

EPA Requests Comment on Draft Stormwater Permit for Joint Base Lewis McChord

Joint Base Lewis MChord Washington

February 2012

The Environmental Protection Agency proposes to issue a permit to Joint Base Lewis-McChord (JBLM) for discharges of stormwater from the portion of the military base located in Pierce and Thurston Counties, Washington.

Stormwater runoff from the JBLM base discharges through the municipal separate storm sewer system

(MS4) to Clover Creek, Murray Creek, American Lake and Puget Sound.

The draft permit and a fact sheet explaining the permit conditions are available for public review and comment through **March 30, 2012**. These documents are available online at www.epa.gov/region10/stormwater.htm or by calling EPA at (206) 553-6650.

Public Meeting

EPA will hold a public meeting to discuss the permit

Monday, March 19, 2012

⌚ **6:00 p.m. — Open House**

⌚ **6:30 - 8:00 p.m. — Public Meeting**

Lakewood Library

**6300 Wildaire Road Southwest
Lakewood, Washington 98499**

Comments on the Draft Permit Will Be Accepted through March 30, 2012.

Send or e-mail comments by March 30, 2012 to:

EPA Region 10

Office of Water and Watersheds, OWW-130

Attn: NPDES Stormwater – JBLM

1200 Sixth Avenue, Suite 900

Seattle, WA 98101

or via email to the following address:

vakoc.misha@epa.gov

After the comment period, EPA will consider and respond to all comments, and make any necessary changes to the draft permit. The Washington Department of Ecology will also consider certifying the permit in accordance with Section 401 of the Clean Water Act (CWA). The EPA Director of the Office of Water & Watersheds will then make a final decision about permit issuance.

Background

Stormwater is the surface runoff from rain and snow melt. Urban development alters the land's natural ability to infiltrate and evaporate rainfall. Human activities generate a host of pollutants that can accumulate on paved surfaces. Polluted storm water runoff is often carried to municipal separate storm sewer systems (MS4s) and is ultimately discharged into local rivers and streams without treatment.

Stormwater runoff is a major contributor of pollutants in Puget Sound, and is implicated as a cause of declining salmon populations in Western Washington. Stormwater carries pollutants from the developed landscape, such as oil, sediment, dissolved

metals, bacteria, pesticides and fertilizers. Many of these can end up in Puget Sound. Runoff from paved areas also generates high runoff flow volumes during large rainfall events, which scours stream channels and destroys valuable salmon habitat in streams.

Because stormwater runoff significantly impacts the health of freshwater streams and Puget Sound, the Puget Sound Action Agenda places a high priority on improving efforts to control stormwater runoff. Ensuring that all Puget Sound jurisdictions, (i.e., at the local and federal levels), implement effective stormwater programs is a key strategy of the Action Agenda.

Stormwater Management and the Clean Water Act Requirements

EPA's Clean Water Act National Pollutant Discharge Elimination System (NPDES) regulations require that MS4 operators in certain areas have comprehensive Stormwater Management Programs to control polluted discharges from publicly owned ditches, pipes and other conveyances in urban areas.

Cities, counties, highway departments, federal facilities and other public entities that are located in U.S. Census defined Urbanized Areas must comply with these regulations and obtain permits to discharge. The EPA has authorized the Washington state Department of Ecology to issue NPDES MS4 stormwater permits for most jurisdictions in Washington.

EPA retained the authority to issue NPDES MS4 stormwater permits for federal facilities and discharges into Tribal waters in Washington.

EPA's draft permit for JBLM is the first municipal stormwater permit proposed for a federal facility in Western Washington.

The draft permit requires specific actions and activities that must be accomplished over the next five years in order to control pollutants in urban stormwater discharges to the maximum extent practicable.



About JBLM and its Municipal Storm Sewer System

Joint Base Lewis McChord was established in 2010, and is cooperatively operated by the Army and the Air Force. The JBLM base within Pierce and Thurston Counties consists of Fort Lewis Army Base (86,176 acres) and McChord Air Force Base (4,639 acres) for a total land area of approximately 142 square miles

Land use at JBLM is largely divided between the developed "cantonment" area and the undeveloped military training areas. A Year 2010 population estimate for the base was 95,000 people, which includes military personnel, military dependants residing on base, civilian employees, and visitors.

JBLM currently manages stormwater runoff generated at the base to keep pollutants from reaching receiving streams, particularly for certain industrial-type activities such as air and land transportation equipment maintenance activities.

In anticipation of receiving a municipal stormwater permit, JBLM has implemented many of the required stormwater management program activities. [See box, at right ↗]



Six Minimum Measures:

- Control runoff from construction sites.
- Control runoff from new development and redevelopment sites after construction is completed.
- Ensure that improper discharges do not enter or leave the stormwater sewer system.
- Map, inspect and maintain the stormwater sewer system and its facilities to ensure that it functions properly and that discharges protect water quality .
- Educate the public (and employees) how to prevent pollutants in stormwater runoff; and
- Engage the public in updating the stormwater management program.

Examples of stormwater management activities include using retention and detention ponds to control flows from developed areas, street sweeping to remove pollutants, cleaning catch basins, and implementing a base-wide spill prevention plan.

JBLM has also implemented various requirements associated with Ecology's 2005 Western Washington Stormwater Management Manual, such as the flow control standard for new and redevelopment projects.

Key Features of Draft Permit

The draft permit includes the required six minimum Stormwater Management Program measures. The proposed EPA permit requires JBLM to implement several specific practices as part of and in addition to the six minimum measures, in light of existing quality-impaired waters within the JBLM base and to better protect healthy creeks and other bodies of water, including Puget Sound. The practices include:

- Ensure that stormwater runoff from new and redevelopment projects meet performance standards through use of Low Impact Development (LID) techniques, and if needed, traditional stormwater features (such as detention ponds).
- Apply construction and new and redevelopment requirements to project sites 5,000 square feet or greater.
- Require JBLM to reduce runoff from existing developed areas, and
- Establish a monitoring program, including benthic macroinvertebrate monitoring (i.e., stream insects) in Clover and Murray Creeks.

Why is LID Required?

The benefits of Low Impact Development have been recognized by EPA and others for many years. Common LID practices include: site design to minimize impervious surfaces and use of native vegetation areas; bioretention (i.e., rain gardens); permeable pavement; green roofs; and rainwater reuse. These practices infiltrate, evaporate, and use rainwater on-site to minimize excess runoff that harms creeks and help maintain natural stream flows throughout the year. LID also effectively reduces the amount of pollutants entering into waterbodies.

A 2008 National Research Council report entitled *Urban Stormwater Management in the United States* concluded that traditional methods of collecting, storing, and discharging stormwater through pipes and ponds were not enough to protect the nation's waterways — and that we must manage stormwater on-site to the extent we can, where we can.



Here in Washington State, the Pollution Control Hearings Board ruled that Ecology's Western Washington stormwater permits must require local jurisdictions to use LID, where feasible, to meet the CWA's "maximum extent practical" standard for municipal stormwater permits.

For the above reasons, EPA has determined that requiring LID in the draft JBLM permit is necessary to protect aquatic uses and meet CWA requirements.

Why are more stringent measures important in this permit?

EPA has proposed a site size threshold to trigger permanent stormwater management requirements of 5,000 square feet, a program to reduce runoff volume from existing developed areas, and a biological (stream insect) monitoring program in addition to the minimum federal requirements.

EPA's national stormwater rules call for regulating stormwater during construction and for new and redevelopment projects from a site sized one (1)-acre or larger. These rules, however, are national minimum standards.

Continued Next Page

Why are the more stringent measures important in this permit?

CONTINUED FROM PAGE 3

Research in the Pacific Northwest has demonstrated that failure to apply appropriate stormwater practices to sites less than one acre can result in significant cumulative impacts that can impair sensitive watersheds, such as those in the Puget Sound.

EPA, therefore, has determined that a lower threshold triggering these requirements is necessary in the draft JBLM permit to protect water quality.

EPA's stormwater program minimum requirements also don't include any "retrofit"

requirements to reduce stormwater runoff and pollution from those areas which are already developed. Because stormwater runoff is considered to be one of the largest sources of toxic pollutants into the Puget Sound and degrades small streams, EPA believes such steps need to be taken to reduce the volume of runoff from developed areas.

EPA has included macroinvertebrate, or stream insect, monitoring in the proposed permit because the types and variety of stream insects is an excellent indicator of stream health, and helps identify the degree of impact from stormwater runoff.

How does this Permit relate to what is happening elsewhere in the U.S. and in Washington State?

The Energy Independence and Security Act of 2005, Section 438, requires federal agencies to use on-site stormwater management strategies to maintain or restore the predevelopment hydrology at new and redeveloped sites disturbing 5,000 square feet or more. EPA's draft MS4 permit for JBLM is consistent with this requirement through its LID performance standard for new and redevelopment.

EPA recently issued a MS4 permit containing similar requirements for federal properties within the District of Columbia (Washington D.C.) which requires LID and the use of a hydrologic performance standard to control stormwater

runoff. The D.C. MS4 permit also includes a requirement with specific targets to reduce stormwater runoff from already developed areas.

In October 2011, Ecology proposed updates to Western Washington municipal stormwater permits that include LID requirements and stormwater monitoring. EPA's proposed permit is comparable to Ecology's proposed stormwater permits. Moreover, the requirements proposed by EPA are intended to ensure that JBLM's stormwater management program is at least as robust as current stormwater programs in nearby jurisdictions, such as Pierce County, Tacoma, and Lakewood.

Questions about EPA's proposed JBLM MS4 permit?

Contact:

Misha Vakoc, EPA Region 10

☎ 206-553-6650

✉ Vakoc.Misha@epamail.epa.gov

John Palmer, EPA Region 10

☎ 206-553-6521

✉ Palmer.John@epamail.epa.gov