

FROM THE FOLKS AT CLALLAM COUNTY ENVIRONMENTAL HEALTH:

Take Care of Your Septic.

Save Money.
Save Nature.
Simple.

And It's the
Right Thing To Do.

Here on the Olympic Peninsula,
Clallam County is wealthy in water—
lakes, streams, rivers, & ocean.

The beauty, purity, and abundance of our waters
enrich our lives, providing many of us our lifestyles and
livelihoods we so enjoy. Fish. Salmon. Shellfish. Forests. Wildlife.

90% of the water pollution in Washington comes from rain runoff,
snowmelt, and other unseen, hard-to-pinpoint sources swept along with the flow.

One major cause of this sneaky pollution is a failing ON-SITE SEWAGE DISPOSAL SYSTEM. Septics.

Yes, septic—hidden wastewater-treatment plants in many of our businesses, our restaurants, our motels, and
our homes. Nearly 50,000 septic systems in Clallam County, with another 500 new systems added each year.

If you have a septic system, you hold the key to water quality.

About 2-5% of our septic systems fail every year: 1,000 to 2,500 septic systems will fail in Clallam County this year.
A septic failure means you're discharging untreated wastewater to the ground, a waterway, or groundwater.
Raw sewage. A health hazard. Disease. Like the slop from *Medieval Times* thrown in the streets.

Right here in Clallam County. From 1,000 to 2,500 failing septic systems. Every year.

You can beat the odds of yours becoming one of them with sensible septic use
and simple, routine maintenance. Just service your septic like you
service your car. Or down the road you might
have to repair or replace it ... like a car.

Protect the life of your septic system,
protect the environment,
protect your health,
your investment,
& property.

Read this to learn how ...

You could save \$\$\$ thousands \$\$\$

Does Your Flush Rush to the Sea?

When you flush, where do you think it ends up? What about your bath water, garbage-disposal sludge, or laundry suds disappearing down the drain? Do you think our wastes just magically disappear? Did you ever imagine your flush could feed our shellfish? Or perhaps you prefer to just not think about it at all. Well, not thinking about it won't just make it go away either!

In the absence of city sewer lines & hook-ups to a centralized wastewater-treatment plant, a septic system is designed to move, store, treat, & dispose wastewater on or near the property where it originates: on-site. How convenient! On-site sewage systems are what enable us to build and live outside the confines of a city's central core. How desirable!

A home septic system can be a highly effective, long-term wastewater-treatment system. Like a car, though, the key to "long term" is routine maintenance and sensible use: How you "drive" your septic and how you service it will help determine its life span. The same reason some old cars are road cruisers while others are nothing but scrap iron in the junkyard.

Are you convinced yet of the virtues of maintaining your septic? Maybe you will be when you learn how a septic works, or just how much it could cost to fix or replace it if it doesn't work.

SEPTICS. LIKE A CAR.

Things Your Mother Never Told You About Septics ...

Anatomy

Like people, septic systems come in an endless variety of different types and combinations. So let's start with the no-frills version. A basic, conventional, gravity-feed septic system has 3 parts: the septic **TANK**, the **DRAINFIELD**, and the **SOIL** beneath the drainfield.

All water and wastes enter the tank at the inlet baffle, or "tee" pipe. Here the solids settle out to the bottom—the **sludge** layer; lighter solids like fat, grease, & paper float to the top—the **scum** layer; with the separation process yielding a clear, treatable liquid layer in between—the **effluent**.

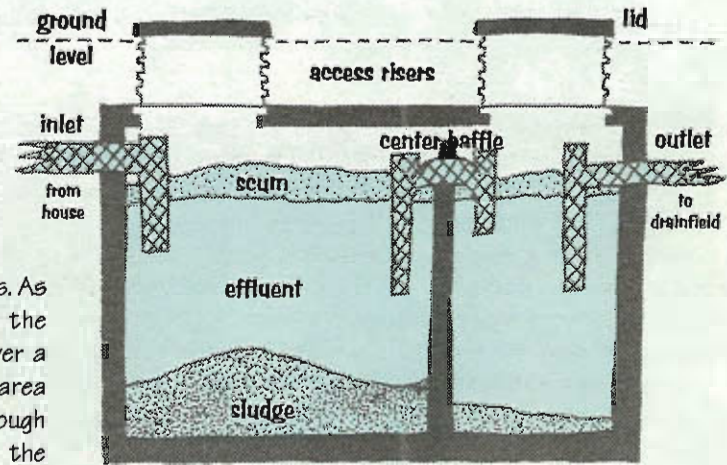
This settling is very important to the system's ongoing performance. So much so, in fact, that Washington code requires all new tanks have two such compartments instead of only one, letting the liquid effluent cross over through a center baffle to settle out into layers again in the second compartment. While in the tank, microbes digest and break down a lot of the waste, so the longer it's in the tank, the better the primary treatment.

Now the really critical part: The effluent (liquid) leaves the tank through the outlet baffle and flows down a pipe (gravity feed, remember?) to the drainfield—a parallel series of 4-inch, perforated pipes connected by a distribution box that en-

sures equal flow. These pipes are typically laid out just under the ground surface in gravel-filled trenches. As effluent seeps out the perforated pipes over a large underground area it trickles down through the gravel to enter the underlying soil. Ideally, natural biological processes in the soil purify your wastewater before it reaches the water table.

Only as Good as the Soil Beneath Your Feet.

Arguably, the most important component of your septic system is the soil. Or, more specifically, soil **pores**—the tiny spaces between individual soil particles. It is here where microscopically teeny, tiny critters live on the soil-particle surfaces and consume harmful bacteria, water-borne disease organisms, and other nasty stuff from your wastewater as it slowly trickles through the soil pores. The treated effluent eventually enters the water table, rejoining our Peninsula's clean water re-



2-Compartment Septic Tank

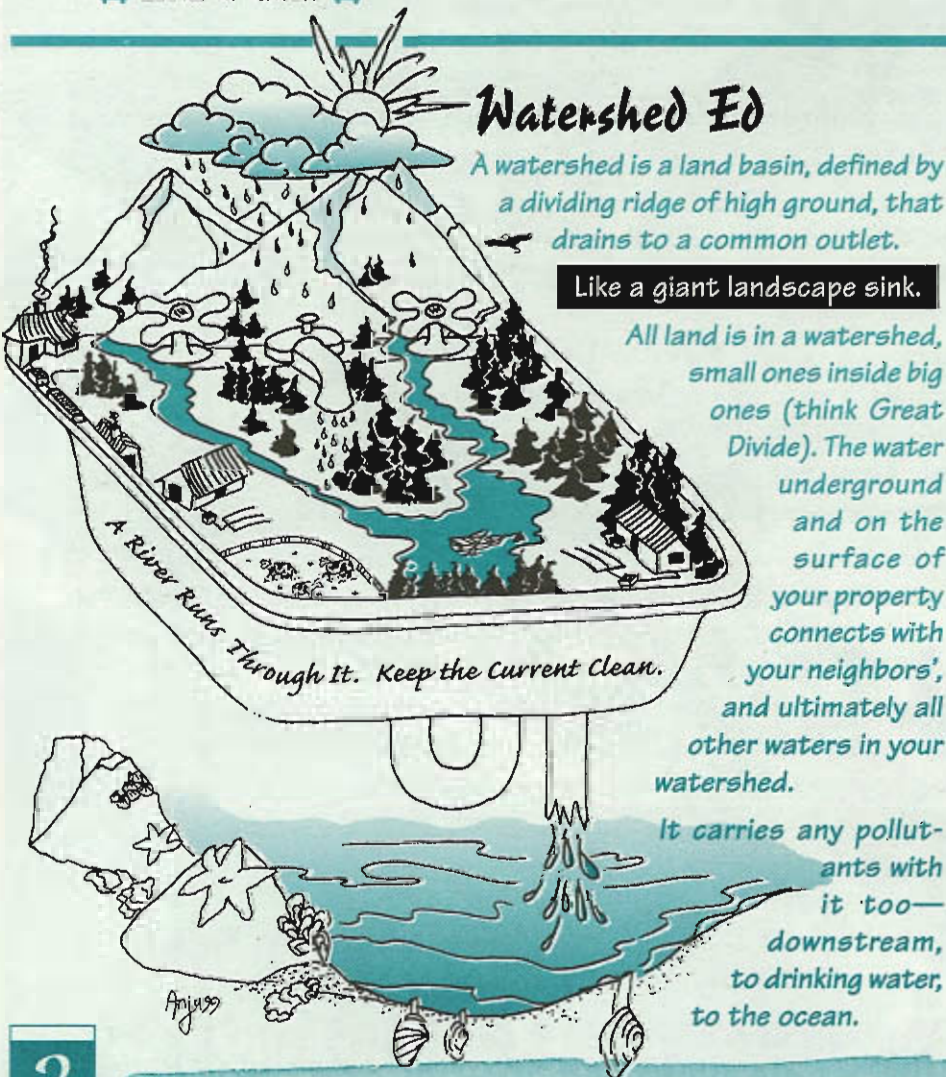
sources in the ground or on the surface. It's not magic; it's microscopic!

Outta Sight On-Site Sewage System

Voilà! You are now septic literate, and it hardly hurt. However, now you can also understand what kinks to the system might foil its smooth operation.

If any **solids** get out that outlet baffle & into drainfield pipes to trickle through our all-important soil, they will clog the pores and bog the whole system down, eventually bringing the whole process to a sluggish halt. This is what we call a septic **failure**. Bummer. And it's not a pretty picture.

It's the Water. Cooool, Cleeeean Water.



Watershed Ed

A watershed is a land basin, defined by a dividing ridge of high ground, that drains to a common outlet.

Like a giant landscape sink.

All land is in a watershed, small ones inside big ones (think Great Divide). The water underground and on the surface of your property connects with your neighbors', and ultimately all other waters in your watershed.

It carries any pollutants with it too—downstream, to drinking water, to the ocean.

Plumbing • Flushing • Septics **Drainfield** **Soils** **Water** **Strait** **Shellfish**

Septic failures pose a significant health hazard. This gunk harbors household hazardous substances, bacteria, viruses, & other nasty microorganisms potentially harmful to people. It may also contaminate water—polluting our groundwater, drinking water, streams, poisoning fish and wildlife. Increased levels of fecal coliform bacteria can flow into the Strait, closing commercial & recreational shellfish beds for the risks to public health.

Keep Your Waste Stream Out of the Wild Stream.

AS WE ALL KNOW, IT'S NOT NICE TO FOUL MOTHER NATURE.

GET THE CONNECTION!

SEPTIC MYTHS you PROBABLY LEARNED ON THE STREETS vs. The Cold, Hard Truth

MYTHS:	TRUTH:
Only use 1-ply toilet paper.	Doesn't matter; knock yourself out with 2-ply.
Miracle additives will save money & your system.	Neither. More likely to cost and destroy.
"My septic hasn't ever failed."	Your drainfield could be clogging now.
After pumping, leave "starter" sludge to activate system.	The tank's not sourdough bread; it'll start itself—just add waste.
"I thought it would tell me if something's wrong."	Too late. Soil pores don't scream.
Pumping tank will take care of existing problems.	A damaged drainfield may be beyond repair. Build a new one. Do not pass Go; do not collect \$200.
"If it isn't broken, don't fix it."	Would you drive a car <u>years</u> without changing oil?
Out of sight, out of mind?	Out of pocket!

Failed Again

It sounds rather harmless—**failed**—like maybe a bad grade on a test. But when your septic system fails, it's foul. Smelly. Wet. Dangerous. Diseased. Ugly. It could be a cesspool in your yard. Sluggish, lazy drains. Gurgling, belching pipes. It could be raw sewage backing up into the building, evil gunk rising up out of drains, slop overflowing porcelain.

Usually the first thoughts of septic maintenance happen after problems arise or a breakdown occurs. Don't wait for these "subtle" signals before servicing your septic. By the time the system shows such obvious signs, it's most likely damaged. Perhaps beyond repair. Failed. Dead. Most commonly when a portion of the system, or the soil itself, becomes clogged with waste solids due to compaction or clogging. **Pumping will not bring a failed drainfield back to life.**

Is Your Drainfield Congealed?

So, what are the odds your system will fail? In Clallam County, 2-5%. O.K. So, what are the culprits?

Usually solids escape into the drainfield because the tank isn't pumped often enough. A full tank is an overflowing tank. An effluent filter on the outlet baffle could stop most solids from getting out, but it's optional and may not be installed on your system. Not too late! A filter can be added to almost any tank outlet.

Another culprit could be your **garbage disposal**. Those finely ground food particles do a fine job of overloading the system, clogging pipes, and filling the tank with sludge faster. But ground "so fine," particles are apt to float around longer, hitch a ride out with the effluent, and wind up in the drainfield, clogging our soil pores!

Similarly, heavy-loading the tank with **water**—guests, laundry, dishwasher, hot tub—stirs up a settled tank and refloats the solids, making their escape easier.

Your System Swamped?

Heavy loading with plain water does more damage than just stirring up the tank. A big dose of H₂O can saturate the drainfield, plugging our soil pores with nothing but water but drowning, nonetheless, the microbial action that cleans wastewater. Even tiny critters need oxygen. **Saturated soils** slow water movement. Sluggish water slows oxygen exchange, microbial action, and also effluent disposal by swamping evaporation and downward flow.

You can flood it from above too. Where does your **surface runoff** run off to? All that water from roofs, gutters, downspouts, driveways, higher ground—is it drenching your hard-working drainfield with more water than it can handle?

Did the Butler Do It?

Maybe you're already an alert guardian of your drainfield but something's just not quite right down there. Maybe, despite your vigilance, some deadly toxins snuck past you and got into the system, killing the microbial critters in the tank and maybe even in the soil too. Dangerous **household chemicals** surround us in our homes and daily lives, and maybe someone—someone who doesn't know the finer points about septic and microbial critters—flushed or dumped the murder weapon down the drain. Could've been the butler. Or the housekeeper?

Call us for the skinny on safely disposing your household hazardous wastes.

Your Pore's Core

There are, of course, other culprits, too. They may take many forms, but the end result is almost always the same: crushed pores, from **compacted soil**. Driving over the drainfield. Grazing livestock. Building a patio or carport. Asphalt. Sports court. Whatever. If it **compacts** the soil, it obliterates the pores which hold and move wastewater where microbes treat the effluent. If it **covers** the soil, it chokes off the critters' oxygen exchange.

Send in the RESERVES!

When the news is bad, and your system's failed, it keeps getting worse. Now it's going to cost money to fix. A lot of money. Think about it: If your soil pores are clogged or compacted, no amount of water or air pumped into the ground will flush 'em out or plump 'em up again. Problems this big call for nothing short of putting in a new drainfield in your **RESERVE DRAINFIELD AREA**.

Yes, it might be the best-kept secret of the whole unfolding mystery, but you do have a reserve drainfield: If you got your septic system permitted by the county a reserve drainfield area had to be designated. It's out there, somewhere. And the funny thing is that it's supposed to be kept as free of obstacles, compaction, and disturbance as the active drainfield, because if that one fails, the only recourse is to dig a new one. Here. In the reserve.

Except, maybe complicating things further, to repair or replace a failed system requires a new permit. And if your system is a few years old, chances are the rules & regulations have tightened up a bit, and you may have to upgrade your system to a new, higher standard. A more expensive standard.

So the reserve drainfield area is actually the fourth component of your septic system, and **YOU**—the owner, the user—are the fifth.

Pump Now or Pay Later

Don't panic. Inspect. Maybe pump. There are many variables that determine the capacity and durability of your system. A careless family can easily overload it by flushing all kinds of solid waste—like tampons, cigarette butts, & grease (it does solidify out there)—or by using way more water. A careful family could likely keep their "old car" running better, longer, to stretch out its useful life. Maintenance is the key to a long & healthy life for your septic.

SEPTICS. LIKE A CAR.



MAINTENANCE.

THE KEY TO THE CAR.



The need to pump varies widely with households, but a conservative estimate suggests **pump every 3-5 years**, depending how many people are on the system and how they use it.

Watch Your Water Ways!

The size of the system was originally designed for the soil conditions and the number of bedrooms (as a measure of water use). Are there more or fewer people living in the house now? Are you flagrant or frugal water users? The more water put into the system, the more stress placed upon it.

Use the system within its "design limits." Septic design limits are like car speed limits: a guide defining the maximum, not the constant level of use.



Use Septic Sense



Water use and **proper maintenance** are the two most critical ways you can dramatically extend the life of your septic. Failing this, the drainfield may fail, possibly causing expensive damage which pumping will not reverse.

This is Your Septic. This is Your Septic on Drugs...

Right about now you may be reaching for any number of products on the market that claim to *Improve the Performance of Your System!* *Reduce Odor!!!* *Eliminate All Need for PUMPING!!* *Jump-Start Your Ailing Septic!*

Can you say, Snake Oil?

Nothing ... nothing ... can replace the need for pumping. Most engineers and field professionals believe septic additives are virtually useless and potentially harmful to your system.

Official policy of the Washington State Legislature states "most additives do not have a positive effect ... and can contaminate groundwater aquifers, render septic drainfields dysfunctional, and result in costly repairs to homeowners." It bans their use, sale, and distribution unless specifically approved by the Department of Health.

DOH merely approves those additives to cause harm to public health or water violating manufacturers' performance claims.

While available in different forms (bactericidal solvents, alkalis) additives can pollute wastewater break solids down small enough to carry to **EARLY SYSTEM FAILURE**.

Nothing ... nothing ... you add to a septic tank will improve normal bacterial action. There are billions of critters continually added from sewage and graywater to keep the system humming. Nothing you add can help.



with ingredients unlikely to quality without substantiation.

ria, enzymes, acids, organic matter, kill or harm microbial critters, & over into the drainfield and contribute

a septic tank will improve normal bacterial action. There are billions of critters continually added from sewage and graywater to keep the system humming. Nothing you add can help.

Any questions?

It Failed Me...

Why? Why? WHY?

Any one or a combo of reasons can contribute; take your pick:

- ❖ system's old and the treatment properties in the soil are exhausted
- ❖ homeowner's misusing the system:
 - excessive water use is the main cause of failure!
 - disposing garbage in the system
 - overusing/misusing toxic chemicals
- ❖ tank needs pumping
- ❖ system designed or installed wrong.

SHOW ME THE MONEY!!!

If the limiting factor to fixing a failing septic isn't time but money, there is some help. Apply for a low-interest loan through the Clallam County Water-Quality Cleanup Fund. Selection is based on the benefits to water quality or human health, and financial need.

Interest is low, terms are long.

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Upflow Gravel Filter

Sand Filter

SLEEP HERE
MOTEL

Pressure Distribution

Aerobic

Conventional
Gravity

Sand Filter
w/ Grease Trap

SEEFOOD CAFE

Inspection: It Isn't Rocket Science

Rule of Thumb: Pump when the total amount of solids equals 1/3 the volume of the tank. Measuring scum & sludge levels involves only a couple of rigged-out sticks, a few guidelines, a clear idea of what you're doing, and access to the tank. However, here's where just a little information can be dangerous. Preventative maintenance calls for a visual inspection of the system's components to catch early signs of developing trouble:

- ✓ tank for watertightness
- ✓ monitoring ports for ponded effluent
- ✓ baffles for damage
- ✓ valve positions for tampering
- ✓ drainfield for seepage, soft ground, surfacing effluent, odors, or evidence of compaction

CAUTION: Remember you're dealing with disease-carrying material. When inspecting your septic, wear rubber gloves, use disinfectant, and never enter the tank.

If you're still interested in inspecting the tank yourself, call to register for a **Septics Clinic** to learn how.

Designers, Installers, Pumpers, the County... & You

Traditionally, the role of the septic **designer** involves customizing a septic installation to the site limitations, and redesigning if the system has to be repaired, relocated, or replaced with a new type of system. The **installer** constructs the system based on the designer's specifications; the **pumper** services the tank with routine inspect-& pump maintenance.

Traditionally, Clallam County Environmental Health regulates these functions by reviewing and approving sites, designs, as-built drawings, conducting final inspections, and issuing all related permits.

Traditionally, the most important link in the chain has been lost, and that would be **you**, the homeowner. Too often out of the loop, a lack of communication and understanding sometimes brought septic confusion and glitches to someone's little piece of paradise. O.K., let's call some of them *Septic Horror Stories*.

We're here to change that. Won't you join us?



HAVE YOU SEEN MY SEPTIC ANYWHERE?

Let's say you're convinced: You'll service your septic. But now you might wonder exactly where it is. You're not alone. Sometimes, over time or with property transfers, they just seem to get lost down there, somewhere ... over there ... underground.

A big clue to finding & servicing your septic is the AS-BUILT. It's a drawing of your system in relation to your house—including that reserve drainfield area. Think Map. If the system's original designer submitted an as-built to the county when first installed (required since 1988) we'll have it on file. Call us and we'll look in your parcel-number and building-permit records.

Unfortunately, septic systems used to be completely buried as a matter of routine, with no access ports visible. So to inspect and pump, you had to dig up all the dirt and plants over the tank—or all over the yard—every time. Sounds as shortsighted as the Y2K computer glitch. What were we thinking?

All newly installed systems now have risers built in so they're accessible at grade. You can retrofit an older system with risers to make access easier.

Attractive garden ornaments can also mark components needing regular inspection—planters, bird baths or feeders, benches, sun dials, sculptures, or wishing wells. Much easier to move a marker than poke around the yard with a shovel, avalanche-style.

M.I.A. (MISSING IN ACTION)

If you can't find an as-built, and you're still looking out at your yard without a clue, find the sewer drainpipe where it leaves the house. A roof vent might tip you off. Following the angle of this pipe into the yard will give a good idea where to start looking. The septic tank is usually close to the house (about 10 feet) to reduce problems with solids clogging the sewer pipe, while the drainfield can be some distance from the tank to use the best soils.

After narrowing down the tank's general location, a 3/8-inch T-bar rod probed gingerly into the ground should eventually strike gold, usually from one to two feet below the surface. But best to hire a professional designer to do this tap dance: It's way too easy to probe through a water line or—worse—an electric cable, let alone puncturing an old, deteriorating septic tank.

When finally found, it'll take a bit of digging to uncover enough of the tank to find the lids. Do yourself a favor at this point and get risers installed to bring them up to finish grade, so you or your loved ones won't have to face this treasure hunt next time.

And because septic maintenance is ongoing, there will be a next time.

**NEED MORE HELP?
SEPTIC CLINICS AVAILABLE!!!**
Pre-register and we'll bring your
as-built to class.

Septic du Jour: What Type of System You Have & Why

A Dirt Foundation

The **soil type & depth** determine the type of septic you have. Not so long ago, systems and permits relied on gravity all over the place. People now build on marginal land for septic; all the good spots are taken. Properties developed today pose more problems from smaller lots, poorer drainage, steeper slopes, and less useable soil. The lights of night creep higher up our mountains, but with the great views come shallower soils.

The Incredible, Indelible Soil

Septic designers and county staff do on-site **soil analysis** to determine soil suitability, replacing the old posthole "perc test" (but the name stuck). It involves digging several very big soil pits deep enough to stand in. Think Backhoe.

Other information gathered in the initial site inspection include the home-site, lot size, lay of the land, land uses, zoning, soil conditions and variation, historic drainage patterns, vegetation, nearness to sensitive areas, as well as setbacks to surface waters, wells, and steep banks.

Together, soil conditions and number of bedrooms determine the size of your septic tank and the length & type of your drainfield. Soil type describes the size of the soil particles (clay, silt, and sand in varying blends) together with the size of the pores between particles. How fast the soil can absorb water or effluent depends on how big those pores are.

Suitable soils are deep, well-drained, and undisturbed. Any disturbance of the soil by grading, filling, clearing, or compacting will limit its ability to treat effluent.

The Saturation Zone

In the ground, the water table is the depth where soil pores are full of water. We can tell where that level is during the wet winters by looking at the water standing in a hole. In the drier months, "reading" the walls of a soil pit will give clues to where that restrictive wet layer is. Spots of gray or rusty orange **mottling** are the footprints left behind from a seasonally high water table. This is the soil's limiting depth for a drainfield.

Select a Septic

You need at least four feet of suitable native soil for a no-frills **Conventional Gravity System**. That's four feet down to the highest water table, hardpan, or other restrictive layer. Since that four feet of soil is essentially your

wastewater treatment plant, you want it to be four feet of good soil.

If you don't have four feet, or soils just aren't suitable, you'll need an **Alternative System**. The less suitable the soil, the more complicated the system.

As soil limitations or complexity of the system increase, so will cost, maintenance, and the potential for problems or breakdowns.

We first up the ante by adding a watertight pump chamber between the tank and drainfield. The **Pressure Distribution System** sets pumps to deliver a controlled amount of effluent over a controlled time, under pressure through smaller drainfield pipes, evenly, to get maximum coverage of the shallower soil. You still want it to be good soil.

As soils get even more shallow the stakes get higher. Without enough soil to provide adequate treatment, we need pretreatment.

One option is the **Mound System**. Without enough soil underneath, a mound piles it up above ground, pumping effluent uphill to a modified drainfield buried near the top of the long, low hill. This way effluent first trickles through two feet of special sand fill before entering the thin native soil below for final treatment and disposal.

The mound's main drawback is the large, telltale bump it leaves in your yard. There's no mistaking it, and little to disguise it. It's a septic mound, alright.

Opting for a **Sand Filter System** will bring instead a great big rectangular hole to your yard, framed in wood, lined with plastic, and covered with dirt or concrete. It contains an underground, self-contained, pressurized drainfield. After effluent trickles down through the sand filter it's collected again in uptake pipes along the bottom, then pumped out to a shallow drainfield in the yard.

Major advantage: Sand-filter pretreatment cuts the required drainfield area in the yard in half. This allows septic systems where property is cramped, like on a lakeshore. Sometimes, with some soils, you might even need a combination of sand filter and mound. The possibilities—and costs—mount.

Trade Secrets®

Other alternative systems use patented (so-called "proprietary") devices to help treat and dispose of wastewater on sites with very inadequate soils.

An **Aerobic System**, for example, pumps in oxygen to treat high-strength effluent (typical tanks work without oxygen). The **Upflow Gravel Filter** consists of a secret, trademarked drainfield



process inside an enormous, sunken, coffin-shaped box covered with what looks like a squared-off mound. It involves some sort of upward effluent wicking, leaving the sandy soils wet enough not to grow much of anything while posing quite an attraction to digging dogs. Also very expensive, but works with very shallow soils. Like up in the mountains, with those great views.

With even less useable soil, you could look at composting toilets or pumping off-site.

Food Served Here

While many food-service establishments rely on septic, restaurants pose additional challenges to on-site systems originally designed for domestic and residential uses. A commercial-kitchen operation will have a "high waste strength," sewage that's stronger than the typical household because it contains more oils, greases, food, and disinfectants. Installing a GREASE TRAP ahead of the tank helps keep a lot of this gunk out.

Another problem stems from the very health code intended to protect the public—sanitizing dishes with a hot-water wash. Sometimes so much water, and so hot, that dishwashing tends to stir up the tank solids and liquefy all those fats and greases. Prime time to flow along to the drainfield; only to congeal and clog.

The dishwasher is the first line of defense in a restaurant's septic system. Scrape foods into the trash. Conserve water at the sink and use cold when possible. Put in a large removable screen basket in the first rinse sink. Don't use a garbage disposal.

Watch those disinfectants, and check with your cleaning contractors to see what chemicals they're putting down your drains. Use the least toxic product that still does the job. Check labels; use only recommended concentrations. Remember, most anything toxic to humans would probably harm septic critters too.

Still, the best precautions in the world can't prevent septic problems if it wasn't designed to support operations as they exist today. If originally designed for another owner, different food, or a smaller business, that septic may no longer handle the load if the wastewater flow or strength is greater.

Get the effluent sampled and system performance analyzed (a simple solution may do the trick). Pump more often if the grease trap or septic tank is full when you do pump. Plan routine pumping right before holiday surge periods or your busy season.

Don't wait til the system fails and the kitchen closes.

Landscaping: Dress Up Your Drainfield!

In a long list of Drainfield Don'ts, there is a Big Do: grow something. Planting is preferred because it helps the drainfield with oxygen exchange and water evaporation.

They say a mowed lawn is really the best drainfield cover, but they aren't the ones looking at it, so they also suggest other plants. Bear in mind the key: **shallow-rooted, low maintenance, low-water-use plants**. And don't forget—this means your reserve drainfield too, so it will stay fit for drainfield replacement.

Think NATIVE SPECIES: plants adapted to the climate need less water and care, especially if drought-resistant. You want to minimize soil disturbance and avoid damage to pipes, so don't be doing a lot of digging around out there ... or watering ... or fertilizing. A septic system already works hard to dispose of its own sewage water and "fertilizer."

Any plants chosen should not have roots that take over. So nix the trees and bushes. Even tall trees around the edges of the drainfield can block sunlight and wind currents—everything that helps wick water away.

Use plants as barriers to keep traffic from compacting your soils. Think Access & Attractiveness. If your septic tank covers are still buried, your plantings over the tank will get dug up every couple years just for inspection and pumping.



STRAWBERRY DRAINFIELDS FOREVER

STRAWBERRY DRAINFIELDS FOREVER

Actually, growing strawberries over your drainfield would be a bad idea, since you don't want to eat anything that's been nourished with effluent. Yuck. No vegetable gardens either. But that still leaves lots of options to consider, and all of them pretty.

Plant low-maintenance native groundcovers or a colorful wildflower meadow. Maybe unmowed meadow grasses, ferns, shallow-rooted perennials for a cutting-flower garden, some spring bulbs, even a lawn.

Check out the back page for sowing ideas, or talk to a local nursery, cooperative extension, or master gardeners to find other well-suited plants to help dress up your drainfield. Be creative, but be careful!



STRAWBERRY DRAINFIELDS FOREVER

You can
AVOID PROBLEMS
by maintaining
a healthy system
from the beginning.

LIGHT'S OUT: Your Septic Without Power

With the fridge, the freezer, the TV, and the computer to worry about, who thinks about the septic when the power's out?

Think about this: Unless yours is a conventional gravity system it has a pump involved. An electric pump. Without the pump, the tank's still filling up with nowhere to go. If the outage lasts long enough, a full tank could back up into the pipes and drains of your house.

So when the power fails, it's absolutely critical to CONSERVE WATER. Hunker down. Bite the bullet. Keep thinking Sewage In Drains.

When the juice is back, high-water alarms may sound because the water in the tank is ... well, high. You don't want to dump that big load into the drainfield all at once and flood it.

So when the power's on, help your system catch up. If you have a timer system, it'll recover—over time—by itself. Help it out by conserving water another day or more. If your system works "on demand," switch the pump off while the power's out. When back on, become a "human timer." Turn it on for a couple minutes, then shut it off and rest the system for 4–6 hours before turning it on again. Repeat. And again. Until the pump turns itself off before the 2-minute cycle to show it's caught up.

Help! My Septic's Failing & It Can't Get Up!

If your septic's failing but you just can't fix it now, you absolutely must seriously limit water use & relieve stress on the system. If it's clogged, plugged, & saturated, it just can't take it anymore!

Remember, if disease-bearing sewage is surfacing, rope or fence off the area to prevent animals & people from walking in it.

Severely limiting water is a temporary measure. If your septic is failing, there is no dinking around!

Get it fixed???

LOCATION, LOCATION, LOCATION

As in real estate, these could be the Three Most Important Factors regarding your septic: knowing where it is!

Knowing the history and location of your septic will help in planning your life and property: where to build the house, adding on porches, decks, and additions, even tilling a new garden. You could invite expensive repairs if the tank or drainfield lurks hidden just beneath the surface.

Speaking of real estate ... if you're looking to buy, know the site's septic limitations before you buy the property. A large number of sites are suitable but limited, and that can translate into the need for expensive and elaborate systems—costing more than \$10,000!!

It's not how big the property is; it's whether there's enough available area with suitable soils for the septic and reserve area, while still allowing for all setbacks.

WHY BOTHER?

Let's recap. Didn't you pay a lot of money to professionals so you wouldn't have to deal with this? If you've just spent \$13,000 on a state-of-the-art septic system, why can't you ride that thing til you die? Why bother?

Well, because all systems are designed to operate with routine maintenance. Like a car. Because you, the system owner, may have long been out of the loop but that was then & this is now. You are in fact the critical link to your septic's continued success.

Because it typically costs \$6,000–\$14,000 to replace a failing septic with a new, alternative type of sewage disposal system, which you will likely need pieces and parts of if yours fails.

Because a well-functioning system protects the health of your family, neighborhood, and environment. Because contact with untreated human waste and wastewater can make people sick and contaminate nearby wells, groundwater, and drinking water sources.

Because it protects the financial investment you have in your home and neighborhood. Because a failed septic system can bring declining property values, denied building permits, and delayed real estate sales until repaired or replaced.

And because the State Board of Health's new rules and regulations (WAC 246-272-15501) create new responsibilities for homeowners to maintain systems, and for local health departments to educate system owners and monitor system performance, particularly in areas of special concern.

The responsibility for proper, timely maintenance falls squarely on you.

We're here to help.



Septic Care

✓ Do

- ✓ Know where your septic is, & protect it!
- ✓ Inspect system (+ tank levels) annually.
- ✓ Pump tank regularly
(every 3–5 years, or when solids fill 1/3 of tank).
- ✓ Use water wisely.
- ✓ Go easy on the garbage disposal
(use compost or trash).
- ✓ Keep vehicles off tank & drainfield areas.
- ✓ Plant grass—or other very shallow-rooted plants—over drainfield **AS SHOWN ON THIS PAGE!***
- ✓ Keep deep-rooting, water-loving plants—especially trees & shrubs—away from all components (they can invade pipes & damage system).
- ✓ Reduce water use: **USE COMMON SENSE!**
 - use low-flow faucets, showers, toilets
 - run & drain appliances one at a time (dishwasher, washing machine)
 - spread laundry over entire week & avoid partial loads
 - showers use less water than baths
 - limit shower length & turn water off when lathering
 - fix all faucet & toilet leaks promptly
 - turn water off while brushing, shaving, or rinsing.
- ✓ Drain water from hot tubs onto ground, away from drainfield, and not into storm drain or surface waters.
- ✓ Use phosphate-free detergent, & only manufacturer's recommended amount.
- ✓ Direct runoff from roofs, streets, driveways, & adjoining properties away from drainfield.
- ✓ Divert subsurface water movement with curtain drains (placed so as not to pick up sewage effluent).
- ✓ Keep any irrigation (sprinkler) system at least 10 feet from edge of septic system (water lines should never cross open sewer lines).
- ✓ And did we say, Conserve Water?
- ✓ Locate your as-built, or map location of all septic parts.
 - ✓ Keep accurate, detailed records (inspections, pumping, repairs, servicing professionals, etc.).
 - ✓ Keep septic tank lids easily accessible (install risers).
 - ✓ Pass along all septic records & information to new owner or tenant of property.
 - ✓ Save loose change to cover future septic service.
 - ✓ Display this list to clue in your family, guests, or patrons who use your septic system.

* Pictured plants are sample groundcovers, wildflowers, bulbs, grasses, flowers, & ferns suitable for drainfield & reserve areas.

✗ Do Not

- ✗ Use garbage disposal (solids & grease into system may lead to drainfield failure).
- ✗ Drive/Park vehicles or heavy equipment (including boats!) over drainfield or reserve drainfield (nothing bigger than a riding lawnmower).
- ✗ Use tank additives or "miracle" system cleaners.
- ✗ Flush non-biodegradable solid wastes:
 - diapers • cigarette butts • coffee grounds • tampons
 - sanitary napkins • condoms • grease • oils • paper products other than t.p. • plastics • bones • kitty litter.
- ✗ Pour strong chemicals, like cleaning products, down drain (household hazardous wastes can destroy septic critters + contaminate groundwater & surface water):
 - ✗ drain cleaners ✗ solvents ✗ paint & paint thinners
 - ✗ floor & sink cleaners ✗ excessive amounts of bleach
 - ✗ motor oil ✗ antifreeze ✗ pesticides ✗ photo chemicals.
- ✗ Discard medications (like antibiotics) or anti-bacterial products down drains ("anti" = kill critters)
- ✗ Plant trees, shrubs, or vegetable garden over drainfield (poplar, willow, lilacs, & root vegetables really bad).
- ✗ Work the soil (some septic parts just 6" under).
- ✗ Run storm drainage into septic system.
- ✗ Drain water from hot tubs into system (water overload + chlorine bad for septic critters).
- ✗ Drain (or allow backwash from) water softeners or conditioners into system.
- ✗ Compact soils of drainfield or reserve area *in any way*, by:
 - building patios, carports, decks, additions, sports courts, or storage sheds over any part of septic system (also prevents access; can still be a problem if downslope from drainfield & blocks normal drain pattern);
 - grazing livestock.
- ✗ Cover drainfield or reserve area *in any way* (retains moisture + reduces oxygen exchange), by:
 - using landscaping plastic or fabric, gravel, bark, or other mulch
 - paving asphalt or concrete
 - adding more than enough topsoil to support shallow-rooted plants or
 - setting up a swimming pool.
- ✗ Allow driveways to cross over sewage system.
- ✗ Grade, level, fill, or cut drainfield or reserve.
- ✗ Install sprinkler system in drainfield.
- ✗ Plant water-loving plants over drainfield (watering will saturate soils and foil system's design to treat, evaporate, & disperse wastewater).

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