# Homeowner Training for Onsite Systems

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Chaparral, NM
Public Meeting
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# An EPA Border 2012 Project

## Prevention of Groundwater Contamination

Hosted by:
Valecia Gavin
Border Environmental Health Coalition, Inc.

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Southwest Consortia for Environmental Research & Policy
New Mexico State University

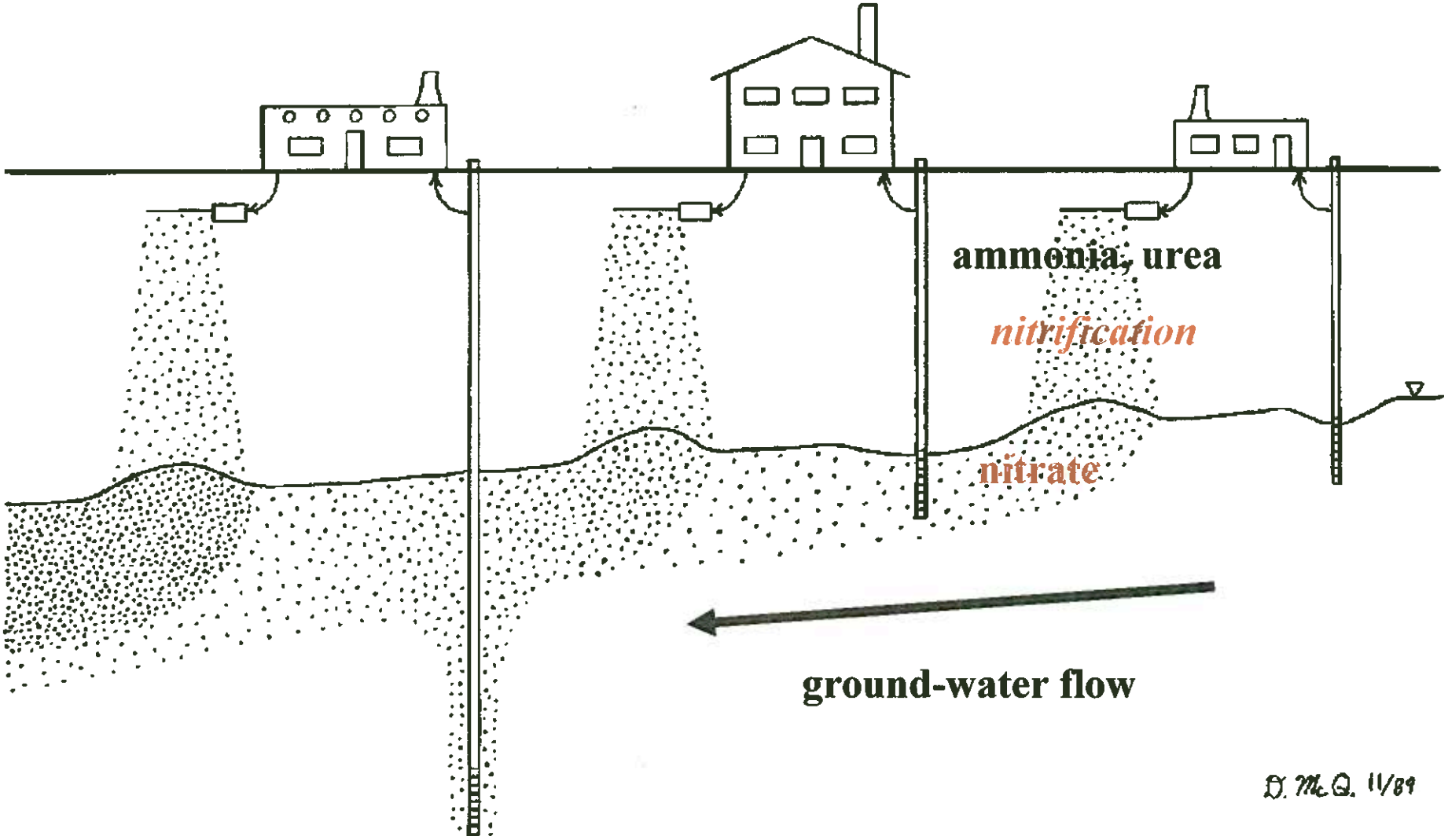
**Why do we care about septic tank systems in the community?**

It may be 10 years or more before the entire community has sewer.

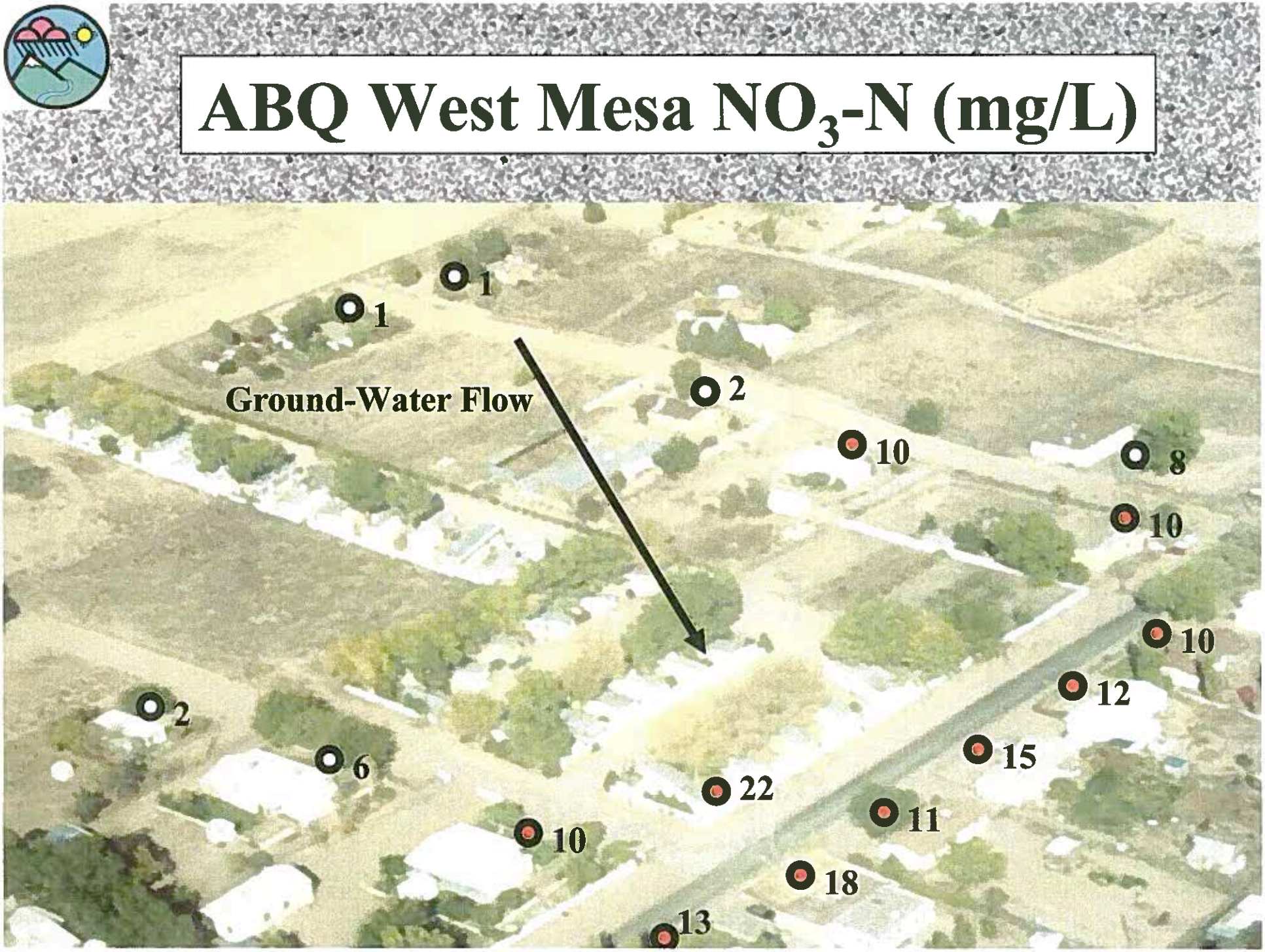
Septic tanks if not properly managed and maintained can contaminated your drinking water source.

Maintenance is critical to system life.

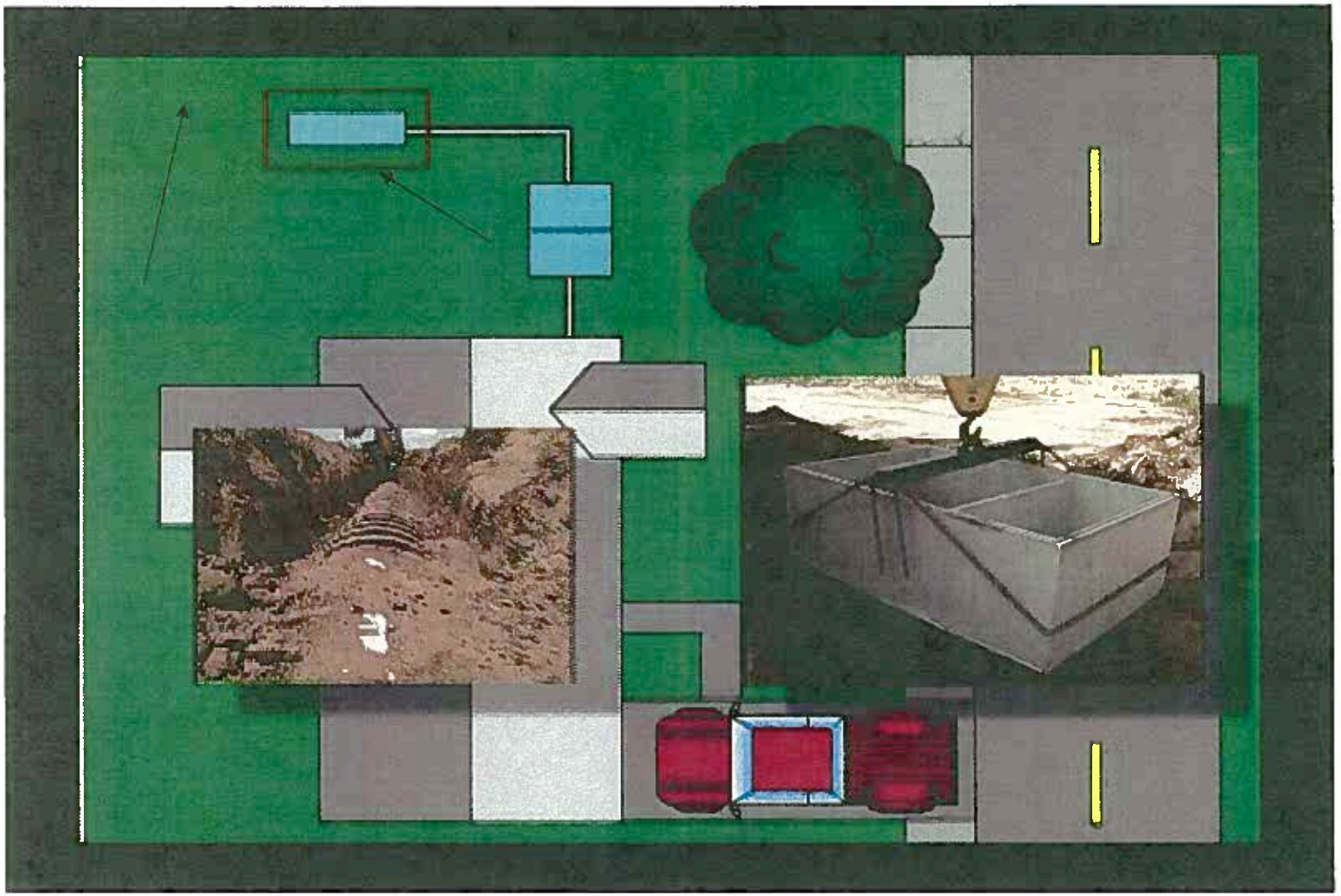
# Drinking Your Neighbor's Sewage

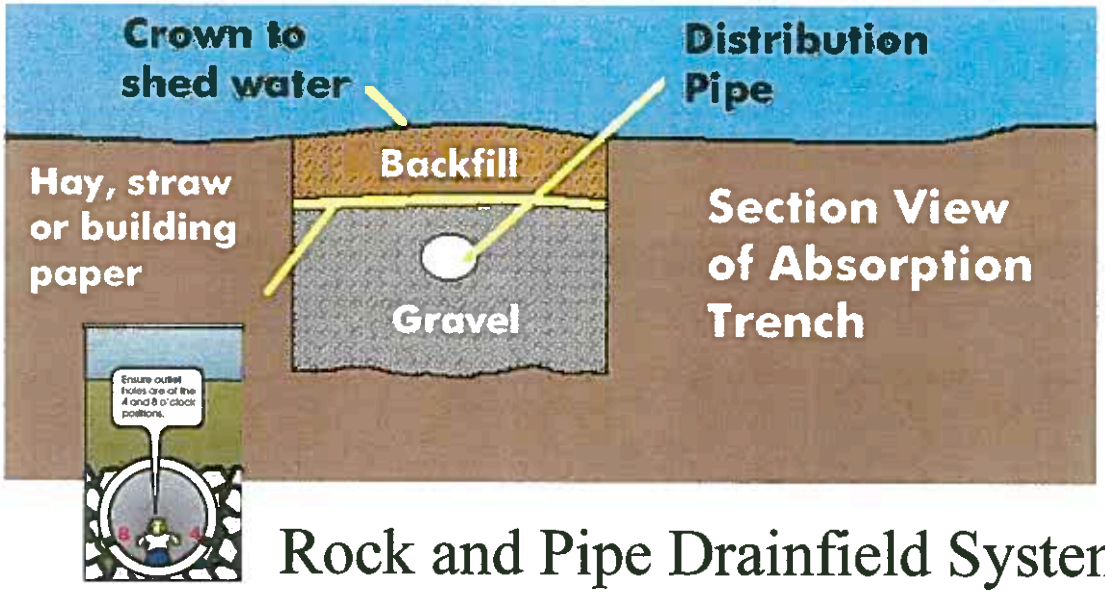


# ABQ West Mesa $NO_3$-N (mg/L)

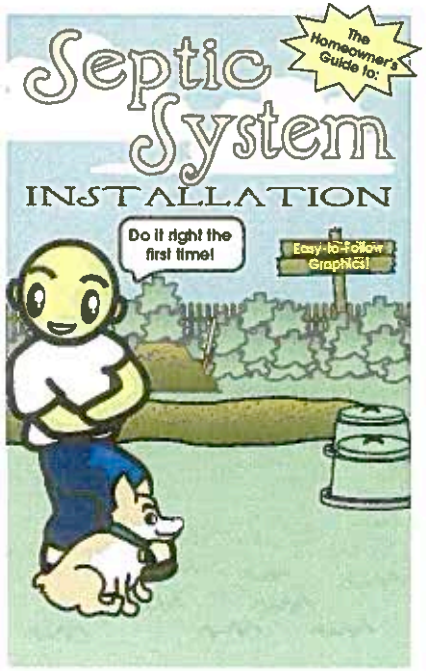


# Overview of the Septic System

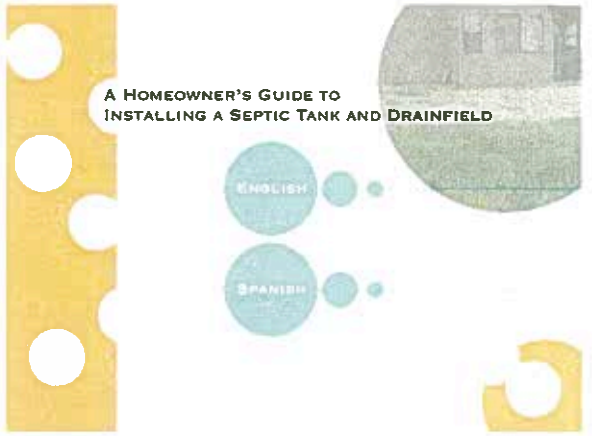





# Rock and Pipe Drainfield System








These documents can be

At almost any level the documents shown here will help the layman make better decisions.

# How the new regulations impact YOU!

# Changes Effecting You

- Your Property
- Selling or Buying a property

# Your Property

- Newer Lots (created after 1990)
  - No change to minimum lot size of 0.75 acre for lots platted 2/1/90 or later
  - 3 bdrm – 0.75 acres
  - 4 bdrm – 0.90 acres

# Your Property

- Older Lots (created before 2/1/1990)
  - Old rule allowed conventional septic systems on lots less than 0.75 acre if platted prior to 2/2/90

# Your Property

- Older Lots (New Rules)
  - New rules apply to Lots without on-site liquid waste systems
  - New rules apply to lots 1/2 to 3/4 acre
  - No change to lot size requirements for developed lots with existing systems, if design flow not increased

# Your Property

- Older Lots (created before 2/1/1990)
  - No septics on lots smaller than 0.5 acre
  - No septics on lots smaller than 0.75 acre in areas with depth to ground water 100 feet or less, or within 200' of public well
  - Must have non-discharging system or Advance treatment system

# Your Property

Older Lots ( ½ to ¾ acre)

Sunset Provisions for 101-600' Depth to Ground Water:

- Lots with on-site wells, not within 200' of public well have until Sept 1, 2008 to get septic systems
- Lots with public water system, not within 200' of public well Sept 1, 2010 to get septic systems

# Your Property

## Older Lots

Greater than 600' Depth to Ground Water:

Minimum lot size of 0.5 acre, no sunset provision

# Selling or Buying Property

- Prior to the sale/transfer of a property, the current owner is required to have the liquid waste system inspected and evaluated
- Inspection report must be filed with NMED

# Selling or Buying Property

Required Steps

1. Find the permit for your system
2. **If permit found**, hire a licensed contractor to do the inspection. Contractor must have MM-1, MM-98, MS-1, MS-3 or a NAWT or PE certification

# Selling or Buying Property

4. Contractor submits inspection report to NMED
5. If system passes inspection, your done
6. If system fails inspection, system must be repaired

# Selling or Buying Property

Required Steps

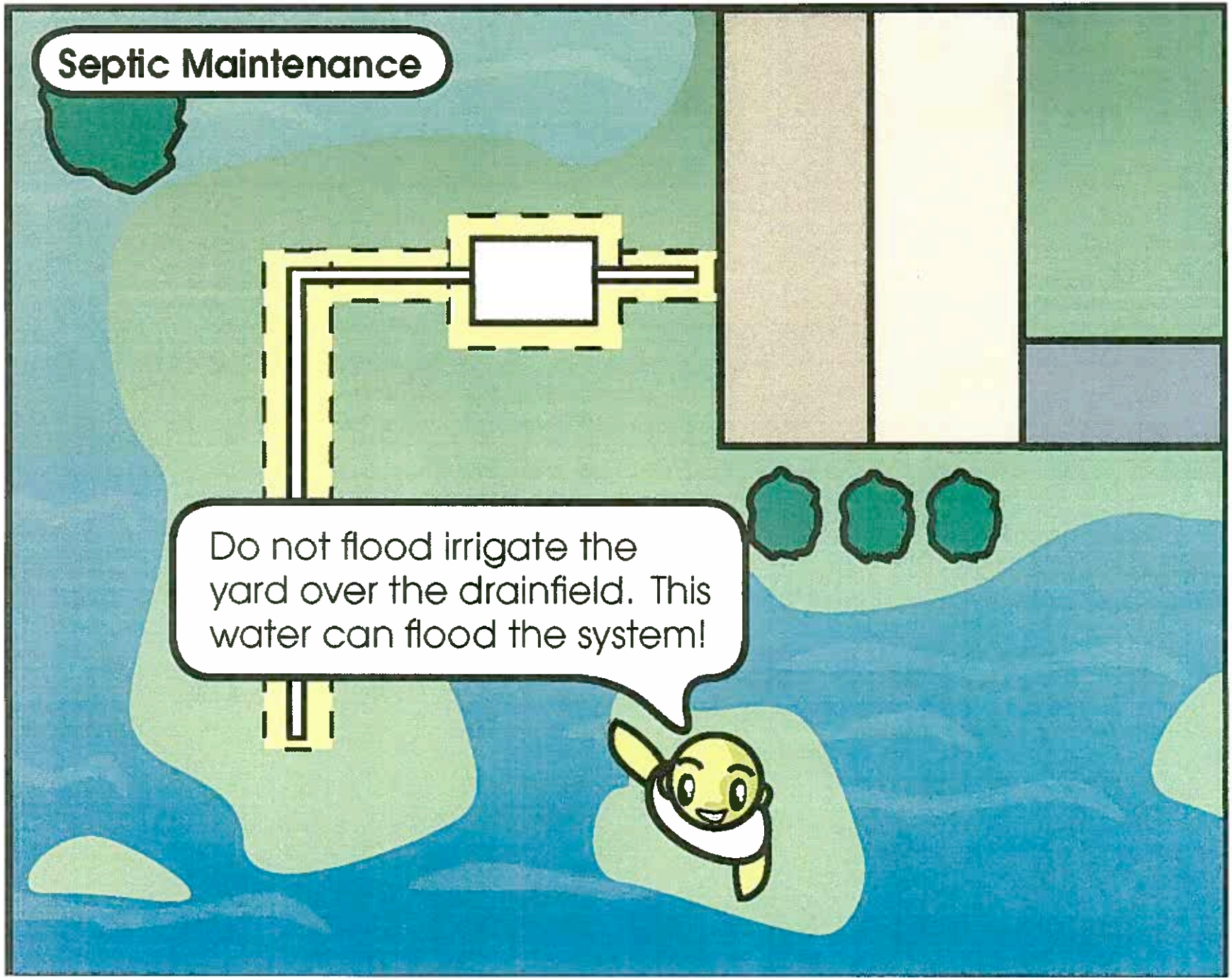
1. **Permit is not found**
2. Must apply for certificate of registration with NMED
3. System must be inspected and registered together

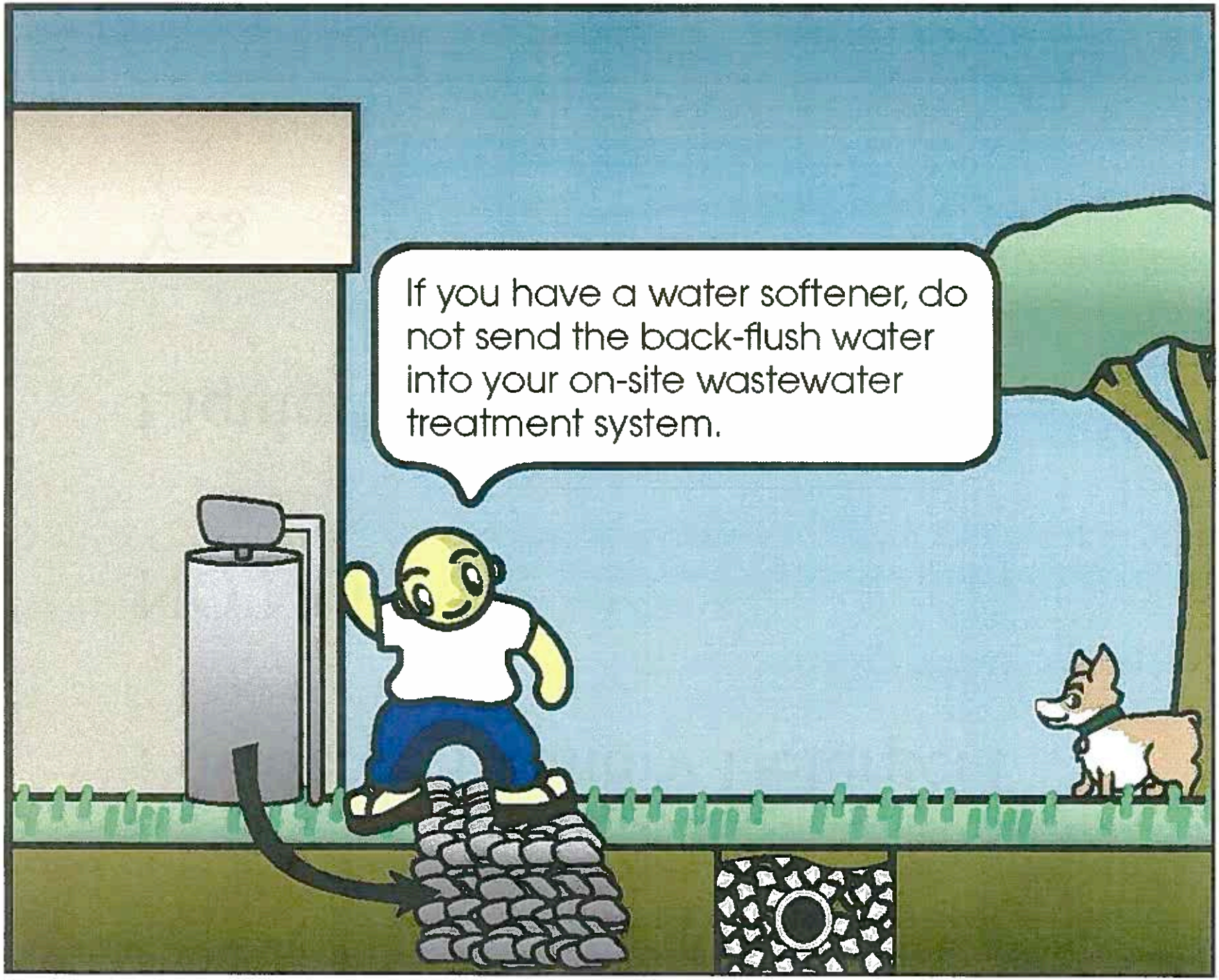
# Selling or Buying Property

Required Steps

4. If system passes inspection, registration approved, your done
5. If system fails inspection, system must be repaired

# How to make your system LAST LONGER.


Septic Maintenance
Do not flood irrigate the yard over the drainfield. This water can flood the system!


If you have a water softener, do not send the back-flush water into your on-site wastewater treatment system.

Powdered Laundry Detergent

NO NO

Liquid Laundry Detergents

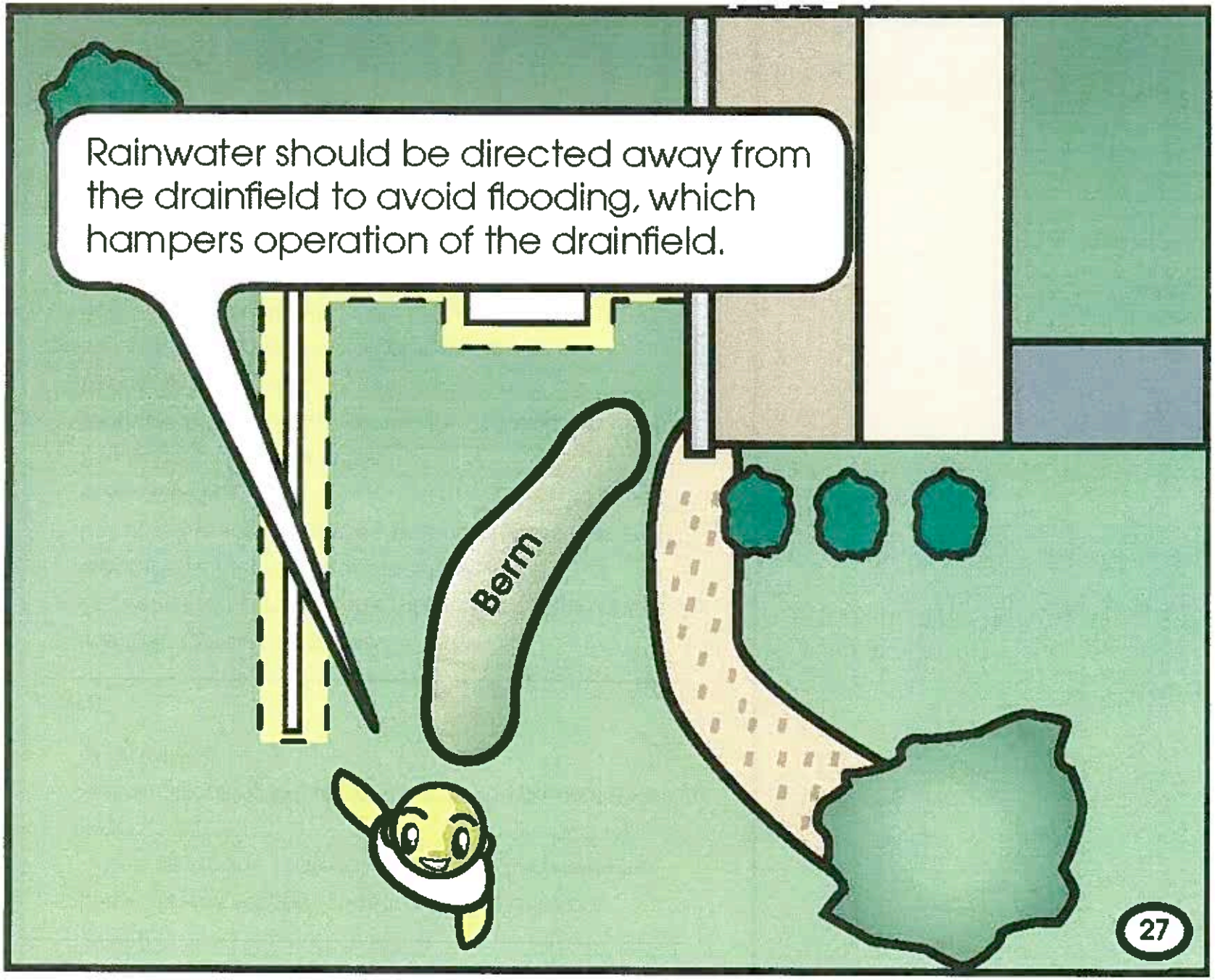
Yes

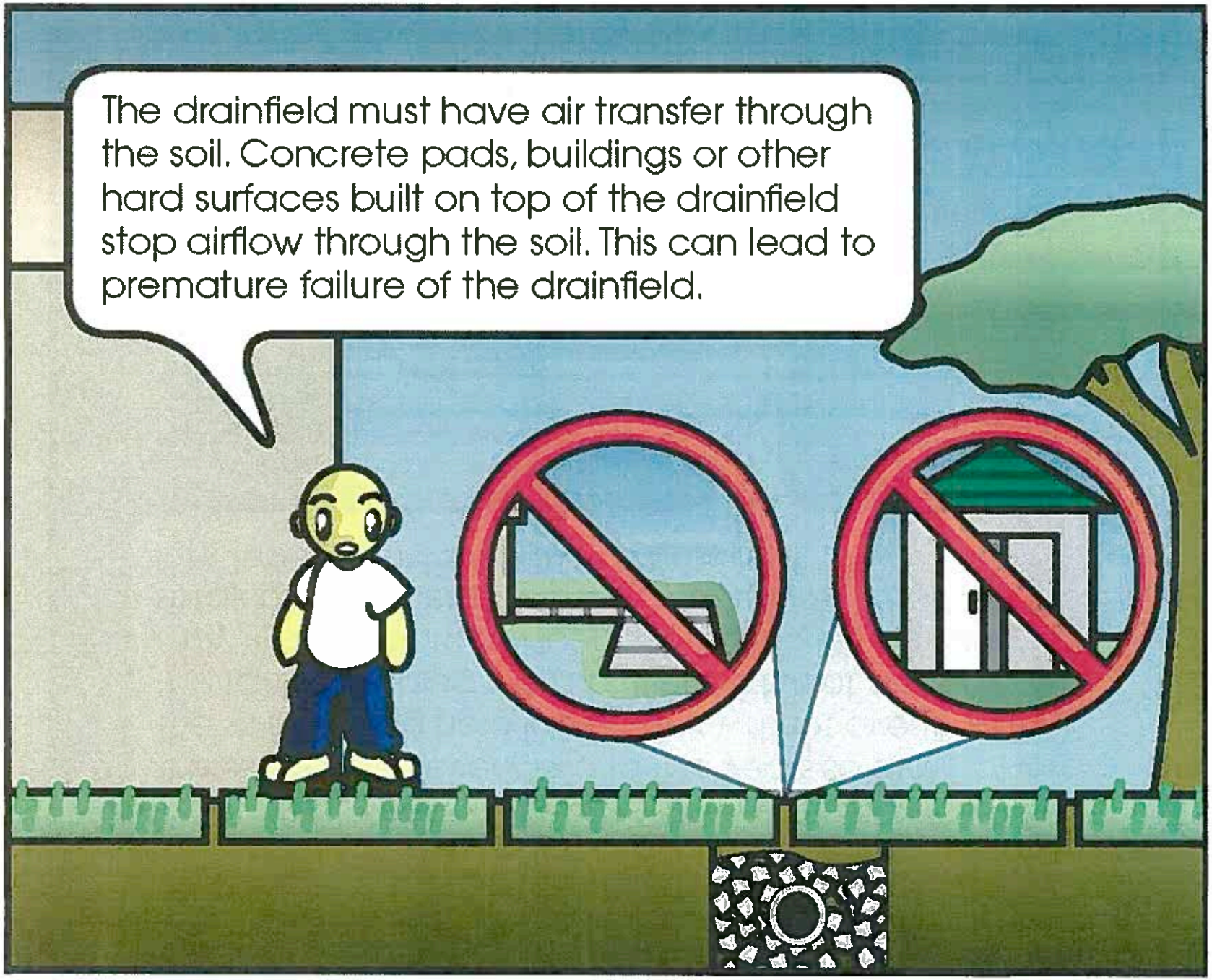
**Do:**

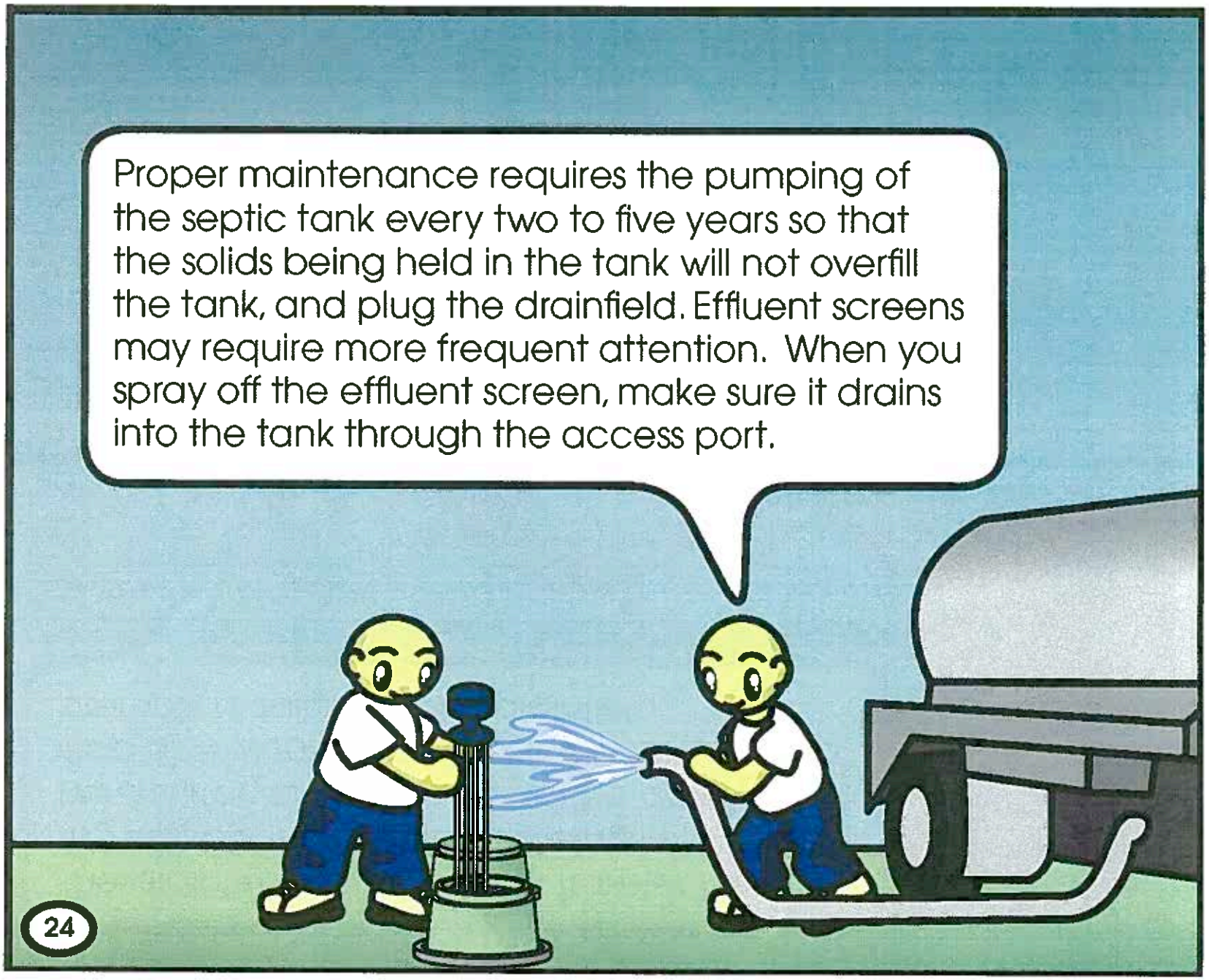
- Use water-conserving faucets and shower heads.
- Compost organic material rather than flush down the drain.
- Repair all leaking fixtures immediately to prevent flooding of drainfield.

**Don't:**

- Use the toilet as a trash can.
- Dispose of feminine hygiene products, cleaning tissues, cigarette butts, diapers or other trash in the toilet.
- Use in-sink garbage grinders to send organic matter down the drain.
- Pour grease down the drain.
- Wash all of the laundry on one day. Schedule washing throughout the week.
- Use a detergent with a high percentage of non-dissolving material. Liquid laundry detergent is fine.
- Excessively use bleach.


Rainwater should be directed away from the drainfield to avoid flooding, which hampers operation of the drainfield.
Berm
27


The drainfield must have air transfer through the soil. Concrete pads, buildings or other hard surfaces built on top of the drainfield stop airflow through the soil. This can lead to premature failure of the drainfield.


Proper maintenance requires the pumping of the septic tank every two to five years so that the solids being held in the tank will not overfill the tank, and plug the drainfield. Effluent screens may require more frequent attention. When you spray off the effluent screen, make sure it drains into the tank through the access port.
24

Natural bacteria are present in wastewater to decompose waste. Chemical additives are not necessary for a septic tank to operate. Some additives may even harm the tank's operation. Remember: a septic tank is supposed to collect solids. If you flush solids out of the tank and into the drainfield by adding chemicals, the solids will plug the drainfield, and you'll have to replace the drainfield.

**Enzymes**

**Chemical Additives**

**Microbes**

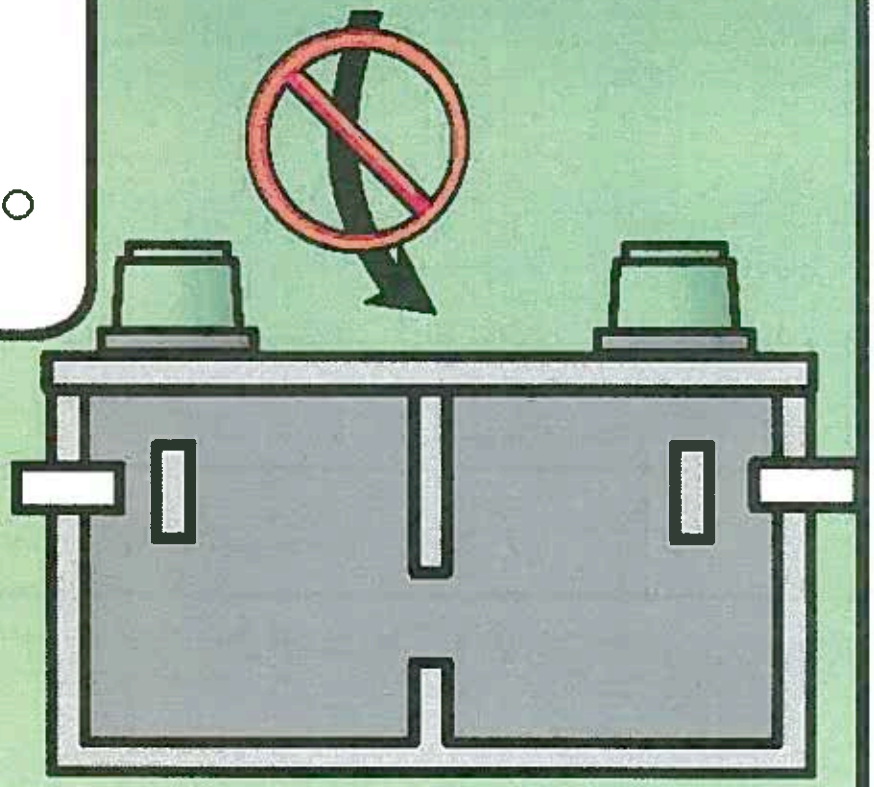


***Table 2. Recommended number of years between pumpings of septic tanks according to size of tank and household.***

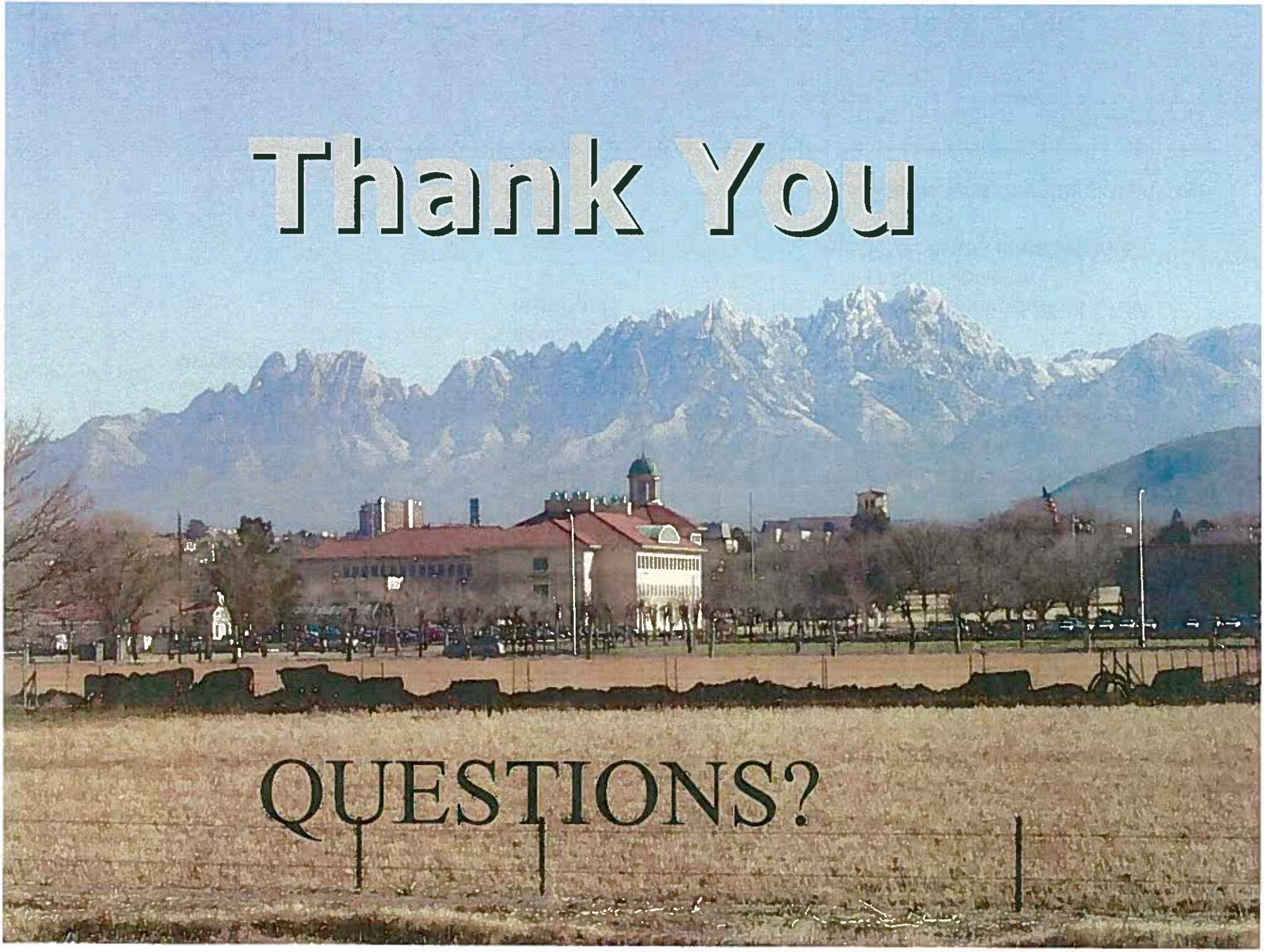
| Tank Size | Household Size (Number of People) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| (gals) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 500 | 5.8 | 2.6 | 1.5 | 1.0 | 0.7 | 0.4 | 0.3 | 0.2 | 0.1 | — |
| 750 | 9.1 | 4.2 | 2.6 | 1.8 | 1.3 | 1.0 | 0.7 | 0.6 | 0.4 | 0.3 |
| 1000 | 12.4 | 5.9 | 3.7 | 2.6 | 2.0 | 1.5 | 1.2 | 1.0 | 0.8 | 0.7 |
| 1250 | | 7.5 | 4.8 | 3.4 | 2.6 | 2.0 | 1.7 | 1.4 | 1.2 | 1.0 |
| 1500 | | 9.1 | 5.9 | 4.2 | 3.3 | 2.6 | 2.1 | 1.8 | 1.5 | 1.3 |
| 1750 | | | 6.9 | 5.0 | 3.9 | 3.1 | 2.6 | 2.2 | 1.9 | 1.6 |
| 2000 | | | 8.0 | 5.9 | 4.5 | 3.7 | 3.1 | 2.6 | 2.2 | 2.0 |
| 2250 | | | | 6.7 | 5.2 | 4.2 | 3.5 | 3.0 | 2.6 | 2.3 |
| 2500 | | | | | 5.9 | 4.8 | 4.0 | 4.0 | 3.0 | 2.6 |

Note: More frequent pumping needed if a garbage disposal is used.

# Management of septic systems for communities.

| Management Model | Objectives | Basic features |
|---|---|---|
| Management Model 1<br><br>Inventories and maintenance reminders | ▪ Owner awareness of permitting program, installation, and O/M needs.<br>▪ Compliance with codes, regulations. | ▪ Only conventional onsite systems.<br>▪ Prescriptive design/site requirements.<br>▪ Owner education to improve O/M.<br>▪ Inspections only during construction and complaint evaluations.<br>▪ Create and maintain system inventory. |
| Management Model 2<br><br>Maintenance contracts | ▪ Maintain prescriptive program for sites that meet code criteria (MP 1).<br>▪ Permit only approved alternative systems on sites not quite meeting criteria. | ▪ Prescriptive design/site requirements.<br>▪ Allowances for specified alternatives where code not met.<br>▪ O/M contracts and reporting required for alternative systems.<br>▪ Inspections & owner education as in MP 1.<br>▪ Create & maintain inventory. |
| Management Model 3<br><br>Operating permits | ▪ Onsite system designs based on site conditions and performance requirements.<br>▪ System performance assumed by O/M task completion and verified through permit renewal inspections. | ▪ Wider variety of designs allowed.<br>▪ Performance of required O/M tasks governs operating permit renewal.<br>▪ OWTS monitoring/inspections required.<br>▪ Property sale and change-of-use compliance-assurance inspections.<br>▪ Create and maintain inventory. |

| | | |
|---|---|---|
| Management Model 4<br><br>Responsible management entity operation and maintenance | ▪ Responsible public or private entity assumes O/M and inspection/monitoring responsibilities for all systems in management area. | Performance governs acceptability.<br>Operating permits ensure compliance.<br>All systems are inspected regularly.<br>Monthly/yearly fees support program.<br>Owner responsible for all costs.<br>Create and maintain inventory. |
| Management Model 5<br><br>Responsible management entity ownership | ▪ Public or private RME owns and operates all systems in management area.<br>▪ Similar to centralized sewer system service approach. | ▪ Performance governs acceptability.<br>▪ All systems are inspected regularly.<br>▪ Monthly/yearly fees support program.<br>▪ Users relieved of all O&M responsibilities.<br>▪ RME funds installation & repairs.<br>▪ Create and maintain inventory. |


Thank You
QUESTIONS?