

From Words to Deeds

Challenges and Opportunities for Implementing Decentralized Wastewater Treatment

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A Proven Technology

- The science is well established
- DWTS can treat wastewater to the same level as centralized collection/treatment
- Frequently a lower cost alternative
- EPA supports their use
- Thousands of non-residential DWTS installed
- Fits well with watershed approach to managing water

Despite the Advantages it
Provides, Decentralized
Wastewater Treatment Systems
Are the Redheaded
Stepchildren of the Wastewater
Industry

Perception

- Infrastructure decision-makers are often unaware that decentralized wastewater treatment is an option for them
- Misconceptions regarding their effectiveness
 - Residential septic systems reputation
 - RME failures

Role of the Engineering Community

- Every DWTS is a custom design
- Reduced construction costs = lower design fees
- Overhead distorts true system costs

Problems with Permits

- No clearcut process for permitting large non-point source projects
- No clear regulatory authority
- Prescriptive rules for performance-based systems
- Square pegs in round holes

Management

- Management requirements vary by locale
- Type of management driven by cost instead of need.
- Private RMEs vs public RMEs

Financing

- Federal funding difficult to obtain
- State, private financing options are limited
- Utility financing model often not applicable to DWTS
- Public agencies regulating DWTS often lack capacity to manage funds

Moving past the Challenges

- People making WW infrastructure decisions
 - Awareness:
 - EPA position papers
 - Costs:
 - WERF tool for assessing costs (Performance and Costs for Decentralized Unit Processes)
http://www.ndwrcdp.org/research_project_DEC2R08.asp
 - Other WERF resources --
http://www.ndwrcdp.org/research_by_category.asp

Moving past the challenges

- Financing:
 - Federal funding
 - CWSRF, Section 319, Community Development Block Grants, Bureau of Reclamation
 - State action
 - DE, WA funding programs
 - CO-SRF non-point rankings
 - MS-Community Resource Group-RCAP
 - CA-Doesn't spend all its SRF money

Moving past the Challenges

- Management:

- Guidance for Establishing Successful Responsible Management Entities http://www.ndwrcdp.org/research_project_DEC5R06.asp
- Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems http://water.epa.gov/scitech/wastetech/upload/septic_guidelines.pdf
- Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems http://water.epa.gov/infrastructure/septic/upload/onsite_handbook.pdf
- University of MN project – Community Septic System Owner's Guide (in process)
- Resource Library of NOWRA website www.nowra.org

Moving past the Challenges

- Engineers
 - WEF-NOWRA workshop on Decentralized Systems, October 6, 2013
 - WERF, EPA documents

Thanks for your time!

For More Information

www.nowra.org

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