Decentralized Systems: A National Presence

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Onsite systems are a significant part of the nation’s infrastructure . . .

- ~22% of homes use onsite treatment
- ~25% of new construction
- 50% in suburban areas
- 10-20% fail each year
- 2nd highest threat to gw
…But Decentralized Systems Can and Do Work!

“Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals.”

- EPA 1997 Report to Congress
DECENTRALIZED SOLUTION EXAMPLE
Our Perspective

- Making a difference!
- In the beginning . . . a struggle
- Report to Congress was a pivotal moment in the history of decentralized systems . . . recognition by EPA of benefits/impacts
- EPA Decentralized Wastewater Program initiated to focus on improving management practices
- Future focus on addressing underserved/hardship communities
What are Underserved Communities?

**Includes:**

- 1.7 million people without access to safe wastewater and water services with 600,000 people in small, rural communities that are remote and impoverished\(^1\)
- Underserved populations -- tribes, territories, colonias, rural areas, low income, elderly, ethnic groups, etc.

\(^1\) RCAP analysis of 2000 U.S. Census
New Administration Goals

- Commit stimulus funding
  - Fully fund the green reserve
- Address underserved community needs
- Ensure environmental justice communities receive attention
EPA’s Decentralized Program
**Vision:** Decentralized systems are appropriately managed & perform effectively to protect human health & the environment; recognized as a key component of our nation’s wastewater infrastructure.

**Mission:** EPA will provide national direction and support to improve performance by promoting perpetual management and upgraded professional standards of practice.
Major Actions

- 2002 - “Onsite Wastewater Treatment Systems Manual” published
- 2003 - release of the “Voluntary National Management Guidelines” (14 states adopted to date)
Major Actions (cont.)

- 2005 - EPA released its “Decentralized System Program Strategy”
- 2005 - EPA and eight partners signed the “Memorandum of Understanding (MOU) on Decentralized Wastewater Systems”
  - Renewed in 2008 with 6 additional partners
Major Actions (cont.)

- 2005 - “Management Handbook” published
- 2006 - “The Wastewater Information Systems Tool” (TWIST) released
- 14 states have adopted Guidelines
- Documents released in Spanish
MOU Partnership
Decentralized Wastewater Partnership through a Memorandum of Understanding (MOU)

- Initiated in January 2005 to:
  - Facilitate effective collaboration and open communication between the organizations
  - Implement a voluntary program to address decentralized wastewater issues
  - Elevate the level of professionalism
- Renewed in November 2008 to:
  - Incorporate state focus and research component
  - Improve collaboration among regulatory programs within states
  - Conduct outreach and marketing to homeowners and communities
Partners

- Water Environment Federation (WEF)
- National Small Flows Clearinghouse
- National Environmental Health Association (NEHA)
- National Onsite Wastewater Recycling Association (NOWRA)
- National Association of Towns and Townships (NATaT)
- Rural Community Assistance Program (RCAP)
- National Association of Wastewater Transporters (NAWT)
- Consortium of Institutes for Decentralized Treatment
Partners

- Association of State and Interstate Water Pollution Control Administrators
- Ground Water Protection Council
- State Onsite Regulators Alliance
- Association of State Drinking Water Administrators
- Association of State and Territorial Health Officials
- Water Environment Research Foundation
Partnership Accomplishments

- Joint training and credentialing program for installers began in 2006
  - Training, testing, and credentialing by NAWT, NEHA, NOWRA, CIDWT designed to improve consistency and professionalism among installers
- NAWT inspector, operation and maintenance, and vacuum truck training
- Model code workshops – led by NOWRA & supported by all partners
- SORA conference attracts staff from nearly all state onsite wastewater management programs with partner participation
- WEF Small Communities Committee promotes decentralized alternatives to engineering community
- Cross-attendance at conferences and trainings
Certified Installer of Onsite Wastewater Treatment Systems (CIOWTS)

- EPA supports the NEHA credential for onsite system installers
- Two types of certifications
  - Basic system
  - Advanced system
- National credential available for state or local programs
Septic Wiki

https://ssoprod.epa.gov/sso/jsp/septicWikiLogin.jsp

- A collaborative website
  - Upload/share documents yourself
- A one stop shop for all
- Contents:
  - Tools & Training
  - News
  - Best practices, demo projects, research, factsheets, calendar
The Wastewater Information System Tool (TWIST)

- Free Microsoft Access Software
- State and local use
- GIS Compatible
- Tracks inventory, service, complaint and other information
- The idea was to have a free data system available and let users change/adapt it
Clean Watersheds Needs Survey

- Report to Congress on needs for wastewater treatment
- Congress is considering revised allotment formula for SRF loan program
- 2008 Survey will include needs for onsite and clustered systems
- State and local onsite staff will provide data
- Website: epa.gov/owm/cwns
CWSRF Funding
Clean Water State Revolving Fund (CWSRF) Facts

- The Clean Water Act (CWA) of 1987 authorized the CWSRF to fund:
  - point source (§212),
  - Non-point source (§319), and
  - estuary (§320) projects.

- Decentralized system projects that are solutions to nonpoint source problems may be eligible as a §319 or §320 project.
American Recovery and Reinvestment Act (ARRA) CWSRF Green Reserve

- Project types eligible for Green Reserve funding:
  - Projects with water efficiency components
  - Projects with energy efficiency components
  - Green (stormwater) infrastructure projects
  - Environmentally innovative projects
    - Decentralized projects specifically identified here

- Language in 2010 Appropriations; expect it to continue
Update

- Clean Water Act Reauthorization
  - H.R. 720 requires projects to study alternative and innovative processes as a condition of receiving funding
  - H.R. 720 provides additional subsidization for disadvantaged communities
  - Not expected this year
Chesapeake Bay Executive Order

- Issued by the President May 12, 2009
- Federal agencies had 1 year to report out on the state of the Chesapeake and how total nitrogen would be reduced
- Nitrogen loading from onsites is 4-5% of the total
- Decentralized program to develop model program guidance for the CB states by June 30, 2013
EPA’s next key initiative:

Reaching Out to Homeowners
Challenges

- Out-of-sight, out-of-mind view by owners
- Burden on regulators -- new technologies, inspections, monitoring, record-keeping
- Need to overcome "stigma," prejudices, poor track record of past
- No national standards
- Onsite program gets "no recognition"
Awareness Campaign

Purpose

- Address impact of malfunctions by educating homeowners on proper maintenance and daily practices
- Develop marketing/public awareness campaign to include possible initiatives such as:
  - Messages/products for homeowners, local decision makers, local boards of health
  - Product distribution through service providers
  - Webcasts
  - Online resources for homeowners (e.g., point-of-sale info)
Program Logo and Mascot
Program Messaging

• **Simple**
• **Easy to remember**
• **Establish annual messaging cue**
  - Septic awareness month
• **Action oriented**
  - “Think at the Sink”; “Don’t Strain your Drain”; “Don’t be a Septic Skeptic”