

# SOURCE WATER PROTECTION



## WHAT IS SOURCE WATER PROTECTION?

Source water refers to any groundwater or surface water resource that provides drinking water. Source waters can be streams, lakes, rivers, man-made reservoirs, groundwater, or a combination.

Activities or features on the land surface can affect the quality of drinking water sources. Contamination can be introduced from sources such as abandoned wells, agricultural nutrients, feedlots, lawn nutrients and chemicals, and hazardous waste. Source water protection identifies potential sources of contamination and implements strategies to safely manage them.

## WHY IS IT IMPORTANT?

Communities can treat drinking water to remove contamination, but it can be difficult and expensive. Source water protection focuses on preventing contamination and is less expensive than treatment and remediation. By protecting drinking water at the source, public water systems help protect public health.

## BENEFITS OF SOURCE WATER PROTECTION

When public water systems protect source waters, they can:

- **PREVENT GROUNDWATER CONTAMINATION.** Groundwater clean-up is costly and difficult and can be prevented by protection measures.
- **AVOID DRILLING NEW WELLS.** When groundwater becomes contaminated, communities often have to drill new wells in areas that are not contaminated or to deeper aquifers.
- **MINIMIZE DRINKING WATER TREATMENT.** By preventing contamination of drinking water sources, communities can prevent installing additional drinking water treatment.



Source water protection identifies and manages potential threats to drinking water quality.



*Developed by the Source Water Protection Unit in August 2019.*

*To learn more, visit: <https://www.health.state.mn.us/communities/environment/water/swp/index.htm>*

# HOW MDH PROTECTS SOURCE WATER

## 1. Define the protection area

Hydrologists at MDH evaluate where drinking water comes from and how vulnerable the drinking water source is to outside contamination. This information is used to define a Drinking Water Supply Management Area (DWSMA). Public water suppliers manage activities and land uses in the DWSMA to minimize the risk of contamination.

## 2. Develop protection strategies

Planners at MDH identify activities and features in the DWSMA that could introduce contamination to the drinking water source. Planners work with communities to develop source water protection plans. Plans include strategies to manage potential sources of contamination.

## 3. Support protection activities

MDH can provide technical assistance to public water systems. MDH also administers grants to support source water protection activities, made possible by the Clean Water Fund. Public water systems with approved plans are eligible for Source Water Protection Grants.



# HOW YOU CAN PROTECT DRINKING WATER

With the help of MDH, public water systems can create and implement plans to protect drinking water sources.



Communities using groundwater develop **Wellhead Protection Plans**.



Communities using surface water develop **Surface Water Intake Protection Plans**.



Schools, mobile home parks, factories, and child care facilities develop **Wellhead Protection Action Plans**.



Restaurants, resorts, and campgrounds develop **Inner Wellhead Management Zone Inventories**.

Public water systems with Wellhead Protection Action Plans are only responsible for the area within their parcels. Local governments can assist these systems by managing land use in the DWSMA beyond their parcels. Contact MDH with questions or to learn more about source water protection planning.

For more information, contact: [health.drinkingwater@state.mn.us](mailto:health.drinkingwater@state.mn.us) or 651-201-4700