



Fact Sheet #6

Watershed-Based Permitting Case Study: Permitting Approach

Northern Kentucky, Sanitation District No. 1

Watershed

Ohio River

Permitting Authority

Kentucky Division of Water (KY DOW)

Point of Contact

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Additional Information

www.sd1.org/index.html

Project Timeframe

August 2002 - January 2004

Background

- ◆ Boone, Campbell, and Kenton Counties comprise an area referred to as Northern Kentucky located along the southern border of the Ohio River.
- ◆ Prior to 1995, operation and maintenance of the wastewater collection system in Northern Kentucky were the responsibility of respective municipal jurisdictions.
- ◆ State legislation authorized the transfer of ownership of most wastewater collection systems in Northern Kentucky to Sanitation District No. 1.
- ◆ Three county region has potential for water quality impacts from sanitary sewage, urban storm water runoff, rural storm water runoff, and failing septic systems.
- ◆ A recent evaluation revealed that existing storm water management programs in the 33 cities and three counties subject to the Phase II MS4 regulations vary administratively and structurally. These programs are not conducive to incorporating watershed-based planning into the storm water management decision making process.

Factors to Consider in Permitting

- ◆ Sanitation District No. 1 is responsible for managing 1,400 miles of combined and separate sewers, one major wastewater treatment plant, nine small wastewater treatment plants, 135 pump stations, and 15 flood pump stations.
- ◆ The District recently developed a regional facilities plan that includes a program to construct two new regional wastewater treatment plants over the next five years.
- ◆ The Combined Sewer Overflow Control Plan implemented by the District considers an integrated watershed approach to planning.
- ◆ The District also implements a Sanitary Sewer Overflow Plan requested by the KY DOW to reduce the number of unpermitted discharges from overflow points.
- ◆ A single regional storm water permit, under the direction of Sanitation District No. 1, has been issued to thirty cities and three counties. This permit will help the District facilitate its watershed management activities.

Pilot Project Goals

- ◆ Through this project, the District intends to:
 - Develop a broad conceptual model of how a watershed-based permitting approach would function in this three county area.
 - Identify the challenges to, and benefits of, implementing a watershed approach to water quality permitting and management.

Pilot Project Overview

- ◆ The project is divided into three major components:
 - Review of the consolidation of the sanitary sewer system already conducted by Sanitation District No. 1 and the storm water management program which is underway
 - Development of a conceptual model for a watershed-based approach
 - Evaluation of the feasibility of future implementation of the conceptual model.

Review of Consolidation

- ◆ Under this component, Sanitation District No. 1 will perform the following activities:
 - Examine the approach used by the District to consolidate several disparate sanitary sewer and storm water agencies under one management structure.
 - Document any identified legislative, legal, regulatory, and political obstacles that arose during the consolidation process and the techniques used to overcome these challenges.

Development of a Conceptual Model

- ◆ Under this component, Sanitation District No. 1 will perform the following activities:
 - Review programmatic support for the proposed approach to watershed-based permitting.
 - Develop a program framework for watershed-based permitting.

Review Feasibility of the Conceptual Model

- ◆ Under this component, Sanitation District No. 1 will perform the following activities:
 - Identify benefits and obstacles that would result from implementing the conceptual model as a watershed-based permit.

Expected Outcomes

- ◆ Through this pilot project, Sanitation District No. 1 made a determination that it is feasible to further pursue development of a watershed-based permit.
- ◆ Based on results of this study, the District will continue dialog with state and federal agencies related to the development of a watershed-based permit.

Pilot Project Funding

- ◆ EPA is funding this project through a Clean Water Act 104(b)(3) Cooperative Agreement. Sanitation District No. 1 is providing a local matching contribution.

Pilot Project Update

- ◆ Sanitation District No. 1 completed the Watershed-Based Permitting Feasibility Assessment Report in March 2004.
 - ◆ The Feasibility Assessment Report describes the watershed-based permitting approach under consideration by Sanitation District No. 1 for a pilot application in Banklick Creek watershed. Steps included in the watershed-based permitting approach under consideration include:
 - Assess water quality conditions
 - Identify, characterize and prioritize sources of impairment
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- Select and implement controls
 - Monitor to assess effectiveness of controls
 - Evaluate monitoring data
 - Identify additional controls and monitoring, if needed
 - Rotate to another watershed.
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- ◆ The Feasibility Assessment Report also addresses potential advantages and obstacles associated with the watershed-based permitting approach under consideration. The feasibility assessment did not identify any significant obstacles associated with this approach to watershed-based permitting.
 - ◆ Sanitation District No. 1 and Kentucky Division of Water have agreed to continue discussions regarding the development of a draft watershed-based permit for Banklick Creek watershed that will follow an adaptive management approach.

