Disinfection

The Wisconsin Department of Natural Resources should be consulted on procedures for well disinfection.

When wells are disinfected, the water supply (or piping) system must also be disinfected before use. The most common water disinfection procedure utilizes chlorine that is introduced into the well and circulated into the piping system.

Certain precautions should be observed prior to disinfecting the water supply system. Many water treatment devices can be damaged if exposed to high concentrations of chlorine over extended periods. Appliances are typically tolerant to chlorine, but need to be flushed prior to being put back into service. The manufacturers of the water treatment devices and appliances should be consulted on proper disinfection procedures.

Disinfection code references for water services, private water mains, and water piping systems can be found in the Wisconsin Administrative Code, SPS 382.40(8)(i).

The following page describes some general guidelines and precautions concerning disinfection of filters and appliances.

For more information, contact a Wisconsin Department of Safety and Professional Services Plumbing Consultant at 608-267-9421 or send an e-mail to: DspsSbPlbgTech@wisconsin.gov

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Flood Contamination and Plumbing

Cleaning Up After the Storm

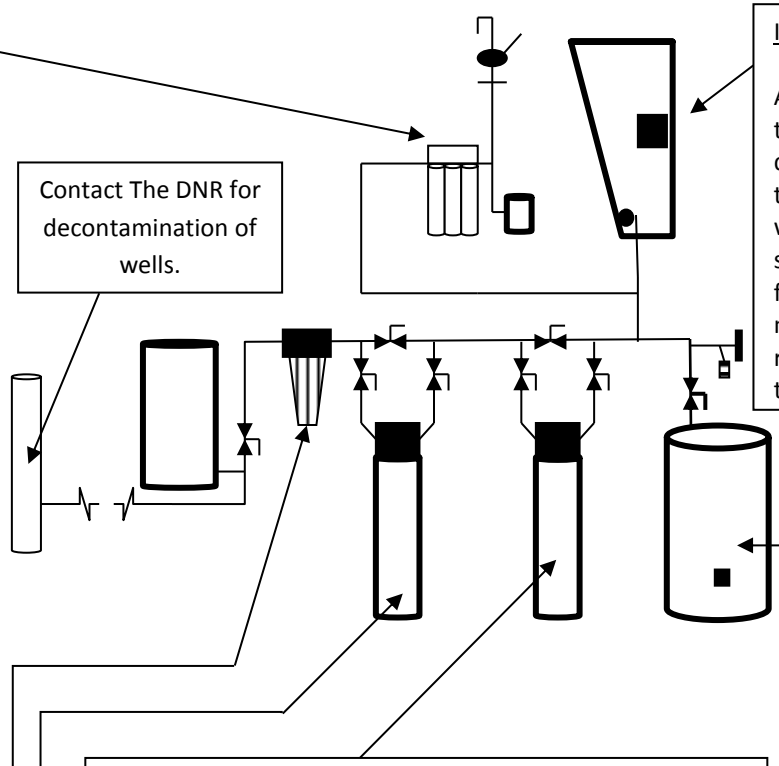
Many Wisconsin home plumbing systems include private water wells. Occasionally, floods cause these wells to be subjected to contamination. Wells inundated by flood waters must be disinfected and the water tested for purity before drinking or using for personal hygiene.

When a well is inundated by flood water the well and water supply system needs to be disinfected. Water that is of questionable purity should not be consumed or used for hygiene purposes.

Reverse Osmosis

RO devices have a sediment filter, granulated carbon filter, and a membrane that is particularly vulnerable to high chlorine concentrations. The filter cartridges and membrane cartridge should be replaced if they have been exposed to contaminated water. Allowing chlorinated water to run through the unit will require the replacement of the membrane. After disinfecting and flushing the main water lines, shut off the water to the device and disconnect the water line at the device. Turn the supply back on and flush water into a container until the water runs clear with no odor of chlorine. Reconnect the water supply. Follow the manufacturer's recommendation on the filter and membrane replacement, or contact the water treatment professional that installed the device to have it professionally decontaminated.

Contact The DNR for decontamination of wells.



Ice Makers/Water Dispensers

Allow the chlorinated water to run through the unit. After disinfecting and flushing the main water lines, shut off the water supply to the refrigerator ice maker/water dispenser. Disconnect the water line at the refrigerator. Turn the supply back on and flush water into a container until the water runs clear with no odor of chlorine. Reconnect the water supply. If the refrigerator water system includes a cartridge filtration unit, the cartridge should be replaced. Follow the manufacturer's recommendations. Some manufacturers recommend the replacement of the entire water system within the appliance if it has been contaminated.

Water Heaters Allow the chlorinated water to run through the water heater and hot water piping. After disinfecting and flushing the main water lines, shut off the water to the water heater and de-energize the electric or gas supply, Drain the water from the water tank through the drain valve. Turn on the water supply and flush the tank through the drain valve until the water runs clear and with no odor (On older models, chlorine may linger in accumulated sediment at the bottom of the water heater). Shut off the drain valve and fill the water tank, expelling the displaced air by opening the nearest hot water faucet. When the water tank is refilled, re-energize the water heater and flush the hot water lines to the individual faucets.

Gas water heaters in which the automatic gas control valve or any electronic control was fully or partially submerged should be replaced. Contact a qualified individual to perform these replacements. On an older model, replacing the entire water heater may be more cost effective.

If the water heater has a standing pilot and the pilot was extinguished by flood waters, the water heater should be inspected by a qualified individual.

In some instances, utility companies may turn off the gas supply to sections of communities. The utility company will typically send out personnel to relight pilots.

Electric water heaters which were subjected to more than 3" of water should be de-energized at the electrical control panel and inspected by a qualified individual before being re-energized. Always follow the manufacturer's recommendations.

Water Softeners

The water softener should be set on by-pass and the well properly chlorinated. After disinfecting and flushing the main water lines, the water softener should be placed back on line. Some manufacturers recommend that a capful of bleach be added to the brine well (the cylinder/tube located in the salt tank). The softener should then be set to manual re-generation. Follow the manufacturer's recommendations.

Cartridge Type Filters

Shut off the water supply to the cartridge filter. Remove the cartridge filter from the filter housing. Assemble the housing and allow the chlorinated water to run through the filter unit. After disinfecting and flushing the main water lines, shut off the water supply to the filter and install a new replacement filter. Follow the manufacturer's recommendations.

Iron Treatment Devices

Iron treatment devices often contain manganese, which can be stripped off with high concentrations and repeated exposure to chlorine. An iron treatment device should be able to handle a single well chlorination. Well owners should note that some manganese may get into the water supply and cause staining or black particles to be present in the water for a short time after treatment. If repeated chlorinations are needed, the home owner should contact the water treatment professional that installed the device and have it professionally decontaminated.

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