FORMAL PUBLIC COMMENT DRAFT FACT SHEET

National Pollutant Discharge Elimination System and State Waste Discharge General Permit for Discharges from Small Municipal Separate Storm Sewers in Eastern Washington

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
OLYMPIA, WASHINGTON

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INTRODUCTION AND PURPOSE

This Fact Sheet accompanies the final draft *NPDES and State Waste Discharge Permit for Discharges from Small Municipal Separate Storm Sewers in Eastern Washington* (the Phase II Permit for Eastern Washington). The Fact Sheet serves as the formal documentation of the legal, technical, and administrative decisions the Department of Ecology (Ecology) has made in the process of developing and issuing this permit.

When issued, this permit will authorize the discharge of stormwater to waters of the State of Washington from municipal separate storm sewers that are owned or operated by the Permittees. As required by paragraph 402(p)(3) of the Clean Water Act, Permittees must effectively prohibit non-stormwater discharges into storm sewers that discharge to surface waters and must apply controls to reduce the discharge of pollutants to the maximum extent practicable. As authorized by RCW 90.48.030 and RCW 90.48.162, Ecology is also taking action through the issuance of this permit to control impacts of stormwater discharges to all waters of Washington State, unless the discharges are authorized by another regulatory program.

Discharges from agricultural runoff, irrigation return flows, process and non-process wastewaters from industrial activities, and stormwater runoff from areas served by combined sewer systems are not regulated directly by this permit. These types of discharges may be regulated by local or other state requirements if they discharge to municipal separate storm sewers. This permit authorizes the municipal separate storm sewer to discharges stormwater that comes from construction sites and industrial activities under certain conditions.

PUBLIC INVOLVEMENT OPPORTUNITIES

Public Comment Period

Ecology is soliciting public comment on the Draft Permit, Fact Sheet, and Notice of Intent until 5:00 p.m. on May 19, 2006. Ecology welcomes all comments on these formal draft documents. If possible, the following information should be included with your comments:

- The specific language in the permit that is the subject of the comment. Please include the page number and, where indicated, the line number.
- The basis for the comment, and in particular the legal, technical, administrative, or other basis for the concern.
- A suggested alternative to address the concern.

Ecology will issue the final permit after it considers all public comments and makes final changes to the draft permit.

Written comments should be sent to EasternComments@ecy.wa.gov or to:

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

Oral comments can be made by attending and testifying at the public hearing on Tuesday, April 25, 2006. The hearing will provide the public with an opportunity to give formal comments on the proposed permit. A short workshop with a question and answer session will precede the hearing. The hearing will immediately follow the workshop, which will begin at 1:00 p.m. at the Hal Holmes Community Center at 201 North Ruby Street in Ellensburg.

Ecology will host two general public workshops on the Draft Permit during the public comment period. The purpose of the workshops is to explain the permit, to inform participants of how this draft of the permit has changed from the previous draft of the permit, and to answer questions. Ecology will not accept formal oral testimony or comments on the Draft Permit, Fact Sheet, or Notice of Intent at the public workshops. The public workshops on the Draft Permit will be held at the following locations, dates and times:

Kennewick:
Wednesday, April 5, 2006
1:00 p.m. to 5:00 p.m.
Benton County Public Utility District
Auditorium
2721 West 10th Avenue, Kennewick

Spokane:
Thursday, April 13, 2006
1:00 p.m. to 5:00 p.m.
Spokane Public Health District
Room 140 (Auditorium)
1101 West College Avenue, Spokane

Ecology will also hold two public workshops specifically for the public entities who are not cities, towns, or counties that may also be required to obtain coverage under this permit. Ecology will not accept formal oral testimony or comments on the Draft Permit, Fact Sheet, or Notice of Intent at these workshops. The purpose of the workshops is to explain the general permit, to go through the stormwater management program requirements for these entities, and to answer questions. The public workshops for these entities will be held at the following locations, dates, and times:

Ellensburg:
Tuesday, March 14, 2006
1:00 p.m. to 5:00 p.m.
Hal Holmes Community Center
201 North Ruby Street, Ellensburg

Lacey:
Tuesday, March 28, 2006
1:00 p.m. to 5:00 p.m.
Lacey Community Center
6729 Pacific Avenue SE, Lacey

Ecology will issue the final permit after receiving and considering all public comments. If public comments cause a substantial change in the permit conditions from the final draft permit, another public notice of draft and comment period may ensue. Ecology expects to issue the final permits in the fall of 2006 and they will become effective 30 days after issuance. A copy of the Notice of Issuance will be sent to all persons who submitted written comments or gave public testimony at the public hearings.

When Ecology issues the final permit, the summary and response to comments will become part of the file on the permit and parties submitting comments will receive a notice on how to obtain copies of the final permit and Ecology's response to comments. Comments and the resultant changes to the proposed permit will be summarized in Appendix E *Response to Comments* at the end of this Fact Sheet.

You can request printed copies of the Draft Permit, Fact Sheet, and Notice of Intent from section secretaries Melinda Wilson at mewi461@ecy.wa.gov or Julie Robertson at jrob461@ecy.wa.gov or telephone either of them at (360) 407-6401. Questions about the **workshops** should also be directed to Ms. Wilson or Ms. Robertson. Questions about the **Notice of Intent** should be directed to Terry Wittmeier at (509) 574-3991 or twit461@ecy.wa.gov for Benton, Chelan, Douglas, Kittitas, or Yakima Counties; or to Dave Duncan at (509) 329-3554 or ddun461@ecy.wa.gov for Franklin, Grant, Spokane, Walla Walla or Whitman Counties. Questions about the **Draft Permit** or **Fact Sheet** should be directed to Karen Dinicola at (360) 407-6550 or kdin461@ecy.wa.gov.

Public Involvement Opportunities Prior to February 15, 2006

Ecology has provided opportunities for public involvement in developing guidance and technical requirements for managing stormwater since before the federal regulations took effect requiring this permit to be developed.

Development of a Stormwater Management Manual and Model Municipal Stormwater Program for Eastern Washington, 2001-2004

Ecology published the *Stormwater Management Manual for Western Washington* in August 2001 as an update to a predecessor manual prepared in 1992. Ecology initially proposed that the manual for western Washington could be updated to cover the entire state of Washington. Eastern Washington representatives requested that Ecology instead create a separate manual for the eastern portion of the state. Based upon these requests and upon recognition of the significantly different climate, hydrology and geology of eastern Washington, Ecology agreed to develop a separate manual. A ten-person steering committee led the overall effort and created two subcommittees that developed a technical stormwater manual and a model municipal stormwater program for eastern Washington. A stakeholder workshop was held on November 29, 2001 to inform interested parties about the project efforts, the regulatory requirements, the schedule for meetings, and the document development process. After the introductory sessions, concurrent meetings of the Subcommittees were held to begin the development of the Manual and the Model Program. Meetings were held at least once per month to review drafts and updates for each chapter of each document. Periodic presentations were made and three project newsletters were published to address special stormwater management issues. These efforts resulted in draft documents being submitted for public review in fall 2002.

Following the public comment period, the subcommittees reviewed all of the comments received on both of the documents and agreed to minor revisions to the Model Program and substantive revisions to the Manual. The final Model Program (ECY Pub. No. 03-10-076) was published in September 2003. It is available at www.ecy.wa.gov/biblio/0310076.html. The Manual underwent a second round of public review in summer 2003. The manual (ECY Pub. No. 04-10-076) published in September 2004 results from the subcommittee's review and revisions made in response to those comments. It is available at www.ecy.wa.gov/biblio/0410076.html. Corrections and clarifications to the manual have been posted to Ecology's webpage at: www.ecy.wa.gov/programs/wq/stormwater/eastern_manual/manual.html#corrections.

Public workshops and other stakeholder input leading to Ecology's release of this formal public comment draft permit on February 15, 2006

Federal regulations required local jurisdictions located within census-defined urban areas to apply for coverage under a federal Clean Water Act permit by March 10, 2003. Ecology did not have a Phase II municipal stormwater general permit developed before the Phase II rule went into effect on March 2003, but collaborated with the American Public Works Association stormwater managers to develop an application form to assist municipalities in meeting the federal requirement. In December 2002 Ecology, the Association of Washington Cities and the Washington State Association of Counties sponsored five municipal stormwater NPDES permit workshops throughout the state. The workshops provided information on the federal NPDES Phase II stormwater regulations and requirements, who must obtain a Phase II permit, the Phase II permit application and contact information of Ecology staff working on the municipal permits.

Additional public involvement opportunities have been provided throughout the permit development process.

During the 2003 state legislative session, considerable interest and debate occurred on the new federal requirements for municipal stormwater permits. The requirements imposed broad responsibilities on municipalities and other public entities to manage their stormwater discharges and extended stormwater permit requirements to urbanized areas as defined by the U.S. Census Bureau. The new requirements affected approximately 100 new municipalities and numerous other public entities, many of whom expressed concerns to the legislature that the new permit requirements:

1. Would be fiscally and operationally burdensome,
2. Needed to provide meaningful environmental benefits,
3. Should be reasonable to attain, and
4. Should not expose municipalities to undue risk of lawsuits.

Although the legislature did not adopt a bill during session, the House and Senate each passed bills that contained a list of issues related to municipal stormwater permits and directed Ecology to convene stakeholder committees to frame policy issues and identify alternatives for addressing each issue. In the spirit of that legislation, Ecology convened stormwater advisory groups for eastern and western Washington during the summer of 2003 to advise and assist the development of the municipal stormwater permits.

The standing Eastern Washington Stormwater Management Steering Committee served as Ecology's advisory group for issues related to stormwater management and Phase II permits in Eastern Washington. The Steering Committee formed in June 2001 to assist the Department in developing a stormwater manual for best management practices tailored to the distinct climatic and geologic conditions in eastern Washington. The Steering Committee also developed a model stormwater management program for Phase II municipalities on the eastside. Ecology invited this group to participate in the review of stormwater issues raised in the 2003 Legislature. The eastern Washington stormwater group met five times from August through November 2003. Their section of the *Municipal Stormwater NPDES Report to the Legislature January 2004* (ECY Pub. No. 04-10-010) stressed the following common themes and perspectives:

1. Many eastern Washington jurisdictions will have significant difficulty paying for the required stormwater management program.
2. The permit should be written based on the minimum federal requirements.
3. Requirements should be developed to maintain equity to businesses.
4. The permits should limit municipalities' liability from third party lawsuits.
5. Compliance should be based on meeting narrative, not numeric standards.
6. Changes in State law (RCW 90.48) should be considered to keep stormwater compliance standards separate from process and sanitary wastewater standards.
7. The level of effort required of local jurisdictions should be consistent with the *Model Municipal Stormwater Program for Eastern Washington* (ECY Pub. No. 03-10-076).
8. Municipalities are concerned about including Total Maximum Daily Load (TMDL) requirements into the permit.

The report to the legislature also included a section that expressed Ecology's intent in addressing the set of issues identified by the legislature. Some of these recommendations are discussed in the Background section of this Fact Sheet.

Ecology began work on the permit in the fall of 2004 and filed a Notice of Intent to issue the Eastern Washington Phase II municipal stormwater general NPDES permit in the State Register on February 2, 2005 (WSR 05-04-109). In accordance with Washington's Waste Discharge General Permit regulation (WAC 173-226-130) the announcement:

1. Provided notice of a preliminary determination to develop general permits,
2. Requested comments as to whether a general permit or individual permits would be more appropriate for such discharges, and
3. Provided an opportunity for interested or potentially affected parties to submit information on dischargers and discharges proposed to be covered under the permit as well as any other relevant information.

Ecology posted a preliminary draft of the permit for public comment on July 13, 2005. Ecology invited public comment in anticipation that the draft would change. Ecology provided workshops in Spokane and Ellensburg during this period to explain and compare the permits and answer questions. Ecology also held four open meetings with stakeholders between May 2005 and January 2006. Ecology officially accepted comments on the preliminary draft permit through October 14, 2005; however, Ecology received comments as late as January 24, 2006 and also reviewed and considered these comments in revising the permit.

Ecology received about 45 pages of compiled written comments on the preliminary draft permit from 23 cities, counties, organizations, and individuals. All written public comments received by Ecology on the preliminary draft permit are available online. Ecology has considered all of those comments and made multiple changes to the permit.

BACKGROUND

The Stormwater Problem

Stormwater is the leading contributor to water quality pollution in our urban waterways. As urban areas grow, stormwater is also Washington's fastest growing water quality problem. More than 100 jurisdictions statewide and at least 28 cities, towns and counties in eastern Washington

may be required under federal regulations to get NPDES permit coverage for their stormwater discharges. Ecology is developing separate NPDES Municipal Stormwater Permits for eastern and western Washington. Development and implementation of these stormwater permits is challenging because the regulated municipalities vary in size, hydrologic setting, existing stormwater management programs, and funding abilities.

The large impervious surfaces in urban areas increase the quantity and peak flows of runoff, which in turn cause hydrologic impacts such as scoured streambed channels, in-stream sedimentation and loss of habitat. Furthermore, because of the volume of runoff discharges, mass loads of pollutants in stormwater can be significant. In general, untreated stormwater is unsafe. It contains toxic metals, organic compounds, and bacteria. Untreated stormwater is not safe for people to drink and is not recommended for swimming.

There are a number of pollution sources that contaminate stormwater, including land use activities, operation and maintenance activities, illicit discharges and spills, atmospheric deposition, and vehicular traffic conditions. Many of these sources are not under the direct control of the Permittees that own or operate the storm sewers.

Common Pollutants in Stormwater and Some Potential Sources[1]

Pollutant	Potential Sources
Lead	Motor oil, transmission bearings, gasoline[2]
Zinc	Motor oil, galvanized roofing, tire wear, down spouts
Cadmium	Tire wear, metal plating, batteries
Copper	Brake linings, thrust bearings, bushings, drinking water
Chromium	Metal plating, rocker arms, crank shafts, brake linings, yellow lane strip paint
Arsenic	Fossil fuel combustion
Bacterial/Viral Agents	Domestic animals, septic systems, animal & manure transport
Oil & Grease	Motor vehicles, illegal disposal of used oil
Organic Toxins	Pesticides, combustion products, petroleum products, paints & preservatives, plasticizers, solvents
Sediments	Construction sites, stream channel erosion, poorly vegetated lands, slope failure, vehicular deposition
Nutrients	Sediments, fertilizers, domestic animals, septic systems, vegetative matter
Heat	Pavement runoff, loss of shading along streams
Oxygen Demanding Organics	Vegetative matter, petroleum products

[1] Adapted from a number of sources: Novotny, V. and Chesters, G. (1981) *Handbook of Nonpoint Pollution*, Van Nostrand Reinhold Company, New York, p. 322; Galvin, D. and Moore, R. (1982) *Toxicants in Urban Runoff*, METRO Toxicant Program, Report #2, METRO, Seattle, pp. 3-89 to 3-92; PTI Environmental Services (1991) *Pollutants of concern in Puget Sound*, Puget Sound Estuary Program, U.S. EPA, Seattle, pp. 47-51; and URS *et. al.* (1988) City of Puyallup, Stormwater Management Program, *Technical Memorandum WQ-1: Stormwater Quality Issues*, Table 1.

[2] Although lead is no longer an additive to gasoline, it is still present in trace amounts and remaining lead on the ground is picked up by stormwater runoff.

Characterization of Stormwater

Hydraulic impacts and the characterization of pollutants vary but can be generalized by land uses such as residential, commercial, industrial and open space.[3] In general, the wet season's first flush rains carry the most pollutants to receiving waters.

Data characterizing the quality of stormwater discharges has been collected and analyzed in Oregon. The rainfall patterns and land cover characteristics in Oregon are sufficiently similar to Washington to provide an indication of the general quality of stormwater discharges in Washington. The following table shows the mean of the event mean concentrations (EMCs) of common stormwater pollutants for different land use categories.[4] The EMC is defined as the total constituent mass discharge divided by the total runoff volume. EMCs are typically based on flow weighted composite samples. Total phosphorus is presented for comparative purposes only, since phosphorous concentrations were not found to be consistent among similar land use stations. Total phosphorous concentrations may be more affected by soil type than by land use.

Oregon Urban Runoff Water Quality Data
Mean of Event Mean Concentrations (EMCs) for Selected Pollutants

Land Use	**Total Suspended Sediment** (mg/L)	**Total Copper** (mg/L)	**Total Zinc** (mg/L)	**Dissolved Copper** (mg/L)	**Total Phosphorus** (mg/L)
In-pipe Industrial	194	0.053	0.629	0.009	0.633
Instream Industrial	102	0.024	0.274	0.007	0.509
Transportation	169	0.035	0.236	0.008	0.376
Commercial	92	0.032	0.168	0.009	0.391
Residential	64	0.014	0.108	0.006	0.365
Open	58	0.004	0.025	0.004	0.166

Another important source of information about stormwater quality is the National Stormwater Quality Database (NSQD).[5] The NSQD collected and evaluated data from a representative number of municipal stormwater permit holders. To date it is the largest urban stormwater database ever developed. The following two tables of data from the NSQD are provided to give

[3] Pitt *et. al.* (2004) *The National Stormwater Quality Database*, www.cwp.org/NPDES_research_report.pdf
[4] Strecker *et. al.* (1997) A*nalysis of Oregon Urban Runoff Water Quality Monitoring Data Collected from 1990 to 1996*, prepared for the Oregon Association of Clean Water Agencies, Table 3-2.
[5] Pitt *et. al.* (2004) *The National Stormwater Quality Database*, www.cwp.org/NPDES_research_report.pdf

an indication of the general quality of stormwater discharges for a broader range of parameters than the Oregon data set.

Notable observations from the NSQD include the following:

- Preliminary statistical analyses found significant differences among land use categories for all pollutants. This is notable because National Urban Runoff Program (NURP) findings showed no significant differences in urban runoff concentrations as a function of common urban land uses (EPA, 1983).
- Freeway locations generally had the highest median values except for: phosphorus, nitrates, fecal coliform and zinc.
- Industrial sites had the highest reported zinc concentrations.
- Open space areas had the lowest values for Total Kjeldahl Nitrogen (TKN), copper, lead and zinc.
- Lead concentrations have dropped, as expected, by an order of magnitude over the last 20 years, largely assumed to be the result of instituting unleaded gasoline regulations.
- Sediment and heavy metal concentrations appear to have declined across all land uses. Further analysis is required to determine whether the decline is statistically significant. Reasons for the decline may be related to sample collection locations.
- Nutrient concentrations were relatively similar in the NSQD and NURP data sets.

Median Values of Event Mean Concentrations (EMCs) for Selected Parameters in the *National Stormwater Quality Database* (NSQD)

Parameter	Overall	Residential	Commercial	Industrial	Freeways	Open Space
Area (acres)	56	57.3	38.8	39	1.6	73.5
Percent Impervious	54.3	37	83	75	80	2
Precipitation Depth (in)	0.47	0.46	0.39	0.49	0.54	0.48
TSS (mg/L)	58	48	43	77	99	51
BOD5 (mg/L)	8.6	9	11.9	9	8	4.2
COD (mg/L)	53	55	63	60	100	21
Fecal Coliform (mpn/100 mL)	5081	7750	4500	2500	1700	3100
Ammonia (mg/L)	0.44	0.31	0.5	0.5	1.07	0.3
Nitrate plus Nitrite (mg/L)	0.6	0.6	0.6	0.7	0.3	0.6
Nitrogen, Total Kjeldahl (mg/L)	1.4	1.4	1.6	1.4	2	0.6
Phosphorus, filtered (mg/L)	0.12	0.17	0.11	0.11	0.2	0.08

Phosphorus, total (mg/L)	0.27	0.3	0.22	0.26	0.25	0.25
Cadmium, total (ug/L)	1	0.5	0.9	2	1	0.5
Cadmium, filtered (ug/L)	0.5	ND	0.3	0.6	0.68	ND
Copper, total (ug/L)	16	12	17	22	35	5.3
Copper, filtered (ug/L)	8	7	7.6	8	10.9	ND
Lead, total (ug/L)	16	12	18	25	25	5
Lead, filtered (ug/L)	3	3	5	5	1.8	ND
Nickel, total (ug/L)	8	5.4	7	16	9	ND
Nickel, filtered (ug/L)	4	2	3	5	4	ND
Zinc, total (ug/L)	116	73	150	210	200	39
Zinc, filtered (ug/L)	52	33	59	112	51	ND
ND = not detected, or insufficient data to present as a median value.						

Selected Information from the NSQD on Organic Pollutants in Stormwater								
	Methylene chloride (ug/L)	**Bis 2-ethylhexyl phthalate** (ug/L)	**Di-n-butyl phthalate** (ug/L)	**Fluor-anthene** (ug/L)	**Phen-anthrene** (ug/L)	**Pyrene** (ug/L)	**Diazinon** (ug/L)	**2,4-D** (ug/L)
Number of observations	251	250	93	259	233	249	79	101
Percent of samples above detection	36	30	16	19	13	14	22	35
Median of detected values	11.2	9.5	0.8	6	3.95	5.2	0.06	3
Coefficient of variation	0.77	1.13	1.03	1.31	1.00	1.24	1.9	0.86

Controlling Stormwater to Protect Natural Resources

Stormwater quality is difficult to manage because discharges are not continuous, highly predictable events. Rather, discharges are intermittent and weather-dependent in nature (i.e., rainfall and snowmelt). There is a wide range of pollutants in stormwater, and concentrations vary depending on storm events. Further difficulty in controlling municipal stormwater discharges comes from the large number of outfalls where stormwater is being discharged: hundreds or even thousands of outfalls may be found in a single city. These features of

stormwater runoff make it difficult to apply conventional end-of-pipe treatment options to existing discharges.

Three basic strategies exist for controlling stormwater:

- Prevent pollutants from coming into contact with stormwater, or prevent other adverse impacts, by using source control best management practices (BMPs),
- Apply water quality treatment BMPs that remove pollutants prior to discharge to surface or ground waters, and
- Control the flow rate and duration of stormwater runoff through flow control BMPs.

The complexity inherent in stormwater discharges and the difficulty of controlling such discharges means that it will take many years to fully implement a program which adequately mitigates or prevents their adverse environmental impacts.

To implement state and federal regulations, Ecology: uses a narrative Best Management Practice (BMP) approach to stormwater control rather than numeric effluent limitations; defines the level of effort required by Permittees to control as part of the permit development and issuance process; bases requirements on recognized practices from existing programs; uses compliance schedules where appropriate; focuses efforts on development of local programs that protect existing water quality rather than restoring degraded areas, except where mandated by TMDLs; and requires each Permittee to evaluate of the effectiveness of their Stormwater Management Program (SWMP).

In developing this permit, Ecology recognizes that permits alone cannot prevent all stormwater impacts and preserve natural resources and their associated beneficial uses. For multiple reasons, the cumulative impact of unregulated stormwater will continue to contribute to water quality degradation. First, the permit applies only to discharges owned or operated by public entities and does not regulate privately-owned direct discharges. Second, the permit only requires new development and redevelopment controls on sites that disturb one acre of land or more. Third, land development as currently practiced results in significant changes to the natural hydrology of watersheds; these changes impact aquatic resources.

As a result of the limited scope of the permit, the requirements should have the effect of slowing degradation but cannot successfully prevent further harm to water bodies that receive urban stormwater discharges. Ecology developed recommendations for further action by state and local governments and included those recommendations in the *Municipal Stormwater NPDES Permit Program Report to the Legislature January 2004* (,ECY Pub. No. 04-10-010).

Ecology is required to implement the federal Clean Water Act and state Water Pollution Control Act. Ecology has developed this draft permit within the framework created by these statutes and has described a Stormwater Management Program designed to meet state and federal requirements. In this Fact Sheet, Ecology has documented the rationale for many of the proposed permit requirements. The permit does not address all urban stormwater management needs and will not prevent all stormwater impacts. Citizens and state and local governments will need to work together to implement other actions to protect our water bodies.

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.

As part of the 1987 amendments to the CWA, Congress added section 402(p) to the CWA to cover stormwater discharges to waters of the United States. Under the Federal Clean Water Act (33 U.S.C. §1342 (p)(3)(b)) the permit requirements for discharges from municipal separate storm sewer systems are:

> "Municipal Discharge. Permits for discharges from municipal storm sewers:
> (i) may be issued on a system- or jurisdiction-wide basis;
> (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
> (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."

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 outline the minimum elements of a Stormwater Management Program (SWMP) which must include:

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

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

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

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. The *Model Municipal Stormwater Program for Eastern Washington* (2003) also addresses this requirement in regard to pollution prevention and good housekeeping for municipal operations.

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.

Ecology's decisions to extend certain permit requirements beyond what is required by the federal rules are detailed in the *Municipal Stormwater NPDES Program Report to the Legislature January 2004* (ECY Pub. No. 04-10-010), available at www.ecy.wa.gov/biblio/0410010.html. Two stakeholder advisory committees, one for eastern Washington and another for western Washington, were convened to address a range of stormwater permitting issues identified by the legislature. Included in the report are the recommendations of both advisory committees and Ecology's proposed approach to resolve each of the issues.

RELATIONSHIP TO OTHER STORMWATER PERMITS

In addition to requiring permits for discharges from small municipal separate storm sewers, EPA stormwater regulations establish permit requirements for industrial stormwater, construction sites, and large and medium municipal separate storm sewers (Phase I) including the Washington State Department of Transportation.

Industrial Stormwater General Permit

The federal stormwater regulations envision that Ecology and the municipal permittees will cooperate to develop programs to monitor and control pollutants in stormwater discharges to municipal storm sewers from industrial facilities. A wide range of industrial facilities listed at 40 CFR 122.26(b)(14) must obtain NPDES permits from Ecology if they discharge to surface waters or to municipal separate storm sewers which drain to surface waters. Under 40 CFR 122.26(d)(2)(iv)(C), municipal permittees are to establish a program to monitor and control discharges from industrial facilities that the Permittees determine are contributing a substantial pollutant loading to municipal separate storm sewers. In the preamble to the federal Phase I stormwater regulations EPA clearly states its position on the dual responsibility for controlling stormwater discharges associated with industrial activity:

> Although today's rule will require industrial discharges through municipal separate storm sewers to be covered by separate permit, EPA still believes that municipal operators of large and medium municipal systems have an important role in source identification, and the development of pollution controls for industries that discharge storm water through municipal separate storm sewer systems is appropriate. Under the CWA *(Clean Water Act)*, large and medium municipalities are responsible for reducing pollutants in discharges from municipal separate storm sewers to the maximum extent practicable. Because stormwater from industrial facilities may be a major contributor of pollutants to municipal separate storm sewer systems, municipalities are obligated to develop controls for stormwater discharges associated with industrial activity through their system in their stormwater management program (EPA, Federal Register, Vol.55, No. 222; November 16, 1990; p. 48090).

Construction Stormwater General Permit

Under this permit, Permittees must adopt and implement control discharges from construction sites into their MS4, including sites regulated under the construction stormwater general permit. Construction site operators that are covered under and operating in compliance with the construction stormwater general permit will be in compliance with the requirements of this permit. Local jurisdictions may add additional requirements for construction site operators.

Large and Medium Municipal Stormwater (Phase I) Permit

The first permit for large and medium municipal separate storm sewer systems (MS4s) was issued in 1995 and covers six western Washington cities and counties and WSDOT. The City of Spokane was considered for inclusion in that permit. At the time the Phase I permit was issued, a sufficiently large percentage of the city's population was determined to be served by combined sewers (rather than municipal separate sewers) that Ecology decided not to include the city in the Phase I permit. Instead, the City of Spokane is being covered under this Phase II permit together with other eastern Washington municipalities. Federal regulations established the list of Phase I jurisdictions and no new jurisdictions will be added to the list.

Wherever possible, the requirements of this permit have been coordinated with the requirements of the Phase I permit and the Western Washington Phase II permit. All three permits include similar approaches to compliance with standards, TMDL implementation, and implementation of Ecology's applicable regional stormwater management manual. Some elements of the stormwater management programs for the permits are similar. Ecology has established expectations in the Phase I permit for planning, coordination and implementation of stormwater monitoring.

Washington State Department of Transportation (WSDOT) Permit

Instead of separate coverage under this permit, the Small Municipal Stormwater (Phase II) permit for Western Washington, and the Large and Medium Municipal Stormwater (Phase I) permit, WSDOT and Ecology decided to cover discharges from state highways and other WSDOT facilities under a single stormwater permit.

The proposed WSDOT permit will include provisions requiring control of runoff from new development, redevelopment and construction sites that are consistent with the requirement in this permit, but tailored to highway construction. Ecology has worked with WSDOT during the development of the Highway Runoff Manual (HRM) and the WSDOT stormwater permit to ensure that the HRM, together with conditions in the permit, will provide a level of control equivalent to the *Stormwater Management Manual for Eastern Washington* (2004).

WSDOT stormwater conveyances frequently interconnect with municipal MS4s covered under this permit. It will be necessary for WSDOT and Permittees covered under this permit to work together to control illicit discharges, and respond to spills and dumping, and, since they discharge stormwater to many of the same water bodies, implement TMDLs.

EXPLANATION OF PERMIT CONDITIONS

The permitting model proposed by the EPA for Phase II established a general outline of a stormwater program (the six minimum measures) and required Permittees to develop and implement a stormwater management program to address the each of the components in the outline. This approach did not require that the permitting authority (Ecology) review and approve the locally developed municipal stormwater programs. The U.S. Ninth Circuit Court invalidated that portion of the Phase II rules because the lack of review by the permitting authority did not provide assurance that Permittees met the federal "maximum extent practicable" (MEP) standard. The court decision also cited the lack of an opportunity for public review and comment on the approval or disapproval of local stormwater programs as grounds for invalidating that portion of the Phase II rules.[6]

Ecology does not have sufficient staff resources to individually review and approve the stormwater management programs developed by every Permittee. (Based on experience with the first round of Phase I permits, Ecology estimates it would take between 25 and 30 staff to review and approve all the Phase II programs individually.) As a consequence, Ecology is not following EPA's general outline approach. Instead, Ecology has established explicit requirements, including best management practices, in this permit that will reduce pollutants discharged to and from a municipal separate storm sewer to the MEP.

This approach defines, as part of the permit development and issuance process, the minimum acceptable elements of a stormwater management program. The advantages of this approach are that it satisfies the public involvement requirements of both the federal and state clean water acts and ensures that the federal requirement to control pollutants to the MEP is met by each Permittee. It also requires considerably fewer staff resources for Ecology to administer. An advantage for Permittees and the public of this approach is the permit requirements are known at the time of permit issuance and not left to be determined later through iterative review and approval of individual stormwater management programs. A disadvantage to this approach is that it provides less flexibility to tailor local stormwater programs to reflect local priorities and needs.

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[6] *Environmental Defense Center v. EPA*, 319 F.3d 398 (9th Cir. Jan 14, 2003), vacated and replaced by *Environmental Defense Center v. EPA*, 9th Cir. Sept 15, 2003.

SPECIAL CONDITIONS

S1. PERMIT COVERAGE AND PERMITEES

This section defines the area covered under this permit, defines the entities that are to be covered under the permit, and explains how to obtain permit coverage. The permit covers discharges from regulated small municipal separate storm sewer systems (regulated small MS4s; see the discussion of S1.B.1 below) in eastern Washington.

In the preliminary draft version of this permit, EPA's list of Phase II jurisdictions in eastern Washington was included in Appendix 1. That appendix has been deleted and the jurisdictions are listed in S1.D.2.a. The list of those jurisdictions that applied for permit coverage prior to the release of this formal draft permit is included in S1.D.2.b.

S1. A Geographic Area of Permit Coverage

A map showing the cities, towns and counties covered by this permit is available on Ecology's website at www.ecy.wa.gov/programs/wq/stormwater/municipal/maps/ewa-msw.pdf. The map shows the regulated small MS4s located within the five Urbanized Areas in eastern Washington: Clarkston, Spokane, Tri-Cities, Wenatchee, and Yakima. (Clarkston is considered an Urbanized Area because, due to its proximity to Lewiston, Idaho, it is part of an urban center with a population greater than 50,000.) Jurisdictions operating regulated small MS4s within the boundaries of the Urbanized Areas on these maps were automatically designated by EPA for inclusion in the NPDES Phase II stormwater permitting program. This map also shows five cities (Ellensburg, Moses Lake, Pullman, Sunnyside, and Walla Walla) as "Potential Phase II jurisdictions." See the discussion under S1.B.3 below for an explanation of the process for Ecology's determination to include these cities in this permit.

The geographic area of permit coverage extends beyond what is required by the federal rules to include all of the land inside the Urban Growth Area boundaries in the Urbanized Areas. Ecology's decision to extend these boundaries is detailed in the *Municipal Stormwater NPDES Program Report to the Legislature January 2004* (ECY Pub. No. 04-10-010) on pp. 10-13. The boundaries of the Urbanized Areas created by strict application of the federal rules do not follow either jurisdictional or GMA planning boundaries. Ecology believes that it makes programmatic and environmental sense to apply the requirements of this permit to the areas targeted for growth by these entities. This means that for Cities, the permit requirements extend to the entire incorporated area (S1.A.1), and for Counties, the permit requirements extend to the Urban Growth Areas associated with the Cities in each Urbanized Area (S1.A.2). Ecology recommends that Counties apply their Stormwater Management Programs to all urbanizing areas and industrial and commercial districts.

For Walla Walla County, the requirements of this permit are applicable and shall be implemented, at a minimum, throughout the urbanized areas and the urban growth areas associated with the City of Pasco that are under the jurisdictional control of the County.

For Yakima County, the requirements of this permit are applicable and shall be implemented, at a minimum, throughout the urbanized areas and the urban growth areas associated with Cities of Moxee, Selah, Union Gap, and Yakima that are under the jurisdictional control of the County.

Ecology recommends that Grant, Kittitas, Walla Walla, Whitman, and Yakima Counties begin (and/or continue) to implement stormwater management activities in the growth management areas associated with the Cities of Moses Lake, Ellensburg, Walla Walla, Pullman, and Sunnyside.

For Secondary Permittees, S1.A.3 requires the stormwater management program to be applied throughout the land areas served by and under the effective control of the entity, regardless of the jurisdictional boundaries crossed.

S1.B Regulated Small MS4s (Permittees)

This section describes the entities that must obtain coverage under this permit.

S1.B.1 Regulated Small MS4s

Small MS4s are systems of conveyances owned or operated by a public entity, designed or used for collecting stormwater, not combined sewers, and not part of a publicly owned treatment works. Conveyances are broadly defined to include roads with drainage systems, municipal streets, catch basins, curbs, gutters ditches, man-made channels, or storm drains. To be regulated by this permit, small MS4s must: be located within, or partially within, a census-defined Urbanized Area or otherwise designated by Ecology, discharge stormwater to a surface water of Washington State, and not be eligible for an exemption. Urbanized Areas are population centers with greater than 50,000 people and densities of at least 1,000 people per square mile, with surrounding areas having densities of at least 500 people per square mile. The urbanized areas in this permit are based on the 2000 population census. For future permits, the urbanized area will be based on the most recent federal census.

This term “regulated small MS4” includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

S1.B.2 Secondary Permittees

There are dozens of types of special purpose districts in Washington State. Special purpose districts likely regulated by this permit are: ports, diking and drainage districts, flood control districts, universities and colleges, school districts, parks, and prisons. To be required to have permit coverage the entity must be publicly owned or operated, otherwise meet the requirements of a regulated small MS4, and not be eligible for a waiver.

Ecology encourages each special purpose district to consider applying for this permit as a Co-Permittee with the jurisdiction(s) in which the district is located. The district can then rely on the jurisdiction to meet most of the permit requirements and implement only the permit requirements that make the most sense for the district.

In February 2006, the Department notified following categories of entities of their potential obligation to obtain coverage under this permit: Diking and drainage districts, flood control districts, public ports, sewer districts, public colleges and universities, Department of

Corrections, parks and recreation districts, and public school districts. The complete list of entities that received this notification is included in Appendix A *List of Potential Secondary Permittees* at the end of this Fact Sheet.

S1.B.3 Additional Permittees

Ecology can designate additional Permittees. Federal regulations required Ecology to develop criteria to determine whether stormwater discharges from other MS4s are causing or contributing to, or have the potential to cause or contribute to, violations of water quality standards, including impairment of designated uses and/or adverse habitat or biological impacts (40 CFR 123.35(b)). In particular, Ecology was required to apply the designation criteria to small MS4s that are located outside of Urbanized Areas and have a population of 10,000 or more.

The purpose of the evaluation was to determine whether these areas, which were not automatically designated, should be designated as "regulated small MS4s" for inclusion in the NPDES Phase II stormwater permitting program. In eastern Washington, Ecology evaluated the Cities of Ellensburg, Moses Lake, Pullman, Sunnyside, and Walla Walla. Based on recommendations made by EPA in the Phase II rule proposal, Ecology considered: discharge to sensitive waters; high population density; high growth or growth potential; contiguity to an urbanized area; significant contribution of pollutants to waters of the U.S.; or ineffective protection of water quality by other programs.

Ecology involved these cities in developing designation criteria and tentatively determined that all of the cities should be designated as regulated small MS4s. Ecology will consider all information submitted before the close of the comment period on May 19, 2006 prior to making a final designation decision when the final permit is issued. In particular, each jurisdiction may choose to provide information about: actual discharge points of the MS4, estimated populations served by the MS4 versus UIC facilities or other stormwater disposal methods not discharging to surface waters, and/or a description of the jurisdiction's current stormwater management program.

During the public comment period on the preliminary draft version of this permit, Ecology received comments asking Ecology to include in this permit: the City of Pullman, Washington State University, the City of Walla Walla, the City of College Place, and Walla Walla County. Ecology also received a request to cover the City of Spokane under the Phase I municipal stormwater permit instead of this permit.

Ecology has tentatively decided to include the Cities of Pullman and Walla Walla in this permit, and not to include the City of College Place. The City of Spokane was not subject to the Phase I permit when it was issued in 1995 because of the population of the city determined to be served by combined sewer overflows, which are covered under a separate regulatory program; Ecology decided at that point to include the City of Spokane in this permit. Washington State University is subject to this permit as a Secondary Permittee. Walla Walla County is included only for the UA and urban growth area around the Tri-Cities.

In accordance with 40 CFR 122.26(f) any interested party may petition Ecology to include additional municipalities or other entities in this permit.

S1.C Waivers from Coverage under this Permit

Certain entities do not need to obtain coverage under this permit if the conditions in this section are met.

S1.C.1 MS4s operated by tribes or by federal entities such as military bases and national parks must be covered under separate permits issued by EPA; Ecology does not have the authority to regulate these entities. MS4s operated by WSDOT will be covered under a separate permit issued by Ecology.

S1.C.2 Pursuant to 40 CFR 122.32(c) the requirement to apply for coverage under this permit may be waived. Ecology granted the Cities of Moxee (in the Yakima Urbanized Area) and Rock Island (in the Wenatchee Urbanized Area) tentative waivers from inclusion in this permit based on a preliminary determination that the portions of their MS4s located within the 2000 census-defined Urbanized Areas each serve a population of less than 1,000.

Some entities that were notified by Ecology that they might be subject to this permit as Secondary Permittees may also qualify for a waiver from coverage pursuant to the requirements of this section.

S1.D Obtaining Coverage under this Permit

This section provides specific application instructions for various types of Permittees, whether applying individually or jointly. This section also provides information for otherwise regulated small MS4s to opt out of this permit.

During the public comment period on the preliminary draft version of this permit, some municipalities requested that the "Potential Phase II Jurisdictions" identified by EPA and designated by Ecology as requiring coverage under this permit (Ellensburg, Moses Lake, Pullman, Sunnyside, and Walla Walla) be allowed additional time to apply for the permit. Ecology agreed with the request and S1.D.2.3 specifies that these cities must apply for coverage by submitting the completed NOI, provided in Appendix 5 of the permit, no later than 30 days after the effective date of the permit. Ellensburg is not listed in S1.D because the city has already applied for permit coverage. Secondary Permittees located in all five of these cities also have until 30 days after the effective date of the permit to apply for coverage. Ecology will accept completed applications at any time prior to issuance of the final permit. The federal deadline for all entities in the Urbanized Areas to apply for permit coverage was March 10, 2003.

S2. AUTHORIZED DISCHARGES

This section of the permit authorizes the discharge of stormwater from municipal separate storm sewers, owned or operated by the Permittees, to waters of the State, subject to certain limitations. Consistent with the federal rules, direct discharges to surface waters from privately owned or operated storm drains are not regulated by this permit.

S2.A.1 – Discharges into and from municipal separate storm sewers owned or operated by permittees must be in compliance with the terms and conditions of the permit.

S2.A.2 – Discharges from new municipal separate storm sewers constructed by the Permittee after the issuance date of this permit are authorized, provided those discharges have received all applicable state and local permits, including compliance with the State Environmental Policy Act (SEPA). The control measures required under the permits are area-wide and will apply to any future discharges from the municipal storm sewer systems regulated under this permit.

S2.A.3 – Ecology is issuing this permit under joint federal and state authorities. Under the federal Clean Water Act permits are required for point source discharges of pollutants to waters of the United States. Under that State Water Pollution Control Act (Chapter 90.48 RCW) permits are required for the disposal of waste materials into waters of the State. Under chapter 90.48 RCW the definition of "waters of the State" includes underground waters whereas the definition of waters of the United States does not.

In accordance with state law Ecology is regulating both discharges to surface waters and discharges to ground waters. Discharges to ground water are covered under the permit because portions of the areas regulated under this permit may include discharges of stormwater to the ground from municipal separate storm sewers. It is appropriate that the stormwater management programs that are required under this permit should apply area-wide, regardless of where water is discharged, and that measures are taken to reduce the discharge of pollutants to ground waters as well as surface waters. However, as stated in paragraph S2.A.3 of the permit, discharges to ground water that are covered under the Underground Injection Control (UIC) program are not covered under this permit to avoid overlapping regulation of these discharges.

Stormwater may be discharged to ground water via infiltration or injection techniques. Injection facilities such as drywells that are classified as UIC facilities are covered under the UIC program (Chapter 173-218 WAC); these discharges are not covered by this permit, however stormwater management programs developed to comply with this permit may be used to satisfy some of the requirements of the UIC program. Many infiltration facilities, including infiltration basins and trenches and dispersion techniques, are not classified as UIC wells; they are covered under this permit because State law requires that they be addressed.

S2.A.4 – Clarifies that stormwater discharges to groundwater that are not subject to federal regulation under the Clean Water Act are regulated only by state authority. It is EPA policy, and supported by case law, that where hydraulic continuity exists between a discharge to groundwater and a surface water, the discharge to groundwater may be regulated under the federal NPDES permit program. Stormwater discharges to groundwater may be subject to this permit under federal regulations if site-specific information demonstrates that they are in hydraulic continuity with surface waters (see e.q., Exxon Corp. v. Train, 554 F.2d 1310, 1312, n.1 (5th Cir. 1977); McClellan Ecological Seepage Situation v. Weinberger, 707 F.Supp. 1182, 1195-96 (E.D. Cal. 1988); and Washington Wilderness Coalition v. Hecla Mining, case # CS 94-233 FVS). Ecology believes the best guidance on this issue comes from the United States District Court Eastern District of Washington (Washington Wilderness Coalition v. Hecla Mining, 870 F. Supp 983, 990). The court held that "since the goal of the CWA is to protect the quality of surface waters, any pollutant which enters such waters, whether directly or through groundwater, is subject to regulation by NPDES permit." The court went on to hold, "[I]t is not sufficient to allege groundwater pollution, and then to assert a general hydrological connection between all waters. Rather, pollutants must be traced from their source to surface waters, in order

to come within the purview of the CWA." The decision on hydraulic continuity is dependent upon the pollutant, the mobility of the pollutant in soils, the pollutant loading, the soils at the site, and the hydrology of the site.

S2.B – The discharge of stormwater associated with industrial activities through municipal separate storm sewers is authorized by this permit, but each industrial discharge is required to have a separate NPDES permit under U.S. EPA regulations. For further explanation of the reasons for the separate stormwater permit requirement, see the preamble to the amendments to 40 CFR parts 122, 123, and 124 published in the Federal Register, Friday, November 16, 1990.

Since municipal separate storm sewers carry stormwater and other flows, this permit authorizes the discharge of stormwater commingled with other flows, under certain circumstances. Section 402(p)(3)(B)(ii) of the federal Clean Water Act clearly states that municipal permits are to effectively prohibit non-stormwater discharges to the municipal separate storm sewer system. However, such discharges to municipal separate storm sewers can be authorized if they receive a NPDES permit (other than this municipal stormwater permit). Industrial process wastewater and non-process wastewater are non-stormwater discharges and cannot be authorized under this permit without a separate NPDES permit.

All other non-stormwater discharges are to be addressed through the program to detect and remove illicit discharges and improper disposal as required by the illicit discharge detection and elimination requirements of the stormwater management program required under S5 or S6 of this permit.

S2.C – In accordance with 40 CFR 122.34(b)(3)(iii) this permit authorizes discharges from emergency fire fighting activities unless they are identified by either Ecology or the Permittee as significant sources of pollutants to the MS4. Training is not considered an emergency fire fighting activity; discharges from fire fighting training activities into a Permittee's MS4 are not authorized by this permit.

S2.D – Illicit discharges and other non-stormwater discharges are not authorized by this permit except as allowed under the illicit discharge detection and elimination requirements of the stormwater management program required under S5 or S6 of this permit. Coverage under and compliance with this permit does not relieve Permittees from compliance with other state and federal laws, including but not limited to: CERCLA (Superfund) and OPA (Oil Pollution Act).

S3. RESPONSIBILITIES OF PERMITTEES

Not all parts of the permit apply to all Permittees. This section is included to explain the responsibilities of each Permittee.

This section also allows a Permittee to rely on another entity to meet permit requirements but still holds each Permittee responsible for implementation of any shared responsibilities. EPA Phase II regulations for small MS4s explicitly allow such an arrangement.

In the preliminary draft version of this permit, all Co-Permittees would have been required to implement the Stormwater Management Program (SWMP) described in S5; in this revised

formal draft permit, all Co-Permittees are responsible for implementing the SWMP (in S5 or S6) that they would have been responsible for implementing as individual Permittees. Ecology considers co-application and cooperative implementation of the SWMP by any Permittee with another Permittee to be beneficial in maximizing efficiency and reducing overall costs. Ecology encourages Secondary Permittees to co-apply with their local jurisdictions and utilize shared resources to implement the SWMP described in S6.

S4. COMPLIANCE WITH STANDARDS

Ecology's permitting strategy for municipal stormwater discharges covered under this permit is to:

- Require the adoption and implementation of stormwater management programs as described in this permit.
- Assess the effectiveness of those programs through monitoring and/or other evaluation efforts.
- Require, in subsequent permits, implementation of more effective and/or more targeted stormwater best management practices if necessary to protect or restore water quality.
- Evolve towards eventual compliance with water quality standards through successive permit cycles.

This section of the permit has been significantly revised from the preliminary draft version of the permit. Ecology received numerous comments regarding this section of the permit during the public comment period on the preliminary draft permit, in which this section made a distinction between compliance requirements for new and existing discharges. Consistent with Ecology's priority of preventing future impacts to water quality from municipal stormwater discharges, the preliminary draft permit held new discharges to a higher standard than for existing discharges: existing discharges were to meet the MEP standard by implementing the SWMP in S5 or S6 plus any TMDL requirements, and new discharges were not to cause or contribute to a violation of water quality standards. Some jurisdictions complained that the distinction between new and existing municipal stormwater discharges is often difficult to make, and the requirements might make otherwise beneficial projects impossible to implement. Ecology agreed with the comments and removed the distinction between new and existing discharges in this formal draft permit. Explicit references to state law are also included in this revised section. The revised section clarifies that compliance with all of the permit conditions meets MEP and AKART requirements.

<u>Condition S4.A</u> prohibits the discharge of toxicants to waters of the State of Washington which would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria. The basis for this permit condition is RCW 90.48.520 which states:

> In order to improve water quality by controlling toxicants in wastewater, the department of ecology shall in issuing and renewing state and federal wastewater discharge permits 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. Such conditions may include, but are not limited to: (1) limits on the discharge of specific chemicals, and (2) limits on the overall toxicity of the effluent. The toxicity of the effluent shall be determined by techniques such as chronic or acute bioassays. Such conditions shall be required regardless of the quality of receiving water

> and regardless of the minimum water quality standards. *In no event shall the discharge of toxicants be allowed that would violate any water quality standard, including toxicant standards, sediment criteria, and dilution zone criteria* [emphasis added].

The term "toxicants" is not defined in chapter 90.48 RCW and there is no readily available legislative history which would help define which specific pollutants would be considered toxicants. The state water quality standards in existence at the time RCW 90.48.520 was adopted also did not include a definition for either toxicant or toxic pollutant.

At the time that RCW 90.48.520 was adopted, the federal Clean Water Act did contain a definition for toxic pollutant:

> The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring (33 U.S.C. § 1362(13)).

The federal Clean Water Act at that time also included a list of toxic pollutants. (33 U.S.C. § 1317(a)(1)) The list of toxic pollutants is also known as the priority pollutant list. Based on the absence of legislative history for this permit, the term 'toxicant' is assumed to have the same meaning as 'toxic pollutant' as defined by the federal Clean Water Act and EPA's implementing regulations. This is similar to the term "toxic substance" which is used in the Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A WAC.

<u>Condition S4.B</u> does not authorize a violation of Washington State surface water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC), sediment management standards (chapter 173-204 WAC), or human health-based criteria in the national Toxics Rule (Federal Register, Vol. 57, NO. 246, Dec. 22, 1992, pages 60848-60923).

While the permit does not require monitoring to ensure strict compliance with water quality standards for municipal stormwater discharges, Ecology does not provide a categorical exemption from compliance with state water quality standards. Ecology has decided that the best measure of the protection of water quality is development and implementation of stormwater management programs. Because compliance with the water quality standards is an eventual goal of this permit, it is appropriate to use the water quality standards as a measure of the effectiveness of the SWMP, and to help the Permittees identify priorities.

Strict compliance with water quality standards for municipal stormwater discharges is not required by § 1342(p)(3)(B) of the federal Clean Water Act. The <u>M</u>aximum <u>E</u>xtent <u>P</u>racticable (MEP) permitting standard for municipal stormwater permits is separate and distinct from the requirement under 33 U.S.C. § 1311(b)(1)(C) that permits include any more stringent limitation, including those necessary to meet water quality standards. In Defenders of Wildlife v. Browner, the ninth circuit court determined: "…the text of 33 U.S.C. § 1342(p)(3)(B), the structure of the Water Quality Act as a whole, and this court's precedent all demonstrate that Congress did not require municipal storm-sewer discharges to comply strictly with 33 U.S.C. § 1311(b)(1)(C)."

(Note: 33 U.S.C. § 1311(b)(1)(C) is the part of the federal Clean Water Act requiring any more stringent effluent limitations necessary to meet water quality standards.)

Although the Clean Water Act does not require municipal storm sewer discharges to comply strictly with U.S.C. § 1311(b)(1)(C), U.S.C. § 1342(p)(3)(B)(iii) states: "[p]ermits for discharges from municipal storm sewers . . . shall require . . . such other provisions as the Administrator . . . determines appropriate for the control of such pollutants." (Emphasis added.)

This provision gives the Ecology discretion to determine whether strict compliance with U.S.C. § 1311(b)(1)(C) is appropriate. In this permit, Ecology has adopted an interim BMP based approach towards meeting the goals of the Clean Water Act and eventual compliance with water quality standards.

Consistent with EPA's permitting approach for municipal stormwater discharges, Ecology has not established numeric end-of-pipe effluent limits for the discharges covered under this permit. EPA's policy, transmitted in 1996, explains an alternative approach to effluent limits that is appropriate for storm water permits:

> Due to the nature of storm water discharges, and the typical lack of information on which to base numeric water quality-based effluent limitations (expressed as concentration and mass), EPA will use an interim permitting approach for NPDES storm water permits. The interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards. In cases where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits, as necessary and appropriate. (EPA policy, Interim Permitting Approach for Water-Quality Based Effluent limits in Storm Water Permits, 9/01/96)

While the permit does not require strict compliance with state water quality standards for municipal stormwater discharges (except where compliance may be required by RCW 90.48.520), neither does Ecology intend the permit provide a categorical exemption from compliance with state water quality standards for municipal stormwater discharges.

Ecology acknowledges that it may take decades or longer to address the water quality impacts of existing municipal stormwater discharges. In part, this is because of the difficulty and challenges associated with reversing the water quality impacts of existing stormwater discharges. The focus of this permit is to prevent further water quality impairment due to new stormwater discharges and make reasonable progress in addressing existing sources of water quality impairment.

<u>Condition S4.C</u> requires the permittee to reduce the discharge of pollutants to the maximum extent practicable (MEP). This requirement is based on U.S.C § 1342(p)(3)(B)(iii). Neither Congress nor EPA has defined MEP and have instead left the determination of what constitutes MEP up to the individual permitting authorities. As a result, permit requirements established by Ecology must be tempered and limited by State law. For example, the application of post construction stormwater controls on new development and re-development required by this permit must be done within the context of state vesting laws. Similarly, the inspection requirements of this permit must be carried out in a manner that is consistent with the State Constitution and State law.

In adopting both the phase I and the phase II rules the EPA recognized that state law and at times local law may limit or restrict the scope of permit requirements (FR Vol. 55, No. 222, pg 48041) and (FR Vol. 64, No. 235, pg 68766).

Ecology has determined the development, implementation and enforcement of stormwater management programs required under this permit constitute the controls necessary to reduce the discharge of pollutants to the maximum extent practicable.

Condition S4.D requires the use of all known, available and reasonable methods of prevention control and treatment to prevent and control pollution of waters of the state of Washington. This permit requirement is based on RCW 90.48.170 and RCW 90.48.520. Ecology has determined compliance with this permit including the development, implementation and enforcement of stormwater management programs required under this permit constitute the use of all known, available and reasonable methods of prevention control and treatment to prevent and control pollution of waters of the state of Washington.

S5. STORMWATER MANAGEMENT PROGRAM FOR CITIES, TOWNS AND COUNTIES

This section of the permit applies only to Cities, Towns and Counties covered under this permit. The Phase II rules require the development, implementation, and enforcement of a storm water management program designed to:

- Reduce the discharge of pollutants from municipal separate storm sewer systems to the Maximum Extent Practicable (MEP),
- Protect water quality, and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

In accordance with 40 CFR 122.34, the storm water management program for small MS4s must include the six minimum control measures outlined in the federal regulations. The six minimum control measures are:

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

The Stormwater Management Program (SWMP) described in this section implements these first minimum control measures. Ecology's priority for this permit is to bring all Phase II communities in eastern Washington to at least a minimum standard of developing and implementing a SWMP.

The federal rules do not describe the minimum level of effort required for each of the minimum requirements. That is left to the permitting authority: in this case, Ecology. The federal rules also intended to allow each Permittee to design their own SWMP to fit the unique circumstances of their community. Ecology recognizes that such individual programs could provide significant benefits, but Ecology does not have sufficient resources to review and approve SWMPs for all Permittees. In lieu of allowing individual programs, this permit specifies minimum performance

measures for each component of the SWMP. The minimum performance measures in this permit describe the minimum level of effort that will be required for each SWMP component.

The requirements are based on recognized practices from existing programs and are expected to result in environmental benefits. Most of the minimum performance measures, including the compliance schedules, described in the SWMP in this permit are based on the *Model Municipal Stormwater Program for Eastern Washington* (ECY Pub. No. 03-10-076). This "Model Program" was developed by a stakeholder group that included representatives of Phase II jurisdictions and other interested parties in eastern Washington. A summary of the requirements of this section is included in Appendix B *Required Implementation Schedule for Cities, Towns and Counties* at the end of this Fact Sheet.

Permittees wishing to implement programs different from the SWMP in this permit may apply for an individual permit or submit modifications to Ecology for inclusion in this permit. There may be a significant waiting period to get an individual permit, and Permittees may be covered under this permit while they are awaiting coverage under individual permit. Ecology requested that any proposals for individual SWMPs, particularly individual schedules, be included with comments on the Preliminary Draft of this Permit that was released for public comment from July 13, 2005 through October 14, 2005. The Wenatchee Urban Area jurisdictions jointly submitted a schedule for Ecology's consideration. Their proposed schedule was closely aligned with the requirements in the formal draft version of this permit.

Ecology also recognizes that some communities in eastern Washington have already begun to implement stormwater management programs. This permit does not encourage those who have existing stormwater management programs to reduce their programs; rather, Permittees are expected to continue implementation of existing SWMP components that go beyond what is required in this permit where they are necessary to protect water quality and reduce the discharge of pollutants from regulated small MS4s to the maximum extent practicable.

With regard to the compliance schedules, Ecology recognizes that some of these interim deadlines may be necessary for jurisdictions to reach the expected level of effort before the end of the five-year permit term.

Ecology expects that the SWMP will be updated continually by each Permittee, but only annual updates are required under the permit.

S5.A.4.a This language was included in section S8.1 of the preliminary draft version of this permit and has been moved to this section. The evaluation questions that were in S8.1.b have been deleted, but Ecology generally expects that each Permittee shall use this information to evaluate the effectiveness of SWMP implementation and whether the SWMP is preventing adverse impacts to water quality. This evaluation will be discussed in the Permittees' annual reports.

S5.A.4.a.ii The cost and resources available to implement the SWMP are not part of the basis for determining MEP for this permit term. However, data on SWMP-related expenditures are needed to evaluate the MEP standard established in future permits. Beginning no later than January 1, 2009 Permittees will begin tracking the costs of developing and implementing the

SWMP. Permittees whose fiscal years do not coincide with the calendar year should begin tracking costs for the fiscal year that includes the month of January 2009. Listed below are the SWMP-related costs which Permittees are expected to track:

- The cost for labor of stormwater staff and benefits should be tracked for each program component S5.B.1 through S5.B.6 or allocated to each component on a reasonable basis.
- Direct costs (*e.g.*, phone, field and office supplies, etc.) and depreciation costs (*e.g.*, vehicles and equipment) should be included for each component.
- Overhead allocation for the entire stormwater program should be distributed to each cost category. Overhead allocation is often estimated as a straight percentage of labor cost and includes building fees, payroll, human resources, legal, administration, and other costs that provide ancillary support for stormwater activities.
- Include applicable costs from all departments that are responsible for actions required under the permit.
- If the Permittee is relying on another entity to meet certain permit requirements, the expenditures by that entity should be included as well.
- Stormwater conveyance costs may not be included, only permit compliance costs are to be included.
- Expenditures may not be double counted. If some compliance actions are combined so that it is not possible to split out one from another, the cost is only counted once, with an explanation provided. For example, if training for O&M is combined with training for IDDE, the cost is counted once under either IDDE or O&M and an explanation provided for both components.
- Information about assumptions and data limitations as necessary should be included.
- The cost of developing and disseminating public education and outreach materials should be tracked, including staff time, contracts, printing, television, radio or other advertising costs.
- The cost of public notices and planning and holding public meetings including staff time, contracts, printing, television, radio or other advertising costs.
- Costs to develop and maintain a Permittee's website should not be included unless a specific page is explicitly devoted to education, outreach, or involvement activities of the SWMP.
- For the IDDE program, the cost of inspections for illicit connections and discharges to the stormwater drainage system and the number of inspections should be tracked. Like construction, it is difficult to account for stormwater costs because many activities performed by inspectors serve other purposes, such as inspection of the sanitary sewer system. The cost of responding to illicit discharges, both illicit connections and spills, should be included.
- The cost of developing required maps, both field surveys and producing maps should be reported.
- The cost of training provided to inspectors should be tracked, including the cost for the participating inspectors to attend the training. The number of person-hours trained should be tracked for stormwater staff inspectors in order to effectively allocate overhead cost. The number of person-hours trained should be tracked for stormwater staff inspectors because the city must pay for each city staff member attending training. For contractor training, the number of training hours provided (regardless of group size) should be

reported because the cities do not pay for the contractors to attend as they do for city staff.

- The cost of inspections should be tracked as well as the numbers of facilities and active construction sites inspected. Inspections should only be tracked when stormwater issues are being addressed by a part of the inspection. Avoid including building inspections for latter phases of projects, such as for interior building work, that has little impact on stormwater.
- The cost of planning, design and construction of structural controls for public projects should also be tracked.
- The cost for inspecting and maintaining stormwater treatment and flow control BMPS owned or operated by the Permittee, along with associated activity statistics (e.g. lbs. of debris removed), should be tracked. Also, the cost for drain line and channel cleaning, pump station cleaning, and similar activities should be tracked.
- Permittees' costs for pet waste collection, automobile maintenance, vehicle washing, illegal dumping control, landscaping and lawn care, pest control, parking lot and street cleaning, roadway and bridge maintenance, storm drain system cleaning, and alternative discharge options for chlorinated water should be tracked.
- Costs for materials management may include alternative products, hazardous materials storage, road salt application and storage, used oil recycling, and materials management.
- The costs for overall SWMP management, or stormwater staff costs associated with development and oversight of the entire SWMP or that could not be allocated to specific SWMP components, should also be tracked. Also, costs for management plans, NPDES fees, reporting, mail, legal support, travel, conferences, printing, producing manuals and handbooks, and other non-labor costs should be included. Normalization for this category is not practical because of the wide variety of activities, and because very few of these activities can be numerically quantified.
- Permittees are not expected to differentiate between stormwater management spending to meet requirements of the Underground Injection Control (UIC) rule versus the requirements of this permit, but the cost report should indicate that both sets of requirements are included.
- Counties are not expected to differentiate between implementation in the required geographic area versus implementation in areas outside the required area, but the cost report should indicate the additional geographic areas in which the SWMP is being implemented.

Ecology is not expecting jurisdictions to make accounting changes to track these costs, nor are Permittees expected to differentiate between current spending on SWMP implementation versus new spending to meet the requirements of this permit.

S5.B Stormwater Management Program (SWMP) Components

The sections below include some specific comparisons between the *Model Municipal Stormwater Program for Eastern Washington* (2003), referred to as the Model Program, and the SWMP in the permit, and additional clarifications of specific requirements under some components of the SWMP. Jurisdictions implementing the Model Program must evaluate the program and Best Management Practices (BMPs) described therein to ensure that they meet the requirements of this permit.

Federal regulations require Permittees to develop, implement, and enforce a program to reduce pollutants in stormwater runoff from new development and redevelopment, both during and after the construction phase of a project. This requirement is limited to new development and redevelopment projects which disturb one acre or more, and Permittees are not required to regulate projects of less than one acre unless the smaller project is part of a common plan of development or sale that is greater than one acre.

The threshold requirements in the *Stormwater Management Manual for Eastern Washington* (2004) for applying the BMPs are different from the federal requirements. The manual sets technical threshold requirements at various levels for various areas and activities, but always much lower than one acre. The Model Program applied only the federal one-acre threshold, not the lower, technically-based thresholds contained in the technical stormwater manual, which had not yet been published.

For this permit, Ecology has adopted EPA's Phase II regulatory threshold of one acre. Ecology's decision to apply the one-acre regulatory threshold in this permit is detailed in the *Municipal Stormwater NPDES Permit Program Report to the Legislature* (ECY Pub 04-10-010). Ecology sees the one-acre threshold as a practical starting point for local jurisdictions starting a SWMP from scratch; it is a reasonable threshold for requiring plan reviews. This permit requires Permittees to apply the technical thresholds in the manual only in instances where projects exceed the one-acre disturbance threshold in the federal rules. For example, if a project will disturb more than one acre, then the project will need to evaluate whether the technical thresholds in Appendix 1 apply. If the one-acre disturbance threshold is not exceeded, the municipality is not required by this permit to apply the project-size thresholds in Appendix 1 to determine stormwater requirement for that projects.

Ecology encourages Permittees to apply the technically-based thresholds in the manual to all development projects in their jurisdiction, regardless of the land area disturbed by the project. During the public comment period on the preliminary draft permit, the concern was raised that, by limiting the requirements of this permit to projects which disturb one acre or more, some local jurisdictions will likely regulate more residential than commercial development, where commercial areas generate more pollutants. If this is anticipated to be the case, Ecology encourages local jurisdictions to use a lower regulatory threshold, such as ¼ or ½ acre, to ensure that the projects of concern to the jurisdiction are properly regulated.

S5.B.1 Public Education and Outreach

The Model Program requires jurisdictions to develop a stormwater outreach strategy that identifies and characterizes target audiences and includes information on illicit discharges and improper waste disposal. The permit is more specific in requiring: that a minimum set of specific audiences/classes of audiences be reached, that the outreach include specific information on non-stormwater discharges that are not allowed in the MS4, and that a multi-media approach be used. Ecology and EPA both provide links to public education and outreach materials and related information on their websites.

The requirements in this section of the permit did not change substantially from the preliminary draft version of the permit.

S5.B.2 Public Involvement and Participation

The Model Program requires jurisdictions to hold at least two meetings and publish two notices during the first year to solicit review of the SWMP. The permit does not require a certain number of meetings or notices but instead requires: adoption of a policy or directive to create opportunities for public involvement in developing the SWMP; development and implementation of a process for soliciting comments on the SWMP; and, if the jurisdiction maintains a website, posting the current SWMP on the jurisdiction's website.

The requirements in this section of the permit did not change substantially from the preliminary draft version of the permit.

S5.B.3 Illicit Discharge Detection and Elimination

The requirements of the Model Program and this component of the SWMP in the permit are generally the same, including: create a map of the MS4; prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges to the MS4; conduct field assessments and dry-season inspections; develop a spill response plan and procedures to characterize, trace, and remove illicit connections and discharges, and enforcement plan; and train staff.

Federal regulations define an illicit discharge as "any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities" (40 CFR122.26(b)(2)). Non-stormwater discharges are illicit because MS4s are not designed to accept, process, or discharge such wastes. Illicit discharges enter the MS4 through either: deliberate or mistaken, direct or indirect, illicit connections or illegal dumping.

S5.B.3.b The federal rules require municipalities to "effectively prohibit, through ordinance, or other regulatory mechanism, all non-stormwater discharges into the MS4 and implement appropriate enforcement procedures and actions" (40 CFR 122.34(b)(3)(ii)(B)). The section of the federal rules for the Illicit Detection and Elimination component of the SWMP also states:

> "You need address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if you identify them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted streamflows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need to be addressed only where they are identified as significant contributors of pollutants to waters of the United States)" (40 CFR 122.34(b)(3)(iii)).

For the preliminary draft version of this permit, Ecology proposed requiring municipalities to prohibit this entire list of non-stormwater discharges. No sanctions were required, and with the

exception of public education efforts to reduce discharges from lawn watering, landscape irrigation and individual residential car washing, the SWMP did not otherwise need to specifically address this list of non-stormwater discharges, unless any were identified as contributors of pollution to a water quality problem. The preliminary draft permit also clarified that discharges from emergency fire fighting activities, but not training exercises, are allowed in the MS4, unless they are identified as contributors of pollution to a water quality problem (see S2 *Authorized Discharges*). Ecology received significant public comments regarding this section of the preliminary draft permit, and this section has changed substantially compared with the preliminary draft version of the permit.

S5.B.3.b.iii The public comments on the preliminary draft permit included objections from municipalities who were especially concerned about the requirement that their ordinances or other regulatory mechanisms prohibit flows from sources for which there is no other reasonable method of disposal. For the revised, formal draft version of the permit, Ecology discussed these comments and determined that the following types of non-stormwater discharges are not likely significant sources of pollutants and therefore need not be addressed in any way by either the ordinances or the SWMP: diverted stream flows, rising ground waters, uncontaminated ground water infiltration, uncontaminated pumped ground water, foundation drains, footing drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, and flows from riparian habitats and wetlands. Ecology decided to also include in this list of non-stormwater discharges (that do not need to be addressed either by the ordinance or in the SWMP) irrigation water from agricultural sources that is commingled with urban stormwater, because in some areas of Washington, agricultural irrigation infrastructure has become part of the MS4 and it would be unreasonably burdensome (and not beneficial to water quality) to separate out these discharges.

S5.B.3.b.iv Many commenters objected to the requirements proposed in the preliminary draft permit for discharges from water line flushing, hydrant testing, and dechlorinated swimming pool discharges. Water line flushing and hydrant testing are common, required practices in all municipalities. In considering how to respond to these comments, Ecology met with water purveyors to better understand common practices and methods available for containment and reuse of water and for dechlorination of released water. For the revised, formal draft of the permit, Ecology established a required concentration of less than or equal to 0.1 ppm chlorine for these discharges and for dechlorinated swimming pool discharges. This concentration is the detection limit for simple, easy-to-use field test kits. Ecology believes that this level of dechlorination is achievable through the application of widely accepted industry practices for dechlorination. Ecology also believes that this level of pretreatment will prevent these discharges from becoming significant contributors of pollutants.

This section specifies that as long as the municipality is reducing such discharges through public education efforts, water conservation efforts, and minimization of municipal use, the ordinances do not need to prohibit discharges from: lawn watering, landscape irrigation, and street wash water, dust control water and building wash down that does not use detergents.

Many commenters were concerned about the prohibition of discharges from individual residential car washing. Ecology believes that the prohibition is appropriate. The requirement to prohibit these discharges does not establish a local priority or define a required approach to

addressing these discharges; it merely prevents individual residential car washing from being considered an insignificant discharge. Ecology generally expects municipalities to emphasize public education rather than punitive enforcement to reduce these discharges. Best management practices, such as directing runoff to vegetated areas where it can infiltrate, are easy to implement in order to reduce the environmental impact of these discharges.

The list of non-stormwater discharges in the federal Phase II rule is used differently in this permit from the way it is applied in the *Industrial* and *Construction Stormwater General Permits* issued by Ecology. The entire list is conditionally approved at construction and industrial sites (and therefore NPDES permitted).

S5B.3.c.ii Field assessments should be conducted using *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004, or an equivalent methodology.

As an ongoing activity, but not as a requirement of the permit, Permittees should identify areas of industrial activity served by the MS4 that require coverage under the Industrial General Permit, determine whether coverage has been obtained, and inform the Department if coverage has not been obtained.

S5.B.3.d.ii Ecology expects the following information will be summarized and included in the Permittee's annual report: the number of calls received, the general categories of callers' complaints, the number of complaints that were resolved in a timely fashion, and the reason for difficulty in responding to some categories of complaints.

S5.B.4 Construction Site Stormwater Runoff Control

The requirements of the Model Program and this component of the SWMP in the permit are generally the same, including: adoption of an ordinance or other regulatory mechanism to require stormwater runoff controls at construction sites (using the BMPs from the *Stormwater Management Manual for Eastern Washington*, or an equivalent document); review of site plans; site inspections; a phone number to get information from the public; and training.

Following consideration of the comments Ecology received on the preliminary draft version of this permit, Ecology decided to allow an extra year for Permittees to adopt the ordinance or other regulatory mechanism required in this section of the permit. The ordinance is now required to be adopted within three years of the effective date of the permit. Ecology also decided to require Permittees to implement their plan review and approval, inspection, and enforcement programs no later than four years after the effective date of the permit. This allows each Permittees more time to develop a regulatory program but means that the program will be implemented sooner (one year as opposed to three years) after the ordinance or other regulatory mechanism is adopted by the Permittee.

Federal regulations require Permittees to develop, implement, and enforce a program to reduce pollutants in stormwater runoff from construction activities. This requirement is limited to projects which disturb one acre or more. Permittees are not required to regulate projects of less than one acre unless the smaller project is part of a common plan of development or sale that is greater than one acre.

With the exception of local review of SWPPPs, Ecology's intent was to make the requirements for developers the same under both this permit and under the *Construction Stormwater General Permit*. Local governments may add additional requirements.

The local government must have authority to inspect private sites – just as they have authority to inspect other building requirements – and all regulated private construction sites must be inspected at least once during the construction phase of the project. A site operator with coverage under the *Construction General Stormwater Permit* must inspect the site at least weekly to ensure that BMPs are implemented correctly and are adequate to protect water quality.

The federal rules require that enforcement actions escalate if necessary to correct a problem discharge. Ecology will not establish a minimum level of appropriate sanctions for enforcement of these requirements; that is left to local jurisdictions. The ordinances enacted by the local jurisdictions during this permit cycle will be reviewed as part of the process for reissuing the permit.

Permittees are not required to provide training to private site operators. A list of training programs approved by Ecology is available at www.ecy.wa.gov/programs/wq/stormwater/certified_erosion_and_sediment_c.htm

S5.B.5 Post-Construction Stormwater Management for New Development and Redevelopment

The requirements of the Model Program and this component of the SWMP in the permit are generally the same, including: adoption of an ordinance or other regulatory mechanism to require post-construction stormwater runoff controls at new development and redevelopment sites (using the BMPs from the *Stormwater Management Manual for Eastern Washington*, or an equivalent document); plan review; site inspections; and training.

Following consideration of the comments Ecology received on the preliminary draft version of this permit, Ecology decided to allow an extra year for Permittees to adopt the ordinance or other regulatory mechanism required in this section of the permit. The ordinance is now required to be adopted within three years of the effective date of the permit. Ecology also decided to require Permittees to implement their plan review and approval, inspection, and enforcement programs no later than four years after the effective date of the permit. This allows Permittees more time to develop their regulatory programs but means that they will be implemented sooner (one year as opposed to three years) after the ordinance or other regulatory mechanism is adopted by each Permittee.

S5.B.5.a.ii Each Permittee must define a consistent approach to stormwater facility design for most projects. Ecology recommends that jurisdictions that do not already have such standards in place engage in a public process with local design engineers and other interested parties to determine the most appropriate single method to be approved for all projects or for each of various types of projects.

Ecology intends to review regional manuals with the goal of having a single regional manual approved as an equivalent document for each of the Urban Areas covered under this permit. Local jurisdictions are encouraged to work together to determine appropriate regionally specific methods and requirements in developing such manuals.

Basis of the Stormwater Manuals: The most recent editions of the Stormwater Management Manuals for Eastern and Western Washington are the latest technical guidance from Ecology on measures to control the quantity and quality of stormwater runoff from new development and redevelopment projects. The stormwater manuals, consistent with federal stormwater regulations, represent a generic, presumptive approach to meeting federal and state water quality requirements. The presumption is the procedures and best management practices outlined in the manual will generally result in compliance with the statutes.

This generic presumptive approach to meeting water pollution control laws is intended to handle the vast majority of new and redevelopment projects. There are literally thousands of those projects every year. There aren't sufficient human resources or time to do the type of site-by-site analysis that occurs with municipal sewage treatment and industrial wastewater discharges. In addition, a site-specific analysis is difficult to perform for stormwater because of its ephemeral nature and variable pollutant concentration over the course of a discharge event. So, USEPA, some state water pollution control agencies, and some local governments have each published or adopted stormwater manuals that provide an established process for identifying appropriate prevention, treatment, and flow management practices.

However, there are instances where because of the size of a project or the sensitivity of a receiving water, or because of some other regulatory need to ensure compliance with standards (e.g., a certification under section 401 of the Clean Water Act that the discharge will comply with water quality standards), a site-specific stormwater analysis is necessary. In those instances, the appropriate level of treatment identified may be different from what is identified in the western Washington stormwater manual.

The permit allows the Permittees to adopt alternative minimum requirements, thresholds, definitions, adjustment and variance criteria as compared to those in Appendix 1, if they have been approved by Ecology as equivalent. A Permittee must demonstrate that its alternative provides equal protection of receiving waters and equal levels of pollutant control when compared to the provisions in Appendix 1. In addition, the Permittees may propose alternative site planning processes, and BMP selection and design criteria. The Permittee is obligated to demonstrate that their alternative approaches will protect water quality, meet the "maximum extent practicable" requirement of federal statutes, and meet the all known, available and reasonable methods of prevention, control, and treatment requirements of the state's Water Pollution Control Act. Permittees that choose to use the guidance in the *Stormwater Management Manual for Eastern Washington* (2004) can rely on Ecology's determinations that the manual meets the federal and state statutory requirements.

S5.B.5.a.iv The federal rules require that enforcement actions escalate if necessary to correct a problem discharge. Ecology will not establish a minimum level of appropriate sanctions for enforcement of these requirements; that is left to local jurisdictions.

S5.B.5.e Permittees are not required to provide training to design professionals. However, they must provide information to design professionals about training available on how to comply with the Minimum Technical Requirements in Appendix 1 and the BMP selection, design, installation, and operation and maintenance criteria in the *Stormwater Management Manual for Eastern Washington* (2004), or an equivalent document. This training should be provided by

Ecology, a Permittee, a contractor for Ecology or a Permittee, or by other private design professionals in cooperation with Ecology or a Permittee. The requirement to provide design professionals information about training is ahead of the timeline for other public outreach elements because design professionals should be educated about the Minimum Technical Requirements in advance of the requirement, through ordinance or other regulatory mechanism, that they apply these new design standards to projects.

S5.B.6 Pollution Prevention and Good Housekeeping for Municipal Operations

The requirements of the Model Program and this component of the SWMP in the permit are generally the same, including: development and implementation of an O&M plan, including; staff training; coverage of applicable projects and facilities under the Construction and Industrial General Stormwater Permits; development of Stormwater Pollution Prevention Plans for appropriate sites; keeping records of inspection and maintenance. The permit does not include the Model Program requirement to inspect and clean catch basins annually, and adds a requirement to spot check stormwater treatment and flow control facilities after major storm events (>10 year recurrence interval rainfall or snowmelt).

The O&M plan component that addresses flood management projects is not intended to include projects such as levees that are not associated with the regulated small MS4. For an existing levee that discharges to a MS4 this requirement is only intended to apply to any new (approved after the effective date of this permit) capital improvements associated with the project.

Inspections associated with the O&M plan are intended to be conducted for all stormwater treatment and flow control facilities owned, operated or maintained by the Permittee. However, Ecology recognizes that, due to unforeseen circumstances, a Permittee's staff may not meet this goal. Therefore a level of 95% of the required inspections being performed was established as the benchmark for measuring compliance with this requirement.

Appropriate schedules for municipal O&M are established in both the Model Program and in the *Stormwater Management Manual for Eastern Washington* (2004). Permittees are expected follow the appropriate technical guidance for the BMPs they select.

Projects proposed by the Permittee's own departments and agencies must comply with the requirements of S5.B.4 and S.5.B.5. Permittees are required to determine a process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

S6. STORMWATER MANAGEMENT PROGRAM FOR SECONDARY PERMITTEES

This section of the permit applies to public entities other than Cities, Towns and Counties such as ports, prison complexes, parks and recreation districts, public schools including universities, irrigation districts, flood control districts, or diking and drainage districts that own or operate a regulated municipal separate storm sewer system.

This section of the permit describes a Stormwater Management Program (SWMP) for a wide range of entities that are not Cities, Towns, or Counties, but that are subject to coverage under this permit. These Permittees, referred to as Secondary Permittees, generally do not have the

same legal authority as Cities, Towns and Counties. The populations served by Secondary Permittees at least partly coincide with the populations of the permitted Cities, Towns and Counties. Ecology encourages Secondary Permittees to seek cooperative agreements with their local jurisdiction(s) to assist in implementation of the complete SWMP. Ecology believes the SWMP for Secondary Permittees should focus on:

- The non-enforcement aspects of illicit detection and elimination (and rely on the local jurisdiction for the enforcement aspects),
- Construction and post-construction stormwater management for the Secondary Permittee's projects, and
- Pollution prevention and good housekeeping for the municipal operations of the Secondary Permittee.

Permittees are required to track, evaluate and document the actions associated with the SWMP required by the permit. Pursuant to S9 this information is required to be tracked and compiled in an annual report to Ecology. Annual report forms for Secondary Permittees are located in Appendix 4 of the permit. A summary of the requirements of this section is included in Appendix C *Required Implementation Schedule for Secondary Permittees* at the end of this Fact Sheet.

S6.A – Coordination
The permit encourages Secondary Permittees to coordinate their SWMPs with other entities within or adjacent to their MS4. The permit requires coordination among departments of the Secondary Permittee to ensure compliance with the permit.

S6.B – Legal Authority
Legal authority to control discharges into a Permittee's storm sewer system is critical for compliance. To the extent allowable under state and federal law the permit requires each Secondary Permittee to operate with sufficient legal authority to authorize the Secondary Permittee to control discharges into and from their MS4. The legal authority may be demonstrated by a combination of statutes, ordinances, permits, contracts, orders, and interagency agreements. The legal authority must be sufficient to allow the Secondary Permittee do all of the activities listed in S6.B.1 through 6 of the permit.

S6.C – SWMP Components

S6.C.1 Public education and outreach
Because the population served by most Secondary Permittees will generally be served by the public education and outreach efforts of the local jurisdiction, Ecology determined that the most useful supplement to those education and outreach efforts would be to label the Secondary Permittee's storm drain inlets. Ecology believes that ports and universities have tenants and residents that may not be as effectively served by the local jurisdiction's public education and outreach program, therefore condition S6.C.1.b is included. Where local jurisdictions' public education and outreach efforts do effectively target and reach these tenant and residential populations, ports and universities are not expected to duplicate those efforts.

S6.C.2 Public involvement and participation

Secondary Permittees have the same responsibilities as Cities, Towns and Counties to make their SWMPs available to the public and to involve the population they serve in the development of the SWMP.

The public must be included in developing, implementing, and reviewing your storm water management program and the public participation process must comply with State, Tribal and local public notice requirements. Copies of the public notice published to comply with S.6.C.2.a must be provided to Ecology.

The latest updated version of the SWMP must be made available online to the public if the Secondary Permittee maintains a website, or the Secondary Permittee may choose to post the SWMP on the local jurisdiction's website.

S6.C.3 Illicit discharge detection and elimination (IDDE)

IDDE is one of the most important components of the SWMP for any Permittee to reduce pollutants in discharges from their MS4. This section describes the necessary elements of an IDDE program for Secondary Permittees. Secondary Permittees should focus their efforts on mapping their stormwater systems, developing and implementing appropriate IDDE policies and procedures, and training their staffs. Some Secondary Permittees will be able to rely on the local jurisdiction for enforcement actions; others will have to develop enforcement programs and implement appropriate enforcement actions to the extent that they have legal authority.

Federal regulations define an illicit discharge as "any discharge to an MS4 that is not composed entirely of stormwater runoff" with some exceptions. Non-stormwater discharges are illicit because MS4s are not designed to accept, process, or discharge such wastes. Illicit discharges enter the MS4 through deliberate or mistaken, direct or indirect, illicit connections or illegal dumping. Progress toward developing and implement the program must be reported in the annual report.

The Center for Watershed Protection has researched cost effective and efficient discharge detection techniques currently in use around the country. Their findings are synthesized into specific guidelines on illicit discharge identification and removal in *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, a comprehensive manual that outlines practical, low cost, and effective IDDE techniques. This manual is available at www.cwp.org/idde_verify.htm.

S6.C.4 Construction site stormwater runoff control

The purpose of this SWMP component is to prevent sediment and other pollutants from entering the MS4 during the construction phase of development projects. In general, this section relies on Secondary Permittees obtaining coverage under, and complying with, the *Construction Stormwater General Permit* administered by Ecology for their own construction projects. To the extent that they have the legal authority, Secondary Permittees must also require other entities discharging to their MS4 to obtain and comply with the Minimum Technical Requirements in Appendix 1, Core Element #2 during the construction phase of their projects.

S6.C.5 Post-construction stormwater management for new development and redevelopment

The purpose of this SWMP component is to prevent and reduce the amount of pollutants entering the MS4 following the construction phase of development projects. The Minimum Technical

Requirements in Appendix 1 provide a basis for selecting and implementing appropriate best management practices (BMPs) to accomplish this through design approaches, structural treatment technologies, and operation and maintenance practices.

S6.C.6 Pollution prevention and good housekeeping for municipal operations
The municipal operation and maintenance (O&M) plan required to be developed under this component of the SWMP is one of the most important programmatic activities for any Permittee to reduce pollutants in discharges from their MS4. This section of the permit requires Secondary Permittees to evaluate their day-to-day activities and evaluate what BMPs they can implement to reduce stormwater pollution from those activities. Employee training is a critical aspect of this SWMP component. Training can be done in-house or by outside consultants, depending on the size of staff, area served and expertise available. The training must be on-going as needed and reported in the annual report. Ecology and EPA both provide links to training materials and information on their websites.

S7. COMPLIANCE WITH TOTAL MAXIMUM DAILY LOAD (TMDL) ALLOCATIONS

Under some circumstances, when the water quality of a water body is impaired, the federal Clean Water Act requires States to set limits on the amount of pollutants that the water body receives from all sources. States may also set limits on pollutant loads when water bodies are threatened. These limits are known as Total Maximum Daily Loads (TMDLs). TMDLs differ from commonly used technology-based or water quality-based numeric limits for individual discharges. A TMDL is developed through a defined process through which the maximum amount of a pollutant that may be discharged from all sources to a water body without causing violations of water quality standards is identified. Then pollutant control strategies are developed to keep the pollutant loading below that level. The strategies include numeric Waste Load Allocations (WLAs) for NPDES permitted dischargers and Load Allocations (LAs) to control the loads from nonpoint sources.

Stormwater discharges covered under this permit are required to implement actions necessary to achieve the pollutant reductions called for in applicable TMDLs. Applicable TMDLs are TMDLs which have been approved by the EPA before the issuance date of the permit or which have been approved by the EPA prior to the date the permittees application is received by Ecology. A list of all applicable TMDLs and potentially applicable TMDLs reviewed for this permit is included in Appendix D *List of Total Maximum Daily Loads (TMDLs) Reviewed* at the end of this Fact Sheet. Information on Ecology's TMDL program is available on Ecology's website at www.ecy.wa.gov/programs/wq/tmdl.

All TMDLs approved by EPA before February 15, 2006 were reviewed by Ecology to determine whether stormwater including municipal stormwater sources were identified in the TMDL. When most of these TMDLs were developed, municipal stormwater was considered a subset of non-point dischargers, rather than a permitted discharge. As a result, very few TMDLs statewide contain requirements for municipal stormwater sources. None of the TMDLs completed to date established load allocations or waste load allocations for municipal stormwater discharges covered under this permit.

Ecology is interpreting TMDL requirements as follows:

- For TMDLs where stormwater was not identified as a source of the pollutants of concern, or if all of the sources were defined in the TMDL, Ecology considers the MS4 not to be a significant contributor of pollutants.

- Where stormwater was identified as a source of pollutants and the TMDL or implementation plans developed to support the TMDL identified control measures were less than or equivalent to the requirements of this permit, Ecology sets a narrative effluent limit: "compliance with the permit compliance constitutes compliance with the TMDL."

- If stormwater was identified as a source of pollutants and specific WLAs, LAs or control measures were established, Ecology must develop effluent limits in addition to the other requirements of the permit. These effluent limits may be narrative or numeric depending on the control measures set by the TMDL or implementation plans.

Where a TMDL or the detailed implementation plan developed for the TMDL identifies actions or activities beyond what is required by this permit, Ecology has identified the additional requirements in Appendix 2 of the permit for all TMDLs approved by EPA prior to February 15, 2006. Appendix 2 of the permit lists the cities and counties affected by the TMDL. Secondary permittees that are subject to additional TMDL related requirements will be notified at the time of permit coverage.

When TMDL related monitoring is required, permittees are required to develop a quality assurance project plan. Quality assurance project plans (QAPPs) must be submitted to Ecology for review and approval. For detailed guidance on writing QAPPs, see *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies* (ECY Pub. No. 04-03-030) available on Ecology's website at www.ecy.wa.gov/biblio/0403030.html.

Implementation of all TMDLs approved by EPA prior to the date of issuance of this permit, or prior to the date of application, is required by all Permittees. Appendix 2 will be updated in the final permit.

Ecology did not require automatic implementation of TMDLs completed after a Permittee is covered under this permit because doing so would deny the opportunity for public comment on additional permit requirements based on a new TMDL. For TMDLs that are approved by EPA after the permit is issued, Ecology may establish TMDL-related permit requirements through a formal permit modification or through the issuance of an administrative order. Ecology's decision to enforce requirements of TMDLs completed after the issuance of the permit will be based on the determination that implementation of actions, monitoring or reporting necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets, are not occurring and must be implemented during the term of the permit. For this reason, Permittees are encouraged to participate in development of TMDLs within their jurisdiction and to begin implementation where appropriate.

S8. MONITORING AND PROGRAM EVALUATION REQUIREMENTS

Federal rules require Permittees to have a monitoring program to detect illicit discharges; and to evaluate: program compliance, appropriateness of BMPs, and progress toward achieving measurable goals. The rules intend this monitoring to influence changes in SWMPs to better protect water quality. The types of monitoring needed may be broken down into two major categories: compliance monitoring and environmental effectiveness monitoring. Compliance monitoring, including documentation of achieving measurable goals and qualitative assessment of the effectiveness of BMPs, is required as part of this permit.

Most of this section was added to the permit after consideration of the comments received on the preliminary draft version of the permit. The preliminary draft version of this permit required Permittees to submit priorities for future studies.

S8.A Stormwater monitoring is not required by this section of the permit. Monitoring may be required for implementing the illicit detection and elimination program in S5.B.3 or in S6.C.3 for a particular Permittee, or for implementing approved TMDLs pursuant to section S7 *Compliance with Total Maximum Daily Load (TMDL) Allocations* and Appendix 2.

S8.B Although no information is required to be collected, a summary of any stormwater monitoring done by on behalf of a Permittee must be submitted to Ecology. Ecology needs to know what information is being gathered in order to coordinate monitoring efforts, avoid duplication, and keep abreast of the latest findings. Stormwater monitoring information will be helpful in developing and making decisions on future permits and to consider whether revisions and updates to the *Stormwater Management Manual for Eastern Washington* (2004) may be necessary.

S8.C Preparation for future, long-term monitoring

The implementation of this permit to protect water quality requires Permittees and Ecology to engage in adaptive management, which means constantly evaluating what is being done, finding what works and what does not work, and changing what is being done based on what is learned. Stormwater management programs require a substantial expenditure of funds at both the local and state levels, and by private development. The public deserves to know whether these funds are being spent effectively. It is also important to know whether these stormwater programs are adequate to protect aquatic resources, and whether progress is being made toward reducing existing stormwater impacts. Ecology recommends that environmental monitoring be conducted not to determine permit compliance, but in order to help determine how the permit and SWMP should be revised as more is learned about the best way to manage stormwater.

Ecology will determine, through information gathering and in the process of developing the next permit, what, if any, environmental effectiveness monitoring will be required in the next five-year permit cycle. This permit's fourth year requirement for Permittees to identify priority areas for future evaluation will provide Ecology with some of the information that will be used in making that determination. Ecology will also solicit ideas about the extent to which the permit is the vehicle to collect this information; what are the most efficient methods by which this

monitoring can be accomplished; and what entities are most appropriate to conduct the monitoring.

In the first round of municipal stormwater (Phase I) permits issued in 1995, Ecology established four monitoring objectives:

a. Estimate concentrations and loads from representative areas or basins to be used in evaluating overall program effectiveness.
b. Evaluate the effectiveness of selected Best Management Practices.
c. Identify specific sources of pollution; and
d. Identify the degree to which stormwater discharges are impacting selected receiving waters and sediments.

At that time, it was thought that a monitoring program to adequately cover all the objectives in the first permit would be overwhelming. Therefore, Ecology allowed the Phase I Permittees to propose monitoring programs intended to achieve one or more of these objectives based upon priorities that they established for their programs. Now, Ecology finds that all the above monitoring objectives remain applicable in the long run, regardless of the Permittees' initial priorities, and despite the results of Permittees' monitoring to date.

For the second Phase I permit cycle, Ecology is requiring Phase I Permittees to develop monitoring programs that focus on the first two objectives. Accomplishment of the third objective is partially met in this permit by the illicit detection and removal program, which is covered by S5.B.3.c and for which necessary monitoring is referenced in S8.A.2. Ecology will rely on its own monitoring programs, as may be coordinated and supplemented by local government monitoring, to accomplish the fourth objective.

S8.C.1 Stormwater monitoring

Knowledge of pollutant loads and of average event mean concentrations from representative areas drained by the municipal storm sewer systems are necessary to gauge whether the comprehensive SWMPs are making progress towards the goal of reducing the amount of pollutants discharged and protecting water quality. Such data may also prove useful for establishing Water Clean-up Plans for waters not achieving water quality standards. Ecology is requiring Phase I Permittees to conduct this type of monitoring and expects the monitoring to continue well beyond this permit term. Ecology is not requiring any Phase II Permittees to conduct this type of monitoring during this permit term, but selection of appropriate sites will provide a necessary starting point for conducting such monitoring in the future, whether by the Permittees, Ecology, or a third party.

Based on a review of 2000 census data (and, for the more recently incorporated City of Spokane Valley, from the April 1, 2003 population estimate posted on their website), Ecology estimates that as many as 47 outfalls or conveyances representing commercial, industrial, and various-density residential land uses will be identified for long-term monitoring. To "represent" a particular land use, no less than 80% of the area served by the outfall or conveyance should be classified as having that land use.

S8.C.2 Stormwater Management Program (SWMP) Effectiveness Monitoring

This part of the monitoring requirements allows the Permittees to select two specific aspects of their SWMP for evaluation. For each aspect, Permittees are asked to prepare to evaluate the effectiveness of a specific action and/or success at achieving a targeted environmental outcome. In both cases, monitoring of stormwater or receiving water characteristics will be necessary. Monitoring of indirect measures of success such as improvements in regulatory processes, quality or timing or programmatic actions, or changes in behavior may also be accomplished as an indirect indicator of effectiveness.

The permit lists six major components to a SWMP. To implement any single component requires an administrative structure and an implementation strategy of multiple parts. Monitoring of a "specific action" is aimed at having the Permittees establish a feedback loop for a specific component or part of a component. The intent is to do sufficient investigation to determine if a specific action is making an effective contribution to achieving the overall stormwater program and permit goals. Examples could include: improvements in stormwater quality or quality of sediments in stormwater discharges; reduction in frequency of high flows; reduction in frequency of spills.

Monitoring of a "targeted outcome" is intended to establish a feedback loop concerning the effectiveness of all or a subset of the SWMP in achieving a specific environmental outcome. Examples of a targeted outcome include: reducing discharge of certain pollutants by a targeted percentage, below a certain concentration, or below a targeted annual load amount; or re-establishment of a sustaining native fish population.

In either or both of the "actions" and "targeted outcomes" categories, all Permittees are required to select issues for study that have significance for them.

S8.C.3 Runoff Treatment Best Management Practice (BMP) Effectiveness Monitoring

On a smaller scale, Permittees and Ecology also need to determine the effectiveness of specific treatment BMPs in reducing pollutant discharges in stormwater runoff. The state and local stormwater manuals include lists of treatment BMPs that are to be applied in new development and re-development projects. Though most of these treatment types have been recommended and in common use for many years, only incomplete information is available about their pollutant removal capabilities. We have some confidence that they are based on sound engineering concepts, but we do not know how well they perform in relation to one another. Without a feedback loop of performance, we cannot confirm which BMPs perform best for certain pollutants. This also makes it difficult to estimate pollutant loadings and expected pollutant reductions that are necessary to implement TMDLs. Without the feedback loop, there is not a good basis for altering design criteria in order to improve BMP performance.

Not many studies have been done in eastern Washington on facilities that have been constructed using design criteria in the stormwater manuals. General performance information on categories of treatment BMP's (*e.g.*, wet ponds, dry ponds, biofiltration swales) from data collected around the country are available. But the collectors of that data acknowledge its limited usefulness because of the broad range of designs and design criteria used around the country; and also

because of regional variations in rainfall patterns and soil types. Studies must be performed to improve our knowledge of the capabilities and limitations of the BMPs that we have been using to reduce the pollutant impacts of our developments.

This section of the permit requires that each Permittee, depending on its size, select one or two BMPs that are standard technologies in the *Stormwater Management Manual for Eastern Washington* (2004) for detailed performance monitoring. For this permit Ecology estimates that, based on a review of 2000 census data (and, for the more recently incorporated City of Spokane Valley, from the April 1, 2003 population estimate posted on their website), as many as 23 sites will be identified for BMP effectiveness monitoring. The permit lists 16 BMPs of interest, and Ecology hopes that many different types of BMPs will be selected for monitoring by local jurisdictions. Ecology encourages local jurisdictions located in the same Urban Areas to work together to identify sites from which data would support future development and updates of regional stormwater manuals.

S9. REPORTING AND RECORD KEEPING REQUIREMENTS

Each Permittee shall submit annual reports using the appropriate form provided in either Appendix 3 or Appendix 4 of the permit. In the report, the Permittee shall describe the status of their compliance with all provisions of this permit. These forms were developed from the form in the Model Program, with revisions and additions as necessary based on the requirements of this permit and the consideration that the SWMPs in this permit are based on a different model than was laid out by EPA (see the discussion at the beginning of the "Explanation of Permit Conditions" section of this Fact Sheet).

Permittees are required to retain records of all monitoring information for a minimum of five years. Such information shall include all plan review, inspection, enforcement, and maintenance records. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology. Permittees are required to make all this and other relevant information available to the public under reasonable conditions.

The requirements of this section of the permit did not change significantly from the preliminary draft, but it was separated out from the S8 of the earlier version and more detail is requested in the annual reports for all Permittees. The first annual report is due one year later than was anticipated in the preliminary draft version of the permit.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations have been standardized for all municipal stormwater NPDES permits issued by Ecology.

G1. DISCHARGE VIOLATIONS – This condition prohibits discharges that violate the terms and conditions of this permit.

G2. PROPER OPERATION AND MAINTENANCE – This condition requires the Permittee to operate and maintain all stormwater pollution control facilities and system with terms and condition of this permit.

G3. NOTIFICATION OF SPILL – This condition requires the Permittee notify Ecology immediately of all spills that may threat human health and environment within no later than 24 hours.

G4. BYPASS PROHIBITED – This condition prohibits bypass from treatment unless certain conditions exist, in accordance with 40 CFR 122.41(m).

G5. RIGHT OF ENTRY – This condition requires the Permittee to allow Ecology to access the facilities and conduct inspections of the facilities and records related to this permit, in accordance with 40 CFR 122.41(i), Chapter 90.48.090 RCW, and WAC 173-220-150(1)(e).

G6. DUTY TO MITIGATE – For discharges with reasonable likelihood of adversely affecting human health or the environment, this condition requires the Permittee to take all reasonable steps to minimize or prevent any discharge in violation of this permit.

G7. PROPERTY RIGHTS – This condition specifies that this permit does not convey property rights or other privileges, in accordance with 40 CFR 122.41(g).

G8. COMPLIANCE WITH OTHER LAWS AND STATUTES – This condition prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations, in accordance with 40 CFR 122.5(c).

G9. MONITORING – This permit contains certain sets of monitoring requirements to insure compliance. The monitoring shall be based on representative samples of the discharge that must also include the actual flow. The samples shall be tested by an accredited laboratory based on certain pre-prescribed procedures and the results shall be retained by the Permittee for five years, or longer in case of enforcement or other litigations.

G10. REMOVED SUBSTANCES – This condition prohibits the reintroduction of removed substances back into the storm sewer system or to waters of the state, in accordance with 40 CFR 125.3(g), Chapter 90.48.010 RCW, Chapter 90.48.080 RCW, WAC 173-220-130, and WAC 173-201A-040.

G11. SEVERABILITY – This condition invokes severability of permit provisions in accordance with Chapter 90.48.904 RCW.

G12. REVOCATION OF COVERAGE – This condition identifies conditions for revoking coverage under the general permit in accordance with 40 CFR 122.62, 40 CFR 124.5, WAC 173-226-240, WAC 173-220-150(1)(d), and WAC 173-220-190.

G13. TRANSFER OF COVERAGE – This condition identifies the requirements for transfer of permit coverage in accordance with 40 CFR 122.41(l)(3) and WAC 173-220-200.

G14. GENERAL PERMIT MODIFICATION AND REVOCATION – This condition identifies conditions for revoking coverage under the general permit in accordance with 40 CFR 122.62, 40 CFR 124.5, WAC 173-226-240, WAC 173-220-150(1)(d), and WAC 173-220-190.

After the final permit is issued it may be modified at the request of a Permittee or other entity. Ecology may issue an administrative order if it is deemed urgent to implement the requirements of a newly approved TMDL before it is time to reissue this permit. Ecology also may initiate a permit modification if new information becomes available during the permit term that should be considered prior to renewal of the permit, such as a substantive change to the Minimum Technical Requirements in Appendix 1. Permittees will have an opportunity to appeal any administrative order or permit modification.

In accordance with WAC 173-226, any interested party may request to modify the provisions of this permit. Ecology will determine whether the requested modification constitutes a minor modification of the permit. A request for modification which meets the criteria for a minor modification under 40 CFR 122.63 will be processed as a minor permit modification. Any request which does not meet the criteria for a minor permit modification will be processed as a formal permit modification.

Ecology will process permit modifications as time and resources allow. Ecology reserves the right to solely determine whether to modify this permit and the relative priority for processing proposed permit modifications. Priority will be placed on proposed permit modifications which will provide the greatest environmental benefit or the greatest efficiency/cost savings without compromising environmental benefit. Proposed modifications benefiting multiple Permittees will generally receive higher priority than proposals affecting a single Permittee.

Permittees requesting a more timely modification of this permit shall provide the necessary funding to cover the costs associated with reviewing and processing the modification if Ecology agrees to a more timely modification.

The process for a permit modification at the request of a Permittee is described below:

1. This permit may be modified according to the following modification review and approval process:
    a. In accordance with WAC 173.226, a Permittee may request to modify the provisions of this permit. Ecology will determine whether the requested modification constitutes a minor modification of the permit. Requests for modifications which meet the criteria for a minor modification under 40 CFR 122.63 will be processed as a minor permit modification. All requests which do not meet the criteria for a minor permit modification will be processed as a formal permit modification.
    b. For minor permit modifications, Ecology will review the request for completeness and will either: approve, approve with changes, or deny the request for a permit modification. Ecology will notify the Permittees of its

determination within 90 days of receipt of a complete (see 3 below) permit modification request.

c. For permit modifications other than minor permit modifications, Ecology will review the request for completeness and will either: tentatively approve, tentatively approve with changes, or deny the request for a permit modification. Ecology will notify the Permittees of its determination within 90 days of receipt of a completed request.

d. If Ecology tentatively approves, or tentatively approves with changes, the request for a permit modification Ecology will follow the procedures for permit modification contained in 40 CFR 122.62 and in chapter 173-226 WAC.

e. Any final approval or disapproval of a modification request shall constitute an Agency Action under RCW 43.21B.110(1)(c).

2. Ecology will process permit modifications as time and resources allow. Ecology reserves the right to solely determine whether to modify this permit and the relative priority for processing proposed permit modifications. Priority will be placed on proposed permit modifications which will provide the greatest environmental benefit or the greatest efficiency/cost savings without compromising environmental benefit. Proposed permit modifications benefiting multiple permittees will generally receive higher priority than proposals affecting a single permittee.

   Permittees requesting a more timely modification of this permit shall provide the necessary funding to cover the costs associated with reviewing and processing the modification if Ecology agrees to a more timely modification.

3. Permittees may request a modification of the SWMP performance measures and/or the implementation schedules in this section in accordance with the following:

   All requests for modifications shall include, at a minimum, the following information:

   a. The Permittee(s) requesting the permit modification and whether the proposed modification would be applicable to other permittees covered under the permit;

   b. The specific permit conditions that are the subject of the request;

   c. A description of the proposed alternative requirements or schedule and reasons a permit modification is requested;

   d. A description of how the alternative proposal will result in equivalent or better environmental benefit;

   e. Objective measures for determining permit compliance equal to the original permit requirement; and

   f. A description of how the alternative proposal will provide an equivalent level of legal and technical justification as the initial requirement, including how on-going implementation of the proposed alternative reduces the discharge of pollutants to the maximum extent practicable and protects water quality.

A complete request for modification is a request which contains all of the relevant requirements of this section and any such other information Ecology determines necessary to evaluate the request. Complete modification requests shall be submitted to:

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

G15. REPORTING A CAUSE FOR MODIFICATION AND REVOCATION – This condition requires the Permittee to notify Ecology when facility changes may require modification or revocation of permit coverage in accordance with 40 CFR 122.62(a), 40 CFR 122.41(l), WAC 173-220-150(1)(b), and WAC 173-201A-060(5)(b).

G16. APPEALS – This condition defines appeal options for the terms and conditions of the general permit and of coverage under the permit by an individual discharger, in accordance with Chapter 43.21B RCW and WAC 173-226-190.

G17. PENALTIES – This condition describes the penalties for violating permit conditions in accordance with 40 CFR 122.41(a)(2). Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation. Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G18. DUTY TO REAPPLY – This condition requires the Permittee to reapply for coverage 180 prior to the expiration date of this General Permit in accordance with 40 CFR 122.21(d), 40 CFR 122.41(b), and WAC 183-220-180(2). An expired permit continues in force and effect until a new permit is issued or until Ecology cancels the permit; only Permittees who have reapplied for coverage under this permit are covered under the continued permit. This condition is derived from Chapter 90.48.170 RCW.

G19. CERTIFICATION AND SIGNATURE – This condition requires responsible officials or their designated representatives to sign submittals to Ecology in accordance with 40 CFR 122.22, 40 CFR 122.22(d), WAC 173-220-210(3)(b), and WAC 173-220-040(5).

APPENDICES

APPENDIX 1 – Minimum Technical Requirements for Stormwater Management at New Development and Redevelopment Sites

Ecology published the *Stormwater Management Manual for Eastern Washington* (ECY Pub. No. 04-10-076) in September 2004 following a several year, open process that involved representatives of local government, developers, and other interested parties. The manual represents the best available guidance on proper stormwater management at the time of publication. It is intended to provide a commonly accepted set of practices for properly managing stormwater at new development and redevelopment sites to prevent adverse water quality impacts. The Best Management Practices (BMPs) included in the manual address at least three of the federal "six plus two" minimum requirements: Construction Site Stormwater Runoff Control, Post-Construction Stormwater Management, and Pollution Prevention and Good Housekeeping for Municipal Operations. The portions of the manual that apply have been used as a starting point for permit requirements.

The manual itself does not have any independent regulatory authority and does not establish any regulatory requirements or standards. However, Ecology has always intended that elements of the manual or the manual itself (or an equivalent document) would be part of the requirements of this permit. In the *Municipal Stormwater NPDES Permit Program Report to the Legislature January 2004* (ECY Pub. No. 04-10-010), Ecology proposed to evaluate the eight "Core Elements of Stormwater Management" that are described in the manual to determine whether they are appropriate for inclusion in this permit. Ecology's justification for including the Core Elements in the permit is not simply that they are part of the manual, but rather because they satisfy the technical and regulatory standards for the permit. See the discussion of the basis for Ecology's stormwater manuals in section S5.B.5.a.ii of this Fact Sheet.

The contents of this Appendix are based on the *Stormwater Management Manual for Eastern Washington* (2004) but differ from the manual in three significant ways:

- First, the technical threshold requirements in the *Stormwater Management Manual for Eastern Washington* (2004) for applying the BMPs are different from the federal regulatory threshold requirements: the permit only requires the Core Elements to be applied to projects that meet the regulatory threshold.

- Second, Ecology's intent is to make the requirements for developers the same under both this permit and under the *Construction Stormwater General Permit*. The formal draft version of that permit is somewhat different from the section of Chapter 7 in the manual detailing the "Twelve Elements" of Construction Stormwater Pollution Prevention. For this permit, Ecology has included the common sections or language used in both the *Construction Stormwater General Permit* and in the manual. Ecology believes this will result in easier compliance with and implementation of both permits by the regulated community.

- Third, for the other Core Elements, only a subset of the requirements of the *Stormwater Management Manual for Eastern Washington* (2004) are included. There also are some minor wording changes intended to clarify what Ecology expects Permittees to require in

their ordinances and plan reviews, but a developer who is adhering to the requirements of the *Stormwater Management Manual for Eastern Washington* (2004) would still be in compliance with the permit requirements for the local jurisdictions.

Ecology intends, by using this approach to reference the manual in the permit, to make it clear that the rest of the manual is merely technical guidance. Including the Appendix with the permit also allows public comment on the substantive requirements in the Appendix; those requirements may be challenged specifically as part of the process of developing an issuing the permit. Including these Minimum Technical Requirements also: makes it unambiguous that, in order to meet the requirements of this permit, equivalent manuals do not have to be identical to the *Stormwater Management Manual for Eastern Washington* (2004); makes clear what Ecology's expectations will be for approving equivalent manuals; and also serves to subject the major requirements for approval to public comment.

Core Element #1
Stormwater management is most successful when integrated into project planning and design. Projects are expected to demonstrate compliance with the applicable Core Elements through preparation of a Stormwater Site Plan.

Projects proposed by departments and agencies within the local jurisdiction must comply with this requirement. The local jurisdiction shall determine the process for ensuring proper project review, inspection, and compliance by its own departments and agencies.

Core Element #2
Runoff from project sites during the construction phase can contribute quantities of sediment and other contaminants sufficient to result in water quality violations. Sediment-laden runoff can enter newly constructed drywells, reducing their infiltration capacity and lifetime of operation or increasing maintenance costs.

Controlling erosion and preventing sediment and other pollutants from leaving the project site during the construction phase is achievable through implementation of selected Best Management Practices (BMPs) that are appropriate both to the site and to the season during which construction activities take place. The Construction Stormwater Pollution Prevention Plan (SWPPP) identifies project-specific guidance for preventing pollution resulting from erosion and sediment runoff during the construction phase. A well-written SWPPP provides guidance that is neither over- nor under-protective for the project site. The Construction SWPPP should include seasonally-appropriate guidance and anticipate adjustments that may be necessary in the event of delays in the construction schedule.

Core Element #3
The intent of Source Control Best Management Practices (BMPs) is to prevent pollutants from coming into contact with stormwater. Source control BMPs are a cost-effective means of reducing pollutant loading and concentrations in stormwater and should be a first consideration in all projects.

Operational source control BMPs may not be sufficient to protect wetlands from salts and other chemical anti-icers and deicers that can accumulate and impact the biological functions of a

wetland, so use of such chemicals should be limited in the areas discharging to a wetland. Separation and routing of runoff to an alternate discharge location may be necessary to protect the wetland from runoff from road and other surfaces subject to such chemical use.

Core Element #4

Natural drainage patterns should be maintained and discharges from the project site should occur at the natural location to the maximum extent practicable. Preservation of natural drainage systems provides multiple benefits for stormwater management. Creating new drainage patterns results in more site disturbance and more potential for erosion and sedimentation during and after construction. Creating new discharge points can create significant stream channel erosion problems as the receiving water body typically must adjust to the new flows. Diversions can cause greater impacts than would otherwise occur by discharging runoff at the natural location. Stormwater should be discharged in a similar manner, at the same or nearby location, and at close to the same flow rate and volume as under the conditions that existed prior to the project.

Wetlands can be severely degraded by discharges from urban development due to pollutants in the runoff and also due to disruption of the natural hydrology (especially changes in water levels and the duration of inundations) of the wetland system. Discharge of stormwater to existing jurisdictional wetlands, either directly or via a conveyance system, should be avoided unless the wetland receives surface runoff from the existing site. If possible, only stormwater from landscape and roof areas should be discharged to wetlands. The discharge must comply with all applicable Core Elements to ensure that wetlands receive the same level of protection as any other waters of the state. See Core Elements #5 Runoff Treatment and #6 Flow Control for guidelines for evaluating whether an existing wetland may be used as a runoff treatment or flow control facility.

Core Element #5

The purpose of runoff treatment is to reduce pollutant loads and concentrations in stormwater runoff using physical, biological, and chemical removal mechanisms to protect water quality so that beneficial uses of receiving waters are maintained and where applicable, restored. The most effective basic treatment BMPs remove about 80% of the total suspended solids contained in the runoff treated and a much smaller percentage of the dissolved pollutants. An analysis of the proposed land use at the project site is used to determine the pollutants of concern and the appropriate treatment method(s) to apply at the site. In some cases, additional treatment to remove oil, metals, and/or phosphorus from stormwater runoff may be required to protect water quality.

The goal of this Core Element is to treat approximately 90% of the annual runoff generated by the pollutant-generating surfaces at a project site. The total quantity of pollutants removed from the stormwater will vary greatly from site to site based on precipitation patterns, land use, effectiveness of source control, and operation and maintenance of the treatment facilities. Proper operation and maintenance of runoff treatment BMPs may be more significant than the actual volume of runoff treated in protecting receiving waters over the long term.

When site conditions are appropriate, infiltration can potentially be the most effective BMP for runoff treatment. Given sufficient treatment capacity in the vadose zone below an Underground Injection Control (UIC) facility, such as a drywell, and the water table, no pre-treatment may be

required for many of the pollutants of concern in stormwater. The criteria for determining whether pre-treatment is required for a given proposed land use and site location are explained in Chapter 5.6 of the *Stormwater Management Manual for Eastern Washington* (2004); updated guidance that supercedes this section of the manual is expected to be published by Ecology in 2006.

In some situations, full or partial dispersion may provide adequate treatment in addition to disposing of the excess runoff from a site. See the section on dispersion BMPs in Chapter 6 of the *Stormwater Management Manual for Eastern Washington* (2004) to determine whether one of these BMPs is a viable option for a specific project.

Core Element #6

The purpose of flow control is to mitigate to the maximum extent practicable the impacts of increased storm runoff volumes and flow rates on streams in eastern Washington. The intent of this Core Element is to prevent cumulative future impacts from urban runoff; the impacts of prior development and (or) flow modifications in eastern Washington are not addressed through this Manual.

Wherever possible, infiltration is the preferred method of flow control for urban runoff. Some stream habitat problems in eastern Washington result from reduced instream flows during the hot summer months. Flow control using detention basins will not address this issue and may exacerbate it; but the cumulative effect of infiltrating urban runoff should have a neutral or possibly beneficial effect.

This Core Element is targeted to smaller water bodies, especially first to third order streams or water bodies with contributing watershed areas of less than 100 square miles. These streams are more susceptible to changes in runoff patterns caused by development.

This Core Element is also targeted to wetlands. Discharges to wetlands should maintain the hydrology (depth and duration of inundation) of the existing condition in order to protect the unique vegetation and other characteristics necessary to support existing and designated uses.

Design specifications for conveyance and flood prevention are determined by local jurisdictions. This Core Element does not address those issues.

Core Element #7

Inadequate maintenance or improper operation is a common cause of failure for stormwater facilities, including drywells. To ensure that stormwater control facilities are adequately maintained and properly operated, projects are required to plan for and perform appropriate preventive maintenance and performance checks at regular intervals.

APPENDIX 2 – Total Maximum Daily Load Requirements

Although no stormwater management requirements that go beyond the requirements of this permit were identified prior to February 15, 2006, there is a possibility that such requirements might be identified prior to the issuance of this permit. Therefore, this Appendix is included as a

placeholder for future TMDLs that might include stormwater management requirements that go beyond the requirements of this permit.

APPENDIX 3 – Annual Report Form for Cities, Towns and Counties

This report form is based on the report form developed for the Model Program, with more specific information submittals identified to help Ecology ensure that progress is being made toward full implementation of the SWMP during the permit term. In reporting the SWMP implementation status, there is a separate section to be completed for each annual report.

APPENDIX 4 – Annual Report Form for Secondary Permittees

This report form is based on the report form developed for the Model Program, with more specific information submittals identified to help Ecology ensure that progress is being made toward full implementation of the SWMP during the permit term. In reporting the SWMP implementation status, there is a separate section to be completed for each annual report.

APPENDIX 5 – Notice of Intent for Coverage under National Pollutant Discharge Elimination System Municipal Stormwater General Permit

This form replaces the individual permit application form that was developed in 2002 for municipalities to submit to Ecology prior to March 10, 2003 to assist those jurisdictions in meeting their obligation to have permit coverage while Ecology did not have a general permit available. That application may still be used by municipalities intending to seek individual permits, but this Notice of Intent (NOI) must be used by entities seeking coverage under this general permit who did not apply by February 15, 2006.

This NOI was developed to help Ecology determine whether coverage under this permit is appropriate for a wide variety of potential applicants. There ten municipalities listed in S1 as potential Permittees that have not submitted applications; some of those will choose to use this NOI to apply for the permit while others may choose to apply for individual permits. Ecology expects all Secondary Permittees that apply for coverage under this permit to use this form.

Completion of the form includes proper public notice as required by WAC 173-220-050. Public comments received on the NOIs for Permittees who apply prior to April 19, 2006 will be addressed with the response to public comments in the final Fact Sheet issued with this permit.

Fact Sheet Appendix A – Entities notified by the Department of Ecology that they may be subject to this permit as Secondary Permittees

Entity	Location (County)
Ahtanum Irrigation District	Yakima
Artesia Irrigation District #8	Walla Walla
Asotin County Housing Authority	Asotin
Badger Mountain Irrigation District #402	Benton
Beehive Irrigation District	Chelan
Benton County Parks	Benton
Benton Irrigation District	Benton
Big Bend Community College	Grant
Black Sands Irrigation District	Grant
Blalock Irrigation District #3	Walla Walla
Blalock Orchard Irrigation District #12	Walla Walla
Burbank Irrigation District #4	Walla Walla
Carnhope Irrigation District #7	Spokane
Cascade Irrigation District	Kittitas
Central Washington University	Kittitas
Central Washington University, Moses Lake Center	Grant
Central Washington University, Wenatchee Center	Chelan
Central Washington University, Yakima Center	Yakima
Columbia Basin College	Franklin
Columbia Irrigation District	Benton
Consolidated Irrigation District #14	Walla Walla
Consolidated Irrigation District #19	Spokane
Country View Water/Sewer District	Benton
Department of Corrections	Benton
Department of Corrections	Spokane
Department of Corrections	Walla Walla
Department of Corrections	Yakima
Eastern Washington University	Spokane
Franklin County Irrigation District #1	Franklin
Grant County Housing Authority	Grant
Grant County Parks and Recreation District #1	Grant
Grant County Parks and Recreation District #2	Grant
Greater Wenatchee Irrigation District	Douglas
Hutchinson Irrigation District #16	Spokane
Hydro Irrigation District #9	Walla Walla
Kennewick Housing Authority	Benton
Kennewick Irrigation District	Benton
Kiona Irrigation District	Benton
Kittitas Housing Authority	Kittitas
Kittitas Reclamation District	Kittitas
Liberty Lake Sewer District #1	Spokane
Lower Squilchuck Irrigation District	Chelan
Lower Stemilt Irrigation District	Chelan
Metropolitan Park District	Douglas
Millersdale Irrigation District	Chelan

Fact Sheet Appendix A – Entities notified by the Department of Ecology that they <u>may be</u> subject to this permit as Secondary Permittees

Moab Irrigation District #20	Spokane
Model Irrigation District #18	Spokane
Mountain Shadows Sewer District	Benton
Moses Lake Irrigation District	Grant
Naches Park and Recreation District	Yakima
Naches Union Irrigation District	Yakima
North Spokane Irrigation District #8	Spokane
Orchard Avenue Irrigation District #6	Spokane
Orchard Irrigation District #10	Walla Walla
Pasco/Franklin Co. Housing Authority	Franklin
Port of Clarkston	Asotin
Port of Benton	Benton
Port of Kennewick	Benton
Port of Chelan County	Chelan
Port of Douglas County	Douglas
Port of Pasco	Franklin
Port of Moses Lake	Grant
Port of Walla Walla	Walla Walla
Port of Sunnyside	Yakima
Richland Housing Authority	Benton
Selah-Moxee Irrigation District	Yakima
Sewer District #1	Douglas
Snipes Mountain Irrigation District	Yakima
South Columbia Basin Irrigation District	Franklin
Spokane City Housing Authority	Spokane
Spokane Community College	Spokane
Spokane Falls Community College	Spokane
Stemilt Irrigation District	Chelan
Sunnyside City Housing Authority	Yakima
Sunnyside Valley Irrigation District	Yakima
Terrace Heights Sewer District #1	Yakima
Terrace Heights Irrigation District	Yakima
Trentwood Irrigation District #3	Spokane
Vera Water and Power District #15	Spokane
Walla Walla City Housing Authority	Walla Walla
Walla Walla Community College	Walla Walla
Washington State University	Whitman
Washington State University, Spokane	Spokane
Washington State University, Tri-Cities	Benton
Wenas Irrigation District	Yakima
Wenatchee City Housing Authority	Chelan
Wenatchee Heights Reclamation District	Chelan
Wenatchee Reclamation District	Chelan
Wenatchee Valley College	Chelan
Yakima City Housing Authority	Yakima
Yakima Valley Community College	Yakima

Fact Sheet Appendix A – Entities notified by the Department of Ecology that they <u>may be</u> subject to this permit as Secondary Permittees

The Department of Ecology also sent notice to the following agencies with oversight responsibilities for facilities statewide:

Department of Corrections
Office of the Superintendent of Public Instruction
Washington State Parks and Recreation Commission

Fact Sheet Appendix B – Required Implementation Schedule for Cities, Towns and Counties

Note: This Appendix is provided only as a reference tool for Permittees. The body of the Permit provides the required details of implementation of a particular action by a Permittee.

From the effective date of this permit:

- Provide information to construction site operators about training available on how to install and maintain effective erosion and sediment controls and how to comply with the requirements of Appendix 1 and apply the BMPs described in Chapter 7 of the *Stormwater Management Manual for Eastern Washington* (2004), or another technical stormwater manual approved by the Department.
- Provide information to design professionals about training available on how to comply with the requirements of Appendix 1 and apply the BMPs described in the *Stormwater Management Manual for Eastern Washington* (2004), or another technical stormwater manual approved by the Department.
- Include construction and post-construction controls selected and implemented pursuant to the requirements in Appendix 1 on all public projects approved after this date.
- Conduct spot checks for potentially damaged stormwater treatment and flow control facilities after major storm events (greater than 10-year recurrence interval rainfall or snowmelt).
- Provide adequate training for staff to carry out the SWMP.

No later than one year from the effective date of this permit:

- Adopt a program or policy directive to create opportunities for the public to participate in the decision making processes involving the development, implementation and update of the Permittee's SWMP, including development and adoption of all required ordinances.
- Develop and implement a process for consideration of public comments on the SWMP, including required ordinances.

No later than March 31 each year beginning in 2008:

- Submit an annual report. The first annual report shall cover the period from the effective date of this permit through December 31, 2007. Subsequent annual reports shall cover the previous calendar year. The reporting form in Appendix 3 shall be used.

No later than May 31 each year beginning in 2008:

- Make the latest version of the SWMP available to the public. If the Permittee maintains a website, make the latest updated version of the SWMP available to the public on the website.

No later than two years from the effective date of this permit:

- Publicize a hotline or other local telephone number for public reporting of spills and other illicit discharges; keep a record of all calls received and of all follow-up actions taken.
- Develop and adopt an ordinance or other regulatory mechanism to prohibit illicit discharges and authorize enforcement actions, including on private property.

No later than three years from the effective date of this permit:

- Begin tracking the cost of development and implementation of the SWMP.
- Begin evaluating the effectiveness of the SWMP components that have been implemented.
- Identify and characterize target audiences within the jurisdiction to meet the education and outreach goals of the SWMP.

- Complete at least one third of a map of the MS4, showing the location of all known outfalls and the names and locations of all waters of the state that receive discharges from those outfalls.
- Prioritize receiving waters for visual inspection during dry weather.
- Develop and adopt an ordinance or other regulatory mechanism to require erosion and sediment controls at new development and redevelopment projects and authorize enforcement actions, including on private property.
- Develop and adopt an ordinance or other regulatory mechanism that requires post-construction stormwater controls at new development and redevelopment projects and authorize enforcement actions, including on private property.
- Develop and implement a schedule of municipal operation and maintenance activities (an O&M Plan).
- Inspect 95% of all known stormwater treatment and flow control facilities owned or operated by the Permittee at least once.

No later than four years from the effective date of this permit:

- Complete at least two thirds of a map of the MS4, showing the location of all known outfalls and the names and locations of all waters of the state that receive discharges from those outfalls.
- Field assess three high priority water bodies for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.
- Adopt and implement procedures for Stormwater Site Plan review to ensure complete Construction Stormwater Pollution Prevention Plans (SWPPPs) are submitted by designers and that the plans include post-construction stormwater controls that incorporate consideration of potential water quality impacts.
- Adopt and implement procedures for site inspection and enforcement of construction stormwater pollution control measures.
- Adopt and implement procedures for site inspection and enforcement of post-construction stormwater control measures.
- Inspect structural BMPs at least once during installation and at least once every five years after final installation, or more frequently as determined by the Permittee to be necessary to prevent adverse water quality impacts, to ensure adequate maintenance is being performed.
- Identify outfalls or conveyances for long-term stormwater monitoring.
- Identify at least two questions for SWMP effectiveness monitoring and develop a monitoring plan.
- Identify two runoff treatment BMPs for BMP effectiveness monitoring and at least two sites per BMP.

No later than 180 days prior to the expiration date of this permit:

- Fully develop and implement the SWMP.
- Develop and implement a public education and outreach strategy that meets the goals of the SWMP.
- Distribute appropriate information about the hazards associated with illicit discharges and improper disposal of waste to target audiences identified in the public outreach strategy.
- Conduct field surveys to verify locations and identify previously unknown outfalls on priority water bodies.

- Develop and fully implement an ongoing program to detect and address non-stormwater discharges, including illegal dumping, to the MS4.
- Beginning in the fifth year of permit coverage, field assess at least one high priority water body for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges.
- Investigate (or refer to the appropriate agency) within 7 days, on average, any complaints, reports or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping; and immediately investigate (or refer) problems and violations determined to be emergencies or otherwise judged by the Permittee's staff or other Qualified Personnel to be urgent or severe.
- Initiate an investigation, within 21 days of report or discovery of a suspected illicit connection, to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection; and, upon confirmation of the illicit nature of a storm drain connection, ensure termination of the connection within 180 days, using enforcement authority as needed.
- Implement catch basin cleaning, stormwater system maintenance, scheduled structural BMP inspections and maintenance, and pollution prevention/good housekeeping practices.
- Implement all pollution prevention/good housekeeping practices established in the O&M Plan for roads, highways, and parking lots with more than 5,000 square feet of PGIS that are owned, operated, or maintained by the Permittee.
- Conduct all vehicle and equipment washing and maintenance in a self-contained covered building or in designated wash and/or maintenance areas operated to separate wash water from stormwater.
- Implement all pollution prevention/good housekeeping practices established in the O&M Plan for buildings owned, operated, or maintained by the Permittee.
- Implement park and open space maintenance pollution prevention/good housekeeping practices at all park areas and other open spaces owned or operated by the Permittee.
- Develop and implement a *Stormwater Pollution Prevention Plan* to protect water quality at each of these facilities owned or operated by the Permittee and not covered under the *General NPDES Permit for Stormwater Discharges Associated with Industrial Activities*.
- Implement provisions to address water quality considerations in the design of all <u>new</u> flood management projects that are associated with the MS4 or that discharge to the MS4, including considering use of controls that minimize impacts to site hydrology and still meet project objectives; <u>existing</u> flood management projects that are associated with the MS4 or that discharge to the MS4 shall be prioritized and at least five shall be reviewed and evaluated to determine whether changes or additions should be made to improve water quality.
- Identify other facilities that that would reasonably be expected to discharge contaminated runoff, include BMPs to protect water quality from discharges from these sites in the O&M Plan, and implement the BMPs.
- Train all employees whose construction, operations, or maintenance job functions may impact stormwater quality.

Before the expiration date of this permit:

- Complete a map of the MS4, showing the location of all known outfalls and the names and locations of all waters of the state that receive discharges from those outfalls.

- Inspect 95% of all known stormwater treatment and flow control facilities owned or operated by the Permittee at least twice.

Fact Sheet Appendix C – Required Implementation Schedule for Secondary Permittees

Note: This Appendix is provided only as a reference tool for Permittees. The body of the Permit provides the required details of implementation of a particular action by a Permittee.

From the date of permit coverage:

- Comply with all relevant ordinances, rules, and regulations of the local jurisdiction(s) in which the Secondary Permittee is located that govern non-stormwater discharges; construction phase stormwater pollution prevention measures; and post-construction stormwater pollution prevention measures, including proper operation and maintenance of the MS4.
- Prior to discharging, obtain NPDES permit coverage, where required, for all construction projects owned or operated by the Permittee.
- Provide training or coordinate with existing training efforts to educate relevant staff in erosion and sediment control BMPs and requirements, or hire trained contractors to perform the work.
- Coordinate, as requested, with the Department or the local jurisdiction to provide access for inspection of construction sites under the control of the Secondary Permittee during the active grading and/or construction period.
- Comply with the Minimum Technical Requirements in Appendix 1 to be included on all new projects owned or operated by the Permittee.
- Have NPDES permit coverage, where required, for all industrial facilities owned or operated by the Permittee.
- Provide adequate training for staff to carry out the SWMP.

No later than one year from the date of permit coverage:

- Develop and adopt appropriate policies prohibiting illicit discharges and illegal dumping; identify possible enforcement mechanisms.

No later than March 31 each year beginning in 2008:

- Submit an annual report. The first annual report shall cover the period from the effective date of this permit through December 31, 2007. Subsequent annual reports shall cover the previous calendar year. The reporting form in Appendix 4 shall be used.

No later than eighteen months from the date of permit coverage:

- Develop and implement an enforcement plan using the enforcement mechanisms identified during the first year to ensure compliance with illicit discharge policies.

No later than two years from the date of permit coverage:

- Each year, conduct field inspections and visually inspect for illicit discharges during dry weather at one third (on average) of all known outfalls that discharge to surface waters.

No later than three years from the date of permit coverage:

- Label at least 50% of all storm drain inlets owned or operated by the Permittee that are located in maintenance yards, in parking lots, along sidewalks, and at pedestrian access points.
- Public ports, colleges and universities: each year, distribute educational information to tenants and residents about the impact of stormwater discharges on receiving waters and steps that can be taken to reduce pollutants in stormwater runoff.
- Develop and implement a municipal operation and maintenance (O&M) plan that includes all of the relevant components listed in S6.C.6.a.i through viii.

Fact Sheet Appendix C – Required Implementation Schedule for Secondary Permittees

No later than 180 days prior to the expiration date of this permit:

- Fully develop and implement the SWMP.
- Label all storm drain inlets owned or operated by the Permittee that are located in maintenance yards, in parking lots, along sidewalks, and at pedestrian access points.
- Public ports, colleges and universities: each year, distribute educational information to tenants and residents about the impact of stormwater discharges on receiving waters and steps that can be taken to reduce pollutants in stormwater runoff. All relevant topics listed in S6.C.1.b.i through viii must have been addressed during the permit term.
- Publish a public notice in the local newspaper and solicit public review of the SWMP.
- Make the latest updated version of the SWMP available to the public. If the Permittee maintains a website, the SWMP shall be posted on the website.
- Develop a storm sewer system map showing all known storm drain outfalls and receiving waters and delineating the areas contributing runoff to each outfall.
- Develop and implement procedures to identify and remove any illicit discharges discovered during inspections.
- Develop and implement a spill response plan that includes coordination with a qualified spill responder.
- Provide staff training or coordinate with existing training efforts to educate all relevant staff on proper best management practices for preventing spills and illicit discharges.
- Train all employees whose construction, operations, or maintenance job functions may impact stormwater quality. Training shall address the topics listed in S6.C.6.c.i through vi.

Fact Sheet Appendix D – List of TMDLs reviewed for this Draft Permit

U.S. Environmental Protection Agency-Approved Total Maximum Daily Loads (TMDLs) and other TMDLs that could be completed before this permit is issued				
Water body	**Parameter(s)**	**Potentially Affected Phase II jurisdiction(s)**	**Stormwater Management Requirements**	**Date(s) approved**
Crystal Creek	Chlorine; Ammonia-N; Fecal Coliform; BOD-(5-day)	WSDOT	None	1993
Giffin Lake	Phosphorus	Yakima County	Possibly	*Targeted for 2007*
Granger Drain	Fecal coliform bacteria	Yakima County	None	2001
Hangman Creek (Latah Creek)	Phosphorus, fecal coliform bacteria, suspended sediment	Spokane, Spokane County, WSDOT	Expected	*No target date set*
Lake Chelan	Phosphorus; DDT, PCB	Chelan County, WSDOT	Yes; Expected	1993; & *targeted for 2006*
Liberty Lake	Nitrogen, phosphorus	Spokane County, Liberty Lake	None	1993
Little Klickitat River	Chlorine & BOD (5-day); temperature	WSDOT	None	1993; 2003
Little Spokane River	pH, dissolved oxygen, temperature, fecal coliform bacteria	Spokane County, WSDOT	Probably not	*Targeted for 2006*
Lower Yakima River	Suspended sediment, turbidity, and DDT	Yakima County	None	1998
Moses Lake	Phosphorus	Moses Lake, WSDOT	Possibly	*No target date set*
Naches River	Temperature	Yakima County, WSDOT	Expected	*Targeted for 2006*
Okanogan River	DDT, PCBs	WSDOT	Yes	2005
Selah Ditch	Ammonia, chlorine, fecal coliform bacteria, dissolved oxygen, biochemical oxygen demand, temperature	Selah, Yakima County	Expected	*Targeted for 2006*
Similkameen River	Arsenic	WSDOT	None	2004
South Fork Palouse River	Ammonia; pH, fecal coliform bacteria, dissolved oxygen, & temperature	Pullman, WSDOT	None for ammonia (1994); expected for other parameters	1994; & *targeted for 2006-2007*
Spokane River	Metals; dissolved oxygen & phosphorus; PCBs	Millwood, Spokane, Spokane Valley, Spokane County, WSDOT	None; not currently expected; not expected	1999; & *target dates not set*
Teanaway River	Temperature	WSDOT	None	2002

Fact Sheet Appendix D – List of TMDLs reviewed for this Draft Permit

Water body	**Parameter(s)**	**Potentially Affected Phase II jurisdiction(s)**	**Stormwater Management Requirements**	**Date(s) approved**
Upper Yakima River	Suspended sediment & organochlorine pesticides; temperature	Ellensburg, WSDOT	None for sediment & pesticides (2004); expected for temperature	2002; & *targeted for 2006*
Wenatchee River	pH, dissolved oxygen, temperature, DDT, fecal coliform bacteria	Wenatchee, Chelan County, WSDOT	Expected	*Targeted for 2006*
Wilson Creek	Fecal coliform bacteria	Ellensburg, WSDOT	Yes	2005
Yakima Area Creeks (Wide Hollow Creek, Moxee Drain, & Cowiche Creek)	Fecal coliform bacteria	Yakima, Yakima County, Union Gap, Moxee, WSDOT	Expected	*Targeted for 2006*
Yellowhawk, Garrison, and Mill Creeks	Chlorinated pesticides & PCBs; pH, dissolved oxygen, fecal coliform bacteria, & temperature	Walla Walla, WSDOT	Expected	*Targeted for 2006 & 2006-2007*

Note: Ecology did not prepare a formal response to comment document for the comments received on the preliminary draft permit. This appendix serves as a placeholder for when the final permit is issued and a formal response to comments will accompany the final Fact Sheet. If you have a question about how a specific comment, submitted during the previous public comment period, was considered in making changes from the preliminary to final draft versions of this permit, please contact Karen Dinicola at (360) 407-6550 or kdin461@ecy.wa.gov