

County of Asotin



Regional Stormwater Program

P.O. Box 160

135 2nd Street

Asotin, WA 99402

509-243-2074

Fax 509-243-2003

**Management Team Meeting Agenda
Commissioner's Chambers
095 Second St, Asotin
September 19, 2011
3:00 – 5:00 pm**

1. **Public Comment**
2. **Review agenda, budget**
3. **Permit boundary review**
4. **Discuss Ecology grant funding**
5. **Draft fire fighting BMPs**
6. **Next meeting – October 10, 2011, location to be determined**

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Regional Stormwater Program

P.O. Box 160

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**Management Team Meeting Notes
Commissioner's Chambers
095 Second St, Asotin
August 30, 2011
3:00 – 5:00 pm**

ATTENDANCE

Management Team Voting Members:

Keith Delzer	City of Asotin
Jane Richards	City of Asotin Attorney
George Nash	City of Clarkston
Jim Martin	City of Clarkston Public Works Director
Don Brown	Asotin County
Joel Ristau	Asotin County Public Works Director

Non-Voting Members:

Cheryl Sonnen	Regional Stormwater Program Coordinator
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1. Public Comment

The public was given the opportunity to comment. These comments and answers provided by the Management Team are summarized.

Q: A question was asked about the O&M budget line item. Currently taxes are collected for road maintenance. Are residents paying twice for the same services?

A: The O&M line item is for activities that relate only to stormwater such as street sweeping and catch basin cleaning, and include the additional costs to meet permit requirements. Half of the costs were transferred from the road budget.

Q: Currently Ecology is considering using the western WA monitoring model for the upcoming eastern WA permit. The model is not appropriate for our area and can be expensive. Encouraged us to contact Ecology and let them know that it will not work.

A: Ecology is giving permittees the opportunity to participate in developing the monitoring language for the upcoming permit. Ecology does not want to conduct water quality testing because it will not give accurate information about the success of the program.

They would prefer to conduct effectiveness monitoring. We will be participating in those meetings.

2. Review agenda, minutes, budget

The minutes were reviewed. Keith Delzer moved and George Nash seconded to approve the July 11, 2011 minutes.

Cheryl reviewed the budget. There are a couple of line items that have a negative number. These are the field grant supplies and the sweeper. There was extra money in the grant for administration that was used to purchase extra items for the sweeper, such as additional brooms. Extra funds were used to help offset the printing expenses of the field guide. A budget adjustment will be made.

Cheryl also discussed the reserves line item. The reserves will be used for operations and capital projects. The amount will be reviewed at the end of the year by the management team for recommending how much will go into each reserve.

Cheryl also discussed the upcoming Ecology grant cycle for capital projects. The application period is from 9/16/11 – 11/18/11 and is for projects that improve water quality through low impact development or improve hydrology. There is a 25% cash match requirement. Asotin is completing the concrete resurfacing on 2nd Street next year. Keith asked if this funding could be used to improve the functioning of the catch basins on that segment and stated it would be nice if we could do it at the same time as the resurfacing. He suggested Cheryl contact Keltic Engineering to find out the timing of the Transportation Improvement Board grant funding. Cheryl asked if the Team wanted her to attend the workshop on September 14th to find out more information about the requirements and they agreed that it would be a good idea.

3. Total Quality Management

Jane Risley reviewed the concept of total quality management (TQM) with the group. The management team was intended to be advisory only. We are not an agency and do not require bylaws. This should be a problem solving group. The concept of TQM is that a problem is presented and everyone in the group has the chance to comment and provide suggestions on how to resolve the issue. There is a facilitator assigned to solicit comments from all members and a note taker keeps track of decisions made and tasks assigned. Jane advised that she is willing to act as the facilitator if we need her.

The Management Team discussed the concept and would like to try it. They requested Jane facilitate the next couple of meetings.

4. Set workload priorities (4:00 pm – 45 minutes)

Cheryl provided the team with a list of the workload items that need to be completed during this permit cycle. She recommended that the top three priorities be completing the Clarkston



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non-residential ERU calculations prior to billing in November, completing the annual report and updating the stormwater management plan and completing the operation & maintenance (O&M) plans. Other workload items include developing a 6-year capital improvement plan, conducting education and outreach, developing and Illicit Discharge Detection & Elimination plan and developing construction site plan and site inspection procedures. The Team agreed that with the top three priorities.

5. Permit boundary review

The Team discussed the permit boundary and reviewed the maps that show the 20-year planning boundary, the MPO boundary and the 2000 urban area boundary. The Commissioners would like the Management Team to make a recommendation. This will be discussed at the next Team meeting.

6. Next meeting – September 12, 2011, location to be determined

Action Items:

- Discuss recommendation on permit boundary at next meeting.
- Discuss Ecology grant

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	A	B	C
1	2011 Regional Stormwater Program		
2	Revenue Budget		
3			
4			
5	Revenue	Total Projected Revenue	Year to Date Rev
6	Asotin County Utility Revenue	\$ 433,367.00	\$ 293,271.53
7	City of Asotin Utility Revenue	\$ 42,625.00	\$ 31,286.79
8	City of Clarkston Utility Revenue	\$ 352,453.00	\$ 234,968.64
9	Other Revenue - Construction Permits	\$ 50,000.00	\$ 4,360.00
10	Capacity Grant	\$ 267,362.00	\$ 110,984.10
11	Utility Implementation Grant	\$ 12,525.00	\$ 1,715.93
12	Equipment Purchase Grant	\$ 179,000.00	\$ 177,506.12
13	Field Guide Grant	\$ 115,000.00	\$ 76,171.49
14	Outreach Grant	\$ 58,500.00	\$ 47,638.30
15	Interfund Loan	\$ 100,000.00	\$ 100,000.00
16	Miscellaneous Revenue	\$ 5,500.00	\$ 907.50
17	Total Revenue	\$ 1,616,332.00	\$ 1,078,810.40

FUND	Stormwater Operations	Total Budget for Year To Date/TD Percen		Remaining	
460.000	2011 Budget for Spending	Year - 2011	Spent	Budget For Year	
Payments Made through Accounts Payable (WinCams)					
538.31.31	Supplies	\$ 10,000	\$ 2,788	27.9%	\$ 7,212
538.31.3125	Field Guide Grant - Supplies	\$ 2,000	\$ 11,780	589.0%	\$ (9,780)
538.31.41	Billing Expenses - County	\$ 21,000	\$ 10,342	49.2%	\$ 10,658
538.31.4110	Legal services - City of Asotin	\$ 4,000	\$ 150	3.8%	\$ 3,850
538.31.4111	Legal services - City of Clarkston	\$ 4,000	\$ -	0.0%	\$ 4,000
538.31.4112	Legal services - Asotin County	\$ 4,000	\$ -	0.0%	\$ 4,000
538.31.42	Communication	\$ 500	\$ 435	87.1%	\$ 65
538.31.43	Travel	\$ 2,000	\$ 94	4.7%	\$ 1,906
538.31.44	Advertising	\$ 35,000	\$ 3,948	11.3%	\$ 31,052
538.31.49	Misc costs	\$ 10,000	\$ 4,513	45.1%	\$ 5,487
538.31.49	Training	\$ 4,000	\$ 290	7.3%	\$ 3,710
538.31.5110	Management Team - City of Asotin	\$ 15,000	\$ 2,924	19.5%	\$ 12,076
538.31.5111	Management Team - City of Clarkston	\$ 15,000	\$ 3,289	21.9%	\$ 11,711
538.32.4122	Consultant - Utility Implementation	\$ 1,722	\$ 1,362	79.1%	\$ 359
538.32.4125	Field Guide Grant - Consultant	\$ 103,000	\$ 67,112	65.2%	\$ 35,888
538.32.4126	Outreach Grant - Consultant	\$ 50,500	\$ 44,664	88.4%	\$ 5,836
538.35.5110	City of Asotin O&M	\$ 3,000	\$ 1,747	58.2%	\$ 1,253
538.35.5111	City of Clarkton O&M	\$ 98,300	\$ 20,701	21.1%	\$ 77,599
538.35.5112	Asotin County O&M	\$ 120,000	\$ 43,151	36.0%	\$ 76,849
538.36.5110	Billing Expenses - City of Asotin	\$ 22,560	\$ 16,321	72.3%	\$ 6,239
538.36.5111	Billing Expenses - City of Clarkston	\$ 40,000	\$ -	0.0%	\$ 40,000
538.38.49	B&O Tax	\$ 7,800	\$ 2,394	30.7%	\$ 5,406
594.38.6401	Equipment	\$ 29,000	\$ -	0.0%	\$ 29,000
594.38.6402	Monitoring/Mapping Equipment	\$ 2,000	\$ 66	3.3%	\$ 1,934
594.38.6403	Sweeper	\$ 160,000	\$ 171,184	107.0%	\$ (11,184)
Salary and Benefits (per Timecard Distribution total costs)					
538.31.10,22-28	Salary, Benefits, Fringe: Coordinator	\$ 68,947	\$ 49,628	72.0%	\$ 19,319
538.31.11,22-28	Salary, Benefits, Fringe: .5 FTE (Finance)	\$ 21,214	\$ 8,377	39.5%	\$ 12,838
538.31.12,22-28	Salary, Benefits, Fringe: 1 FTE (Inspector)	\$ 66,295	\$ -	0.0%	\$ 66,295
538.31.5112	Management Team/Admin - Asotin County	\$ 22,700	\$ 17,304	76.2%	\$ 5,396
538.32.4112	Mapping - Asotin County	\$ 14,300	\$ 23,116	161.6%	\$ (8,816)
			\$ -		\$ -
Interfund Transfers (QUARTERLY JOURNAL ENTRIES)					
538.38.45	Office Rental	\$ 4,000	\$ 1,000	25.0%	\$ 3,000
538.38.92	PBX	\$ 400	\$ 100	25.0%	\$ 300
538.38.95	ER&R - Stormwater	\$ 40,000	\$ 11,163	27.9%	\$ 28,837
538.38.96	Insurance	\$ 5,000	\$ 1,250	25.0%	\$ 3,750
538.38.99	Data Processing	\$ 2,000	\$ 500	25.0%	\$ 1,500
581.20.113	Interfund Loan	\$ 104,250	\$ -	0.0%	\$ 104,250
Transfers to Capital Reserve (amounts/process to be decided on later)					
597.38.10	City of Asotin	\$ 16,880	\$ -	0.0%	\$ 16,880
597.38.11	City of Clarkston	\$ 101,840	\$ -	0.0%	\$ 101,840
597.38.12	Asotin County	\$ 111,300	\$ -	0.0%	\$ 111,300
	TOTAL EXPENDITURES	\$ 1,343,508	\$ 521,692	38.8%	\$ 821,816
	460.004 - Stormwater ER&R				
362.21.460	Revenue - Rental Rate	\$ 40,000	\$ -	0.0%	\$ 40,000
548.69.48	Expense - Maintenance	\$ 20,000	\$ -	0.0%	\$ 20,000

Regional Stormwater Program

MEMORANDUM



TO: Management Team

FROM: Cheryl Sonnen
Regional Stormwater Coordinator

DATE: September 16, 2011

SUBJECT: Ecology Stormwater Funding

Ecology Grant Funding Overview

- \$28,900,000 available
- Competitive grants – 9/16/11 – **11/18/11**
- Phase I and II municipalities
- Construction and Design/Construction projects
- **25% match required**; demonstrate readiness to proceed
- \$1M per award; \$5M per jurisdiction
- Period of performance – **3/2/12 – 6/30/15**
- Appropriation provided for communities least able to pay
 - 80% of State Median Household Income (MHI) ($\$56,384 \times 80\% = \$45,107$)
 - **Asotin MHI - \$51,250**
 - **Clarkston MHI - \$27,230**
 - **County MHI - \$40,653**
- Example projects:
 - Low impact development
 - Stormwater retrofit to mitigate existing stormwater issues
 - New or retrofit of vector waste facilities
 - Installation of pretreatment/oil control facilities upstream of existing drywells
 - Reduce stormwater flows to combined sewers
 - Installation of approved new technologies (TAPE) to mitigate existing stormwater issues
- May have funds available on competitive basis for small municipalities to develop capital project list (6-yr plan)



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Appendix B. 2009 Median Household Income Table

This table contains estimated Median Household Incomes (MHI) for Cities and Counties in Washington State covered by the Phase I and II Municipal Stormwater NPDES Permits. The 2009 MHI estimates are from the five-year data series produced by the American Community Survey (ACS) for the time period 2005-2009.

The 2009 MHI estimates are provided for reference only. 2010 ACS five-year MHI estimates are scheduled for release in December 2011 and will be used for calculating financial hardship eligibility for the FY 2012 applications.

Data Source: American Community Survey 2009 five-year 2005-2009 estimates.

Jurisdiction	2009 MHI
Aberdeen city	\$ 38,068
Algona city	\$ 58,125
Anacortes city	\$ 57,288
Arlington city	\$ 54,632
Asotin city	\$ 51,250
Asotin County	\$ 40,643
Bainbridge Island city	\$ 91,280
Battle Ground city	\$ 61,161
Bellevue city	\$ 80,350
Bellingham city	\$ 37,031
Benton County	\$ 55,253
Black Diamond city	\$ 84,257
Blaine city	\$ 52,917
Bonney Lake city	\$ 76,205
Bothell city	\$ 66,510
Bremerton city	\$ 38,060
Brier city	\$ 91,842
Buckley city	\$ 57,885
Burien city	\$ 51,846
Burlington city	\$ 47,831
Camas city	\$ 75,063
Centralia city	\$ 35,064
Chelan County	\$ 47,009
Clallam County	\$ 44,342
Clark County	\$ 58,095
Clarkston city	\$ 27,230
Clyde Hill city	\$ 192,000
Covington city	\$ 81,838
Cowlitz County	\$ 46,379

State MHI
\$56,384

80% of State
MHI = \$45,107



Fire Hydrant Testing Activities

The Phase II Stormwater Permit (Permit) issued to small municipalities required an Illicit Discharge Detection & Elimination (IDDE) ordinance be developed. The ordinance identifies the activities that are prohibited, conditionally allowed and unconditionally allowed to protect water quality and reduce pollutants delivered to the stormwater system.

Among the conditionally allowed practices is fire hydrant flushing and testing. The ordinance states that this practice is allowed as long as proper Best Management Practices (BMPs) are used to reduce impacts to the stormwater system. This paper will provide a discussion of BMPs that can be used and a review of products available to assist with reducing impacts to the stormwater system.

What's the big deal?

The IDDE ordinance identifies chlorine and sediment as pollutants that are prohibited from entering the stormwater system. Our potable water system, which is the source of water for fire hydrants, contains levels of chlorine that greatly exceed those allowed under the ordinance (≤ 0.1 ppm). Chlorine is toxic to aquatic life, even at concentrations that cannot be detected by field measurements. Additionally, when a fire hydrant is flushed, sediment and other pollutants are captured by the flowing water and can be delivered to the stormwater system.

As usual with regulations, the IDDE ordinance causes a conflict with the requirements of the Fire Department to flush hydrants. They are required to flow hydrants to ensure water will be available during emergencies, which helps reduce their insurance rating so they can continue to provide services to the community.

So, how can we work together to protect the safety of our citizens and water quality?

Best Management Practices (BMPs)

In order to understand the impacts of hydrant flushing on the stormwater system, I met with members of the Clarkston Fire Department to watch the process. The firefighters used their typical methods and opened the valve and let the water run until there was no settled sediment in the line. The hydrants were flushed at the rate of 700 gpm for one minute, measured using a flow meter and timed until water was clear. Water samples were taken at various locations along the street before water entered the storm drain. They show how much sediment the water can pick up and deliver to the stormwater system.



Hydrant Testing Results



Diagonal Street was swept a few days prior to the test. The amount of sediment is much less than on College Court.



Flushing of hydrant



Water running down street into storm drain

Sediment Reduction – The following practices can be used to reduce sediment delivered to the stormwater system.

1. Conduct hydrant testing soon after the streets have been swept. This reduces the amount of sediment and other pollutants that can potentially be picked up by flowing water.



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Hydrant Testing

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2. Use a storm drain inlet protection mat that allows water to flow into storm drain but not sediment. (see examples below)
3. Avoid flushing hydrants onto bare ground.



Dechlorination Process For Hydrant Testing - Hydrant testing is a planned release and generally contains < 4 mg/L of chlorine and is considered a low flow activity. There are several methods that can be used to remove chlorine in water, but not all will apply to hydrant flushing.

1. Mother Nature – Allow chlorinated water to set in a pond and react with sunshine. Not effective with chloraminated (chlorine and ammonia) water.
2. Drip Method – Drip into holding pond.
3. Passive Method – Mix treated water with untreated water to neutralize chlorine. Water runs through a system with dechlorination tablets. This method is good for low chlorine levels (< 4 ppm).
4. Vacuum Induced – Device creates a vacuum and draws in dechlorination solution and then mixes it with chlorinated water.

My recommendation is to use either the passive method or the vacuum method. Both methods require a chemical to either be added to the water or to come in contact with the water during hydrant testing.

I reviewed guidance manuals provided by Pollard Water and Measurement Technologies, Inc. and recommend the following options:



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Option 1 – Passive Method Using LPD-250 or LDP-250A with LPD-Chlor or Vita-D-Chlor Tablets.

This method uses a diffuser that is attached to the hydrant. A dechlorination tablet is inserted into a chamber at the top of the unit and water is run through the chamber. The advantages to using the tablets are they are easy to store, handle and apply as compared to powders.

LPD-Chlor (Sodium Sulfit) tablet is effective in dechlorinating constant, low flow releases. This product may reduce oxygen in receiving waters. It requires 1.775 parts to reduce 1 part of chlorine.

Vita-D-Chlor (Ascorbic Acid) does not reduce oxygen in receiving waters. It requires 2.5 parts to neutralize 1 part chlorine. It is weakly acidic and may decrease pH in receiving waters.

An internet search at www.pollardwater.com will provide you information on these diffusing units and costs for dechlorination tablets.

Option 2 – Vacuum induced method using Calcium Thiosulfate Solution

This method uses a device that is attached to the hydrant. As water enters the chamber, a vacuum is created which draws in dechlorination solution and mixes it with the water. Calcium thiosulfate is a clear crystalline substance with little color, faintly sulfurous odor and near neutral pH. It is not toxic to aquatic species, however, it may require five minutes for complete neutralization of chlorine. Also, overdosing may produce milky-colored suspended solids and promote bacterial growth.

Either of these methods will provide adequate dechlorination of water from hydrants. The Fire Department should research costs of each and determine which method will work best for them.

Conclusion

Utilizing the BMPs previously outlined to reduce sediment and chlorine delivered to the stormwater system should keep the Fire Department in compliance with the Illicit Discharge Detection & Elimination ordinance. However, this is an evolving practice and BMPs may be updated from time-to-time.

Prepared by:

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Draft Fire Fighting Activities and Municipal Stormwater Permits:

Fire fighters are on the front lines of protecting public safety in Washington's local communities. Ecology prepared these questions and answers to help fire fighters protect clean water in local communities without compromising their primary responsibility as a first responder.

Pollutants on roadways and at response sites can be picked up in fire fighting discharge, spills, and emergency response cleanups and carried into storm drains. The water then typically goes untreated to rivers, streams, lakes, or marine waters. Sometimes in emergencies this can't be avoided, but when possible, fire fighters can help prevent pollution of surface waters.

The Department of Ecology's Municipal Stormwater Permits require permittees (primarily cities, towns, and counties) to reduce the discharge of pollutants into their stormwater systems to protect water quality. The questions and answers below address discharges from both emergency and non-emergency fire fighting activities.

Q: Do municipal stormwater permits restrict the discharge of water from emergency fire fighting activities to the stormwater system?

A: No. The permits allow for discharge of water from emergency fire fighting activities to the stormwater system.

Q: Do municipal stormwater permits restrict the discharge of water from non-emergency fire fighting activities to the stormwater system?

A: Yes. The permits do not authorize or allow discharges of water from non-emergency fire fighting activities to the stormwater system. These discharges are considered illegal unless they are properly treated.

Q: What about fire hydrant system flushing?

A: Discharges from fire hydrant system flushing to the stormwater system must be dechlorinated to a concentration of 0.1 ppm or less, and pH-adjusted if necessary. The volume and velocity should be controlled to prevent sediments in the stormwater system from being re-suspended and carried to surface waters in the discharge.

Q: What is the problem with dirty water going down the storm drains?

A: Water that enters storm drains in urban areas often goes directly through the pipes and ditches to streams, rivers, lakes, bays, or marine waters. In most areas, the stormwater does not go to a sewer treatment plant. Any pollutants that enter the stormwater system will usually end up in our shared waterbodies.

Q: What about fire fighting exercises?

A: Fire fighting exercises are not considered emergency activities. Fire fighters can plan ahead how to handle these discharges. Discharging water from these activities to the public stormwater system is prohibited unless the discharge from the activity has been appropriately authorized.

Runoff from fire fighting exercises should either go to a stormwater treatment facility, infiltrate into the ground, or go to sanitary sewer. For practice spraying with a hose (just water) dechlorination is not a concern if it is a fine mist. Larger amounts of water can be discharged to a landscaped area to infiltrate or run across vegetation to aerate for dechlorination. Foam/chemical fire suppression substances should never enter storm drains except in an emergency situation.

Planning for disposal of the water is part of the fire department's responsibility in planning for the exercise. Fire fighters can dispose of the discharge by sending it to a vegetated area for infiltration, directing it to the sanitary sewer, or to some type of dechlorination facility if only water is involved.

Fire fighting exercises should take place in structures that have been cleared of toxic materials (such as asbestos or certain plastics that release toxics when burned). This leaves paint and treated wood, so preparation should include screening the site for pollutants and methods to prevent them from entering the stormwater system.

Reminder: "Live" burn exercises also need an Ecology Air Quality burn permit or Local Air Authority permit – link to Ecology's burn permit:

http://www.ecy.wa.gov/programs/air/outdoor_woodsmoke/outdoorburnpermits.htm.

Q: How can fire fighters prevent pollution at fire scenes and immediately after?

A: Be aware of storm drains and drainage ways during firefighting activities and protect storm drains when possible with storm drain inserts. After the emergency phase of the operation is over, care should be taken to prevent the discharge of additional contaminants to the stormwater system. During cleanup operations, fire fighters should avoid flushing additional water into the stormwater system. If debris, fire suppressant foam, or other materials entered the stormwater system or could enter the stormwater system during a rain, work with the local government stormwater manager and responsible parties to arrange for the cleanup or removal of these materials.

Q: What preparations can fire fighters make to minimize the impacts of emergency fire fighting activities on water quality?

A: Planning, preparation and training can help to reduce the environmental impacts from emergency fire fighting activities, including:

- Establish protocols to contact appropriate Spill Response Teams (including Ecology) where appropriate.
- Protect storm drains with inserts or check dams.
- Establish cleanup procedures to ensure the use of good practices immediately after the emergency fire fighting activity in order to minimize additional environmental impacts.
- Train staff on the hazards of illegal discharges to the stormwater system.

Q: How can fire fighters prevent stormwater pollution at the station?

A: Care should be given to the preventing contaminants from entering the stormwater system from any cleaning, training, or disposal activities at fire stations. Dirty vehicle wash water often contains oil, grease, and toxic metals. Soapy water and the chemicals in many detergents are harmful to fish and other aquatic life. Do not allow any wash-water to enter the stormwater system when cleaning trucks or equipment, or use a car wash kit to send the wash water to the sanitary sewer or infiltration area. Fire district facilities should develop Operations and Maintenance Plans that incorporate practices to protect water quality. The stormwater manager at your local public works department is a good source of information.

Q: How can fire fighters work with municipalities to protect stormwater?

A: Fire fighters can work with municipalities to protect stormwater by reporting spills and other illicit discharges that they encounter during the course of their activities to the department responsible for implementing the Municipal Stormwater Permits.

Q: What are some examples of Best Management Practices?

- When liquid spills are encountered, stop the source of the spill and block storm drain inlets.
- Avoid flushing or hosing down non-hazardous or hazardous spills into storm drains.
- Use dry cleanup methods or absorbent material when possible. Sweep up the absorbent material and dispose of it properly.
- Wash vehicles only in a designated wash area that drains to the sanitary sewer, take vehicles to a car wash that is plumbed to the sanitary sewer, or use a car wash kit to send wash water to the sanitary sewer or infiltration area.
- Do not hose-down outdoor areas at Department/District facilities except where wash water will only enter the sanitary sewer or landscape areas.
- Protect storm drains with inserts to capture solids; some will even treat oil and grease.
- Perform maintenance or repair work inside if possible.
- Do not store leaking vehicles outdoors and fix leaks as soon as possible.

Q. Where can I find additional information about protecting water quality from pollution through the stormwater system?

A. Additional information about protecting water quality is available through the following webpages:

Spills guidance for local governments: <http://www.ecy.wa.gov/biblio/0710089.html>

Ecology spills reporting page:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>

Car washing and stormwater page:

<http://www.ecy.wa.gov/programs/wq/stormwater/CarWash.html>

Specific guidance on car washing: <http://www.ecy.wa.gov/biblio/0810086.html>

Water Line Flushing

The Phase II Permit allows planned discharges from potable water sources into the stormwater collection and conveyance system under certain conditions. These conditions apply to potable water line flushing, fire hydrant system flushing, and pipeline hydrostatic testing.

<Required> The velocity and volume of discharges must be controlled so as not to mobilize sediment deposits or cause soil erosion around the storm drain system.

<Required> Discharges must be dechlorinated to a concentration of 0.1 ppm or less and be pH-adjusted. Excessive chlorine concentrations may kill nitrifying bacteria and other aquatic life necessary for sustenance for the aquatic food chain. At the same time, overuse of common chemicals used for the dechlorination process has the potential to deplete dissolved oxygen or alter the pH of receiving waters.

The chlorine field test kit is kept at <LOCATION>. Every field personnel responsible for dechlorination activities shall be trained in proper use of the test kit. When water line flushing is likely to drain into the stormwater collection and conveyance system, the preferred dechlorination method is: **<List those that apply.>**

- Installing a venture-based dechlorination device on the end of a fire hose to feed chemical solutions into the chlorinated water flow,
- Using a dechlorinating diffuser and chemical tablet chamber,
- Laying a dechlorination mat or strip across the flow path and over the nearby storm drains to diffuse sodium sulfite into the chlorinated flow prior to discharge into the stormwater system.



Fire Fighting

Emergency fire fighting activities are exempt from the conditions of the Phase II Permit. However, day to day operations are subject to the pollution prevention requirements. Vehicle and building maintenance activities at fire stations should implement the BMPs for vehicle fleets in Section 5 and the BMPs for municipal buildings in Section 6. For training exercises and fire hydrant system flushing, the Phase II Permit does allow planned discharges from potable water sources into the stormwater collection and conveyance system under certain conditions.

<Required> The velocity and volume of discharges must be controlled so as not to mobilize sediment deposits or cause soil erosion around the storm drain system.

<Required> Discharges must be dechlorinated to a concentration of 0.1 ppm or less and be pH-adjusted. Excessive chlorine concentrations may kill nitrifying bacteria and other aquatic life necessary for sustenance for the aquatic food chain. At the same time, overuse of common chemicals used for the dechlorination process has the potential to deplete dissolved oxygen or alter the pH of receiving waters.

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