

A Guide to Your Septic System



Homeowner's Onsite System Guide and Record Keeping Folder

Read and follow the Dos and Don'ts listed below:

DO

- Conserve water to reduce the amount of wastewater that must be treated and disposed.
- Repair leaking faucets and toilets promptly.
- Only discharge biodegradable wastes into system.
- Divert down spouts and other surface water away from your soil treatment area
- Keep your septic tank cover accessible for tank inspections and pumping.
- If lid is at grade, make sure lid is locked or secured and if possible, a secondary safety device is installed.
- Have your effluent screen inspected and cleaned once a year. Make sure that the screen is ALWAYS replaced after cleaning.
- Have your septic tank pumped regularly and inspected for leaks and cracks.
- Call a professional when you have problems.
- Compost your garbage or put it in the trash instead of putting it down the sink.
- Make sure any water conditioning or softening equipment is approved for use with your system and that it is properly set for your water conditioning/softening needs and operating correctly.

DON'T

- Flush wipes, sanitary napkins, tampons, disposable diapers, condoms, cat litter and such products into your system.
- Dump solvents, oils, paints, thinners, disinfectants, pesticides or poisons down the drain; these can disrupt the treatment process and contaminate groundwater.
- Dig in your soil treatment area or build anything over it.
- Plant anything over your soil treatment area except grass.
- Drive over your soil treatment area or compact the soil in any way.
- Use a garbage disposal. (They are not recommended, but if one is present, make sure the system is designed with appropriate additional capacity.)

SAFETY FIRST!

- NEVER physically enter a septic tank or other parts of the treatment system. Call your service provider!
- Keep access areas locked at all times to prevent unauthorized entry; if possible add a secondary safety device to prevent accidents.

OUR LOCAL SERVICE PROVIDER IS:



To locate a service provider or other wastewater treatment professional in your area visit www.nowra.org/septic-locator

To access our **FREE Homeowner Course**, visit www.pathlms.com/nowra.

This folder provides homeowners with essential information about your onsite wastewater treatment system and guidelines for operation and maintenance to keep your system working effectively and trouble-free while protecting water quality and the environment. It also provides a place to keep all documents, records and other information about your onsite wastewater treatment system including your permit, site drawings, records of maintenance and repairs performed, and other information.

It is understood that a user may not have all of the information listed below, but please complete to the best of your ability for record keeping.

System Permit

Issued to _____ Date Issued _____

Address _____

Legal Description _____

System Description

Design Flow (gpd) or Number of Bedrooms _____

Septic Tank volume (gallons) _____ Number of Compartments _____

Dosing Tank or Pump Compartment capacity (gallons) _____

Tank(s) Manufacturer(s) _____

Advanced pretreatment Device: ☐ Yes ☐ No Brand _____

System Accessories

☐ Effluent filter ☐ Diversion or Alternating Valve ☐ Control Panel with audible/visible alarm

☐ Pump or siphon ☐ Distribution box or Drop box ☐ Other _____

Dispersal Method

☐ Trenches or bed (and number) _____

Type of dispersal media (e.g., rock/gravel, fabric wrapped pipe, chambers, polystyrene socks, etc.) _____

☐ Drip Dispersal ☐ At-Grade ☐ Lagoon ☐ Spray Irrigation ☐ Mound ☐ Discharge to lake/river

☐ Other _____

Dispersal Field Dimensions _____

Installation Contractor

Address _____

Telephone _____ Email _____

Service Provider

Address _____

Phone _____ Email _____ Service Contract ☐ Yes ☐ No

Pumper

Address _____

Phone _____ Email _____ Service Contract ☐ Yes ☐ No

A stylized graphic featuring a dark blue silhouette of a house with a chimney and a four-pane window. To the right of the house is a dark blue tree. A thick, dark blue wavy line flows from the base of the house and tree, ending in a single blue water drop. The background is split into a light green upper half and a light tan lower half. Below the graphic, the text 'TAKING CARE OF YOUR' is partially visible in a bold, dark blue, sans-serif font.

TAKING CARE OF YOUR ONSITE SYSTEM

Your onsite treatment system represents a significant investment which you will want to protect. “An ounce of prevention is worth a pound of cure” was never truer than it is with onsite system care. With proper operation and regular maintenance, your system will function better and last longer.

Have your septic tank inspected every 3 to 4 years and pump it if the sludge fills the bottom third of your tank or if you see the scum layer near the top of the outlet baffle. The frequency of pumping depends on a number of factors and can vary substantially between homes from once or more a year to 10 years or more.

Use this folder to keep records of each tank pumping including the date and estimated sludge depth and scum thickness. Over time, these records will help you anticipate when tank pumping might be necessary. Committing a little attention to the care of your system is the best way to avoid the problem of a failing system. For more resources, please see the Homeowner Course and User Guide on NOWRA's website (www.nowra.org).

The diagram illustrates the internal structure of a septic tank. At the top, two green circular covers are labeled "Access Risers". The tank is divided into two main sections. The left section has an "Inlet" pipe on the left with a blue arrow pointing into it. Inside this section, a horizontal pipe with a T-junction is labeled "Scum". Below this, a vertical pipe is labeled "Baffle". The bottom of this section is labeled "Clear Zone". The right section has an "Outlet" pipe on the right with a blue arrow pointing away from it, labeled "Effluent". Inside this section, a vertical pipe with a mesh screen is labeled "Effluent Screen (Optional)". The bottom of the tank is labeled "Sludge". To the right of the effluent pipe, text reads "To further treatment and dispersal".

be two or more feet above the seasonal high groundwater table. While there are many types of soil treatment area systems the following describes a typical washed rock trench system.

The septic tank effluent either flows to the soil treatment area by gravity or is dosed by pump or siphon. The effluent enters the soil and is treated as it percolates to the groundwater. The soil acts as biological filter to remove any remaining harmful substances including disease causing bacteria and other undesirable wastewater constituents in the septic tank effluent.

Soil treatment areas can include at-grades, mounds or drip distribution. There are also several varieties of trench media that can be used such as washed rock. If you have any of these alternatives contact your local service provider or NOWRA for more information.

Conventional Septic System

This diagram illustrates the components and flow of a conventional septic system. The system is shown in cross-section, revealing the underground components beneath a house and lawn.

- Groundwater well:** A vertical pipe with a float valve that allows groundwater to rise into the house's water supply line.
- Water supply to house:** The pipe that carries water from the well into the house.
- Building sewer with cleanout:** The pipe that carries wastewater from the house to the septic tank.
- Access risers:** Vertical pipes that provide access to the septic tank and distribution box.
- Septic tank:** A large underground tank where wastewater is stored and partially treated.
- Distribution box:** A box that receives effluent from the septic tank and distributes it into the soil treatment area.
- Soil treatment area:** A series of parallel pipes (drip lines) that slowly release effluent into the soil.
- Gravel:** A layer of gravel surrounding the distribution box and the soil treatment area to facilitate drainage.
- Wastewater flow:** The initial flow of wastewater from the house into the septic tank.
- Wastewater treatment in soil:** The effluent as it percolates through the soil layers, being naturally filtered and treated.
- Groundwater:** The layer of water beneath the soil, which may contain some effluent.
- Bedrock:** The solid rock layer at the bottom of the diagram.

In addition to acting as a sedimentation chamber and providing storage for the sludge and scum, bacteria in the septic tank also digests or breaks down the waste solids. Micro-organisms that thrive without oxygen feed on the solids to reduce the volume of sludge and scum. In the process, carbon dioxide, hydrogen sulfide and other gases are produced which are vented from the tank through the plumbing vent on the roof of the building that the tank services. Only about 40% of the sludge and scum volume can be reduced in this manner, so the tank must be pumped regularly to remove the accumulated solids. If not inspected periodically and pumped when needed, the tank will fill with sludge and the solids will be washed out into the soil treatment area where they will quickly clog the soil. Newer systems may include an effluent screen near the outlet of the tank. The screen helps remove additional solids and can extend the life of the system. The screen also must be routinely inspected and cleaned when needed. Removal of the screen can cause premature failure.

Typical Washed Rock Trench

Conventional Trench

Soil cover

18-36"

Distribution media

Biomat

Biozone

The soil treatment area, often called a drainfield, provides final treatment of the wastewater and returns the treated water to the groundwater. The total area required for adequate soil treatment is determined by the expected peak flow of wastewater from the home and the characteristics of the soil in the treatment area. The soil treatment area is typically built as a series of trenches or as one larger bed, and is typically kept at a shallow depth. The soil treatment area must be constructed in permeable soils and

System Maintenance Record

[illegible]