



Environmental Health and Drinking Water Branch

Subsurface Sewage Disposal Systems

Matthew Pawlik, PE, RS, Sanitary Engineer 3
Environmental Health & Drinking Water Branch

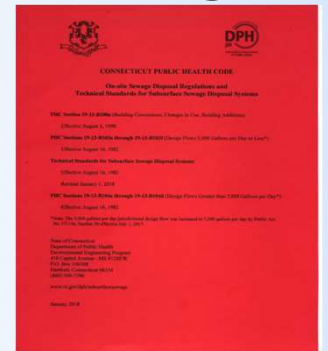
4/05/2022

PRESENTATION AGENDA

- Program Responsibilities and Structure
- Regulatory / Statutory Responsibilities
- Methods of Sewage Disposal
- Operation of Conventional On-site Sewage Disposal Systems
- Regulatory Jurisdiction of Sewage Disposal
- Percentage of State Served by On-site Sewage Disposal Systems
- Role of Local Health Departments
- Program needs for a DPH AT Sewage Program

Environmental Engineering Program

- **Primary Role:** Administering the on-site subsurface sewage disposal system (SSDS) Technical Standards



- Approve specified SSDS components



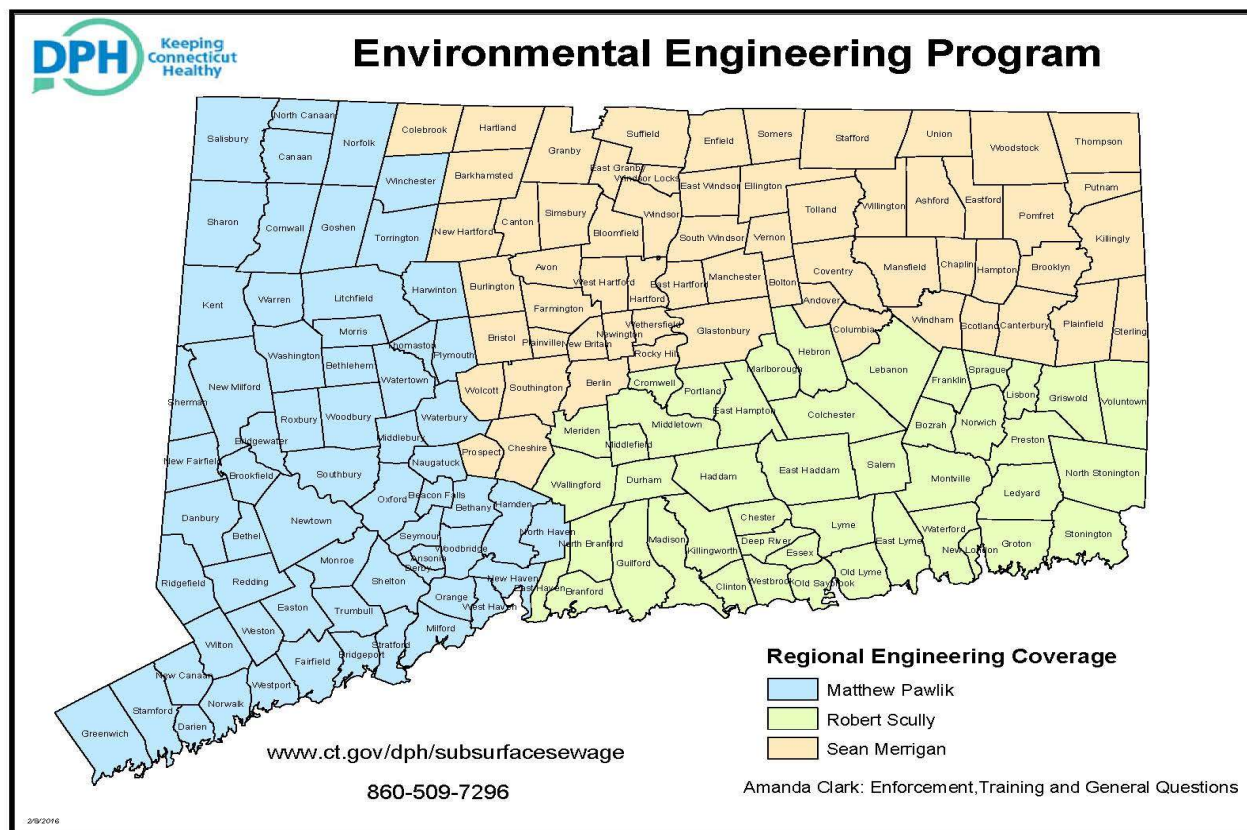
- Provide technical assistance to local health departments and other state/regional/federal agencies

PROGRAM DUTIES CONTINUED

- Provide technical assistance to design engineers and licensed installers
- Issue exceptions for central SSDSs, off-site SSDSs, and SSDS repairs within the protective radius of wells
- Train and approve local health department staff that issue SSDS permits/approvals
- Conduct complaint investigations/enforcement actions against SSDS installers and cleaners, and local health officials
- Approve large system plans (design flows >2000 GPD)

Program Structure

- 3 Regional Engineers
- 1 Environmental Analyst



Subsurface Sewage Disposal Systems (SSDS)

Statutory and Regulatory Responsibilities

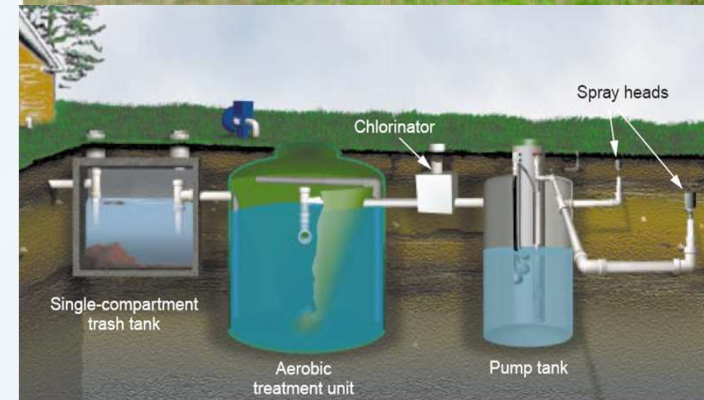
- Water pollution control authority statute: CGS Sec. 22a-430(g)
- Public health statute: CGS 19a-36
- Licensing statutes: CGS 20-341e
- Alternative Treatments (AT) systems: CGS 19a-35a
- CT Public Health Code (PHC) Sections 19-13-B100a, B103, B104
 - Subsurface sewage disposal systems are regulated by Public Health Code (PHC) Section 19-13-B103 and the associated Technical Standards for Subsurface Sewage Disposal Systems.
 - Subsurface sewage disposal systems on sites with sewage design flows exceeding 7,500 GPD, alternative sewage treatment systems, and community sewage disposal systems are permitted by the CT Department of Energy and Environmental Protection.

Methods of Sewage Disposal

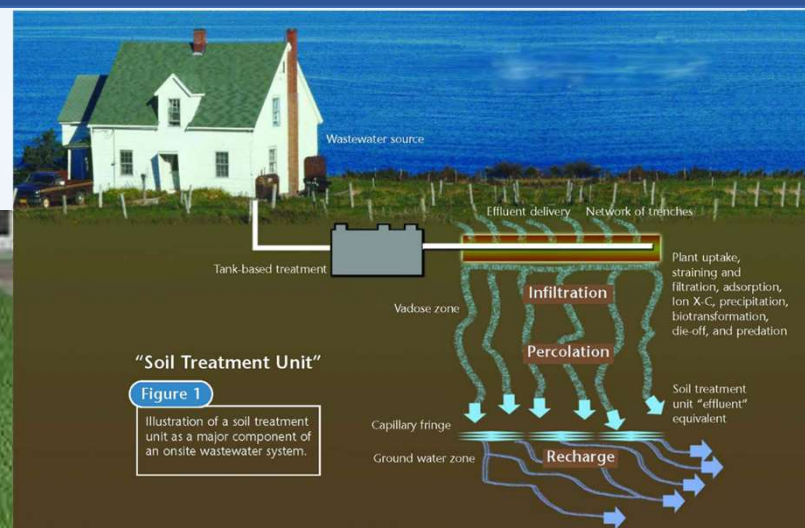
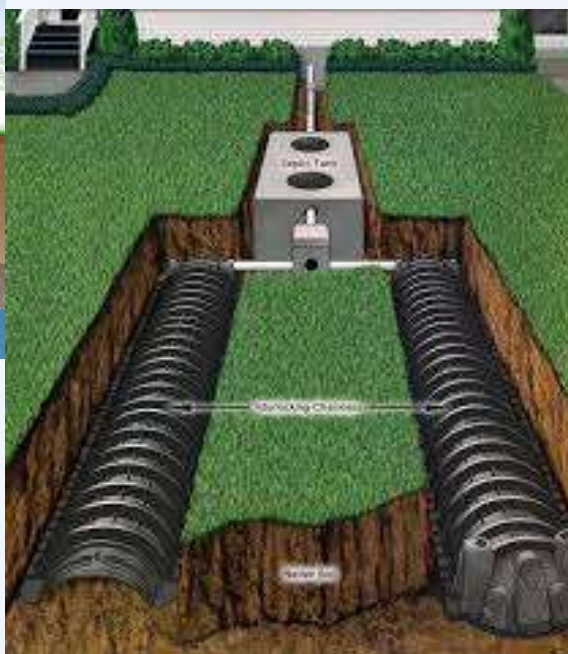
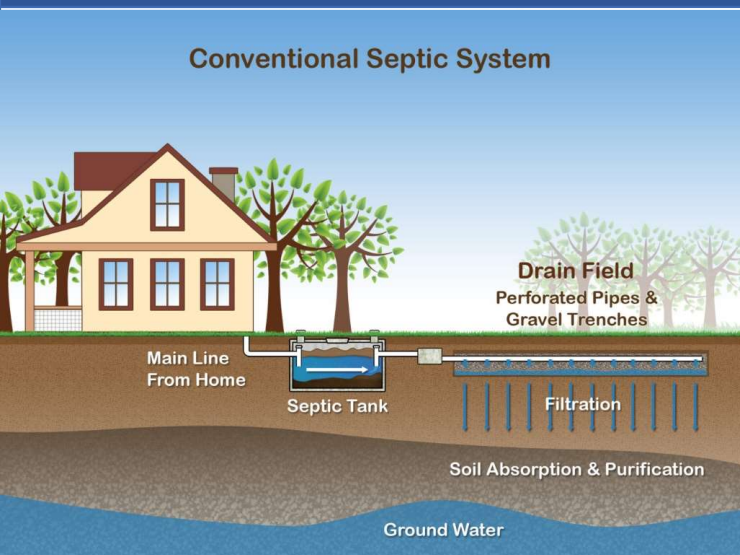
- **Conventional “Septic Systems”**
 - Subsurface Sewage Disposal System
 - Serve approximately 1.5 million people in CT
 - Roughly 95% of all septic systems are regulated by DPH
- **Public Sewers**
 - Serve approximately 60 percent of CT population
 - Predominantly in urban areas and areas of high-density development
- **Alternative Treatment Systems**
 - Requires DEEP permit
 - Advanced treatment
 - Mini package treatment plan
 - Mechanical treatment



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Conventional Sewage Disposal System

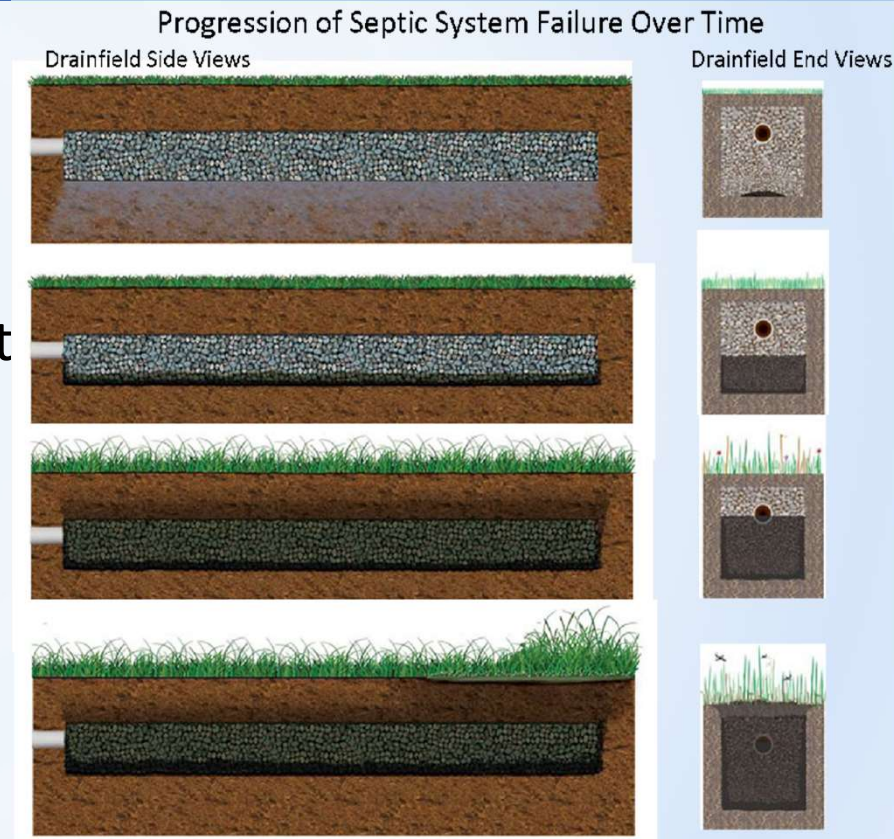


Subsurface Sewage Disposal Systems

- Primarily soil-based treatment
- Treats and disperses sewage effluent
- Aerobic bacteria (oxygen-loving) most efficient
- Biomat on leaching structure / soil interface
- Internal biomat



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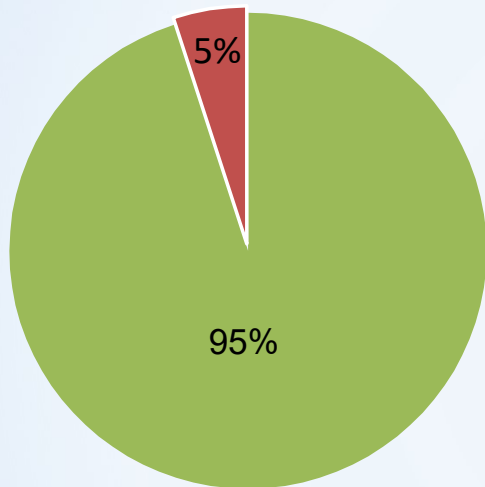


JURISDICTION

- **Department of Public Health (DPH)**
 - Subsurface sewage disposal systems with sewage design flows of 7500 gallons per day (GPD) or less
 - Water Treatment Wastewater Systems on a DPH jurisdiction site
- **Department of Energy and Environmental Protection (DEEP)**
 - Municipal wastewater – public sewers
 - Advanced or alternative treatment
 - Community sewage disposal systems and conventional subsurface sewage disposal systems with sewage design flows more than 7500 GPD
- **Local Health Departments**
 - Enforce Public Health Code requirements and issue permits for subsurface sewage disposal systems with sewage design flows of 7500 GPD or less

Approximate Connecticut Population Served

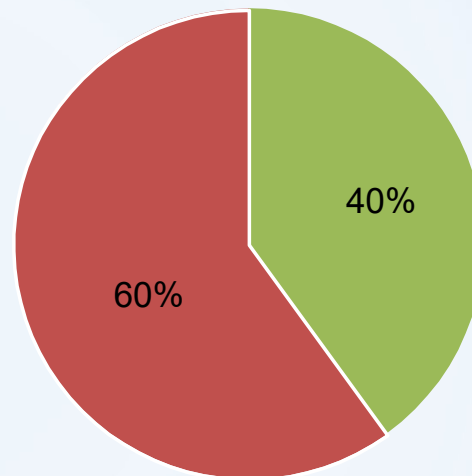
Decentralized Systems



■ DPH Regulated Subsurface Sewage Disposal Systems 95%

■ DEEP Regulated Sewage Systems 5%

Domestic Sewage Disposal



■ Decentralized Systems 40%

■ Centralized Systems (A.K.A., Public Sewers) 60%

Local Health Departments & Districts

- Issue all permits (Permit to Construct, Permit to Discharge, etc.) for subsurface sewage disposal systems with design flows 7500 GPD or less
- Witness all site testing including soil testing and percolation testing
- Perform all inspections of subsurface sewage disposal systems during and after construction
- Provide enforcement of all subsurface sewage disposal system regulations
- Review and approve “B100a” activity proposals – These include activities such as a proposed building / sewage design flow expansion, change of use of a structure and the installation of accessory structures and pools

Requirements for DPH Jurisdiction of an AT Sewage Program

Training:

- Local Health Department staff training. A Phase III Training class and certification specifically for AT sewage systems. Implementation of a CEC (continuing education credit) program for certified local health department staff would be required due to changes in technology.
- License sewage installers / operators specifically for AT sewage systems. Implementation of a CEC program would also be required.

Certification:

- Certify individual AT sewage system product manufacturers for approval for use. Requires monitoring of product performance to a specific standard. DPH certified product manufacturers will certify licensed individuals to operate their products.

Enforcement:

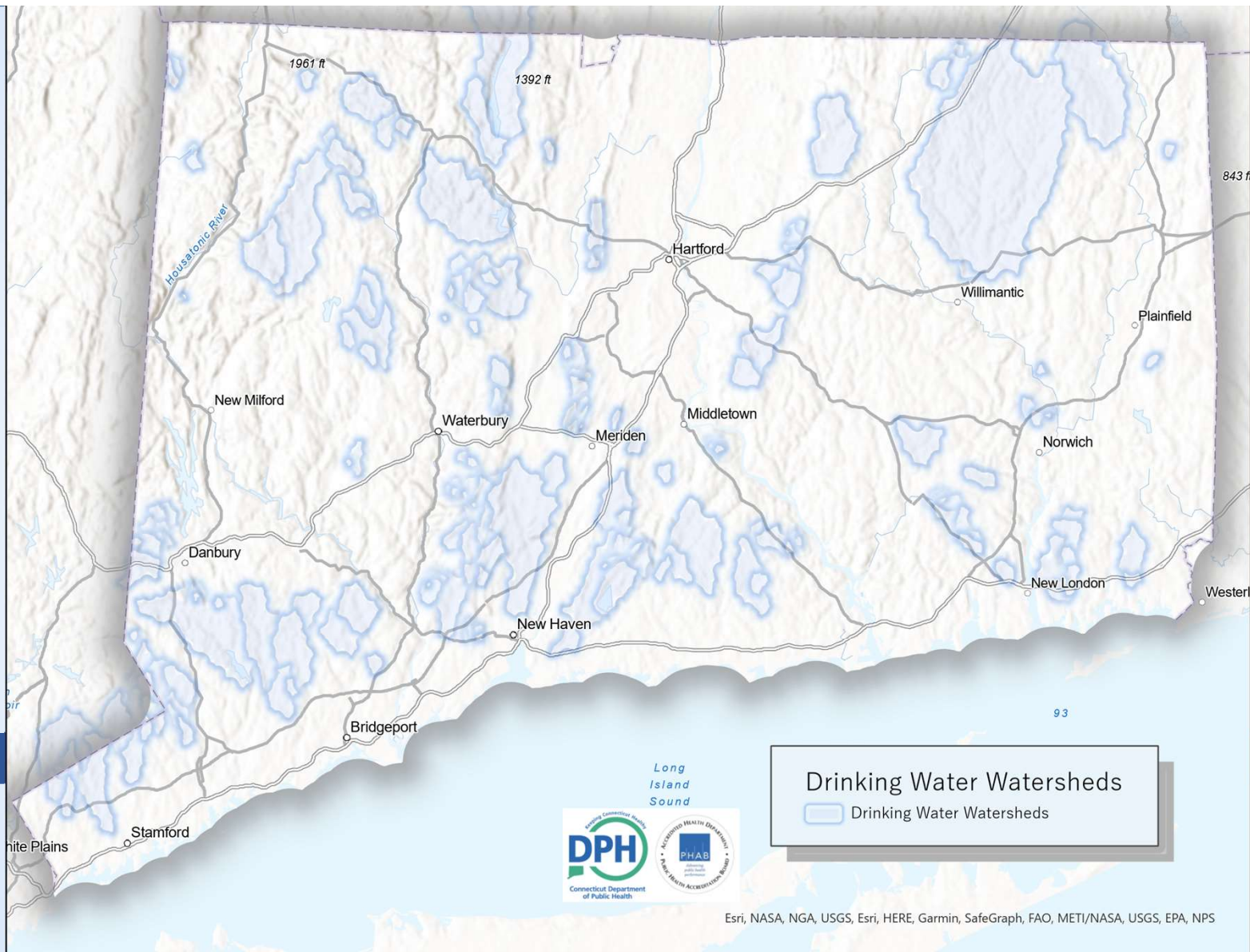
- Includes tracking individual AT sewage system users and ensuring continued usage and proper functioning of equipment. Also includes enforcement against AT licensed sewage installers / operators.
- An electronic data management system would be required to oversee enforcement, certification and licensed individuals.

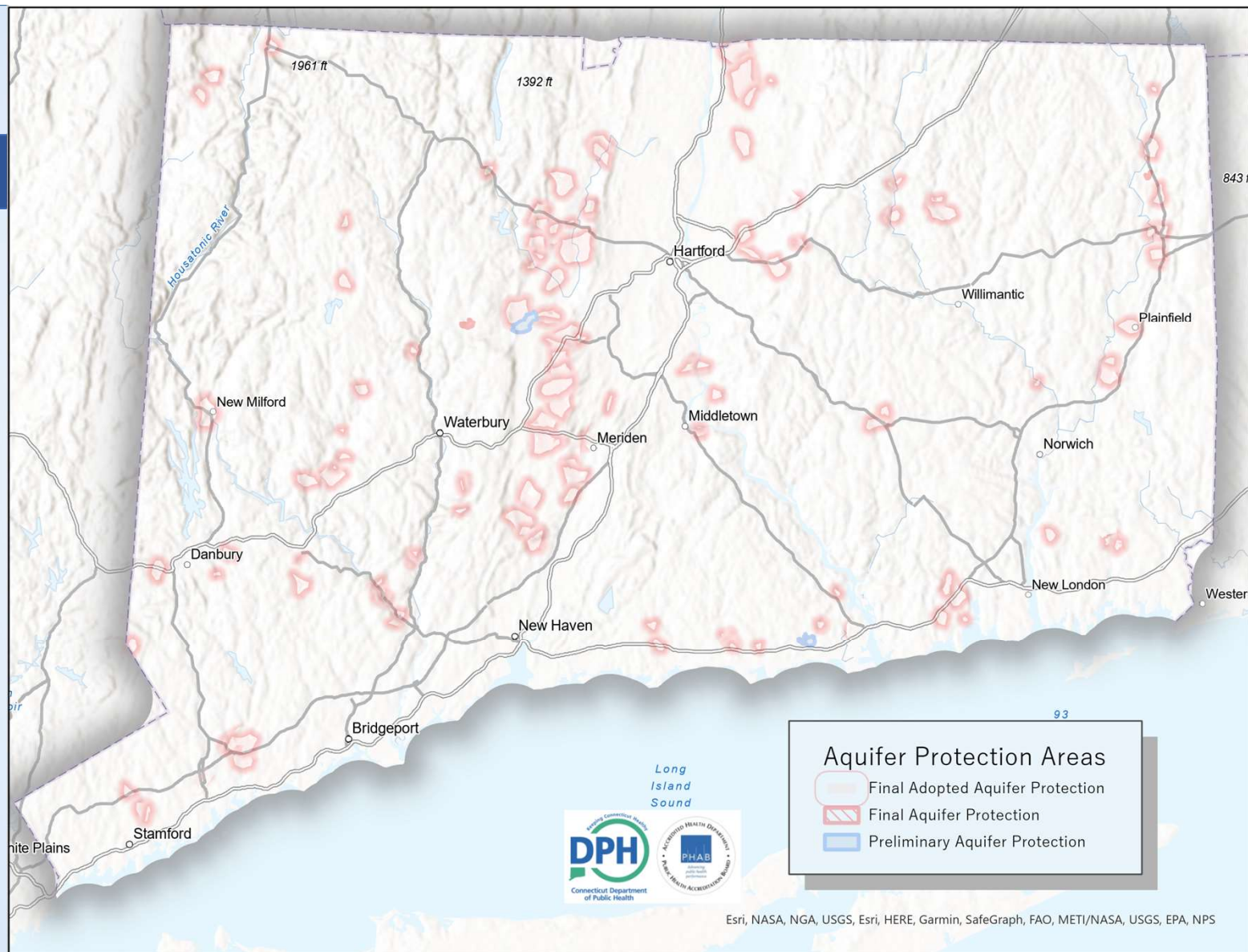
DPH Drinking Water – Public & Private

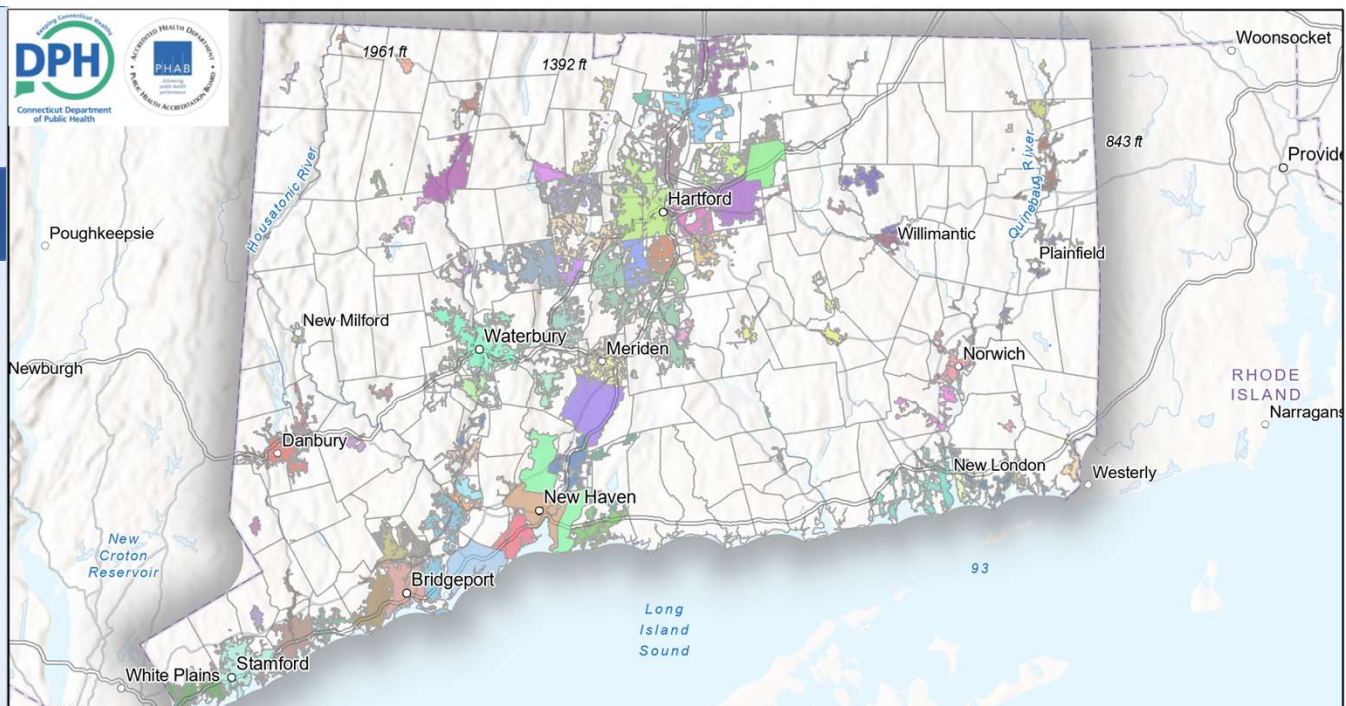
- Jurisdiction of all matters that concern purity and adequacy of the state's public drinking water supply, CGS Section 25-32 to 25-51, since early 1900s
- DPH has primacy of the EPA Federal SDWA since 1976 and has adopted 17 Rules
- DPH authority includes oversight of:
 - SDWA Rule Adoption – Ground Water Rule, Revised Total Coliform Rule, Lead and Copper Rule Revisions
 - 100,000 acres of water company owned land
 - Source water protection laws
 - Water Supply Planning – WUCC & Individual Plans
 - Certified Drinking Water Treatment & Distribution System Operators
 - Engineering Sanitary Survey reviews of public water systems, violation follow-up
 - Drinking water quality compliance monitoring and enforcement
 - DWSRF Loan Program
 - PFAS Governor's Task Force Action Plan
 - Water Supply Drought Planning – State Drought Plan
 - Asset, Fiscal & Emergency Management and Planning
 - Emergency Order Authority
 - Pollution Order Authority
- Private Well Program – technical assistance to local health and private well owners



Thank you!







Connected Sewer Service Areas Treatment Facility

- Ansonia
- Beacon Falls
- Branford
- Branford (S) | New Haven -
- GNHWPCA (SW) | North Haven (N)
- Bridgeport
- Bridgeport- West
- Bristol
- Canton
- Cheshire
- City of Groton
- Coventry
- Danbury
- Deep River

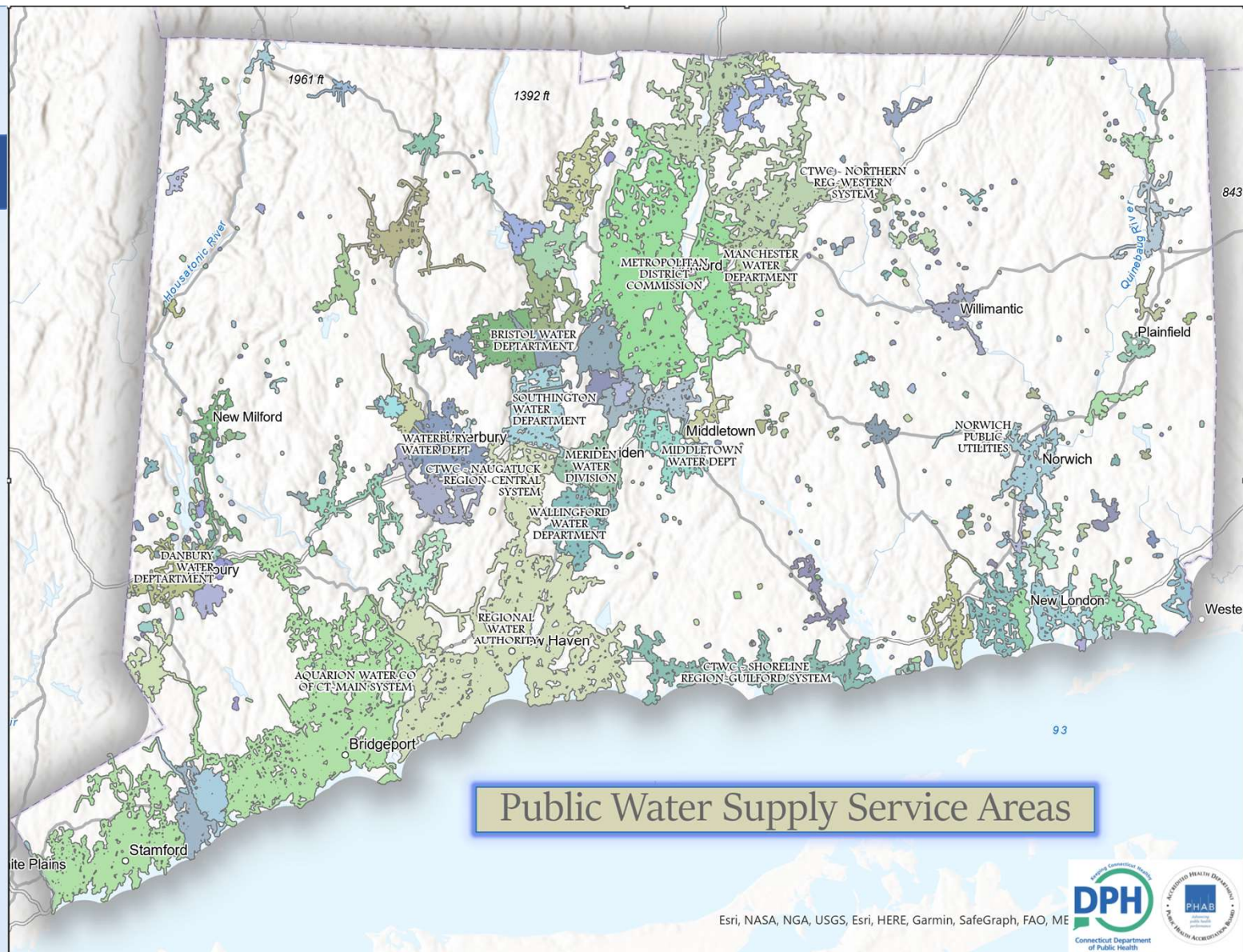
- Derby
- East Haddam
- East Hampton
- East Windsor
- Enfield
- Fairfield
- Farmington (E)
- Farmington (W) | Canton (NW) | Simsbury (E)
- Farmington | Plainville (S)
- GNHWPCA- New Haven
- Glastonbury
- Goshen- Woodridge Lake
- Sewer District (WLS)
- Greenwich
- Griswold-Jewett City
- Kent
- Killingly
- Ledyard
- Litchfield Center

- Litchfield Center | Thomaston (S) | Torrington (N)
- MDC- East Hartford
- MDC-Hartford
- MDC-Hartford (N) | MDC- Rocky Hill (S)
- MDC-Rocky Hill
- MDC-Windsor-Poquonock
- Manchester
- Manchester | South Windsor (NW)
- Mansfield
- Mattabassett District WWTP- Cromwell
- Mattabassett District WWTP- Cromwell (E)
- Mattabassett District WWTP- Cromwell (W) | MDC-Hartford
- Meriden

- Milford (Housatonic/ Beaverbrook)
- Montville
- Naugatuck
- New Canaan
- New Hartford
- New Haven - GNHWPCA
- New London
- New Milford
- Newtown
- Norfolk
- North Canaan
- North Haven
- Norwalk
- Norwich
- Not Applicable
- Plainfield (North/ Village)
- Plainfield- North
- Plainville
- Plymouth

- Portland
- Putnam
- Redding
- Ridgefield
- Salisbury
- Seymour
- Seymour (S) | Naugatuck (N)
- Sharon
- Simsbury
- Somers | Enfield (W)
- South Windsor | Vernon (NE) | Manchester
- Southbury
- Southington
- Sprague
- Stafford
- Stafford (NE) | Vernon (SW)
- Stamford
- Stonington Borough
- Stonington Mystic

- Stonington Pawtucket
- Stratford
- Suffield
- Thomaston
- Thompson
- Torrington
- Town of Groton
- Vernon
- Wallingford
- Waterbury
- West Haven
- Westport
- Winchester
- Windham
- Windsor Locks
- Windsor- Poquonock



Esri, NASA, NGA, USGS, Esri, HERE, Garmin, SafeGraph, FAO, ME