

# Water Supply Well Setback Distances and Subsurface Sewage Treatment System

Information contributed by Ron Thompson, Minnesota Department of Health (MDH).

This fact sheet addresses some of the more frequently asked questions regarding water-supply well setback distances from Subsurface Sewage Treatment Systems (SSTS).

## Who regulates wells in Minnesota?

The MDH regulates the construction, repair and sealing of wells and borings through Minn. Stat. §103I and Minn. R. ch. 4725 (Well Code). An important provision of the Well Code is the proper separation (i.e. *setback*) distance between wells and sources of contamination such as an SSTS. The setback distances are referred to as “isolation” distances in the Well Code.

## How are the regulations enforced?

They are enforced through a combination of MDH and delegated Community Health Service local government authority.

## When did the setback regulations become effective?

This varies according to the date of installation of the well and the SSTS. There are three time periods:

### Before July 1, 1974

There was no statewide regulation of wells prior to July 1, 1974. Some counties and other local units of government regulated well construction through local ordinances. For wells or SSTS installed before July 1, 1974, the MDH has no authority to compel a well contractor to take any corrective actions for installations that do not meet current Well Code requirements.

### July 1, 1974, to June 31, 1989

The MDH regulatory program began on July 1, 1974, with the implementation of the first Well Code, which contained the minimum isolation distances to be maintained between wells and various sources of contamination. Although the rules clearly specified the proper placement of a well in relation to an existing source of contamination, they did not prohibit the placement of contaminant sources closer to an existing well than the specified setback distance. For wells constructed within required setback distances during this time period, the MDH has regulatory authority to require correction of Well Code violations. The MDH has no regulatory authority to require corrective action for an SSTS installed too close to an existing well during this time period

### July 1, 1989 to present

The Groundwater Protection Act, effective July 1, 1989, included a requirement prohibiting the placement of contaminant sources closer to any existing wells than the distances prescribed in the Well Code. MDH will initiate appropriate enforcement actions against any person responsible for improper placement of a SSTS or other contamination source too close to an existing well. These enforcement actions can include ordering the party responsible for the violation to remedy the violation by moving the contamination source or the well. Any party determined to be responsible for violations may also be subject to fines and additional enforcement actions by MDH and applicable local regulations.

Regardless of the date of the well construction, MDH has the statutory authority to order a property owner to repair or seal a well when:

- The well is an imminent threat to public health or safety.
- The well is contaminated or may lead to the spread of contamination.
- The well was improperly sealed.
- The well is located, constructed, or maintained in a manner whereby its continued use or existence endangers groundwater quality or is a safety or health hazard.

## When are setback distances required?

- Setbacks apply to all water supply wells, including wells used for irrigation or industrial supply, and abandoned but unsealed wells.
- The setbacks must be maintained when installing a SSTS near a water-supply well or when installing a water supply well near a SSTS. They apply to the repair or modification of a SSTS near existing water supply wells where the modifications are to components that hold or disperse sewage. The setbacks also apply to SSTS and wells on neighboring properties

## What are the setback distances?

The setback distances vary, depending on the source of contamination and the type of well. Both the Well Code and Minn. Stat. § 103I regulate the placement of a new well near a potential source of contamination, and the placement of a potential source of contamination near an existing well. The setback distances apply to all water-supply wells including domestic wells, irrigation or other “nonpotable” water-supply wells, industrial-supply wells, and sandpoint/drivepoint wells.

Below is a summary of some of the more common SSTS setbacks; a complete listing is found at [www.revisor.leg.state.mn.us/rules?id=4725](http://www.revisor.leg.state.mn.us/rules?id=4725).

SSTS component	Sensitive well <sup>1</sup>	Water supply well <sup>2</sup>	Community public well <sup>3</sup>
Buried sewer pipe – untested, unapproved	50'	50'	50'
Buried sewer pipe – tested, approved	20	20'	50'
Cesspool	150'	75	75
Gray-water dispersal area	100'	50'	50'
Holding tank	50'	50'	50'
Leaching/seepage pit, dry well	150'	75	75
Privy	100'	50'	50'
Septage land application site	100'	50'	50'
Septic tank	50'	50'	50'
Sewage sump with a capacity of 100 gallons or more, including lift stations, grinder tanks, and other pump tanks	50'	50'	50'
Sewage sump with a capacity of less than 100 gallons that has been constructed and successfully tested in accordance with Minnesota Rules Chapter 4715 <sup>4</sup>	20'	20'	50'
Subsurface dispersal field <sup>5</sup>	100'	50'	50'
Subsurface dispersal field, system design flow >10,000 gpd	600'	300'	300'
Subsurface dispersal field serving a facility with infectious or pathological wastes	300'	150'	150'
Watertight sand filter, peat filter, constructed wetland	50'	50'	50'
Disposal area for water treatment backwash	100'	50'	50'

<sup>1</sup> Often referred to as a ‘shallow’ well. Does not have 50’ or more of watertight casing or does not have watertight casing that penetrates 10’ or more of a confining layer

<sup>2</sup> Includes wells used to supply drinking water, irrigation wells, wells supplying processing water, and drive point wells

<sup>3</sup> Provides water to 15 or more year-round residences or dwelling units

<sup>4</sup> Does not apply to collector sewer, municipal sewer, sewer handling infectious or pathogenic wastes, or to community public well

<sup>5</sup> Includes all Type I-V soil dispersal systems

## Does the Well Code require a setback from a well to an abandoned SSTS?

Unless specified in the local ordinance, a setback distance is not required between a properly abandoned and sealed well and an SSTS.

A setback is also not required between a properly abandoned SSTS and a new well, however, if the following procedures are not followed the setbacks still apply:

1. Septic tank, holding tank, sewage sump, or other sewage tank has been pumped, disconnected, and filled with soil and rock; is crushed and filled; or pumped and completely excavated and removed. Any visibly contaminated soils or material within, beneath, and surrounding the structure are excavated and disposed of in accordance with state and local requirements.
2. Cesspool, seepage pit, leaching pit, or dry well has been pumped and the entire structure plus any visibly contaminated soils or material within, beneath, and surrounding the structure are excavated and disposed of in accordance with state and local requirements.
3. Subsurface Dispersal Field has had all piping and any visibly contaminated soil or media beneath and surrounding the piping are excavated and disposed of in accordance with state and local requirements.

## Do the SSTS setbacks apply to sewers?

The MDH defines a sewer as a pipe or conduit carrying sewage, or into which sewage can back up, including floor drains and traps. The setbacks apply to the installation of a new buried sewer, and the replacement of an existing buried sewer. A complete listing of setbacks to sewers is found at Minn. R. [4725.4450](#).

## Can a local government give a variance to the MDH setback distances?

No. A well variance can only be issued by the MDH, or the MDH and a county or city with a delegated well program. At present, the counties and cities with delegated well programs are: Blue Earth, Dakota, Goodhue, Le Sueur, Olmsted, Wabasha, Waseca, and Winona Counties, and the cities of Bloomington and Minneapolis.

## Are variances granted?

When a complying installation cannot be made, the MDH may grant setback variances provided equivalent protection can be obtained due to favorable site characteristics, special construction, or other conditions.

## Is there a setback between a SSTS and a water-supply pipe?

Yes, a setback is required under the Minnesota Plumbing Code instead of the Well Code. The Plumbing Code, Minn. R. [ch. 4715](#), requires a ten foot separation between any contamination source and a water service pipe, which is defined as the pipe from the water main or other source of water supply to the water distributing system of the building.

In 2008, legislation was enacted making the State Building Code (SBC) the state-wide standard for construction or remodeling of all buildings subject to the requirements of the SBC. As the Plumbing Code is part of the SBC, the water-supply pipe provisions of the Plumbing Code apply.

## Need more information?

For additional well information, please contact the MDH Well Management Section at 651-201-4600, toll free 800-383-9808, or [www.health.state.mn.us/divs/eh/wells/index.html](http://www.health.state.mn.us/divs/eh/wells/index.html).

For additional SSTS information, please visit [www.pca.state.mn.us/programs/ists/](http://www.pca.state.mn.us/programs/ists/) or call 651-296-6300, toll free 1-800-6573864.