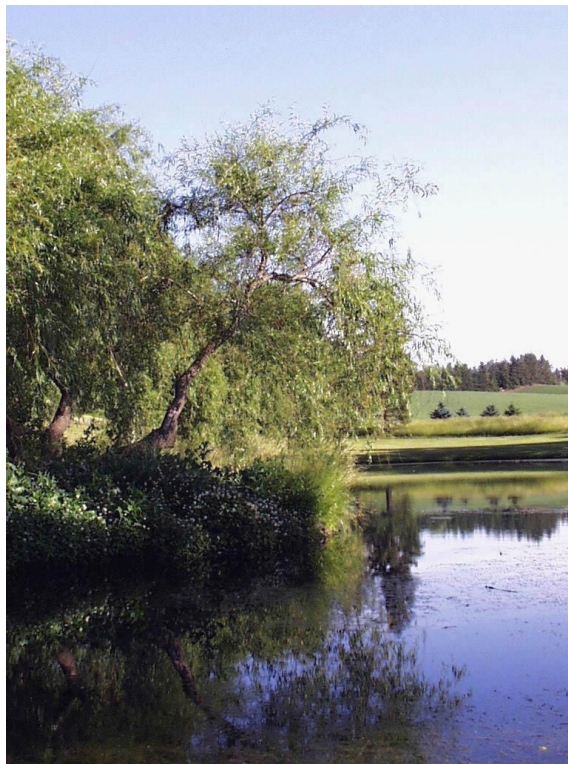


**DRAFT
Stormwater Management Program
(SWMP)**

March 28, 2008



Prepared By:

**Public Works Department
Stormwater Services Program**

Background

In 1987, Congress amended the federal Clean Water Act to include stormwater discharges in the National Pollutant Discharge Elimination System (NPDES) permit program. The Environmental Protection Agency (EPA) developed rules to implement the new stormwater requirements in two phases called Phase I and Phase II. The Washington State Department of Ecology (Ecology) implements these stormwater rules through municipal stormwater permits. The Phase I permit, which went into effect in 1990, covers large jurisdictions such as cities and counties serving more than 100,000 people. In 1999, EPA issued the Phase II stormwater permit regulations to cover stormwater discharges in urbanized areas that serve smaller populations (Ecology, 2006).

Ecology issued the Phase II permit for Eastern Washington in January 2007 and the City of Pullman was granted coverage under the permit soon after. The permit became effective February 16, 2007.

The permit is on a five year cycle with coverage extending until February 15, 2012. The first permit was designed to give jurisdictions an opportunity to develop their stormwater management programs and prepare for the next permit cycle which will likely require additional actions and an increased level of city management and oversight. The Eastern Washington Phase II Municipal Stormwater Permit can be viewed in its entirety on Ecology's website below.

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phase_ii_e_wa/ew_ph2-permit.html

Hatley Creek Storm Drainage Basin Study

In 2000, responding to citizen concerns and recognizing that stormwater runoff was a growing problem, the City commissioned consulting firm Gray & Osborne to conduct a study of the Hatley Creek drainage basin. Hatley basin is located in the southwest quadrant of town and drains approximately 760 acres (both City & County) that are experiencing increased development. The purpose of the study was to recommend a level of stormwater quantity control that seeks to decrease the existing peak rate of stormwater runoff in the basin, as well as provide water quality benefits. As a result of the study, the City now requires enhanced stormwater detention design standards for all new and re-development within the basin (Gray & Osborne, 2000).

Current requirements for erosion and sedimentation control and storm drainage for all other areas in the City can be found in Sections E & F of the City of Pullman Design Standards (2001 Edition) adopted by City Council on January 9, 2001 by Ordinance #01-3.

The Water Quality Problem

Pullman's network of storm drains is classified as a municipal separate storm sewer system (MS4). The storm drain system is separate from and therefore does not convey water to the City's wastewater treatment plant. Stormwater runoff has been identified by WA Dept. of Ecology as "the number one water pollution problem in the urban areas of our state" (Ecology, 2007). Pollutants commonly found in stormwater include fertilizers, pesticides, vehicle fluids, trash, sediment and pet waste. Stormwater can also contribute to problems associated with flooding.

Most storm drains within the City of Pullman empty directly into the South Fork Palouse River (SFPR) or one of its main tributaries that flow through town. According to WA Dept. of Ecology, the SFPR is on the State's list of impaired water bodies for not meeting water quality criteria for temperature, dissolved oxygen, pH and fecal coliform bacteria. Ecology is currently in the process of studying the problem and developing Water Clean-up Plans for each of these pollutants in the SFPR. In addition, Ecology conducted a pilot stormwater study in Pullman in 2006 (Lubliner, 2006). The study showed that Pullman's stormwater quality is similar to other urban areas across the nation, indicating a need for enhanced stormwater management.

Stormwater Management Program (SWMP)

The City of Pullman has been managing stormwater for a long time. However, to be more effective and create a successful program enhanced coordination between the various staff and departments that deal with stormwater needs to occur. The NPDES Phase II permit requires the City of Pullman to develop a comprehensive Stormwater Management Program (SWMP) and implement the Program prior to the end of the current permit cycle. A written report documenting the actions the City plans to implement to satisfy State requirements and protect water quality is required to be made available to Ecology by March 31, 2008 and to the public by May 31, 2008.

Early in 2007, the City hired consulting firm Otak, Inc. to assist with development of Pullman's SWMP. Otak worked closely with City staff and in September 2007 produced the *Final Stormwater Program Implementation Plan* (Attachment A). The Implementation Plan contains the following Sections:

- Background
- Stormwater Program Definition Process
- Regulatory Gap Analysis - Process & Results
- Detailed Annual Stormwater Program Implementation Matrices
- Resources Needed for Pullman's Updated Stormwater Program
 - Estimated Annual Program Revenue Needs & Sources
 - NPDES Equipment & Funding Needs
 - Capital Improvement Plan

As required by the NPDES Phase II permit, the Implementation Plan addresses the following elements:

- Public Education and Outreach
- Public Involvement & Participation
- Illicit Discharge Detection & Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management for New Development and Redevelopment
- Pollution Prevention & Good Housekeeping for Municipal Operations
- Compliance with Total Maximum Daily Load (TMDL) Allocations
- Monitoring & Program Evaluation
- Reporting & Recordkeeping

Contacts

Questions about Pullman's Stormwater Management Program can be directed to:

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Questions about the Eastern Washington Phase II Municipal Stormwater Permit can be directed to:

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Spokane, WA 99205
(509) 329-3554
ddun461@ecy.wa.gov

References

Gray & Osborne, Inc. 2000. *Hatley Creek Storm Drainage Basin Study*.

Lubliner, B., J. Ross, and J. Ryf. 2006. *Pullman Stormwater Pilot Study for Pesticides, PCBs, and Fecal Coliform Bacteria, 2005-2006*. Final Report prepared for Washington State Department of Ecology. Publication No. 06-03-034.

Washington State Department of Ecology. 2006. *Frequently Asked Questions about Municipal Stormwater Permits*. Publication No. 06-10-005 (revised).

Washington State Department of Ecology. 2007. *Protecting Washington's Waters From Stormwater Pollution*. Publication No. 07-10-058.

ATTACHMENT A

***City of Pullman
Final Stormwater Program Implementation Plan
September 10, 2007
Otak, Inc.***