

Berkeley County, WV

Background

Berkeley County is a 322-square mile community of approximately 110,000 in the Eastern Panhandle of West Virginia. Although most of the county's land area is agricultural or forested, the I-81 corridor, with its associated urban and suburban development, bisects the county.

Berkeley County is the first MS4-designated community in the state. The permit was originally issued to Berkeley County in 2004, and the County's Public Service Sewer District (PSSD) assumed responsibility for the permit in 2011. Since this stormwater program was only recently under the management of PSSD, many of the previous stormwater activities and existing costs were relatively unknown. Therefore, the project team approached this project as if this were a newly permitted community.

Under the County's MS4 permit, the PSSD was required to develop a stormwater management program to reduce discharges to receiving waters. There are just over 55 communities in West Virginia with MS4 permits, with new MS4s being added each permit cycle. In May of 2014, the PSSD received a compliance inspection from the U.S. Environmental Protection Agency (EPA) on its existing MS4 program. An inspection report was prepared in August 2014, in which the PSSD received violations under multiple MS4 Minimum Control Measures.

Approach

The Environmental Finance Center (EFC) at the University of Maryland began communicating with the PSSD in May of 2014, brainstorming ways to develop a stormwater management program that would comply with the PSSD's Phase II MS4 permit under unique and challenging circumstances. A project developed from this initial dialogue beginning in the fall of

2014, and focused on the EFC providing technical assistance to the PSSD to develop a county-scale stormwater management program with an associated financing strategy. This effort was funded by the National Fish and Wildlife Foundation's (NFWF) Chesapeake Bay Stewardship Fund Technical Assistance Program. Through this program, NFWF connects communities in the Chesapeake Bay watershed with organizations that provide technical assistance to support local communities' restoration efforts.

The EFC project team sought to use this project as an opportunity to: (1) help the PSSD to identify the program activities and corresponding costs and resources needed to develop a robust stormwater management program which would better facilitate MS4 permit compliance; (2) develop an initial finance strategy that would support program activities; and, (3) identify and facilitate partnerships

HIGHLIGHTS

Location: West Virginia

Jurisdiction Type: County

Population: 104,169 (2010)

MS4 Permit: Phase II

Project Period: 2014-2015

Funder: National Fish and Wildlife Foundation



Tuscarora Creek

that will help accelerate the PSSD's ability to meet MS4 permit requirements and local and regional water quality goals.

Under this framework, the EFC project team provided the following elements of technical assistance to the PSSD:

- First, the EFC project team performed an assessment of PSSD's current stormwater management program through a process of data gathering and informational interviews conducted with key PSSD and County staff, consultants, and state and regional agencies.
- Second, the EFC project team conducted a gap analysis to develop a projected level of service that detailed the stormwater management program components needed to achieve a comprehensive program.
- Third, the EFC project team identified the costs associated with needed stormwater program activities, developed a stormwater management program budget, and conducted a stormwater fee rate structure analysis to estimate the revenues needed to support the stormwater program.
- Finally, and throughout the process, the EFC project team worked to facilitate partnerships with local and regional groups to develop resources to support PSSD's stormwater management program goals.



Oatesdale Park outreach event in Martinsburg

Key Findings and Recommendations

The key outcomes of this project included: (1) a clearer understanding of the PSSD MS4 permit requirements and strategies for achieving a desired level of service; (2) an interim three year budget and plan to develop and finance a more comprehensive stormwater program; and, (3) opportunities to continue to build partnerships and leverage technical resources to reduce overall implementation costs. The EFC project team developed a roadmap that outlines the responsibilities, actions, and resources needed for the PSSD and the County to effectively manage stormwater and deliver an adequate level of service to the community under the MS4 permit. The EFC also made the following detailed recommendations in its report, issued in July of 2015:

Establish a Memorandum of Understanding (MOU) between Berkeley County and the PSSD in order to more formally and fully support the PSSD's MS4 Program. While the PSSD holds the MS4 permit, and is ultimately responsible for compliance, there are current responsibilities that remain with Berkeley County, most notably addressing MCMs 4 and 5, and a much greater effort is needed between the PSSD and County to ensure all MS4 activities are completed, tracked, documented, and reported back to the PSSD.

Develop a robust stormwater program in two stages, with the first being a three-year plan to expand stormwater staff capacity, develop organized engineering data, and identify and prioritize capital projects. There is a pressing need to hire staff initially to help develop and manage the program, with the likelihood of phasing additional staff in as the program develops and engineering studies are completed and inform stormwater management system operations and maintenance needs. The PSSD should work with the County to identify the necessary activities required by engineering, planning, and other County staff as the PSSD's program is developed. While

the transfer of all MS4 permit compliance activities to PSSD may ultimately occur, currently the County is needed to help fill resource and capacity gaps.



Stormwater management in Oatesdale Park

Organized and analyzed engineering data to inform how and when to prioritize stormwater conveyance and treatment system projects is limited. The PSSD’s first step will need to focus on building the initial capacity and engineering data that will serve as the foundation of a long-term program. It is essential that the existing stormwater conveyance and treatment system is inventoried, mapped, and assessed so that the PSSD knows the baseline condition of the systems and the location of its components. In addition, a stormwater management plan that considers existing conditions and prioritizes capital improvements must be developed to guide the PSSD’s decision making and ensure cost effective solutions are being implemented.

Institute a stormwater fee system to support the development, stability, adequacy, and flexibility of a comprehensive stormwater program. The PSSD is unable to utilize existing sewer and water utility funds to support

stormwater management activities, and lacks a dedicated revenue stream with which to payback outside financing for stormwater. This effort has provided a unique perspective on the importance of communicating and ensuring dedicated funding is in place when a stormwater program is established. However, West Virginia Senate Bill 234 now enables decisions on the development of a stormwater financing system to be made locally, creating an opportunity for the PSSD to address revenue needs.

Continue to build partnerships, collaborate with outreach groups, access technical assistance, explore grant opportunities, and leverage resources to reduce the costs and resource requirements associated with program development and implementation. To springboard from the initial advances made in engaging potential partners throughout this study will require ongoing communications and continued efforts to build bridges with these organizations. As the program develops, a commitment of resources and/or effort to advance these collaborations will realize efficiencies and cost savings in the MS4 program. This report contains information on multiple possible partners, groups, and sources of technical assistance and grants.

For more information, please visit the [MOST Center Knowledge Center Resources page.](#)

This project led by:



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