



Source Water Protection

Sanitary Control Area Protection

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What is a sanitary control area?

The area immediately surrounding your well or spring that is most susceptible to contamination is called the sanitary control area (SCA). You must maintain an SCA of at least 100 feet around wells and 200 feet around springs.

The SCA is your first line of defense in keeping contaminants out of your drinking water system. You must control and monitor this area regularly to ensure that things going on closest to your source do not threaten your water quality. In the long run, prevention costs much less than installing treatment or a new source. This is not just a matter of regulation but can also expose you legally if, due to improper care or monitoring, contamination occurs and harms people.

Your SCA is part of a larger protective boundary called the source water or wellhead protection area. This area collects and transports not just water, but also potential contaminants, to your drinking water source.

Sanitary control area protection

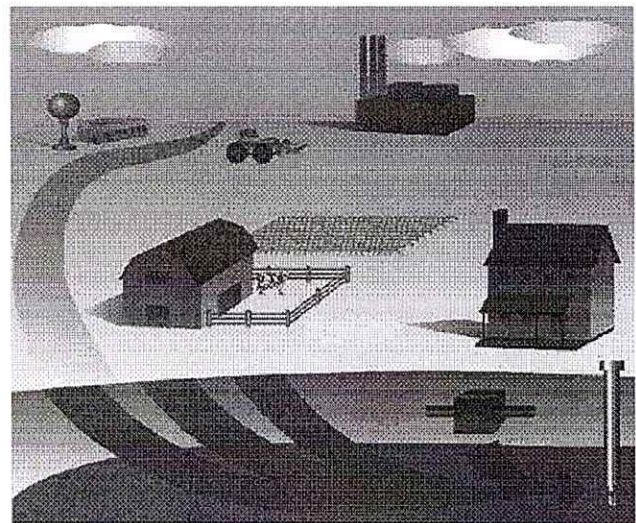
You must control your SCA both legally and physically. This means you should either own the land around your water source or, if someone else owns it, have an enduring legal agreement in place that limits land uses and activities in that area. The resources list below includes a separate publication about this.

It also means that you cannot allow potential contaminant sources within the SCA. If you can't avoid or remove potential contaminant threats, we may require that you:

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

We consider the following factors when evaluating whether a potential contaminant source can remain in your SCA:

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 could protect the source from contamination.
3. Distance from the potential contaminant source to the drinking water source.
4. Other relevant information.

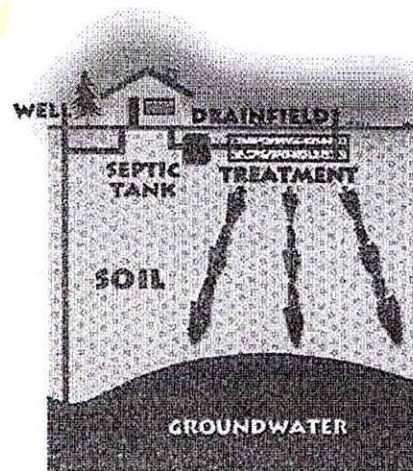


The SCA immediately surrounding a well or surface water intake is part of a larger protective boundary called the source water or wellhead protection area.

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, or served by surface water or groundwater under the influence of surface water. Below are some common threats to your SCA 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 to help you find another workable solution.



Failing septic tanks can affect groundwater quality.

Sewer and septic systems

Sewer lines, drain fields, and septic tanks could leak and contaminate your drinking water source, resulting in severe illness or even death. 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 SCA, 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).



Do not store hazardous materials in the SCA.

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.

To prevent or minimize contamination:

- ◆ Do not store chemicals there.
- ◆ Do not dispose of or apply hazardous waste or materials there.
- ◆ Install double-walled storage tanks, or provide other secondary containment.
- ◆ Install permanent on-site leak detection equipment.

Landfills and dumps

Everyday garbage can contain pathogens (bacteria, viruses, etc.); 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 underground contamination, that could eventually reach your drinking water source.

To prevent or minimize contamination:

- ◆ Site wells and intakes at least 1,000 feet away from landfills.
- ◆ Remove dumpsters from your SCA.

Sewer waste by-products

Wastewater spray (sludge) irrigation or surface application of dry sludge is a way to recycle treated sewer waste. Even though the waste is treated, it can tend to increase nitrogen which then soaks into the soil and can contaminate groundwater. Do not apply sewer waste by-products in the SCA.

Cemeteries

Common burial practices use formaldehyde and other chemicals that pose a cancer threat for embalming. Studies show that these chemicals may leach from cemeteries into groundwater. If your SCA 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 SCA, 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 SCA using fences or other means, which may include non-chemical controls to keep wild animals from invading your source.
- ◆ 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).

Unused and abandoned wells

All wells are a direct conduit to your groundwater and distribution system. Unused or abandoned wells that have not been properly decommissioned are often not monitored or maintained properly, increasing the likelihood of source contamination. Proper decommissioning means removing the well from active service and sealing it off from your distribution system and groundwater source. See resources listed below for more information.

Roads, parking areas, and landscaping strips

Petroleum products, chemicals, and metals can leak or be spilled and accumulate on paved surfaces like roads and parking lots, and chemicals can be used for landscaping maintenance.

To prevent or minimize contamination:

- ◆ Do not store vehicles or motorized equipment like lawn mowers in your SCA.
- ◆ Slope and pave surfaces away from the source.
- ◆ Install closed drainage systems. Do not install or allow stormwater infiltration ponds within your SCA.
- ◆ Install protective barriers (such as cones or poles) around the source to protect from vehicle damage.
- ◆ Post "no-spray" signs.

Noxious weeds

State law gives our state and local noxious weed control boards broad authority. Occasionally, a board might insist that a water system spray to kill noxious weeds in its SCA. Unfortunately, there's nothing in the law that requires them to consider or act in the best interests of source water protection. To avoid such conflicts, it's best for you to become familiar with both the [state noxious weed lists](#) (see WAC 16-750-005 through -015) and your local list, which varies by county. Continuously inspect your SCA(s) to remove any noxious weed starts before they establish.

Important: Giant Hogweed is highly phototoxic and requires special handling. Do not touch it without first looking up instructions for removal techniques to protect your employees or landscapers. Certain other weeds may be toxic as well. Do not compost noxious weeds; instead, place them in the trash.

For more information

Department of Health Office of Drinking Water

[Eastern Regional Office](#) 509-329-2100

[Northwest Regional Office](#) 253-395-6750

[Southwest Regional Office](#) 360-236-3030

Department of Ecology

[Well Construction and Licensing](#) (regional contacts on webpage)

[Well Decommissioning](#)

Free Technical Assistance

[Evergreen Rural Water of Washington](#) 360-462-9287

Relevant Rules and Publications

[Washington Administrative Code citations.](#)

- ◆ [Chapter 173-160 WAC](#) Minimum standards for construction and maintenance of wells.
- ◆ [Chapter 246-203 WAC](#) General sanitation.

- ◆ [WAC 246-290-135](#) Source water protection (Group A).
- ◆ [WAC 246-291-125](#) Groundwater source approval (Group B).

Our publications are online at doh.wa.gov/drinkingwater.

- ◆ [Legal Protections for your Sanitary Control Area 331-048 \(PDF\)](#).
- ◆ [Wellhead Protection Program Guidance Document 331-018 \(PDF\)](#).
- ◆ [Abandoned Wells: Problems and Solutions 96-br-097 \(PDF\)](#) Department of Ecology.



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