



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

The Onsite Crystal Ball

EGLE Onsite Wastewater Program Staff

Where We are and Where We Could Be

Good Morning, Introductions, and Topics

- Current Program Status
- Successes
- Challenges
- Emerging Needs
- Opportunities for Improvement
- Potential Threats
- Visioning for the Future



Current Program Status

- Regulatory:
 - Sanitary Codes
 - State Level Rules and Criteria
- Primary Focus: Site Evaluation, Permitting, and Construction Inspection
 - Some O & M
 - Some Operating Permits Alternative Systems
- Local Public Health Program Evaluations
 - Accreditation Program since 1998
 - Minimum Program Requirements
 - Each Department Reviewed Every 3 Years

Current Program Status

- EGLE Onsite Wastewater Program Staff
 - Technical Consultation for LHD
 - Onsite Projects and Plan Review Assistance
 - Administrative Rules for On-Site Water Supply and Sewage Disposal for Land Divisions, Subdivisions and Condominiums
 - Michigan Criteria for Subsurface Sewage Disposal
 - Draft Michigan Criteria for On-Site Wastewater Treatment
 - Variance
 - Liaison with EGLE Part 22 Rules and Part 41
 - Training and Education

Successes

- Successes = Strengths
- Local Public Health Accreditation (Program Review)
- Septic Smart and Public Education/Engagement
- Technical Guidelines
 - Draft Michigan Criteria for On-Site Wastewater Treatment
 - Risk Based
 - Application and Variances
- Failure Definition

Ongoing Challenges

- Weaknesses
- Funding levels
- “Brain Drain” and Experience Levels for those working in Onsite
- Compliance and Enforcement Tools
 - Most often missed MPR but low incidence
- Consensus on Tools to Achieve Goals

Emerging Needs

- Opportunities
- Unique Businesses - Unique Waste Characteristics
- Creative Land Use with Onsite Wastewater
- Advanced Training for Technology Use
 - Design, plan review, inspection and ongoing maintenance
 - Operating Permit Framework
- Treatment and Dispersal
 - Pathogens and Impaired Uses of Surface Waters
 - Nutrient Reduction including Phosphorous

Opportunities

- Technology Development
- Database Development
- Geographic Information Systems (GIS) and Inventory
- American Water Infrastructure Act of 2018 and EPA
 - Technology Clearinghouse
 - Technical Assistance
 - Assistance for Individual Household Systems Low to Moderate Income
- EPA Water Workforce Initiative
- Innovative Funding Partnerships
- Census: American Community Survey Question regarding Onsite Decentralized
 - Coming to US SOON

Potential Threats To the Reputation of Onsite Wastewater Systems

- Threats are External and Hinder Activities
- Perception that “septic systems are failing and bad”
- Costs of Septic Systems
 - Public acceptance of “high” costs
- Social Beliefs
 - Ranging from “None of Your Business” to “Michigan is Bad Because We are the ONLY One”
- Behavioral Norms
 - “Fix When Broken”
 - No Community Level Incentive

Visioning for the Future

- Elements of a Successful Management Program*
 - Clear and Specific Goals
 - Public Education and Outreach
 - Technical Guidance for Site Evaluation, Design, Construction, and Operation & Maintenance (O & M)
 - Regular System Monitoring and Inspections
 - Adequate Legal Authority, Effective Enforcement and Compliance Incentives
 - Licensing Service Providers

*Source: US EPA Onsite Wastewater Treatment Systems Manual, 2/2002, Chapter 2.2.

Visioning for the Future, continued

- Elements of a Successful Program*, continued
 - Funding Mechanisms
 - Adequate Record Management
 - Periodic Program Evaluations and Revisions
- Successful Program Components Must Be
 - *Publicly Acceptable*
 - *Politically Feasible*
 - *Fiscally Viable*
 - *Measurable, and*
 - *Enforceable*



*Source: US EPA Onsite Wastewater Treatment Systems Manual, 2/2002, Chapter 2.2

Visioning for the Future, continued

- Where Could We Be in Michigan?
 - As-Is Process
 - State Code: Idea or Ideal?
 - Relentlessly Seeking Options
- Build Consensus on Program Goals



Environmental Public Health Goal

- World Health Organization
 - Effective Sewage Treatment is Essential for Good Public Health.
- United Nations - 2010
 - “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights.”



Environmental Public Health Goal, continued

- Let's Explore Consensus on Program Goals*
- Should Onsite Programs include These Goals?
- 1. Public Health Protection Goals:
 - a) Reduce Health Risk due to Sewage Backup in homes or on the ground?
 - b) Prevent Groundwater and Well Water contamination due to pathogens, nitrates, and toxic substances

*Using United States EPA Onsite Wastewater Treatment Systems Manual, 2/2002, Chapter 2.4.3

Environmental Public Health Goals, continued

- 1. Public Health Protection Goals, continued:
 - c. Prevent Surface Water Pollution due to Pathogens, Nutrients, and Toxic Substances
 - d. Prevent Sewage Discharges to the Ground Surface to Avoid Direct Public Contact
How about Fido's Contact?
 - e. Minimize Risk from Reuse of Inadequately Treated Effluent for Drinking Water, Irrigation, or Other Uses

Environmental Public Health Goals, continued

- 1. Public Health Protection Goals, continued:
 - f) Minimize Risk of Inadequate Management of Septic Tank Residuals
 - g) Minimize Risk due to Public Access to System Components
- 2. Public Nuisance Abatement Goals
 - a) Eliminate Odors caused by Inadequate Plumbing and Treatment Processes
 - b) Eliminate Odors or Other Nuisances related to Transportation, Reuse, or Disposal of Septage

Environmental Public Health Goals, continued

- 3. Environmental Protection Goals:
 - a) Prevent and Reduce Adverse Impacts on Water Resources due to Pollutants Discharged to Onsite Systems
 - b) Prevent and Reduce Nutrient Over-Enrichment of Surface Waters
 - c) Protect Sensitive Aquatic Habitat and Biota

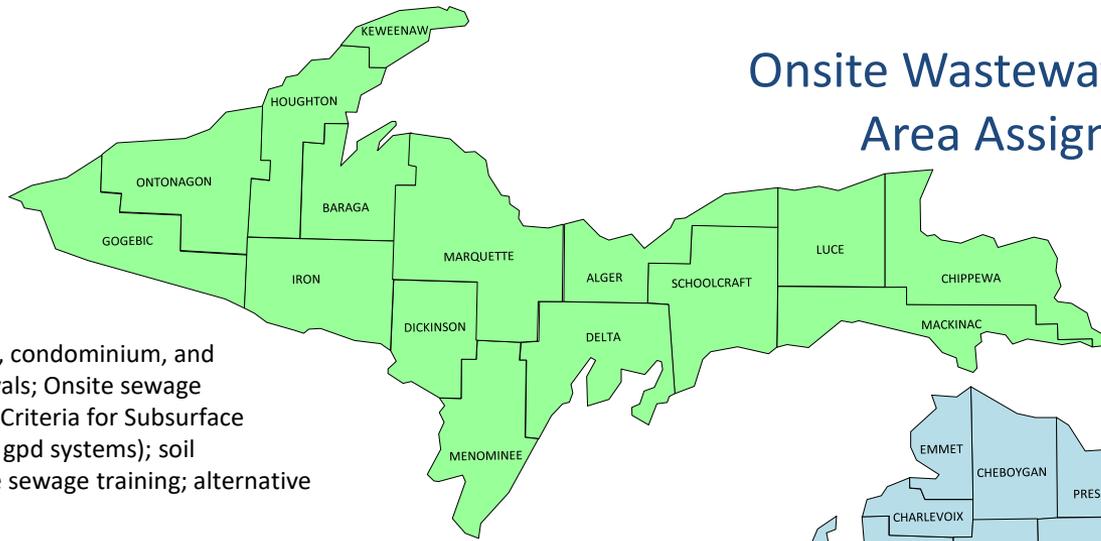
Onsite 2020

A Clear Vision for the Future

- Moving forward- Questions to Ponder
- Is there consensus on program goals?
- Can you (or will you) actively support environmental public health goals?
 - *Actively Support*  100% Buy-in
- What is your vision for onsite wastewater in Michigan?



Onsite Wastewater Program Area Assignments



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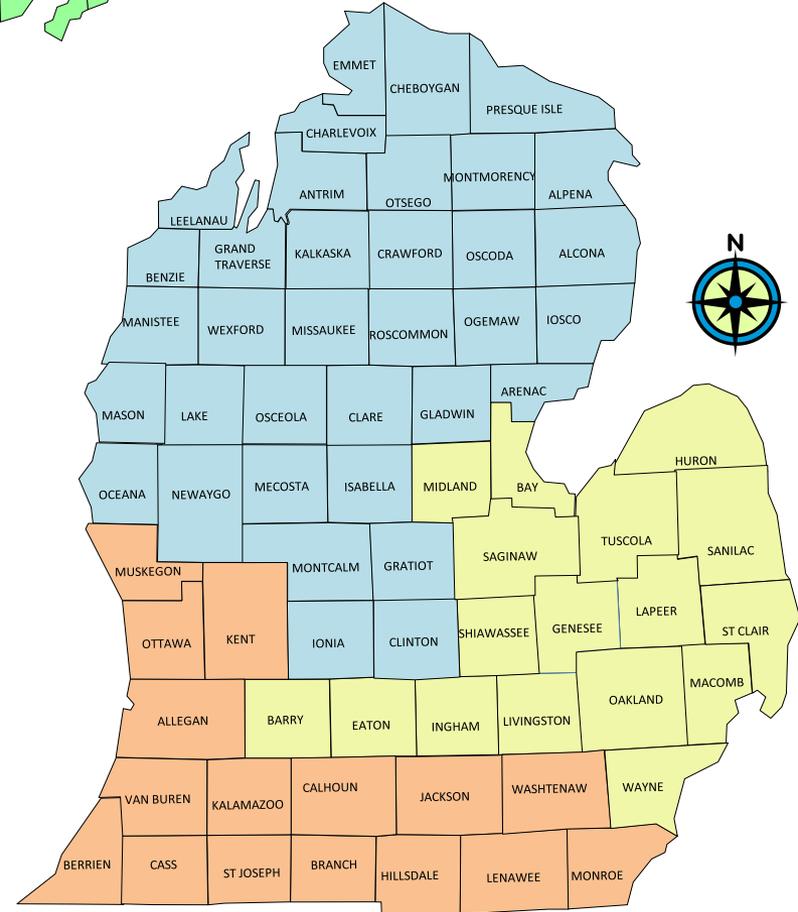
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