

# **Source Water Assessment Public Summary**

## **Westmoreland Municipal Authority-Sweeney Plant PWSID 5650032 Beaver Run Reservoir, 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 Municipal Authority-Sweeney Plant's drinking water source. The information in this assessment pertains to the watershed that provides raw water to Westmoreland Municipal Authority-Sweeney 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 Municipal Authority-Sweeney Plant's Consumer Confidence Report that can be obtained directly through the water supplier.

### **What is the Source of Your Drinking Water**

Westmoreland Municipal Authority-Sweeney Plant provides water to the towns of Adamsburg, Avonmore, Delmont, East Vandergrift, Export, Hyde Park, Irwin, Jeannette, Manor, Murrysville, Salina, Truxall, Vandergrift and West Leechburg, Penn and Oklahoma Boroughs and Allegheny, East Huntingdon, North Huntingdon, Penn, Salem and Washington Townships within Westmoreland County. The plant also serves Apollo, North Apollo, Leechburg and Gilpin, Kiski and Parks Townships within Armstrong County. North Versailles and Saltsburg are also served in Allegheny and Indiana Counties, respectively. The source of water for the Authority is surface water from the Beaver Run Reservoir which receives water from Beaver Run. Beaver Run is designated for the protection of Trout Stocked Fishes (TSF) from the Beaver Run Reservoir Dam to the mouth. The watershed encompasses approximately 43 square miles including eight (8) municipalities in Westmoreland County. The Authority serves a population of approximately 140,000 and is permitted to withdraw up to 35 MGD (millions of gallons per day) from the Beaver Run Reservoir. The majority of the Beaver Run Reservoir watershed is agricultural lands (44%) and forestland (47%). Water storage, urban or developed land and barren land comprise the remaining land usage within the watershed.

### **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Water withdrawn for treatment at the purification plant is filtered and disinfected with chlorine prior to distribution to customers.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 Municipal Authority-Sweeney Plant' 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 Beaver Run Reservoir 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	Metals, turbidity, SOCs	Road deicing and potential for spills along roads, bridges	A
Road Deicing, Salt Storage	Sodium chloride	Runoff from storage areas, application of salt on roads	A
Pipelines	Gasoline, petroleum products	Ruptures in the pipes	A
Closed Landfills	Leachate containing a variety of toxic materials	Water percolating through old landfills	A
Malfunctioning Septic Systems	Pathogens, bacteria, viruses, nutrients	Raw sewage entering water source	B
Residential Developments, Farms	Nitrates/Nitrites, pathogens, VOCs, SOCs, nutrients, pesticides, herbicide	Stormwater runoff, lawn care, on-lot waste disposal, golf courses, farms	B
Strip mines, abandoned mines	Turbidity, metals, heavy metals, acidity	Storm water runoff from stripped areas, mine releases	B

As indicated above, roads, bridges, road deicing, pipelines, closed landfills, malfunctioning septic systems and runoff from non-point sources such as residential developments, farms and mining areas are the most significant potential sources of contamination within the watersheds that contribute water to the Beaver Run Reservoir intake. Roads and bridges receive a high ranking due to the locations (near streams and reservoirs) and possible release of a variety of substances from accidents. Runoff from abandoned mine areas may add to stream acidity as well as heavy metal contamination. Although pipeline ruptures seldom occur, these events have been some of the most significant causes of pollution in recent decades. The list also includes storm water runoff from the areas near the intake. They were given an “A” ranking because of the quantity of untreated water that can be transported over the surface and into source water. 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, pathogens, nitrates and nitrites may enter stormwater from animal grazing or feedlots.

## **Source Water Protection Needs**

Overall, the watershed contributing raw water to the purification plant has moderate risk of significant contamination. The section of the Beaver Run watershed in which the intake is located is listed as impaired due to 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. Best Management Practices should be used to divert runoff from agricultural areas and abandoned mines away from streams, reservoirs and other waterways. Also, malfunctioning septic system concerns could be mitigated by proper septic tank inspection and maintenance as part of a municipal sewage management program.