INDIVIDUAL WASTE WATER DISPOSAL SYSTEM (IWDS)

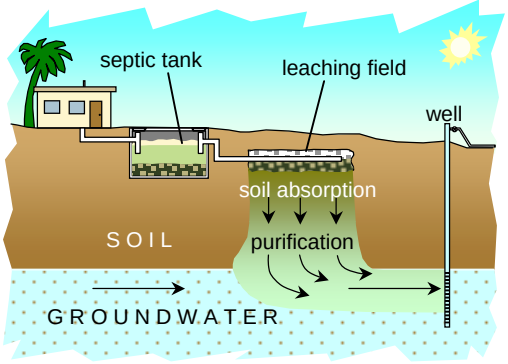
THE PURPOSE OF THIS PROGRAM:

Whereas large numbers of residents currently and will continue to rely on (Onsite wastewater disposal systems for treatment and disposal of wastewater; and whereas proper design, construction, and operation of these systems provide personal and public benefit through protection of ground water and surface water; whereas public health can be significantly impacted by design and continue use of substandard disposal systems, and whereas waste from livestock also impacts the quality of ground water and surface water and public health.

Did you know that your house (or business) is connected to a septic system?
Do you know how a septic system works?

*** ALL NEW IWDS SHALL BE SUBJECT TO THE DESIGN AND SITING CRITERIA SET FORTH ON THE IWDS RULES AND REGULATIONS.**

A septic system **(also known as an "individual wastewater disposal system" or "IWDS" for short)** takes the sewage from your home or business, treats it, and then releases it into the ground. Believe it or not, this can be an environmentally friendly way to get rid of wastewater - ***if*** the septic system was designed properly, and ***if*** it is maintained properly. If you received this brochure during a DEQ inspection, chances are it's too late to do anything about the design of your septic system, because it's already in the ground. But, unless it has already failed, it is not too late to begin taking care of it - *maintaining* it - so that it will operate properly and last as long as possible.

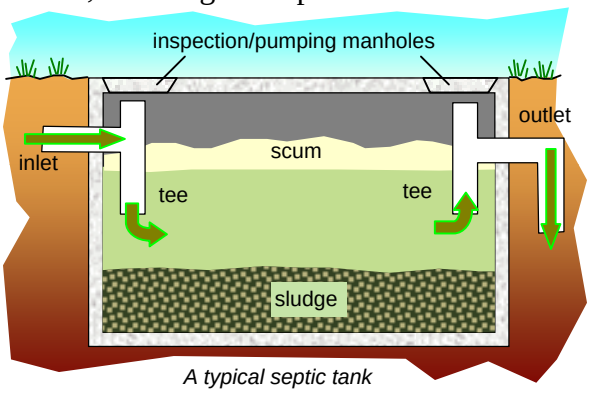


Operation of an “ideal” septic system

How a Septic System Works

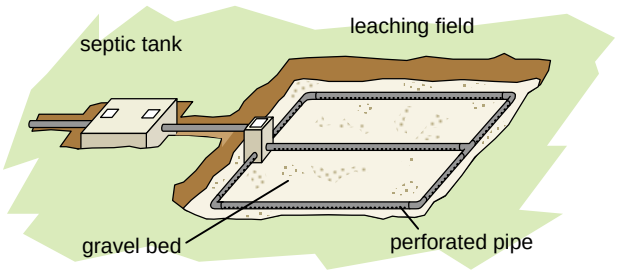
The way in which a septic system "treats" wastewater is really quite simple, and when it works properly, the quality of the treated waste can be better even than that produced by large sewage treatment plants. The treatment occurs at two main points: inside the **septic tank**, and in the **soil absorption system**, usually called a **leaching field**.

The wastewater first passes into the septic tank, where it is held for about 24 hours, allowing time for solids to settle to the bottom as **sludge**, or float to the surface as **scum**. Naturally occurring bacteria break down these solids over time, allowing the septic tank to function for long periods of time without maintenance.

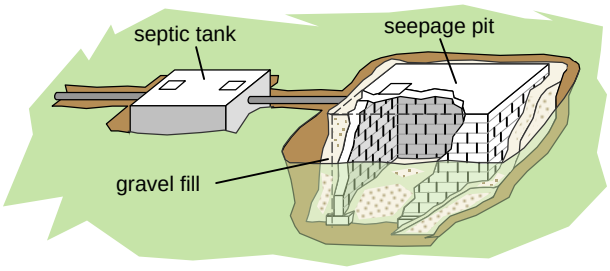


A typical septic tank

From the septic tank, the wastewater then flows into the leaching field. Here, the partially treated wastewater spreads out through the gravel, and is slowly absorbed by the soil. Again, naturally occurring bacteria and other microorganisms treat the wastewater as it filters through the soil, "eating" the harmful bacteria and even some of the chemicals in the wastewater. After passing through a certain amount of soil (3 feet is usually considered the minimum), the treatment of the wastewater is "complete," and it then mixes with the groundwater below your home.



Some systems may use a **seepage pit** in place of the leaching field, but this should not be confused with a **cesspool** - an older type of system that did not use a septic tank ahead of the pit, and is no longer allowed because of high rates of failure and poor treatment performance.



Do's and Don'ts:

Septic systems are easy to take care of. There's simply not that much you need to "do." So mostly, you need to worry about what *not* to do:

Don't:

- *Dump chemicals and business-related wastes down the drain!*
  - Examples: paints, solvents, thinners, oil, pesticides, antifreeze, or photographic chemicals.
- *Dump solid wastes down the drain!*
  - Examples: diapers, cigarette butts, betel nut husks, sanitary napkins.
- *Dump kitchen waste down the drain!*
  - Throw leftover food in the garbage, wipe greasy pans with paper towels before washing, pour leftover cooking oil in old jars.
- *Over-use cleaning chemicals!*
  - "Ordinary" use of household cleaning products is not a hazard. However, if you use too much, you can kill the helpful bacteria that live in your septic system, and the system may stop working, or contaminate the groundwater.
- *Drive over (or park on) your leaching field!*
  - The plastic (PVC) pipes in your leaching field are easy to break. Some leaching fields are designed to be driven on, but most are not. If you don't know, don't drive on it.

Of course, there are a few things you can *and should* do to keep your septic system operating smoothly:

Do:

Caring for your septic system

Septic systems are only designed to treat household wastewater - in other words, the waste you would expect to be generated from bathrooms and small family kitchens. Other types of wastes, especially those from many businesses, should **never** be poured down the drain. Few businesses can afford the hundreds of thousands of dollars and years it can take to clean up **chemical contamination** of groundwater.

For homeowners, **kitchen wastes** can be your septic system's worst enemy. Many failed septic systems here in the CNMI can be traced back to too much food, cooking oil, and grease being dumped down the drain. (It clogs pipes, too!)

Besides kitchen wastes, the other most common cause of septic system failure is **overloading** – with too much water use, or too many people using your building. Fix all plumbing leaks and don't leave water running if you don't need to. Likewise, don't increase your water usage by changing the use of your building. For example, renting out your single-family residence as a "barracks" always results in more water use than the house septic system was designed to accommodate. Check with DEQ first to find out what your system can handle.

*** Septic tanks should be inspected by the owner at intervals of not more than three (3) years, to determine the rates of scum and sludge accumulation. The inlet and outlet structures and clean-outs should be inspected for damage after each pump.**

* "IWDS Failure" or "System Failure"

1. The IWDS refuses to accept sewage effluent at the rate of design application, resulting in interference with plumbing fixture use.
2. Sewage effluent exceeds the infiltration capacity of the soil resulting in objectionable odors, ponding, seepage, or other discharge of the effluent to the surface of the ground or surface waters.
3. Effluent discharges, from the absorption system result in contamination of a potable water supply, ground water, or surface water.

Penalties and Fines!

*** Any person who Knowingly and willfully commits an act in violation of the IWDS Rules and Regulations, and who is found guilty by court of competent jurisdiction may be punished by fine of not more than $25,000 for the continuance of the violation.**