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

People Caring About 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 [link]
  – Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems [link]
  – Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems [link]
  – University of MN project – Community Septic System Owner’s Guide (in process)
  – Resource Library of NOWRA website [link]
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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