

For example, at a **school**, be sure that:

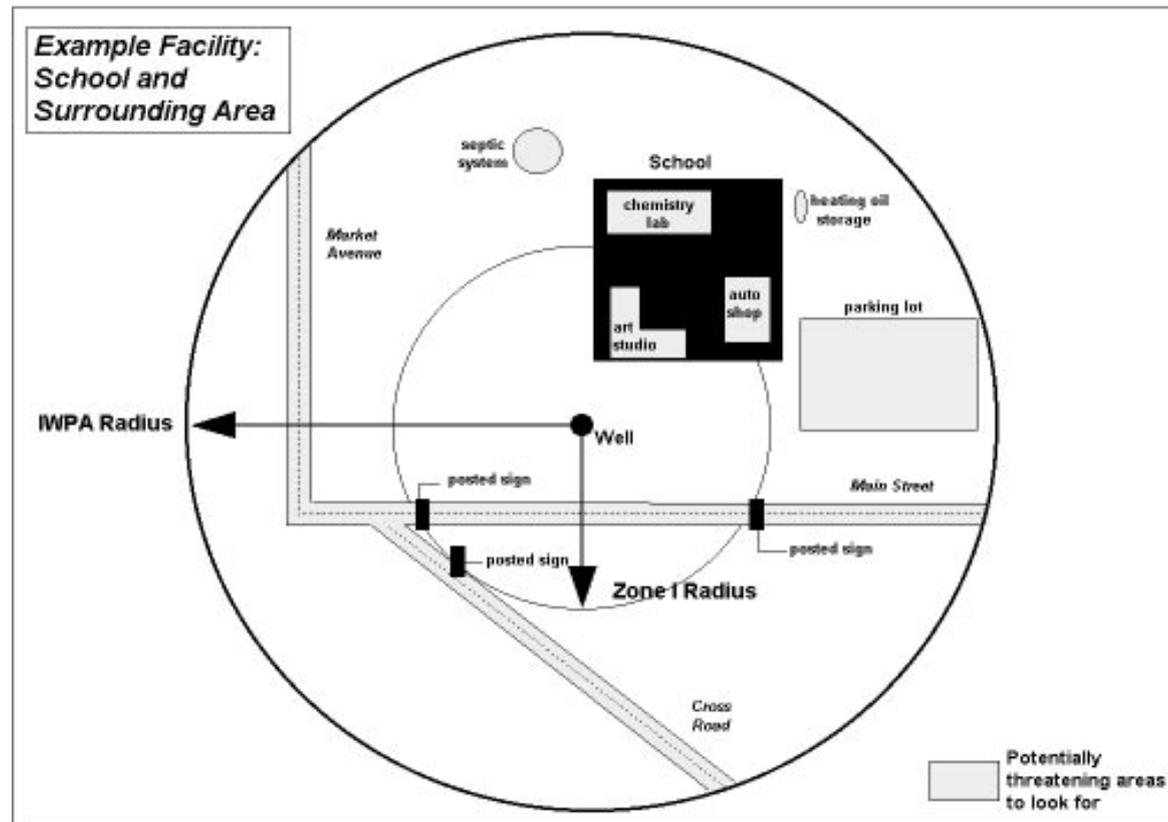
TALK

Be sure that town officials know you operate a public water system. Explain the exact location of your well and your Zone I. You may be able to work with town officials to reduce threats from town-wide activities such as road salting. If your town has a groundwater protection zoning district, request that your IWPA be included in the regulations as well. If you are concerned about a particular activity near your well, request that the Board of Health perform an inspection. Ask them to notify you of any corrective action.

- art supplies are properly stored and hazardous wastes produced by the art studio are not discharged through the sink;
- laboratory chemicals are properly stored and disposed of; and
- waste oils and antifreeze from the automobile shop are properly labeled, stored, and disposed of.

Work with the director of your facility to correct any problems you may notice.

Potential Threats Around a Small Public Water Supply



EDUCATE

Inform your staff as well as your water users about potential threats; they may help you locate a problem. DWS can provide you with sample notices you may post within your facility to remind your staff that they are within the protected area of a water supply. It is critical to water supply protection that the public be aware of a resource area as well. Post signs at reasonable access routes within and surrounding the Zone I to inform visitors that they are entering a sensitive area.

BENEFITS

Wells with an approved wellhead protection plan are eligible for cost-saving SOC/VOC monitoring waivers. Also, protecting your water quality saves you the added expense of costly water treatment. Ultimately, the protective measures you take help to ensure high-quality drinking water. Clean water preserves public health and enhances the quality of life in your community.

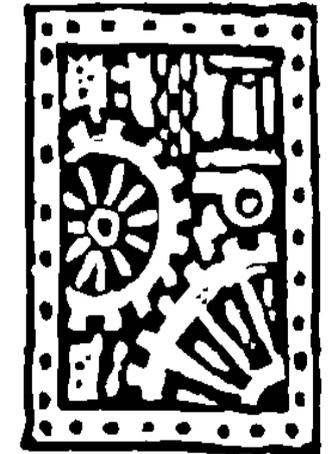
For further information on drinking water protection, please contact DEP's Division of Water Supply, One Winter Street, Boston, MA 02108, (617) 292-5770.



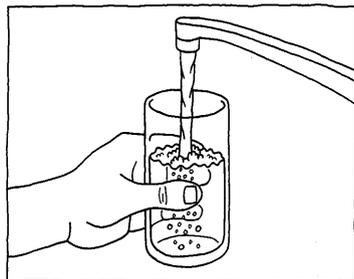
Prepared by the Massachusetts Department of Environmental Protection, Division of Water Supply, One Winter Street, Boston, MA 02108, September 1995.

Wellhead Protection Tips

For Small Public Water Systems



Division of Water Supply
Department of Environmental Protection



Small water systems such as schools, libraries, or restaurants can take steps to protect their water sources from contamination. Wellhead protection begins with the owner and operator of a well. As a water provider, you should:

- ✓ **Familiarize** yourself with the established protection areas around the well;
- ✓ **Practice** good management procedures;
- ✓ **Examine** activities around the well;
- ✓ **Talk** with municipal officials; and
- ✓ **Educate** staff and water users about the importance of clean water.

FAMILIARIZE

Zone I

The primary protection area around a small public water system (PWS) is known as the *Zone I*. The *Zone I* is a 100- to 400-foot protective radius around the well or wellfield which must be owned or controlled by the water supplier using conservation restrictions. The extent of the protective radius depends on the approved yield of the well.

Know the extent of your protection area, and be sure *only* activities that are both directly related to the PWS and nonthreatening to the water

quality occur within the *Zone I*. Regularly inspect your protection area to be sure the water supply is not being degraded.

Zone II / IWPA

The area of an aquifer that contributes water to a well under the most severe pumping and recharge conditions is known as the *Zone II*.

For public supply wells that lack a DEP approved *Zone II*, DEP applies an Interim Wellhead Protection Area (IWPA). This is the area within a one-half-mile radius for sources whose approved pumping rate is 100,000 gallons per day (gpd) or greater. For smaller sources, the IWPA radius is proportional to the well's approved daily volume.

PRACTICE

A well must be secure and protected. To ensure the safety and purity of the well,

DO:

- restrict access to the well;
- label clearly any hazardous materials located near the well;
- cap and/or screen all vents, access ports, and other openings;
- check the condition of sanitary seals and replace those that are not intact;
- slope parking areas and concrete pads under storage areas away from the well, periodically check their condition, and repair any permeable areas;
- safeguard chemical feeders from inadvertent physical disturbances or tampering; and

- inspect backflow prevention valves and replace as needed.

DON'T:

- allow the installation of floor drains that discharge to a drywell or any surface leaching system within 100 feet of the well bore;
- store any type of chemical in or near the well house; or
- thread sample taps to prevent cross connections.

EXAMINE

Look carefully at activities and businesses around the well site. Identify any threats to water quality and develop strategies to address them. Be sure to include:

Underground Storage Tanks -- Leaking oil and gasoline USTs contaminate soil and groundwater. If a UST is located within the *Zone I* of a well, remove it to a location outside the *Zone I* and check for signs of previous spills or leaks. If you need to store fuel for power pumps, DWS recommends that you consider using alternate fuels, such as natural gas or propane. Store these fuels in an above-ground tank on a concrete platform. Any heating oil tanks in your IWPA should be in above-ground or basement tanks located not only on an impermeable surface, but also contained in an area large enough to hold the complete liquid volume, should a spill occur.

Herbicides and Pesticides -- Herbicides and pesticides must not be used or stored within your *Zone I*. If you currently use such products, re-evaluate your ground maintenance plan to deter-

mine if herbicides or pesticides are absolutely necessary. If you must use them in the IWPA, be aware of specific restrictions, registration requirements, and storage guidelines, which vary depending upon the quantity and types of products you choose to apply. Contact **DWS, (617) 292-5859**, for more information.

Septic Systems -- Septic tanks, leach fields, etc., should be removed and placed outside of the *Zone I* of a well. Septic systems near the *Zone I* should be well maintained. Pump septic tanks every two years. Never dump hazardous substances down the drains. Do not use septic system cleaners.

Storage Areas -- Do not store hazardous substances (i.e., gasoline, garden chemicals, paints, deicers/salt, motor oil, or antifreeze) within a *Zone I*, either indoors or outdoors. If it is absolutely necessary to store these materials, do so outside the *Zone I*, and locate them in a secure building equipped with an impermeable floor and with adequate spill containment precautions.

Parking and Vehicle Use -- Do not establish a parking area in the *Zone I*. Perform maintenance and washing of vehicles beyond the protected radius. Keep any vehicles that must operate within the *Zone I* in good repair to prevent leaks and spills. Thoroughly clean up any leaks or spills *immediately*.

Municipal/Institutional Systems -- Your own facility may perform some of the harmful activities listed above. In addition, your system may use hazardous substances or produce hazardous waste. Inspect your facilities, record what is being used, and be sure hazardous materials are properly stored and disposed of.