Source Water Assessment Public Summary
Pennsylvania American Water Company
Swatara Creek and Manada Creek Intakes

Introduction

As required by the 1996 Safe Drinking Water Act, the Pennsylvania Department of Environmental Protection (Pa. DEP) is completing assessments of potential contamination to the raw water quality of all public drinking water sources. This summary of information has been provided to support local and state efforts to protect the raw water quality of Pennsylvania American Water Company's (PAWC) drinking water source in the Swatara Creek Watershed. The assessment is of "source" (river water) rather than "tap" water. Information on "tap" water quality is available in PAWC's *Annual Water Supply Report*.

Drinking Water Sources

Swatara Creek and Manada Creek are the sources of water for PAWC's intakes in the Swatara Creek Watershed. The intakes drain approximately 483 square miles in Schuylkill, Berks, Lebanon, and Dauphin Counties. An average of 6 million gallons of water per day is withdrawn from the intakes. The system serves approximately 35,000 customers. Approximately 48 percent of the watershed is agriculture land use, 47 percent is forested, 4 percent is developed land and the remaining 2 percent is water and disturbed land.

Water Quality and Water Treatment Information

Water withdrawn from the Swatara Creek and Manada Creek intakes is filtered and disinfected prior to distribution to customers. Water quality testing is continuously performed by PAWC. Refer to its *Annual Water Supply Report* for further water quality information.

Evaluation of Significant Potential Sources of Contamination

This assessment evaluates contaminants that may enter the water drawn from the Swatara Creek and Manada Creek intakes. Each source of contamination has been analyzed and given a susceptibility rating according to its impact potential to the intake. A susceptibility rating of A – F (A = high priority, F = low priority) is used to rank protection priorities for the potential sources of contamination. A table of the significant potential sources of contamination is provided below. These sources have received the highest susceptibility rating and are priorities for environmental protection. For a complete listing of sources, refer to the SWAP report for the Swatara Creek Watershed.

Source of Contaminants	Contaminants of Concern	Susceptibility Rating
Agriculture (crops)	Nitrite/Nitrate, Turbidity	A
Livestock	Microbiological Pathogens, Nitrite/Nitrate, Disinfectants	A
Urban/Stormwater Runoff	VOCs, SOCs, Nitrite/Nitrate, Turbidity, Metals	A
Industrial Discharge	Microbiological Pathogens, Nitrite/Nitrate, Heavy Metals, Disinfectants	A
Auto Repair	VOCs, Heavy Metals, Metals, pH	A
Gas/Service Stations	SOCs, Nitrite/Nitrate, Turbidity, Heavy Metals, Metals	A
Other (NPDES Locations)	Microbiological Pathogens, Nitrite/Nitrate, Disinfectants	A

Agricultural activities and urban runoff are the most significant potential sources of contamination to the Swatara Creek Watershed. Fertilizer and pesticide use could contribute nitrogen and phosphorous to the creek, and the frequency of road crossings above the Swatara Creek Intake poses a concern due to the possibility of spills along the major interstates. An abundance of abandoned mines are located in the northern section of the watershed, which may contribute to high concentrations of metals. No contaminants have been found in concentrations that have required PAWC to alter their treatment procedures.

Ongoing Watershed Protection Activities

The Swatara Creek Watershed has a very active watershed group and subwatershed groups. They work with government agencies, private businesses and the public to address important issues within the watershed. There is a Comprehensive Water Resources Study in progress for the watershed. The

study will identify water resource problems and potential solutions. Ongoing, acid mine drainage remediation projects are located in the upper part of the watershed.

Source Water Protection Needs

Agricultural practices cause the majority of impairments to the streams in the Swatara Creek Watershed. Emphasis should be placed on increasing the use of agricultural Best Management Practices (BMPs) throughout the watershed, especially near streams that are impaired due to siltation from livestock access to streams. BMPs will help diminish the nitrogen and phosphorous concentrations that may contaminate surface streams in the Swatara Creek Watershed.

Additional Information

The final SWAP report for PAWC's intakes on Manada Creek and on Swatara Creek is available through the Pa. DEP.