

# **REGIONAL STORMWATER MANAGEMENT PROGRAM**

## **FOR YAKIMA COUNTY**

## **AND THE CITIES OF YAKIMA, UNION GAP AND SUNNYSIDE**

**IN COMPLIANCE WITH THE EASTERN WASHINGTON PHASE II  
MUNICIPAL STORMWATER PERMIT**

**WAR04-6009, CITY OF SUNNYSIDE**

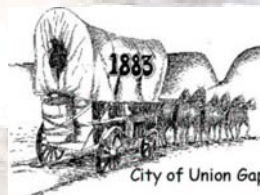
**WAR04-6010, CITY OF UNION GAP**

**WAR04-6013, CITY OF YAKIMA**

**WAR04-6014; YAKIMA COUNTY**

**PROGRAM - YEAR 6**

**MARCH 2013**



[Regional Stormwater Management Program](#)

March 27, 2013

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## **Abbreviations and Acronyms**

AKART – All Known, Available, and Reasonable methods of control and Treatment

BMP – Best Management Practice

Co-permittees – Yakima County, City of Yakima, City of Union Gap, City of Sunnyside

DDD - Dichlorodiphenyldichloroethane

DDE – Dichlorodiphenyldichloroethylene

DDT – Dichlorodiphenyltrichloroethane

Ecology – Washington State Department of Ecology

ESA – Endangered Species Act

GIS - IDDE – Illicit Discharge Detection and Elimination

ILA – Interlocal Agreement or Intergovernmental Local Agreement

LID – Low Impact Development

MEP – Maximum Extent Practicable

MS4 – Municipal Separate Storm Sewer System

NOI – Notice of Intent

NPDES – National Pollutant Discharge Elimination System

O&M – Operation and Maintenance

PAH – Polyaromatic Hydrocarbon

POTW – Publicly Owned Treatment Works

RCW – Revised Code of Washington State

RSL – Regional Stormwater Lead

RSPG – Regional Stormwater Policy Group

RSWG – Regional Stormwater Working Group

RSWMP – Regional Stormwater Management Program

SWPPP – Stormwater Pollution Prevention Plan

TBD – to be determined

TMDL – Total Maximum Daily Load

TSS – Total Suspended Solids

UA – Urbanized Area

UGA – Urban Growth Area

UIC – Underground Injection Control

USEPA – United States Environmental Protection Agency

VE – Value Engineering

WAC – Washington Administrative Code

YCHD – Yakima County Health District

## **1 Introduction**

The Eastern Washington Phase II Municipal Stormwater Permit issued by the Washington State Department of Ecology (Ecology) requires written documentation of stormwater management programs developed and implemented by permittees. Four permittees (Yakima County, City of Yakima, City of Union Gap, and City of Sunnyside) discharge stormwater from their Municipal Separate Storm Sewer Systems (MS4s) and have obtained permit coverage from Ecology as regional co-permittee partners described by an interlocal governmental agreement (ILA) signed July 5, 2007, amended in 2009. The ILA describes specific permit compliance activities that each regional partner will implement.

The primary goal of the Regional Stormwater Management Program (RSWMP) is to meet permit regulatory requirements and justify commitment of resources. The permit assumes that compliance with activity-based permit requirements will improve water quality in nearby streams and lakes. A secondary goal is to provide a basis for feedback to the management program.

The geographic area for activities described in this plan are the city limits of Yakima, Union Gap, Sunnyside and the Yakima County permit area, described as the larger of the Urban Growth Management areas or the Yakima Urban Area defined by the 2000 US Census around these cities and City of Selah. Areas of Union Gap's growth management area and US Census areas that overlap the Yakama Nation reservation are not included since Yakima County has limited jurisdictional authority, and the U.S. Environmental Protection Agency (USEPA) regulates the NPDES program on reservations (Figure 1).

Permittees must develop stormwater management programs that contain minimum performance measures in eight required program elements. Descriptions of the performance measures that the regional co-permittees will perform are the core of this document. For context, the regulatory and physical environment as related to stormwater is provided to support the performance measures. Each performance measure identifies whether it is part of the ILA, contains a goal, describes existing or related activities, presents measurable activities to meet the goal, identifies documentation needed for assessment, and describes responsibilities.

The RSWMP is based on the permit requirements, previous work by consultants and an interlocal governmental agreement between the communities for stormwater permit coverage. It builds on those works by specifying actions, setting measurable activities and identifying how to measure the success of the actions. Full implementation of the stormwater program will be a long-term, iterative process, thus this document is designed as a living document, easily adapted as performance measures are implemented, evaluated, and revised if needed. The Water Resources Division of Yakima County Public Services, in collaboration with other city and county departments developed this document. Copies, and other regional stormwater information, can be obtained in the 4<sup>th</sup> Floor Courthouse main lobby, [the Regional Stormwater website](#), or by contacting the Stormwater Management Program at 509-574-2300.

### **1.1 Regulatory Environment**

The Clean Water Act, enacted in 1972, contains the legal requirement for protecting the quality of waters of the nation. The Act authorizes the USEPA Administrator to carry out its requirements. USEPA initially focused water quality improvement efforts on reducing discharges of pollutants from pipes (point sources), primarily wastewater from industrial processes and municipal sewer treatment facilities.

Diffuse sources of pollutants (non-point sources) also contribute to water pollution nationwide. Runoff from stormwater can collect pollutants as it flows across the landscape and discharges to surface and ground water. As a result, USEPA has begun to regulate urban stormwater

discharges by requiring municipalities to obtain National Pollutant Discharge Elimination System (NPDES) permits for stormwater.

Phase I of the NPDES Stormwater Program began in 1990. Large and medium size municipalities with populations greater than 100,000 were required to develop and implement stormwater management programs. Phase II of the regulations requires small municipalities (<100,000) and contiguous areas with smaller – but still urban – communities to develop and implement stormwater management programs. In February 2007, the Department of Ecology issued the Eastern Washington Phase II Municipal Stormwater Permit, requiring Yakima County and the Cities of Yakima, Union Gap, and Sunnyside to submit a Notice of Intent (NOI) seeking coverage and to comply with the terms of the permit.

Phase II communities must implement performance measures that reduce pollutants in stormwater to the “maximum extent practicable” (MEP). MEP is the technology-based standard established by Congress in CWA §402(p)(3)(B)(iii). The RSWMP focuses on performance measures that are technically sound and cost effective, while meeting permit requirements.

## **1.2 Development of the Regional Stormwater Management Program**

Regional stormwater programs began in 1994 when Yakima County and the City of Yakima completed a Yakima Regional Stormwater Management Plan. Several efforts to regionalize stormwater programs were made over the next 10 years, resulting in the Regional Stormwater Policy Group (RSPG) being formed in 2005. The RSPG consisted of elected officials from the City of Yakima, Union Gap, Sunnyside, and Yakima County whose goal was to review overall program costs and explore mechanisms for further cost savings by regional consolidation. Following Ecology’s issuance of a final Phase II Municipal Stormwater Permit for Eastern Washington in February 2007, the co-permittees signed a three-year ILA for regional permit compliance on July 5, 2007. The original ILA was amended in 2009 for the remaining two permit years. Delay in permit issuance resulted in a subsequent ILA that extends the agreement until the second permit is in effect. In August 2102 the RSPG decided to reduce oversight of the ILA partnership and delegated staff to continue to work cooperatively, bringing permit updates and issues to the respective boards and councils at least once per year to each jurisdiction.

A new ILA will be negotiated in 2013 to identify regional activities for the interim permit and the new 2014-2019 permit.

## **1.3 Physical and Economic Environment**

Yakima County lies east of the Cascade Range in the south-central region of Washington ([Figure 1](#)). The terrain ranges from the steep, forested slopes of the Cascade Range to relatively flat agricultural lands lying south of Ahtanum Ridge and west of the Yakima River, centered on the town of Harrah. Four generally west-northwest to east trending ridges (Umtanum, Yakima, Toppenish and Ahtanum) bisect the Yakima River basin, creating broad valleys separated by ridgeline gaps. The altitude of the County ranges from 8,184 ft (feet) above sea level in the Cascade Range to about 630 ft along the Yakima River near Grandview. The Yakima River basin contains a variety of landforms, including the glaciated peaks and deep valleys of the Cascade Range, broad river valleys, and the lowlands of the Columbia Plateau.

Much of the area is undeveloped. Agriculture, urban development, and most of the population are concentrated in a 10- to 15-mile-wide band along the Yakima River. Agricultural production ranks first in Washington with a value of \$900 million per year and is the base of the county economy. Fertile silt-loam soils of the Yakima River Valley and the availability of irrigation yield a diversified range of farm products.

Farm and forest production in the County supports a variety of manufacturing and other activities in the urbanized areas. Food processing, including fruit and vegetable canning, sugar production, viticulture and meat packing, are the dominant industries. Trade is the largest of the non-farm industry sectors, accounting for 17 percent of the non-farm employment (13,200 jobs). Yakima County has a high concentration of wholesale trade business, reflecting warehousing of food products. Regional distribution centers, Interstate Highway 82 and one of the main Burlington Northern Santa Fe rail lines make the area a transportation focus in the central part of the state.

Sixty-six percent of the county population resides within incorporated communities. The City of Yakima is the largest municipality, with an estimated population of 91,630 in 2011([Table 1](#)). The Cities of Yakima and Union Gap (population 6,055) are located between Selah Gap in the Yakima Ridge and Union Gap in the Ahtanum Ridge south of the confluence of the Naches and Yakima Rivers ([Figure 1](#)). The City of Sunnyside is located in the south-east part of the county, in the lower Yakima River basin between the Horse Heaven Hills and the Rattlesnake Hills, approximately three miles north of the Yakima River ([Figure 1](#)).

**Table 1. Summary of population and area for regional co-permittees.**

<b>City/County</b>	<b>Population</b>	<b>Statewide Rank (within type)</b>	<b>Land Area (Sq Mi)</b>
Yakima County	246,000*	8	4311.0
- Unincorporated County	84,800*	9	4197.2
- Incorporated County	161,200*	7	113.8
- County UGA + 2000 Census Urban	22,934	n/a	37.5
City of Yakima	91,930*	11	27.3
City of Union Gap	6,105*	110	5.1
City of Sunnyside	16,030*	62	6.6

\*State of Washington Office of Financial Management, April 1, 2012 estimate

Summer weather of the Yakima River basin is hot and dry, typical of a continental climate. Winters are moderately cold and relatively dry due primarily to the maritime influence of the prevailing westerly circulation from the Pacific Ocean and a rain shadow effect by the Cascade Mountains. Approximately 75 percent of the annual precipitation occurs from October through March. Annual precipitation varies from more than 100 inches in the Cascade Range to less than 10 inches in the lower elevations. Snowfall in excess of 400 inches falls on the higher slopes of the Cascade Range, and the lower valleys receive from 15 to 20 inches. Stormwater runoff typically occurs under rapid warming events that melt accumulated snow or during localized early summer thunderstorms. Winter temperatures normally range from approximately 20°F at night to approximately 30°F during the day. Temperatures of 0°F or below can be expected in January or February. Normal summer temperatures reach 90°F during the day but cool rapidly to near 60°F at night. Temperatures exceeding 100°F are unusual; however, a few readings over 110°F have been recorded.

#### **1.4 Regional Receiving Waters and Water Quality Standards**

Stormwater from the regional MS4 is discharged to the following receiving waters: Naches and Yakima Rivers, Spring, Ahtanum, Bachelor, Cottonwood and Wide Hollow Creeks; and the Sulphur Creek Wasteway. Washington Department of Ecology assigns beneficial uses to these waters that determine water quality standards. Numeric criteria promulgated at Chapter 173-201A WAC protect designated beneficial uses. Regional receiving waters have a range of designated beneficial uses including salmonid spawning, domestic consumption, primary and secondary contact recreation, and aesthetics. Sulphur Creek Wasteway is assigned lesser quality beneficial uses including secondary contact recreation, industrial and stock watering, and wildlife habitat.

In addition to water quality standards, municipal stormwater permits must comply with pollutant discharge load allocations established in water quality improvement projects (also known as Total Maximum Daily Loads, or TMDLs) prepared by Ecology when stream segments do not meet water quality standards. Two water quality improvement projects are “under development” for receiving waters listed above:

1. Moxee Drain, Wide Hollow Creek, and Cowiche Creek, for Fecal Coliform bacteria;
2. Yakima River, for Toxics

Neither project has been completed and submitted to EPA, so the regional co-permittees do not have additional requirements beyond the permit. The permittees will continue to participate in technical review discussions with Ecology to ensure that pollutant sources are accurately identified and that additional required stormwater BMPs will be effective in reducing the pollutants of concern.

#### **1.5 Potential Stormwater Pollutants and Impacts on Water Quality**

The RSWMP and the permit do not focus on specific pollutants. The permit assumes that required activities will reduce stormwater pollution, unless a water quality impairment has been identified by Ecology and a specific pollutant reduction is required under the Total Maximum Daily Load (TMDL) program.

Pollutants typically found in urban runoff include sediments, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides. To date, no comprehensive analysis of stormwater runoff from the regional MS4 has been conducted to determine relative magnitude of these potential pollutants in regional stormwater; however, specific pollutants have been identified in some regional receiving waters. Documentation of other illicit stormwater pollutant discharges is anecdotal or limited in documentation in County records (e.g. anti-freeze and apple process wastewater from a fruit packing warehouse).

The following is a description of typical stormwater pollutants that may occur in the regional stormwater discharge and their impacts.

Sediment is a common component of stormwater and can be a pollutant when it is detrimental to aquatic life (primary producers, benthic invertebrates, and fish). Sediment can interfere with photosynthesis, respiration, growth, reproduction, and oxygen exchange between aquatic organisms and the surrounding water. In addition, sediment can transport other pollutants that attach to it including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids (TSS), a common water quality analytical parameter. Ecology conducted a total maximum daily load (TMDL) evaluation of the lower Yakima River

basin in 1994-1995. Historical and TMDL data indicated significant correlations between TSS and turbidity, and between TSS and total DDT.

Nutrients (typically nitrogen and phosphorous) are the major plant nutrients used for fertilizing and are often found in stormwater. Nutrients can accelerate growth of vegetation, particularly algae, resulting in excessive concentrations that impair use of water in lakes and other sources of water supply. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish. A study by USGS and the South Yakima Conservation District on nutrient enrichment processes in the lower Yakima River is underway to determine sources of nutrients and economical performance measures in response to violations of dissolved oxygen and pH standards caused by excess nutrient loads.

Pathogens (bacteria and viruses) are common contaminants of stormwater. Sources of these contaminants include animal excrement, sanitary sewer overflow or cross connection, and soil. A TMDL for total coliform bacteria is in place for Selah Ditch, primarily due to stormwater sources from the City of Selah stormwater system. Sulphur Creek Wasteway is under development of a TMDL because it has not met State criteria for fecal coliform.

Oil and grease includes a wide array of petroleum hydrocarbons, some of which are toxic to aquatic organisms at low concentrations. The main sources of oil and grease are leakage from engines, spills at fueling stations, overfilled tanks, restaurant waste or illegal oil disposal. No TMDL studies for oil and grease are currently underway in the Yakima River basin.

Metals (including lead, zinc, cadmium, copper, chromium and nickel) are commonly found in stormwater. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles or preserved wood) contain metals, which enter stormwater as the surfaces corrode, flake, dissolve, decay, or leach. Metals are of concern because they are toxic to aquatic organisms, can bio-accumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies. In 2000 Ecology reported low concentrations of copper, cadmium, mercury, silver, zinc and lead in the Upper Yakima River (Kittitas County).

Organic compounds (including toxic synthetic compounds such as adhesives, cleaners, sealants and solvents) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways. No TMDL studies for organic compounds are currently underway in the Yakima River basin.

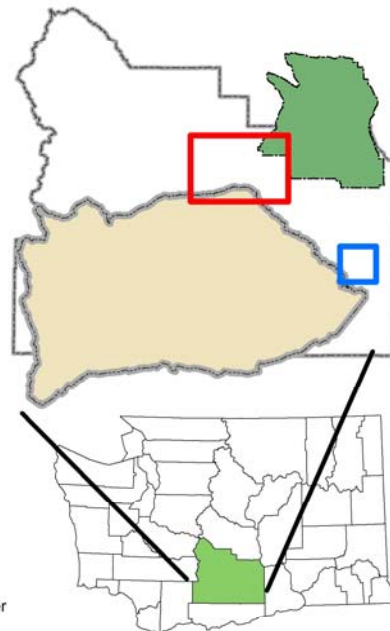
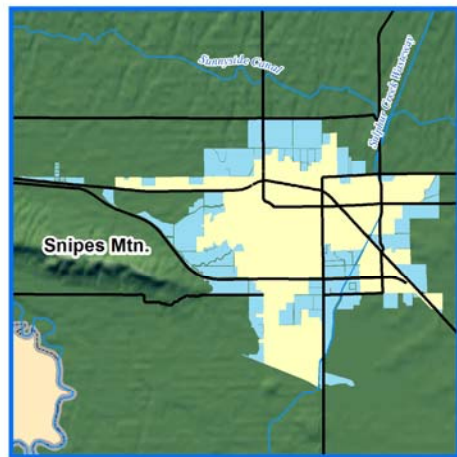
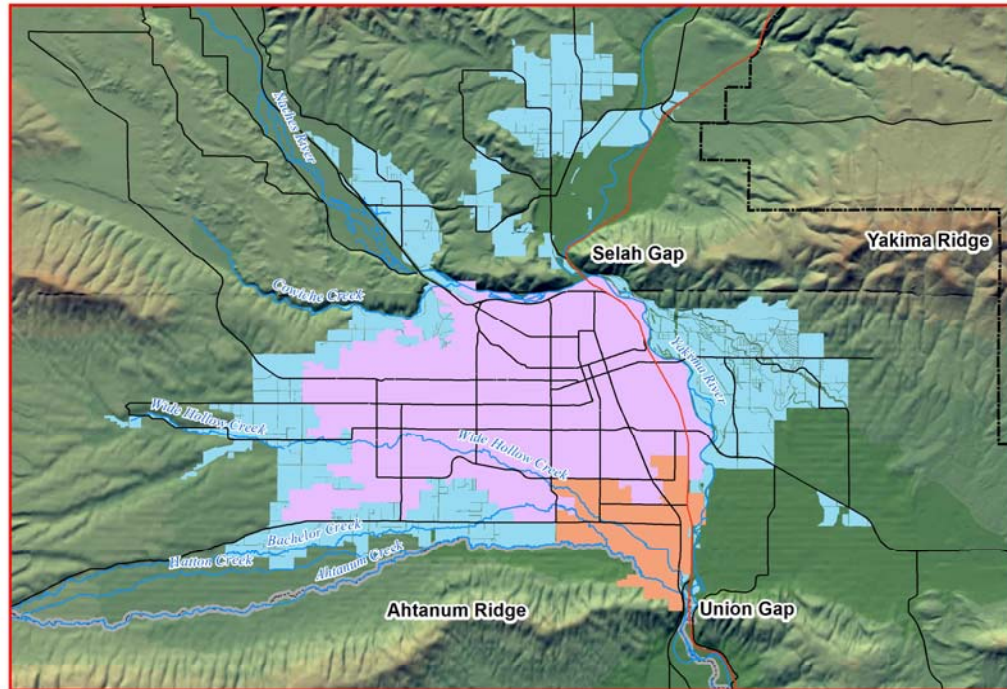
Pesticides (including herbicides, fungicides, rodenticides and insecticides) have been repeatedly detected in urban stormwater around the country. As use of pesticides has increased, so too have concerns about the potential adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for bio-magnification through the food web, potentially resulting in elevated levels of toxins in those organisms that feed on them, such as fish and birds. DDT, associated with sediment in irrigation return water to the lower Yakima River basin is currently under a TMDL management plan. Additionally, the Yakima River, Moxee Drain, Wide Hollow and Spring Creeks are under study for DDT, DDD, DDE, chlorpyrifos, dieldrin and endosulfan due to past monitoring that indicated the water bodies don't meet water quality standards for those pollutants. Most of these pollutants are associated with agricultural chemicals that are no longer used and are entering streams through sediments eroding off farmland. In 2009 Ecology reported results for twelve samples collected during six rain storms for runoff in the Cities of Yakima and Union Gap. Stormwater exceeded human health criteria for DDE and PCBs in almost all samples and for DDT, DDD and dieldrin in almost half the samples. However, due to the low number of samples collected and wide range of



concentrations found, conclusions about the absolute levels of legacy pesticides in Yakima and Union Gap stormwater are inappropriate without greatly increasing the number of samples. The presence of legacy pesticides suggests that the agricultural history of the area is having an impact on urban stormwater discharges.

Gross Pollutants (trash, debris, and floatables) are common to urban environments and industrial sites and may create an aesthetic “eye sore” in waterways. Gross pollutants also include plant debris (such as leaves and lawn-clippings from landscape maintenance), animal excrement, street litter, and other organic matter. When these substances decay in streams, lakes, and estuaries dissolved oxygen levels are depressed, sometimes causing fish kills. No TMDL studies for aesthetics are currently underway in the Yakima River basin.

**Figure 1. Yakima RSWMP planning area showing major geographic features.**



**Legend**

- |   |   |
|---|---|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span> Sunnyside                              | <span style="display: inline-block; width: 15px; border-bottom: 2px solid red;"></span> Interstate 82                             |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black;"></span> Union Gap                              | <span style="display: inline-block; width: 15px; border-bottom: 2px solid black;"></span> Primary Road                            |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: pink; border: 1px solid black;"></span> Yakima                                   | <span style="display: inline-block; width: 15px; height: 15px; border: 2px dashed black;"></span> US Army, Yakima Training Center |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; border: 1px solid black;"></span> 2013 Yakima County Utility Boundary | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid gray;"></span> Yakima Nation                     |

## **2 PROGRAM ELEMENTS AND PERFORMANCE MEASURES**

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This section describes the eight RSWMP elements (program elements) contained in the permit and the ILA: 1) Public Outreach and Education, 2) Public Involvement and Participation, 3) Illicit Discharge Detection and Elimination, 4) Construction Stormwater, 5) Post-Construction Stormwater, 6) Pollution Prevention and Good Housekeeping, 7) Monitoring and Program Evaluation, and 8) Reporting and Record Keeping. The RSWMP addresses the program elements above through the development of performance measures. Each performance measure contains measurable activities that describe specific actions taken to implement the performance measure.

The program elements are organized consistent with the permit structure in Sections S5, S7 and S8. Each program element contains an introductory statement that generally discusses permit requirements and identifies other program elements related to the current program element, called supporting program elements. Fact sheets then describe the performance measures within the program element, state goals, identify existing activities, provide measurable activities, and identify assessment documents. An example performance measure fact sheet is provided ([Figure 2](#)). At the end of each program element is a table summarizing the performance measures, implementation schedules and responsible departments.

**Figure 2. Performance Measure Template**

<b>PERFORMANCE MEASURE</b>	
<i>Permit section, name of Performance Measure, implementation deadline</i>	<i>ILA=Yes or No</i>
<b>GOAL</b>  An anticipated outcome that guides the use of the performance measure.	
<b>EXISTING ACTIVITIES</b>  This section describes existing activities associated with the performance measure. The regional municipalities may not be responsible for all activities (e.g., volunteer groups and countywide programs), but they affect the local community and represent stormwater management activities already underway. Additional actions implemented by the permittees relating to S5.B of the permit are described here.	
<b>MEASURABLE ACTIVITIES</b>  This section lists the quantifiable activities that describe how the performance measure will be accomplished and the responsible party. Activities include such things as reviewing or developing a specific number and type of document or procedure, providing a specific number and type of training, etc.	
<b>ASSESSMENT</b>  This section identifies documentation needed to assess performance measures as required by the permit. The RSWMP Administrator is responsible for assessment documentation.	
<b>ACCOMPLISHMENTS</b>  This section will list measureable activities accomplished during the previous calendar year. A statement is provided if no activities were required during the previous calendar year.	
<b>APPROPRIATENESS</b>  This section will contain an evaluation of the appropriateness of the Performance Measure, as required by permit section S8.B.2.	

## **2.1 Public Education and Outreach Program Element**

The Public Education and Outreach Program Element focuses on educating the public about the potential impact of stormwater discharges on receiving waters. Increased public knowledge about how their actions and choices affect stormwater and ultimately the area water bodies. Public Education should result in increased public acceptance and support of the stormwater program.

### *2.1.1 Permit Requirements for Public Education and Outreach*

Section S5.B.1 of the Eastern Washington Phase II NPDES Stormwater Permit requires permittees to continue to implement public education and outreach program strategies and activities. The strategies shall be designed to reach all target audiences in the jurisdiction.

### *2.1.2 Supporting Program Elements*

The Public Participation and Involvement Program Element works with the Public Education and Outreach Program Element by encouraging citizens to become informed and involved in the stormwater program. Specific outreach tasks are also identified in the Illicit Discharge and Detection Elimination, Construction and Post-Construction Program Elements.

### *2.1.3 Performance Measures*

The 2012/2013 Stormwater Public Outreach plan ([Appendix A](#)) will be implemented. A new outreach plan will be developed to continue outreach until the August 2014 permit, evaluate current messages and message types, improve message delivery to target audiences.

## Performance Measure

### ***S5.B.1a. Implement the 2012/2013 Public Outreach Plan***

***ILA=Yes***

## **GOAL**

Educate the public, businesses and the development community about 1) potential pollution impacts of stormwater on receiving waters, 2) illicit discharges, and 3) the impact of development on stormwater pollution.

## **EXISTING ACTIVITIES**

In accordance with the 2012/2013 Public Outreach Plan, a general public message of “Now We Know Better” was developed and distributed. See accomplishments below.

## **MEASURABLE ACTIVITIES**

Measureable activities are in accordance with the 2012/2013 Public Outreach Plan ([Appendix A](#)). The number of outreach items distributed; length of time messages ran, and where; number of mailings and annual survey will be used to assess message effectiveness.

## **ASSESSMENT**

A survey conducted in 2011 was repeated in 2012, showing slight improvements in most responses after a short outreach campaign (November, 2011 - January, 2012), however, the changes were within the margin of error of the survey, so the message was not modified for the remainder of 2012 and 2013. Another survey will be conducted in 2013.

## **ACCOMPLISHMENTS**

In accordance with the 2012/2013 Public Outreach Plan, a general public message of “Now We Know Better” was developed and distributed. The “Now We Know Better” idea is from the “Only Rain in the Drain” outreach materials developed by Asotin County under an Ecology Grant of Regional or Statewide Significance (GROSS) grant. The message was distributed through extensive billboard and bus advertisements, posters for use in municipal buildings, PowerPoint slide presentations in Yakima County and City of Yakima Permit issuance locations, and on community television. A survey conducted in 2011 was repeated in 2012. Annual surveys are planned as part of the outreach plan to continue to measure message effectiveness.

The regional stormwater program reached out to children in 2012. The Central Washington State Fair provides a booth for stormwater education in lieu of stormwater fees to the City of Yakima. Co-permittee personnel staffed the booth and a large quantity of give-away items including pencils, pens, Frisbees, re-usable grocery bags, and water bottles (Figure 3). Staff were available to answer questions about the stormwater program.

Lastly, specific businesses were identified as part of the outreach plan. A targeted mailing was developed and distributed to carpet cleaning businesses in the Yakima and Sunnyside areas since reports of illicit discharge continue to be a problem for the co-permittee jurisdictions. A general business brochure was distributed to 7000 mailing addresses in December. The list of businesses will be maintained to make future mailings to specific business types more manageable and up-to-date.

Figure 3. A young fair attendee at the Regional Stormwater booth during the 2012 Central Washington State Fair.



### **APPROPRIATENESS**

Public Outreach is very appropriate, especially during the interim permit period. Most effort in 2013 will be focused on Public Outreach.

## **2.2 Public Involvement and Participation Program Element**

The Public Involvement and Participation Program Element provides opportunities for the public to become involved in decisions related to reducing pollutants in stormwater. Through participation, the public provides valuable input and assistance in program development and implementation. Increased public involvement and participation result in increased public acceptance and support of the program, and help to ensure a successful and effective program.

### *2.2.1 Permit Requirements for Public Involvement and Participation*

1. Continue to provide ongoing opportunities for the public to participate in SWMP decision-making. Post online annual reports and SWMP Plan for previous calendar year by May 31 of each year.

### *2.2.2 Supporting Program Elements*

The regional stormwater website (Public Education and Outreach Program Element) will provide an accessible means of disseminating the RSWMP information.

### *2.2.3 Performance Measures*



## **PERFORMANCE MEASURE**

<b>S5.B.2 Public Input on RSWMP    ILA=Yes</b>
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### **GOAL**

Promote public participation in the development and review of the RSWMP. The RSWMP document provides the blueprint for regional compliance with the Permit. Public input will be solicited on this document to ensure all interested parties have a voice in activities that are conducted to comply with the Permit and reduce potential impacts associated with stormwater discharge from the regional co-permittees.

### **EXISTING ACTIVITIES**

The regional municipalities comply with existing State and local public notice requirements regarding the adoption of public plans or policies implemented by their respective jurisdictions.

A specific public input opportunity has been conducted in past years to describe the program and solicit input. These annual invitation meetings have been sparsely attended. No change to the program has been implemented as a result. Annual input opportunities as conducted in past years will not be continued.

As RSPG oversight has been changed from specific RSPG quarterly meetings to annual meetings with each jurisdiction council or board, the opportunity to solicit public input to the RSWMP may be conducted concurrently and allow for input from the elected officials and the general public at the same time.

### **MEASURABLE ACTIVITIES**

1. The Regional Stormwater Lead (RSL) will post the RSWMP document on the Regional Stormwater web page and update at least annually.
2. The RSL will provide the RSWMP document to each jurisdiction for review prior to submittal of annual reports required by the permit.
3. The RSL will conduct one presentation to each municipal governing body (four total) during which the program will be described and public input solicited.

### **ASSESSMENT**

1. Receive, address and log comments received at any time of the year regarding the RSWMP.

### **ACCOMPLISHMENTS**

- No program comments were received by the RSL during the past calendar year.
- No input to change the RSWMP was obtained from the Public Input meeting held March 31, 2012.

### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. As public education efforts are implemented, it is anticipated that greater public involvement will occur.

## **2.3 Illicit Discharge Detection and Elimination (IDDE) Program Element**

Most urban storm drain systems convey flows other than stormwater. These non-stormwater discharges enter the storm drain system from a variety of sources, such as landscape irrigation or car washing, and illicit discharges (sources of pollutants that enter the storm drain system through illicit connections and illegal dumping). Non-stormwater contributions and illicit discharges are potential sources of pollutants discharged from the MS4 that may adversely impact receiving waters. The Eastern Washington Phase II NPDES Stormwater Permit requires the co-permittees to “detect and eliminate” non-stormwater discharges to the storm drain system.

### *2.3.1 Permit Requirements for Illicit Discharges*

The Eastern Washington Phase II NPDES Stormwater Permit requires the regional co-permittees to continue implementing the enforceable mechanism to prohibit illicit discharges, compliance strategy, IDDE and municipal staff training, citizen hotline and IDDE response, and maintain map of MS4.

### *2.3.2 Supporting Program Elements*

Many City and County operations such as hazardous waste pickup activities, MS4 and DID maintenance, street sweeping and roadwork, partially address this program element's intent. Regional co-permittees generally have some form of prohibition in their code making it illegal to pollute the storm drain system. The Public Education and Outreach Program and Municipal Operations/Good Housekeeping Program elements also inform public employees, businesses, and the public of hazards including human and environmental health risks associated with illegal discharges and improper disposal of waste.

### *2.3.3 Performance Measures*

## PERFORMANCE MEASURE

<b>S5.B.3 Maintain map of MS4</b>	<b>ILA=No</b>
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### GOAL

A map of the MS4 is required to effectively identify extent of the storm drain system, identify where pollutants may enter the system and prevent illicit discharges. Ecology requires permittees to maintain a map of their stormwater system and update the map as changes occur.

### EXISTING ACTIVITIES

The MS4 has been mapped in the County and cities in accordance with the 2007-2012 permit.

The Construction Activities and Post-Construction Stormwater Management Program Elements both require knowledge of the MS4 location to determine if proposed activity will discharge to the MS4 and is therefore regulated. A general permit requirement is to conduct spot checks of the MS4 following storms with a return frequency greater than the 10 year event. A knowledge of the system location is critical to this task.

### MEASURABLE ACTIVITIES

Document changes made to GIS layers that were used to develop the system maps.

### ASSESSMENT

1. List of changes made to map layers. GIS metadata is an ideal vehicle to maintain a log or list of changes.

### ACCOMPLISHMENTS

- No activities were required during the previous calendar year.

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. Mapping, followed by smoke testing to confirm connections, has resulted in removal of illicit and non-stormwater connections from the MS4. Mapping has also identified areas where outfalls can be eliminated, reducing the impact of flow and pollutants to receiving waters. Improvements to water quality should result from removal of illicit connections.

## PERFORMANCE MEASURE

<b><i>S5.B.3 Continue Enforcement of Illicit Discharge Ordinances</i></b>
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<b><i>ILA=No</i></b>
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### GOAL

Enforce ordinances to prohibit illicit discharges to the storm drain system.

### EXISTING ACTIVITIES

Yakima County Health District (YCHD) enforces County ordinances for solid waste disposal, sewage disposal and does outreach, inspections, and enforcement particularly as relates to septic tanks and septic tank pumps. YCHD investigates improper sewage disposal practices as reported by the public. These activities reduce the likelihood of stormwater contamination from improperly maintained or sited septic systems.

Garbage collection is voluntary in the unincorporated County, although there are ordinances against unauthorized dumping and unlawful accumulation. Garbage service is required in Yakima, Sunnyside and Union Gap.

All jurisdictions have ordinances prohibiting illicit connections and discharge to their MS4.

### MEASURABLE ACTIVITIES

1. Each jurisdiction will maintain a log of illicit discharge and connection calls, observations and complaints; maintain a record of their notification and follow-up to resolve the discharge or connection.

### ASSESSMENT

2. Number and types of cases will be reviewed and used for input into the Public Outreach program as appropriate.

### ACCOMPLISHMENTS

- City of Yakima reported 27 cases; City of Sunnyside reported no cases; City of Union Gap reported no cases; Yakima County reported no cases.

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. Water quality should improve over time as code enforcement personnel contact potential violators, public education messages highlight the new requirement and illicit connections are removed as a result of the ordinance.

## PERFORMANCE MEASURE

### ***S5.B.3 Continue IDDE Response Activities***

***ILA=No***

#### **GOAL**

Continue procedures for consistent regional investigations to detect and address non-stormwater discharges to the regulated MS4, including spills, illicit connections, and illegal dumping.

#### **EXISTING ACTIVITIES**

The regional co-permittees have programs to address spills and illegal dumping of hazardous materials, including those that may reach the MS4. In the event of a spill, local emergency response agencies within the County are supplemented by a Regional Response Team and Ecology. Illegal dumping of hazardous materials is regulated by State Dangerous Waste requirements (WAC 173-303-145) and the Uniform Fire Code.

#### **MEASURABLE ACTIVITIES**

1. Each jurisdiction will continue to implement procedures for the following activities required by the permit:
  - Locating priority areas;
  - Dry weather field assessments of outfalls or facilities serving priority areas;
  - Characterizing discharges found by or reported to the Permittees;
  - Tracing the source of illicit discharges;
  - Ending the discharge.

The collection of procedures and their implementation shall constitute the illicit discharge detection and elimination “program” required by §S5.3.c of the permit.

2. The RSL will report all co-permittee illicit discharge activity in the annual reports.

#### **ASSESSMENT**

1. Document activities identified in existing written procedures to identify and eliminate non-stormwater discharges.
2. Record citizen complaints and responses regarding illicit discharges to the storm drain system.
3. Record illicit discharges identified, investigated, including date and location of incident, type and quantity of material dumped or discharged, and municipal response.
4. Document enforcement actions taken to eliminate illicit discharges.

#### **ACCOMPLISHMENTS**

- No incidents were logged in the Regional IDDE database. The County, City of Sunnyside and City of Union Gap reported zero incidents, and 27 incidents were reported by the City of Yakima.

#### **APPROPRIATENESS**

Identification and removal of illicit discharges and connections will improve water quality discharged from the regional MS4s to area water bodies.

## PERFORMANCE MEASURE

<b>S5.B.3 Maintain Illicit Discharge Hotline</b>	<b>ILA=Yes</b>
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### GOAL

Advertise and maintain a regional hotline for receipt of calls reporting illicit discharges. A hotline or telephone number for receiving public observations or complaints related to illicit discharge is required by the Permit.

### EXISTING ACTIVITIES

Related activities include those systems in place to take emergency calls related to hazardous materials or illegal dumping.

### MEASURABLE ACTIVITIES

1. The RSL will use a call log database to track illicit discharge reports and follow-up actions.
2. Co-permittees will forward calls to the hotline when appropriate, or notify County stormwater staff when illicit discharge calls are received by their jurisdictions.

### ASSESSMENT

1. Maintain a database of calls received and follow-up actions taken.

### ACCOMPLISHMENTS

- Hotline established 2007. One database log event was received in 2012. This compares to zero (0) calls in 2010 and 2011, and four (4) calls in 2009.

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. It is anticipated that hotline use will increase as the public becomes more aware of stormwater problems through the public education program.

## PERFORMANCE MEASURE

### ***S5.B.3 IDDE and Municipal staff training***

***ILA=Yes***

#### **GOAL**

Train staff that 1) receive calls about illicit discharges, 2) may encounter illicit discharges in the course of their work, and 3) will investigate illicit discharges. Training will be tailored to each group of employees and focus on specific procedures developed under other Performance Measures in this Program Element.

#### **EXISTING ACTIVITIES**

Most employee groups already conduct some form of regular training on procedures, safety, or trade specific practices. Illicit discharge training will be coordinated with existing training to minimize interruption of staff duties.

#### **MEASURABLE ACTIVITIES**

1. The RSL will train employees annually in each jurisdiction.
2. Co-permittees will identify appropriate personnel and provide opportunities for staff to be trained.

#### **ASSESSMENT**

1. Document training events. Include number of employees, class rosters, locations.
2. Maintain training presentations for each group of employees.

#### **ACCOMPLISHMENTS**

- Two (2) refresher trainings were provided to County and City of Union Gap employees. City of Yakima and Sunnyside trainings will be conducted in early 2013.

#### **APPROPRIATENESS**

It is anticipated that as employee awareness goes up, the number of reported discharges to the MS4 will also increase, and the number of municipal spills will go down.



## Construction Activities Program Element

Stormwater draining from construction sites can be a significant source of sediment and attached pollutants. Failure to implement adequate erosion and sediment performance measures can result in higher contributions of sediment to waters than previously contributed from undisturbed land. Excessive sediment loading can result in impacts to water quality. In addition, erosion and sediment transport are vehicles for other pollutants associated with construction activities (such as solvents, petroleum products, trash, pesticides, fertilizers, concrete and paint). Track-out from construction sites continues to be a common source of illicit discharge complaints.

### *2.3.4 Permit Requirements for Construction Activities*

The Eastern Washington Phase II NPDES Stormwater Permit requires the regional municipalities to continue implementing and enforcing program to reduce pollutants from construction activities, including ordinance, providing information to construction operators on training; site plan review and permitting, inspections, and training.

### *2.3.5 Supporting Program Elements*

Local citizens will be more aware of the importance of protecting stormwater quality through public outreach activities. The public participation and IDDE program elements provide mechanisms for the public to notify co-permittee inspectors of potential water quality issues.

### *2.3.6 Performance Measures*

## PERFORMANCE MEASURE

### ***S5.B.4 Enforce Construction Site Stormwater Ordinance***

***ILA=No***

#### **GOAL**

Enforce an ordinance to require implementation and maintenance of BMPs for erosion and sediment controls at defined construction sites.

#### **EXISTING ACTIVITIES**

Construction Stormwater Permits are required by State regulation for construction sites impacting one acre or more.

Ordinances were adopted in February 2010 as follows:

<u>Jurisdiction</u>	<u>Date Adopted</u>	<u>Ordinance/Resolution Number</u>
Yakima County	February 16, 2010	1-2010
City of Yakima	February 16, 2010	2010-08
City of Sunnyside	February 8, 2010	2010-3
City of Union Gap	February 8, 2010	2660

#### **MEASURABLE ACTIVITIES**

1. Each jurisdiction will enforce its own ordinance.

#### **ASSESSMENT**

1. The number of ordinance enforcement actions will be reported in the annual report.

#### **ACCOMPLISHMENTS**

- No activities were required during the previous calendar year.

#### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. Water quality should improve over time as code enforcement personnel contact potential violators, public education messages highlight the new requirement and illicit discharges are removed as a result of the ordinance.

## Performance Measure

### **S5.B.4.b. Continue Construction Site Plan Review**

**ILA=No**

#### **GOAL**

Implement procedures for review and approval of stormwater best management practices used during construction activities.

#### **EXISTING ACTIVITIES**

Construction and development projects are currently required to obtain coverage under the Ecology General Permit for Construction Sites, using BMPs and standards found in the *Stormwater Management Manual for Eastern Washington*.

#### **MEASURABLE ACTIVITIES**

1. The co-permittees will review construction project plans that require erosion and sediment control BMPs identified in the ordinance adopted in §S5.B.4.a of the permit.

#### **ASSESSMENT**

1. Record the number of erosion and sediment control plans received, reviewed, and approved/disapproved by staff.

#### **ACCOMPLISHMENTS**

- Number of construction site plans reviewed and approved in 2012:

	Plans reviewed	Plans approved
City of Sunnyside	0	0
City of Union Gap	1	1
City of Yakima	5	5
<u>Yakima County</u>	<u>0</u>	<u>0</u>
Total:	6	6

Yakima County and the City of Sunnyside did not have any qualifying sites. Construction and building industries in Yakima County continue to be impacted by a poor economy.

#### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. The procedure and training should help reviewers assure projects are compliant with the ordinance and minimize construction stormwater runoff and improving water quality.

## Performance Measure

### ***S5.B.4.c. Continue Construction Site Inspection***

***ILA=No***

#### **GOAL**

Inspect construction sites to ensure that BMPs are installed and functioning correctly to prevent discharge to the MS4.

#### **EXISTING ACTIVITIES**

The regional municipalities have established construction inspection programs that ensure building code compliance. Inspectors visit each site during active phases of construction to record the activities conducted at the site and to ensure construction is being completed according to plans.

Public complaints for construction activities are routed to local building departments; some stormwater construction complaints are routed to stormwater staff. All jurisdictions require applicants to obtain an Ecology Construction Stormwater Permit when projects will meet certain thresholds. Erosion and sediment control permit issues with these permits are referred to the Washington Department of Ecology. Construction sites, regardless of size or Ecology permit status, must retain construction sediment on site in all jurisdictions under the illicit discharge ordinances. Track-out complaints have increased in 2012 compared to previous years.

#### **MEASURABLE ACTIVITIES**

1. The co-permittees will keep records of inspections and enforcement actions by staff.
2. The co-permittees will provide training to construction site inspection staff including:
  - Erosion and sediment controls and other stormwater quality control requirements for construction activities.
  - Procedures for enforcing code compliance, such as issuance of citations or notices of noncompliance.
  - Jurisdictions may opt to send staff to CESCL training and have staff maintain their certification.

#### **ASSESSMENT**

1. Document training events. Include number of employees, class rosters, locations.
2. Record the number of inspections and enforcement actions performed by staff.

#### **ACCOMPLISHMENTS**

- Number of construction site inspections and enforcement actions in 2012:

	Site Inspected	Enforcement Actions
City of Sunnyside	0	0
City of Union Gap	1	0
City of Yakima	5	0
<u>Yakima County</u>	<u>0</u>	<u>0</u>
Total:	6	6

Yakima County and the City of Sunnyside did not have any qualifying sites.

### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. The procedure and training should help inspectors assure projects are compliant with the ordinance during inspections. The inspections should help resolve any deficiencies in BMP selection or installation this minimizing construction stormwater runoff and improving water quality.

## PERFORMANCE MEASURE

<b><i>S5.B.4.d Provide Construction Training Opportunity Information</i></b>
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<b><i>ILA=Yes</i></b>
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### GOAL

Gather and provide information on training opportunities in the Pacific Northwest and nationally that are applicable to the proper selection, installation, and maintenance of construction site sediment control BMPs.

### EXISTING ACTIVITIES

The RSL provides periodic training opportunity information to the RSPG members and public on the Regional Stormwater Management website.

### MEASURABLE ACTIVITIES

1. The RSL will provide a quarterly list of erosion and sediment control BMP training opportunities on the RSMP website. Sources will include the world wide web (internet), trade magazines, and product mailings.
2. Co-permittees will provide information they receive on training opportunities through professional contacts or other sources.

### ASSESSMENT

1. Maintain a record of training opportunities identified and made available.

### ACCOMPLISHMENTS

- A current list of training opportunities is provided on the regional stormwater web site ([link](#)).

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. Training opportunities were regularly visited pages on the Regional Stormwater web site.

## **2.4 Post-Construction Stormwater Management Program Element**

Impacts to water quality caused by development can be minimized through implementing post-construction stormwater quality performance measures. The performance measures and tasks outlined in this section require new development and major redevelopment projects to incorporate post construction stormwater BMPs and to ensure that the measures are operated and maintained once construction is complete.

### *2.4.1 Permit Requirements for Post-Construction Stormwater Management*

The Eastern Washington Phase II NPDES Stormwater Permit requires the permittees to address post-construction stormwater runoff to the MS4 from new development and redevelopment projects within the permit area. Continue to implement ordinance addressing post-construction runoff controls; site plan review and permitting, requiring long-term maintenance; inspections; staff training; and enforcement.

### *2.4.2 Supporting Program Elements*

Public education and outreach programs promote awareness of the importance of stormwater quality controls. Public participation in the development and implementation of the RSWMP will be critical to the plan's success. The Construction Program works in parallel with this program element as sites are inspected during construction and post-construction.

### *2.4.3 Performance Measures*

## PERFORMANCE MEASURE

<b><i>S5.B.5 Enforce Post-Construction Stormwater Ordinances and Conduct Stormwater Plan Review</i></b>	<b><i>ILA=No</i></b>
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### GOAL

Enforce ordinances to require post-construction stormwater runoff controls for discharges to the MS4 from new development or re-development projects discharging to public MS4s.

### EXISTING ACTIVITIES

Regional municipalities require new developments to retain stormwater on site, up to a 10- or 25-year design storm, using methods found in the Yakima Regional Stormwater Manual. To obtain short or long subdivision approval, proposed development projects in Yakima County require a site drainage plan demonstrating how stormwater will be retained and infiltrated on site (County Ordinance 14.48.100). Likewise, the County and City of Yakima requires all off street parking drainage to be disposed of on site (Yakima Municipal Code 15.06.110). For building projects over 4,000 square feet in Sunnyside, a professional architect or engineer must prepare a stormwater disposal system to obtain a building permit.

Ordinances were adopted in February 2010 as follows:

<u>Jurisdiction</u>	<u>Date Adopted</u>	<u>Ordinance/Resolution Number</u>
Yakima County	February 16, 2010	1-2010
City of Yakima	February 16, 2010	2010-08
City of Sunnyside	February 8, 2010	2010-3
City of Union Gap	February 8, 2010	2660

### MEASURABLE ACTIVITIES

1. The co-permittees will review construction project plans that require post-construction stormwater BMPs identified in the ordinance adopted in §S5.B.5.a of the permit.
2. The co-permittees will conduct annual training sessions for post-construction plan review staff as needed, depending on staff turnover.

### ASSESSMENT

1. Record the number of post-construction stormwater control plans received, reviewed and approved/disapproved by staff.
2. Document training events. Include number of employees, class rosters, locations.

### ACCOMPLISHMENTS

- Number of post-construction site plans reviewed and approved in 2012

	Plans reviewed	Plans approved
City of Sunnyside	0	0
City of Union Gap	1	1
City of Yakima	5	5
<u>Yakima County</u>	<u>0</u>	<u>0</u>



Total:	6	6
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Yakima County and the City of Sunnyside did not have any qualifying sites. The region continues to be affected by the national economic downturn.

### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. Water quality should improve over time as code enforcement personnel contact potential violators, public education messages highlight the new requirement and that proper BMP facilities are selected and designed correctly as a result of the ordinance.

## Performance Measure

### ***S5.B.5. Continue Post-Construction Site Inspections***

***ILA=No***

#### **GOAL**

Inspect sites discharging to the MS4 to ensure appropriate post-construction BMPs are installed and functioning correctly.

#### **EXISTING ACTIVITIES**

The co-permittees have established construction inspection programs. Inspectors visit each construction site during active phases of public improvements and private development to record the activities conducted at the site and to ensure construction is completed according to approved plans. No similar program exists for follow-up once construction is completed.

Public complaints for flooding and water quality are routed to the Yakima County Flood Control Zone District, city public works, or wastewater departments. Response generally consists of a site visit to view the problem and check for physical obstruction, blockage or source control needs to resolve the complaint.

#### **MEASURABLE ACTIVITIES**

1. The co-permittees will inspect post-construction BMP sites that discharge to the MS4 to ensure that BMPs are installed in accordance with approved designs.
2. The co-permittees will inspect newly constructed and existing BMPs that discharge to the MS4 to ensure they are performing as designed.
3. The co-permittees will provide training to post-construction site inspectors including BMP types and functions.

#### **ASSESSMENT**

1. Record the number of post-construction stormwater control site inspections performed by staff.

#### **ACCOMPLISHMENTS**

- Number of post-construction site inspections in 2012:

	Site Inspected
City of Sunnyside	0
City of Union Gap	1
City of Yakima	5
<u>Yakima County</u>	<u>0</u>
Total:	6

Yakima County and the City of Sunnyside did not have any qualifying sites. The region continues to be affected by the national economic downturn.

## **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. The procedure and training should help inspectors assure projects are compliant with the ordinance during inspections. The inspections should help resolve any deficiencies in BMP installation improving water quality by providing for adequate treatment and flow control.

## PERFORMANCE MEASURE

<b>S5.B.4 Provide Post-Construction Training Information</b>
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<b>ILA=Yes</b>
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### GOAL

Gather and provide information on training opportunities in the Pacific Northwest and nationally applicable to the proper selection, installation, and maintenance of post-construction stormwater control BMPs.

### EXISTING ACTIVITIES

The RSL provides periodic reports containing training opportunities to the RSPG members. Training information is available on the Regional Stormwater Management website.

### MEASURABLE ACTIVITIES

1. The RSL will provide a quarterly list of post-construction BMP training opportunities on the RSMP website. Sources will include the world wide web (internet), trade magazines, and product mailings.
2. Co-permittees will provide information they receive on training opportunities through professional contacts or other sources.

### ASSESSMENT

1. Maintain a record of training opportunities identified and made available.

### ACCOMPLISHMENTS

- A current list of training opportunities is provided on the regional stormwater web site ([link](#)).

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. Training opportunities were regularly visited pages on the Regional Stormwater web site.

## **2.5 Pollution Prevention & Good Housekeeping for Municipal Operations Program Element**

Stormwater discharges from municipal operations conducted by public agencies with permitted MS4's are regulated under the Eastern Washington Phase II NPDES Stormwater Permit.

### *2.5.1 Permit Requirements for Pollution Prevention and Good Housekeeping*

Regulated communities must continue implementation of MS4 O&M plan; inspect stormwater treatment and flow control facilities every two years; conduct spot checks after storm events; conduct O&M and SWPPP requirements for municipal lands and facilities; and train staff.

### *2.5.2 Supporting Program Elements*

Additional performance measures that partially address this program element include detecting and eliminating illicit discharges to the storm drain systems described above in Section [2.3](#).

Some key municipal facilities are already required to develop SWPPP plans for compliance with the Washington Department of Ecology Industrial Stormwater General Permit.

### *2.5.3 Performance Measures*

## PERFORMANCE MEASURE

<b><i>S5.B.6 Follow O&amp;M Plans at Municipal Facilities</i></b>
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<b><i>ILA=No</i></b>
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### GOAL

Perform activities identified in existing Operation and Maintenance Plans (O&M Plans) for designated co-permittee facilities.

### EXISTING ACTIVITIES

The regional permittees operate several properties to facilitate their operations: County Jails, County and City corporation yards in Yakima, Union Gap and Sunnyside, wastewater treatment plants in Yakima, Buena and Sunnyside, a solid waste transfer station near Granger, and the County landfill at Terrace Heights. The City of Yakima operates a golf course, airport and cemetery as well as several parks. Many of these facilities are hazardous waste generators and must already have pollution prevention plans to comply with Ecology hazardous waste regulations. Stormwater Pollution Prevention Plans (SWPPP) are required for many of these same sites under the Ecology Industrial Stormwater Permit.

### MEASURABLE ACTIVITIES

1. The co-permittees will perform activities identified in O&M plans for municipal facilities.

### ASSESSMENT

1. Record O&M Plan implementation and monitoring of activities or operations that potentially impact stormwater quality.

### ACCOMPLISHMENTS

- O&M plans were followed in accordance with O&M manuals developed for regional municipal facilities.

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. It is anticipated that implementation of the practices identified in the O&M plans will improve water quality discharged from the MS4.

## PERFORMANCE MEASURE

### ***S5.B.6 Spot Check MS4s Following >10 Year Events***

***ILA=No***

#### **GOAL**

Conduct infrastructure spot checks following storm runoff events following larger storms that may damage the MS4.

#### **EXISTING ACTIVITIES**

The regional permittees have ongoing responses to major runoff and flood events. The Yakima County Flood Control Zone District has a flood response plan. A GIS data layer of runoff has been developed, based on precipitation and impervious surface.

#### **MEASURABLE ACTIVITIES**

1. The RSL will identify >10 year event conditions.
2. The RSL will provide one inspection form for use by co-permittees during inspection.
3. Co-permittees will spot check the MS4 following events meeting the >10 year event.
4. Co-permittees will repair or perform needed repair or maintenance as soon as practicable pursuant to the findings of a regular inspection or spot check.
5. The RSL will collect inspection form data and compile it for the annual permit report.

#### **ASSESSMENT**

1. Retain inspection forms.
2. Report results of inspections and repairs made following >10 year events or regular inspections

#### **ACCOMPLISHMENTS**

- No events greater than the 10-year, 24-hour event occurred. A high-intensity, short duration thunderstorm outside Sunnyside on July 20, 2012 did not generate runoff or flooding within Sunnyside or the County stormwater permit area surrounding Sunnyside.

#### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. Spot inspections are an effective method to assess any damage to stormwater flow control and treatment facilities after large storm events (10 year 24 hour recurrence interval).

## PERFORMANCE MEASURE

### ***S5.B.6 Conduct Employee Education and Training***

***ILA=Yes***

#### **GOAL**

Increase regional municipal employee awareness of stormwater pollutants and BMPs for reducing pollutants from municipal operations. Educate employees in facilities with stormwater O&M plans about plan components and requirements.

#### **EXISTING ACTIVITIES**

Training is required by the permit for staff in the illicit discharge and detection program at Section 2.3. Co-permittees have departments that currently train staff on a variety of topics including hazardous materials and safety, which overlaps with pollution prevention and stormwater. Spill prevention plans are already required for hazardous material storage and handling.

#### **MEASURABLE ACTIVITIES**

1. Co-permittees will identify groups of employees and departments that require training.
2. The RSL will develop and provide training programs for groups of employees identified above.

#### **ASSESSMENT**

1. List regional municipal staff groups identified to receive training.
2. Keep a record of training events provided and the training materials presented. Record the date, location and employees in attendance.

#### **ACCOMPLISHMENTS**

- Two trainings were provided to 23 City of Union Gap and Yakima County employees. City of Yakima and Sunnyside will be trained again in early 2013.

#### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. It is anticipated that as employees learn about and implement stormwater O&M plans, better BMP maintenance and practices will result in improved water quality discharged from the MS4.

### **2.6 Monitoring and Program Evaluation Element**

The Eastern Washington Phase II Municipal Stormwater Permit contains sampling and program evaluation requirements.

#### ***2.6.1 Permit Requirements for Monitoring and Program Evaluation***

Ecology does not require permittees to collect water samples during the term of the current permit unless they are characterizing an illicit discharge or complying with a TMDL. Annual reports must include a description of any sampling conducted. The annual report must also include an assessment of the appropriateness of each component of the SWMP and, if changes are anticipated, why those changes are being implemented. Municipalities must prepare for sampling in the next permit cycle by developing a monitoring plan that identifies two monitoring questions, identifies three outfalls, and identifies at least two BMPs for effectiveness monitoring.



### *2.6.2 Supporting Program Elements*

None to date.

### *2.6.3 Performance Measures*

## Performance Measure

### **S7. TMDL Technical Participation If Appropriate**

**ILA=Yes**

#### **GOAL**

Increase permittee participation in the TMDL process to reduce stormwater contribution of pollutants in a specific reach of water potentially impacted by MS4 discharges.

#### **EXISTING ACTIVITIES**

No TMDLs have been established in the permit area to date that impact co-permittee MS4s. The co-permittees participate in TMDLs under development as members of technical advisory groups, including the Yakima Area Creeks projects.

#### **MEASURABLE ACTIVITIES**

1. Co-permittees will identify TMDL projects that may involve their MS4 discharges.
2. Co-permittees will participate as Technical Advisory Group members during the TMDL process.

#### **ASSESSMENT**

1. List of TMDL projects in proximity to regional co-permittee MS4 boundaries.
2. Maintain a record of TAG attendance.

#### **ACCOMPLISHMENTS**

- No activities were required during the previous calendar year.
- Status of TMDLs potentially affecting RSPG partners, as of March 19, 2013 on Ecology's [web site](#).

<b>Waterbody</b>	<b>Pollutant(s)</b>	<b>Status</b>
Yakima Area Urban Creeks	Fecal coliform, Temperature	Under Development
Yakima River	Toxics	Under Development

#### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP. It has not been fully implemented, therefore appropriateness cannot be evaluated.

## PERFORMANCE MEASURE

<b>S8.A Water Sampling</b>	<b>ILA=No</b>
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### GOAL

Collect and report water samples in response to illicit discharge investigations and TMDL requirements.

### EXISTING ACTIVITIES

No sampling in related programs occurred in 2012.

### MEASURABLE ACTIVITIES

1. Co-permittees will sample in accordance with the illicit discharge investigation procedure (TBD).
2. Co-permittees will report sampling activity annually to the RSL.
3. The RSL will compile sample activity reports from co-permittees and report with the annual permit report.

### ASSESSMENT

1. Report sampling information in the annual report.

### ACCOMPLISHMENTS

- No sampling occurred. Sampling is a tool used if other IDDE measures do not identify a source(s).

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. It has not been fully implemented, therefore appropriateness cannot be evaluated.

## **PERFORMANCE MEASURE**

<b><i>S8.B Evaluate Program Performance Measures</i></b>
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<b><i>ILA=Yes</i></b>
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### **GOAL**

Assess the appropriateness of performance measures for each program element.

### **EXISTING ACTIVITIES**

None to date.

### **MEASURABLE ACTIVITIES**

1. The RSL will perform assessments of the six stormwater program element performance measures identified by permit sections S5.B.1 through S5.B.6.
2. Co-permittees will provide information and feedback on the appropriateness of each performance measure.
3. The RSL will report the assessments in each annual report.

### **ASSESSMENT**

1. Document the assessment process.
2. Retain annual reports.

### **ACCOMPLISHMENTS**

- This RSWMP includes an assessment of each Performance Measure for appropriateness.

### **APPROPRIATENESS**

This Performance Measure is a permit requirement and is included in the SWMP.

## PERFORMANCE MEASURE

<b>S8.C. Monitoring Preparation</b>	<b>ILA=Yes</b>
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### GOAL

Prepare to participate in the implementation of a future comprehensive long-term monitoring program described in the permit.

### EXISTING ACTIVITIES

The co-permittees will collaborate with other Eastern Washington (EWA) Phase II permittees to review effectiveness study ideas, define sub-regions/groups and potential partnerships, compile list of 12-15 study ideas for EWA and identify lead entity for each.

### MEASURABLE ACTIVITIES

1. EWA permittees will collaborate to submit a ranked list of 12 to 15 study ideas for EWA, and for each idea a summary of data collection needed, lead entity, and participating permittees.

### ASSESSMENT

1. Activities are required by June 30, 2016.

### ACCOMPLISHMENTS

- No activities were required during the previous calendar year.

### APPROPRIATENESS

This Performance Measure is a permit requirement and is included in the SWMP. Development of monitoring studies is generally considered good practice to direct future monitoring efforts to ensure monitoring is effective and cost effective.

## GLOSSARY

**Best Management Practices (BMPs)** – Best management practices are the schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices approved by Ecology that, when used singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to receiving waters.

**Maximum Extent Practicable (MEP)** – MEP refers to paragraph 402(p)(3)(B)(iii) of the Federal Clean Water Act, which reads as follows: Permits for discharges from municipal storm sewers 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 other such provisions as the Administrator or the State determines appropriate for the control of such pollutants.

**Measurable Goal** – Definable tasks or accomplishments that are associated with a performance measure.

**Municipal Separate Storm Sewer System (MS4)** – A conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, stormwater, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**National Pollutant Discharge Elimination System (NPDES)** - The national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

**New Development** – Land disturbing activities, including Class IV general forest practices that are conversions from timber land to other uses; structural development, including construction or installation of a building or other structure; creation of impervious surfaces; and subdivision, short subdivision and binding site plans, as defined and applied in Chapter 58.17 RCW. Projects meeting the definition of redevelopment shall not be considered new development.

**Outfall** – Means point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

**Performance Measure** – An activity performed to implement one of the eight permit program elements.

**Point Source** – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other

floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural runoff.

**Program Element** – One of the eight program components included in Sections S5.B.1 through S5.B.6, S7, and S8 of the Eastern Washington Phase II Municipal Stormwater Permit.

**Redevelopment** - The replacement or improvement of impervious surfaces on a developed site.

**Return Frequency or Recurrence Interval** - A statistical term for the average expected time interval between events (e.g., flows, floods, droughts, or rainfall) that equal or exceed given conditions. Recurrence interval can be converted to probability by dividing the return frequency into one year. For example, a 100-year event has a one percent chance of occurring in any given year ( $1/100 = 0.01$ ); a 5-year event has a 20 percent chance ( $1/5 = 0.20$ ) of occurring in any given year.

**Runoff** - Water that travels across the land surface, or laterally through the ground near the land surface, and discharges to water bodies either directly or through a collection and conveyance system. Runoff includes stormwater and water from other sources (e.g. snowmelt) that travels across the land surface.

**Stormwater Pollution Prevention Plan (SWPPP)** – A documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

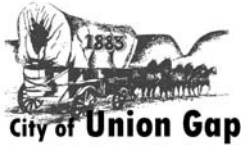
**Waters of the State** – Those waters as defined as waters of the United States in 40 CFR 122.2 within the geographic boundaries of Washington State and waters of the state as defined in Chapter 90.48 RCW which includes: lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington.

## Appendix A. 2012/2013 Stormwater Public Outreach plan.



# 2012/2013 Stormwater Public Outreach

For the Stormwater Programs of:



## INTRODUCTION & GOALS

The cities of Yakima, Sunnyside and Union Gap, along with Yakima County, are currently co-permittees under Washington Department of Ecology's Eastern Washington Phase II Municipal Stormwater Permit for stormwater discharges to local waterways. A requirement of the permit is to perform public education and outreach to three specific audiences and other audiences identified by the permittees. The current permit expires February 16, 2012. Ecology issued two versions of the next permit as directed by 2011 legislation: 1) A permit to be effective from August 1, 2012 through July 31, 2013 that is unchanged from the 2007-2012 permit; and 2) an updated permit for a 5-year permit term, to become effective beginning August 1, 2013. The current (2007) permit will remain in effect until the August 1, 2012. Activities undertaken by the co-permittees during the first permit have been completed. This plan outlines Public Education and Outreach activities to be performed by the co-permittees from February, 2102 through August, 2013.

This public outreach plan is designed to educate and help change public attitudes and behavior with respect to stormwater management. The goals for this outreach include the following:

- Residents understand the basic concepts of stormwater and the general impact of their actions.
- Residents understand that street drainage is generally untreated and anything they put on the streets ends up in area waters.
- Residents are aware that roadside ditches and street drains are for conveying road runoff and are not designed to handle residential stormwater and non-stormwater discharges.
- Residents become aware of actions they can take to reduce stormwater pollution.

- Homeowners and builders understand and comply with stormwater management requirements.
- Businesses properly manage their stormwater runoff and use business practices that are in compliance with local ordinances prohibiting illicit discharges to public stormwater facilities.

## **APPROACH**

This stormwater outreach plan is intended to provide effective, achievable strategies to accomplish the program goals. The outreach plan seeks to start residents and businesses on a progression from awareness of stormwater; to adopting targeted behaviors that improve stormwater management; to encouraging others to join them in making changes. The activities will be based on; what is the problem, who is creating the problem, what outreach material and avenue would work best, what kind of confirming information is needed, and what kind of follow-up is needed. A meeting of co-permittees in December, 2102 generated a list of audiences and outreach activities for the group to pursue. The following list describes those actions.

## **2012/2013 ACTIVITIES**

- Continue outreach to business organizations and community groups by more intensive advertisement of the speaker's bureau - lead Yakima County.
- Develop and distribute general educational mailings to businesses and residents (one product for each, two languages). Develop and distribute five (5) specific business informational outreach items. Examples, trucking companies, auto repair shops, carpet cleaners, home improvement/drywall projects, landscapers, painters, janitorial services, deicing and oil tracking on roadways – Cost is staff time to copy and adapt existing materials - all jurisdictions to participate in distribution; lead Yakima County.
- Continue effort to provide general education messages on billboards and/or busses – 6 month yearly campaign \$10,000 – lead Yakima County. Topics will vary, but the focus will be on general stormwater pollution and prevention.
- Conduct a follow-up phone survey of residents to measure effectiveness – yearly \$5,000 – lead Yakima County.
- Provide stormwater educational videos (Public Service Announcements or PSAs) on the Yakima Public Affairs Channel (Y-PAC). Initial discussions with Y-PAC indicate that they will run videos provided by City of Yakima staff for free. Many videos are available from EPA and Ecology. Staff time to obtain existing materials and coordinate PSAs with Y-PAC - lead City of Yakima.

- Sponsor an educational booth at the Central Washington Fair providing coloring books, pamphlets that provide education related to the goals identified in this document - lead City of Yakima.
- Update the County website with educational information on what residents and businesses can do – cost is staff time - lead Yakima County.
- Continue violation driven outreach as needed. Letters to specific businesses will come from the jurisdiction; letters to all businesses of one type will use the co-permittee letterhead – all jurisdictions.

## **OVERALL PROGRAM EVALUATION**

The ultimate goal of evaluation strategies is to link the outreach campaign directly to improvements in environmental quality. The objective of this plan is to develop long-term plans for conducting and maintaining outreach and evaluating and quantifying program effectiveness.

- Track number of violation notices.
- Random phone survey yearly of residents to assess understanding of stormwater system and impacts.
- Track number of calls to the Yakima County Stormwater Utility about stormwater management.
- Track number of visits to website pages.

## **OTHER ACTIVITIES**

Each co-permittee community may engage in additional outreach activities to meet a local stormwater audience, such as providing poop bags in parks or maintaining displays in city or county buildings.