

Municipal Stormwater

What is Urban or Municipal Stormwater?

Urban stormwater is water within higher population densities that runs off surfaces such as rooftops, paved streets, highways, and parking lots. It can also come from hard grassy surfaces like lawns, play fields, and from graveled roads and parking lots. As the water runs off these surfaces, pollution such as animal waste, chemicals, and oil are conveyed into larger bodies of water naturally or through a series of storm drains and pipes. These sources of pollution are considered non-point sources of pollution and can pose a problem to the health of residents and the environment. However, the *discharge* stormwater is a point source of pollution and requires a federal permit under the Clean Water Act (CWA) known as a National Pollution Discharge Elimination System permit (NPDES).

Why is Urban Stormwater a Problem in Washington?

Human Health: In general, untreated stormwater is unsafe. It contains toxic metals, organic compounds, and bacterial and viral pathogens. Untreated stormwater is not safe for people to drink, and is not recommended for swimming.

Salmon Habitat: In western Washington, urban stormwater harms/pollutes streams that provide salmon habitat. Alterations to the watershed such as building homes and other structures, and clearing away trees and shrubs are the leading causes for stormwater pollution.

Drinking Water: In some areas of Washington, notably Spokane County, and parts of Pierce and Clark counties, gravelly soils allow rapid infiltration of stormwater. Untreated stormwater discharging to the ground could contaminate aquifers that are used for drinking water.

Degraded Water Bodies: Virtually all of our urban embankments, creeks, streams, and rivers are harmed by urban stormwater. Stormwater is the leading contributor to water quality pollution of urban waterways.

State Authority and the Clean Water Act (CWA)

DOE is the agency responsible for administrating and enforcing the federal Clean Water requirements in Washington State as the Environmental Protection Agency (EPA) has delegated their authority to the DOE. This state department also regulates our own state's water quality standards found under the Water Pollution Control Act (RCW 90.48). Any water quality discharge permit, whether it is a general permit or an individual permit, an NPDES permit or a state water quality permit, must be approved and regulated by DOE. The only exceptions to these permits are federal and tribal institutions. Another point to consider is the federal NPDES permit only applies to "waters of the US" which includes all marine waters and rivers which are generally referred to as navigable. The state water quality discharge permits which are found under the state's Water Pollution Control Act applies to "waters of the state" which are all other surface waters, including groundwater within the state of Washington.

History of Urban Stormwater Regulations

In 1987, congress changed the federal Clean Water Act by declaring the discharge of stormwater (traditionally considered a nonpoint source) from certain industries and municipalities to be a point source of pollution requiring National Pollutant Discharge Elimination System (NPDES) permits or water quality discharge permits.

Phase I Stormwater Permits

The EPA stormwater regulations established two phases for the stormwater permit program. Phase I stormwater NPDES permits have been issued to cover stormwater discharges from certain industries, construction sites involving five or more acres, and municipalities with a population of more than 100,000 which have a municipal separate stormwater system (MS4s).

The public entities that are covered under Phase I Municipal Stormwater NPDES permits include: King County, Pierce County, Snohomish County, Clark County, City of Seattle, the City of Tacoma, and the Washington State Department of Transportation (WSDOT).

Phase II Stormwater Permits

On October 29, 1999, the final Phase II stormwater regulations were signed into rule by EPA. The Phase II regulations expand the requirement for stormwater permits to small municipalities with MS4s located in urbanized areas, and to construction sites between one and five acres. The rule also requires an evaluation of cities outside of urbanized areas that have a population of 10,000 or more to determine if a permit is necessary for some or all of these cities. Under the new rule, more than ninety additional municipalities in Washington, were “on the bubble” as to whether they would be required to have a Phase II Stormwater permit. Some of these “bubble cities” are located in Eastern Washington where annual precipitation is very low and the likelihood of stormwater runoff is considered by many to be insignificant. As the DOE is the regulating authority for water quality permits, the director of Ecology made the decision to require all “bubble cities” to obtain and comply with Phase II Stormwater Permits.

Western and Eastern Washington Phase II Municipal Stormwater Permits

The EPA phase II regulations went into effect in early 2003 and apply to all regulated small municipal separate storm sewer systems. On January 17, 2007 Ecology issued two phase II municipal stormwater permits, one for western Washington and one for eastern Washington.

- The **Phase II permit for western Washington** covers at least 80 cities and five counties, and took effect on **January 17, 2007**.
- The **Phase II permit for eastern Washington** covers 20 cities and eight counties, and took effect on **February 16, 2007**.

Stormwater Pollution Prevention Plan

Both the Phase I and Phase II Municipal Stormwater Permits require the implementation of a Stormwater Management Program. The Stormwater Management Program is a plan for the term of the permit to reduce the discharge of pollutants, reduce impacts to receiving waters, eliminate illicit discharges, and make progress towards compliance with surface water, ground water and sediment standards.

Under current law, urban stormwater activities are regulated under the method of best management practices or BMPs. The definition of BMPs as defined in the state’s stormwater manuals are defined as “as schedules of activities, prohibitions of practices, maintenance procedures, and structural and/or managerial practices, that when used singly or in combination, prevent or reduce the release of pollutants to waters of Washington State.”

Comments

Current and anticipated federal Endangered Species Act (ESA) and Clean Water Act stormwater requirements are only placing more demands on state and local governments for staffing and resources. Urban stormwater management represents a significant funding challenge for both local and state governments, as well as a potential outstanding liability due to third party actions as allowed under the CWA.