



WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

Designing a Program for our Local Climate and Conditions

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Who is on the Eastern Washington Stormwater Steering Committee?

- Ross Dunfee, Benton County, Steering Committee Chair
- John Knutson, Yakima County, Phase II Model Program Subcommittee Chair
- Steve Worley, Spokane County, Stormwater Manual Subcommittee Chair
- Nancy Aldrich, City of Richland
- Jim Ajax, City of Wenatchee
- Gary Beeman, Washington State Department of Transportation
- Lloyd Brewer, City of Spokane
- Michelle Brich, Home Builders Association of Tri-Cities
- David Sypher, City of Chelan
- Thomas Tebb, Department of Ecology - Central Region

What is Stormwater Runoff?

Stormwater runoff is water that drains off the land after rainstorms and snowmelts. In urban areas it flows over surfaces such as rooftops, paved streets, highways, parking lots, graveled roads, and lawns. Stormwater runoff eventually infiltrates into the ground or is collected in storm drains or ditches and discharged to surface waters (wetlands, creeks, rivers, lakes).

Even though Eastern Washington has an arid climate, urban stormwater still poses problems for human health, public infrastructure, and the environment. After stormwater flows across the land, it can pick up pollutants such as oil and other fluids from automobiles, toxic metals, organic chemicals, and harmful pathogens. Creation of impervious surfaces, buildings, parking lots and roads, and erosion caused by clearing away grasses, trees and shrubs, are the leading causes of stormwater pollution. Sediment eroded from construction sites can clog drainage facilities and/or muddy streams and damage fish spawning areas.

Untreated stormwater:

- Is not safe for people to drink, and sometimes not safe for swimming,
- Can infiltrate to groundwater and may contaminate local drinking water supplies,
- Can pollute streams and impact fish and other aquatic organisms, and
- Can cause erosion and damage drainage facilities, public roads, and sidewalks.



How is Stormwater Runoff Regulated?

The U.S. Environmental Protection Agency established Phase I stormwater regulations in 1990. They required stormwater permits for discharges from certain industries, construction sites disturbing five or more acres, and municipalities with more than 100,000 people. Phase II stormwater regulations, passed in 1999, expand permit requirements to smaller urbanized municipalities and construction sites between one and five acres. (See article on Page 2 for more specifics.)

What do the Stormwater Regulations Mean for Eastern Washington?

Many Eastern Washington communities will need to comply with the Phase II stormwater permit requirements, which become effective in March 2003. The Washington State Department of Ecology is currently partnering with Eastern Washington communities and other stakeholders in a project to develop a stormwater management manual and a model Phase II municipal stormwater program (model program) for Eastern Washington. This stormwater manual and model program are being designed specifically for the Eastern Washington climate, soils, and conditions. They will help the regulated communities comply with the new permit requirements.

Ecology is managing the project, however, it is being guided by a Steering Committee, a Stormwater Manual Subcommittee, and a Stormwater Model Program Subcommittee. A consultant team has been hired to work with the committees and develop the stormwater manual and model program. (See the articles on pages 2 and 3 for more details on the stormwater manual and model program development.)

New Federal Stormwater Regulations

A New Model Program Will Help Regulated Communities Comply

What are the New Regulations?

In 1999, the Federal Environmental Protection Agency (EPA) passed final Phase II National Pollutant Discharge Elimination System (NPDES) stormwater regulations as part of the Clean Water Act. They expand the requirement for stormwater permits to all municipalities located in “urbanized” areas. Urbanized areas are defined by the Bureau of the Census. A stormwater permit is also required for construction sites disturbing one acre or more. The regulations also require an evaluation of cities outside urbanized areas that are more than 10,000 in population to determine if a permit is necessary for some or all of these cities.

Under the new Phase II rule, as many as 19 municipalities in Eastern Washington may need municipal stormwater permits. The Washington State Department of Ecology will be issuing the permits, since they have been delegated NPDES regulatory authority from EPA. Federal rules require that municipal permits be issued by December 2002, and permit holders must submit a Phase II stormwater plan to Ecology by March 2003. Ecology currently plans to issue a draft permit by December 2002 and a final permit by June 2003.

Why is a Model Municipal Program Being Developed for Eastern Washington?

The Department of Ecology recognizes that most Eastern Washington communities do not currently have stormwater management programs in place. Ecology also recognizes that the needs and characteristics of Eastern Washington communities will result in stormwater programs that are distinctly different than those in Western Washington.

A model municipal program is being developed to help Eastern Washington communities comply with the NPDES Phase II stormwater permit requirements. It will provide a framework, options, and resources that municipal governments can use to develop their local stormwater programs to reduce pollutants discharged to groundwater and surface water.

What are the Elements of a Stormwater Program?

The Phase II regulations require the development of stormwater programs that include, at a minimum, the following six measures. The Eastern Washington model program will provide options and guidance for complying with stormwater permit requirements and developing the required stormwater program elements.

- **Public Education and Outreach** - distribute educational materials, conduct outreach activities, sponsor stormwater program activities.
- **Public Participation/Involvement** - provide opportunities for public participation.
- **Illicit Discharge Detection and Elimination** - develop a storm drain map of all outfalls and receiving waters and prohibit non-stormwater discharges.
- **Construction Site Runoff Control** - develop a program to reduce pollutants from construction activities on sites ≥ 1 acre (this will be included in the new stormwater manual).
- **Post-construction Stormwater Management in New Development and Redevelopment** - develop a program to address runoff from new development and redevelopment projects that disturb ≥ 1 acre (this will be included in the new manual).
- **Pollution Prevention and Good Housekeeping of Municipal Operations** - develop a pollution prevention program for municipal operations, train government employees to prevent and reduce stormwater pollution from maintenance activities.

Which Eastern Washington Communities will be Affected by the Phase II Stormwater Regulations?

The US Census defined “Urbanized Areas” in:

| | |
|------------------------|----------------------|
| Benton County | Millwood |
| Kennewick | Spokane |
| Richland | Yakima County |
| West Richland | Selah |
| Franklin County | Union Gap |
| Pasco | Yakima |
| Spokane County | |

Note: The following Eastern Washington communities must be evaluated by Ecology to determine if they require a permit: Ellensburg, Moses Lake, Pullman, Sunnyside, Walla Walla, Wenatchee.

How is the Model Municipal Program Being Developed?

The Model Program Subcommittee is working with Ecology staff and a consultant team to develop the program. The subcommittee and consultant team are reviewing existing information and approaches. Draft materials are being developed by the consultant team and reviewed by the subcommittee. An initial draft of the Model Phase II Municipal Stormwater Program will be available for public review in summer 2002.

Stormwater Manual for Eastern Washington

Development Requirements Will be Tailored to Local Climate and Geology

Why is a Stormwater Manual Being Developed for Eastern Washington?

As described in the previous article, the NPDES Phase II stormwater regulations will require regulated municipalities to develop stormwater programs to protect surface water quality. These stormwater management programs must include application of design principles and construction techniques for new development and redevelopment. Appropriate techniques will prevent sediments and other pollutants from entering surface water, control pollution from specific sources, alleviate impacts to waterways associated with altered drainage patterns, and provide treatment of runoff to reduce pollutants.

The objective of the Eastern Washington stormwater manual is to provide commonly accepted technical standards and guidance on stormwater management. Since Eastern Washington has distinct climatic and geologic regions, the new stormwater manual will include techniques that are applicable to Eastern Washington's local variations and dry conditions. The Department of Ecology may issue permits that require regulated NPDES Phase II municipalities in Eastern Washington to implement portions of the technical manual.

What Will be Included in the Stormwater Manual?

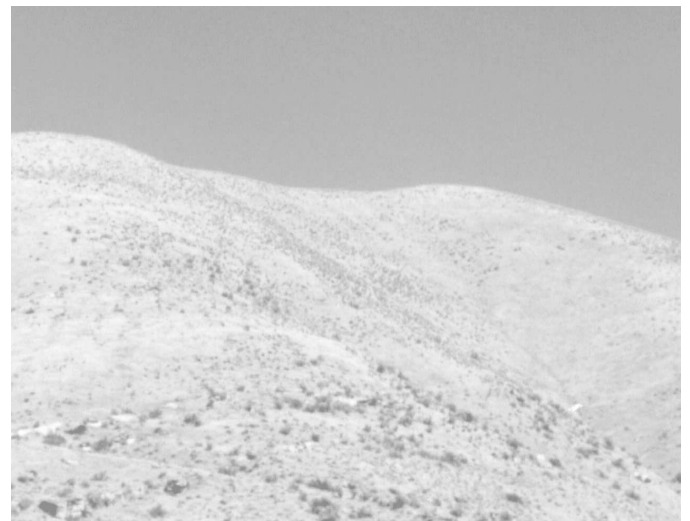
The stormwater manual that is being developed will include:

- **Minimum Requirements for:** erosion control, control of specific sources of pollution, preservation of natural drainage systems, water quality treatment of stormwater runoff, flow control, and maintenance and operations.
- **Specific Criteria for:** hydrologic analysis, infiltration and detention systems, water quality facilities, drainage basin plans and calculations, and temporary erosion and sedimentation control.

How is the Stormwater Manual Being Developed?

The Manual Subcommittee is working with Ecology staff and a consultant team to develop the requirements and content of the technical document. The subcommittee and consultant team are reviewing existing information and evaluating Eastern Washington climatic, hydrologic, and geologic conditions. Draft materials are being developed by the consultant team and reviewed by the subcommittee. It is anticipated that an initial draft of the Stormwater Manual will be available for public review in early summer 2002.

Arid Palouse Hills in Eastern Washington



What is the Project Timeline?

| Early Summer 2002 | Late Fall 2002 | December 2002 | January 2003 | April 2003 | May 2003 |
|---|--|---|---|---|--|
| Draft Stormwater Manual and Phase II Model Municipal Program documents available for public review. Public meeting will be held to gather comments. | Final Draft Manual and Model Program documents available for review. | Ecology publishes Draft Phase II Municipal Stormwater Permit. | Final Manual and Model Program documents available. | Ecology issues Municipal Stormwater Permit. | Municipal Stormwater Permit becomes effective, municipalities then have 90 days to apply for coverage. |

Public Involvement

Future Opportunities You Will Not Want to Miss

A series of public meetings are planned to gather input.



Ecology is an equal opportunity agency. If you have special accommodation needs, please call Donna Lynch at (360) 407-7529 (Voice) or (360) 407-6006 (TDD). Email may be sent to dlyn461@ecy.wa.gov.

Various public involvement opportunities will be offered during the development of the Eastern Washington Model Program and Stormwater Manual. The Department of Ecology, Eastern Washington Stormwater Steering Committee, and the subcommittees want to increase awareness of stormwater management in Eastern Washington, inform the public about the project, and provide opportunities for review and comment.

A stakeholder workshop was held in November 2001 to provide information and solicit input. Summaries of Steering Committee and subcommittee meetings are available for review on the project web site. Some of the additional public information and involvement opportunities that are being offered or conducted include:

- A series of newsletters that provide information on the planning process.
- Presentations to and meetings with community groups.

- A series of public meetings to gather comments on the draft documents.
- Requests to the media to present information on stormwater issues.

Be sure to visit the project web site at www.ecy.wa.gov/programs/wq/stormwater, click on Eastern Washington Stormwater News. Remember to check back periodically for updated information about the project and opportunities to be involved with the planning process. To be added to the project mailing list, contact **Sarah Hubbard-Gray** at (509) 465-9410 or shgray@qwest.net. If you have questions about the project, or would like to request a presentation at a community/association meeting, call **Ross Dunfee**, Steering Committee Chair at (509) 786-5611, or **Tony Barrett**, Ecology Project Manager at (360) 407-6467.

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Stormwater Management for Eastern Washington



Washington State Dept. of Ecology
c/o Tetra Tech / KCM Inc.
1235 N. Post, Suite 101
Spokane, WA 99201