

Source Water Assessment Public Summary

Ambridge Water Authority PWSID 5040008

Service Creek 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 Ambridge Water Authority's drinking water source. The information in this assessment pertains to the watershed that provides raw water to Ambridge Water Authority 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 Ambridge Water Authority's Consumer Confidence Report that can be obtained directly through the water supplier.

What is the Source of Your Drinking Water

Ambridge Water Authority provides water to the Boroughs of Ambridge and Edgeworth. The source of water for the Authority is surface water from the Service Creek Reservoir which is designated for the High Quality protection of Cold Water Fishes (HQ-CWF). The watershed encompasses approximately 15 square miles including two municipalities in Beaver County. The Authority serves a population of approximately 18,570 and is permitted to withdraw up to 2.7 MGD (millions of gallons per day) from the Service Creek Reservoir. The majority of the watershed is forested (67%) with large areas of agriculture (15%) and some pockets of urban or developed land (13%). Water storage comprises 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Water withdrawn for treatment at the purification plant is filtered and disinfected with chlorine prior to distribution to customers.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 Ambridge Water Authority'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 Service Creek 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
Residential Developments, Agricultural Areas	Nitrates/Nitrites, pathogens, VOCs, SOCs, nutrients, pesticides, herbicide	Stormwater runoff, lawn care, on-lot waste disposal, golf courses, farms	A-B
Pipelines	Oil, petroleum products	Ruptures in the pipes	B

As indicated above, transportation corridors, bridges, pipelines and runoff from non-point sources such as residential developments and farms are the most significant potential sources of contamination within the watersheds that contribute water to the Service Creek 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. Although pipeline ruptures seldom occur, these events have been some of the most significant causes of pollution in recent decades. The list also includes stormwater runoff because of the large quantities of untreated water that can be transported over the surface into the reservoir. During the course of a storm, many contaminants can be picked up residential or farmed areas. Pesticides and herbicides can come from golf courses, field croplands, and lawns.

Source Water Protection Needs

Overall, the watershed contributing raw water to the purification plant has little risk of significant contamination. No impaired waters exist within the watershed and the number of potential sources of contamination is very low. However, 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. Best Management Practices should be used to divert runoff from agricultural areas away from streams, reservoirs and other waterways.