



# 2007 Stormwater Management Program Update

Permit Coverage Number: WAR 04-5554

## **2007 Stormwater Management Program Update**

The SWMP shall be designed to reduce the discharge of pollutants from the regulated small MS4 to the maximum extent practicable. The use of this document will help the City of Oak Harbor meet or exceed the new requirements issued by DOE.

The six minimum requirements under Section S5 in the previous Phase II Permit were consolidated into five minimum requirements in the new permit. The new permit has the same requirement categories, but two of the requirements were combined into one. In the new draft permit, the fourth requirement, "Controlling Runoff from New Development, Redevelopment and Construction Sites," includes the performance measures covered in two different requirements in the old permit. The following five requirements are included in Section S5 of the new NPDES Phase II Draft Permit issued by Ecology on 2/16/07:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination (includes requirement for inventory)
4. Controlling Runoff from New Development, Redevelopment, and Construction Sites
5. Pollution Prevention and Operations and Maintenance for Municipal Operations

Each of these five NPDES Phase II requirements are described by a set of minimum performance measures outlined in the permit:

- Develop and implement a Stormwater Management Program (SWMP)
- Report any monitoring studies
- Assess effectiveness of BMPs and any changes needed
- Submit a detailed annual report on the status of SWMP implementation

The Clean Water Act requires stormwater treatment by permittees to the maximum extent practicable (MEP). Washington State law requires all known, available and reasonable treatment (AKART). Ecology has determined that MEP is equivalent to AKART and that compliance with the Ecology *Stormwater Management Manual* is AKART.

The Stormwater Management Plan will be subject to change and evolve over time as Best Management Practices are monitored and adapted to accommodate new or more effective measures.

### **S5.C.1 Public Education and Outreach**

In November of 2007, the City of Oak Harbor took a very large step in meeting the requirement for a Public Education and Outreach Program by hiring an Environmental Educator. This program requires a great deal of attention, and the City recognized the need for a knowledgeable candidate to fill this position. The Environmental Educator, Maribeth Crandell, began work on November 5, 2007, and has been proactive in attempting to put together Outreach Programs that include a wide variety topics, targeting specific audiences. So far, her projects and accomplishments include the following:

**Book Distribution** – *All the Way to the Ocean*, A children’s book on stormwater pollution and prevention, 30 copies were distributed to six elementary schools and a dozen doctor and dentist offices.

**City Council Presentation** – A presentation on the Stormwater Permit was made to the City Council on November 20, 2007. At this presentation, several interested businesses and a news reporter attended.

**Media Coverage** – A news article was carried in the *Whidbey News Times* featuring the City Council meeting presentation, the book distribution and the new Environmental Educator position. The *Whidbey News Times* also published an editorial about the City’s efforts and the new position. The *Whidbey Marketplace*, a free paper that goes to each household on the Island outside of Oak Harbor, also published an article about the new position.

**Storm Drain Education Program for Schools and Scouts** – A four part program was developed for schools and scout groups. Part 1 begins with a survey of existing knowledge, a presentation on storm drain pollution and low impact development, and a vocabulary list. Part 2 includes a DVD from the EPA called *After the Storm* with follow up questions. Part 3 challenges the group to create a door knob flyer on stormwater issues and announces the upcoming storm drain stenciling. Part 4 involves a neighborhood storm drain stenciling project. This program was delivered to a high school group, two middle school classes, and has been scheduled for four more middle school classes and one scout group.

**Car Wash Kit Video** – We contacted a video professional and made arrangements to produce a short “how to set up a car wash kit” video that will run on the City’s web site, the local government TV channel 10, and will be available on CD as instructions when a group checks out a car wash kit.

**Low Impact Development** – We have begun meeting monthly with the LID Summit group comprised of staff from the City of Oak Harbor, Island County, WSU Extension, Whidbey Island Conservation District and the Partnership for Puget Sound. We are in the process of developing a sign for LID sites to alert the public of their significance.

**Created a PowerPoint Presentation** – This presentation is about stormwater pollution and prevention, and will run as a continuous loop at conference display booths.

**Interpretive Signs** – A grant from Conservation Futures Funds was directed toward the development of interpretive signs at Freund Marsh. We worked with the City Engineer and Parks staff, in partnership with the Marine Resource Committee, to develop interpretive signs featuring the value of wetlands and urban runoff issues, in an effort to help change behavior to clean up the environment.

**Rain Garden Guides** – Ordered 50 handbooks, published by the Pierce County WSU Extension, on how to build a rain garden. Distributed among City staff, City Council, and to landscapers and plumbers at an open house in February.

**Sustainable Living Seminar Series** – Began working in partnership with the WSU Extension and Whidbey Island Conservation District to offer monthly workshops on Sustainable Living throughout 2008. College credit and clock hours will be offered.

The following is a list of programs that the City has also implemented. These programs will be subject to change and evolve over time as our Educator evaluates the information and determines the most effective avenues for outreach.

**Web Site and TV Info-Commercials** – Professionally made info-commercials were developed and added to the City’s web page and aired on channel 10. The topics were: Proper Pet Waste Disposal, Car Washing Tips, Preventing Urban Runoff, and Alternatives to Pesticides.

**Environmental Car Wash Kits** – The City purchased five car wash kits and developed a packet of information, including diagrams, on how to use the kits. A list of biodegradable soaps and where they can be purchased was also included. These information packets were distributed at the local high school. “**Environmentally Safe Car Wash**” sandwich board signs were created to increase public awareness at these events.

**Enviro-Scape Non-Point Source Model** – This model was purchased for use as an educational tool for children. It will be used at upcoming public events.

**Storm Drain Stenciling** – Stencils and paints were purchased. The first volunteers to use them were organized by an Eagle Scout, Dane Jensen, who was trained by Steve Bebee. Dane recruited and trained 20 other volunteers and stenciled sea life pictures on 181 storm drains on July 14, 2007.

## **S5.C.2 Public Involvement and Participation**

### **PUBLIC INVOLVEMENT OBJECTIVES**

- Ensure that all interested stakeholders are fully informed about the SWMP revisions, including its contents, process, and timing of key decisions.
- Ensure that this communication and opportunities for public participation are offered in a variety of formats to accommodate diverse stakeholder interests and needs.
- Ensure that public concerns, issues and ideas are heard and addressed as part of the draft plan SWMP submitted to the state.
- Ensure that the revision process is used to increase public awareness of, and support for, stormwater management throughout the City.

The City is soliciting the community for citizen involvement to give opportunities for public input into the Stormwater Plan via four open house events, which will be held at various stages of the Stormwater Plan development. These events will include drafts portions of the City’s SWMP, and staff will be available to answer questions and solicit feedback. An outreach effort was made through newspaper advertising, channel 10 and the City’s web page. The notification was given to ensure that citizens are aware of the public events and will have the opportunity to contribute feedback. Outreach was directed at the general public as well as applicable professional and environmental organizations and the development community.

### **S5.C.3 Illicit Discharge and Elimination**

There are many different parts to this mandate, it will take a sequence of events to develop them, and it will most likely take the entire allotted time to reach full compliance. The following are some of the items that we are currently working on in order to put together an effective program.

First, In December 2007 the City and Island County took another step toward upgrading our mapping system to GIS format. Up to this point we have used an Auto-Cad mapping program that limited our ability to locate stormwater structures accurately. The new mapping is expected to accurately show the locations of all outfalls, 24 inches or larger, and the names and locations of all bodies of water in the United States and/or the State of Washington that receive discharges from those outfalls.

Second, in 2008 the City will completely rewrite our chapter twelve Stormwater Ordinance, to the extent allowable under State or local law, effectively prohibiting non-stormwater discharges into the permittee's storm sewer system, and implement appropriate enforcement procedures and actions. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance. The ordinance shall address the following categories of non-stormwater discharges unless the stated conditions are met:

- Discharges from potable water sources, including waterline flushing, hyper-chlorinated waterline flushing, fire hydrant system flushing, and pipeline hydrostatic test water. Planned discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH adjusted, if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4.
- Discharges from lawn watering and other irrigation runoff. These shall be minimized through, at a minimum, public education activities (see section S5.C.1) and water conservation efforts.
- De-chlorinated swimming pool discharges. The discharges shall be dechlorinated to a concentration of 0.1 ppm or less, pH-adjusted and reoxygenized, if necessary, volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4.
- Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents. The permittee shall reduce these discharges through, at a minimum, public education activities (see section S5.C.1.) and/or water conservation efforts. To avoid washing pollutants into the MS4, permittees must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.

Third, develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, spills, failed septic systems, and illicit connections to Oak Harbor's system. This plan shall include inspections based a pond training, mapping, and general identification of the type of business and its location.

Fourth, inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

#### **S5.C.4 Controlling Runoff from New Development, Redevelopment and Construction Sites**

The City of Oak Harbor Municipal Code adopts, by reference, the 2005 Department of Ecology Stormwater Management Manual for Western Washington (referred to as ‘The Manual’) as the standard for addressing stormwater impacts resulting from all new development, redevelopment and construction sites (see OHMC12.30.310). The City has used the 2005 Manual as the regulatory basis for controlling runoff since its publication in 2005.

All applications for development permits, including subdivisions, site plans, clearing permits, grading permits and other types of development, are required to address the ten minimum requirements for stormwater management as part of the codified development review and permitting process defined in OHMC Title 18. The requirements in the Manual are the same as those contained in the technical requirements of the NPDES Western Washington Phase II Municipal Stormwater permit. The ten minimum requirements are as follows:

1. Preparation of Stormwater Site Plans
2. Construction Stormwater Pollution Prevention (SWPP)
3. Source Control of Pollution
4. Preservation of Natural Drainage Systems and Outfalls
5. On-site Stormwater Management
6. Runoff Treatment
7. Flow Control
8. Wetlands Protection
9. Basin/Watershed Planning
10. Operation and Maintenance

The applicability of the minimum requirements varies with each site depending on the type of activity and the thresholds as defined in the Manual. Each applicant for a development permit is required to demonstrate either how the minimum requirement is being addressed or that the requirement does not apply to the individual site prior to the issuance of the permit.

A copy of the Manual is on file with the City Clerk and is also available for viewing in the Development Services Department. A complete copy of each of the five volumes of the Manual can be downloaded directly from the Washington State Department of Ecology at:

- Vol. I - Minimum Technical Requirements and Site Planning  
<http://www.ecy.wa.gov/biblio/0510029.html>
- Vol. II - Construction Stormwater Pollution Prevention  
<http://www.ecy.wa.gov/biblio/0510030.html>
- Vol. III - Hydrologic Analysis and Flow Control Design and BMPs  
<http://www.ecy.wa.gov/biblio/0510031.html>
- Vol. IV - Source Control BMPs  
<http://www.ecy.wa.gov/biblio/0510032.html>
- Vol. V - Runoff Treatment BMPs  
<http://www.ecy.wa.gov/biblio/0510033.html>

In 2008, the City will draft a new Stormwater Ordinance that fully implements the technical requirements for stormwater control, inspections, maintenance, staff training and enforcement of stormwater regulations imposed by the NPDES phase II permit.

### **S5.C.5 Pollution Prevention and Operation Maintenance for Municipal Operations**

The City has just recently finished developing a draft Stormwater Facilities Maintenance Manual and is having other departments review it and make comments. This operation and maintenance (O&M) program includes a method to determine if and what type of maintenance is required and also gives a time frame of when the work must be completed. There is also a training component, which has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Next, the City must also create a Stormwater Pollution Prevention Plan. The program must include employee training and policies to prevent and reduce stormwater pollution from activities including, but not limited to, application of fertilizers, pesticides, and herbicides, sediment and erosion control, landscape maintenance and vegetation disposal, trash management and building exterior cleaning and maintenance. These pollution reduction activities shall be used at all City owned or maintained properties, including but not limited to, parks and open spaces, road right-of-ways, maintenance yards, and stormwater treatment and flow control facilities. As of today, we have not yet implemented this plan however, it has been discussed with department heads, and we will start to gather information to develop it by the end of 2008.