EPA guidelines for preservation temperatures (0-6°C).

The guidelines do not pertain to nitric-preserved metals.

Default Cooler (Received Temperature: 20.0°C)

<u>Labnumber</u>	<u>Container</u>	<u>Client ID</u>	<u>Labnumber</u>	<u>Container</u>	<u>Client ID</u>
W0G0074-01 A	Raw Amber Glass	Station 1 (19th)	W0G0074-01 B	Raw HDPE	Station 1 (19th)
W0G0074-01 C	Sulfuric HDPE	Station 1 (19th)	W0G0074-01 D	Nitric HDPE	Station 1 (19th)
W0G0074-01 E	HCl VOA glass	Station 1 (19th)	W0G0074-01 F	HCl VOA glass	Station 1 (19th)
W0G0074-02 A	Raw Amber Glass	Station 2 (Bellerive)	W0G0074-02 B	Raw HDPE	Station 2 (Bellerive)
W0G0074-02 C	Sulfuric HDPE	Station 2 (Bellerive)	W0G0074-02 D	Nitric HDPE	Station 2 (Bellerive)
W0G0074-02 E	HCl VOA glass	Station 2 (Bellerive)	W0G0074-02 F	HCl VOA glass	Station 2 (Bellerive)



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

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City of Coeur d'Alene
710 E. Mullan Ave.
Coeur d Alene, ID 83814

Project Name: Stormwater Monitoring
Work Order: **W0G0074**
Reported: 16-Jul-10 13:00

Client Sample ID: **Station 1 (19th)**

SVL Sample ID: **W0G0074-01 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 02-Jul-10 09:55

Received: 02-Jul-10

Sampled By: Kim Harrington

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	5.83	mg/L	0.040	0.006		W028093	DG	07/15/10 14:41	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0020		W028093	DG	07/15/10 14:43	
EPA 200.7	Magnesium	0.899	mg/L	0.060	0.006		W028093	DG	07/15/10 14:41	
EPA 200.7	Zinc	0.0177	mg/L	0.0100	0.0008		W028093	DG	07/15/10 14:43	
SM 2340B	Hardness (as CaCO3)	18.3	mg/L	0.347	0.038		N/A		07/15/10 14:41	
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	0.871	mg/L	0.050	0.009		W029165	SAM	07/15/10 16:05	
SM 2540 D	Total Susp. Solids	7.0	mg/L	5.0	4.2		W028006	AGF	07/07/10 10:25	
SM 4500-P-E	Phosphorus	0.15	mg/L	0.01	0.003		W029150	BF/SA	07/14/10 14:39	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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 Name: Stormwater Monitoring
Work Order: **W0G0074**
Reported: 16-Jul-10 13:00

Client Sample ID: **Station 2 (Bellerive)**

Sampled: 02-Jul-10 12:24

SVL Sample ID: **W0G0074-02 (Surface Water)**

Received: 02-Jul-10

Sample Report Page 1 of 1

Sampled By: Kim Harrington

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	18.0	mg/L	0.040	0.006		W028093	DG	07/15/10 14:47	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0020		W028093	DG	07/15/10 14:49	
EPA 200.7	Magnesium	3.70	mg/L	0.060	0.006		W028093	DG	07/15/10 14:47	
EPA 200.7	Zinc	0.0539	mg/L	0.0100	0.0008		W028093	DG	07/15/10 14:49	
SM 2340B	Hardness (as CaCO3)	60.1	mg/L	0.347	0.038		N/A		07/15/10 14:47	
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	2.98	mg/L	0.200	0.036	4	W029165	SAM	07/15/10 17:05	
SM 2540 D	Total Susp. Solids	40.0	mg/L	5.0	4.2		W028006	AGF	07/07/10 10:25	
SM 4500-P-E	Phosphorus	0.39	mg/L	0.01	0.003		W029150	BF/SA	07/14/10 14:39	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project Name: Stormwater Monitoring Work Order: W0G0074 Reported: 16-Jul-10 13:00
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Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)								
EPA 200.7	Calcium	mg/L	<0.040	0.006	0.040	W028093	15-Jul-10	
EPA 200.7	Lead	mg/L	<0.0075	0.0020	0.0075	W028093	15-Jul-10	
EPA 200.7	Magnesium	mg/L	<0.060	0.006	0.060	W028093	15-Jul-10	
EPA 200.7	Zinc	mg/L	<0.0100	0.0008	0.0100	W028093	15-Jul-10	
Classical Chemistry Parameters								
ASTM D-5176	Total Nitrogen	mg/L	<0.050	0.009	0.050	W029165	15-Jul-10	
SM 4500-P-E	Phosphorus	mg/L	<0.01	0.003	0.01	W029150	14-Jul-10	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)									
EPA 200.7	Calcium	mg/L	20.5	20.0	103	85 - 115	W028093	15-Jul-10	
A 200.7	Lead	mg/L	0.993	1.00	99.3	85 - 115	W028093	15-Jul-10	
A 200.7	Magnesium	mg/L	18.9	20.0	94.3	85 - 115	W028093	15-Jul-10	
EPA 200.7	Zinc	mg/L	0.976	1.00	97.6	85 - 115	W028093	15-Jul-10	
Classical Chemistry Parameters									
ASTM D-5176	Total Nitrogen	mg/L	0.057	0.0500	114	70 - 130	W029165	15-Jul-10	
ASTM D-5176	Total Nitrogen	mg/L	1.01	1.00	101	80 - 120	W029165	15-Jul-10	
SM 4500-P-E	Phosphorus	mg/L	0.01	0.0100	129	70 - 130	W029150	14-Jul-10	
SM 4500-P-E	Phosphorus	mg/L	0.93	0.877	106	90 - 110	W029150	14-Jul-10	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)									
EPA 200.7	Calcium	mg/L	51.9	51.6	0.5	20	W028093	15-Jul-10	
EPA 200.7	Lead	mg/L	<0.0075	<0.0075	UDL	20	W028093	15-Jul-10	
EPA 200.7	Magnesium	mg/L	13.9	13.8	0.8	20	W028093	15-Jul-10	
EPA 200.7	Zinc	mg/L	<0.0100	<0.0100	<RL	20	W028093	15-Jul-10	
Classical Chemistry Parameters									
ASTM D-5176	Total Nitrogen	mg/L	0.884	0.871	1.4	20	W029165	15-Jul-10	
SM 2540 D	Total Susp. Solids	mg/L	39.0	40.0	2.5	20	W028006	07-Jul-10	
SM 4500-P-E	Phosphorus	mg/L	0.01	0.01	13.7	20	W029150	14-Jul-10	



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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 Name: Stormwater Monitoring
Work Order: **W0G0074**
Reported: 16-Jul-10 13:00

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	69.8	51.6	20.0	91.1	70 - 130	W028093	15-Jul-10	
EPA 200.7	Lead	mg/L	1.01	<0.0075	1.00	101	70 - 130	W028093	15-Jul-10	
EPA 200.7	Magnesium	mg/L	33.0	13.8	20.0	96.0	70 - 130	W028093	15-Jul-10	
EPA 200.7	Zinc	mg/L	0.979	<0.0100	1.00	97.5	70 - 130	W028093	15-Jul-10	

Classical Chemistry Parameters

ASTM D-5176	Total Nitrogen	mg/L	1.81	0.871	1.00	94.1	80 - 120	W029165	15-Jul-10	
SM 4500-P-E	Phosphorus	mg/L	0.50	0.01	0.500	97.9	75 - 125	W029150	14-Jul-10	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	Batch ID	Analyzed	Notes
Classical Chemistry Parameters										
SM 4500-P-E	Phosphorus	mg/L	0.51	0.50	0.500	0.8	20	W029150	14-Jul-10	

Notes and Definitions

LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

Anatek Labs, Inc.

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 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: COEUR D'ALENE WASTEWATER DEPT **Batch #:** 100707038
Address: 710 MULLAN- CITY HALL **Project Name:** SVL #W0G0074
 COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Analytical Results Report

Sample Number	100707038-001	Sampling Date	7/2/2010	Date/Time Received	7/7/2010 11:00 AM
Client Sample ID	STATION 1 (19TH)	Sampling Time	9:55 AM	Extraction Date	7/8/2010
Matrix	Water	Sample Location	W0G0074-01		
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
PCB (total)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	

Surrogate Data

Sample Number	100707038-001	Method	EPA 8082	Percent Recovery	69.0	Control Limits	30-130
Surrogate Standard	DCB						

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: COEUR D'ALENE WASTEWATER DEPT **Batch #:** 100707038
Address: 710 MULLAN- CITY HALL **Project Name:** SVL #WOG0074
COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Analytical Results Report

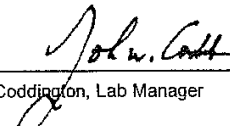
Sample Number	100707038-002	Sampling Date	7/2/2010	Date/Time Received	7/7/2010	11:00 AM
Client Sample ID	STATION 2 (BELLERIVE)	Sampling Time	12:24 PM	Extraction Date	7/8/2010	
Matrix	Water	Sample Location	WOG0074-02			
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	
PCB (total)	ND	ug/L	0.2	7/8/2010	SAT	EPA 8082	

Surrogate Data

Sample Number	100707038-002			
Surrogate Standard		Method	Percent Recovery	Control Limits
DCB		EPA 8082	78.0	30-130

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: COEUR D'ALENE WASTEWATER DEPT
Address: 710 MULLAN- CITY HALL
 COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Batch #: 100707038
Project Name: SVL #W0G0074

Analytical Results Report Quality Control Data

Lab Control Sample							
Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
PCB (total)	8.85	ug/L	10	88.5	30-130	7/8/2010	7/8/2010

Matrix Spike									
Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
100707038-002	PCB (total)	ND	9.19	ug/L	10	91.9	30-130	7/8/2010	7/8/2010

Matrix Spike Duplicate								
Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
PCB (total)	9.36	ug/L	10	93.6	1.8	0-50	7/8/2010	7/8/2010

Method Blank						
Parameter	Result	Units	PQL	Prep Date	Analysis Date	
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	7/8/2010	7/8/2010	
PCB (total)						

AR Acceptable Range
 ND Not Detected
 PQL Practical Quantitation Limit
 RPD Relative Percentage Difference

Comments:
 Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595
 Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C585; MT:Cert0095

Wednesday, July 14, 2010

Anatek Labs, Inc.

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 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: COEUR D'ALENE WASTEWATER DEPT
Address: 710 MULLAN- CITY HALL
 COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Batch #: 100707038
Project Name: SVL #W0G0074

Analytical Results Report Quality Control Data

Lab Control Sample							
Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
PCB (total)	8.85	ug/L	10	88.5	30-130	7/8/2010	7/8/2010

Matrix Spike									
Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
100707038-002	PCB (total)	ND	9.19	ug/L	10	91.9	30-130	7/8/2010	7/8/2010

Matrix Spike Duplicate								
Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
PCB (total)	9.36	ug/L	10	93.6	1.8	0-50	7/8/2010	7/8/2010

Method Blank						
Parameter	Result	Units	PQL	Prep Date	Analysis Date	
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	7/8/2010	7/8/2010	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	7/8/2010	7/8/2010	
PCB (total)	ND	ug/L	0.2	7/8/2010	7/8/2010	

AR Acceptable Range
 ND Not Detected
 PQL Practical Quantitation Limit
 RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595
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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 Name: Stormwater Monitoring Work Order: W0J0636 Reported: 08-Nov-10 15:21
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
Station 1 (19th)	W0J0636-01	Surface Water	25-Oct-10 14:00	Kim Harrington	25-Oct-2010
Station 2 (Bellerive)	W0J0636-02	Surface Water	25-Oct-10 11:49	Kim Harrington	25-Oct-2010

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested.

Sample preparation is defined by the client as per their Data Quality Objectives.

This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.

The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.



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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project Name: Stormwater Monitoring Work Order: W0J0636 Reported: 08-Nov-10 15:21
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Client Sample ID: **Station 1 (19th)**

SVL Sample ID: **W0J0636-01 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 25-Oct-10 14:00
Received: 25-Oct-10
Sampled By: Kim Harrington

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	6.74	mg/L	0.040	0.008		W044176	DG	11/08/10 10:59	
EPA 200.7	Lead	0.0125	mg/L	0.0075	0.0020		W044176	DG	11/08/10 11:01	
EPA 200.7	Magnesium	1.58	mg/L	0.060	0.012		W044176	DG	11/08/10 10:59	
EPA 200.7	Zinc	0.0934	mg/L	0.0100	0.0010		W044176	DG	11/08/10 11:01	
SM 2340B	Hardness (as CaCO3)	23.4	mg/L	0.347	0.069		N/A		11/08/10 10:59	
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	0.983	mg/L	0.500	0.031		W045026	SAM	11/01/10 13:10	
SM 2540 D	Total Susp. Solids	44.0	mg/L	5.0			W044160	JMS,	10/27/10 13:00	
SM 4500-P-E	Phosphorus	0.63	mg/L	0.01	0.004		W044180	SM	10/27/10 17:11	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



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 Name: Stormwater Monitoring Work Order: W0J0636 Reported: 08-Nov-10 15:21
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Client Sample ID: **Station 2 (Bellerive)**

SVL Sample ID: **W0J0636-02 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 25-Oct-10 11:49
Received: 25-Oct-10
Sampled By: Kim Harrington

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	13.2	mg/L	0.040	0.008		W044176	DG	11/08/10 11:05	
EPA 200.7	Lead	0.0160	mg/L	0.0075	0.0020		W044176	DG	11/08/10 11:07	
EPA 200.7	Magnesium	4.03	mg/L	0.060	0.012		W044176	DG	11/08/10 11:05	
EPA 200.7	Zinc	0.346	mg/L	0.0100	0.0010		W044176	DG	11/08/10 11:07	
SM 2340B	Hardness (as CaCO3)	49.4	mg/L	0.347	0.069		N/A		11/08/10 11:05	
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	1.06	mg/L	0.500	0.031		W045026	SAM	11/01/10 13:54	
SM 2540 D	Total Susp. Solids	116	mg/L	20.0			W044160	JMS,	10/27/10 13:00	
SM 4500-P-E	Phosphorus	0.43	mg/L	0.01	0.004		W044180	SM	10/27/10 17:11	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director



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 Name: Stormwater Monitoring
Work Order: **W0J0636**
Reported: 08-Nov-10 15:21

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)								
EPA 200.7	Calcium	mg/L	<0.040	0.008	0.040	W044176	08-Nov-10	
EPA 200.7	Lead	mg/L	<0.0075	0.0020	0.0075	W044176	08-Nov-10	
EPA 200.7	Magnesium	mg/L	<0.060	0.012	0.060	W044176	08-Nov-10	
EPA 200.7	Zinc	mg/L	<0.0100	0.0010	0.0100	W044176	08-Nov-10	
Classical Chemistry Parameters								
ASTM D-5176	Total Nitrogen	mg/L	<0.500	0.031	0.500	W045026	01-Nov-10	
SM 4500-P-E	Phosphorus	mg/L	<0.01	0.004	0.01	W044180	27-Oct-10	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)									
EPA 200.7	Calcium	mg/L	20.8	20.0	104	85 - 115	W044176	08-Nov-10	
EPA 200.7	Lead	mg/L	1.07	1.00	107	85 - 115	W044176	08-Nov-10	
EPA 200.7	Magnesium	mg/L	21.1	20.0	106	85 - 115	W044176	08-Nov-10	
EPA 200.7	Zinc	mg/L	1.03	1.00	103	85 - 115	W044176	08-Nov-10	
Classical Chemistry Parameters									
ASTM D-5176	Total Nitrogen	mg/L	9.72	10.0	97.2	80 - 120	W045026	01-Nov-10	
SM 4500-P-E	Phosphorus	mg/L	0.89	0.877	101	90 - 110	W044180	27-Oct-10	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)									
EPA 200.7	Calcium	mg/L	13.9	13.3	4.0	20	W044176	08-Nov-10	
EPA 200.7	Lead	mg/L	0.515	0.478	7.5	20	W044176	08-Nov-10	
EPA 200.7	Magnesium	mg/L	5.75	5.38	6.6	20	W044176	08-Nov-10	
EPA 200.7	Zinc	mg/L	0.236	0.219	7.7	20	W044176	08-Nov-10	
Classical Chemistry Parameters									
ASTM D-5176	Total Nitrogen	mg/L	0.974	0.983	0.9	20	W045026	01-Nov-10	
SM 2540 D	Total Susp. Solids	mg/L	5.0	6.0	18.2	5	W044160	27-Oct-10	R1
SM 4500-P-E	Phosphorus	mg/L	0.03	0.03	2.3	20	W044180	27-Oct-10	



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City of Coeur d'Alene 710 E. Mullan Ave. Coeur d Alene, ID 83814	Project Name: Stormwater Monitoring Work Order: W0J0636 Reported: 08-Nov-10 15:21
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Quality Control - MATRIX SPIKE Data										
Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Total Recoverable--reportable as Total per 40 CFR 136)										
EPA 200.7	Calcium	mg/L	270	258	20.0	R > 4S	70 - 130	W044176	08-Nov-10	M3
EPA 200.7	Lead	mg/L	1.03	<0.0075	1.00	102	70 - 130	W044176	08-Nov-10	
EPA 200.7	Magnesium	mg/L	29.0	8.88	20.0	101	70 - 130	W044176	08-Nov-10	
EPA 200.7	Zinc	mg/L	0.997	0.0608	1.00	93.7	70 - 130	W044176	08-Nov-10	
Classical Chemistry Parameters										
ASTM D-5176	Total Nitrogen	mg/L	5.17	0.983	5.00	83.7	80 - 120	W045026	01-Nov-10	
SM 4500-P-E	Phosphorus	mg/L	0.54	0.03	0.500	102	75 - 125	W044180	27-Oct-10	

Notes and Definitions

M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The LCS was acceptable.
R1	RPD exceeded the method acceptance limit.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Login Report

Customer Name: COEUR D'ALENE WASTEWATER DEPT
 710 MULLAN- CITY HALL
 COEUR D'ALENE ID 83814

Order ID: 101027046
Order Date: 10/27/2010

Contact Name: KIM HARRINGTON
Project Name: SVL #W0J0636

Comment:

Sample #: 101027046-001 **Customer Sample #:** STATION 1 (19TH)

Recv'd: **Collector:** **Date Collected:** 10/25/2010
Quantity: 1 **Matrix:** Water **Date Received:** 10/27/2010 12:00:00
Comment:

Test	Method	Due Date	Priority
PCB 8082	EPA 8082	11/8/2010	<u>Normal (6-10 Days)</u>

Sample #: 101027046-002 **Customer Sample #:** STATION 2 (BELLERIVE)

Recv'd: **Collector:** **Date Collected:** 10/25/2010
Quantity: 1 **Matrix:** Water **Date Received:** 10/27/2010 12:00:00
Comment:

Test	Method	Due Date	Priority
PCB 8082	EPA 8082	11/8/2010	<u>Normal (6-10 Days)</u>

SAMPLE CONDITION RECORD

Samples received in a cooler?	Yes
Samples received intact?	Yes
What is the temperature inside the cooler?	4.5
Samples received with a COC?	Yes
Samples received within holding time?	Yes
Are all sample bottles properly preserved?	Yes
Are VOC samples free of headspace?	N/A
Is there a trip blank to accompany VOC samples?	N/A
Labels and chain agree?	Yes

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Client: COEUR D'ALENE WASTEWATER DEPT **Batch #:** 101027046
Address: 710 MULLAN- CITY HALL **Project Name:** SVL #W0J0636
 COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
PCB (total)	9.34	ug/L	10	93.4	30-130	11/1/2010	11/3/2010

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
101027046-001	PCB (total)	ND	8.87	ug/L	10	88.7	30-130	11/1/2010	11/3/2010

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
PCB (total)	8.45	ug/L	10	84.5	4.8	0-50	11/1/2010	11/3/2010

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	11/1/2010	11/3/2010
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	11/1/2010	11/3/2010
PCB (total)	ND	ug/L	0.2	11/1/2010	11/3/2010

AR Acceptable Range
 ND Not Detected
 PQL Practical Quantitation Limit
 RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
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Client:	COEUR D'ALENE WASTEWATER DEPT	Batch #:	101027046
Address:	710 MULLAN- CITY HALL	Project Name:	SVL #W0J0636
	COEUR D'ALENE, ID 83814		
Attn:	KIM HARRINGTON		

Analytical Results Report

Sample Number	101027046-001	Sampling Date	10/25/2010	Date/Time Received	10/27/2010 12:00 PM
Client Sample ID	STATION 1 (19TH)	Sampling Time	2:00 PM	Extraction Date	11/1/2010
Matrix	Water	Sample Location	W0J0636-01		
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
PCB (total)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	

Surrogate Data

Sample Number	101027046-001				
Surrogate Standard		Method	Percent Recovery	Control Limits	
DCB		EPA 8082	30.0	30-130	

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Client: COEUR D'ALENE WASTEWATER DEPT **Batch #:** 101027046
Address: 710 MULLAN- CITY HALL **Project Name:** SVL #W0J0636
 COEUR D'ALENE, ID 83814
Attn: KIM HARRINGTON

Analytical Results Report

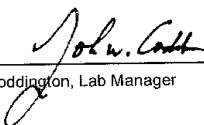
Sample Number	101027046-002	Sampling Date	10/25/2010	Date/Time Received	10/27/2010 12:00 PM
Client Sample ID	STATION 2 (BELLERIVE)	Sampling Time	11:49 AM	Extraction Date	11/1/2010
Matrix	Water	Sample Location	W0J0636-02		
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Aroclor 1016 (PCB-1016)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1221 (PCB-1221)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1232 (PCB-1232)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1242 (PCB-1242)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1248 (PCB-1248)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1254 (PCB-1254)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
Aroclor 1260 (PCB-1260)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	
PCB (total)	ND	ug/L	0.2	11/3/2010	SAT	EPA 8082	

Surrogate Data

Sample Number	101027046-002	Method	EPA 8082	Percent Recovery	44.8	Control Limits	30-130
Surrogate Standard	DCB						

Authorized Signature



 John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
 ND Not Detected
 PQL Practical Quantitation Limit

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 The results reported relate only to the samples indicated.
 Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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