



**CITY OF BLACK DIAMOND**  
**October 4, 2012 Workstudy Agenda**  
25510 Lawson St., Black Diamond, Washington

Workstudies are meetings for Council to review upcoming and pertinent business of the City. Public testimony is only accepted at the discretion of the Council.

**6:00 P.M. – CALL TO ORDER, ROLL CALL**

- 1.) Stormwater Program Update – Mr. Boettcher and Mr. Williamson
- 2.) Adjournment

**CITY OF BLACK DIAMOND**  
**STORMWATER MANAGEMENT PROGRAM**  
**(SWMP)**

**2012/13 ~~ANNUAL~~ UPDATE**



**PREPARED BY**  
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## LIST OF ACRONYMS AND ABBREVIATIONS

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AKART	All Known and Reasonable Treatment
BMP	Best Management Practices
CESCL	Certified Erosion and Sediment Control Lead
<u>DOE</u>	<u>Department of Ecology</u>
<u>IDDE</u>	<u>Illicit Discharge Detection and Elimination</u>
LID	Low Impact Development
O&M	Operations and Maintenance
SWMM	Stormwater Maintenance Manual
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Program
TMDL	Total Maximum Daily Load



THIS PLAN IS BASED ON THE REQUIREMENTS OUTLINED IN THE WESTERN WASHINGTON PHASE II MUNICIPAL STORMWATER PERMIT. MUCH OF THE LANGUAGE INCLUDED IN THIS DOCUMENT DESCRIBING PERMIT REQUIREMENTS HAS BEEN TAKEN DIRECTLY FROM THIS PERMIT AND HAS BEEN SUMMARIZED FOR EASE OF THE READER.

FOR COMPLETE REQUIREMENTS AND DETAILS, PLEASE REFER TO SECTION S5.C OF THE WESTERN WASHINGTON PHASE II MUNICIPAL STORMWATER PERMIT FROM THE DEPARTMENT OF ECOLOGY.

## SECTION 1 – INTRODUCTION

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### **1.1 INTRODUCTION**

This document constitutes the City of Black Diamond's Stormwater Management Program (SWMP) as required under Condition S5 of the Western Washington Phase II Municipal Stormwater Permit (the Permit). In addition to the City's permit, this SWMP includes the Total Maximum Daily Load (TMDL) requirements on Lake Sawyer as published in the TMDL document 09-10-053.

The purpose of SWMP is to detail actions that the City of Black Diamond has taken and will take to maintain compliance with conditions in the permit. This SWMP will be an attachment to the *Annual Report Form for Cities, Towns, and Counties* which is required to be submitted to the Department of Ecology ([DOE](#)) by March 31<sup>st</sup> each year.

The City's SWMP is intended to reduce the discharge of pollutants from the City's Municipal Separate Storm Sewer System to the maximum extent practicable, meet Washington State's All Known and Reasonable Treatment (AKART) requirements, and protect water quality. This goal is accomplished by the inclusion of all Permit SWMP components, minimum measures, and implementation schedules into the City's SWMP.

In compliance with Permit requirements, where the City is already implementing actions or activities called for in this document, the City will continue those actions or activities regardless of the schedule called for in this document.

The City now is active in 5 areas of permit activity including:

- Educating the public with a focus on homeowner activities
- Involving the public in stormwater management programming
- Building an Illicit Discharge Detection and Elimination Program
- Establishing a permitting, inspection program to enforce the [DOE](#) Department of Ecology 2005 Stormwater Maintenance Manual (SWMM) for Western Washington
- Reviewing all municipal operations and facilities and implementing new operation and maintenance practices to prevent and reduce stormwater pollutant runoff from municipal operations.

## SECTION 2 –MONITORING AND REPORTING

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### **2.1 PERMIT REQUIREMENTS AND DATES**

Section S5.A, S8, and S9 of the Western Washington Phase II Municipal Stormwater Permit requires the City to develop, monitor, and report the City's SWMP. The SWMP shall be designed to reduce the discharge of pollutants from the City stormwater system to the maximum extent practicable and to protect water quality. The monitoring and reporting requirement helps keep the City on track with Best Management Practices (BMPs) to reduce the discharge of pollutants to stormwater.

### **2.2 CURRENT ACTIVITIES**

The current city activities associated with Monitoring and reporting include:

- Submit the *Annual Report Form for Cities, Towns, and Counties* which is intended to summarize the City's compliance with the conditions of the Permit. The annual report shall be submitted by March 31 of each calendar year covering the previous calendar year.
- Prepare written documentation of the SWMP and update at least annually for submittal with the City's annual reports to DOEthe Department of Ecology.
- Include with the annual report, notification of any annexations, incorporations, or jurisdictional boundary changes resulting in an increase or decrease in the City's geographic area of permit coverage during the reporting period and the implications for the SWMP.
- Track the number of inspections, official enforcement actions and types of public education activities for inclusion in the City's annual reports to the Department of EcologyDOE.
- Provide a description of any stormwater monitoring or studies conducted by the City during the reporting period for inclusion in the City's annual reports to the Department of EcologyDOE.
- Track the estimated cost of development and implementation of the SWMP.
- Survey Black Diamond residents and businesses on any changes in behavior related to stormwater education efforts.
- Coordinate, as necessary, with other entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs and projects within adjoining or shared areas.
- Complete annual update to the City's SWMP.
- Summarize activities for the Annual Compliance Report.
- Rain garden monitoring.

- The Development Agreement for the major Master Planned Developments requires extensive water quality monitoring by the developer before, during and after construction; including a yearly review by the Water Quality Review Committee.

## **2.3 PLANNED ACTIVITIES**

Actions recommended for continued Permit compliance include: The City will continue with the current monitoring and reporting activities in 2012 and 2013.

- ~~Survey a random select group from Black Diamond on any changes in behavior related to education efforts.~~
- ~~Collect base line water quality information in the natural drainage system as surface water drains into, through and out of Black Diamond.~~
- ~~Coordinate, as necessary, with other entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs and projects within adjoining or shared areas.~~
- ~~Complete annual update to the City's SWMP.~~
- ~~Summarize annual activities for the Annual Compliance Report.~~



## SECTION 3 –PUBLIC EDUCATION AND OUTREACH

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### **3.1 PERMIT REQUIREMENTS AND DATES**

Section S5.C.1 of the Western Washington Phase II Municipal Stormwater Permit requires the City to include an education program to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts beginning in 2009.

### **3.2 CURRENT ACTIVITIES**

The City ~~currently has been educating~~educates the public ~~in Black Diamond by~~through direct mailings ~~s of~~ stormwater articles in the city newsletter, posting educational materials on the ~~stormwater~~City website, handing out materials at City sponsored events, ~~and coordinating various stormwater classes and workshops to train City staff and elected officials~~workshops to train City staff and elected officials, and meeting with businesses and owners of private stormwater systems. ~~The first level of education has been educate the public on the need for a stormwater utility and why everyone in Black Diamond needs to assist with the effort to improve the stormwater quality in Black Diamond. The City also educates businesses, industries, landscapers and property managers; and engineers, contractors, developers, through direct contact within the permitting process.~~ The current City activities associated with Public Education and Outreach include:

- Educating the public about the need of the stormwater utility and the collaborative effort needed from everyone in the City to improve stormwater quality within the City.
- Training for City employees regarding illicit discharges.
- Meeting with businesses and the general public about the hazards associated with illicit discharges and improper disposal of waste.
- Distribute illicit discharge information to target audiences through individual meetings.
- Continue to track and maintain records of public education and outreach activities.
- Gather feedback from the public through our stormwater knowledge survey to evaluate the public's understanding of target behaviors.

### **3.3 PLANNED ACTIVITIES**

The City has the following goals for 2012/13 for actions recommended for continued Permit compliance in public education and outreach:

- ~~• Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste~~

- ~~Distribute illicit discharge information to target audiences~~
- Receive feedback from the public on illicit discharge education efforts and evaluate understanding of target behaviors.
- Coordinate a short assembly to educate school children on the impacts of stormwater runoff on the environment and **Best Management Practices (BMPs)** that homeowners can implement to help protect the environment. Approach the local school district to set up regular educational outreach in the schools.
- ~~Continue to track and maintain records of public education and outreach activities.~~
- ~~Evaluate understanding of target behaviors.~~
- Summarize the ~~2010~~ public education activities in the Annual Compliance Report.

## SECTION 4 – PUBLIC INVOLVEMENT AND PARTICIPATION

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### **4.1 PERMIT REQUIREMENTS AND DATES**

Section S5.C.2 of the Western Washington Phase II Municipal Stormwater Permit requires the City to provide ongoing opportunities for public involvement beginning in 2008.

### **4.2 CURRENT ACTIVITIES**

The current compliance activities associated with public involvement and participation include:

- The City has posted the SWMP document and Annual Compliance Report on the City website.
- Provide opportunities for public involvement in the review of the stormwater comprehensive plan updates, SWMP updates, changes to the stormwater utility charges, or other stormwater codes or similar environmental policies at the early consideration stages at the Public Works Committee level.
- Provide opportunities for public involvement and comment in the consideration of the SWMP by holding a public hearing prior to adoption.
- Review the SWMP with the Public Works Committee and receive public comments in a public hearing prior to adoption.
- Make the SWMP, the Annual Report, and all other submittals required by the Phase II Permit, available to the public.
- Post the updated SWMP and the Annual Report on the City's website.
- ~~The City has held various public meetings for the consideration of stormwater budget issues, stormwater grant opportunities, and consulting contracts for the development of a stormwater comprehensive plan.~~
- ~~Publicized Pubic Works Committee meetings were held to discuss the Stormwater Comprehensive Plan.~~

### **4.3 PLANNED ACTIVITIES**

The City ~~will continue with the public involvement and participation activities in 2012 and 2013, shall offer the public opportunities to be involved in the decision making process on stormwater issues.~~ Actions recommended for continued compliance include:

- ~~Provide opportunities for public involvement in the review of the storm water comprehensive plan, the SWMP updates, changes to the stormwater utility charges, or other stormwater codes or similar environmental policies at the early consideration stages at the public works committee level.~~



- ~~Provide opportunities for the public involvement and comment in the consideration of the SWMP by holding a public hearing prior to adoption.~~
- ~~Hold at least 2 readings of the SWMP prior to adoption.~~
- ~~Make the SWMP, the Annual Report, and all other submittals required by the Phase II Permit, available to the public.~~
- ~~Post the updated SWMP and the Annual Report, on the City's website.~~

## SECTION 5 – ILLICIT DISCHARGE DETECTION AND ELIMINATION

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### **5.1 PERMIT REQUIREMENTS AND DATES**

Section S5.C.3 of the Western Washington Phase II Municipal Stormwater Permit requires the City to develop and implement an ongoing program to detect and remove illicit connections, discharges, and improper disposal, including spills, into the municipal separate storm sewers owned or operated by the City. Specific program components are outlined below:

- Prioritize receiving waters for visual inspection by February 15, 2010.
- Conduct field assessments of three high priority water bodies by February 15, 2011.
- Conduct field assessments on at least one high priority water body annually henceforth by February 15, 2011.
- Develop a municipal storm sewer system map, to be available upon request that shall be periodically updated and shall include the location of all known municipal separate storm sewer outfalls, receiving waters and structural stormwater BMPs owned, operated, or maintained by the City. Include tributary conveyances, associated drainage areas, and land use for all storm sewer outfalls with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. The map shall include all connections to the municipal separate storm sewer authorized or allowed by the City, as well as geographic areas that do not discharge stormwater to surface waters by February 15, 2011.
- Develop and fully implement an ongoing program to detect and address non-stormwater discharges, spills, illicit connections and illegal dumping into the City's municipal separate storm sewer system. Include procedures for locating priority areas likely to have illicit discharges and field assessment activities, including visual inspection of priority outfalls, by August 19, 2011.
- Develop and implement procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges found by or reported to the City by August 19, 2011.
- Develop and implement procedures for tracing the source of an illicit discharge; including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures by August 19, 2011.
- Develop and implement procedures for removing the source of the discharge, including notification of appropriate authorities; notification of the property owner; technical assistance for eliminating the discharge; follow-up inspections; and escalating enforcement actions if the discharge is not eliminated by August 19, 2011.

- Inform and distribute appropriate information to public employees, businesses, and the general public regarding the hazards associated with illegal discharges and improper disposal of waste by August 19, 2011.
- Develop and implement procedures for program evaluation and assessment inspections, including tracking the number and type of spills or illicit discharges identified; made by August 19, 2011.

## **5.2 CURRENT ACTIVITIES**

The City currently implements activities and programs that meet ~~some of the~~ Permit requirements. The current compliance activities associated with the above Permit requirements include:

- Through Ordinance 09-917, city staff ~~now~~ has the ability to intervene and stop illicit discharges, ~~and to~~ get involved to educate those that pollute unknowingly and follow up with additional enforcement actions if compliance is not afforded.
- ~~Four~~Several staff ~~members, including three public works staff and a policeman,~~ have been trained on illicit discharge awareness, ~~and~~ IDDE response and enforcement. Additionally, one of the local fire district officers has also attended training.
- ~~Continue to R~~esponding to reported illicit discharge reports and documenting the actions taken to eliminate them.
- ~~Continue to Prioritize and~~ conduct field assessments of high priority water bodies.
- Continue inspections of major priority stormwater outfalls during the dry season.
- Continue to follow up on hotline illicit discharge tips.
- Redline the stormwater system maps, highlighting those areas that have higher probability of illicit discharges or connections to the stormwater system.
- Schedule a refresher course for responsible City staff to recognize and detect illicit discharges and to follow up with enforcement actions.
- Continue with the primary focus of the City's IDDE program, which involves individual meetings with business owners and those responsible for private stormwater system maintenance.
- Implement the City IDDE program to detect and stop illicit discharges to the City's stormwater system by:
  - Characterizing the nature of illicit discharges
  - Tracing the source
  - Removing the source
  - Educating those responsible



### **5.3 PLANNED ACTIVITIES**

The City ~~plans to~~will continue with the current IDDE activities in 2012 and 2013.

- ~~• Continue following up on hotline illicit discharge tips.~~
- ~~• Continue refining the stormwater system maps.~~
- ~~• Continue keeping responsible city staff trained to recognize and detect illicit discharges and to follow up with enforcement actions.~~
- ~~• Develop and implement stormwater outfall illicit discharge screening program.~~
- ~~• Select and implement IDDE issue tracking/resolution system.~~
- ~~• Revise current IDDE response process into a standard, City wide IDDE response and enforcement process.~~
- ~~• Identify areas of the City that have higher probability of illicit discharges or connections to the stormwater system.~~
- ~~• Develop a program for detecting, tracing to the source and removing the source of an illicit discharge, and to provide training for such a program.~~

## SECTION 6 – CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT AND CONSTRUCTION SITES

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### **6.1 PERMIT REQUIREMENTS AND DATES**

Section S5.C.4 of the Western Washington Phase II Municipal Stormwater Permit requires the City to develop, implement, and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment and construction site activities. Specific program components are outlined below.

- The City will continue with a program to reduce pollutants in stormwater runoff from new development, redevelopment and construction site activities. This program shall be applied to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale. The program shall apply to private and public development, including roads.
- The City of Black Diamond has adopted the ~~DOE~~[Department of Ecology](#) 2005 SWMM to address runoff from new development, redevelopment, and construction site projects in conformance with Permit requirements. The City has retained existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds. The DOE 2005 [SWMM Manual](#) includes:
  1. An enforceable mechanism that includes a site planning process and BMP selection and design criteria in conformance with Permit requirements.
  2. A BMP selection, design criteria and requirements that will protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy State AKART requirements.
  3. The legal authority, through the approval process for new development, to inspect private stormwater facilities that discharge to the City's stormwater system.
  4. Allows non-structural preventive actions and source reduction approaches such as Low Impact Development (LID) techniques, measures to minimize the creation of impervious surfaces and measures to minimize the disturbance of native soils and vegetation.

~~The City has the primary enforcing ordinances in place for the implementation of a program to manage the proper handling of stormwater for development and redevelopment. Some permit processing needs to be reviewed and appropriate fees set. The City program will include:~~

- ~~• Inspect all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, every 6 months during the period of~~

~~heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards, as needed.~~

- ~~• Implement a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, other enforcement records, maintenance inspections and maintenance activities.~~
- ~~• Provide copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment.~~

## **6.2 CURRENT ACTIVITIES**

The City code currently implements the majority of the activities and programs to meet Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City review and inspection staff ~~hasis~~ coming up to speed ~~on the full implementation of with~~ the ~~DOE~~ Department of Ecology 2005 SWMM.
- The City conducts construction and stormwater site inspections during the pre-construction and construction phases.
- ~~• The City inspects existing private storm water quality and detention ponds.~~
- The City has implemented a permitting process with plan review, inspection and enforcement capability for both private and public projects. This program applies to all sites that disturb a land area 1 acre or greater, including projects less than one acre that are part of a larger common plan of the development or sale.
- The City reviews stormwater site plans for proposed development activities.
- The City inspects, prior to clearing and construction, all known development sites that have a high potential for sediment transport.
- The City inspects all known permitted development sites during construction to verify proper installation and maintenance of required erosion and sediment controls. The City will enforce as necessary based on the inspection.
- The City inspects all permitted development sites upon completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater controls such as stormwater facilities and structural BMPs. Also, the City will verify a maintenance plan is completed and responsibility for maintenance is assigned. Enforcements will be made, as necessary, based on the inspection.
- The City implements an enforcement strategy to respond to issues of non-compliance.
- The City implements a long-term operation~~s~~ and maintenance (O&M) program for private post-construction stormwater facilities and BMPs.



- Enforceable mechanism in place that clearly identifies the party responsible for maintenance, requires inspection of facilities, and establishes enforcement procedures.
- The City has established maintenance standards that are as protective as those specified in the 2005 SWMM for Western Washington.
- ~~The City performs maintenance on City ponds and BMPs within required timeframes when an inspection identifies a maintenance standard has been exceeded. For each violation of the required timeframe, the City documents the circumstances and how they were beyond their control.~~
- ~~The City performs maintenance on private ponds and BMPs when parties responsible for maintenance do not comply with maintenance requirements. City regulations allow the City to bill responsible parties for these costs.~~
- The City ensures that all staff responsible for implementing the program to control stormwater runoff from new development, redevelopment, and construction sites, including permitting, plan review, construction site inspections, and enforcement, are trained to conduct these activities. The City has a Certified Erosion and Sediment Control Lead (CESCL) on staff.
- Copies of the DOE's "Notice of Intent for Construction Activity" and "Notice of Intent for Industrial Activity" are available to representatives or proposed new development and redevelopment.
- Activities for the "Controlling Runoff from New Development, Redevelopment and Construction Sites" component of the Annual Compliance Report are summarized annually.

The City has the primary enforcing ordinances in place for the implementation of a program to manage the proper handling of stormwater for development and redevelopment. Some permitting processes need to be reviewed and appropriate fees set. The City program includes:

- Inspect all new flow control and water quality treatment facilities, including catch basins, for new residential developments that are a part of a larger common plan of development or sale, every 6 months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval) to identify maintenance needs and enforce compliance with maintenance standards, as needed.
- Implement a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, other enforcement records, maintenance inspections and maintenance activities.
- Provide copies of the "Notice of Intent for Construction Activity" and copies of the "Notice of Intent for Industrial Activity" to representatives of proposed new development and redevelopment.
- With the TMDL for phosphorus on Lake Sawyer, City staff (and/or citizen volunteers) takes water quality samples at Lake Sawyer.
- The City has used the DOE 2005 SWMM and the Lake Sawyer TMDL in the Development Agreement for the major MPD's in Black Diamond.

### **6.3 PLANNED ACTIVITIES**

The City has a program to help reduce stormwater runoff from new development and construction sites but has a goal to increase training ~~and hire staff with expertise~~ in the implementation of the DOE 2005 SWMM in order to maintain compliance as Permit requirements are phased in/modified over the next several years. Actions that are recommended ~~for continued compliance~~ include:

- Review draft changes to Permit requirements regarding the control of runoff from development, redevelopment, and construction site activities.  
~~procedures for tracking and documenting Permit-related plan review, inspection, enforcement, and compliance activities and update as needed.~~
- Update and implementing process codes, fees and standards as necessary and as identified needs arise.
- ~~Make copies of the Department of Ecology's "Notice of Intent for Construction Activity" and "Notice of Intent for Industrial Activity" available to representatives of proposed new development and redevelopment.~~
- Determine staff training needs and develop training strategies as updates to Permit requirements are implemented by DOE.
- Adopt an update to the City's Shoreline Management Plan.
- Continue with the current activities to control runoff from new development, redevelopment and construction sites for 2012 and 2013.
- ~~Summarize annual activities for the "Controlling Runoff from New Development, Redevelopment and Construction Sites" component of the Annual Compliance Report.~~



## SECTION 7 – POLLUTION PREVENTION AND OPERATION AND MAINTENANCE FOR MUNICIPAL OPERATIONS

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### **7.1 PERMIT REQUIREMENTS AND DATES**

Section S5.C.5 of the Western Washington Phase II Municipal Stormwater Permit requires the City to develop and implement an operations and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Specific program components and due dates are outlined below.

- Establish maintenance standards that are as protective, or more protective, of facility function that those specified in Chapter 4 of Volume V of the DOE 2005 SWMM for Western Washington.
- Annual inspection of all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins, and taking appropriate maintenance actions.
- Spot checks of potentially damaged permanent treatment and flow control facilities (other than catch basins) after major storm events (10 year storm).
- Inspect at least once, and clean if necessary, all catch basins and inlets owned or operated by the City; February 15, 2012 [note: inspections and cleaning of all City catch basins and inlets occurred in August, 2010; inspections and cleaning will continue, as necessary].
- Establish and implement practices to reduce stormwater impacts associated with runoff from streets, parking lots, and road maintenance activities.
- Establish and implement policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the City, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities.
- Develop and implement an on-going training program for City staff whose construction, operations or maintenance job functions may impact stormwater quality.
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City.
- Keep records of inspections and maintenance or repair activities.

### **7.2 CURRENT ACTIVITIES**

The City currently has activities and programs that meet some of the Permit requirements. The current compliance activities associated with the above Permit requirements include:

- The City has a program for catch basin inspections.
- The City has completed a site assessment of City facilities, including the fire station, the police station, the public works facility, the water reservoir and pump station.
- The City inspects City owned stormwater treatment facilities and continues to adapt the inspection criteria as identified in the DOE 2005 SWMM.
- The City has trained employees whose construction, operations or maintenance job functions may impact stormwater quality in the implementation of BMPs that will reduce or eliminate pollution from entering stormwater systems from City facilities or operations.
- The City's adopted maintenance standards are as ~~protective of facility function as those~~ specified in the 2005 SWMM for Western Washington.
- The City performs maintenance within required timeframes when an inspection identifies an exceedance of the maintenance standard. For each exceedance of the required timeframe, the City will document the circumstances and how they were beyond the City's control.
- The City annually inspects all municipally owned or operated permanent stormwater treatment and flow control facilities, other than catch basins, and maintains facilities according to the adopted maintenance standards.
- The City performs maintenance on City ponds and BMPs within required timeframes when an inspection identifies a maintenance standard has been exceeded. For each violation of the required timeframe, the City documents the circumstances and how they were beyond their control, and submits documentation to DOE.
- After major storm events, the City conducts spot checks of potentially damaged stormwater facilities (other than catch basins).
- The City implements practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways owned or maintained by the City, and road maintenance activities conducted by the City.
- Procedures are in place to reduce pollutants in discharges from all lands owned or maintained by the City and subject to this Permit, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities. Procedures include:
  - Proper application of fertilizer, pesticides, and herbicides
  - Sediment and erosion control (the City has a CESCL on staff)
  - Proper landscape maintenance and vegetation disposal
  - Proper trash management
  - Proper maintenance and cleaning of City buildings
- City employees, whose construction, operations or maintenance job functions may impact stormwater quality, receive training on an as-needed basis.
- Stormwater Pollution Prevention Plans (SWPPP's) are in place for all heavy equipment maintenance or storage yards, and material storage facilities owned or operated by the City in areas subject to this Permit that are not required to have coverage under the Industrial Stormwater General Permit.
- Tracking and documentation methods, along with procedures associated with inspection, maintenance or repair activities, are being utilized by City staff.



- The design and construction of an equipment wash facility at the City's maintenance site is underway and will be completed in 2012.

### **7.3 PLANNED ACTIVITIES**

~~The City has a program to limit stormwater pollution potential related to its municipal operations and maintenance program, but has a goal to expand current efforts in order to maintain compliance as Permit requirements are phased in over the 2010 year. Actions that are recommended for continued compliance include: The City will continue with current activities to prevent pollution from municipal maintenance operations for 2012 and 2013. The City is also working on completing the development of site and handling procedures for storage, processing, and reusing street and storm waste with assistance from the King County Solid Waste Treatment Division, which is not a requirement of the Permit.~~

- ~~• Continue to inspect and maintain City-owned or operated stormwater catch-basins and flow control and treatment facilities.~~
- ~~• Continue training programs for staff whose work could impact stormwater quality.~~
- ~~• Continue to update tracking and documentation methods and procedures associated with inspection, maintenance or repair activities, as necessary.~~
- ~~• Summarize annual activities for the "Pollution Prevention and Operation and Maintenance for Municipal Operations" component of the Annual Compliance Report.~~
- ~~• Install a wash rack at the City's maintenance site in order to prevent wash water from City equipment from flowing overland and into Lawson Creek.~~
- ~~•~~

## APPENDIX A



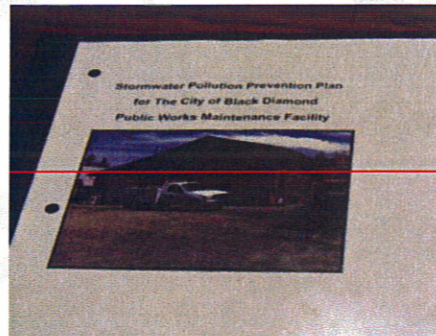
**Storm Pond Inspection and Maintenance**



**Catch Basin Inspection and Cleaning**



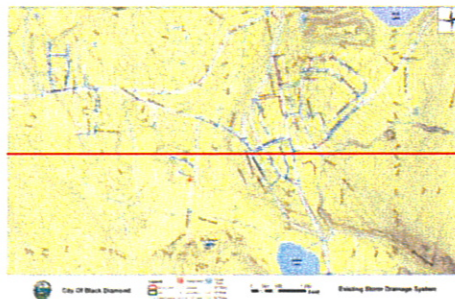
**Rain Garden**



**Stormwater Pollution Prevention Plan (SWPPP)**



**Outfall and Receiving Water Survey**



**Storm System Inventory and Mapping**



# APPENDIX A

## Public Education Survey

4. True or false: You have seen educational articles/flyers or other educational materials from the City of Black Diamond in utility jobs City residents/City events (such as World's Day, Letter Day):

☐ True

☐ False

☐ Not sure

5. Do you agree or disagree with the following statement: Air Black or untreated stormwater discharge is primarily caused by anything that enters the stormwater system that is not made up entirely of stormwater?

☐ Agree

☐ Disagree

☐ Not sure

6. Do you agree or disagree with the following statement: Stormwater runoff is the leading cause of pollution in our lakes, creeks, and wetlands.

☐ Agree

☐ Disagree

☐ Not sure

7. What happens to stormwater runoff within the City of Black Diamond?

☐ Goes into the nearest water body with treatment

☐ Goes into the nearest water body without treatment

☐ Enters into the sewer system and is sent to the sewer treatment plant

☐ Not sure

8. When it comes to washing your vehicle, which of the following best describes you:

☐ I usually wash my vehicle at home

☐ I usually wash my vehicle at a commercial car wash

☐ I usually wash my vehicle at charity car washes (fundraiser)

☐ Not applicable

## Private Stormwater System Inspections



## IDDE Program



## IDDE Education

PAGE 1 THE CITY CONNECTION

### PROTECTING THE CITY'S STORM SYSTEM AND WATERWAYS

The City is working with the Department of Ecology to protect the stormwater system and waterways within the City (as well as those downstream from us). There are obvious ways to protect the stormwater system (such as not dumping waste of any kind directly into a catch basin), but there are common household items that enter the stormwater system frequently that are considered as prohibited items under the City's definition of illicit discharges.

**THE DRAIN IS JUST FOR DRAIN**

- **Trash or debris** – please dispose of trash in proper receptacles.
- **Antifreeze and other automotive products** – some auto parts stores will recycle these items for you, if not, they usually know what recycling events in the area will occur.
- **Paint** – you can put the lid off unwanted paint and when the paint completely dries up, paint cans can be disposed of with your regular trash.
- **Pesticides, herbicides, or fertilizers** – please use with caution near waterways and storm drains.
- **Soaps** – this includes soap for washing your car. Washing your car on your lawn will help filter out potentially harmful contaminants in soap, or just go to a commercial car wash.
- **Chlorine** – this includes chlorine found in your tap water. Chlorine is toxic to fish and aquatic organisms.
- **Lawn clippings, leaves, or branches** – these can be put in with your yard waste or you can compost it. Locate your compost pile well away from waterways in a well-drained area. Cover the compost pile during the months of October to April.
- **Food wastes** – scraps can be put in with your yard waste or composted. Exercise caution in composting some food wastes as they can attract animals.

Remember to read the labels before you use any product and follow the directions. If you notice an illicit discharge or have any questions about illicit discharges, please contact City Hall at (360)886-2500.

## Street Sweeping



## GIS Training





## APPENDIX A ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

### ~~Storm Pond Maintenance~~

~~The City owns and maintains several storm ponds throughout the City. Over the late summer of 2010, City maintenance staff inspected the storm ponds and then performed maintenance and cleanup work, as necessary. The work performed included: scooping silt out of the ponds, cleaning inlets, spreading quarry rock to improve filtration and armoring of spillways, removing poisonous vegetation and noxious weeds, and maintenance of bio-filtration swales leading in to ponds. This work fulfills requirements set in a permit the City has received from the Department of Ecology for stormwater discharge.~~





## APPENDIX A

### ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

#### ~~Rain Garden~~

~~As part of the Morgan Street Sidewalk, Phase II project, the City installed a rain garden at the intersection of Roberts Drive and Morgan Street in November of 2010. The goal of the rain garden is to remove one of the City's untreated stormwater outfalls that had been discharging directly to a wetland. After a few months of monitoring the effectiveness of the rain garden, the City is very pleased how the rain garden has been holding stormwater runoff and filtering it through the underlying soil import. The effect of this rain garden will be cleaner water for wetlands and downstream bodies of water, which will promote a better environment for plants and animals in the City and surrounding area.~~





## APPENDIX A ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

### ~~Outfall and Receiving Water Survey~~

~~Public Works staff inspected all of the large stormwater discharges during the dry season to check for Illicit Discharge into the City stormwater system. Outfalls are locations where stormwater discharges to the natural environment. Twelve outfalls were targeted as high priority and were inspected by City staff. In his inspection, he took pictures of the outfalls, monitored flows in dry weather, and observed the condition of the outfall and surrounding area. We were pleased to find that there were no illicit discharges notable during this review and assessment. Staff was encouraged to find that we do not have any ongoing, large, illicit discharge into our core storm systems. This is not to say that there might be smaller, intermittent, short term illicit discharges that will be harder to track. But the good news is that there were no noticeable affects of illicit discharges to the streams or discharge areas.~~

~~Along with inspecting outfalls, staff also surveyed the conditions of Ginder Creek and Lawson Creek, where access was available. For the most part, Ginder Creek and Lawson Creek look to be healthy water bodies. At one location on Ginder Creek, there was evidence of 4 wheelers running through the adjoining wetland which was causing some orange iron bacteria to enter Ginder Creek. Flyers educating the public were distributed to the surrounding neighborhood.~~



## APPENDIX A

### ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

#### ~~Catch Basin Cleaning~~

~~Within the City, 526 catch basins were inspected and cleaned over the summer of 2010. Catch basins provide drain points for road runoff to enter the stormwater collection system and provide sump basin for sediment to settle out in the basin rather than be carried further downstream. The routine inspections and maintenance of the City's catch basins provides the benefit of:~~

- ~~1. Increased system capacity reducing nuisance flooding.~~
- ~~2. Reducing the discharge of sediment into streams and wetlands.~~
- ~~3. Reducing the discharge of pollutants into streams and wetland~~
- ~~4. Locate structural problems or tracking of illegal discharges.~~

~~The catch basin cleaning was completed well under budget which will allow the City to provide additional storm water services in 2011 including increased street sweeping.~~

~~Our maintenance staff will continue to monitor the City's catch basins to determine if and when cleaning and/or other maintenance will need to occur.~~



## APPENDIX A

### **SOME OF THE MAJOR RECENT STORMWATER ACCOMPLISHMENTS IN 2010**



*City workers inspect a catch basin that discharges into a storm pond*

### **Stormwater Pollution Prevention Plan (SWPPP)**

The City created a Stormwater Pollution Prevention Plan (SWPPP) in order to ensure that City facilities are not having a negative impact on City and downstream waterways. The SWPPP implements Best Management Practices to prevent and control contaminated stormwater from City operations from entering surface or ground waters.

Staff reviewed facilities operations and equipment that had the potential of contributing pollutants to the stormwater system and prepared the SWPPP. The plan addresses Source Control, Waste Management, Vehicle and Equipment Washing, Transfer of Solids and Liquids, Painting and Sanding, Vehicle and Equipment Storage, Material Storage, Equipment Repair, Dust and Erosion Control and Landscape Maintenance and a spill response plan.

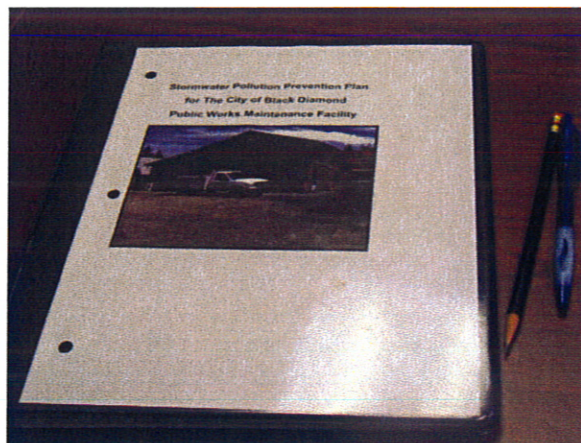




## APPENDIX A

### ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

*Stormwater Pollution Prevention can be as simple as quickly cleaning up spilled liquid, keeping oil drums under cover on a concrete surface, or placing a drip pan under a machine when a leak is detected.*

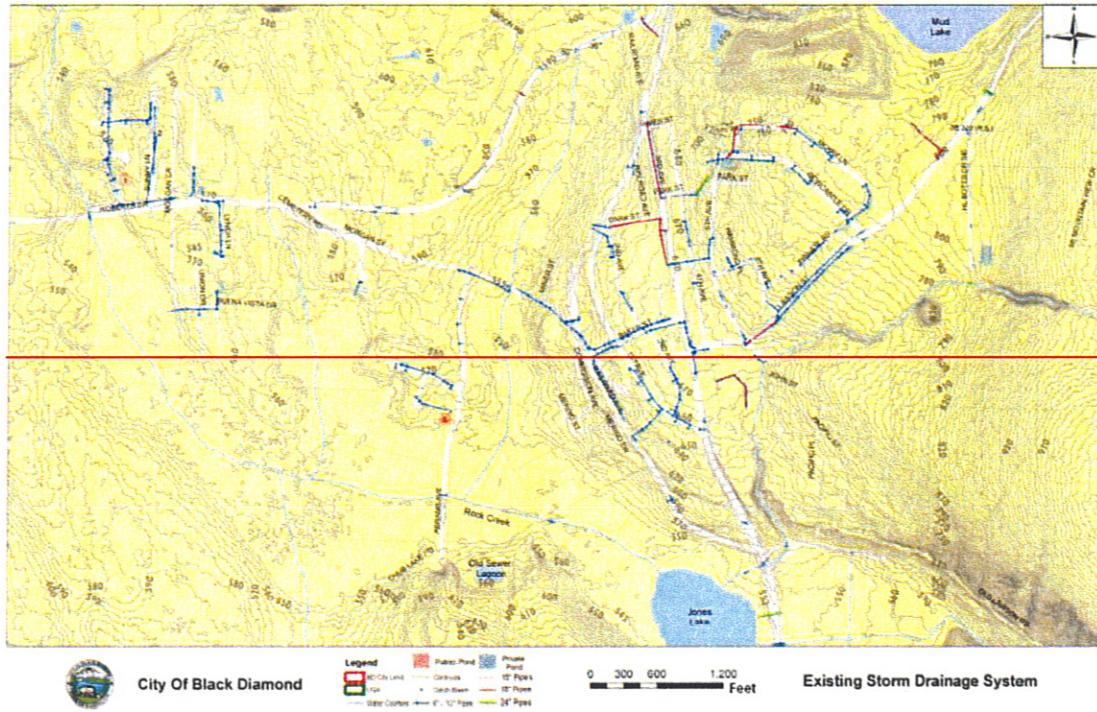


### ~~Storm System Inventory and Mapping~~

~~The ability to maintain the stormwater system depends on knowing where everything is. Since tracking a stormwater system cannot just be limited to a series of pipes and catch basins, City staff has worked with PacWest Engineering to prepare the City's first comprehensive stormwater maps. The City now has a complete inventory and location of all pipes and catch basins, discharge points, storm ponds, oil-water separators, and flow paths. This mapping information helps the city staff with maintenance scheduling, project planning, and tracking Illicit Discharges.~~

~~In 2011 the City plans to add the stormwater mapping to the City GIS system.~~

# **APPENDIX A** **~~SOME OF THE MAJOR RECENT~~ STORMWATER** **~~ACCOMPLISHMENTS IN 2010~~**





# APPENDIX A

## ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

### Public Education Survey

The City has sent out education materials regarding stormwater and illicit discharges. In order to determine how these materials have been received within the community, City staff prepared an online survey for residents and businesses to take. From the results of the survey, staff was able to determine which areas of stormwater could use more attention and which areas the community has a firm grasp on.

4. True or false: You have seen educational articles/flyers/other educational materials from the City of Black Diamond in utility bills/City newsletters/City events (such as Miner's Day, Labor Day):

- ☐ True
- ☐ False
- ☐ Not sure

5. Do you agree or disagree with the following statement: An illicit or unlawful stormwater discharge is primarily defined as anything that enters the stormwater system that is not made up entirely of stormwater:

- ☐ Agree
- ☐ Disagree
- ☐ Not sure

6. Do you agree or disagree with the following statement: Stormwater runoff is the leading cause of pollution in our lakes, creeks, and wetlands:

- ☐ Agree
- ☐ Disagree
- ☐ Not sure

7. What happens to stormwater runoff within the City of Black Diamond?

- ☐ Goes into the nearest water body with treatment
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- ☐ Not applicable



## APPENDIX A

### ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

#### Private Stormwater System Inspections

Many homeowners associations, businesses, and even individual residences have private stormwater systems. City Code requires that these systems be inspected annually and maintained as necessary. As this requirement is a bit new for most, City staff took the initiative to meet with individuals to help with the first inspection and to show what to look for. We have received some good feedback and are pleased with the excitement that has been shown towards private stormwater system maintenance. This effort required a lot of staff time for researching the original plans for some of these systems and contacting property owners, but the effort is worth avoiding compliance issues in the future.



# APPENDIX A

## ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

### IDDE Program

City staff created a program to detect, characterize, trace, and eliminate illicit discharges. Education is a major part of this program as well. By regulating illicit discharges, the City will be able to help protect lakes and creeks within City limits as well as downstream waterways in the Puget Sound region.

Components of this program include storm system mapping, outlining City ordinances, investigation and response procedures, public education and record-keeping.



#### CITY OF BLACK DIAMOND ILLCIT DISCHARGE DETECTION and ELIMINATION (IDDE) PROGRAM

August 2011



PREPARED BY  
Public Works Department  
CITY OF BLACK DIAMOND  
PO BOX 599  
BLACK DIAMOND, WA 98010  
(360) 886-2560



# APPENDIX A

## ~~SOME OF THE MAJOR RECENT~~ STORMWATER ACCOMPLISHMENTS ~~IN 2010~~

### IDDE Education

City staff focused education efforts towards IDDE in 2011. Newsletters were greatly utilized for getting the message out about illicit discharges and how to prevent them. Flyers with details about illicit discharges are being passed out to the businesses within the City during individual meetings with City staff.

These education efforts are very important to ensure that we can all keep our lakes and creeks clean. The end goal is to demonstrate what constitutes an illicit discharge and how simple it is to make sure an illicit discharge does not happen by accident or on purpose.

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THE CITY CONNECTION

### PROTECTING THE CITY'S STORM SYSTEM AND WATERWAYS

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Remember to read the labels before you use any product and follow the directions. If you notice an illicit discharge or have any questions about illicit discharges, please contact City Hall at (360)886-2560.





## APPENDIX A

### **SOME OF THE MAJOR RECENT STORMWATER ACCOMPLISHMENTS IN 2010**



### **Street Sweeping**

The City was able to sweep most of the streets within the City in 2011. Sweeping the streets is important to help make sure that stormwater runoff is clean during a storm event. Sweeping picks up debris that contributes to pollution of the stormwater system and waterways.



## APPENDIX A

### GIS Training

Being able to map the City's infrastructure is very important. With GIS (Geographic Information Systems), City staff can create and modify maps of the City's stormwater system. GIS allows City staff to map exact locations with the City's GPS system and attach photos and other information (including maintenance records and schedules) to specific points within the City (including each individual catch basin and outfall). With permission from owners of private stormwater systems, City staff can also map private systems to help property owners have a record of their own individual systems.

Two staff members received training from King County on GIS software. This training has already come in useful for creating stormwater maps to meet requirements set in the City's Permit from DOE.

