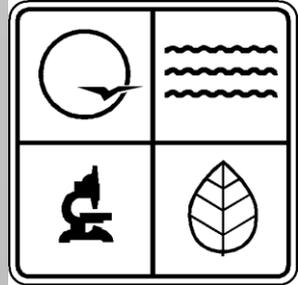


The Missouri Departments of
Health and Senior Services
& Natural Resources
Onsite Wastewater Stakeholders
Meeting
December 7, 2012

Jim Gaughan, DHSS Onsite Wastewater Program

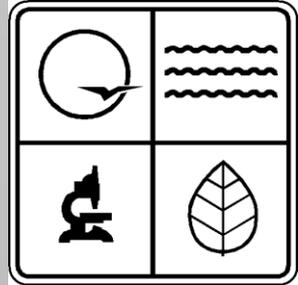
Charles Harwood, DNR Soil Scientist

Jack Stiefvater, DHSS, CERT



I. Welcome and Introductions

- II. Review House Bill 89 Stakeholder Process
- III. Update on the *Onsite Wastewater Systems Report to the General Assembly*
 - A. General
 - B. Rules Update
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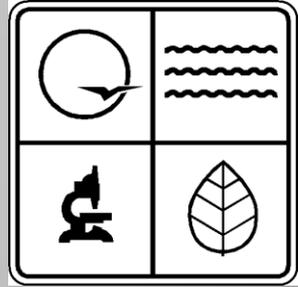
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House Bill 89 (2011) Update

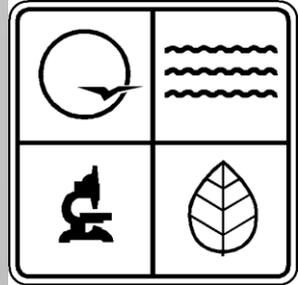


- Two provisions in HB 89 were related to the Onsite Wastewater Treatment Systems
 - Providing Technical Assistance
 - Stakeholder Meetings and Final Report to the General Assembly



House Bill 89 (2011)

Providing Technical Assistance



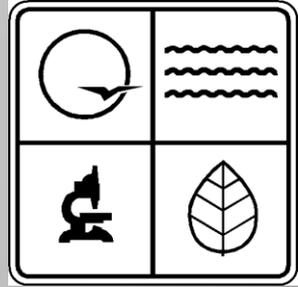
701.033. 1. (5), RSMo

- DHSS is to provide technical assistance and guidance to other administrative authorities on the regulation and enforcement of standards
 - When requested
 - When DHSS determines that assistance or guidance is necessary to prevent a violation of sections 701.025 to 701.059.



House Bill 89 (2011)

Stakeholder Meetings



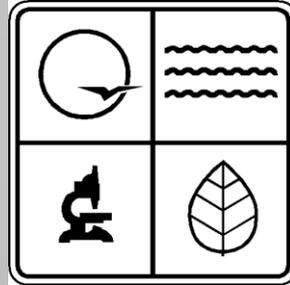
701.058, RSMo

- DHSS and DNR were to hold stakeholder meetings
 - August 1, 2011
 - September 8, 2011
- Stakeholder meeting format
 - Presentations by DHSS and DNR
 - Open discussion between the stakeholders and the Departments
 - Compilation of a list of challenges and solutions for the report



House Bill 89 (2011)

The Report



- A copy of the Report to the General Assembly can be linked from the Onsite Website or at the following web link:

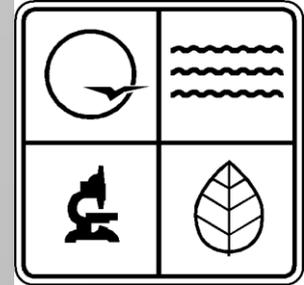
<http://health.mo.gov/living/environment/onsite/pdf/GeneralAssemblyReport2011.pdf>

- The current Onsite System Law and Rule Booklet can be found at:

http://health.mo.gov/living/environment/onsite/pdf/onsite_ref_book.pdf

- A copy of House Bill 89 can be found at:

<http://house.mo.gov/billtracking/bills111/billpdf/truly/HB0089T.PDF>



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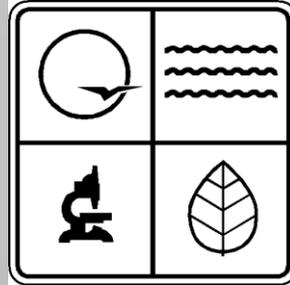
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House Bill 89 (2011)

The Report: Recommendations

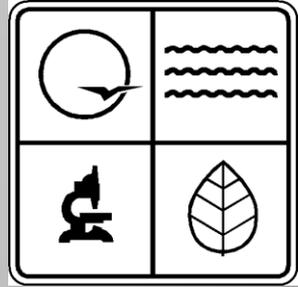


- Eleven report recommendations were made
 1. Establish professional registration for soil scientists
 2. Require OWTS real estate transaction disclosures
 3. Enhance DHSS' ability to accept complaints and require compliance
 4. Register septage haulers and OWTS service providers
 5. Disseminate Public Service Announcements (PSA's)
<http://www.nesc.wvu.edu/subpages/psa.cfm>
www.epa.gov/septicsmart

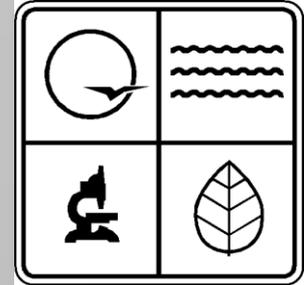


House Bill 89 (2011)

The Report: Recommendations



- Eleven report recommendations were made
 6. Conduct annual stakeholder meetings
 7. Update DHSS OWTS Rules
 8. Reconcile rules (DHSS and DNR estimated flows)
 9. Improve oversight of no-discharge lagoons
 10. Expand flexibility with SRF projects
<http://www.macogonline.org/onsite/>
 11. Develop a Wastewater Web Portal



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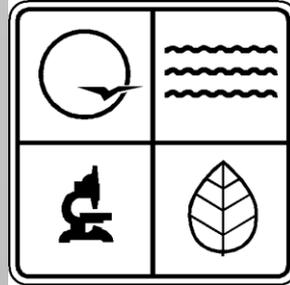
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Jurisdiction



DHSS and Local Authorities

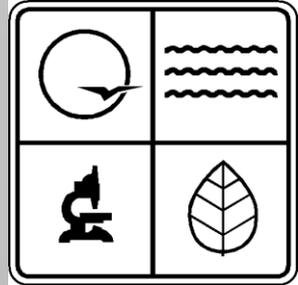
- Domestic wastewater systems only
- Subsurface soil treatment and dispersal systems with flows \leq 3,000 gpd
- Single-family lagoon systems
- Holding tanks \leq 3,000 gpd

DNR

- Domestic and industrial wastewater systems
- Subsurface soil treatment and dispersal systems with flows $>$ 3,000 gpd
- Lagoon systems except single-family
- Holding tanks $>$ 3,000 gpd
- All point source wastewater discharges
- Land application of bio-solids
- Method of wastewater treatment in residential housing developments

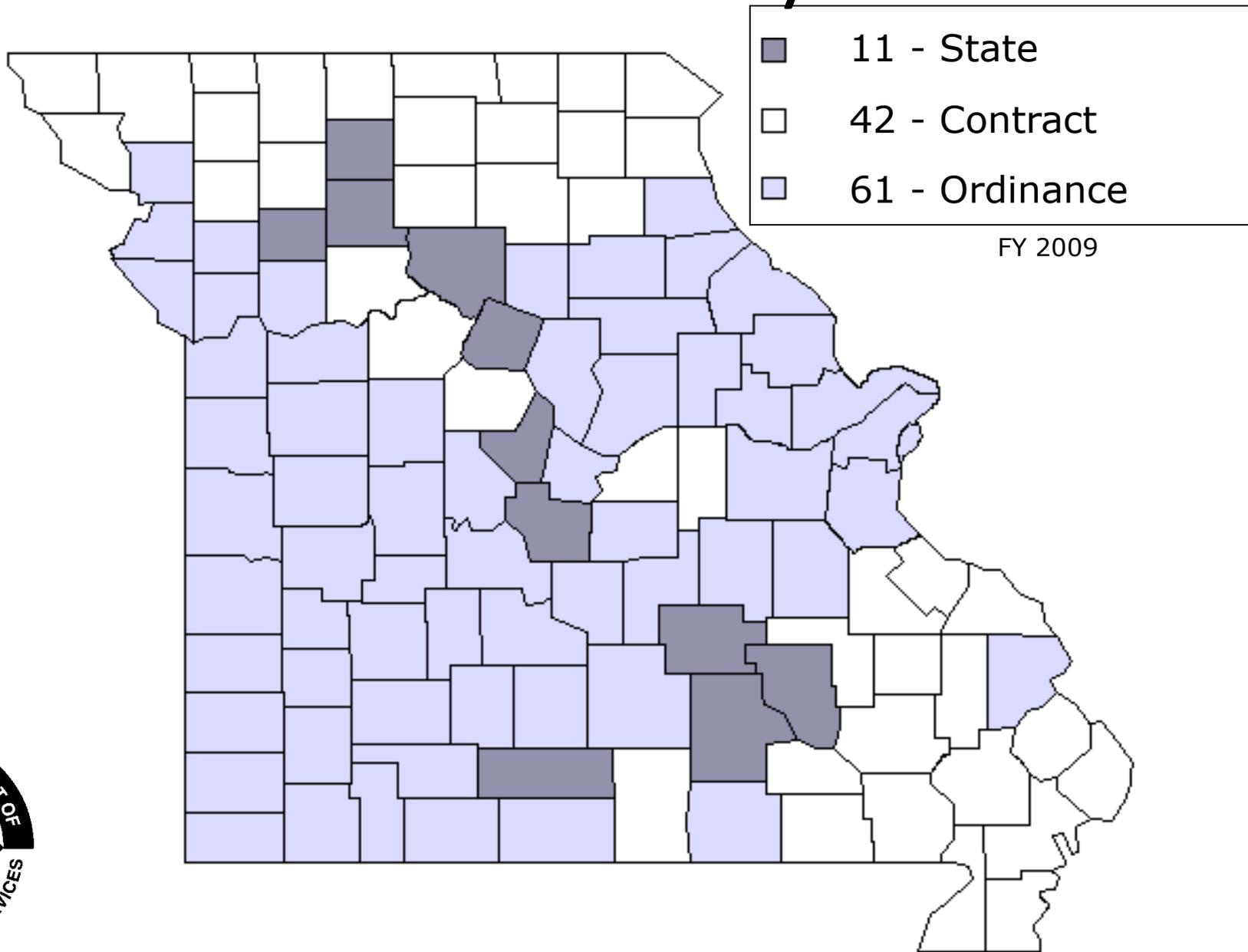


DHSS Jurisdiction

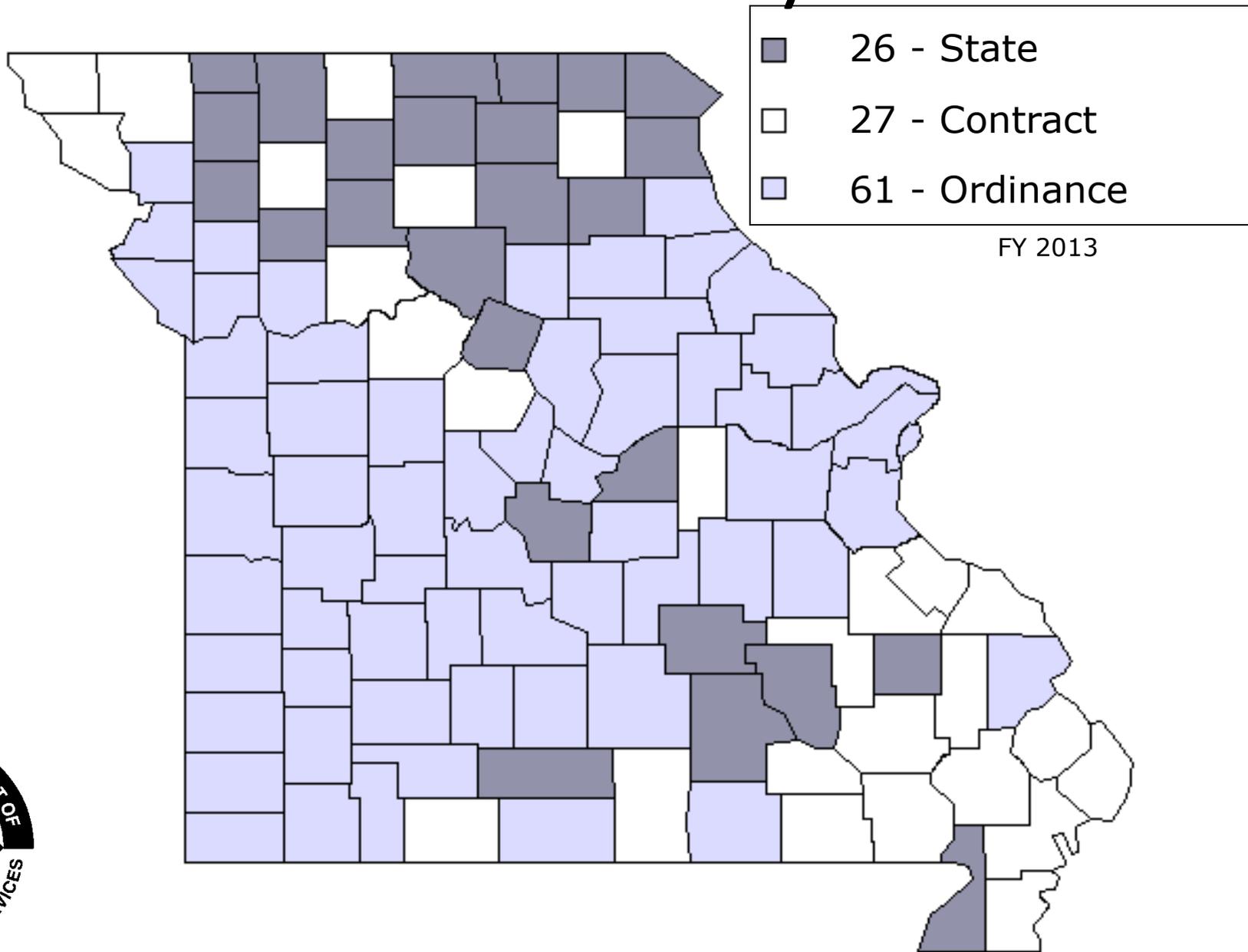


- Onsite and cluster systems treating a maximum flow of 3,000 gallons per day and using **soil treatment** for
 - Individual residence systems
 - Multi-family residences
 - Small businesses generating **domestic sewage**
- Onsite wastewater treatment lagoons serving single-family residences
- Holding tanks (treatment off site)

Administrative Authority

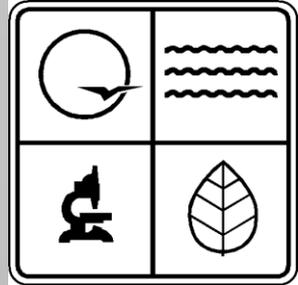


Administrative Authority





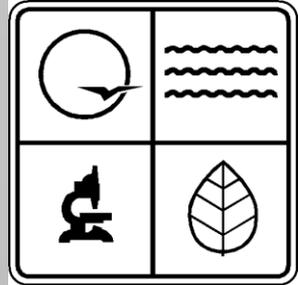
Onsite Wastewater Treatment Program



- **Vision:** Managed Decentralized Wastewater Systems
- **Mission:** Assure the citizens and guests of Missouri a safe and healthy environment through education of onsite industry practitioners and the public, policy development, and implementation of minimum onsite wastewater treatment standards, to prevent exposure to inadequately treated wastewater or contaminated water that might cause illness.
- **Goals:**
 - Improve onsite system management
 - Improve the construction standards and practices for onsite wastewater treatment systems
 - Increase access to sources of available funding assistance for onsite system replacement or repair.



OWTS Rules Update

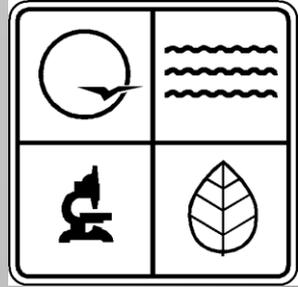


Six Issues to be addressed by rulemaking:

- Human/Public Health Protection
- Environmental Health Protection
- Accountability
- Long-term/sustainable wastewater treatment options
- Technology acceptance process
- Homeowner/property owner choice



OWTS Rules Update



- Propose to make two rules into three

Operation of Onsite Systems, 19 CSR 20-3.015

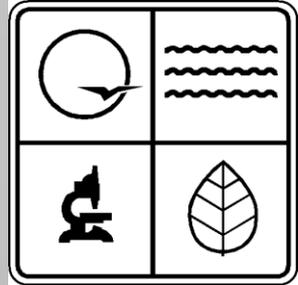
- 1) Operation and Maintenance Standards

Minimum Construction Standards, 19 CSR 20-3.060

- 2) Site and Soil Evaluation Standards
- 3) Minimum Construction Standards



OWTS Rules Update

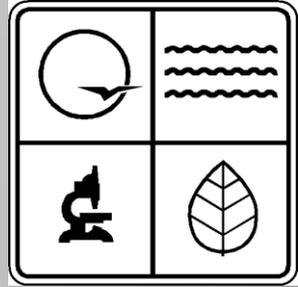


Onsite Wastewater Treatment Advisory Group

- Five small workgroups
 - 1) Operation and Maintenance
 - 2) Site/soil evaluation
 - 3) General Standards and Basic Onsite Systems
 - 4) Advanced Onsite Systems
 - 5) Performance Systems and System Remediation
- Drafts completed in 9 – 12 months



OWTS Rules Update

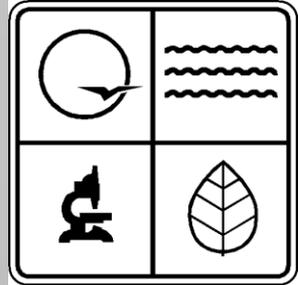


Operation and Maintenance

- Standards for inspection and maintenance including service intervals
- System owner's operation manual
- RME – Responsible Management Entity



OWTS Rules Update

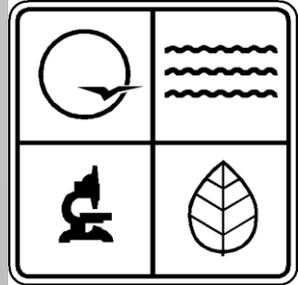


Operation and Maintenance outline

- Definitions
- Holding tanks
- Pretreatment components
- Pumps and pump tanks
- Dispersal systems
- Performance systems
- Nuisance and health hazard violations



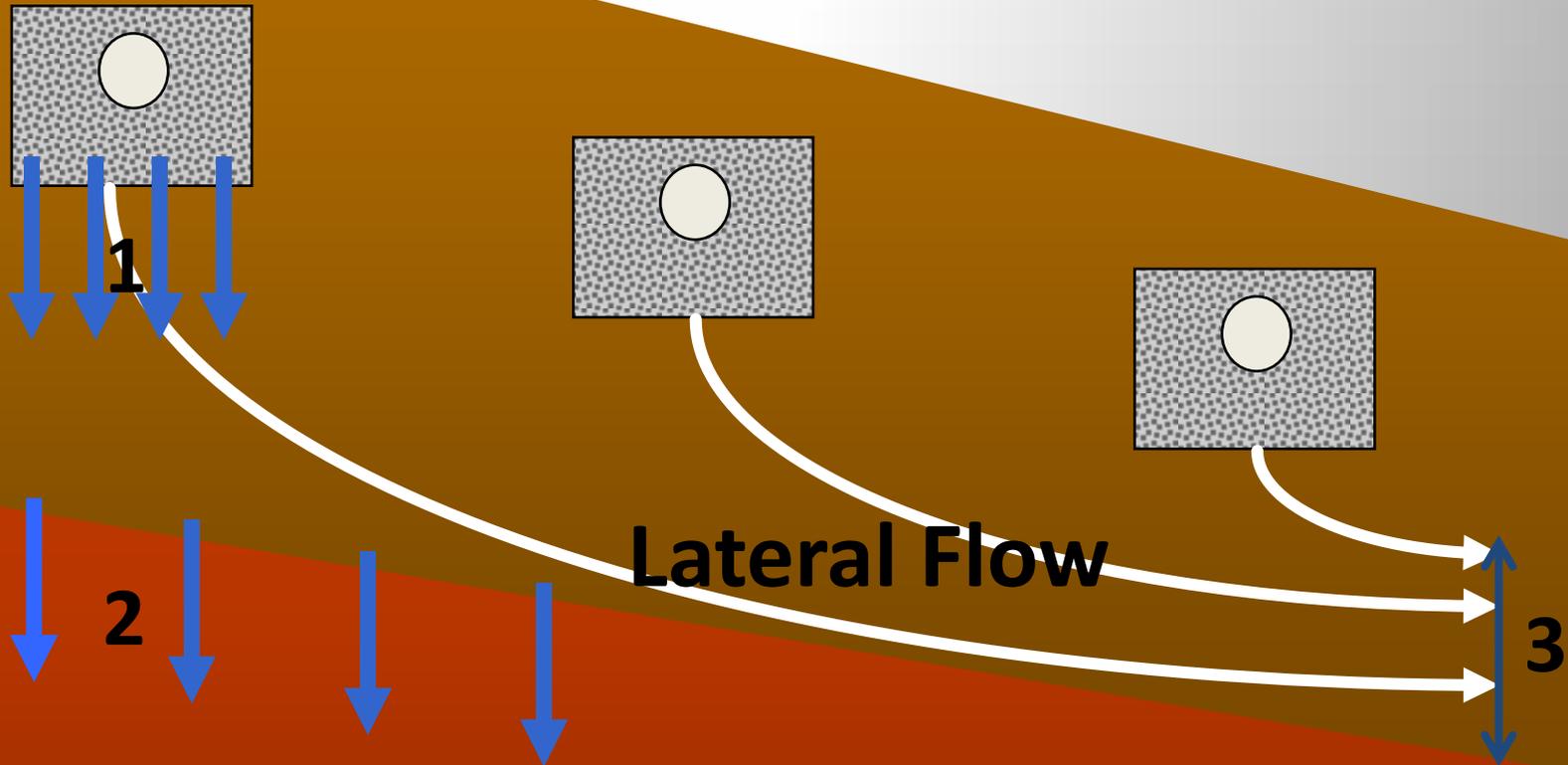
OWTS Rules Update



Site and Soil Evaluations

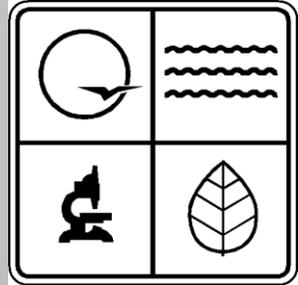
- Site classification requirements added for single-family lagoon systems
- Verification process
- Loading rates
 - Basic system loading rates
 - Drip irrigation loading rates
 - Contour loading rates

Contour Loading - at 3





OWTS Rules Update

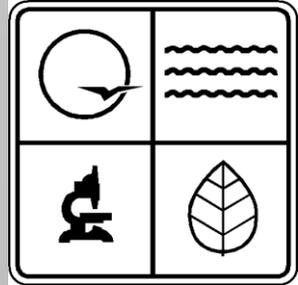


Site and Soil Evaluation outline

- Definitions
- Site Evaluation
- Site Characteristics
- Soil Morphology
 - Soil treatment systems
 - Lagoon systems
 - Classification/Reclassification
 - Design criteria
- Percolation Tests



OWTS Rules Update

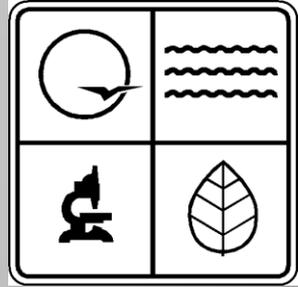


Minimum Construction Standards

- Permit application requirements
- Design daily wastewater flows
- Pipe standards
- Curtain drain standards
- Advanced systems
- Performance systems
- New technology
- Remediation



OWTS Rules Update

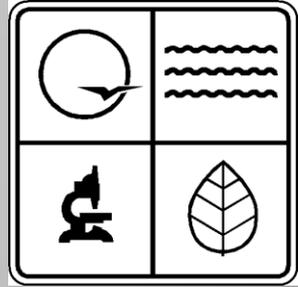


Minimum Construction Standards outline

- Definitions
- Application for construction permit
- Setback distances
- Sewage flow rates
- Sewer pipe
- Sewage Tanks
- Standard soil treatment systems
- Lagoons



OWTS Rules Update

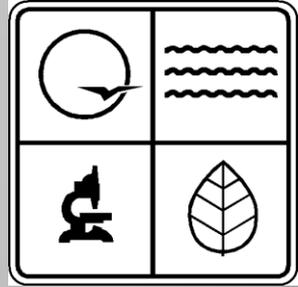


Minimum Construction Standards outline (cont.)

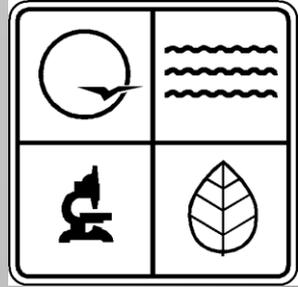
- Alternative systems
- Variances
- Other systems
 - Site specific
 - Performance systems
 - New technology
- Remediation systems
- Reuse/recycle



DNR Rule Update



- 10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments



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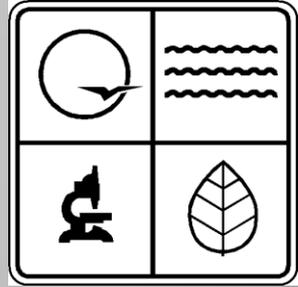
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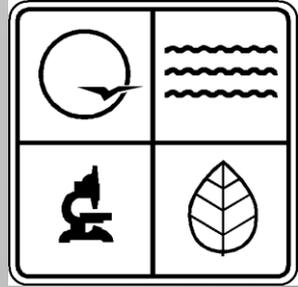
DHSS/DNR Design Flows



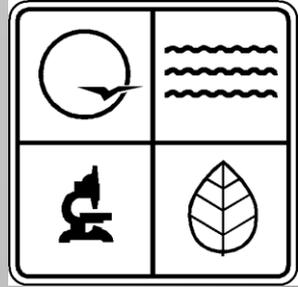
- **DHSS**
 - Systems serve individual homes, small establishments, and small clusters
 - Conservative prescriptive designs help deal with unusual higher flows and variables such as soil limitations, weather
- **DNR**
 - Systems generally serve larger flows and/or surface discharge
 - Larger systems tend to help average out the few high flows
 - Construction and operating permits and monitoring/reporting are required.



Design Flows



- DHSS and DNR determine jurisdiction using Table 2A from the DHSS rule
- Application and permitting follows the normal processes of the agency with jurisdiction
- Through the current DHSS rule update process, we are looking at design flow changes and at design flow options for cluster systems and/or performance systems



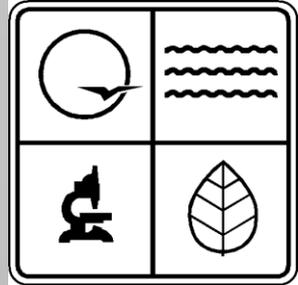
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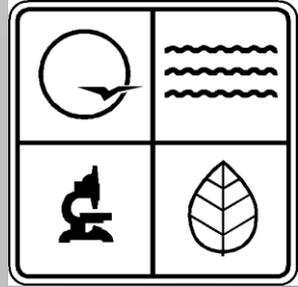
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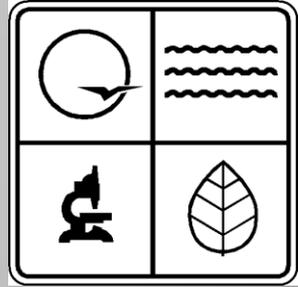
Wastewater Web Portal



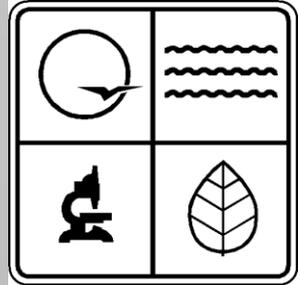
- The departments have worked out a framework
- Focus on small wastewater systems
- Provide access to resources and information for:
 - Onsite wastewater professionals
 - Property owners/system owners
 - Developers
 - Small communities
 - Permitting authorities



Wastewater Web Portal



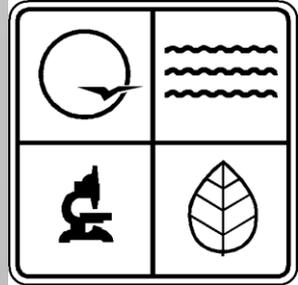
- Links to resources would include:
 - Lists of wastewater professionals
 - Contacts for the appropriate permitting authority
 - Links and guides to permitting processes
 - Decentralized system/technology options and information
 - Links to funding resources



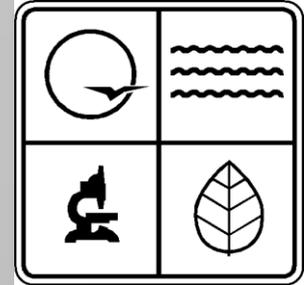
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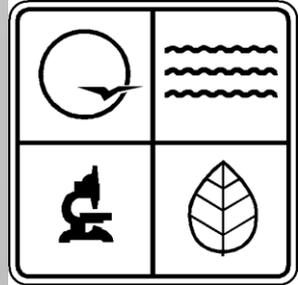
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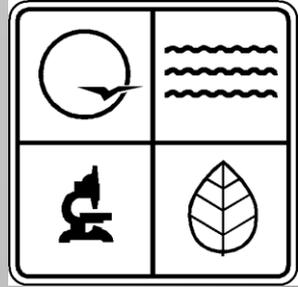


Decentralized Systems

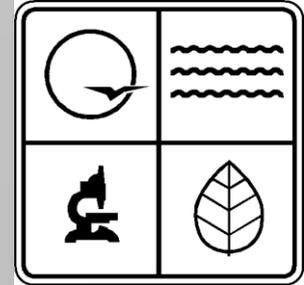


1997 US EPA Response to Congress on Use of Decentralized Wastewater Treatment Systems:

Adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals, particularly in less densely populated areas.



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