



Guidance for the Use of Water Softening and Onsite Wastewater Systems on Individual Properties

The use of water softening and water conditioning equipment is necessary in many American homes. Onsite or decentralized wastewater systems, commonly called septic systems, are also necessary on properties where sewers are unavailable. Both water softening/conditioning and onsite wastewater systems are commonly used together and in the majority of these cases no problems are indicated. Yet there have been sporadic reports of issues related to the use of both kinds of equipment at some sites. Experts in both fields are working together to better understand the interactions involved between water softeners and onsite wastewater treatment systems. In the meantime the WQA and NOWRA have collaborated herein to offer advice based on available knowledge. This guidance is only intended where homes are served by conventional septic tank and drainfield systems. For advanced treatment systems, the manufacturer's instructions should be followed.

- 1. All onsite wastewater systems require a degree of user vigilance and maintenance on a regular basis to ensure proper functioning.** The nature and frequency of maintenance activities is dependent upon the type of system used. Owners should seek guidance on the care of their septic systems from state or local regulatory agencies, operation and maintenance manuals, or through qualified local service providers. Be sure your onsite wastewater system has adequate access points for maintenance that are watertight, secure and tamper-resistant. Access points for system maintenance should be brought to grade. Potential maintenance points include septic tanks and effluent screens, pumps and controls, and soil distribution components. Service, repair, and replace equipment as recommended by the manufacturer, regulatory authority, or qualified service provider.
- 2. Select a “high efficiency” or demand initiated regeneration (DIR) water softener.** These high efficiency softeners regenerate only when needed thereby conserving both salt and water. They are recommended for best results. When installing the softener, be sure to follow the manufacturer's instructions, comply with the local regulatory requirements, and consult a water treatment professional with any questions (Find a Water Pro at www.wqa.org).
- 3. Maintain your water softener regularly. Follow the manufacturer's operating instructions, and consult or retain a qualified water treatment professional to assure the most efficient softener operation.** If you have purchased a new DIR water softener or you moved to a home with a DIR water softener, be sure the salt setting corresponds to higher efficiency ratings and your expected household use. Repair or replace equipment as needed.

4. **Studies by the Water Quality Association and the National Onsite Wastewater Association suggest that some septic system / softener issues may be related to the discharge of excess salt from softeners to septic tanks and drainfields.** If your existing softener is timer operated, seriously consider replacing it with a DIR system. If you are unable to replace the timer operated softener now, seek the help of a local water treatment professional to set up the regeneration frequency to the optimum level, and not more frequently than needed. When the timer operated softener is not being used, be sure to turn the softener off when the building is not occupied for extended periods, such as during a vacation.
5. **Avoid the use of excessive bleaches and detergents, strong disinfectants, “every-flush” toilet disinfection chemicals, caustic drain cleaners and other potentially harmful chemicals.** Do not flush expired drugs, other pharmaceuticals, motor oil, brake fluid, paints and thinners, solvents, herbicides, pesticides, anti-freeze, gasoline, chemical wastes, sanitary wipes and excess grease out to your onsite wastewater system. The items listed should be excluded from ANY waste plumbing system, but can create significant problems and even ruin onsite wastewater treatment systems.
6. **Be sure to inspect your home for possible sources of excess water consumption such as leaking toilet flappers and valves.** Excess water flow to onsite wastewater systems is one of the largest issues related to onsite wastewater treatment system failures. Leaking household water can also create an extra and unnecessary load on your water treatment system. Be sure sump pumps, floor drains, and roof drains do not discharge to the wastewater system as well.
7. **If an issue arises and a water softener/onsite wastewater system interaction is suspected, inspect and assess the onsite wastewater system with a local experts on onsite wastewater systems AND the water softener/water conditioning systems.** Generally, there are very few experts that have skills in both areas. The local experts should consider using the “Screening Tool” developed by and available from WQA or NOWRA. It is a fill-in-the-blank spreadsheet selecting appropriate softener settings. Please return the completed form to either the WQA or NOWRA for tracking and evaluation purposes.

If you have questions and/or need more information please contact us.

The National Onsite Wastewater Recycling Association (NOWRA)
601 Wythe Street Alexandria, VA 22314
Toll Free: (800) 966-2942
Website: www.NOWRA.org

The Water Quality Association (WQA)
International Headquarters & Laboratory
4151 Naperville Road
Lisle, IL 60532-3696, USA
Telephone: (630)505-0160
Website: www.WQA.org