

Western Berks Water Authority – Tulpehocken Creek Intake

Public Summary

Introduction

As part of the requirements of the 1996 Safe Drinking Water Act Reauthorization, the Pennsylvania Department of Environmental Protection (PADEP) has been conducting assessments of all potentially significant sources of contamination to all public drinking water sources. The Western Berks Water Authority has prepared this Source Water Assessment Public Summary to provide information to support local and state efforts to protect the quality of its drinking water sources. The information in this summary pertains to the water supply area for the Western Berks Water Authority (PWSID #3060066). The water withdrawn for the Western Berks Water Authority's Treatment Plant is treated and meets state and federal regulations for safety and quality before being distributed to the surrounding Reading area. The assessment conducted for the Western Berks Water Authority's Treatment Plant is of the "source" (river water) rather than "tap" (drinking) water. Information on "tap" (drinking) water quality is available from the Western Berks Water Authority's Annual Consumer Confidence Report that can be obtained by calling 610-678-4400.

What is the Source of Your Drinking Water?

The source of water for the Western Berks Water Authority's Treatment Plant is surface water from the Tulpehocken Creek. Up to five million gallons is withdrawn from the river per day. The water system serves customers in Wyomissing, West Reading, and Shillington Boroughs. The water supply intake is located in the Tulpehocken Creek directly downstream of Blue Marsh Reservoir. Approximately 175 square miles of land covering portions of two counties including large sections of Berks and Lebanon counties drain into the creek upstream from the intake. The land upstream of the intake is 27% forested/greenspace, 70% agricultural, and 3% developed.

Water Quality and Treatment Information

Water withdrawn from the Tulpehocken Creek is coagulated, settled, filtered, and disinfected with chlorine prior to distribution to customers. Drinking water quality meets or exceeds all state or federal requirements.

Evaluation of Significant Sources of Contamination

This assessment identifies and evaluates the possibility for contaminants to potentially enter the Tulpehocken Creek upstream from the water intake prior to treatment. The contaminants addressed in this assessment include those regulated under the federal Safe Drinking Water Act as well as those that the PADEP has determined may present a concern to human health. These sources are then ranked to determine their protection priority to the water supplier. The protection priority is the level of importance and potential contamination a particular source represents the water supply. A description of the protection priority assigned to various types of sources upstream from the Tulpehocken Creek Intake is provided in Table 2.2.9-1. Each type of source has a

qualitative protection priority rating ranging from “A” to “F”. The “A” rating is considered a source of highest protection priority, while “F” is considered lowest protection priority. Sources with ratings between “A” and “C” are considered potentially significant sources for protection consideration. Sources with rating between “D” and “F” are considered to have less significance.

Table 2.2.9-1 Summary of Protection Priorities for Various Upstream Sources

Source	Protection Priority	Description	Priority Area(s)	Contaminants
Treated Sewage ²	A – B (Moderately High – High)	Wastewater discharges from wastewater treatment plants	Watershed wide	Pathogens, bacteria, viruses, <i>Cryptosporidium</i> , nutrients, sediment, organic chemicals
Untreated Sewage	A (High)	sanitary sewer overflows	towns and boroughs	Pathogens, bacteria, viruses, <i>Cryptosporidium</i> , nutrients
Urban/Residential Runoff ³	A – B (Moderately High – High)	Stormwater runoff from roads, parking lots, roofs	towns and boroughs	Pathogens, bacteria, viruses, <i>Cryptosporidium</i> , nutrients, metals, sediment
Agricultural Runoff ¹	A – B (Moderately High – High)	Stormwater runoff from croplands, pastures, livestock, manure	Watershed wide	Pathogens, bacteria, viruses, <i>Cryptosporidium</i> , nutrients, sediment
Industrial Facilities	B-C (Moderately High - Moderate)	Facilities that store or use hazardous chemicals	Watershed wide	Metals, nutrients, organic chemicals
Above Ground Storage Tanks	B-C (Moderate)	If storage tank spilled into creek	Watershed wide	Petroleum hydrocarbons, metals, phosphorus
Landfills	C (Moderate)	Leaching of contaminants into streams	Watershed wide	Petroleum hydrocarbons, metals
Spills and Accidents	A – C (Moderate – High)	Car, truck, train, or pipeline accident spilling benzene	Watershed wide	Petroleum hydrocarbons, organic chemicals

Note: Petroleum hydrocarbons include chemicals found in oils and greases

Organic chemicals include chemicals found in solvents, degreasers, varnishes, paints, gasoline, plastics, insect and weed killers.

¹– source of greatest protection priority ²– source of second greatest protection priority

³– source of third greatest protection priority

As indicated in Table 2.2.9-1, agricultural runoff overall was given a highest protection priority due to the past, current, and potential impacts of runoff agricultural lands that introduce pathogens, nutrients, and sediment into the water supply. Discharges of treated and untreated sewage upstream of the water intake were also given a high protection priority due to their potential to release pathogens and nutrients into the water supply. Polluted runoff from urban lands was also considered significant, but had a smaller potential cumulative impact compared to agricultural runoff and wastewater discharges.

Ongoing Source Water Protection Activities

The Western Berks Water Authority works closely with state, federal, and local officials to address water quality issues. The Western Berks Water Authority also participates in various activities with water suppliers and watershed organizations that encourage communication, cooperation, education, protection, and restoration of the Tulpehocken Creek and its tributaries.

Source Water Protection Needs

Overall, the primary protection areas to focus citizens' protection efforts include the mainstem areas of the Tulpehocken Creek from the headwaters in Lebanon County to the mouth of Mill Creek in Jackson Township, Berks County. Large portions of the Northkill Creek, Mill Creek, and Spring Creek subwatersheds are also high priority areas for runoff protection, mainly from agricultural runoff. However, other parts of the watershed may need limited attention for contaminant-specific issues.

Based on these observations, ongoing initiatives to reduce agricultural runoff impacts need to continue. In addition, ordinances need to be adopted to reduce the impacts of stormwater runoff from current urban areas and future areas of development. Watershed education efforts should focus on developing permanent curriculum at local schools, publishing an annual Tulpehocken Creek report card, and establishing an annual "Tulpehocken Creek Day" with associated festivities to raise awareness about the significance of the creek for water supply in Berks County and the Philadelphia region.

Long-term protection efforts should be focused on mitigating agricultural runoff impacts through the implementation of conservation plans, developing conservation buffers, installing streambank fencing, and developing a riparian corridor along the Tulpehocken Creek. These will have the greatest overall impacts on improving source water quality and the Tulpehocken Creek.

How to Obtain More Information

This Source Water Assessment Public Summary was completed in August 2002. Individuals interested in learning more about this water system and watershed can contact the Western Berks Water Authority at 1-610-678-4400.

How Do I Get Involved in Protecting the River and My Water Supply?

There are many ways you can help protect the river and your water supply. You can join a local watershed organization, join a citizens advisory committee, or write your state and local representatives or congressmen about your views and opinions on issues. Instead of joining organizations, you can also lend a hand when these various organizations conduct trash cleanup, stream restoration, tree planting activities, stenciling storm drains, or conducting stream monitoring. Even the smallest of things can help protect your stream, river, or water supply. Just simply calling the proper authorities when you see illegal dumping, dead fish, or other polluting activities can make a big difference (see Table 2.2.9-2). Below are a list of numbers to call for various situations and a list of websites to find more information about local watershed and environmental organizations in the area (see Table 2.2.9-3).

Table 2.2.9-2 Whom to Call to Report Various Situations

Situation	Who To Call	Phone
Dead Fish	Fish & Boat Commission PADEP	717-626-0228 800-541-2050
Illegal Dumping & Related Pollution Activities	PADEP	800-541-2050
Sewage Spills	PADEP	800-541-2050
Oil & Gas Spills / Accidents	PADEP	800-541-2050

Table 2.2.9-3 Getting Involved: Places to go for More Information about Local Watershed Organizations

Information About	Phone Number	Website Address
Berks County Watershed Organizations	610-469-6005	www.schuylkillswa.org
Trout Unlimited	703-522-0200	www.tu.org
Berks County Conservancy	610-372-4992	www.berks-conservancy.org
Greater Pottstown Watershed Alliance	610-326-3918	
Schuylkill Riverkeeper	610-469-6005	email: srk@worldlynx.net