

Sanitary Control Area Protection

Washington State Department of Health, Office of Drinking Water



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What is the sanitary control area?

Your well or spring is most susceptible to contamination from the immediate surrounding area. This area is called the sanitary control area. Department of Health requires water systems to maintain a sanitary control area of 100 feet around wells, and 200 feet around springs.

Your sanitary control area is part of a larger drainage basin called the source water or wellhead protection area. This area collects and transports water and potential contaminants to your drinking water source.

The sanitary control area is the first line of defense to prevent contaminants from entering your drinking water system. You must control and monitor your sanitary control area regularly to ensure land uses and activities do not threaten your drinking water source. In the long run, prevention costs much less than finding a new source or installing treatment.

Sanitary control area protection

You must maintain legal and physical control of the sanitary control area. This means you should either own the land around your water source, or have an easement or covenant limiting land uses.

It also means that you must not allow potential contaminant sources within the sanitary control area.

If you can't avoid or remove potential contaminant threats, we may require you to:

- Take steps to lessen the severity of the threat.
- Increase water quality monitoring.
- Install treatment.
- Find a new drinking water source.



The sanitary control area immediately surrounding a well or surface water intake is part of a larger drainage basin called the source water or wellhead protection area.

We consider four factors when evaluating whether a potential contaminant source can remain in your sanitary control area:

1. The nature of the potential contamination, and the risk of release.
2. Source construction details including well depth, source construction, subsurface geology, and other factors that would protect the source from contamination.
3. Distance from the potential contaminant source to the drinking water source.
4. Other relevant information.

Water systems must also develop a source water or wellhead protection plan to protect drinking water sources from contamination and loss of supply. The plan defines the protection area, identifies potential contaminant sources, and includes management strategies to prevent contamination and loss of supply.

Common Sanitary Control Area Threats

Some common activities and land uses can threaten your source with contamination. Your well is more susceptible to contamination if it is:

- Shallow.
- Poorly constructed.
- Located in highly permeable soils.
- Surface water.
- Groundwater under the influence of surface water.

Below are some common sanitary control area threats and some ways to protect your drinking water source. The best solution is to remove the threat. If that isn't possible, ask your Regional Office for help with other solutions.

Sewer and Septic Systems

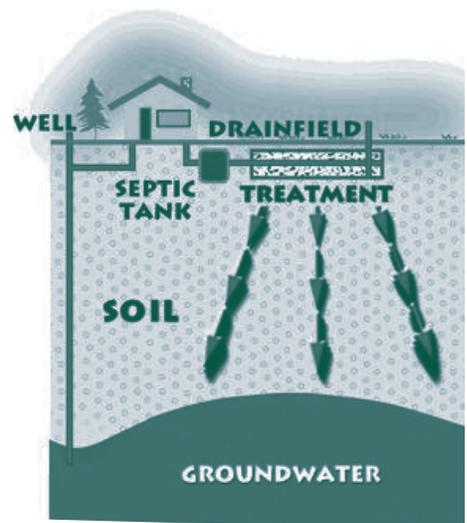
Sewer lines, drain fields, and septic tanks could leak and contaminate your drinking water source. Severe illness and even death can occur as a result. Therefore, preventing this type of contamination is one of our highest priorities.

Ways to prevent or minimize the risk of contamination include:

- Remove the threat from your sanitary control area, if possible.
- Sleeve the sewer line within another watertight line, or encase the sewer line in concrete.
- Increase coliform monitoring so you can detect problems early.
- Install disinfection treatment (with a CT of 6 according to agency requirements).

Hazardous Materials

Businesses, homeowners and water system personnel may use, store, and dispose of hazardous wastes and materials. These include gasoline or diesel fuel, used motor oil, heating oil, cleaning products, pesticides, herbicides, and fertilizers. If they accidentally enter your drinking water supply, these hazardous wastes and materials are dangerous to public health.



Failing septic tanks can affect ground water quality.

To prevent or minimize contamination in the sanitary control area:

- Remove containers storing chemicals.
- Prohibit disposal or application of hazardous waste or materials.
- Install double-walled storage tanks, or provide other secondary containment.
- Install permanent on-site leak detection equipment.

Landfills and Dumps

Garbage contains pathogens, bacteria, nutrients, and hazardous materials, such as solvents, pesticides, fertilizers, pharmaceuticals, and paints. Leaks from landfills, dumps, and dumpsters could threaten nearby drinking water sources. Even properly constructed municipal landfills could leach hazardous materials, causing a plume or large area of contamination that could eventually reach your drinking water source.

To prevent or minimize contamination:

- Site drinking water sources at least 1,000 feet away from landfills.
- Remove dumpsters from your sanitary control area.

Wastewater Spray Irrigation

Wastewater spray irrigation is a way to discard secondary treated municipal wastewater by spraying it on land. The spray evaporates into the air or soaks into the soil where it could contaminate groundwater. Even though the wastewater is treated, it could contain contaminants. Therefore, this practice must not occur in the sanitary control area.

Cemeteries

Common burial practices use formaldehyde for embalming. Studies show that cemeteries may leach these chemicals into groundwater, posing a cancer threat. If your sanitary control area is near a cemetery, contact your regional office for guidance.

Animal Waste, Pens, Feed Lots, and Dead Animals

If you see evidence of animals in your sanitary control area, be concerned. Animal waste and dead animals could contaminate your source with bacteria and nutrients, and make your customers ill. To prevent or minimize contamination:

- Keep animals out of your sanitary control area. Use fences or other means.
- Install linings and walls around waste-holding ponds.
- Increase coliform monitoring so you can detect problems early.
- Install disinfection treatment (with a CT of 6 according to agency requirements).



Do not store hazardous materials in the sanitary control area.

Unused and Abandoned Wells

All wells are a direct conduit to your groundwater and distribution system. Unused or abandoned wells often are not monitored or maintained properly. This increases the likelihood of source contamination. These wells must be decommissioned properly. That means removing the well from active service and sealing it off from your distribution system and groundwater source. See publications listed below for more information.

Roads and Parking Areas

Motor oil and metals can accumulate on roads and parking lots. There is also the possibility of a fuel or chemical spill. To prevent these contaminants from washing into your drinking water source, and posing a health threat:

- Do not store vehicles, including lawn mowers, in your sanitary control area.
- Pave and slope surfaces away from the source.
- Install drainage.
- Install protective barriers (such as posts) around source to protect from vehicle damage.
- Post “no-spray” signs.

Resources

Department of Health Office of Drinking Water	
Northwest Regional Office	(253) 395-6750
Southwest Regional Office	(360) 236-3030
Eastern Regional Office	(509) 329-2100
Department of Ecology	
Water Resources Hotline	(800) 468-0261
Free Technical Assistance	
Evergreen Rural Water of Washington	(800) 272-5981
Rural Community Assistance Corporation	(360) 493-0785

Relevant Rules & Publications

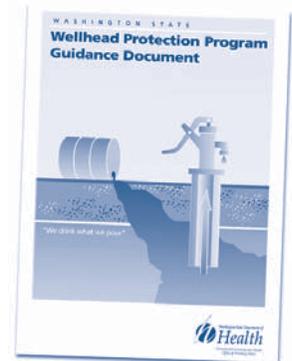
Washington Administrative Code citations are online at

<http://www.leg.wa.gov/LawsAndAgencyRules/Pages/default.aspx>

- WAC 173-160-38: What are the standards for decommissioning a well?
- WAC 246-290-135: Source water protection
- WAC 173-160-171: What are the requirements for the location of the well site and access to the well?
- WAC 246-203-120: General sanitation
- Chapter 246-272 WAC: On-site sewage systems

The following publications are online at <http://www.doh.wa.gov/eh/dw> under “publications.”

- Covenants for public water system protection (331-048)
- Wellhead Protection Program Guidance Document (331-018)
- Abandoned Wells: Problems & Solutions (96-br-097) from Department of Ecology.



If you need this publication in alternate format, call (800) 525-0127. For TTY/TDD, call (800) 833-6388.