The Florida Department of Health and its Onsite Sewage Treatment and Disposal System (OSTDS) Function

Bureau of Environmental Health
Division of Disease Control and Health Protection
Florida Department of Health
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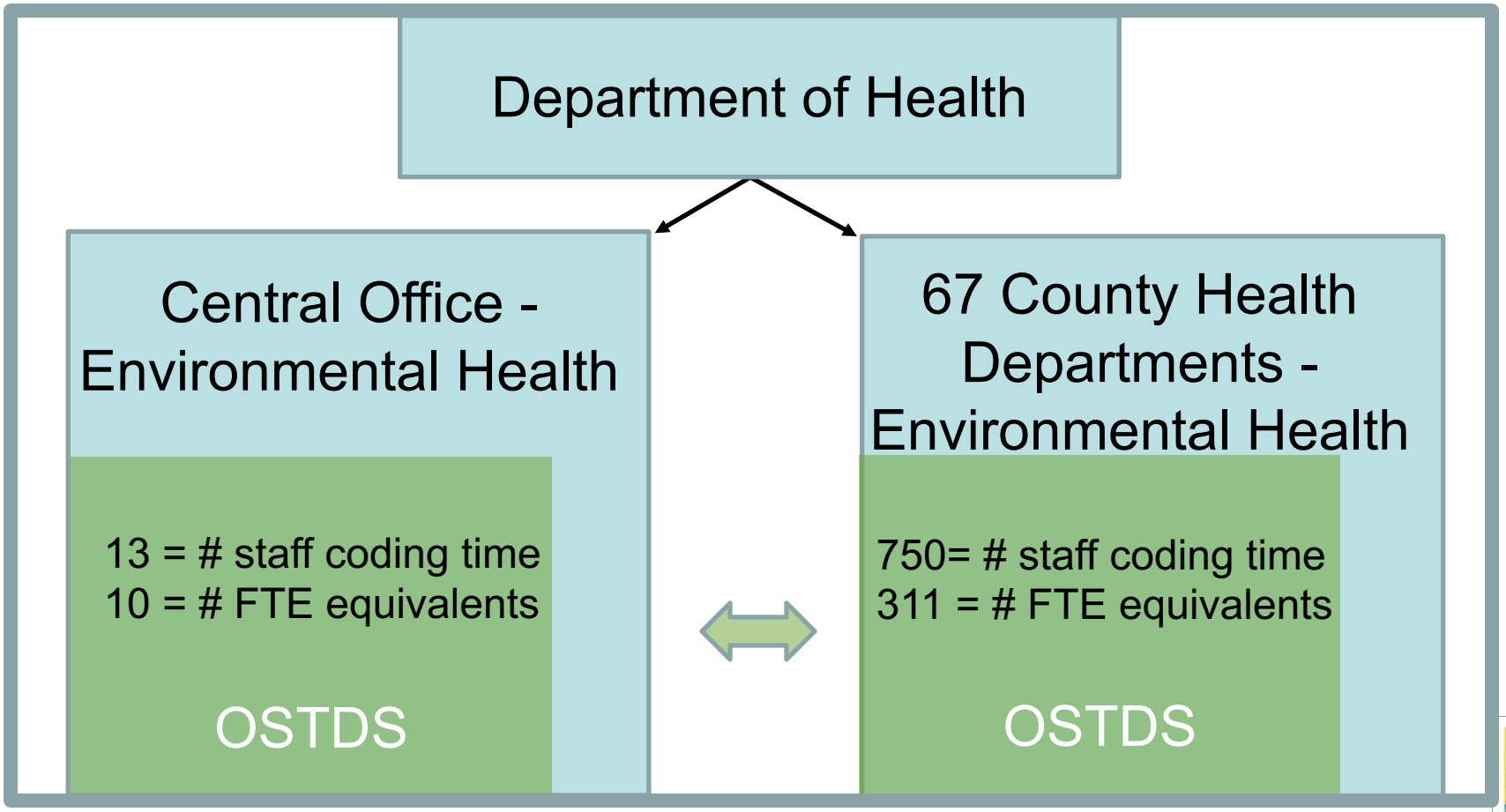
Terminology

- Onsite Sewage Treatment and Disposal Systems (OSTDS)
  - Typically, a septic system consisting of septic tank and drainfield
  - Individual wastewater treatment systems where sewer is not available
  - Advanced treatment types other than typical septic systems:
    - Aerobic Treatment Units (ATU)
    - Performance-Based Treatment System
  - Are permitted by the Florida Department of Health (DOH)

Onsite Sewage Program within the Integrated Department of Health



FTE= Full time employees
# = number

DOH's Role: Protect Public Health and the Environment

- ✓ Primarily protect public from waterborne illness
  - ✓ Rules set protective distances from OSTDS
  - ✓ Rules ensure treated sewage is below ground surface
- ✓ The drainfield further breaks down viruses/pathogens from septic tank; can reduce nitrogen by 10-50%
- ✓ Number of OSTDS is tied to drinking water source:
  - ✓ Private wells 1500 gpd/acre, lot size 0.5 acre
  - ✓ Public water supply 2500 gpd/acre, not more than 4 lots/acre
- ✓ OSTDS are effective alternative to central sewer
  - ✓ Less environmentally disruptive in some areas
  - ✓ Less than 40% of OSTDS in environmentally sensitive areas

Statutory Direction

Florida Statute (FS), Section 381.006, mandates the Florida Department of Health (DOH) to conduct an Onsite Sewage Treatment and Disposal Systems (OSTDS) function

Section 381.0065-0067, FS, provides legislative intent and requirements for the proper management of the OSTDS function

Statutory Direction (continued)

- OSTDS are intended to be used where sewers are not available

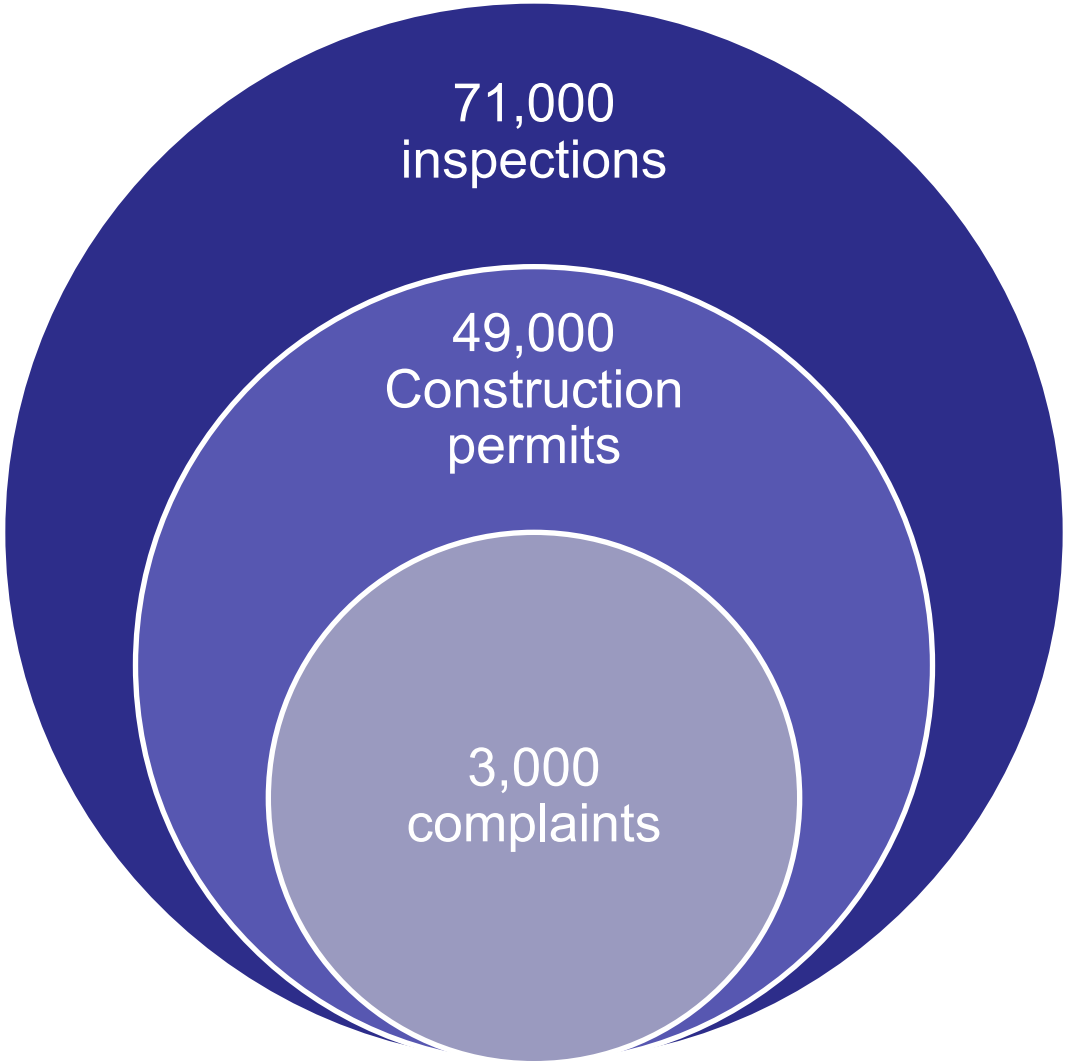
Florida Statute Section 381.0065(1)(b)

…where…sewerage system is not available, (DOH) shall issue permits for the construction, installation, modification, abandonment, or repair of OSTDS

Jurisdiction: DOH compared to Department of Environmental Protection (DEP)

- DOH permits sewage flow of up to 5,000 gallons per day (gpd) commercial strength and up to 10,000 gpd domestic strength, larger flows are permitted by DEP
- DEP permits OSTDS that includes hazardous and industrial wastes
- DEP regulates package plants (pre-manufactured treatment facilities) and open tanks
- Interagency agreement between DEP and DOH

Activities during 2018-2019



Responsibilities of DOH

- Construction Permitting and Inspection
  - ✓ New,
  - ✓ Repairs,
  - ✓ Modifications,
  - ✓ Abandonments
- Certification of staff to conduct OSTDS inspections, site evaluations, and soil typing
- Septic tank contractor registration
- Sanitary nuisance complaint investigation and enforcement
- Statewide variance program (VRAC)

VRAC=Variance Review and Advisory Committee

Responsibilities of DOH (continued)

- Operating permits/inspections
  - Aerobic Treatment Units (~10,000)
  - Performance-based Treatment Systems, including Innovative Systems (~2000)
  - Non-industrial establishments in Industrial/Manufacturing zones (~6,000)
  - Commercial waste (e.g., Restaurants) (~3,000)
- Research to evaluate performance, environmental health and public health effects of OSTDS
- Approval of products and technology (Innovative)

Examples of DOH Research

- Drainfield Effectiveness/Lysimeter Study (University of South Florida)
- Florida Keys Onsite Wastewater Nutrient Reduction Study
- Passive Nitrogen Reduction Study
- Performance and Management of Advanced Onsite Systems
- Evaluation of Water Quality around the Town of Suwannee before and after Sewering
- Florida Onsite Sewage Nitrogen Reduction Strategies Study

Approval of Innovative Systems for Use in Florida Requires Testing in Florida

- In 1983, Legislature enacted a law for new OSTDS technologies approved for use in Florida
  - Soil and other conditions often unique to Florida
  - Failed technology cost citizens
- Innovative Permitting Process implemented
  - Requires limited testing of new technology systems
  - Technology monitored for a period of time
  - Regulatory and functional issues resolved
  - Satisfactory performance in leads to statewide approval for use

Evaluation of Nitrogen-Reducing Technologies (ATUs)

Product approval based on the NSF 40/NSF 245 Report and compliance with Rule 64E-6.012, Florida Administrative Code

- ✓ Product manual review
- ✓ Proof of at least one maintenance entity in the state
- ✓ Spare parts
- ✓ Approved tanks
- ✓ Wiring

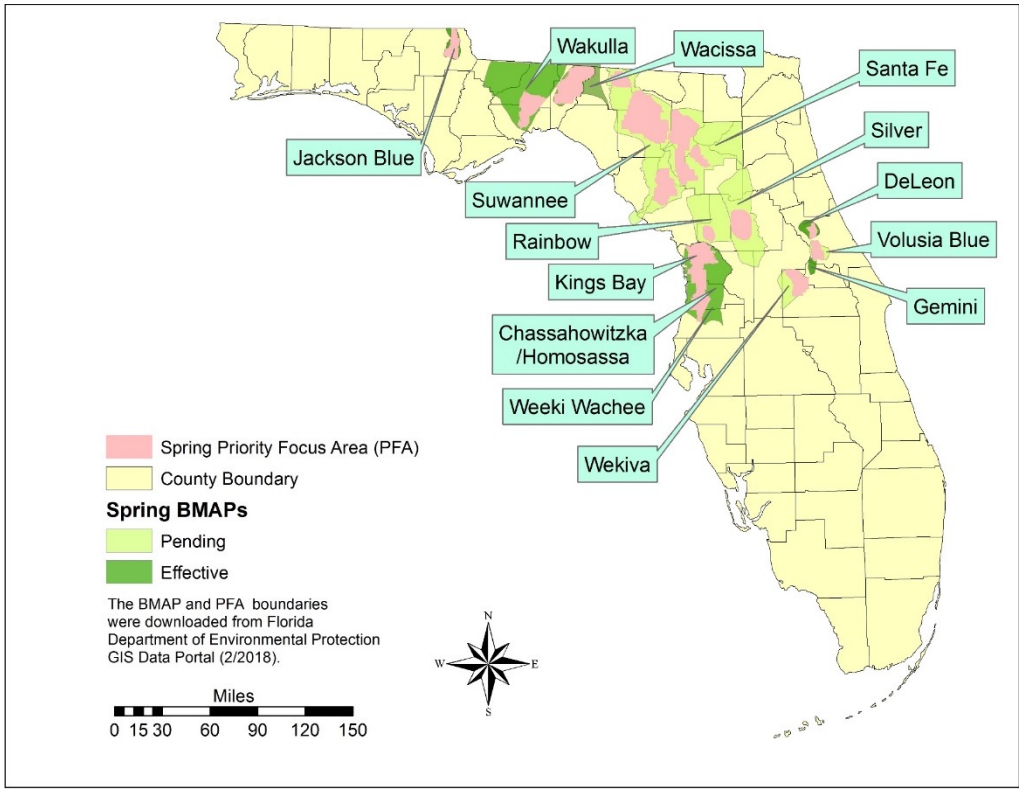
NSF=National Sanitation Foundation

Policies Requiring More Treatment

- Some local ordinances require ATUs or more water table separation
- Some local ordinances require nitrogen reducing systems
- Some statutes address areas with water quality concerns: Florida Keys, Aucilla and Suwannee
- Statute enabling higher treatment in exchange for permitting on challenging lots (PBTS)

Policies Requiring More Treatment (Continued)

Spring Basin Management Action Plans (BMAPs) and the Florida Aquifer and Springs Protection Act



- ✓ DEP requirements, DOH permitting
- ✓ Nitrogen reduction: 50% pretreatment and 65% overall, including drainfield
- ✓ Current: New permits, small lots, in Priority Focus Areas (PFAs)
- ✓ Future: Existing system requirements

Nitrogen-Reducing Treatment System Options

Nitrogen-reducing Aerobic Treatment Units

- Certified to meet National Sanitation Foundation Standards 40 and 245
- Require operating permit (OP), maintenance entity (ME) and maintenance contract agreement (MCA)

Performance-based Treatment Systems

- Must be designed by Florida Professional Engineer
- Require OP, ME and MCA

In-ground Nitrogen-Reducing Biofilter (INRB) stacked under a conventional drainfield

- No engineer design needed unless lot conditions require
- No OP, ME or MCA needed

Florida HEALTH

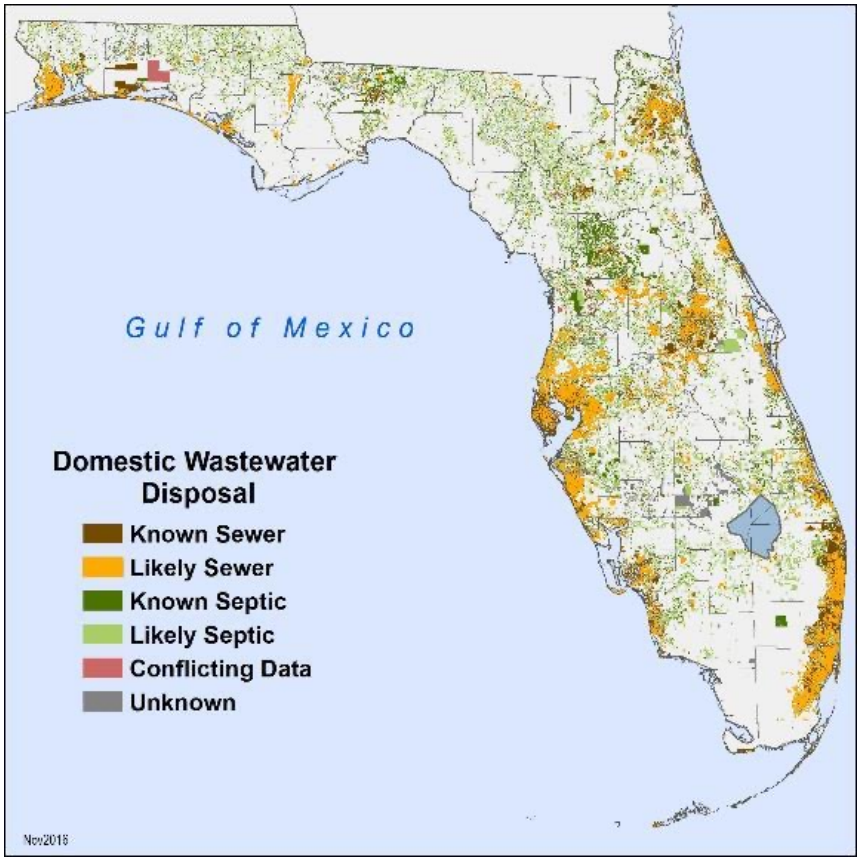
Permitting and Tracking

Environmental Health Database

- Installation/ Construction
- Repair/ Modification
- Abandonments
- Operating permits

Florida Water Management Inventory

- GIS Data for Water and Wastewater
- Publicly available
- Statewide
- Parcel-Level



https://gis.flhealth.gov/FLWMI

Advisory Boards Established by Statute:

- DOH OSTDS program utilizes stakeholders from a wide range of interest groups that have ties to OSTDS

- Stakeholder Advisory Boards established by statute:
  - ✓ Variance Review and Advisory Committee (VRAC) on variances
  - ✓ Research Review and Advisory Committee (RRAC) on research
  - ✓ Technical Review and Advisory Panel (TRAP) on rules

Current Rule Efforts to Reduce Nitrogen from OSTDS

- Ongoing rule-making to:
  - ✓ Add In-ground Nitrogen-Reducing Biofilter designs
  - ✓ Require nitrogen-reducing upgrades during repair or modifications of existing systems (preparation for future Spring BMAPs)
  - ✓ Streamline innovative system permitting process

- Under Consideration:
  - ✓ Increase requirements for repairs or modifications of legacy systems installed when less stringent standards applied (density, water table separation)

Challenges

- Too much nitrogen in nitrogen-sensitive areas
- Failing systems or systems that were installed to lesser requirements (current repair rate is around 1%)
- Permitting on old lots
- Program fees do not cover costs for staffing resources
- Consistent funding lacking for maintaining and upgrading electronic databases for tracking and permitting

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