





### Winooski May, 2019

**Preserving Waterfront Properties** 

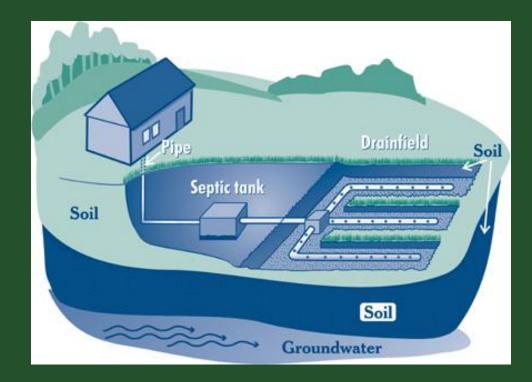
# Agenda

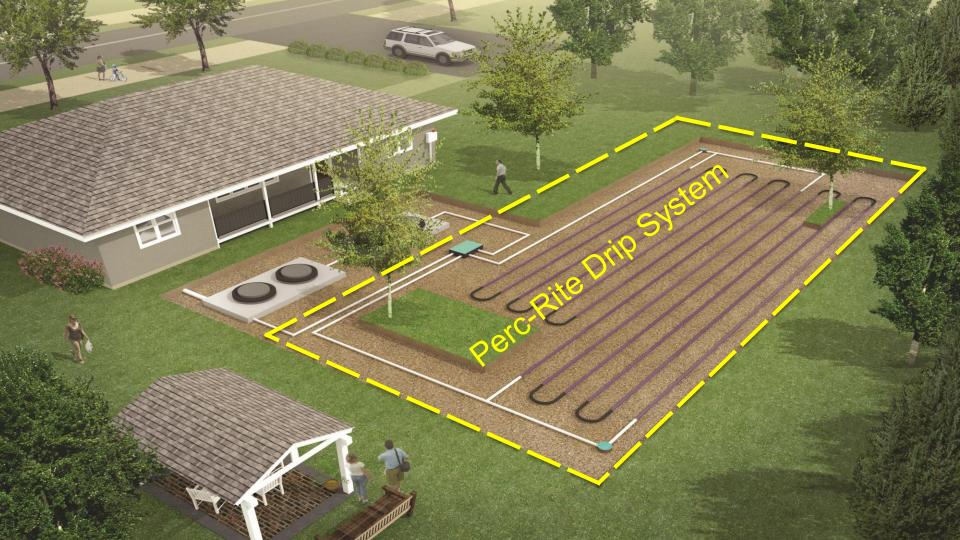
- Concerns with waterfront properties and effluent disposal
- Means to overcome some of these concerns
- Case studies and sample projects

#### Introduction



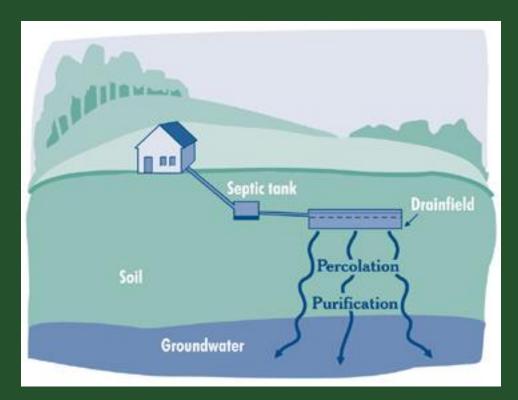
### **Conventional Onsite System**





### Concerns of Effluent Disposal with Water in Proximity

## 1. Not Complete Effluent Treatment



# Not Complete Effluent Treatment

- Conventional onsite systems not always perform uniformly due to:
  - Loading
  - Settling
  - Temperature
  - Soil type
  - Wastewater strength

## Not Complete Effluent Treatment

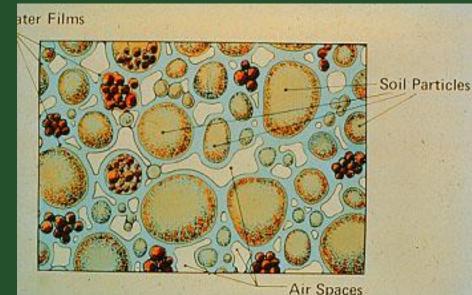






# Not Complete Effluent Treatment

- Uniform distribution and timed application provide best treatment
- "Soil Treatment Unit"



## 2. Poor Soils and High Water Table



## Poor Soils and High Water Table



## 3. Limited Access to Islands



## 4. Storm Damage

• Waterfront properties more susceptible to impacts than inland ones

# Storm Damage





# 5. Preserving Property Values

- Frequently, water front properties are high value properties
- Owners usually do not like to change the look of the land

## 6. Views & Water Access

- Conventional systems often tall and large
- Can impact views and water access

#### Solutions Using Perc-Rite Drip Dispersal

#### 1. Preserve Trees and Site Conditions











#### 2. Provide Better Treatment in Soil









#### 3. Lower Finished Height







#### 4. Can be Transported by Boat





#### 5. Can Pump to Area Away from Water



#### 6. Not Limited to Rectangular Shape



#### 7. Can Follow Slope of Land







#### Perc-Rite Drip Dispersal Case Study and Vermont Projects

- Pumped away from water
- Preserved trees
- Followed slope of land
- Lower finished height preserved appearance













# Vermont Projects







#### **Thank You**

