

Understanding and Protecting Your Septic System

If you currently discharge wastewater to a septic system, if you are looking to purchase a place of residence, public assembly, or business, or to move to a place that is served by a septic system, this guidance document should be helpful. Contact your local health department for additional assistance and information.

Know Your Septic System

Not all septic systems are the same. It is important to know about your septic system, such as the components that make up the system and their location on the property, the system functioning and maintenance history, as well as what to do and what not to do. Traditional conventional septic systems have a septic tank and a drainfield with gravel-filled trenches or a gravel bed. Newer septic systems may have polypropylene or polyethylene “chambers” or polystyrene aggregate in place of the gravel.

Some systems use advanced technologies that require a higher level of maintenance than traditional conventional septic systems, and state rules have specific maintenance requirements for these systems. Sometimes owners will be required by state rules to hire a state-certified operator to regularly inspect and maintain the system. In addition, state rules require the local health department to inspect these systems on a periodic basis.

Some properties are legally required to have a “repair area or replacement area” in which a second drainfield could be installed if needed. This repair area should have been identified typically by the health department when the site was permitted and should be shown on your septic system permit (“Improvement Permit”). State rules also require you to protect this area from any soil disturbance activities such as excavation; building a house addition, garage, or other structure; swimming pool construction and installation; and grading.

If you are not sure what type of wastewater system you have, contact the local health department to request a copy of the septic system permit and soil evaluation sheet for your property. These forms should indicate the approved design daily flow, type of system, size of each of the system components (septic tank, any other tanks or pretreatment units, the drainfield, and the repair area), and approximate locations of those components. Also, ask the previous owner or the seller for information about the system (e.g., installations, repairs, maintenance).



Ask Questions

Ensure you have answers to the following questions:

- What type of septic system do you have?
- How old is the system (i.e., when were the system components installed)?
- Where are all the system components located, including the drainfield and repair area? (Note: They may not be at the same location or even on the same lot.)
- How many gallons a day (e.g., number of bedrooms, occupants, seats in the restaurant) is the septic system designed to treat and dispose of?
- What is the volumetric (liquid) capacity of each tank in the septic system?
- Which drainfield option or product was used for your system?
- Is the septic system working properly?
- Does the system require a certified operator?
- What are the legal requirements for long-term maintenance?
- Has the septic system been maintained in the past?

“Keep this information for future reference to help you properly maintain your septic system”

“Let your Health Department know the problem”

Signs of Possible Septic System Failure

- Sewage backing up into your toilets, tubs, or sinks.
- Sewage backing up in the septic and/or pump tank
- Slowly draining plumbing fixtures, particularly during and after it has rained.
- The smell of raw sewage accompanied by soggy soil or sewage discharged over the ground or in nearby ditches or woods.
- Sewage comes to the ground surface when the pump turns on and then disappears after the pump turns off.
- An alarm flashing (red light) and/or blaring horn coming from the pump control panel.

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DOs and DON'Ts

DO

- Do learn the location of the septic tank, drainfield and repair area. Keep a sketch of the system location and layout with your maintenance record for service visits.
- Do keep your septic tank cover accessible for inspections and pumping.
- Do keep suitable vegetation growing over the drainfield and repair area to stabilize the soil and prevent erosion.
- Do have a maintenance plan for your system.
- Do have your septic system inspected in accordance with state regulations.
- Do make sure you have an effluent filter installed on your septic tank to prevent solids from reaching the drainfield and to increase the life of your system.
- Do have solids pumped out of the septic tank by a State-permitted pumper every 3 to 5 years (typical primary residence) or as required per the permit. Do make sure both compartments of the septic tank are pumped out. If the septic system includes a pump tank have it pumped out too.
- Do periodically check to ensure the septic system, pumps and electrical components, continue working properly between scheduled maintenance visits.
- Do call the local health department or an onsite wastewater contractor certified by the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB) whenever you experience problems with your system, or if there are any signs of system failure.
- Do keep a detailed record of installations, repairs, and tank pump outs.
- Do hire a state-certified subsurface system operator when required by the septic system permit.

DON'T

- Don't ignore problems with your septic system hoping they will just go away.
- Don't enter the septic tank.
- Don't wait until the tank overflows, the drainfield fails, or the system backs up to have the tank pumped.
- Don't expand the size of the place of residence, business, or public assembly without obtaining prior written approval to adjust the size of the septic system accordingly.
- Don't make or allow repairs to your septic system without obtaining required permits from the local health department.
- Don't direct downspouts, water softeners, sump pumps, water features, swimming pool, hot tubs, HVAC condensate drains or similar discharges into the septic system or toward the drainfield.
- Don't install sprinkler systems or wells in the septic system and repair areas.
- Don't perform construction of any type over the septic system and repair areas (e.g., decks, patios, sheds).
- Don't cover the septic tank, d-box, or drainfield with structures (e.g., planters, firepits, grills) or hardened surfaces (e.g., asphalt, concrete, stone, brick).
- Don't drive or park vehicles over the septic system.
- Don't put cigarette butts, paper towels, disposable wipes, sanitary napkins/tampons, condoms, cotton swabs, kitty litter, coffee grounds, disposable diapers, plastics or other non-biodegradables into the septic system.
- Don't pour grease or cooking oil down the drain or foul up the septic system with harmful chemicals (e.g., solvents, paint, medications, disinfectants, pesticides) and other hazardous substances.
- Don't install garbage grinders at sinks.

State-Certified Septic System Installers and Inspectors

Contact the North Carolina Onsite Wastewater Contractor Inspector Certification Board (NCOWCICB)
Phone: (336) 202-3126 • Website: <https://ncowcicb.info>

State-Certified Subsurface System Operators

Contact the North Carolina Water Pollution Control System Certification Commission (WPCSOCC)
Phone: (919) 707-9089 • Website: <https://deq.nc.gov/about/divisions/water-resources/operator-certification>



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