VERMONT
DEPARTMENT OF HEALTH

THO Manual: THO's Role in Onsite Wastewater Systems

June 2024

The town health officer's role is to respond to complaints of failing or malfunctioning wastewater systems to protect public health. THOs investigate, seek voluntary compliance to address the issue, and take enforcement action if voluntary compliance is unsuccessful.

Health Concerns of Malfunctioning Wastewater Systems

Onsite wastewater systems (sometimes called septic systems) help protect human health and the environment by treating the wastewater (sewage) before it reaches groundwater or surface water. Household wastewater from sinks, toilets, washing machines and showers carries dirt, soap, food, grease and bodily wastes out of a home. In Vermont, it is estimated septic systems serve 55 percent of the population.

Wastewater carries disease-causing microorganisms called pathogens, which is why soil-based systems are designed to minimize human contact and therefore minimize illness. However, if the system malfunctions or fails and the effluent from these systems surfaces, pathogens and/or nutrients can interact with humans and animals directly or reach surface waters, causing public health concerns as well as the degradation of the quality of lakes, ponds and streams.

KEY POINTS

- **The THO's role is to respond to complaints of failing or malfunctioning wastewater systems that pose a public health hazard by investigating, seeking voluntary compliance to address the issue and taking enforcement action if voluntary compliance is unsuccessful.**
- **The THO can work with the Department of Environmental Conservation's Drinking Water and Groundwater Protection Division or Enforcement Officers.**

Wastewater System Basics

There are different types of onsite wastewater systems, including some innovative alternative designs that are currently approved for use in Vermont.

In general, all systems are composed of the following three components:

1. The septic tank, which separates, retains solids and scum from the effluent and begins to treat the wastewater.
2. The distribution system, which conveys septic tank effluent to a leach field.
3. The leach field disperses the effluent to the soil for treatment by natural physical, chemical, and biological processes.

Homeowners are responsible for the maintenance, operation, and protection of their onsite wastewater systems. This includes regular pumping of the septic tank to remove the solids and scum that have accumulated and protecting the drain field by not compacting the surrounding soil or damaging pipes (by not driving vehicles, paving, or planting trees/shrubs in the area). In addition, water uses more than a system's design capacity—or improper disposal of solid wastes or chemicals down the drain—can lead to inadequate wastewater treatment or system failure.

Role of the Town Health Officer

The THO's role is to respond to complaints of failing or malfunctioning wastewater systems to protect public health. 18 V.S.A. § 613 defines the THO's and local boards of health's jurisdiction over sewage disposal "includes emergent conditions which create a risk to the public's health as a result of sewage treatment and disposal or its effects on water supply… …The board may act to abate nuisances affecting public health caused by the failure of a sewage disposal system to (1) prevent surfacing of sewage and creation of a health hazard; or (2) prevent the pollution or contamination of drinking water supplies, groundwater and surface water; or (3) maintain sanitary and healthful conditions during operation." However, 18 V.S.A. § 613 states that local boards of health do not have the power to adopt ordinances, rules, or regulations relating to design standards for on-site sewage disposal systems.

Investigating a Potential Wastewater System Issue

When alerted to a potential sewage problem, a THO's first step is to investigate immediately. Wastewater system problems are easy to identify. Some of the most common problems are slow flushing toilets, foul odor, lush green grass, water puddling near the septic tank or drainage area, and/or slow drainage or backup of sinks, toilets or floor drains. The appearance of one or more of these situations could indicate the failure of the pipes, septic tank or leaching area.

A failed wastewater system must create a risk to public health or a public health hazard for a THO to take enforcement action. Examples of public health hazards include:

1. Wastewater or effluent is surfacing on the ground or is draining into nearby surface water.

2. Wastewater or effluent is backing up into the sink, toilet, shower or basement in a rental property.

3. Grey water, which is waste from sinks, showers or washing machines, is surfacing on the ground or draining into nearby water.

If wastewater or effluent is backing up into a private (owner-occupied) home and is not surfacing on the ground outdoors or creating a public health hazard, the THO would not have jurisdiction to act. This would be considered a private health hazard. However, they could assist the homeowner in obtaining services to diagnose the problem and ensure that they work with the proper State officials to obtain permits if system repairs are needed.

Diagnosing a Problem

In determining whether a wastewater system is malfunctioning or failing and posing a public health hazard, the THO should investigate in the following manner:

1. In the basement or crawlspace, locate the large pipe that goes to the septic tank. The location of this pipe will give an idea of the general location of the septic tank.

2. Check any low spots, embankments or ditches that are in the area. Surfacing effluent will usually become evident in a low area near the leach field.

3. Check for brush piles, junk piles, compost piles or fresh piles of dirt or gravel near the components of the wastewater system. These are sometimes used to cover up problems.
4. Check for the end of pipes that may be exposed. These may be coming from sinks or washing machines or overflows from septic tanks ("straight pipe disposal").
5. Look for areas of lush, green vegetation that stand out as compared to surrounding vegetation. This may not always indicate a failure but highlights areas for further investigation.
6. Inspect any bodies of water nearby for pipes or drainage ditches (streams, ponds, rivers).
7. If there is a question of whether a system is failing, where the wastewater is coming from, or whether a system is contaminating a surface water source reach out to the Department of Environmental Conservation Enforcement Officers or Regional Engineer, or you may reach out to a local licensed wastewater system designer for assistance.

Responding to a Failed or Malfunctioning System

Once a THO has determined that a wastewater system is malfunctioning or failing and creating a public health risk or public health hazard, they should take the following steps immediately:

1. **Voluntary Compliance:** THOs should inform the property owner (or responsible party) of his or her findings and request immediate voluntary compliance from the owner to stop the system failure or malfunction. This should include requiring the owner to:
    a. Have the septic tank pumped within 24 hours, monitored and continued to be pumped as necessary to avoid failing again – until the system has been permanently repaired.
    b. Spread lime and straw and install temporary fencing around the area of surfacing sewage.
    c. If the backup is inside, the affected area should be cleaned thoroughly and disinfected. A plumber may be needed to "snake" the pipeline from the house to the septic tank.
    d. Contact a licensed wastewater system designer to assess and determine the repair necessary to correct the system's problems. Unless the repair is a minor repair as defined in the Wastewater System and Potable Water Supply Rules, the landowner will need a permit from the Department of Environmental Conservation prior to making any repair.
2. **Enforcement:** If it is apparent that the owner (or responsible party) will not voluntarily comply with the THO's requests, the THO should initiate an appropriate enforcement action. If the THO determines that the wastewater or effluent presents an imminent and substantial significant public health risk, the THO should issue an emergency health order to ensure that the problem is quickly rectified. The emergency health order should

direct the owner to address the situation immediately and to take the actions outlined in the voluntary compliance section above.

3. **Notify Other Authorities:** Although THOs may have authority in an event involving a failing system, the Department of Environmental Conservation also has jurisdiction over all wastewater systems. Consequently, if a wastewater system is failing, the THO should contact the regional office of the Department of Environmental Conservation for referral and assistance. The environmental enforcement officer may be interested in performing a joint inspection with the THO or may decide to follow through on their own with the situation.

Contact:

Contact information for the Department of Environmental Conservation's Drinking Water and Groundwater Protection Division can be found at WasteWater.vt.gov.