



Watershed-Based Permitting Case Study: Permitting Approach

Louisville and Jefferson County Metropolitan Sewer District (MSD)

Fact Sheet #10

Watershed

Mill Creek, Ohio River, Pond Creek, Cedar Creek,
Pennsylvania Run, Floyds Fork, South Fork Beargrass Creek,
Middle Fork Beargrass Creek, Muddy Fork Beargrass Creek,
Goose Creek, Harrods Creek

Permitting Authority

Kentucky Division of Water (KY DOW)

Point of Contact

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Permit Information

www.msdlouky.org

Project Performance

1995 - present

Background

- ◆ Jefferson County borders the Ohio River in north central Kentucky and contains the City of Louisville, the state's largest city, as well as 93 smaller municipalities.
- ◆ MSD's existing service area consists of Jefferson County, approximately 375 square miles, which encompasses portions of eleven watersheds.
- ◆ MSD builds, maintains and operates wastewater and stormwater facilities for Jefferson County, serving nearly 200,000 businesses and households.

Factors to Consider in Permitting

- ◆ MSD manages 3,000 miles of sanitary sewer lines, 680 miles of which are combined sewers.
- ◆ Infrastructure operated by MSD includes one major publicly-owned treatment works (POTW), five regional POTWs, 22 small treatment plants, and 12 major pump stations.
- ◆ MSD's responsibilities include flood protection, management of all floodwall and levee facilities, as well as drainage, management of floodplains, and implementation of the floodplain ordinance.
- ◆ Management of the industrial pretreatment program, the combined sewer overflow (CSO) program, and the sanitary sewer abatement and elimination program fall within MSD's jurisdiction.
- ◆ The Phase I NPDES Municipal Separate Storm Sewer System (MS4) permit is also the responsibility of MSD as the lead agency on the permit.
- ◆ MSD also manages and implements the local erosion protection and sediment control ordinance.

Pilot Project Goals

- ◆ MSD will evaluate its monitoring activities and oversight strategies for implementation of Clean Water Act (CWA) requirements, with emphasis on improving and streamlining NPDES permits and related programs.
- ◆ Through this project, MSD intends to develop two alternative watershed-based permit models (i.e., unified permits) and explore application of these model permits in two different watersheds within Jefferson County.

Pilot Project Overview

This project took a phased approach and resulted in a mid-term report and a final report. Tasks performed under this project during the first phase included:

- ◆ Establishing internal and external advisory groups
- ◆ Reviewing literature on other NPDES integration efforts
- ◆ Interviewing other NPDES program managers around the country
- ◆ Evaluating MSD monitoring programs
- ◆ Evaluating data collection, management, and analysis procedures related to NPDES programs
- ◆ Sharing information at national conferences.

The second phase of the project focused on implementation of earlier recommendations defined in the Mid-Term Report. Activities included:

- ◆ Appointing a Chief Information Officer
- ◆ Developing an enterprise data structure
- ◆ Reorganizing departments and divisions to better manage NPDES permits and related programs, including integration of wet weather related programs and permits.

Phase three of the project focused on exploring the concept of a unified permit approach to managing NPDES regulatory programs. MSD developed two unified permit models: the regulatory flexibility permit model and the co-permittee model.

Regulatory Flexibility Permit Model

- This model represents a single permit combining MSD’s existing point source permits and other NPDES-related programs.
- Under this model, MSD’s programmatic constraints relaxed to allow MSD to pursue the “best” solution for water quality improvement rather than prescriptive program requirements.

Co-Permittee Permit Model

- This model combines existing MSD NPDES permits and NPDES-related programs with other point source permits under the authority of a local management group.
- It maximizes involvement and individual efforts of partner organizations, but balances independent efforts of these organizations with the direction of a watershed planning agency.

Expected Outcomes

Through this project, MSD expects to:

- ◆ Improve annual reporting based on watersheds.
- ◆ Improve management of water quality resources.
- ◆ Facilitate TMDL implementation.
- ◆ Increase involvement of the MS4 co-permittees and the community.

Pilot Project Funding

EPA funded the pilot project through a Clean Water Act 104(b)(3) Cooperative Agreement. Current activities are funded solely by MSD.

Pilot Project Update

Recent activities include:

- ◆ Refined the watershed permitting model that is a hybrid of two current EPA models—the “Watershed-Based Individual Permit” and “Integrated Municipal NPDES Permit” models.
 - Bundled all point source requirements and mechanisms for all municipal point sources (CSO, SSO, MS4 Phase I Storm Water, and Pretreatment) under one permit.
 - Included MS4 co-permittees.
 - Based on watershed boundaries of the Beargrass Creek Watershed.
- ◆ Drafted a Beargrass Creek Watershed Permit Concept Paper and Presentation.
- ◆ Met with Kentucky Division of Water Regarding Watershed Permit (Summer, Fall 2003).
- ◆ Drafted a Beargrass Creek Watershed Permit and submitted to Kentucky Division of Water (Summer 2003) for review. Anticipate issuance in March 2004.

Benefits to Date

MSD cites the following benefits:

- ◆ Streamlined NPDES activities.
 - ◆ Cross-trained staff.
 - ◆ Better program integration.
 - ◆ Better program management.
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