

ONSITE AND CLUSTER WASTEWATER SYSTEM MANAGEMENT

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Introduction

- *Decentralized Wastewater Management: A Guidebook for Georgia Communities* Katie Sheehan with Laurie Fowler, Ed., at http://rivercenter.uga.edu/research/onsite/pdf/dwm_guidebook2013.pdf
- Definitions:
 - Centralized = large wastewater treatment plants that serve many homes and businesses
 - Decentralized = small, simple, distributed wastewater systems that serve one or a small number of homes or businesses
 - Onsite = serve one home or business (septic, etc.)
 - Community = serve multiple homes and/or businesses (AKA cluster)
- Management: ensuring appropriate siting, installation, operation, maintenance, repairs/replacements

Decentralized System Mgmt. in GA

- Septic:
 - State law specifically prohibits boards of health from requiring ongoing maintenance of non-mechanical septic systems (i.e., gravity fed with no pump) (O.C.G.A. § 31-3-5(b)(6))
 - Some local governments (not BOH) have maintenance requirements
- Advanced onsite:
 - Treat sewage to higher standards and/or account for site issues; becoming more common, esp. on coast
 - Include mechanical parts (pumps, etc.)
 - DPH regulations require maintenance contract for first three years
- Community:
 - DPH and EPD split management oversight (10,000gpd split)
 - DPH – contract for operation and maintenance signed by all owners
 - EPD – permit with trust indenture, etc.
 - Some communities have prohibited systems, others own and maintain systems and use them to manage growth

Management Programs

Should usually be implemented through partnership between BOH and local government.

Non-Regulatory

- System inventories and maps
 - Record reviews, individual system assessments, ACI photography, optical brightener studies, WellSTROM and Garrison databases
- Homeowner education and awareness
 - General education materials, maintenance reminders
- Financial and/or technical assistance
 - Coordinating system services, pumpout rebates, free inspections, water or sewer bill credit when system is pumped, low interest loans, grants

Management Programs, cont'd.

Regulatory

- Inspection & maintenance requirements
 - Same interval for all, individualized, sensitive areas only, should include variances
- Maintenance contracts
 - Advanced systems; perpetual contracts
- Individualized operating permits
 - Conventional and advanced systems, individualized and easier to amend than overarching ordinance requirements, customized for similar groups and modified for individual systems when needed
- Utilities
 - Can be used for all types of systems; property owner pays regular fee and, depending on program, receives: inspections, maintenance, repairs, replacements; becoming more common nationwide

Risk-Based Ordinances

- Allow communities to provide for varying management programs for different kinds of systems, *based on the risks they pose*
- One ordinance for differing management needs
- Example: model points-based risk ordinance (in guidebook and being considered by Chatham and Bryan Counties)
- Risk factors: soil permeability, absorption field depth, system size, age, presence of filter, proximity to sensitive resources, system density, slope

Funding Resources

- Grants:
 - Clean Water Act § 319
 - USDA Rural Development
 - Community Development Block Grants
 - Southeast Rural Community Assistance Project Grants
 - Economic Development Administration Public Works and Economic Development Grants
 - Coastal Incentive Grants
- Loans
 - GEFA loans (SRF and GA Fund)
- Special district assessments
- Bonds (utility programs)
- User fees (utility programs)
- Private sources
- Property tax revenues
- SPLOST funds
- Community Improvement District assessments (businesses)

River Basin Center Projects

- Guidebook
- Camden County – Horsepen Creek assessment, education, inspection, repair, and demonstration project
- Gwinnett County – ACI photography study and thesis on developing low-interest loan program using SRF funds
- Etowah watershed – septic management recommendations
- Athens-Clarke County – septic inventory/mgmt. recommendations
- Coastal wastewater planning project (**current**)

Thanks!

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