

HOMEOWNER'S MANUAL

Onsite Wastewater Collection & Treatment Systems

How to Take Care of Your Wastewater System



Orenco[®]

Orenco Systems[®], Incorporated

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How to Take Care of Your Wastewater System

Congratulations!

Your home includes reliable, carefully engineered equipment — manufactured by Orenco Systems®, Inc. — for the collection and/or treatment of household wastewater.



And your service provider should have a copy of this manual. It's available on our Document Library, at www.orenco.com. Or call 800-348-9843 (541-459-4449) and we will send you another.

When properly designed and installed, onsite wastewater treatment does a terrific job of decomposing household waste and recycling precious water resources. Our systems use little energy and frequently outperform municipal sewage treatment plants. The treated effluent is often returned harmlessly to the soil, where it receives final polishing and filtration for groundwater recharge. There's no degrading of our nation's rivers and oceans . . . which is so often the case with municipal sewage.

As with any engineered system, such as your car or your heat pump, your onsite wastewater system will work better and last longer if it is regularly maintained by a qualified service provider. Your service provider should be present during installation, so he or she is familiar with your system, especially those service lines, conduits, and connections that get buried.

Your system will also work better and last longer if you learn what can go into it — and what can not. Little effort is required. Just read and practice the “do's and don'ts” that follow. Every member of your household should be familiar with these. And if you have guests who want to “help out in the kitchen,” be sure to tell them, too. With this preventive maintenance, along with periodic inspections, your onsite wastewater system should function for decades. And you'll save water, energy, and pumpout costs, too!

There's a place on the back of this Homeowner's Manual to record “Important System Facts.” If those have not been filled in for you, please record those now, before you file or shelve this manual. And give a copy of these facts to your service provider, especially if your service provider changes. You'll be glad you did.

Do's and Don'ts for INSIDE the House

There are a number of do's and don'ts that will help ensure a long life and minimal maintenance for your system. As a general rule, nothing should be disposed into any wastewater system that hasn't first been ingested, other than toilet tissue, mild detergents, and wash water. Here are some additional guidelines.



Don't flush dangerous and damaging substances into your wastewater treatment system. (Please refer to the "Substitutes for Household Hazardous Waste," on the next panel.) Specifically, do not flush . . .

- Pharmaceuticals
- Excessive amounts of bath or body oils
- Water softener backwash
- Flammable or toxic products
- Household cleaners, especially floor wax and rug cleaners
- Chlorine bleach, chlorides, and pool or spa products
- Pesticides, herbicides, agricultural chemicals, or fertilizers

Don't plumb water softener discharge brine into your wastewater system. (The softened WATER is OK, just not the BRINE that's produced during the regeneration cycle.)

Do route the brine around your wastewater system so it discharges directly into the soil. This is a cost-effective solution that ensures the long-term performance of your system and the biological processes that occur inside it.

Water softener brine can interfere with nitrogen removal. And it degrades treatment by interfering with the settling process inside the tank. Without proper settling, solids, grease, and oils are carried through your system, clogging components. This increases your costs by...

- requiring the tank to be pumped more often (at hundreds of dollars per pumpout)
- requiring filters to be cleaned more often
- fouling drainfields and other downstream equipment



Do collect grease in a container and dispose with your trash. And avoid using garbage disposals excessively. Compost scraps or dispose with your trash, also. Food by-products accelerate the need for septage pumping and increase maintenance.



Do keep lint out of your wastewater treatment system by cleaning the lint filters on your washing machine and dryer before every load. Installing a supplemental lint filter on your washing machine would be a good precautionary measure. (This normally takes just a few minutes. Lint and other such materials can make a big difference in the frequency and cost of pumping out your primary treatment tank.)



Do use your trash can to dispose of substances that cause maintenance problems and/or increase the need for septage pumping.

Don't ever flush the following down the drain:

- Egg shells, cantaloupe seeds, gum, coffee grounds
- Tea bags, chewing tobacco, cigarette butts
- Condoms, dental floss, sanitary napkins, diapers
- Paper towels, newspapers, candy wrappers
- Rags, large amounts of hair
- Baby wipes, medicated wipes, cleaning wipes, and wipes made out of non-biodegradable material



Don't use special additives that are touted to enhance the performance of your tank or system. Additives can cause major damage to other areas in the collection system. The natural microorganisms that grow in your system generate their own enzymes that are sufficient for breaking down and digesting nutrients in the wastewater.

Do's and Don'ts for INSIDE the House



Don't ignore leaky plumbing fixtures; repair them. A leaky toilet can waste up to 2,000 gallons (7500 liters) of water in a single day. That's 10-20 times more water than a household's typical daily usage. Leaky plumbing fixtures increase your water bill, waste natural resources, and overload your system.



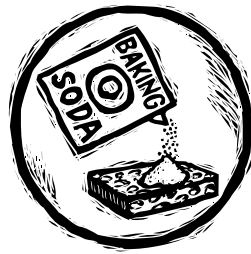
Don't use excessive amounts of water. Using 50 gallons (200 liters) per person per day is typical. If your household does not practice any of the "water conserving tips" below, you may be using too much water.

Do conserve water:

- Take shorter showers or take baths with a partially filled tub. Be cautious about excessive use of large soaking tubs.
- Don't let water run unnecessarily while brushing teeth or washing hands, food, dishes, etc.
- Wash dishes and clothes when you have a full load.
- When possible, avoid doing several loads in one day.
- Use water-saving devices on faucets and showerheads.
- When replacing old toilets, buy low-flush models.



Don't leave interior faucets on to protect water lines during cold spells. A running faucet can easily increase your wastewater flow by 1,000 to 3,000 gallons (4,000 to 12,000 liters) per day and hydraulically overload your system. Instead, properly insulate or heat your faucets and plumbing.



Do use substitutes for household hazardous waste. Replace the following hazardous products with products that are less environmentally harmful. The hazardous cleaners are listed below, followed by the suggested substitute.

Ammonia-based cleaners:

For surfaces, sprinkle baking soda on a damp sponge. For windows, use a solution of 2 tbs (30 mL) white vinegar to 1 qt (1 L) water. Pour the mixture into a spray bottle.

Carpet/upholstery cleaners:

Sprinkle dry cornstarch or baking soda on, then vacuum. For tougher stains, blot with white vinegar in soapy water.

Disinfectants:

Use borax: ½ cup (100 g) in a gallon (4 L) of water; deodorizes also.

Drain decloggers:

Use a plunger or metal snake, or remove and clean the drain trap.

Scouring cleaners & powders:

Sprinkle baking soda on a damp sponge or add 4 tbs (50 g) baking soda to 1 qt (1 L) warm water. Or use Bon Ami® cleanser; it's cheaper and won't scratch.

Furniture/floor polishes:

To clean, use oil soap and warm water. Dry with soft cloth. To polish, use 1 part lemon juice and 2 parts oil (any kind). Or use natural products with lemon oil or beeswax in mineral oil.



Laundry detergents:

Choose a liquid detergent (not a powder) that doesn't have chlorine or phosphates.

Metal cleaners:

To polish silver, rub gently with toothpaste and soft wet cloth. To clean and polish brass and copper, scrub with half of a lemon dipped in salt. To clean stainless steel, use a scouring pad and soapy water.

Oven cleaners:

Quickly sprinkle salt on drips, then scrub. Use baking soda and scouring pads on older spills.

Toilet cleaners:

Sprinkle on baking soda or Bon Ami; then scrub with a toilet brush.

Do's and Don'ts for OUTSIDE the House



Don't enter your tank, ever! Gases that can be generated in the tank and/or oxygen depletion can be fatal.

Do keep the tank access lid secure to the riser at all times

with stainless steel lid bolts. If bolts are lost or damaged, call your service provider immediately for replacements. Or call Orenco at (800) 348-9843 or +1 (541) 459-4449. If the tank lid becomes detached from the riser or if the lid or riser becomes damaged, **BLOCK ACCESS TO THE TANK OPENING IMMEDIATELY AND KEEP CHILDREN AWAY** until all repairs are made.



Don't dig without knowing the location of your wastewater system. As much as possible, plan landscaping and permanent outdoor structures before installation. But easily removable items, such as bird baths and picnic tables, are OK to place on top of your system.



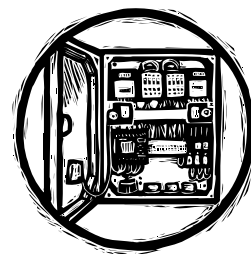
Don't drive over your tank or any buried components in your system, unless they've been equipped with a special traffic lid. If the system is subject to possible traffic, put up a barricade or a row of shrubs.



Don't dump RV waste into your wastewater system. It will increase the frequency of required septic pumping. When dumped directly into the pumping vault, RV waste clogs or fouls equipment, causing undue maintenance and repair costs. (Also, some RV waste may contain chemicals that are toxic or that may retard the biological digestion occurring within the tank.)

Don't ever connect rain gutters or storm drains to the sewer or allow surface water to drain into it. And don't discharge hot-tub water into your system. The additional water will increase costs and reduce the capacity of the collection and treatment systems. It can also wash excess solids through the tank, and, for properties with drainfields, additional water can flood the drainfield.

At the Control Panel



Do locate your electrical control panel where it will be protected from potential vandalism and have unobstructed access.

Do familiarize yourself with the location of your wastewater system and electrical control panel. Refer to the panel's model number when reporting a malfunction in the system.

IMPORTANT! CAUTION!

Only a qualified electrician or authorized installer/operator should work on your control panel. Before anyone does any work on either the wiring to the level control floats and pumps in the vault or on the control panel itself, it is imperative to first switch the isolation fuse/breaker and the circuit breakers in the panel to the "Off" positions, then switch "Off" the power to the system at the main breaker!

Do make arrangements with a reliable service person to provide regular monitoring and maintenance, and place the service person's phone number on or in your control panel!

Do remember that the audible alarm can be silenced by pushing the lighted button located directly above the "Push to Silence" label on the front of the electrical control panel. Hold the button until the alarm goes off. With normal use, the tank has a reserve storage capacity good for about 24 hours.

Don't turn off the main circuit breaker to the wastewater pumps when going on vacation. If there is any infiltration or inflow into the system, the pumps will need to handle it.

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Do keep an “as built” system diagram in a safe place for reference. And keep accurate records of maintenance and service calls. Make sure whoever services your tank keeps a complete record, and ask for a copy for your records.

IMPORTANT SYSTEM FACTS

Distributor or Dealer:

Please fill out the following important information before giving out this Homeowner's Manual:

Distributor/Dealer Name

Distributor/Dealer Address

Distributor/Dealer Phone Number(s)

Authorized Service Provider Name

Authorized Service Provider Phone Number(s)

Authorized Installer Name

Authorized Installer Phone Number(s)

Engineer Name (if applicable)

Engineer Phone Number(s)

Regulatory Agency

Regulatory Contact Name

Regulatory Contact Phone Number(s)

Permit # (if applicable)

Property Address

Property Owner Name(s)

Start-Up Date

Control Panel Model # and UL #

AvanTex® Model # (if applicable)

AvanTex® Serial # (if applicable)

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AvanTex® Treatment System AXN Models meet the requirements of NSF-ANSI Standard 40 for Class I Systems.