

# Summary of 2011 Accomplishments

## Pierce County Public Works & Utilities, Surface Water Management Water Quality and Watersheds Section

### Introduction

This report summarizes projects and programs conducted by the Water Quality and Watersheds Section of Pierce County Public Works and Utilities Department, Surface Water Management in 2011. It is organized under that Section's 2011 Objectives. The Section's main functions are County stormwater compliance, watershed councils and salmon recovery support, monitoring, and private facility inspection and technical assistance for reducing polluted runoff.

The mission of the Water Quality and Watersheds Section is to improve ecosystem health in Pierce County by managing stormwater systems, monitoring watersheds, and building partnerships.

#### **1. Inspect stormwater facilities and ensure compliance.**

We conducted 2216 stormwater management facility inspections in 2011. This is an increase of 165% over 2010 (835)! We also conducted 41 "illicit discharge discovery, detection, and elimination" site investigations in 2011. This is twice what we did in 2010 (20). We also reassigned an existing inspector to do these compliance assurance actions in the third quarter so that we now have 3 full time staff doing these investigations and enforcement actions for water quality and stormwater compliance. Finally, we were successful in getting major amendments passed to County Code clarifying and simplifying enforcement for illicit discharges and spills to the County's drainage facilities and surface and ground waters.

#### **2. Provide technical assistance to citizens and businesses for stormwater management**

We held three homeowners association workshops in 2011, our third year of doing so. These workshops are designed to help neighborhoods organize and learn how to maintain their stormwater facilities as important community assets. We also partnered for the installation of about 800 storm drainage markers, conducted two workshops on natural yard care, and completed briefings on watershed health for each of Pierce County's four watershed/river councils. Finally, we sponsored two significant events in South Puget Sound, the South Sound Science Symposium and Cascade Land Conservancy annual awards breakfast.

### **3. Provide technical assistance to Pierce County departments for stormwater management**

We completed first time assessments of stormwater management facilities for two County Departments (Facilities Management Department and SWM Maintenance and Operations Section) and completed annual updates of facility assessments for three other Departments (Parks and Recreation Department, Ferries and Airports Division, and Solid Waste Services Division). These assessments determine and prioritize maintenance and source control needs to reduce polluted runoff from County owned properties and buildings. We also published 13 stormwater pollution plans for 12 County facilities and helped Road Maintenance to prepare pollution control plans for 19 pit sites. These plans ensure good housekeeping practices to keep pollutants out of runoff and surface waters. To expand our ability to monitor watershed health, we conducted benthic organisms sampling training for County staff. Finally, we contracted with Ferries and Airports Division to administer its Industrial Stormwater Permit to reduce the potential for polluted runoff from those facilities.

### **4. Conduct watershed health monitoring.**

We conducted monthly water quality index monitoring at 65 sites; quarterly monitoring at 12 flow sites and 40 groundwater sites; and supported benthic organisms sampling at 23 sites. We completed NPDES Permit-required stormwater characterization, flow reduction and technology assessment monitoring for 2011 and fully completed stormwater first flush toxicity monitoring (no toxicity in the County's stormwater was found! Yay!)

### **5. Management watershed health data, analyze and communicate results.**

We published our 2010 Water Quality Report Card, the third year in a row we have done so, adding six lakes to that report. The monitoring under (4) above is meaningless unless we manage, analyze and communicate the results. Thus, our data collection is designed to measure ambient stream status and trends health over time, as well as informs us of the potential impact of our stormwater. In accordance with the County's Stormwater Permit, we will publish our stormwater monitoring results in spring 2012. We use this information to develop pollution control approaches and to prioritize our work. The Report Card will help direct our focus and will be used to measure progress towards watershed health improvements.

### **6. Implement watershed management**

We provided direct staff support to the Puyallup River Watershed Council, the Chambers/Clover Watershed Council and the Key Peninsula/Gig Harbor/Islands Watershed Council. We helped secure Russell Family Foundation ten year commitments to the Puyallup River Watershed and helped lead a reinvigoration effort for the Puyallup River Watershed Council. We participated on Nisqually River Council and its habitat work group and served on the Puget Sound Partnership's Ecosystem Coordination Board as South Puget Sound representative. As such, we

wrote the first (and only to date) policy recommendations (regarding stormwater) that were unanimously adopted by the Board. We also helped formalize an executive committee of elected officials from four counties and three Indian Tribes and reinvigorated a regional prioritization effort for ecosystem projects. We administered Salmon Recovery Lead Entity for WRIA 10/12 and Updated Habitat Work schedule. We completed the major work and advisory process for the update to the County's river and flood hazard plan. And we completed 11 repairs of failing septic systems as part of our Shellfish Partners Program.

We piloted several approaches for enhanced watershed management in 2011 to learn how to better achieve our goal of healthy watersheds. We conducted a pilot watershed project in the Sylvia Lake Watershed. Specifically, we used GIS, sediment transport model, and field inspections to determine sources of sediment transport potential to Sylvia Lake for the purposes of reducing sediment loading. Phase II of the project was submitted for grant funding, but that was not successful. We also conducted Team assignments for a "Raise the Grade" effort. All staff were organized by watershed, given report card data, facility compliance data, and other information and were asked to recommend waterbodies for 2012 focus. As a result, Minter Creek, Spanaway Lake, Horn Creek, and Swan Creek were selected.

#### **7. Administer and ensure County compliance with NPDES Phase I stormwater permit**

We wrote and secured commitment of 8 to 10 jurisdictions to coordinate and collaborate for regional stormwater management in interconnected systems. We organized and delivered trainings on NPDES stormwater awareness, illicit discharge, maintenance and spills for over a 100 County staff. We also hired a consultant team to estimate cost and outputs of new NPDES stormwater permits. And we enhanced our central database capabilities to better track, report, and analyze the results of the work we do to control polluted runoff. Through this work, Pierce County achieved 100% compliance with all of the 120+ requirements of the NPDES Phase I Stormwater Permit in 2011, a major accomplishment and something we are very proud of.

#### **8. Track, report and ensure County compliance with NPDES settlement agreement and administrative order**

We achieved 100% compliance with all of the 15 settlement agreement and 10 administrative order conditions and have positioned the County to request early termination of both agreements.

#### **9. Enhance our highly functional team**

We managed our budget to spend below our allotment, developed and implemented our section plan, and recognized staff performance through annual awards. We developed a professional development plan for career advancement and retention of quality staff, hired and trained 6 interns, reassigned monitoring lead function to IDDE, filled a vacant planner position, integrated a new biologist, and recruited for inspection lead.

**10. Provide support for Executive, Council, SWAB, and legislative policy initiatives**

We provided policy and staff support to the County Executive, Council Members, and Surface Water Management Advisory Board (SWAB) on the Puget Sound Partnership, NPDES stormwater, and obtained the passage of a resolution in support of the South Puget Sound Council. That resolution led to the commitment and involvement of the Executive and Council Member on the Alliance for a Healthy South Sound. We also provided support for the establishment of a Flood Control Zone District to fund and implement the County's rivers plan.

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