

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

**2011 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
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 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 Department of Ecology 2005 Stormwater Management 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 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 the 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 Ecology.
- 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 Ecology.
- Track the estimated cost of development and implementation of the SWMP.

### **2.3 PLANNED ACTIVITIES**

Actions recommended for continued Permit compliance include:

- 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 the public in Black Diamond by direct mailing stormwater articles in the city newsletter, posting educational materials on the stormwater website, handing out materials at City sponsored events, and coordinating various stormwater classes and workshops to train City staff and elected officials. 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.

### **3.3 PLANNED ACTIVITIES**

The City has the following goals for 2011 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
- 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.
- 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 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' owner 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 get involved to educate those that pollute unknowingly and follow up with additional enforcement actions if compliance is not afforded.
- Four staff, 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.
- Responding to reported illicit discharge reports and documenting the actions taken to eliminate them.
- Prioritize and conduct field assessments of high priority water bodies.

## **5.3 PLANNED ACTIVITIES**

The City plans to:

- 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 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 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 is coming up to speed on the full implementation of the 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 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.

### **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 over the next several years. Actions that are recommended for continued compliance include:

- Review 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.
- 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.

- 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].

### **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 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.
- 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.
- 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) 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.

### **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:

- 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

## SOME OF THE MAJOR STORMWATER ACCOMPLISHMENTS IN 2010



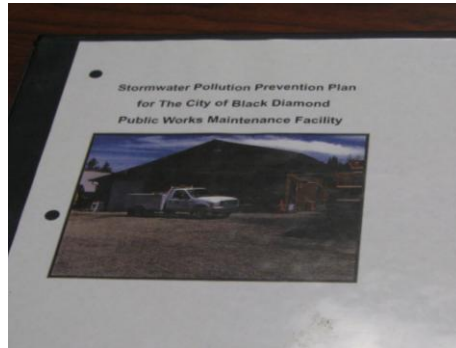
**Storm Pond Inspection and Maintenance**



**Catch Basin Inspection and Cleaning**



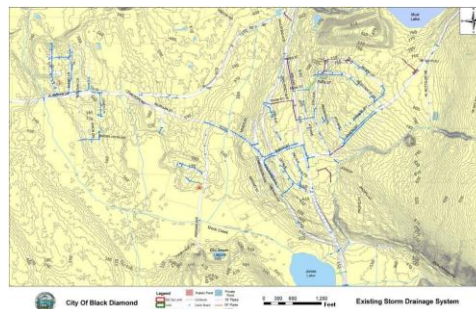
**Rain Garden**



**Stormwater Pollution Prevention Plan (SWPPP)**



**Outfall and Receiving Water Survey**



**Storm System Inventory and Mapping**

# APPENDIX A

## 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

## 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

## 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

## 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.



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

# APPENDIX A

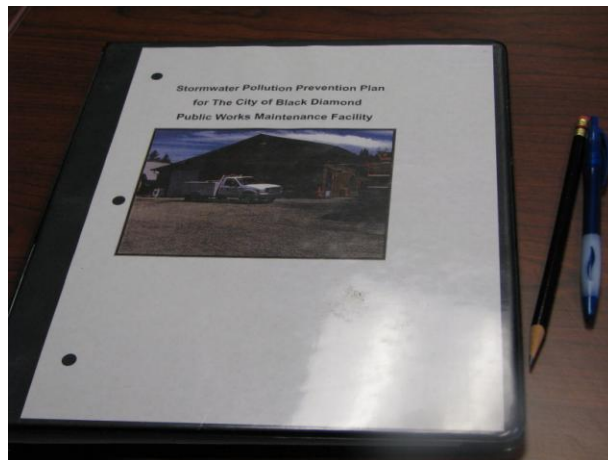
## Stormwater Pollution Prevention Plan (SWPPP)

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.



*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.*



# APPENDIX A

## 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.

