

Source Water Assessment Public Summary

Pennsylvania American Water Company-Kittanning PWSID 5030008 Allegheny River MP- 45.6, 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 Pennsylvania American Water Company (PAWC) Kittanning's drinking water source. The information in this assessment pertains to the watershed that provides raw water to PAWC Kittanning 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 PAWC Kittanning's Consumer Confidence Report that can be obtained directly through the water supplier.

What is the Source of Your Drinking Water

PAWC Kittanning provides water for Kittanning Borough. The source of water for the Authority is surface water from the Allegheny River which is designated for the protection of Warm Water Fishes (WWF) from Clarion River to Kiskiminetas River. 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 many Exceptional Value streams within the Allegheny River watershed. The watershed encompasses approximately 8,975 square miles including 19 counties within Pennsylvania and New York. The Authority serves a population of approximately 5,800 and is permitted to withdraw 2.66 million gallons per day from the river. The majority of the Allegheny River watershed is forested (67%) with large areas of agriculture (26%) and some pockets of urban or developed land (3%). Water storage, barren land, rangelands and wetlands comprise the remaining land usage.

Water Quality and Water Treatment Information

From the river, water is pumped to a treatment plant east of the Armstrong County Courthouse, where treatment consists of coagulation and flocculation, sedimentation, dual-media filtration, and disinfection. Water is stored in an 880,000 gallon finished water basin, and is fed to the customers by gravity. 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 PAWC Kittanning's *Annual Water Supply 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 Allegheny 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	Metals, turbidity, SOCs	Road deicing and potential for spills along roads, bridges	A
Boating, Marina, Barge traffic	Petroleum products, coal, oil	Accidental release/spill	A
Auto repair shops, Truck or bus terminals	MTBE, BTEX, Metals	Disposal of products/byproducts	A
Unregulated sanitary discharge	Pathogens, bacteria, viruses	Raw sewage entering water source	A
Utility substations, power plants	Heavy metals, SOCs, VOCs	Accidents near water source, waste piles	A
Combined Sewer Outfalls	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

As indicated above, roads, bridges, boating, barge traffic, auto repair and truck terminals, utility substations/power plants, combined sewer outfalls, unregulated sanitary discharge and runoff from non-point sources such as residential developments are the most significant potential sources of contamination within the watersheds that contribute water to the Allegheny River 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. The boating permitted on the Allegheny River could yield cumulative amounts of petroleum products entering the source water in a short amount of time, as well as barge traffic which adds the potential for coal and oil contamination. Auto repair shops and truck terminals also pose a threat of releasing petroleum products such as BTEX and MTBE. The list includes storm water 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. Furthermore, in the Templeton area, raw sewage is discharged into the river, which will cause serious contamination until a treatment plant is installed.

Source Water Protection Needs

It has been determined that existing state and federal regulations should provide adequate protection of PAWC Kittanning's water source. Overall, the watershed contributing raw water to the purification plant has moderate risk of significant contamination. Many 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. 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 and power plants. In Kittanning, and at other locations along the Allegheny watershed, it is recommended that an organization be brought into effect to monitor the river, specifically regarding accidental spills and pollutant discharge. The organization can forewarn all water purveyors on the river of an upstream occurrence or accidental discharge, and thus protect the health and welfare of water users on the Allegheny River.