

Source Water Assessment Public Summary

Westmoreland County Municipal Authority-Yough Plant

PWSID 5260036

Youghiogheny River, 001

May 2002

Introduction

The Pennsylvania Department of Environmental Protection (DEP) has conducted assessments of potential contaminant threats to the raw water quality of all public drinking water sources as required by the 1996 Safe Drinking Water Act. This Source Water Assessment Public Summary provides information to support local and state efforts to protect the raw water quality of Westmoreland County Municipal Authority-Yough Plant's drinking water source. The information in this assessment pertains to the watershed that provides raw water to Westmoreland County Municipal Authority-Yough Plant which is then treated for drinking water use. The assessment pertains to "source" water, rather than "tap" water. Information on "tap" water quality is available in Westmoreland County Municipal Authority-Yough Plant's Consumer Confidence Report that can be obtained directly through the water supplier.

What is the Source of Your Drinking Water

Westmoreland County Municipal Authority-Yough Plant provides water to approximately 100,000 customers. The source of water for the Authority is surface water from the Youghiogheny River which is designated for the protection of Warm Water Fishes (WWF) from the Maryland-Pennsylvania border to the Youghiogheny Dam. Because of the vast size of this watershed, there are many protected waters within it, most of which are protected for Cold Water Fishes. There are also several Exceptional Value streams within the watershed. The watershed encompasses approximately 1,280 square miles including 12 counties in three states (Pennsylvania, Maryland and West Virginia). The Authority is permitted to withdraw up to 50.0 MGD (millions of gallons per day) from the Youghiogheny. The average withdrawal is approximately 24.0 MGD. The majority of the Youghiogheny River watershed is forested (67%) with large areas of agriculture (28%). Water storage, urban or developed land and barren land comprise the remaining land usage.

Water Quality and Water Treatment Information

Water withdrawn for treatment at the purification plant is filtered and disinfected with chlorine prior to distribution to customers. Water quality testing performed by the Authority indicated that results of tap water sampling done in 2001 were acceptable. Additional information about treated water quality can be obtained from the Westmoreland County Municipal Authority-Yough Plant's Consumer Confidence Report.

Evaluation of Significant Potential Sources of Contamination

The assessment evaluates contaminants that **may** enter the raw water from the watershed that contributes to the Youghiogheny River before treatment. The contaminants addressed in this assessment include those regulated under the federal Safe Drinking Water Act as well as those DEP has determined may present a concern to health. Descriptions of the significant potential sources of contamination associated with the watersheds are provided below. Each potential source of contamination has been analyzed and given a qualitative susceptibility rating (A = high priority through F = low priority) according to its potential to impact the water supply. The greatest potential sources of contamination are summarized below.

Potential Sources of Contamination	Contaminants of Concern	Description	Protection Priority
Transportation Corridors, Bridges, Railroads	Metals, turbidity, SOCs	Road deicing and potential for spills along roads, bridges, railroads	A
Auto Repair Shops	MTBE, BTEX, Metals	Disposal of products/byproducts	A
Combined Sewer Outfalls, Wildcat Sewers, Malfunctioning Septic Systems	Pathogens, bacteria, viruses, nutrients	Raw sewage entering water source	A
Residential Developments	Nitrates/Nitrites, pathogens, VOCs, SOCs, nutrients, pesticides, herbicide	Stormwater runoff, lawn care, on-lot waste disposal, golf courses	A
Utility substations, power plants	Heavy metals, SOCs, VOCs, waste piles	Accidents near water source	A

As indicated above, roads, bridges, railroads, auto repair, combined sewer outfalls, wildcat sewers, malfunctioning septic systems, utility substations and runoff from non-point sources such as residential developments and mining areas are the most significant potential sources of contamination within the watersheds that contribute water to the Youghiogheny River intake. Roads, railroads and bridges receive a high ranking due to the locations (near streams and reservoirs) and possible release of a variety of substances from accidents. Auto repair shops pose a threat of releasing petroleum products such as BTEX and MTBE. Runoff from abandoned mine areas may add to stream acidity as well as heavy metal contamination. The list also includes storm water, wildcat sewage and CSO discharges in several of the surrounding communities. They were given an “A” ranking because of the large quantities of untreated water that can be conveyed through these systems. During the course of a storm, many contaminants can be picked up from industrial facilities and streets. Pesticides and herbicides can come from golf courses, field croplands, and lawns. In addition, many communities have combined sewers that transport raw sewage with storm water that can result in raw sewage going directly into the

river by way of a combined sewer overflow, (CSO) without treatment during heavy rain events. Wildcat sewers also add raw sewage directly into the water source.

Source Water Protection Needs

It has been determined that existing state and federal regulations should provide adequate protection of Westmoreland County Municipal Authority-Yough Plant's water source. Overall, the watershed contributing raw water to the purification plant has moderate risk of significant contamination. Several impaired waters exist within the watershed mainly due to agricultural practices and abandoned mine drainage. Should a group (watershed organization, water supplier, municipalities) implement a watershed protection plan, the focus should be placed on controlling stormwater runoff along transportation corridors near the streams leading to the intake and within the surrounding communities, including combined sewer overflows and wildcat sewers. Also, malfunctioning septic system concerns could be mitigated by proper septic tank inspection and maintenance as part of a municipal sewage management program. Best Management Practices should be used to divert runoff from agricultural areas and abandoned mines away from streams, reservoirs and other waterways. Lastly, Best Management Practices for spill prevention and containment can reduce the threat of PCB exposure to the streams from utility substations.