

Wellhead Protection

What is Wellhead Protection?

Wellhead Protection is a program designed to protect public drinking water supplies by managing the land surface around a well where activities might affect the quality of water. The Safe Drinking Water Act Amendments of 1986 established a program, led by the Environmental Protection Agency (EPA), to encourage states to develop Wellhead Protection Programs. The EPA Approved Maryland's Wellhead Protection Program in June of 1991. The State program provides technical assistance, information, and advice to local governments, to help them protect their water supplies.

How do we protect our water supplies?

Form a community planning team. Planning teams should represent all the interests in your community. Water suppliers, elected officials, local environmental health departments, local planning agencies, local businesses, developers, community service organizations such as the League of Women Voters, environmental groups, farmers and interested citizens can work together to reach a consensus on how to protect your water supply. The group should define clear goals and objectives for measuring progress.

Delineate wellhead protection areas. The first step for the planning team is to define an area around the drinking water well where contaminants could enter and pollute the well. This area becomes the "Wellhead Protection Area" or WPHA. Maryland's Wellhead Protection Program geologist, in consultation with the Maryland Geological Survey, uses computer modeling and hydrogeologic data to define wellhead protection areas in the State. Communities can hire consultants to delineate their WHPAs, or request Maryland's Wellhead Protection Program to assist defining the area. Maryland's Wellhead Protection Program will review all delineations.

Inventory contaminants. Next, the planning team should identify existing and potential sources of contamination in the WPHA. This inventory can include commercial and industrial operations that generate pollutants, underground storage tanks, homes and industries discharging to septic systems, agricultural operations, hazardous or solid waste disposal facilities, and abandoned wells. Maryland's Wellhead Protection Program can provide communities with lists of regulated activities within their wellhead protection areas. Communities can then conduct their own search for additional potential contaminant sources, such as abandoned wells or unregulated waste disposal sites. The best sources of information about existing sites are the citizens of the community. In some areas of the country, local volunteers, particularly senior citizens, have been extremely valuable in identifying and locating potential contaminant sources in their communities.

Manage your wellhead protection area. There are many methods that communities can use to manage their WHPAs. Educating citizens of the community about their water supply is one method. Other management techniques include purchasing land around the well and encouraging potential polluters to adopt best management practices. For existing facilities, monitoring ground water quality can detect pollution before it reaches the well. Communities can use local planning, zoning, and health ordinances to effectively manage the types of activities that can occur in a designated wellhead protection area. Each community should develop its own management program to suit its individual needs. Maryland's Wellhead Protection Program advises communities about ways to protect their water supplies.

Plan for the future. Contingency plans discuss what the community will do in the event the source of drinking water is unexpectedly contaminated or the supply is disrupted. Typically, these plans include both short and long term strategies for replacing the water supply if necessary. The plan should specify what will be done, should be notified in case of disaster. In addition, the community should know where funding will come from if a water supply needs to be cleaned up or replaced.

Site new wells carefully. Protection of new wells is an important part of wellhead protection. Maryland's Wellhead Protection Program reviews each new public drinking water supply well application to ensure that new wells are located so that the risk of pollution is reduced. Communities should propose new well locations where there is little risk of contamination from existing or future land uses.

If you would like to get involved in protecting your public water supply, or would like more information about wellhead protection in Maryland, please contact Maryland's Wellhead Protection Program at **(410) 537-3714**.

Maryland Department of the Environment
1800 Washington Blvd
Baltimore, MD 21230
410-537-3000 • 1-800-633-6101