



PUBLIC WORKS DEPARTMENT

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March 26, 2008

Department of Ecology
Water Quality Program
Municipal Stormwater Permits
P.O. Box 47696
Olympia, WA 98504-7696

To whom it may concern,

Enclosed is the City of Spokane Valley's First Year Annual Report Form and attachments as required by the NPDES Eastern WA Phase II Municipal Stormwater Permit. Please let us know if you have any concerns or questions with the report.

Sincerely,

A handwritten signature in cursive script that reads "Aaron Clary".

Aaron Clary
Stormwater Technician

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I. Permittee Information

Permittee Name City of Spokane Valley	Permittee Coverage Number WAR04-6507
Contact Name Aaron Clary	Phone Number 509-688-0229
Mailing Address 11707 E. Sprague, Suite 106	
City Spokane Valley	State Zip + 4 WA 99206
Email Address aclary@spokanevalley.org	

II. Regulated Small MS4 Location

Jurisdiction	<i>Entity Type: Put an X in the box that applies</i>		
	County	City/Town	Other
Major Receiving Water(s)			

III. Relying on another Governmental Entity

If you are relying on another governmental entity to satisfy one or more of the permit obligations, list the entity and briefly describe the permit obligation(s) they are implementing on your behalf below. *Attach a copy of your agreement with the other entity to provide additional detail.*

Name of Entity:	Permit Obligation(s):

VI. Status Report Covering Calendar Year 2007

Jurisdiction: City of Spokane Valley

PLEASE label information in any attachments with corresponding question numbers.
 PLEASE fill out your jurisdiction in line 1 above.
 PLEASE refer to the INSTRUCTIONS tab for assistance filling out this table.
 PLEASE review your work for completeness and accuracy. Save this worksheet as you go!

Question	Y/N/NA	Comments (50 word limit)	Name of Attachment & Page Number, if applicable
1 Attached annual written update of Permittee's Stormwater Management Program (SWMP), including applicable requirements under S5.A.3 and S9?	Y		Attachment 1, Stormwater Management Plan, Permit Year 2
2 Attached a copy of any annexations, incorporations or boundary changes resulting in an increase or decrease in the Permittee's geographic area of permit coverage during the reporting period, and implications for the SWMP as per S9.E.3?	N	There have been no annexations, incorporations or boundary changes from 2007 - current.	
3 Have NPDES permit coverage for all applicable construction projects and industrial facilities? (S5.B.6.a.i)	Y		
4 Provided information to construction site operators and design professionals about training available on how to comply with the MTRs in Appendix I and the BMPs in the SWMMEW, or an equivalent document? (S5.B.4.d)	Y	This information was posted in our website after the required deadline. We also let engineers know that their project may be subject to the requirements of the Construction Stormwater permit when their projects are being reviewed.	
5 Gathered information about your storm drainage infrastructure? Attach estimated and verified numbers or miles (or feet) of open ditches, storm sewers, outfalls, catch basins, detention facilities, retention facilities, treatment facilities (and types), and regional facilities, if any. (S5.B.6.a.i)	Y	The activity was met before the required deadline. The City does not own any detention, retention, or treatment facilities.	Attachment 2, Storm Drainage Infrastructure

Question	Y/N/ NA	Comments (50 word limit)	Name of Attachment & Page Number, if applicable
6 Conducted spot checks of stormwater facilities after major storms? (S5.B.6.a.ii)	NA	In 2007, a 10-year storm event did not occur.	
7 Provided adequate training for staff to carry out the SWMP? (S5.B.6.b)	NA	This requirement is not yet due.	
8 Notified Ecology of the failure to comply with the permit terms and conditions within 30 days of becoming aware of the non-compliance? (G20 and S4.F)	NA	The City did not become aware of any non-compliance issues in 2007.	
8b [Attached a summary of the status of implementation of any actions taken pursuant to S4.F and any information from an assessment and evaluation procedures collected during the reporting period. (S4.F.2.d)]	NA	The City did not become aware of any violations of Water Quality Standards in 2007.	
9 Notified Ecology immediately in cases where the Permittee becomes aware of a discharge from the Permittee's MS4 which may cause or contribute to an imminent threat to human health or the environment? (G20 and S4.F)	NA	The City did not become aware of any illicit discharges from our MS4 in 2007.	

Information Collection, S8.B.1 Description of Monitoring Studies

If applicable, you are required to provide information to fulfill permit requirement S8.B.1 in each annual report. You must describe any stormwater monitoring or studies conducted by you during the reporting period. If stormwater monitoring was conducted on your behalf, or if studies or investigations conducted by other entities were reported to you, you must briefly describe the type of information gathered or received during the reporting period.

Please note in row #1 of the table below if you have no information to report.

NOTE: Please limit your entries to 255 characters per cell. You may include additional information in your Supplemental Documentation attachment and reference it below with the page number.

Information Collection

Briefly describe any stormwater monitoring, studies, or type of information collected and analyzed during the reporting period. (S8.B.1)	Who/how to contact for additional information?
1. We have no information to report.	
2.	
3.	
4.	
5.	
6.	

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City of Spokane Valley
Stormwater Management Plan
NPDES Phase II Permit
Permit Year 2

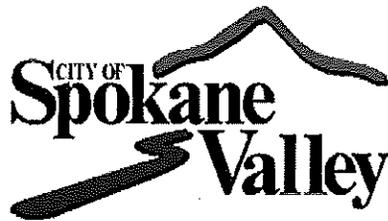


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1.0 BACKGROUND

Stormwater is the leading contributor to water quality pollution in our urban waterways. When land is developed, the hydrology, or the natural cycle of water is disrupted and altered. Clearing removes the vegetation that intercepts, slows and returns rainfall to the air through evaporation and transpiration. Grading flattens hilly terrain and fills in natural depressions that slow and provide temporary storage for rainfall. The topsoil and sponge-like layers of humus are scraped and removed and the remaining subsoil is compacted. Rainfall that once seeped into the ground now runs off the surface. The addition of buildings, roadways, parking lots and other surfaces that are impervious to rainfall further reduces infiltration and increases runoff.

Depending on the magnitude of changes to the land surface, the total runoff volume can increase dramatically. These changes not only increase the total volume of runoff, but also accelerate the rate at which runoff flows across the land. This effect is further exacerbated by drainage systems such as gutters, storm sewers and lined channels that are designed to carry runoff quickly.

Development and impervious surfaces also reduce the amount of water that infiltrates into the soil and groundwater, thus reducing the amount of water that can recharge aquifers and feed streamflow during periods of dry weather. Finally, development and urbanization affect not only the quantity of stormwater runoff, but also its quality. Development increases both the concentration and types of pollutants carried by runoff. As it runs over rooftops and lawns, parking lots and industrial sites, stormwater picks up and transports a variety of contaminants and pollutants to downstream waterbodies. The loss of the original topsoil and vegetation removes a valuable filtering mechanism for stormwater runoff.

1.1 Laws and Regulations

The Federal Clean Water Act (CWA), U.S. Environmental Protection Agency (EPA) rules, and State Law (RCW 90.48)

The federal Clean Water Act (CWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES) permitting program. In Washington, the Department of Ecology has been delegated authority to administer the NPDES permit program for most dischargers including most municipal stormwater discharges. Chapter 90.48 RCW defines Ecology's authority and obligations in administering the NPDES permit program.

For municipal stormwater discharges, Congress phased in the NPDES permitting requirements. Phase I included medium and large municipalities. Municipalities with populations of 250,000 or more are defined as "large" while those with populations between 100,000 and 250,000 are defined as "medium" municipalities.

In the 1987 CWA amendments, Congress directed EPA to study remaining sources of stormwater discharges and, based on the study, to propose regulations to designate and control other stormwater sources. These regulations, which are commonly known as the Phase II rules, were adopted by the EPA in December 1999. The Phase II rules extend coverage of the (NPDES) program to certain “small” municipal separate stormwater sewer systems (MS4s).

In addition to incorporated cities and unincorporated counties, other public entities that own and operate storm sewer systems located within the municipalities are also required to be covered under the permit program, unless they qualify for a waiver. Examples of other publicly-owned storm sewer systems include state highway systems, ports, drainage districts and flood control districts located within permitted municipalities.

Recognizing the complexity of controlling stormwater, Congress and EPA established a regulatory framework for municipal stormwater discharges that is different from traditional NPDES permit programs. The Phase II rules require the development, implementation, and enforcement of stormwater management programs designed to reduce the discharge of pollutants from MS4s to the maximum extent practicable (MEP), protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act.

The Phase II rules require Ecology to “make available a menu of BMP’s to assist regulated small MS4s in the design and implementation of municipal storm water management programs to implement the minimum measures specified in (40 CFR) 122.34(b) of this chapter.” The Stormwater Management Manual for Eastern Washington (2004) meets this requirement in regard to construction site stormwater control and post-construction stormwater management in new development and re-development.

Along with requirements in federal law, there are state law requirements for the control of pollution in Chapter 90.48 Revised Code of Washington (RCW), known as the Water Pollution Control Act and Implementing Regulations. RCW 90.48.010 establishes “the public policy of the state of Washington (is) to maintain the highest possible standards to insure the purity of all waters of the state consistent with public health and public enjoyment thereof, the propagation and protection of wild life, birds, game, fish and other aquatic life, and the industrial development of the state, and to that end require the use of all known available and reasonable methods by industries and others to prevent and control the pollution of the waters of the state of Washington.”

Both the terms “pollution” and “waters of the state” are defined in RCW 90.48.020. The term “all known available and reasonable methods” is not defined in state law and has been left up to Ecology to define.

Under state law, a permit is required to discharge pollutants or waste materials to waters of the state (RCW 90.48.162). An application is required to obtain a discharge permit, and Ecology has an obligation to investigate the application and determine whether the use of public waters for the waste disposal will pollute state waters in violation of the public policy of the state (RCW 90.48.170). A discharge permit must be issued unless Ecology finds the disposal of waste materials will pollute the waters of the state in violation of the public policy (RCW 90.48.180).

In 1987 the State Legislature passed into law RCW 90.48.520. When issuing or renewing state and federal wastewater discharge permits Ecology is required to review the applicant's operations and incorporate permit conditions which require all known, available, and reasonable methods to control toxicants in the applicant's wastewater. The discharge of toxicants which would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria shall not be allowed (RCW 90.48.520).

RCW 90.48.035 grants Ecology authority to adopt standards for the quality of waters of the state. Ecology has adopted the following standards: Ch. 173-200 WAC Ground Water Quality Standards; Ch. 173-201A WAC Water Quality Standards for Surface Waters; and Ch. 173-204 WAC Sediment Management Standards. These standards generally require that permits issued by Ecology ensure that standards are not violated, or that a compliance schedule be in place to bring discharges into compliance.

The Waste Discharge General Permit Program regulation, Chapter 173-226 WAC, establishes a general permit program applicable to the discharge of pollutants, wastes, and other materials to waters of the state. One of the requirements (WAC 173-226-110) for issuing a general permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet.

The EPA phase II regulations went into effect in early 2003 and applied to all regulated small municipal separate storm sewer systems. On January 17, 2007 Ecology issued two phase II municipal stormwater permits, one for western Washington and one for eastern Washington. February 16, 2007 is the effective date. The Phase II permit for eastern Washington covers 20 cities and eight counties.

The Permit allows municipalities to discharge stormwater runoff from municipal drainage systems into the State's waterbodies (i.e., streams, rivers, lakes, wetlands, etc.) as long as municipalities implement programs to protect water quality by reducing the discharge of "non-point source" pollutants to the "maximum extent practicable" (MEP) through application of Permit-specified "best management practices" (BMPs). The practices specified in the Permit are collectively referred to as the Stormwater Management Program (SWMP).

1.2 Spokane Valley-Rathdrum Prairie Sole-Source Aquifer

The only source of water for most of the people in Spokane County, Washington and Kootenai County, Idaho is a high quality underground water body called the Spokane Valley-Rathdrum Prairie Aquifer. This aquifer extends across an area of about 325 square miles and provides drinking water for more than 500,000 people. Most of the developed areas in the Spokane region and in North Idaho lie directly over the aquifer.

Unlike many other aquifers, the Spokane Valley-Rathdrum Prairie Aquifer does not have protective layers of clay or rock to deter infiltration of surface contaminants. The soil layer above the aquifer is relatively thin in most areas, and fluids readily infiltrate into the porous sands and gravel that make up the aquifer materials. Potential contamination is the most important issue that must be addressed to preserve and maintain the aquifer as a regional drinking water resource. A contaminant on the surface may reach the aquifer water table in a matter of hours or days, particularly contaminants that are dissolved in

water that is recharging the aquifer. Contamination in the aquifer may be cleaned up, or remediated, but the clean-up process is costly and does not eliminate 100% of the contamination.

The water quality of the aquifer has been tested since 1977 and the monitoring suggests that human activities on the land surface over the aquifer are deteriorating the water quality. Contaminants are conveyed to the aquifer by stormwater, septic tank leachate, fertilizer leachate, leakage from underground storage tanks and other sources that percolate downward from the surface. Stormwater accounts for about 30% of the pollution reaching the aquifer. Stormwater can collect a large variety of contaminants as it flows across roads, parking lots, roofs and other impervious surfaces. Pollutants such as coliform bacteria, nitrates and volatile organic compounds have been detected in aquifer water samples.

One of the first important steps to protect the aquifer was taken by the U.S. Environmental Protection Agency (EPA) in 1978 when it designated the Spokane Valley-Rathdrum Prairie a "Sole-Source Aquifer" under Section 1424(e) of the federal Safe Drinking Water Act. It was the second aquifer in the nation to receive this designation.

In addition, the entire City of Spokane Valley is subject to the Department of Ecology's Underground Injection Control (UIC) regulations.

1.3 SWMP Components

The NPDES Phase II rule requires that municipalities develop a Stormwater Management Program (SWMP) and must have, at least, the following components:

- Public education and outreach on stormwater impacts,
- Public involvement/participation,
- Illicit discharge detection and elimination,
- Construction site stormwater runoff control,
- Post construction stormwater management in new development and re-development, and
- Pollution prevention/good housekeeping for municipal operations.

In addition to the above six minimum measures, the NPDES Phase II permit also require:

- Compliance with approved total maximum daily load (TMDL, or water cleanup plan) or equivalent analysis, where appropriate, and
- Evaluation and assessment of program compliance.

The Permit requires the City to report annually (March 31st of each year) on progress in Program implementation for the prior year. The Permit also requires submittal of documentation that describes proposed Program activities for the coming year. Implementation of various Permit conditions is phased throughout the five-year Permit term from February 16, 2007 through February 15, 2012. The Permit will be revised and reissued at the end of this period.

City of Spokane Valley Stormwater Management Plan

As of March 31st, 2008 the City meets the initial Permit requirements. This SWMP document describes actions Spokane Valley will take to maintain compliance over the second year of the Permit term (i.e., February 16, 2008 through February 16, 2009).

The Sections 2 through 8 describe the required components and how the City intends to incorporate these components into the City's stormwater management plan.

2.0 Public Education and Outreach

Stormwater pollution from point sources and nonpoint sources is a challenging water quality problem. Unlike pollution from industry or sewage treatment facilities, which is caused by a discrete number of sources, stormwater pollution is caused by the daily activities of people everywhere. Rainwater and snowmelt run off streets, lawns, farms, and construction and industrial sites and pick up fertilizers, dirt, pesticides, oil and grease, and many other pollutants on the way to our rivers, lakes, and sources of drinking water. Stormwater runoff is our most common cause of water pollution. Because stormwater pollution is caused by so many different activities, traditional regulatory controls can only go so far.

Education and outreach are key components to any successful stormwater program. Public education is an effective way to provide education, change attitudes and perceptions, and mold public behaviors towards protecting water quality. Target audiences gain an understanding of the importance of improving water quality and reducing/eliminating illicit discharge and realize that they have an important role towards achieving these goals.

Audience important to the success of a stormwater public education program include: the residential community, homeowner associations, the commercial business community, industrial sector, the development community, and municipal staff. Understanding the target audiences is the first step toward accomplishing this task.

2.1 EPA Guidance

EPA recommends the use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest or trade organizations, or other jurisdictions. The public education program should inform individuals and households about the steps they can take to reduce stormwater pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes.

EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups.

In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, provide information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. Jurisdictions are encouraged to tailor outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

2.2 Develop a Public Education and Outreach Program

2.2.1 Requirement (S5B1)

The City will develop and implement a public education and outreach program to distribute educational materials to the community or conduct outreach activities about the impacts of stormwater discharges to water bodies and the steps the public can take to reduce pollutants in stormwater. Outreach and educational efforts should include a multimedia approach and shall be targeted and presented to specific audiences for increased effectiveness. The following is required to be included with the program:

- Information for the general public about the importance of improving water quality and protecting beneficial uses of waters of the state; potential impacts from stormwater discharges; methods of avoiding, minimizing, reducing and/or eliminating the adverse impacts of stormwater discharges; and actions individuals can take to improve water quality, including encouraging participation in local environmental stewardship activities
- Information for businesses and the general public about preventing illicit discharges and the impacts of illicit discharges
- Information for engineers, construction contractors, developers, and review staff, and land use planners about technical standards, development of ESC plans, and BMPs

2.2.2 Required Schedule (S5B1)

Public Education & Outreach Program						
	Current Activity	YEAR 2008	YEAR 2009	YEAR 2010	YEAR 2011	YEAR 2012
Characterize the target audiences				Feb 16		
Develop and implement program					Aug 16	
Provide information for businesses, general public, and development community	No				Aug 16	

2.2.3 Current Activities

In the City website, information regarding applicable permits and regulations is provided to:

- Construction contractors about the Ecology's Construction Stormwater permit and directs them to Ecology's website to determine if a permit is required and for training that it is available to become a certified erosion and sediment control lead (CESCL).
- General public about the NPDES Phase II permit
- Owners of drywells and the requirements of UIC.

2.2.4 Proposed Activities for 2008 Permit Year

Characterize the target audiences. This can be done through the use of surveys, interviews, or using common knowledge about the target audiences.

Develop and distribute a stormwater brochure for the general public. The brochure will discuss how common household practices can be changed to prevent illicit discharges, yard maintenance activities, provide information about our source of drinking water, etc. The brochures may be mailed with the water districts or sewer bill mailing.

Develop a targeted brochure for business owners. The brochure will discuss UIC requirements.

Develop a targeted brochure for lawn care professional. The brochure will discuss overwatering, use of fertilizers, etc.

Develop a targeted brochure for erosion control. The brochure will discuss the need for erosion control, requirements for erosion control plans and BMPs, provide information about the Construction Stormwater Permit issued by Ecology. The brochure will be included in all building permits application packages and pre-construction meetings by August 16, 2011.

Develop a stormwater webpage that provides information for the target audiences as required.

Education and outreach efforts will be documented by recording mailing dates, keeping mailing lists, dates of notices, etc.

2.2.5 Responsible Party

Stormwater Utility (Public Works)

2.2.6 Steps

Characterize target audiences

In order to characterize the target audience, it is necessary to subdivide the audience into categories, identify the major water quality concerns of the target audience, and identify potential partner organizations. Common target audience subgroups are homeowners, developers, business owners, students, and government employees. Additional categories can be added by using knowledge of the community and other sources of information. A quick and cost-effective way to identify target audiences concerns is to use common sources of local information (i.e. newspaper, newsletter, community events, chambers of commerce, complaint database).

Examples of questions for characterizing target audiences: What is the name of the target audience? How large is the audience? How do they receive information about community issues? How do they communicate with each other? What organizations do they belong to? What do they value as a group? What is their attitude toward stormwater and water quality issues? How are they impacting water quality?

Develop Education and Outreach Strategy

Using information about the MS4 and the target audiences, develop a strategy to implement by identifying key problems caused by these target audiences (such as over fertilizing of lawns for homeowners, dumping waste in stormwater system, etc), identifying solutions to be promoted in the education materials for various target audiences. Finally, the education materials must be developed and distributed. Wide range of education material that address stormwater pollution can be found online.

Distribution

It would be beneficial to make materials available at city offices and libraries, schools, park offices, etc. for cost purposes. Distribute information through various community, association, and organization newsletters, as inserts in the local newspaper, through utility bill inserts, etc. Participate in and distribute stormwater material during public events (fairs, etc)

3.0 Public Involvement and Participation

An active and involved community is crucial to the success of a stormwater management program because it allows for:

- Broader public support since citizens who participate in the development and decision making process are partially responsible for the program and, therefore, may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation;
- Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers;
- A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
- A conduit to other programs as citizens involved in the stormwater program development process provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a stormwater program on a watershed basis, as encouraged by EPA.

3.1 EPA Guidance

EPA recommends that the public be included in developing, implementing, and reviewing the SWMP and that the public participation process should make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation can include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts.

3.2 Develop a Public Involvement and Participation Program

3.2.1 Requirement

The City shall adopt a program or policy directive to create opportunities for the public to provide input during the decision making processes involving the development, implementation, and update of the SWMP and required ordinances. Develop and implement a process for consideration of public comments on their SWMP, including required ordinances and regulatory mechanisms.

The City shall comply with applicable state, tribal, and local public notice requirements when implementing a public involvement and participation program. The SWMP shall include ongoing opportunities for public involvement and participation such as advisory panels, public hearings, watershed committees, stewardship programs, environmental activities, other volunteer opportunities, and other similar activities.

The minimum performance measures are:

- By February 16, 2008, adopt a program or policy directive to create opportunities for the public to provide input during the decision making processes involving the development, implementation, and update of the SWMP, including development and adoption of all required ordinances and regulatory mechanisms.
- By May 31 each year beginning in 2008, make the latest updated version SWMP available to the public.

3.2.2 Required Schedule

Public Involvement and Participation Program						
	Current Activity	YEAR 2008	YEAR 2009	YEAR 2010	YEAR 2011	YEAR 2012
Adopt a Public Involvement Program	Partial	Feb 16				
Make the latest version of the SWMP available to the public	No	May 31				

3.2.3 Current Activities

The City of Spokane Valley, Spokane County, and the City of Spokane have worked together since 2004 to develop the Spokane Regional Stormwater Manual (SRSW). A 90 day public participation process took place in 2005. During that time, 6 workshops were held within the Spokane Region. Public involvement process also included website posting, e-mail announcements, newspaper notices, etc.

In the Fall of 2007, Ecology approved the SRSW as a technical equivalent manual to the Stormwater Management Manual for Eastern Washington.

Currently, each jurisdiction is going through the adoption process. Spokane Valley held a workshop on January 10, 2008 and a public hearing on January 24, 2008. Another public hearing took place in March of 2008 with City Council. The adoption process for the SRSW is estimated to be completed by April 2008.

The Stormwater Management Plan for the City will be posted online by May 2008.

3.2.4 Proposed Activities for 2008 Permit Year

Hold one public meeting and publish at least two public notices annually starting in year 2 of the program to receive public opinion on the content, adequacy, and effectiveness of the SWMP components. Copies of the legal notices will be documented. Additionally, the meeting dates and attendance list will be kept for each meeting.

3.2.5 Responsible Party

Stormwater Utility (Public Works)

4.0 Illicit Discharge and Detection and Elimination

Federal regulations define an illicit discharge as “...any discharge to an MS4 that is not composed entirely of stormwater...” with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities. Possible sources of illicit discharges include sanitary waste, effluent from septic systems, car wash wastewaters, spills from roadway accidents, improper disposal of auto and household toxics, etc.

Illicit discharges enter the storm drainage system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants to receiving waterbodies and the underlying aquifer. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife, and human health.

The objective of this requirement is to gain awareness of our stormwater systems. This awareness will help to determine the types and sources of illicit discharges entering their systems; and establish the legal, technical, and educational means needed to eliminate these discharges.

The illicit discharge detection and elimination has the following components:

- Mapping the MS4
- Creating an ordinance or other mechanism that prohibit non-stormwater discharges
- Developing and Implementing a plan to detect and address non-stormwater discharges
- Program Evaluation
- Training Municipal Staff

4.1 Required Schedule

Illicit Discharge, Detection & Elimination						
	Current Activity	YEAR 2008	YEAR 2009	YEAR 2010	YEAR 2011	YEAR 2012
Mapping MS4 (was completed in 2007)	Yes					Feb 16
Illicit Discharge Ordinance	Partial		Aug 16			
Illicit Discharge Detection & Elimination Program					Aug 16	
Procedures of identifying priority areas for assessment	No				Aug 16	
Field Assessment Activities	No				Feb 16	
Characterizing Illicit Discharges	No				Aug 16	
Tracing Illicit Discharges	No				Aug 16	
Procedures for Ending Illicit Discharges	No				Aug 16	
Publicize hot line for public	No		Feb 16			
Program Evaluation	No	Aug 16				
Public Education	No				Aug 16	
Training Municipal Staff	No	No date is given				

4.2 EPA Guidance

EPA recommends that the plan to detect and address illicit discharges include the following four components: procedures for locating priority areas likely to have illicit discharges; procedures for tracing the source of an illicit discharge; procedures for removing the source of the discharge; and procedures for program evaluation and assessment. EPA recommends visually screening outfalls during dry weather and conducting field tests of selected pollutants as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

4.3 Mapping MS4

4.3.1 Requirement

Develop a map of the MS4 showing the location of all known and new connections to the MS4 authorized or approved by the City, all known outfalls; the names and locations of all waters of the state that receive discharge from those outfalls and areas served by discharges to the ground. This map is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the waterbodies these flows may be affecting.

The following waters of body are located within the City: Spokane River, Shelley Lake, Saltese and Chester Creek.

4.3.2 Current Activities

The City field verified the location of known outfalls and new connections to the MS4 and created a GIS database in 2007. Outfall data such size, type, etc is contained in the database. A map of the MS4 was created and shown in Figure 1. This work was funded through a seed money grant received from Ecology.

4.3.3 Proposed Activities for 2008 Permit Year

The MS4 map will be updated as new outflows are put in place this year. The pdf version of the map will be posted online.

4.3.4 Responsible Party

Stormwater Utility (Public Works)

4.4 Ordinance to Prohibit Non-Stormwater Discharges

4.4.1 Requirement

Create an ordinance or other regulatory mechanism that prohibits illicit discharges and authorizes enforcement actions, including on private property. The ordinance shall prohibit the following categories of non-stormwater discharge unless the stated conditions are met:

- Discharges from potable water sources, including water line flushing, hyperchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH adjusted if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.
- Discharges from lawn watering and other irrigation runoff. These discharges shall be minimized through, at a minimum, public education activities, and water conservation efforts.
- Dechlorinated swimming pool discharges. The discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.
- Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents. The Permittee shall reduce these discharges through, at a minimum, public education activities, and/or water conservation efforts. To avoid washing pollutants into the MS4, Permittees shall minimize the amount of street wash and dust control water used. At active construction sites, street sweeping shall be performed prior to washing the street.
- Other non-stormwater discharges shall be in compliance with the requirements of the stormwater pollution prevention plan reviewed by the City which addresses control of such discharges.

- The ordinance or other regulatory mechanism shall include, escalating enforcement procedures and actions.

4.4.2 Current Activities

The City adopted a stormwater ordinance in 2005. The ordinance prohibits non-stormwater discharges into the public system. This ordinance was included in the revised Title 22 of UDC. Although, Title 22 of UDC has to be revised to comply with this requirement, it addresses some illicit discharges.

4.4.3 Proposed Activities for 2008 Permit Year

No changes to this section of the code are proposed for the current permit year.

4.4.4 Responsible Party

Stormwater Utility (Public Works)

4.5 Public Education

4.5.1 Requirement

Inform public employees, businesses, and the general public of hazards associated with illegal discharge and improper disposal of waste.

4.5.2 Current Activities

No current activities comply with this requirement.

4.5.3 Proposed Activities for 2008 Permit Year

See public education and outreach section for detailed materials to be distributed.

Publicize a hotline for public reporting spills or illicit discharges by February 16, 2009. Keep records of all calls received and follow up actions and include in annual report.

4.5.4 Responsible Party

Stormwater Utility (Public Works)

4.6 Training City Staff

4.6.1 Requirement

The City shall provide adequate training to all those staff responsible for identification, investigation, termination, cleanup, and reporting of illicit discharge including spills, improper disposal, and illicit connections.

The City shall provide training to all municipal field staff that as part of their normal job responsibility might come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4. Training shall also be provided for staff that who receives initial reports or complaints of illicit discharges or who may come into contact with or otherwise observe an illicit discharge or connection to the MS4.

Training shall also include how to identify a spill, an improper disposal, or an illicit connection to the MS4 and proper procedures for reporting the illicit discharge.

4.6.2 Current Activities

No current activities comply with this requirement.

4.6.3 Proposed Activities for 2008 Permit Year

Research for available training that could be utilized to meet this requirement. Put in place a draft training plan.

4.6.4 Responsible Party

Stormwater Utility (Public Works)

5.0 Construction Site Stormwater Runoff Control

Polluted stormwater runoff from construction sites often flows to the storm system. Sediment is usually the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to surface waters, plug drainage facilities which can result in flooding of downstream property owners..

The City is required to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that disturb more than one acre or project of less than one acre that are part of a common plan of development or sale. This requirement is applicable for both public and private projects.

5.1 Required Schedule

Construction Site Stormwater Runoff Control						
	Current Activity	YEAR 2008	YEAR 2009	YEAR 2010	YEAR 2011	YEAR 2012
Erosion and Sediment Control Ordinance	Yes			Feb 16		
Erosion Control Plan Review	Yes				Feb 16	
Procedures for Site Inspection & Enforcement of ESC BMPs					Feb 16	
Training Municipal Staff	No				Feb 16	
Education for Construction Site Operators	Yes	From the effective date of this permit				
Hotline	No	No date given				

5.2 EPA Guidance

Examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance. EPA recommends that procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.

You are encouraged to provide appropriate educational and training measures for construction site operators. You may wish to require a stormwater pollution prevention plan for construction sites within your jurisdiction that discharge into your system. See Sec. 122.44(s) (NPDES permitting authorities' option to incorporate qualifying State, Tribal and local erosion and sediment control programs into NPDES permits for stormwater discharges from construction sites). Also see Sec. 122.35(b) (The NPDES permitting authority may recognize that another government entity, including the

permitting authority, may be responsible for implementing one or more of the minimum measures on your behalf.)

5.3 Erosion and Sediment Control Ordinance

5.3.1 Requirement

Create an ordinance or other regulatory mechanism that requires erosion and sediment controls (ESC) for new development and redevelopment projects and City projects that are one acre in size or greater or that projects less than one acre that are part of a common plan of development or sale.

A common plan of development of sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules, but still under a single plan. If the project is part of a common plan of development or sale, the disturbed area of the entire plan shall be used in determining permit requirements.

The ordinance shall require construction operators to adhere to the requirements of Appendix 1 and apply BMPs as necessary to protect water quality. Jurisdictions that choose the use the BMP selection, design, installation, operation and maintenance standards in the Stormwater Management Manual for Eastern Washington, may cite this reference as the sole documentation that the ordinance is protecting water quality, reducing the discharge of pollutants to the maximum extent practicable, and satisfy AKART requirements.

The ordinance shall include appropriate, escalating enforcement procedures and actions.

5.3.2 Current Activities

The City requires erosion and sediment control plans for the following regulated activities:

- Grading of land in excess of five hundred (500) cubic yards so as to require environmental review pursuant to the State Environmental Policy Act (SEPA);
- Construction of, or addition to, a building (except a single-family or duplex residence) or placement of impervious surfaces that exceed 5,000 square feet. For projects that are implemented in incremental stages, the threshold applies to the total amount of impervious surfaces replaced or added at full build-out;
- Disturbance of one (1) acre or more; and,
- Construction of drywells or other UIC wells regulated by WAC 173-218 UIC Program.

Erosion and sediment control requirements are per Spokane County Guidelines for Stormwater Management.

Title 22.150 Inspection authorizes City staff to field inspect, as appropriate, street, building site, and drainage construction to verify conformance with City standards and the conditions of approval.

5.3.3 Proposed Activities for 2008 Permit Year

The City is in the process of adopting the Spokane Regional Stormwater Manual. The manual has one entire chapter that deals erosion and sediment control and is technical equivalent to the Stormwater Management for Eastern Washington and Appendix 1 of the NPDES Phase II permit for Eastern Washington.

The SRSM is expected to be adopted in the Spring of 2008. Projects vested after the adoption of the SRSM will be required to implement appropriate erosion and sediment control BMPs, control construction waste.

5.3.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

5.4 Erosion Control Plan Review

5.4.1 Requirement

Adopt and implement procedures for site plan review.

5.4.2 Current Activities

The City already reviews erosion control plans for sites that:

- Grading of land in excess of five hundred (500) cubic yards so as to require environmental review pursuant to the State Environmental Policy Act (SEPA);
- Construction of, or addition to, a building (except a single-family or duplex residence) or placement of impervious surfaces that exceed 5,000 square feet. For projects that are implemented in incremental stages, the threshold applies to the total amount of impervious surfaces replaced or added at full build-out
- Disturb of one (1) acre or more;
- Construction of drywells or other UIC wells regulated by WAC 173-218 UIC Program.

The City's regulatory threshold exceeds the requirements of the permit.

5.4.3 Proposed Activities for 2008 Permit Year

The City will continue to review the projects above and keep records of all project reviewed. When the SRSW is adopted, projects will be required to provide BMPs.

5.4.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

5.5 Site Inspection

5.5.1 Requirement

Adopt and implement procedures for site inspection and enforcement of erosion control measures.

The City is required to inspect sites meeting the threshold at least once by qualified personnel. The program needs to achieve an inspection rate of 95% of all sites.

Maintain records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre. The size of project may change to 5 acres if the City decides to apply for "Erosivity Waiver".

5.5.2 Current Activities

The City has one field inspector that inspects current construction sites. The inspector typically visits the site during construction to verify that erosion control measures are in place. If they are not, he contacts the developer's representative and request that they are installed.

5.5.3 Proposed Activities for 2008 Permit Year

The City will continue to inspect projects above and keep records of all project inspected.

5.5.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

5.6 Staff Training

5.6.1 Requirement

Provide training to all staff involved in permitting, planning, and review to carry out these provisions by February 16, 2011.

5.6.2 Current Activities

A selected group of staff has received Certified Erosion and Sediment Control Lead (CESCL) training.

5.6.3 Proposed Activities for 2008 Permit Year

The City will document training dates and keep a log of refresher dates. Also, it will evaluate other staff that may require training.

5.6.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

5.7 Education for Construction Operators

5.7.1 Requirement

The City will provide information to site operators about training available on how to install and maintain erosion and sediment control.

The City will keep copies of the information provided to construction site operators, and if information is distributed to a large number of design professionals at once, the dates of the mailings and list of recipients.

5.7.2 Current Activity

In the City website, information regarding applicable permits and regulations is provided to:

- Construction contractors about the Ecology's Construction Stormwater permit and directs them to Ecology's website to determine if a permit is required and for training that it is available to become a certified erosion and sediment control lead (CESCL).

5.7.3 Proposed Activities for 2008 Permit Year

The City will continue to provide this information.

5.7.4 Responsible Party

Stormwater Utility (Public Works) and Development Engineering (Community Development)

5.8 Hot Line

5.8.1 Requirement

Adopt and implement procedures for receipt and consideration of information submitted by the public by February 16, 2011. List and publicize a hotline or other telephone number for public reporting of erosion problems. Keep records of all calls received and follow up actions and include in annual report.

5.8.2 Current Activities

The City receives complaints through the main number 509-921-1000. Complaints are routed to Development Engineering for erosion problems due for construction of private projects and to Stormwater Utility for problems in City property and in City right-of-way.

5.8.3 Proposed Activities for 2008 Permit Year

Continue to receive complaints and route them to appropriate department. Update the website to publicize phone numbers for public to report erosion problems.

5.8.4 Responsible Party

Development engineering (Community Development) for private projects under construction.

Stormwater Utility (Public Works) for erosion in City property, City projects, or in City right-of-way.

6.0 Post-Construction Stormwater Management

Post-construction stormwater management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to have significant impacts to receiving waters. Many studies indicate that prior planning and design for the minimization of pollutants in post-construction stormwater discharges is the most cost effective approach to stormwater quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in stormwater runoff. As runoff flows over areas altered by developed, it picks up sediment and chemicals such as oil and grease, pesticides, heavy metals and nutrients. These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the waterbody during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. The effect of this process include streambank scouring and downstream flooding, which often lead to a loss of aquatic life and damage to property.

The City is required to develop, implement, and enforce a program to address post-construction stormwater runoff to the MS4 from new development and redevelopment projects that disturb one acre or more, and from projects of less than acre that are part of a common plan of development or sale. This requirement is applicable for both public and private projects. The City is required to determine a process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

Post-Construction Stormwater Management						
	Current Activity	YEAR 2008	YEAR 2009	YEAR 2010	YEAR 2011	YEAR 2012
Stormwater Management Ordinance	Yes			Feb 16		
Review New Development & Redevelopment	Yes				Feb 16	
Procedures for Site Inspection & Enforcement	Partial				Feb 16	
Training Municipal Staff	No	No date is given				
Education for Construction Site Operators	Yes	From the effective date of this permit				
Keep records of projects reviewed	Yes			Feb 16		

6.1 EPA Guidance

If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. EPA recommends that the BMPs chosen: be appropriate for the local community; minimize water quality impacts; and attempt to maintain pre-development runoff conditions. In choosing appropriate BMPs, EPA encourages you to participate in

locally-based watershed planning efforts which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, EPA recommends that you adopt a planning process that identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures.

In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address stormwater runoff quality. In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program. Non-structural BMPs are preventative actions that involve management and source controls such as: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure; education programs for developers and the public about project designs that minimize water quality impacts; and measures such as minimization of percent impervious area after development and minimization of directly connected impervious areas. Structural BMPs include: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches. EPA recommends that you ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with design, construction or operation and maintenance. Stormwater technologies are constantly being improved, and EPA recommends that your requirements be responsive to these changes, developments or improvements in control technologies.

6.2 Modify UDC Code

6.2.1 Requirement

Create an ordinance or other regulatory mechanism that requires stormwater management for new development and redevelopment projects by February 17, 2010.

The ordinance must have the key elements described below:

- Apply, at a minimum, to construction sites disturbing greater than or equal to one acre and to construction projects that are part of a common plan of development or sale, regardless of the size.
- Require construction operators to implement stormwater management. BMP selection, design, installation, and maintenance will be per the Regional

Stormwater Manual for the Spokane Region, a technical equivalent manual to the Stormwater Management Manual for Eastern Washington.

- Require runoff treatment, flow control, and source control BMPs
- Encourages project proponents to maintain natural drainage including reducing the total amount of impervious surfaces created by the project.
- Require long term operation and maintenance
- Authority to access private properties for inspection during and post-construction or require annual certification by a qualified third party that adequate maintenance has been performed and the facilities are operating as designed.
- Penalties and enforcement options.
- Adopt and enforce the ordinance. The City will develop an enforcement strategy and implement the enforcement provisions of the ordinance.

6.2.2 Current Activities

The City requires stormwater management for the following regulated activities:

- Construction of, or addition to, a building (except a single-family or duplex residence) or placement of impervious surfaces that exceed 5,000 square feet. For projects that are implemented in incremental stages, the threshold applies to the total amount of impervious surfaces replaced or added at full build-out;
- Construction of drywells or other UIC wells regulated by WAC 173-218 UIC Program.

Flow control and treatments requirements are per Spokane County Guidelines for Stormwater Management. Projects are required to provide treatment when proposing UIC wells and when proposing 5,000 square feet of impervious areas.

6.2.3 Proposed Activities for 2008 Permit Year

The City is in the process of adopting the SRSM which is technical equivalent to the Stormwater Management for Eastern Washington and Appendix 1 of the NPDES Phase II permit for Eastern Washington.

The SRSM is expected to be adopted in the Spring of 2008. Projects vested after the adoption of the SRSM will be required to implement appropriate treatment and flow control BMPs to manage stormwater.

6.2.4 Responsible Party

Development Engineering (Community Development)

6.3 Stormwater Management Plan Review

6.3.1 Requirement

Adopt and implement procedures for review of drainage submittals.

- The City is required to review the drainage submittals for all new development and redevelopment that meet the regulatory threshold.
- The City will keep records of all projects disturbing more than one acre, and all projects of any size that are part of a common plan of development or sale that is greater than one acre.
- The site plan review shall be performed by qualified personnel. The review procedures shall be in place by February 17, 2011

6.3.2 Current Activities

The City already reviews projects that meet the regulatory threshold:

- Grading of land in excess of five hundred (500) cubic yards so as to require environmental review pursuant to the State Environmental Policy Act (SEPA);
- Construction of, or addition to, a building (except a single-family or duplex residence) or placement of impervious surfaces that exceed 5,000 square feet. For projects that are implemented in incremental stages, the threshold applies to the total amount of impervious surfaces replaced or added at full build-out
- Disturb of one (1) acre or more;
- Construction of drywells or other UIC wells regulated by WAC 173-218 UIC Program.

The City's regulatory threshold exceeds the requirements of the permit.

6.3.3 Proposed Activities for 2008 Permit Year

The City will continue to review the projects above and keep records of all project reviewed.

6.3.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

6.4 Post Construction Inspection

6.4.1 Requirement

Adopt and implement procedures for site inspection and enforcement of post-construction stormwater control measures.

The City will adopt a procedure for keeping records of inspections and enforcement actions by staff including inspection records, warning letters, notices of violations, and other enforcement records.

Structural BMPs shall be inspected at least once during installation by qualified personnel. Structural BMPs shall be inspected at least once every five years after final installation. The ordinance will require private property owners to provide annual

certification by a qualified third party that adequate maintenance has been performed and the facilities are operating as designed.

If a site is inspected and problems are identified, the City will require and confirm that appropriate operation, maintenance, or repair is performed as soon as practicable. The inspection procedures shall be in place by February 17, 2011.

6.4.2 Current Activities

The City inspects projects proposing public improvements and requires a certification package from the designer or inspector hired by the developer. For projects with private improvements, the City requires that the designer provides a letter certifying that the improvements were constructed according to the approved plans.

Additionally, the City will not sign off the certificate of occupancy if required swales are not constructed per plans and have established vegetation.

6.4.3 Proposed Activities for 2008 Permit Year

Continue to enforce current inspection requirements.

6.4.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Capital Improvement Program (Public Works) for City projects

6.5 Education for Construction Operators

6.5.1 Requirement

The City will provide information to design professionals on how to comply with the requirements of Appendix 1 and apply the BMPs described in the Stormwater Management Manual for Eastern Washington or another technical manual.

6.5.2 Current Activity

The City is in the process of adopting the SRSM which is technical equivalent to the Stormwater Management for Eastern Washington and Appendix 1 of the NPDES Phase II permit for Eastern Washington.

6.5.3 Proposed Activities for 2008 Permit Year

In February 20, 2008, the City participated in a workshop tailored for design professionals. The intent of the workshop was to introduce the SRSM to the design community. The workshop was sponsored by the American Society of Civil Engineers (ASCE) and Spokane County.

6.5.4 Responsible Party

Development Engineering (Community Development).

6.6 Record Keeping

6.6.1 Requirement

Keep records of all projects disturbing more than one acre that are approved on or after the effective date of this permit or other regulatory mechanism.

Keep records for all projects for five years or until construction is completed, whichever is greater. O&M plans and site plans shall be kept as needed to comply with ongoing inspection requirements.

Keep training records including dates, activities or course descriptions, and names of positions of staff in attendance.

Keep copies of information provided to professionals; and if information is distributed to large number of design professionals at once, the dates of the mailings and lists of recipients.

6.6.2 Current Activities

The City keeps records of review and inspection records for projects that meet the regulatory threshold.

6.6.3 Proposed Activities for 2008 Permit Year

Continue to keep records of projects and public education outreach/public involvement activities..

6.6.4 Responsible Party

Development Engineering (Community Development) for private construction projects
Stormwater Utility for public education and outreach and public involvement participation activities.

7.0 Pollution Prevention and Good Housekeeping

Municipalities conduct numerous activities that can pose a threat to water quality if practices and procedures are not in place to prevent pollutants from entering the MS4. These activities include winter road maintenance, minor road repairs and other infrastructure work, automobile fleet maintenance, landscaping and park maintenance, and building maintenance. Municipalities also conduct activities that remove pollutants from the MS4 when performed properly, such as parking lot and street sweeping and storm drain system cleaning. Finally, municipal facilities can be sources of stormwater pollutants if BMPs are not in place to contain spills, manage trash, and handle non-stormwater discharges.

This measure requires that the City examines and subsequently alter its actions to help ensure reduction in the amount and type of pollution that collects on streets, parking lots, open spaces, and vehicle maintenance areas and results from environmentally damaging land development and flood management practices or poor maintenance or storm sewer system.

The purpose of this measure is to improve or protect water quality by altering municipal and facility operations. This measure can also result in cost savings for the permittee since proper and timely maintenance of storm systems can help avoid repair costs from damage caused by age and neglect.

The City will develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

7.1 Guidance

EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural stormwater controls to reduce floatables and other pollutants discharged from your separate storm sewers; controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations and snow disposal areas operated by you, and waste transfer stations; procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices. Operation and maintenance should be an integral component of all stormwater management programs. This measure is intended to improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

7.2 Operation and Maintenance (O&M) Plan

7.2.1 Requirement

Develop and implement a schedule of municipal Operation and Maintenance activities by August 17, 2011. The O&M plan shall identify the department responsible for performing each activity. The O&M plan shall include procedures for all of the facilities and activities listed below:

- Stormwater collection and conveyance system which includes regular inspection, cleaning, and proper disposal of waste removed from the system, and record keeping.
- Deicing, anti-icing, and snow removal practices; snow disposal areas, storage areas, and all season BMPs to reduce parking lot debris and other pollutants from entering the MS4.
- Vehicle Fleets: storage, washing, and maintenance of municipal vehicle fleets. All vehicle washing and maintenance shall be conducted in a self-contained covered building or in designated wash and/or maintenance areas operated to separate wash water from stormwater.
- Municipal Buildings: cleaning, washing, painting and other maintenance activities for municipal buildings.
- Parks and Open Space: proper application of fertilizer, pesticides, and herbicides, ESC, landscape maintenance and vegetation disposal, trash management, and building exterior cleaning and maintenance.
- Public Construction projects shall include construction and post-construction BMPs
- Material Storage Areas, Heavy Equipment Storage Areas and Maintenance Areas. A stormwater pollution prevention plan shall be developed for these facilities owned by the City.
- Flood Management Project. The City shall implement provisions to assess water quality impacts in the design of all new flood management project that are associated with or discharge to the MS4. Existing flood management projects that are associated with the MS4 or discharge to the MS4 will be prioritized and at least five shall be reviewed and evaluated to determine if changes or additions should be made to improve water quality.
- Other facilities that would reasonably be expected to discharge contaminated runoff.

Develop an operations and maintenance manual by August 16, 2011.

95 percent of all treatment and flow control facilities owned, operated, or maintained by the City shall be inspected at least twice. Once no later than February 17, 2010 and again by February 17, 2012. Spot checks shall be conducted after major storm events to check for potentially damaged facilities. All inspection records will be kept on file

Train all staff and City contractors with the appropriate procedures to prevent illicit discharges from o&m activities, capital projects, or other City operations.

7.2.2 Current Activities

The City does not own fleet facilities. Maintenance and car washing is done by others.

The City hires private contractors to conduct street sweeping and catchbasin cleaning.

The City subcontracts with landscape companies for the maintenance of parks, open space, and drainage facilities owned by the City.

7.2.3 Proposed Activities for 2008 Permit Year

The City will continue to provide source control BMPs (street sweeping, catchbasin cleaning, and landscape maintenance) through private contractors.

City projects will provide stormwater management during the construction phase (erosion control BMPs) and post-construction phase (flow control and treatment BMPs).

7.2.4 Responsible Party

Stormwater Utility, Street Maintenance, Capital Improvement Program (Public Works).

8.0 Reporting and Record Keeping

8.1.1 Requirement

An annual report is due by March 31 of every year, beginning in 2008.

8.1.2 Current Activities

The City will submit an annual report by the required deadline

8.1.3 Proposed Activities for 2008 Permit Year

The City will continue to submit annual reports as required.

8.1.4 Responsible Party

Stormwater Utility (Public Works)

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Storm Drainage Infrastructure

Open Ditches	10 miles
Storm Sewers	0
Catchbasins	2,715
<i>MS4 Outfalls</i>	
Bridge Drains	25
Curb Inlets	2
Ditches	9
Pipes	40
Detention Facilities	0
Retention Facilities	0
Treatment Facilities	0