



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**
Division of Public Health
Environmental Health Section

Onsite Water Protection

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Environmental Health Section

The Section is comprised of the following:

- Food Protection and Facilities Branch
- Children's Environmental Health Branch
 - Includes Health Hazards Control Unit (lead & asbestos abatement)
- Centralized Intern Training and Authorization
- Onsite Water Protection Branch



Environmental Health Section

The Section is primarily responsible for:

- Initial training (Centralized Intern Training) of LHD/Environmental Health employees
- Authorizing LHD/Environmental Health employees [pursuant to G.S. 130A-4(b)]
- Providing guidance, law/rule interpretation, and regulatory oversight to LHDs
- Program reviews required for NC LHD Accreditation



Juggle Much?

Environmental Health has enforcement authority over seven areas:

- Child Care and School Sanitation
- Childhood Lead Poisoning Prevention
- Food Lodging and Institutions
- On-Site Wastewater
- Public Swimming Pools
- Tattoos
- Private Wells



Onsite Water Protection Branch

- Includes onsite wastewater, private drinking water wells, and Well Contractor Certification Commission (WCCC) staff
- Branch staffing:
 - 6 Regional Soil Scientists
 - 6 Specialty Wastewater Improvement & Field Training (SWIFT) staff
 - 2 Engineers
 - 2 WCCC staff
 - 1 Non-point source pollution coordinator
 - Branch Head



Septic Systems in NC

- Nearly 2.2 M septic systems are serving about 50% of the state's population to treat and dispose of household wastewater
- Dependence on septic systems has remained relatively constant for 20+ years
- Septic systems are utilized in all 100 counties
- Septic system use in counties ranges from 14% to 93%
- Approximately 1,000,000 septic systems have been installed since 1990 (~27,600 per year)

Delegation of Authority



- Begins with 2 weeks at Centralized Intern Training (CIT)
- Before and after CIT, training with SWIFT Team
- Practice, practice, practice!
 - 20 soil/site evaluations including mock permits
 - 10 septic system installation inspections including mock permits
- Written examination by Regional Soil Scientist
- Field evaluation by Regional Soil Scientist

Overview — 15A NCAC 18E

- Governs wastewater treatment & dispersal systems in North Carolina
- Applies to residential and certain commercial on-site septic systems
- Implemented under G.S. 130A-335
- Regulates permitting, design, installation, operation, and maintenance
- **Rules were re-written for first time in over 30 years and took affect January 1, 2024**



Permitting Framework

- Improvement Permit (IP) – Includes soil/site evaluation. IP issuance includes site approval for system location and type.
- Construction Authorization (CA) – Authorizes installation and required for building permits.
- Operation Permit (OP) – Issued after approval of system installation and governs long-term system operation.
- Private Option Permits:
 - Engineer Option Permits (EOP)(pursuant to GS 130A-336.1)
 - Authorized Onsite Wastewater Evaluator (AOWE)(pursuant to GS 130A-336.2)
 - “Hybrid” permits [pursuant to GS 130A-335(a2)]

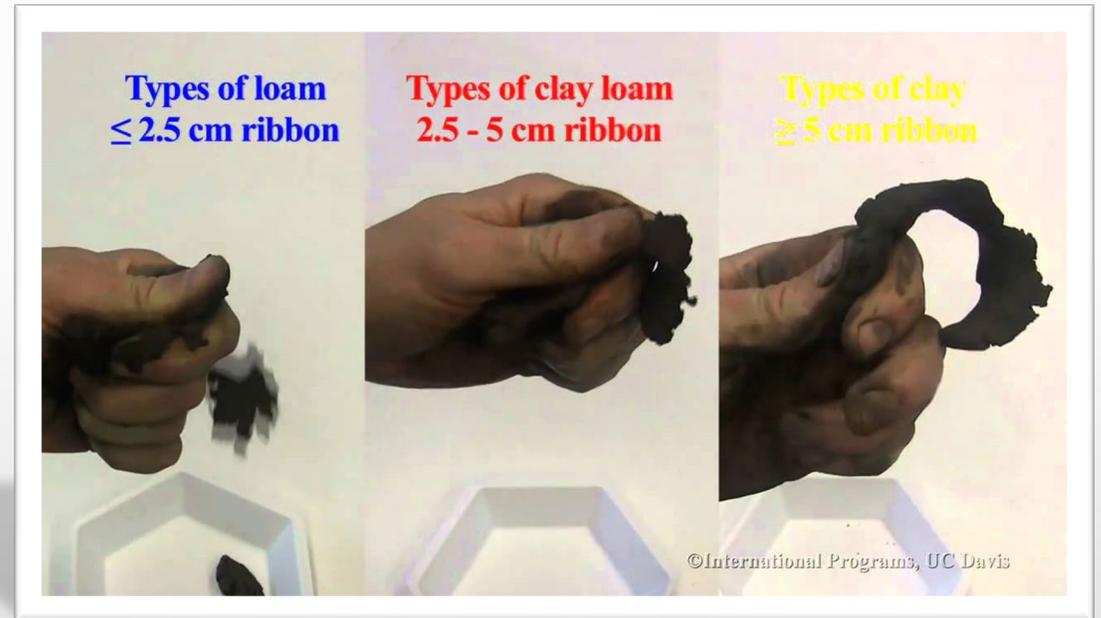
Role of Local Health Departments (LHDs)

- Conduct soil and site evaluations
- Issue IP, CA, and OP permits
- Inspect installations prior to operation
- Investigate complaints and system failures
 - Issue repair permits
- Conduct existing system inspections for “no flow” home additions
- Enforce compliance and issue Notices of Violation when necessary



Soil/Site Evaluation

- Topography, soil morphology, soil depth, soil wetness, and setback requirements determine system suitability
- Must identify initial system area and repair area
- Design based on Daily Design Flow (DDF)



Installation Requirements

- Must comply with approved permit and design (IP/CA)
- Minimum septic tank sizing requirements
- Proper trench depth, spacing, and materials required
- Final inspection required prior to Operation Permit issuance



Operation & Maintenance

- Owner responsible for proper operation and maintenance
- Some systems require routine monitoring and reporting
- Malfunctioning systems must be repaired promptly
- LHD maintains records and enforces compliance



Legal Actions

- REHS has the authority to take permit action:
 - Intent to Suspend or Revoke.
 - Immediate Suspension or Revocation:
 - Both have 30-day timeframe
- REHS has legal authority to investigate as it relates to septic and well complaints. If denied entry, REHS can seek an administrative warrant to be able to conduct the visit.
- A Notice of Violation (NOV) will be issued if the complaints are justified or system is malfunctioning. Owners typically have 30 days to begin coming into compliance, but timeframe differs based on many factors.



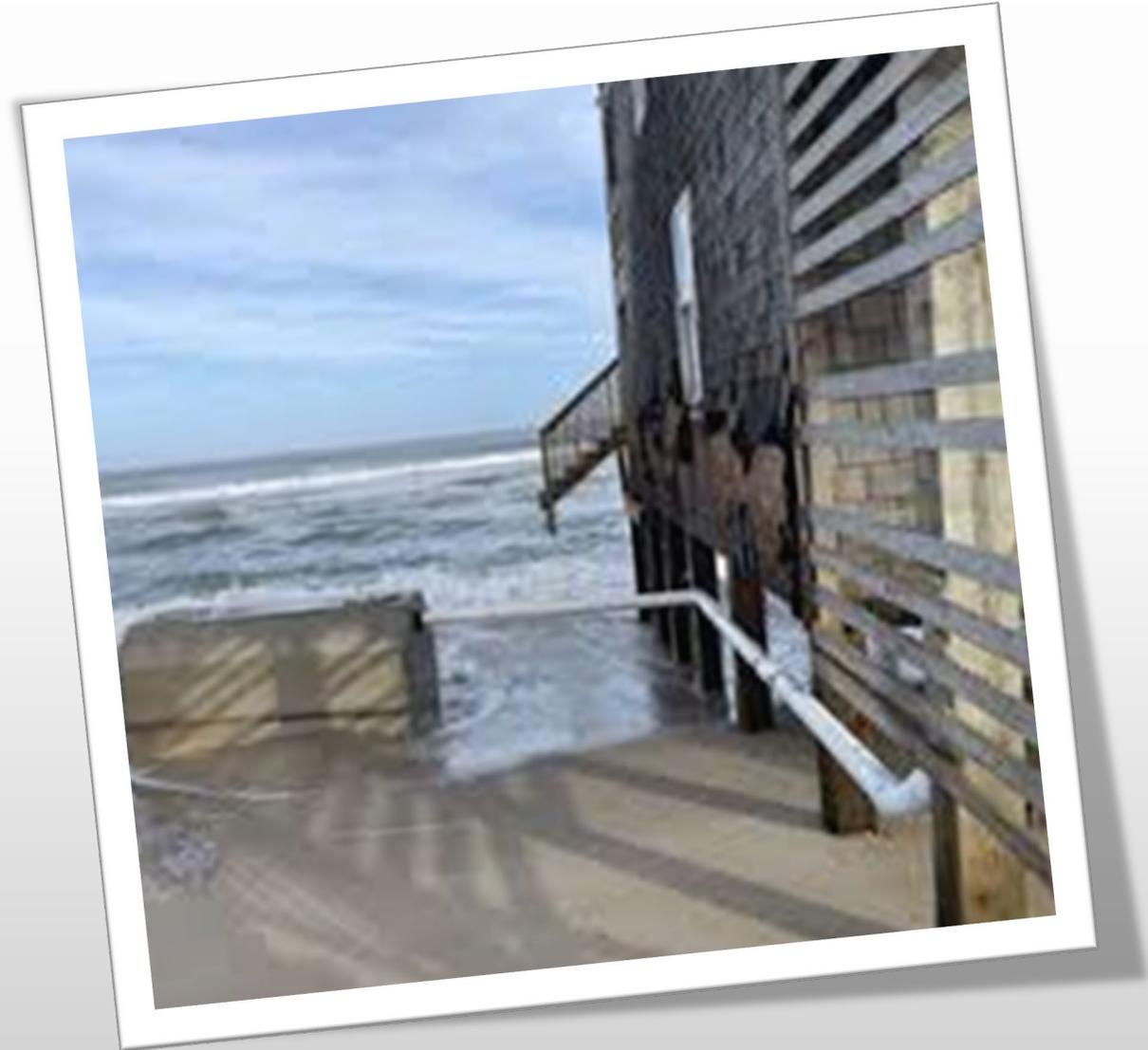
Key Takeaways

- 18E establishes statewide standards for septic systems
- LHDs are primary permitting and enforcement authorities
- Proper site evaluation is critical to system success
- Shared responsibility among owners, professionals, and regulators
- Private option permitting is increasing statewide (approx. 15-20% currently)



Post-Storm Septic System Assessment Process

Environmental Health
Response Procedures



Initial Field Assessment

- EH staff coordinate with local building inspectors
- Teams physically walk impacted beach areas
 - Damaged dwellings are located and flagged
 - Systems compromised or inlet plumbing damage identified



Exposed Tanks & Plumbing Damage

- If tanks are exposed, owner/management company is asked to have tank pumped.
- If plumbing damage only:
 - Tank pumping is advised
 - Coordinate with Planning Department for required permits
 - Licensed plumber must reconnect plumbing



Partially Exposed Tanks

Owner/management company must replace appropriate cover (sand) over tank.

- Coordination with CAMA for any required permits related to sand placement.



Compromised Tank and/or Drain Field

Owner/management company notified dwelling cannot be occupied.

- If structural damage is significant, building inspector may request utility disconnect at transformer.
- Owner advised of repair permit process.
- Physical survey required showing current Mean High Water (MHW) mark.



Repair Evaluation & Permitting

Survey reviewed to determine Best Professional Judgment (BPJ) repair options.

- Repair permits issued as appropriate.
- Owner advised to hire installer experienced with oceanfront systems and CAMA.
- Spring installation encouraged due to winter NE wind/wave conditions.



Inspections & Storm Reassessment

Tank installation inspections performed per standard procedures.

- If another significant storm occurs post-permit:
- Updated survey with new MHW required.
- Repair permit amended if necessary.



Sites Unable to Receive Repair Permits

Some dwellings have lost substantial land area.

- Repair permit cannot be issued in certain cases.
- Options may include relocation, off-site pumping arrangements, or awaiting structural collapse in extreme cases.



ANY
QUESTIONS
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NCDHHS