



Large On-site Sewage Systems Signs of Failure

What are signs of large on-site sewage system failure or malfunction?

- Water and sewage from toilets, drains, and sinks are backing up into homes or other buildings.
- Bathtubs, showers, and sinks drain very slowly.
- Gurgling sounds coming from the plumbing system.
- Standing water or damp spots near the septic tank or drainfield.
- Bad odors around the septic tank or drainfield.
- Bright green, spongy, or lush grass over the septic tank or drainfield, even during dry weather.
- Algal blooms in nearby ponds or lakes.
- High levels of nitrates or coliform bacteria in nearby water wells.

Like most components of a home Large On-site Sewage System (LOSS) require routine maintenance. If maintained, the system should provide reliable service for many years. If you don't maintain your LOSS, you run the risk of dangerous and costly failures. LOSS do have an operational lifetime and will eventually need to be replaced.

A failed or malfunctioning LOSS is a risk to human and animal health and can pollute the environment. The owner responsible is alert to the signs of failure, regardless of the age of the system and responds quickly when any are discovered. A quick response may save you money in repairs and may prevent illness and negative impact on the environment.

What do I do if I have or suspect a failure?

You should immediately notify our Department of Health LOSS program if your LOSS has any of the signs of failure noted above. Our contact information is below. We will help direct your response.

You must not allow people or animals into the area of failure if effluent is surfacing. Post the area and cordon it off. You may cover the wet areas with dirt, lime or compost (but never drive on the Drainfield).

You should contact your service provider or design engineer to help trouble shoot and/or repair the problem.

You should let your customers know to reduce water use – and to avoid the area. Anyone cleaning up back-ups in buildings/homes should use protective gear (such as gloves), and thoroughly wash any parts of the body that encounters sewage. In some cases, a plumber will have to deal with the problem.

What happens when a large on-site sewage system fails?

A LOSS failure causes untreated or partially treated sewage to be released and transported to where it should not be. You may see sewage coming to the surface of the ground around the tank or in the drainfield or backing up in building pipes. Sewage could also find its way into groundwater, surface water, or marine water without ever seeing it. Because it carries pathogens and other dangerous contaminants and exposure can make people and animals sick. Untreated and partially treated sewage can also contaminate water sources and make them unsafe for drinking, swimming, shellfish harvesting, and agricultural uses.

What are some common reasons a LOSS doesn't work properly?

Some or all pipes from buildings to the tank are clogged.

When this happens, building drains drain very slowly (perhaps slower on lower levels of the building) or stop draining completely. This is often an easy problem to fix. Usually, a service provider can "snake the line" and get it unclogged. Customers may also experience this in their own sewer pipes. They can prevent their own and LOSS clogged lines by flushing only human waste and toilet paper down the drain ("pee, poo, and paper"). Sometimes sewer pipes get crushed or broken by vehicles or animal traffic. Plant roots sometimes block the pipes (particularly on older systems). Fixing a crushed or root damaged pipe will require replacing at least a portion of the line.

Inlet baffle to the septic tank is blocked.

This failure is very similar to when the inlet pipe from the house to the tank is clogged. If you have access to your inlet baffle opening, you can check to see if there is a clog. If you see toilet paper and other debris, you can try unclogging it using a pole. Be mindful not to damage any of the LOSS components. A service professional should be contacted for this relatively easy and low-cost fix. Remind your customers to only flush human waste and toilet paper.

Septic tank outlet baffle or effluent filter is clogged.

This may result in sewage backing up into building(s), or possibly surfacing near the septic tank(s). This issue may be a sign that the tank is receiving too much water, possibly in a short amount of time. The effluent filter must be cleaned off or replaced. If there is no effluent filter, fixing this issue will probably require getting the tank pumped to identify and remove the clog. The effluent filter must be routinely cleaned as part of your regular maintenance routine.

Drainfield has failed.

When the drainfield fails, or is saturated with water, sewage may back up into the septic tank and eventually into connected buildings. Frequently, wet or soggy areas will develop above or near the drainfield. You may see spongy bright green grass in these same areas. There may also be odors near the tank or drainfield. This may be the end of life for this component of your LOSS. Perhaps the system was operated inappropriately and too much solid material made it to the drainfield causing it to fail prematurely. Or maybe the system worked for many years and simply has no more capacity to accept waste.

If too much water saturated the drainfield because large amounts of water are being discharged from customer connections or storm or flood water is draining onto the drainfield, it's possible that the drainfield can be dried out and rehabilitated.

Your qualified operator should assess the situation. Your design engineer may recommend modifications to prevent future failure from excess water, or ways to replace the drainfield. You should consider connection to public sewer for the whole system or by each LOSS customer, if it's available.

There are other reasons a LOSS can fail or malfunction. If your system isn't working properly, your operator or maintenance provider should investigate. If a significant change or replacement is needed, your engineer must work with the Department of Health to design the repair or replacement.

How can I prevent a failure?

Routine maintenance and proper operation will help your LOSS have a long and trouble-free life. If it's been properly designed, sited, and installed, the rest is up to you – and to those connected to the system. Make sure customers know what can and can't go down their drains and toilets.

Can my failing LOSS contaminate the water?

Yes, a failing system can contaminate well water and nearby waterbodies. Untreated wastewater is a health hazard and can cause many human diseases. Once this untreated wastewater enters the groundwater, you and your neighbor's wells can be contaminated. If the sewage reaches nearby streams or waterbodies, shellfish beds and recreational swimming areas can be contaminated.

For more information visit our website at www.doh.wa.gov/loss or contact the LOSS Program at 360-236-3330 or wastewatermgmt@doh.wa.gov.

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