Post-Installation Care and Regulation of Septic Systems

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Why the Current Interest?

Great Bay Estuary
Southern Tier Expansion
Contaminated Wells
Watershed Approach to Water Resources Management
Water Sustainability Commission
Post-Installation Care and Management

- Who Regulates What?
- Gaps
- EPA Management Models for Decentralized Wastewater Systems
Who Regulates What?

- **State** - sets minimum standards - *Env-Wq 1000 Subdivision and Individual Sewage Disposal System Design Rules*

- **Local** – Board of Health, Building Inspector
  - **Municipal** (City, Town or District)
  - **Watershed** BMP's, public education, enhanced interest
  - **Private** Homeowner, Condo, Lake Associations
  - **Other**
Gaps

* Little or no- Post-Installation Regulation
* DES Non-Point Source Program
* Subsurface Systems Bureau
* Community-Level Awareness of Options
* Outreach and Support of Local Initiatives
EPA Management Models for Decentralized Wastewater Systems

1. System inventory and homeowner awareness
2. Management through maintenance contracts
3. Management through operating permits
4. Operation & maintenance by a public or private management entity
5. Ownership & management by a public or private management entity
1. System Inventory and Homeowner Awareness

• Application:
  – Low environmental sensitivity
  – Suitable sites for conventional systems

• Program elements
  – Inventory of systems
  – Maintenance reminders
From US EPA's Homeowner's Guide to Septic Systems

Not in My Septic System!

**X** Cloggers
diapers, cat litter, cigarette filters, coffee grounds, grease, feminine hygiene products, etc.

**X** Killers
household chemicals, gasoline, oil, pesticides, antifreeze, paint, etc.
1. System Inventory and Homeowner Awareness

• Benefits
  – Code-compliant system
  – Easy and relatively inexpensive
  – Inventory useful for tracking and planning

• Limitations
  – No mechanism to verify compliance
  – Sites must meet site requirements
  – Cost of maintaining database
2. Maintenance Contracts

• Application:
  – Low to moderate environmental sensitivity
  – Marginally suitable sites for conventional

• Program elements
  – More complex treatment options
  – Inventory of systems
  – Service contracts required
  – Service contracts tracked
2. Maintenance Contracts

• Benefits
  – Lower risk of system malfunction

• Limitations
  – Relies on homeowner to report
  – Difficult to track and enforce
  – Maintenance effectiveness not assessed
3. Operating Permits

• Application:
  – Moderate environmental sensitivity
  – Includes high-flow and/or high-strength waste

• Program elements
  – Performance and monitoring requirements
  – Engineered designs allowed
  – Renewable operating permits (revocable)
  – Permits tracked/compliance monitored
3. Operating Permits

• Benefits
  – Protects environmentally sensitive areas
  – Regular compliance monitoring
  – Non-compliant systems id’ed, compliance required

• Limitations
  – Requires higher level of expertise and resources
  – Requires permit tracking system
  – Requires enforcement powers
4. Operation & Maintenance by Responsible Mgt. Entity (RME)

• Application
  – Moderate to high environmental sensitivity
  – Reliable O&M required
  – Cluster systems

• Program elements
  – Performance and monitoring requirements
  – Professional O&M services through RME
  – Operating permits issued to RME
  – Permits tracked/ compliance monitored
4. Operation & Maintenance by Responsible Management Entity

• Benefits
  – O&M responsibility falls to RME
  – Problems identified before malfunctions occur
  – Protects sensitive areas

• Limitations
  – May require legislation for RME to hold operating permit for individual system
  – Requires owner’s approval for repairs
  – Requires easement/ right-of-entry
5. Ownership by RME

• **Application:**
  – Greatest environmental sensitivity
  – Preferred when clusters serve multiple properties with different owners

• **Program elements**
  – RME’s own and/or manage individual systems
  – Performance and monitoring requirements
  – Operators trained and licensed
  – Regulatory oversight through NPDES or other permit
  – Permits tracked/ compliance monitored
5. Ownership by RME

• **Benefits**
  – High level of oversight
  – Reduces risk of non-compliance
  – Protects environmentally sensitive areas
  – RME has authority to make repairs

• **Limitations**
  – May require enabling legislation
  – RME must recoup expense of installation and repair
  – Homeowner associations may not have authority
CONCLUSIONS

• NH needs to address non-point sources
  – Include septic systems in Non-Point Source Program
  – Educate communities re: available management options
  – Support with Technical Assistance
  – Sell On-site as alternative/adjunct to WWTP expansion

• Challenges
  – Recognize the reality of funding limitations going forward
  – Recognize that there are limits to growth
  – Work within NH Culture and find appropriate Mgmnt Model
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