



# Watershed-Based Permitting Case Study: Permitting Approach

Clean Water Services (Hillsboro, OR)

Fact Sheet #4

## Watershed

Tualatin River

## Permitting Authority

Oregon Department of Environmental Quality (OR DEQ)

## Point of Contact

Charles Logue, PE, Technical Services Department Director  
Clean Water Services  
(503) 681-3604  
loguec@cleanwaterservices.org

## Additional Information

[www.cleanwaterservices.org](http://www.cleanwaterservices.org)

## Project Timeframe

October 2003 - September 2005

## Background

- ◆ The Tualatin River watershed, encompassing Washington County and small portions of Multnomah and Clackamas Counties, drains approximately 710 square miles of northwestern Oregon, just west of the City of Portland.
- ◆ Both Total Maximum Daily Loads (TMDLs) and endangered species are primary concerns within the Tualatin River watershed.
- ◆ One water withdrawal facility and two water storage reservoirs are also located within the Tualatin River watershed.
- ◆ Clean Water Services is a County Special Service District responsible for wastewater and surface water management in urban Washington County.

## Factors to Consider in Permitting

- ◆ Clean Water Services performs the following functions:
  - Manages over 800 miles of sanitary sewer lines and 41 pump stations, as well as four wastewater treatment plants.
  - Operates a comprehensive surface water management utility to protect watershed health, manage flooding and maintain a regional storm water system.
  - Administers four NPDES permits for the wastewater treatment plants that expired in 1997 and have been administratively extended while new permits are negotiated.
  - Serves as co-permittee with Washington County for a Phase I municipal separate storm sewer system (MS4) storm water permit that covers the urbanized portion of Washington County within the Urban Growth Boundary. This permit expired in 2001.
  - Works with OR DEQ to cooperatively administer 79 general NPDES storm water permits through a Memorandum of Agreement.
- ◆ The second set of TMDLs for the Tualatin River were established in 2001. These TMDLs address temperature, bacteria, phosphorus, ammonia, and settleable volatile solids (i.e., storm water contribution to sediment oxygen demand).

## Pilot Project Goals

- ◆ This is a multi-year project designed to simultaneously improve water quality, water quantity, and aquatic habitat in the Tualatin River Watershed that will ultimately result in a documentable process and regulatory framework analysis

that will demonstrate the feasibility of transitioning from a conventional NPDES permitting approach to a watershed-based NPDES permit.

- ◆ The goal is to evaluate the technical, stakeholder, regulatory, and legal issues involved in developing a watershed-based permit.

---

## Pilot Project Overview

- ◆ The plan is divided into the following four elements:
  - Conducting stakeholder communication, outreach, and education;
  - Establishing a regulatory framework;
  - Creating watershed improvement performance measures;
  - Assessing the watershed; and
  - Developing water quality trading and other watershed management tools.

### ***Stakeholder Outreach***

- ◆ Under this element, Clean Water Services will perform the following:
  - Develop and implement a stakeholder process that provides meaningful input and develops support for the project.
  - Develop broad public support and regulatory Agency support for the watershed plan outcome.

### ***Watershed Assessment***

- ◆ Under this element, Clean Water Services will perform the following:
  - Implement strong scientific process developed for supporting good watershed-based decisions.
  - Identify prioritized actions that are consistent with TMDL and Endangered Species Act response.

### ***Permitting and Regulatory Requirements***

- ◆ Under this element, Clean Water Services will perform the following:
  - Develop interim permit that will allow development of a watershed-based permitting framework.
  - Develop a regulatory framework that will allow efficient means to attain the highest ecosystem benefit and comply with regulatory requirements.
  - Develop a detailed 5-year project workplan to coordinate requirements under the Clean Water Act, the Endangered Species Act and the Safe Drinking Water Act.

### ***Water Quality Trading and Other Watershed Management Tools***

- ◆ Under this element, Clean Water Services will perform the following:
  - Identify relevant tools to use in watershed improvement to exceed the improvements achievable through the traditional permitting processes.

---

## Expected Outcomes

- ◆ The goal for the first year of this project is to develop a draft interim watershed permitting framework, or other appropriate regulatory agreement, as a transitional mechanism to move to a watershed-based permit that covers multiple point source discharges.

---

## Pilot Project Funding

EPA is funding this project through a Clean Water Act 104(b)(3) Cooperative Agreement.

---

---

## Pilot Project Update

Clean Water Services recently completed the final technical report for Year 1 of their pilot project. The status of the four pilot project elements presented in the final technical report is presented below.

### ***Stakeholder Outreach***

- ◆ Under this element, Clean Water Services accomplished the following:
  - Developed and implemented stakeholder education and involvement plan that goes beyond OR DEQ’s specific public notice and hearing requirements.
  - Identified key stakeholders for the process by working with OR DEQ, community stakeholders, and consultant team. Primary stakeholders include federal, state, and local government stakeholders; elected and appointed officials; and community, business and professional associations.
  - Conducted approximately 34 meetings and presentations with stakeholders from May 2002 through January 2004, reaching nearly 1, 140 people interested in watershed permitting and trading issues.
  - Received favorable and encouraging response from stakeholders who support the concept and acknowledge a need for a more integrated approach to watershed management.

### ***Watershed Assessment***

- ◆ Under this element, Clean Water Services accomplished the following:
  - Reassessed the existing monitoring network by surveying various monitoring entities within the basin to obtain detailed information on sites, parameters, frequency, and QA/QC protocols.
  - Conducting gap analysis to identify needs and weaknesses of current monitoring efforts to facilitate the development of an integrated, performance monitoring plan.
  - Assembled stakeholder group of Clean Water Services staff and external agency stakeholders to begin development of a comprehensive monitoring plan. Work by the stakeholder group is coordinated with the TMDL implementation plan and the basin’s ESA response planning efforts.

### ***Permitting and Regulatory Requirements***

- ◆ Under this element, Clean Water Services accomplished the following:
    - Participated in a collaborative process that resulted in a draft watershed-based integrated permit covering the four wastewater treatment plants, the Phase I MS4, and industrial stormwater general permits (1200-Z) for the two wastewater treatment plants required to have coverage.
      - The draft watershed-based integrated permit contains water quality trading elements for trading (1) carbonaceous BOD and ammonia both within a facility and among the four wastewater treatment facilities and (2) temperature with shading (i.e., tree planting in upstream agriculture areas) and release of cool water from a reservoir. The trading elements are in conformance with the waste load allocations from the 2001 Tualatin TMDL.
      - OR DEQ made the draft watershed-based integrated permit available for public review and comment on November 14, 2003, for a 45 day period. The final permit and supporting documentation are available at [www.deq.state.or.us/wq/wqpermit/indvpermitdocs.htm](http://www.deq.state.or.us/wq/wqpermit/indvpermitdocs.htm).
    - Developed the public involvement and outreach process on an ongoing basis.
-

### ***Water Quality Trading and Other Watershed Management Tools***

- ◆ Under this element, Clean Water Services accomplished the following:
    - Worked with OR DEQ to develop a water quality trading scenario for trading temperature, nutrient, and oxygen demanding substances.
    - Developing a modeling approach to creating trading units for heat loads from wastewater treatment facilities and relating heat loads to cooling credits from the release of stored water and riparian shading equivalents.
    - Established the Stream Protection Opportunities Technical Advisory Committee (SPOTAC), the group assigned the task of program development and evaluation. SPOTAC has developed two programs to create stream shade in agricultural areas for temperature trading purposes: 1) a modified version of USDA's Conservation Reserve and Enhancement Program, known as "Enhanced CREP"; and 2) a companion program called Vegetated Buffer Areas for Conservation and Commerce.
-