

Source Water Assessment Public Summary

Bradford City Water Authority PWSID 6420014

Reservoir #2, 001

Reservoir #3, 002

Reservoir #5, 003

February 2003

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

What is the Source of Your Drinking Water

The Bradford City Water Authority has 6,150 recipients of water through its residential (5,479), commercial (586) and industrial (85) customers. The Authority provides water to Bradford City and Bradford, Foster and Lafayette Township. The sources of water for the Bradford City Water Authority are three surface water intakes, Reservoir #2, 3 and 5, located in Bradford Township, McKean County. Local names of the reservoirs are the Gilbert, Marilla, and Heffner Reservoirs (numbers 2, 3, and 5, respectively). The watersheds collectively cover approximately 17 square miles, mostly in Bradford Township, but also extending into Foster, Corydon, and Lafayette Townships, McKean County. Protected waters (Chapter 93 Water Quality Standards) exist within both the Marilla and Heffner watersheds. Marilla Brook (basin, above the Bradford Water Dam), and the West Branch of the Tunungwant Creek (basin, source to Marilla Brook) are both designated for the High Quality protection of Cold Water Fishes (HQ-CWF). The watersheds are largely forested, each greater than 95%, with very isolated areas of urban land (roads) and some water storage.

Water Quality and Water Treatment Information

The Bradford City Water Authority is permitted to withdraw 6.5 MGD (millions of gallons per day) from the intakes. Average daily demand from the Authority ranges near 3.5 MGD. The reservoirs' combined storage capacity is in excess of one billion gallons. Water from each of the reservoirs is combined and transported to the treatment facility near the Heffner Reservoir in Bradford Township, McKean County. Water withdrawn for treatment at the purification plant is disinfected with chlorine and treated by coagulation/flocculation, sedimentation, and filtration. Additional information about treated water quality can be obtained from Bradford City 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 watersheds that contribute to the Gilbert, Marilla, and Heffner Reservoirs 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	Metals, turbidity, SOCs, Sodium chloride	Road deicing and potential for spills along roads	A
Stormwater Runoff	Sedimentation, turbidity	Runoff from roads, timbered areas	B
Oil and gas wells	Petroleum products	Cumulative small releases	B

As indicated above, transportation corridors, oil and gas wells and runoff from non-point sources such as roads and timbered areas are the most significant potential sources of contamination within the watersheds that contribute water to the surface water intakes. Roads receive a high ranking due to the locations (near streams and the river) and possible release of a variety of substances from accidents including road deicing. The oil and gas wells throughout the watershed could yield cumulative amounts of petroleum products entering the source water. The list also includes stormwater runoff. During the course of a storm, many contaminants can be picked up from streets or areas that have been timbered, thus causing sedimentation and turbidity.

Source Water Protection Needs

Overall, the watershed contributing raw water to the purification plant has little risk of significant contamination due to several factors. On review of the Section 303d List, no waters within the watersheds were identified as impaired and the potential sources of contamination are very limited. Also, the watersheds are almost completely undeveloped and managed by the Authority. Travel on many of the gravel roads throughout the watershed is restricted, and gated and locked. The Authority issues specifications to contractors prior to activities such as road work or timbering. Additionally, the Authority employs a watershed enforcement officer. 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 timbered areas away from streams, reservoirs and other waterways.