

Private Wells

(From the Minnesota Department of Health)

Introduction

What is a well? A well is basically a hole that has been drilled, bored, washed, pushed or dug into the ground to access water in the ground or “groundwater.” A well is held open by a pipe, known as a “casing,” that extends to an aquifer. An “aquifer” is a layer of sediment, such as sand or gravel, or a layer of rock, such as sandstone or limestone, that is saturated with water and can transmit water to a well. Once the casing is set into the aquifer, the space between the hole and the casing is filled with a material called “grout” to prevent surface contaminants from entering the aquifer. Unless a well is flowing under natural artesian pressure, a pump is used to extract water from the well. A water-supply well can provide drinking water for private or public use, or can be used for cooking, bathing, washing, or lawn watering. Wells are also constructed for irrigation, livestock watering or other agricultural purposes, commercial/industrial purposes, monitoring water quality or water levels, or dewatering for construction.

Is a drive-point a well? Yes. A “drive point,” also known as a “sand point,” is a well that is a 1-1/4 to 2-inch steel casing with a pointed well screen attached to the bottom. The well is constructed by driving or pounding the casing down into the ground until an aquifer is encountered. The depth of a drive-point well usually does not exceed 25 to 30 feet. The requirements of state laws and rules for drilled wells also pertain to drive-point wells. Additional requirements exist because of the shallow depth at which drive-point wells are placed. For example, the required isolation distances (also known as “setback” or “separation” distances) are doubled between a well and contamination sources that leach into the soil, if the well does not have at least 50 feet of casing or does not penetrate a confining layer, such as clay, that is at least 10 feet thick.

Is a well pit safe? No. Well pits pose safety and well contamination risks. Only trained professionals with appropriate safety equipment should enter a well pit because the pit may contain insufficient oxygen levels or toxic gases that can cause asphyxiation and death. Also, well pits can flood and contaminate the well. Older wells were sometimes terminated in well pits below the frost line (usually 5 to 8 feet deep) to prevent freezing in winter. Newer wells use a “pitless adapter or unit” connected to the well casing that allows the well casing to extend above the ground and connects the buried water-supply pipe to the house.

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Well Disclosure

What is well disclosure? When a home, farm, or other property is sold or transferred, [Minnesota Statutes, section 1031.235](#), requires that the seller of real estate must disclose the number and the status of all wells on the property and provide a sketch map showing the location of each well.

What does the “status” of a well mean? The status of a well is its operating status or condition and can only be one of the following: “in use,” “not in use,” or “sealed.”

If the status of a well is “in use,” the well is operated on a daily, regular, or seasonal basis. An “in use” well includes a well that operates for the purpose of domestic use, irrigation, fire protection, washing, or emergency pumping. By indicating on a well disclosure that a well is in use, the seller is NOT providing a guarantee that the well is suitable in terms of water quality or yield (available volume) for any given purpose.

If the status of a well is “not in use,” the well is not functional, cannot readily pump water, or has not been operated on a daily, regular or seasonal basis. A “not in use” well has not been sealed by a licensed well contractor. A well that is “not in use” (i.e., “abandoned”) must be repaired and put back into use, permanently sealed by a licensed well contractor, or the owner must obtain a maintenance permit for the well. In many cases, placing an old well back into use is not practical.

If the status of a well is “sealed,” a licensed well contractor has completely filled the well by pumping an approved grout material under pressure throughout the entire well after removal of all pumping equipment and any obstructions or debris from inside the well. A Well and Boring Sealing Record must be on file with the Minnesota Department of Health (MDH) for a well to be considered legally “sealed.” Contact the MDH to verify that a sealing record is on file. *A well that is disclosed as “capped,” “plugged,” “filled,” or “abandoned” is not the same as a well that is “sealed.”* A well is “capped” if it has a metal or plastic cap, or a watertight fitting or pump, which is threaded, bolted, or welded into the top of the well to prevent entry into the well. Simply capping or plugging the top of the well is not sealing.

What is a water well maintenance permit? A water well maintenance permit allows a well that is not in use to remain in that condition until the well is either put back into use or has been sealed by a licensed well contractor. The permit has an annual renewal fee and is only approved if the well is structurally sound, and is in a safe, sanitary location. A maintenance permit will not be approved if the well is completely buried or “lost,” or the well is a threat to health, safety, or the environment.

When is well disclosure required? Well disclosure is required twice. First, a **well disclosure statement** must be made available to the buyer before a purchase agreement is signed. The statement indicates the location, number, and status of all wells on the property. Second, the information is also required on an MDH **well disclosure certificate**, where a certificate of real estate value (CRV) is required, in order to record the deed. The certificate is filed with the county recorder or registrar of titles. These requirements for well disclosure must be followed regardless of who the seller is and whether or not it is a [foreclosed property](#).

How do I find out if there has already been a well disclosure certificate filed for a property? The MDH Well Management Section has a [Web site that provides information about well disclosure certificates](#) that have been filed. The Well Management Section can also be contacted by phone to determine if a well disclosure certificate has been filed and to obtain a

copy of the certificate. If there is not a previously filed well disclosure certificate, a well disclosure certificate must be filed.

What if a previous well disclosure certificate was filed? If a well disclosure certificate was previously filed and there has been no change in the number or status of the well(s), a new well disclosure certificate is not required, but the following statement is required on the deed: *“I am familiar with the property described in this instrument, and I certify that the status and number of wells on the described real property have not changed since the last previously filed well disclosure certificate.”* If there has been a change in the number or status of the well(s), a new well disclosure certificate must be filed.

What if there is not a well on the property? A well disclosure certificate is not required, but the following statement is required on the deed: *“The seller certifies that the seller does not know of any wells on the described real property.”*

What if a well is not disclosed to the buyer? If the seller does not disclose a known well, or the seller does not properly disclose the known status of a well to the buyer, the seller may be liable to the buyer for costs related to sealing the well and reasonable attorney fees if an action against the seller is commenced within six years after the closing of the sale of the property.

What if a well cannot be found? If there is known to be a well on the property, but the well location is not known, a reasonable effort must be made to find the well. First, check with the MDH to see if there is a well sealing record. If the well has been properly sealed and is now buried or otherwise out of view, it is usually not necessary to excavate and locate the well. However, if there is no documentation that the well has been properly sealed, the property owner should [take the following steps to attempt to find the well](#): conduct a physical search of the property; contact former owners, neighbors, or others who may be familiar with the property and may have information about the well; and search township, city, county, and state records for well information. If these searches are inconclusive, contact a licensed well contractor or geophysical company that specializes in locating wells.

If the well is found, it must be put in use or properly sealed, as previously described. If all search efforts are unsuccessful, contact the MDH to discuss the procedures and conditions for obtaining a variance from the well sealing requirements.

Is there anything else that needs to be disclosed regarding a well on a property? In Washington County, the seller must also disclose whether or not the property is located within a “Special Well and Boring Construction Area” (SWBCA). This is a defined area of the state with additional requirements for wells and borings, due to groundwater contamination. The purposes of a [SWBCA](#) are to inform the public of potential health risks in areas of groundwater contamination, provide for the construction of safe water supplies, and prevent the spread of contamination by wells or borings.

In addition to wells, other laws, such as contract law, individual septic system disclosure, or “Truth in Sale of Housing” disclosure may apply, and you should discuss these with your real estate agent or attorney.

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Well Testing

Is the water from the well required to be tested at the time of property transfer? The state of Minnesota does not require testing private well water at the time of property transfer.

However, many lending institutions may require testing, typically for coliform bacteria and nitrate, as a condition for approving a loan for the purchase of the property. In Dakota County, however, a local ordinance requires wells to be tested at the time of property transfer. For more information, contact the [Dakota County Environmental Services](#), which administers the local delegated well program, at 952/891-7556.

For what contaminants should a well be tested? The MDH recommends that all wells used for potable purposes be tested annually for [total coliform bacteria](#) and every two to three years for [nitrate](#). If nitrate has been detected in a previous sampling, the well should be tested more frequently. The water should also be tested for nitrate before giving the water to an infant. Nitrate-nitrogen in excess of 10 milligrams per liter can cause blue baby syndrome (methemoglobinemia) in infants, which is a potentially deadly condition.

The MDH also recommends testing the well water at least once for [arsenic](#). Test the tap water at least once for [lead](#), which may be leached from the plumbing system, or flush standing water from the lines before drinking as a precaution. Testing for other contaminants may be warranted in specific situations. Prospective buyers may also want to assess the aesthetic water quality (odor, staining, hardness, etc.) by having the water analyzed for iron, manganese, sulfates, and hardness minerals (calcium and magnesium).

The costs for testing for total coliform bacteria, nitrate, arsenic, and lead are relatively inexpensive. The costs for testing for most agricultural chemicals or volatile organic compounds (petroleum products or solvents) are significantly higher, so are not routinely done. The MDH does not provide well testing for existing wells. Drinking water should be tested by a [laboratory certified by the MDH](#) to perform the requested test(s). The laboratory will supply sample bottles, sampling instructions, and analysis costs. Water testing laboratories can also be located by looking in the yellow pages under “Laboratories, testing.”

What do I do if water tests indicate that the well water is not safe? If the well water shows the presence of total coliform bacteria, stop drinking the water, or boil it at a full rolling boil for at least 1 minute before use. After the water has cooled, it will be bacterially safe to drink. [The well should be disinfected](#) and then retested to confirm that the water no longer contains coliform bacteria. If the water still shows the presence of total coliform bacteria after disinfection, a licensed well contractor should inspect the well for structural problems and repair any defects if possible. If E. coli, a fecal coliform bacteria, is detected in the well, there is a greater risk for disease, and a licensed well contractor should evaluate the well construction and determine the source of the contamination. If the water test exceeds recommended levels for nitrate-nitrogen, arsenic, lead, or other contaminants, there are options available to the property owner including treatment or alternative water sources, which may include construction of a new well. More information on contaminants and well disinfection is available on our [Waterquality page](#).

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Well Inspection

Does the state require that wells be inspected at the time of property transfer? No. The state of Minnesota does not require that wells be inspected at property transfer. The MDH does not provide a service to inspect wells at the time of property transfer. Well contractors and some professional inspectors may inspect wells and water systems. Some common defects observed during inspections include: a loose or damaged well cap, a cracked well casing, settlement of soil around the well casing, and an open space around the well casing. Important things to review during an inspection are the [isolation distances](#) from potential contamination sources, and the adequate height of the well casing above the ground surface (at least 12 inches). It is also a good idea to check the water pressure, any water treatment equipment, and aesthetic water quality. The age of the well should be verified, as wells do have a maximum life expectancy, but this varies greatly depending on materials used in construction, water chemistry, level of use, and other factors. Buyers may also be advised to evaluate the well and water-supply system for the quantity of water produced, because some wells or aquifers may not supply enough water for normal household use. Also consider that water demand may change significantly under new ownership.

Is a well required to comply with state well construction rules (well code) at the time of property transfer? There is no state requirement for a well to meet the well code at property transfer. [Minnesota Rules, Chapter 4725](#) applies to the construction of new wells, modifications of existing wells, and sealing of wells. The rules were established in 1974, so many wells were constructed prior to statewide rules. Some lending institutions may require that the well meet certain standards. Regardless, the well code is a good reference for assessing the condition of any well in terms of compliance with current construction standards, required isolation distances from contamination sources, sanitary conditions, and other factors that affect health and safety.

Can a well be located inside a building? Current rules do not allow a well to be constructed inside a building, or a building to be built over a well, except for a wellhouse that is exclusively used to protect the well, pump, and associated water treatment equipment. A well cannot be located, for example, within a separate section or corner of a shed, garage, or other building. A wellhouse cannot be used for storage of equipment, materials, or chemicals that may cause contamination of the well or groundwater, including fertilizers, petroleum products, paints, and cleaning solvents. Otherwise, the well code requires that wells be located at least 3 feet horizontally from any other building or building projection, including decks, porches, and roof overhangs.

From 1974 until 1993, Minnesota rules did allow the construction of a residential well in a “basement offset,” which is a separate room outside the basement foundation. Typically, this type of well was located below the front or back steps, and a glass block or access port was often built into the steps to allow access to the well. Also, the offset was usually accessible from the basement, but this access may have been closed off by later home improvements. If the well has not been sealed, the well still needs to be properly sealed, put back into use, or the property

owner needs to apply for a water well maintenance permit. The construction of a well in a basement offset was prohibited after May 10, 1993.

Are there other items on the property that should be evaluated related to wells? There are certain isolation distances required between a well and utilities, such as electrical lines or gas pipes, and potential sources of contamination, such as septic systems. These distances need to be maintained when planning for new buildings or additions, or other property improvements. The top of the casing cannot be cut off or buried when making changes in landscaping, adding a driveway, or other property improvements. The top of the casing must be maintained at least 12 inches above ground level. If the required isolation distances cannot be maintained, the well must be permanently sealed.

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Well Maintenance, Repair, and Sealing

What is the responsibility of the new property owner related to wells after the property is purchased? The property owner is responsible for the testing, maintenance, repair, and sealing of any well(s) on the property.

Who can construct and repair wells? The law requires that any person who constructs or repairs wells in Minnesota must be licensed, except that a property owner (or lessee) may construct or repair a well on his or her own land if the well is used for domestic or agricultural purposes. In all cases, the construction or repair of a well must meet the requirements of the state rules pertaining to wells.

How much does it cost to repair a well? The cost to repair a well may be greater than the cost of permanently sealing the well, depending on the work needed. An old well that has been put back into use does not have to meet all requirements of the present well regulations (brought up to the current well code), but any repairs or modifications to an existing well must meet the requirements of the current well construction standards.

Who can seal wells? Under Minnesota law, a property owner may **not** seal any well or boring. A [licensed well contractor or a licensed well sealing contractor](#) must seal all wells and borings.

How much does it cost to seal a well? The cost to seal a well can vary, although the cost may be higher in some situations due to the particular well construction, the depth and diameter of the well, removal of debris from the well, local geology, or problems with access to the well. You may want to get more than one estimate for the cost of sealing the well.

Is there any financial assistance available to construct or seal wells? [Cost share grant money](#) and other financial assistance is available in most Minnesota counties to encourage sealing “not in use” wells. In addition, limited [grant and low-interest loan programs](#) are available for well construction and repair. Be sure to contact the agency that offers financial assistance and get prior approval before sealing the well.

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More Information

Should the property buyer request any information about the well? The buyer should ask for copies of well construction records (Well and Boring Records) and well sealing records (Well and Boring Sealing Records), water testing reports, and repair or maintenance records. The buyer should check with the MDH for records or [previously filed well disclosure certificates](#) for the property.

Does the MDH have other publications that would be useful to the buyer? Yes. The [“Well Owner’s Handbook” \(PDF: 692KB/40 pages\)](#) is a free booklet with information about wells including how a well and water system works, well testing requirements, and options for water treatment.

The MDH also has brochures that may also be useful to the buyer entitled:

- [“Well Disclosure,”](#)
- [“Sealing Unused Wells,”](#)
- [“Building, Remodeling, Demolition, and Wells,”](#)
- [“Protecting Your Well,”](#)
- [“Protect Your Health-Test Your Private Well Water”](#)

This fact sheet is a summary of requirements in Minnesota statutes and rules regarding wells. To view the complete requirements, see [Minnesota Statutes, Chapter 103I](#) and [Minnesota Rules, Chapter 4725](#).