

PRWA Source Water Protection Program

Program Steps

The PRWA Sourcewater Technician will guide the water system and community through the following steps:

1) FORMING A COMMITTEE:

You will be asked to appoint a committee to work on your plan. Ideally there should be:

- an elected official
- board/council member
- fire department chief
- the system water operator
- an older resident who knows the area
- municipal official from municipality where wells are located
- any other interested individuals
 - PA DEP
 - PA DOT
 - County Planning Commission
 - County Conservation District
 - Penn State Agriculture Extension
 - Local Farmers, Industry, and Residents

The committee should be willing to commit 1 night a month for approximately 6 months while the Plan is being developed. Then they will meet at least annually to review and update the plan. The purpose of the committee is to develop the Wellhead Protection Plan (WHP) and make recommendations to the Board or Council on management of the WHP area.

2) DELINEATION OF RECHARGE AREA:

This is a mathematical calculation to determine the area to be protected. The delineation of the wellhead protection area for the wells is required to be performed by a professional geologist registered in Pennsylvania. The water supply is responsible for hiring the geologist and expenses related to the delineation. Assistance for these costs may be available.

Note: The water system may perform an interim fixed ½ mile radius WHPA until a more rigorous delineation can be performed. PRWA can assist with this process.

A site survey will be performed and water system records should be available at that time (see page 6). The site survey should take 1 to 4 hours depending on the area and number of wells.

3) IDENTIFICATION OF POTENTIAL CONTAMINATION SOURCES:

The contact person for the WHP Committee will be asked to contact the Emergency Management Coordinator in the area for a list of hazardous substances and sites in the area. The Committee will be asked to meet with the PRWA technician to take a tour of the delineated area to locate possible contamination sources. The technician is not as familiar with your system and surrounding area as you are, so your participation is essential.

4) MANAGEMENT OF THE AREA:

The purpose of doing a wellhead protection plan is to ensure a high quality water supply to protect the health and welfare of your customers. If you do not manage the area, you have spent time doing the first 3 steps for nothing.

The Committee and the PRWA Technician will review the potential contamination sources and determine which management approaches to recommend to the water system and municipalities. The general management options you can choose are on Page #7 and #8. The PRWA technician will provide more information on management options.

You will be asked to pass a Resolution asking for cooperation of government entities that impact your wellhead area.

5) PLANNING FOR THE FUTURE:

You will need to have a contingency plan to provide water to your customers in the event you have a contamination problem. This may include emergency interconnection with adjacent water supplies, backup sources or agreements with bulk water haulers.

You will need to include plans for developing new sources of water. Both the water supplier and the municipalities will need to develop or update their Emergency Response Plans to include the Wellhead Protection Area. If you do not already have these in place, the technician can help you develop or update these plans.

More information on PA's Wellhead Protection Program can be found at the PA DEP website: www.dep.state.pa.us

Records are Needed

1. Copy of well drilling logs, if available. You may be able to obtain them from the well driller if you do not have them on file.
2. Copy of the Water Supply Report submitted to DEP for last year.
3. Name, address, phone number and name of organization represented, of all committee members.
4. Names, addresses & phone numbers of water system Board and personnel.
5. Well locations identified on 7 minute quadrant map. (Map provided by technician)

6. Tax map of community.
7. PA DEP Emergency Response Plan, if available.
8. Completed contamination source sheet (submitted by technician). This is a preliminary list to be used on the system tour with Committee.
9. Any studies done on the water system by consultants, County, or DEP.
10. Any other information that you feel is pertinent to understanding the water system or surrounding area.

Minimum Elements for Local WHP Programs

This section describes the minimum elements necessary for a local wellhead protection (WHP) program to receive DEP approval. Local WHP program plans will be reviewed and approved by regional Water Supply Management staff. If necessary, coordination with other programs could be accomplished in a manner similar to that for permit coordination. Essentially, the plan should not only detail the provisions of the local program including a schedule for implementation, but should also demonstrate the commitment needed to support the on-going efforts necessary for a successful local WHP program. Therefore, the plan should not only describe how sources will be protected but also document the resources necessary to implement the plan, thus linking implementation and management to finances.

Each plan should have a table of contents, an introduction that includes the goal or purpose of the plan along with a general description of the area (demographics, topography, local/regional hydrogeologic setting, source characteristics, etc.), concise narrative descriptions for each of the following sections plus any other relevant supporting information. Each plan must have a WHP area delineation map using an appropriate base map with a scale ranging from 1:400 to 1:24,000 that accurately and legibly depicts source locations, WHP area boundaries and potential contaminant sources (preferably a USGS 7.5' quad or GIS-generated map with adequate cultural features/landmarks). The map must also have a bar scale and north arrow.

A local WHP plan must contain the following minimum elements in order to be considered for DEP approval:

1. Steering Committee & Public Participation

This section of the plan will document the formation and meetings of the local WHP steering committee along with provisions for public involvement. The committee chairperson, the chairperson's telephone number, members, a description of roles and responsibilities of the committee and dates/locations of meetings must be listed. Ideally, meeting locations should vary if possible and a tour/inspection of the wellfield/well sites should be conducted. The narrative must also demonstrate that adequate opportunities for public participation were in place at the beginning of and throughout the project (copies of public notices such as flyers, newspaper notices, etc.). This section should also document all public education activities and describe how the final plan will be accessible to the public (on file at municipal government office or public water system office, libraries, etc.).

2. WHP Area Delineation

This narrative must completely describe the methodology used, justification for methodology, and who performed the delineation. For delineations in carbonate and fractured bedrock aquifers that utilize the ½ mile radius as the default WHPA, the justification must demonstrate that it is adequately protective. Rigorous delineation methods must be performed by or under the supervision of a Registered Professional Geologist. This section must also include a description of the local hydrogeologic setting and a formulation of a *conceptual* ground-water flow model. Relevant hydrogeologic data with sources/references, supporting calculations and any other information necessary for the reviewer to reproduce the steps involved in delineating the WHP area must be provided. The level of delineation will be commensurate with the type of management option to be utilized.

3. Contaminant Source Inventory

A description of the methods used to conduct an inventory of existing and potential sources of contamination must be provided in this narrative. Documentation of field verification of computerized database searches and actual inspection of the WHP area must be provided. Contaminant source locations must be plotted on the accompanying WHP area map(s) and keyed into a table listing the facility name, owner, type of contaminant and a relative prioritization of risk (low, moderate, high) from the source. (DEP can assist with assessing relative risk if requested). This section must also include documentation that these sources are targeted for or were provided specific education regarding potential risks to the water supply.

4. WHP Area Management and Commitment

This section will provide a description of current land use and describe the management method(s) appropriate for the delineated WHP area. What is the cost to do the activities and where will resources come from? Commitment may be demonstrated by:

- a.) In-kind services
- b.) Dedicated funding (water rate)
- c.) Tax/fee dedicated to WHP
- d.) General revenue
- e.) Other acceptable means

A table listing management options for each identified threat along with a schedule for implementation must also be provided.

5. Contingency Planning

This section will contain a Revised Emergency Response Plan that includes realization of potential threats through spills and any other unintended releases and describes coordination with water supplier, municipalities and local emergency management agency to address contingencies commensurate with risks for each identified threat. Provisions for alternate water supply must be described such as arrangements for bulk hauling or sources of interconnection.

6. New Sources

This section addresses adequate planning for new wells including careful consideration of potential sites, existing land use, predicted Zone I area, how to obtain access and rights to areas if necessary and how the areas will be protected.

Those water systems capable of satisfactorily addressing each of the above elements will be considered approved under §109.713 and would be issued an approval letter. Additionally, an annual report/update will be required that describes changes in WHP area boundaries, land use, potential threats and contingency planning. Specific requirements may also be contained in DEP's approval letter. For those systems that do not initially address the minimum elements adequately, a review letter will be issued pointing out what needs to be strengthened in order to receive approval