

SESSION 5: *Onsite Wastewater Treatment*



T W O N
T E X A S
Well Owner
N E T W O R K

Onsite Wastewater Treatment

- What is an On Site Sewage Facility (OSSF)?
- Why are we concerned about wastewater?
- Evolution of onsite wastewater treatment
- Function of a septic system
- Evaluation of septic tank operation
- When should a septic tank should be pumped?
- How to live with a septic system



Onsite Wastewater Treatment



Onsite Wastewater Treatment Systems?



- Rural and Exurban wastewater infrastructure
- Water Quality Protection
- 25 - 40%, Wastewater Infrastructure
- What is the system called?
 - OWTS: Onsite Wastewater Treatment System; Nationally
 - OSSF: On-Site Sewage Facility; Texas
 - Septic System

Permitting Wastewater Treatment Systems

- Texas Commission on Environmental Quality (TCEQ), Chapter 285 for 5000 gallons per day or less
 - Local Authorized Agent; Usually local Health Department
 - TCEQ Regional Office
- TCEQ, Chapter 217 for more than 5000 gallons per day.



Malfunctioning Onsite System



Evolution of Wastewater Management

- From outdoor plumbing to water reuse
- We need to review the history to understand the present

Outdoor plumbing: The pit privy

- Goal: designated place
- No carrier needed to convey waste
- Waste applied directly to the soil
- Public health concerns addressed
- Management: relocate



Indoor plumbing

- Convenience
- Water carrier to convey waste out of facility
- 'Collection system'
- Public health and pathogens
- Management: keep pipe flowing



Disposal



- Goal: limit human contact
- Keep wastewater below ground
- Disposal options
- Public health
 - “Disposing” of pathogens
 - Treatment?
- Environment: groundwater contamination
- Management: install, flush and forget

Septic Tank and Soil Treatment Area

- Evolving goal:
 - Disposal: effluent goes away versus treatment
 - Dispersal: TREATMENT
- Public health AND environmental issues addressed
- Management:
 - Disposal: often no management at all
 - Dispersal: system management is critical

