

## NEW REPORT: Regional Cooperation for Water Quality Improvement in Southwestern Pennsylvania

by Stephen D. Parker

The City of Pittsburgh is located in southwestern Pennsylvania where the Allegheny and Monongahela River meet to form the Ohio River. Pittsburgh once thrived as a commercial and transportation center, and later became an industrial sector that specialized in metals production and mining. This regional growth, however, entailed environmental costs in terms of air and water pollution that afflicted the region for most of the twentieth century. By the 1980s, new laws, advances in technology, and the decline of the steel industry combined to reduce industrial air pollution. Serious and widespread water quality problems—including combined sewer and separate sewer overflows and stormwater resulting from wet weather, failing septic systems, untreated discharges from individual and community “straight pipes,” agricultural runoff, and acid mine drainage—although mitigated, continue to degrade the quality of local streams and impair their value for habitat, recreation, and water supply.

In early 2005, a WSTB committee chaired by consulting engineer Jerome B. Gilbert completed a two-year study and published a report that assesses the wastewater and water quality problems of the Pittsburgh region and provides recommendations on how to best address these issues in the context of a regional cooperative approach to water management.

The report concludes that water quality problems in southwestern Pennsylvania are complex and region-wide. Many of southwestern Pennsylvania’s current and most pressing water quality problems, such as those attributable to sewer overflows and stormwater, can be traced to historical water supply and wastewater infrastructure decisions made by individual municipalities at a time when today’s population and economic and industrial climate could not have been foreseen. Other problems, such as acid mine drainage, are a legacy of the region’s past heavy mining and manufacturing economy.

Ongoing remediation activities and those planned to address wet



*The Pittsburgh Point is where the Allegheny and Monongahela Rivers converge to form the Ohio River. Photo courtesy of Jessica Hess. Copyright 2005 by Jessica Hess.*

weather-related problems for the mostly urban service area may not be optimal (in terms of either effectiveness or economics) and, in any case, are not designed to address the full set of problems in the 11-county region or the Allegheny and Monongahela River basins. Furthermore, because of the paucity of data, it is not possible at present to make reliable predictions of water quality improvements that will result from such investments.

A major conclusion is that the interrelated water quality problems of southwestern Pennsylvania must be confronted on a regional basis and in a systematic way. Such an approach should improve public awareness of the issues and promote regional cooperation through the involvement of key stakeholder groups with an interest in water quality improvement. In this regard, one or more regional decision-making authorities should take responsibility for leading the development of a comprehensive watershed assessment and response plan that would have as its principal objective the meeting of water quality standards throughout the region in the most cost-effective manner. A first step in determining effective infrastructure investment and management strategies for water quality improvement is to undertake coordinated basin-wide monitoring (including biological monitoring) and

modeling to estimate the amounts and relative impacts of various sources of pollutants entering the region’s surface and groundwater. This is critical to ensuring that remediation efforts are appropriately targeted to the most important sources of pollution and that limited funds for remediation are spent on the highest-risk problems.

The southwestern Pennsylvania experience is repeated to a greater or lesser extent around the United States, and the solutions suggested in this report relating to cooperation and regionalization are widely recognized as having national implications and benefits. Thus, the program recommended for water quality improvement in southwestern Pennsylvania can serve as a model for other regions.

The study was sponsored by the Allegheny Conference on Community Development, an institution involving leaders from industry, government, and academia that has for decades brought intellectual and political power to address important issues of the Pittsburgh region.

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