




# Module 2

## Overview of Management



# Learning Objective

1. Explain safety and land use issues related to OWTS
  2. Describe the needed maintenance with your OWTS
- 



## Risk with Septic Systems

- Gases produced are flammable and hazardous to humans in high levels
- Wastewater contains pathogens which make people sick
- Tanks in systems can contain 4 or more feet of water which child, pets and even adults could potentially drown in
- Tanks and other components could collapse if driven over with heavy equipment





## Safety – Rules to Protect your Family and Pets

1. Never enter the septic tank
2. Do not smoke or have a fire near septic tank openings
3. If wastewater is on the surface the issue must be corrected
4. Do not use electrical tools near the water or wet ground as it could cause a shock or explosion
5. Keep vehicles and other heavy equipment off the OWTS
6. Assure all lids are secured in place to prevent entry at all times



# Hiring a Qualified Professional

- Operation and Maintenance Service Provider is trained and typically licensed to:
  - Clean out tanks
  - Service advanced treatment systems
  - Evaluate soil treatment area
  - Make repairs
  - Sample systems
  - Report results to the permitting authority when required



**EPA Video: Protect It and Inspect It!**





## Septic Tank Maintenance

- Every 1 – 5 years the septic tank should be evaluated for the need for tank cleaning/pumping
  - Interval is dependent on size of tank, water use and habits within the home
- Solids must be removed to prevent them from potentially
  - Overloading advanced pretreatment or soils treatment area
  - Backing wastewater up into the structure or causing surfacing or both

# Septic Tank Maintenance Cont'd

- There are devices to measure the sludge and scum in the tank
- Tank cleaning needed when more than 25% of the tank is storing sludge and scum
- When tank is cleaned, backflushing and/or stirring is needed to mix the tank contents and get the sludge off the bottom





# Tank Cleaning with Correct Access

- Tank must be cleaned through a large manhole ~20 inches
  - May require digging up the access
  - Recommended to be at grade
  - 4 - 6 inch inspection ports should not be used





**EPA Video: Pump Your Tank!**



# Effluent Screen Cleaning

Screen is washed off directly into the septic tank

Interval may be more frequent than tank cleaning (such as every 6 months)

This is being done at the inlet end of the tank to protect against debris going directly out the outlet







# Septic Tank Cleaning Report

- The service provider/pumper should provide a report of including:
  - Amount of sludge and scum
  - Any tank leakage
  - Any safety concerns with tank access
  - Troubleshooting or repairs needed or conducted
- Request a report if you are not given one



## Additives: Not Needed

- OWTS additives, to date, have no third-party research to support their effectiveness
- They are marketed in the follow ways:
  - Starters → Bacteria are abundant in existing wastewater
  - Feeders → Wastewater contains a lot of food for bacteria
  - Cleaners → Some regulations BAN the use of these products in OWTS as they may move solids out of septic tank that should be settled out



# Advanced Pretreatment General Maintenance

- Typically evaluated every 6 months to annually
- A sample of the effluent is collected and either a visual or laboratory test is performed
- Reporting to permitting authority may be required
- Check of soil treatment area or discharge





# Typical Maintenance of ALL Soil Treatment Areas

- Professional will evaluate:
  - Surfacing of effluent
  - Depth of ponding in inspection ports
  - Signs of traffic over the system
  - Excessive surface water collecting over the system
  - Inappropriate vegetation growing over the system

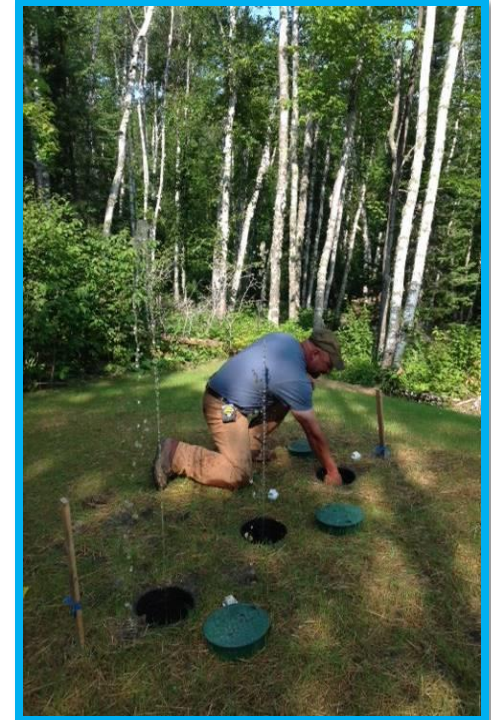
# Typical Maintenance with GRAVITY Distribution Systems

- The distribution device (header, drop or distribution boxes) should be:
  - Opened
  - Cleaned as needed
  - Adjusted to ensure equalized flow to the various lines



# Typical Maintenance of PRESSURE Soil Treatment Systems

- Evenness of distribution confirmed
- When cleanouts are available the pipes are flushed and cleaned when needed







# Typical Maintenance of Pumps and Controls

- During maintenance confirm that pump is:
  - Working and set appropriately
  - Accessible/replaceable
  - Elevated
  - Alarmed
- Tank with pump may need cleaning if sludge present
- Recording of run times/cycles on pumps when available and determination of flows



# Record Keeping



Some jurisdictions require that a report must be submitted to them when service is performed on the system



It is wise to keep records of your system's design, installation, and service reports



The permitting authority may keep a copy of these records but having a copy for yourself can be helpful if problems arise or when you sell your property



# Quick Tip #3

## KEEP IT CLEAN!

EPA Video – Test your Private Well



# Private Well - Have it Tested

**Protect your health!**

Test your well water for:



**Coliform Bacteria**

(Every year)



**Nitrate**

(Every other year)



**Arsenic**

(At least once)



**Lead**

(At least once)



**Manganese**

(Before a baby drinks the water)

Testing is even more important if young children drink the water.



Rural  
Community  
Assistance  
Partnership



# Conclusion of Module 2

**QUESTIONS**

***INSTRUCTOR NAME***  
***CONTACT INFORMATION***

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