Final Report of the Sewage Disposal Working Group Established Pursuant to Public Act No. 25-97 Submitted to the Connecticut General Assembly

Executive Summary

Public Act No. 25-97 established the Sewage Disposal Working Group to undertake a comprehensive evaluation of Connecticut's subsurface sewage disposal regulatory framework and to recommend changes that protect public health and the environment while removing unnecessary barriers to housing production and economic development.

Approximately forty percent of Connecticut residents rely on onsite wastewater systems. These systems are a foundational component of the state's housing infrastructure, particularly in suburban, rural, and coastal communities. Historically, Connecticut's cautious and rigorous regulatory framework served the state well—particularly as many alternative treatment systems approved in neighboring states experienced high failure rates—but emerging technologies are now demonstrating exceptional performance, requiring Connecticut to thoughtfully evolve its regulatory approval processes.

The Working Group, including broad representation from municipal officials, industry stakeholders, environmental interests, and public members, and supported by subcommittees that included agency representatives from the Department of Public Health (DPH) and the Department of Energy and Environmental Protection (DEEP), as well as outside technical experts, engaged in an extensive review process. While DPH and DEEP appreciated the effort that went into forming these recommendations and the opportunity to provide information to help shape them as subject matter experts, to the extent any recommendations are associated with significant fiscal requests though, the agencies cannot endorse such recommendations and look forward to continuing the work with the legislature and the working group on these important policies.

During the Working Group's deliberations, several additional concepts were identified that may have the potential to reduce housing costs while maintaining strong water quality protections. Due to limited time, this review was not exhaustive; however, the priorities identified are vital. Continuous evaluation is necessary to safeguard public health and optimize development spending. The Working Group did reach broad consensus that Connecticut must modernize its approach to nitrogen management, improve upon the professionalization of septic system oversight, invest in training and staffing, and establish predictable, transparent regulatory processes. The recommendations contained in this report are grounded in the work of three subcommittees—the Nitrogen & Environment Subcommittee, the Regulations & Legal Subcommittee, and the Process & Funding Subcommittee—while recommendations were not unanimously supported, they reflect areas of broad agreement across diverse stakeholder groups as represented on the subcommittees.

Collectively, these recommendations are intended to inspire legislative and administrative action during the 2026 Legislative Session. They provide a balanced roadmap for strengthening

environmental protection while improving housing affordability, regulatory certainty, and public confidence in the oversight of onsite wastewater systems.

Statutory Authority

Public Act No. 25-97 established the Sewage Disposal Working Group as follows:

> (a) There is established a working group to assess and provide recommendations regarding (1) regulatory requirements concerning sewage disposal, including, but not limited to, nitrogen discharge limits and their impact on the development of housing, public health and the environment, and (2) balancing the costs associated with the development of housing and a risk-based approach to protecting public health and the environment.

Guiding Principles

The Working Group's recommendations are guided by the following principles:

- Continued protection of public health and surface and groundwater quality must remain paramount.
- Regulatory systems should be science-based, transparent, and consistently applied statewide.
- Scientifically proven wastewater treatment technologies should be encouraged, not discouraged.
- Training and professional competency are essential to sound environmental outcomes.
- Predictable and timely review processes are critical to housing production and economic stability.

Consensus Recommendations

I. Modernizing Nitrogen Management

1. Require nitrogen assessments at 5,000 gallons per day per property within Nitrogen Sensitive Areas and 7,500 gallons per day per property for all other DPH-regulated systems.

2. Replace the term "Environmental Sensitive Areas" with "Nitrogen Sensitive Areas" and define such areas as: (a) land within a Coastal Management Area as defined in CGS §22a-94; and (b) land within fifty feet of a wetland or watercourse as defined in CGS §22a-28, excluding alluvial soils.

3. Limit sites subject to nitrogen assessment to a maximum wastewater load of 1,635 gallons per day per acre (based on 10 mg/L total nitrogen).

4. Require DPH to grant nitrogen credit values equal to those recognized by DEEP for nitrogen removal technologies approved by DEEP and published in DPH technical standards.

5. Require DPH to grant equivalent nitrogen credit to DEEP-approved nitrogen removal technologies not yet listed in DPH technical standards that meet the definition of subsurface

sewage disposal systems.

6. Establish a formal approval pathway for new nitrogen treatment technologies through DEEP or DPH pursuant to a policy developed with guidance from the Code Advisory Committee and supported by scientifically based independent third-party testing and climate-relevant field data.

7. Provide the necessary funding to adopt wastewater treatment system electronic performance tracking software on all DEEP subsurface and surface discharges, DPH administered systems and local health department systems. This software platform should provide at a minimum all of the features of the software platform that has proven successful in Barnstable County M.A., including transparent and real-time public access to the data. This data tracking and analysis software will provide the basis for continued use and approval of new wastewater treatment technologies, including subsurface sewage disposal systems, advanced treatments systems and alternative technologies, in the state and for any nitrogen modeling that is used to set any regulations, policy or practice.

8. Direct a restructured Code Advisory Committee to study long-term nitrogen policy issues including abutting properties, coastal boundary refinement pursuant to CGS §§22a-93 and 22a-94, recognition of wetland nitrogen treatment value, and development of a nitrogen technology approval process.

II. Strengthening Regulatory Structure and Oversight

1. Establish a new Code Advisory Committee modeled after the Building Codes and Standards Committee under CGS §29-251.

2. Maintain oversight of subsurface wastewater disposal systems within the Department of Public Health and encourage the Department to implement organizational and staffing adjustments necessary to ensure sufficient personnel are dedicated exclusively to this function.

3. Create a statewide education and training program for DPH staff, local sanitarians, installers, and engineers, supported by a dedicated education and training fund.

4. Require designated staff to coordinate with the Code Advisory Committee to establish curriculum and design training programs.

5. Authorize work-sharing among health districts through memoranda of understanding and standardized policies.

6. Consider a unified fee structure and optional expedited review fees to support staffing, training, and work-sharing.

7. Create a homeowner assistance loan fund to provide need-based financing for repair or

replacement of failing subsurface sewage disposal systems.

III. Professionalizing Septic System Oversight

1. Incorporate a standardized Field Site Assessment and Soils module in Phase I and Phase II sanitarian training certification.

2. Require mandatory continuing education for certified Phase 1 and Phase II sanitarians every two to three years.

3. Recommend certified soil scientists for sites with hydrological extremes, sites regulated under CGS §§22a-36 through 22a-45, or when a local sanitarian determines site complexity exceeds local capacity.

4. Formalize the existing informal Codes Advisory Committee within DPH with fixed annual meeting schedules, public agendas, public minutes, and standardized submission protocols.

5. Authorize a task force—modeled after Public Act No. 25-97—to study transition of the Code Advisory Committee into a permanent Codes and Standards Committee comparable to the building code framework.

Conclusion

Connecticut's environmental and housing challenges demand coordinated, practical solutions. The recommendations contained in this report provide the General Assembly with a consensus-driven path to modernize onsite wastewater regulation in a manner that strengthens environmental protection, improves regulatory predictability, and supports responsible housing growth. Several of these recommendations would necessitate appropriate investments that should be considered in conjunction with these recommendations.

The Working Group respectfully urges the General Assembly to consider these recommendations during the 2026 Legislative Session and to advance legislation and funding necessary to implement them.

NITROGEN & ENVIRONMENT SUBCOMMITTEE
DRAFT RECOMMENDATIONS

IMMEDIATE ACTION:

1. **NITROGEN ASSESSMENT THRESHOLD:**
   DPH should update its current regulations to require nitrogen assessments at 5,000 gallons a day per property for nitrogen sensitive areas and 7,500 per property for all other systems regulated by DPH.

2. **REGULATORY TERMINOLOGY AND DEFINITIONS:**
   DPH should update its current regulations to replace and update "Environmental Sensitive Areas with the term, "Nitrogen Sensitive Areas". A nitrogen sensitive area shall be defined as:
   a. Land within a Coastal Management Area as defined in CGS 22a-94.
   b. less than 50ft from a wetland or watercourse as defined by CGS sec. 22a-28, excluding alluvial soils.

3. **MAXIMUM NITROGEN LOADING PER ACRE:**
   Update DPH regulations to state that sites subject to a nitrogen assessment will be limited to a maximum wastewater load of 1,635 gallons per day per acre. (The basis for 10 milligrams per liter total nitrogen).

4. **NON – ALTERNATIVE NITROGEN TREATMENT TECHNOLOGIES:**
   4a. Nitrogen Removal Technologies that are presently approved by DEEP and published in the DPH Technical Standards shall be credited the same value by DPH as currently recognized by DEEP.

   4b. Nitrogen removal technologies approved by DEEP but not specifically listed in the DPH Technical Standards that fall under the definition of subsurface disposal systems shall be credited the same value by DPH as currently recognized by DEEP.

   4c. New nitrogen removal technologies not currently approved by DEEP or DPH shall be approved in the following manner:
   a. DEEP shall review and approve as is their current practice., or by
   b. DPH once a new approval policy has been established with the review and guidance of the Code Advisory Committee that includes, but is not limited to, independent 3rd party testing and field data derived from a

similar climate.

5. **UNIFORM ELECTRONIC TRACKING SYSTEM**:
   Provide the necessary funding to adopt wastewater treatment system electronic performance tracking software on all DEEP subsurface and surface discharges, DPH administered systems and local health department systems. This software platform should provide at a minimum all of the features of the software platform that has proven successful in Barnstable County M.A., including transparent and real-time public access to the data. This data tracking and analysis software will provide the basis for continued use and approval of new wastewater treatment technologies, including subsurface sewage disposal systems, advanced treatments systems and alternative technologies, in the state and for any nitrogen modeling that is used to set any regulations, policy or practice.

LONG-TERM RECOMMENDATIONS

Require a newly restructured Code Advisory Committee (Base on DAS Codes & Standards model) to establish rules, policies and procedures regarding the following:

1. **ABUTTING PROPERTIES**
   Consideration of DPH regulating maximum wastewater loads per acre rather than a maximum per property.

2. **COASTAL NITROGEN SENSITIVE AREAS:**
   Consider actual nitrogen concentrations and actual watershed boundaries. Consider further refining Nitrogen Sensitive Area Assessments to a specific distance from Coastal Waters, as defined in CGS sec. 22a-93.

3. **WETLANDS:**
   Consider the value of wetlands for the nitrogen treatment they provide.

4. **NITROGEN TECHNOLOGY APPROVAL PROCESS:**
   Consider the creation of a nitrogen technology approval process.

To: Members of the State Legislature

From: Subcommittee on Septic Regulations and Housing Development / The Sewage Discussion Group

Date: January 27, 2026

Subject: Reform and Modernization of Onsite Sewage Disposal Codes and Sanitarian Training

Executive Summary

This report outlines a unified strategy to modernize Connecticut's subsurface sewage disposal oversight. Currently, approximately 40% of Connecticut residents rely on onsite systems. However, the existing regulatory framework suffers from a critical "training gap" and an administrative structure that cannot keep pace with modern technology.

By formalizing oversight and standardizing field competency, the State can reduce housing costs caused by regulatory inconsistency while ensuring the long-term protection of Connecticut's water resources.

The Problem: The Cost of Inconsistency

Connecticut's current regulatory framework for septic systems lacks the technical infrastructure and research funding typical of formal regulatory bodies. This deficiency is particularly problematic as the state shifts toward increased local health jurisdiction and the potential adoption of an Alternative Treatment program.

The lack of standardized field competency among Local Health Department sanitarians leads to two costly extremes:

- **Under-Design:** Results in premature system failure and groundwater contamination, creating massive repair costs that undermine housing affordability.
- **Over-Design:** Driven by inconsistent soil interpretation, adding thousands in unnecessary construction costs and often rendering affordable housing projects unfeasible.

Strategic Rationale

The Subcommittee has identified three systemic weaknesses:

1. **Practical Training Gaps:** Current Phase I and II certifications are theory-heavy but lack mandatory hands-on protocols for taking field elevations, soil logging and percolation testing.
2. **Workforce Instability:** High turnover creates "institutional memory loss," resulting in development standards that vary wildly by municipality.

3. **Technological Lag:** Without a formal continuing education mechanism, the workforce is slow to adopt modern, cost-effective technologies.

Short-Term Recommendations

1. Mandatory Field Competency Module

Incorporate a standardized Field Site Assessment and Soils Training module as a prerequisite for Phase I and II certifications.

- **The Goal:** Ensure every sanitarian demonstrates a universal baseline competency in soil logging and site analysis before being empowered to sign off on designs.

2. Recurring Continuing Education (CE)

Implement a mandatory CE requirement for all certified sanitarians to be completed every two to three years.

- **The Goal:** Maintain an adaptive workforce capable of evaluating evolving industry standards and ensuring that cost-effective environmental solutions are not delayed by regulatory unfamiliarity.

3. Professional Soil Scientist Requirement

To ensure environmental compliance, a certified Soil Scientist should be required for new developments in some "Areas of Special Interest," such as:

- **Hydrological Extremes:** Sites with percolation rates of <1 minute per inch (MPI) or >40 MPI.
- **Designated Wetlands:** Sites regulated under CGS §§ 22a-36 through 22a-45.
- **Technical Complexity:** When a local sanitarian determines a site's, complexity exceeds local capacity.

4. Formalization of the Codes Advisory Committee (CAC)

Transition the CAC from an informal group to a structured administrative body within the Department of Public Health (DPH).

- **Administrative Formalization:** Establish a fixed annual meeting calendar and a standardized process for code reviews.
- **Transparency:** Implement a public protocol for submitting revisions, including accessible agendas and meeting minutes, to ensure stakeholder alignment.

Long-Term Recommendations

We recommend the legislature authorize a task force—modeled after the mandate in **Public Act 25-97**—to study the transition of the CAC into a permanent Codes and Standards Committee.

This body, modeled after the established Building Department framework, will be essential for developing and managing a robust Alternative Treatment program, allowing for smaller footprints and higher-density affordable housing.

Conclusion

The path toward expanding affordable housing in Connecticut is inextricably linked to the modernization of our environmental infrastructure. By adopting a professionalized Codes and Standards model and increasing training for sanitarians, Connecticut can replace inconsistency with institutional agility. This shift provides developers with the predictability essential for growth while ensuring the rigorous oversight necessary to protect the public health and the state's vital water resources, including Long Island Sound and our inland lakes and rivers.

#1 - Vetting and Communication of Subsurface Sewage Disposal System Requirements

Issue

Although the Code Advisory Committee shares and reviews changes to regulations and technical standards for subsurface sewage disposal systems, stakeholders have concerns about the process's predictability, clarity, and inclusiveness and seek a more formal, transparent procedure that ensures a standard timing for updates and broad input.

Discussion

Members from DPH maintain that the current Code Advisory Committee process is sufficient. They note that proposed modifications to technical standards are distributed in advance and that all technical standards undergo thorough review, vetting, and broad communication prior to adoption. These members assert that the existing framework ensures transparency and allows for meaningful stakeholder engagement before updates are implemented. Additionally, DPH representatives expressed concerns that increasing the authority of the Code Advisory Committee could introduce additional bureaucracy, potentially delay necessary updates, and lead to a conflict of interest in setting the standards.

Conversely, other committee members suggest that the process could be enhanced by incorporating regulatory changes alongside technical standards reviews. They support establishing greater predictability, such as a regular review cycle modeled after the Building Code and Standards Committee (DAS). Furthermore, these members underscore the importance of providing all stakeholders with ample time, opportunity, and structure to develop and review standards and policy, rather than merely offering opinions. They contend that this revised structure, led by volunteers in partnership with DPH, would improve transparency, facilitate communication, reduce confusion, and more effectively serve the regulated community while protecting the environment and the population at large.

Recommendation

To address these concerns while supporting continued progress and technical integrity, we recommend establishing a new Code Advisory Committee modeled after the Building Codes and Standards Committee (under DAS) per Connecticut General Statues Section 29-251. This committee would feature a formalized structure, regular review cycles, and transparent procedures for stakeholder engagement and feedback. Current technical standards could be the base document from which a newly-empowered Code Advisory Committee could begin their work. While some have raised concerns about potential inconsistencies with DPH's current regulatory approach, and about the risk of increased bureaucracy or lobbying, these can be mitigated by ensuring all meetings are held within the public eye. To partially address this, the committee membership could be expanded to technical experts, policy specialists, and industry advocates in a way that encourages active participation. The committee would not replace public comment but would provide an additional, predictable venue for technical input, regulatory

review, training curriculum development, and consensus-building among industry professionals, public health officials, and other stakeholders. This approach seeks to enhance clarity, communication, and trust in the process, while preserving efficiency and the primacy of expert input in technical standard development.

The majority of committee members recommend the establishment of a new Code Advisory Committee, modeled after the Building Codes and Standards Committee under DAS, as outlined in Connecticut General Statutes Section 29-251. This proposed committee would implement a formal structure with regular review cycles and increased communication efforts to ensure robust stakeholder engagement and feedback. The committee would not replace the existing public comment process but would provide a predictable and structured forum for technical input, regulatory review, training curriculum development, and consensus-building among industry professionals, public health officials, and other interested parties. This recommendation is intended to enhance clarity, communication, and trust in the process, while maintaining efficiency and prioritizing expert input in the development of technical standards.

It should be noted that the Department of Public Health (DPH) does not support this recommendation. DPH has expressed concerns with granting increased authority to regulated entities is inconsistent with how the department regulates others throughout the state. Additionally, allowing a regulated entity to determine how they are regulated reduces the department's ability to effectively oversee and protect public health and the environment. DPH is concerned that public health would no longer be a priority consideration. They feel public comment remains an important process to understand the work on the ground and the impacts on the people implementing regulations. Additionally they feel this policy could also introduce additional bureaucracy or opportunities for lobbying.

Despite these concerns, most of the subcommittee believes that by better communicating opportunities for participation and public comment, these risks are mitigated with governmental agency representation on the Committee, greater transparency and inclusiveness in the regulatory process.

#2 - Environmental Engineering Program Capacity and Focus

Issue

The Environmental Engineering Program at DPH is operating at full capacity. Expanding its mandate to review Subsurface Sewage Disposal Systems up to 7,500 gallons per day, along with potential responsibilities regarding AT systems, places significant strain on this small team.

Discussion

As the Environmental and Engineering program at DPH continues to take on additional work within the scope of the department, it is important that as we consider adding more to their workload, we consider their capacity and potential need for resources. Since 2020, the Environmental Engineering Program has faced staffing challenges due to attrition and retirement

while simultaneously taking on additional responsibilities, such as oversight of Public Pools and Family Campgrounds. These changes have extended the program's workload, which previously focused on sewage disposal, wastewater treatment, and management of human remains. As the responsibility of agencies for program management continues to evolve, these increased demands have made it more difficult for the program staff to meet the needs of the state.

Recommendation

The committee believes DPH oversight of subsurface wastewater disposal is important and appropriate staffing should be assigned to focus exclusively on this key area of responsibility. This more focused approach would allow the program to gradually expand its capacity to cover all aspects of onsite wastewater disposal. Reestablishing foundational capacity could also set the stage for developing a dedicated Alternative Technology section to oversee new policy initiatives and implementation strategies.

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3) Education and Training for Subsurface Wastewater Disposal Professionals

Issue

There is a significant need to establish and fund ongoing training programs for Department of Public Health (DPH) staff, local sanitarians, installers, and design engineers. Without regular education and professional development, the workforce cannot remain equipped to handle evolving industry standards and regulatory requirements.

Discussion

Since 2020, high turnover rates among sanitarians and engineering personnel have resulted in a substantial loss of institutional knowledge. The transition to remote work further diminished opportunities for knowledge transfer from experienced staff to newer employees. As a result, Connecticut has fallen behind other states in the adoption of new wastewater treatment technologies. To address these challenges, it is vital to develop and implement a comprehensive, field-oriented training curriculum for engineers, installers, sanitarians and others involved in the design, installation and maintenance of subsurface wastewater disposal systems. Such a program must be adequately funded and managed to fill existing gaps in expertise. Training should also emphasize alternative treatment methods, ensuring that staff are prepared to adapt as policies evolve and new technologies become available.

The subcommittee discussed questions of whether professional education is a responsibility that falls to the state. Many other professions require continuing education, yet these requirements are typically neither provided nor funded by the state. If there are existing concerns regarding program capacity, additional requirements may further compound these challenges. It may be beneficial to evaluate the effectiveness of ongoing training opportunities available where individuals receive their initial instruction. Additionally or alternatively, training can be provided

through a variety of programs on a statewide or local basis and should be developed in coordination with DPH, local health districts, installers, and maintenance professionals, with a strong focus on field-based training.

Recommendation

We recommend the creation of a dedicated education and training fund, supported by both local permit fees and general fund allocations. Funding must be adequate to create the curriculum and allow for state and local government professionals to attend the training alongside other industry professionals (installers and engineers.)

Designated staff should work in coordination with the new code advisory committee to set curriculum and design the training program. Collaborations with and reliance on, industry associations is encouraged to facilitate effective field-based instruction, which can be delivered without the need for state-owned facilities and state faculty.

This joint approach in providing a state-created curriculum targeting DPH identified shortfalls and indicatives will help ensure the workforce is well-prepared to meet current and future needs in septic wastewater management.

During this discussion the committee identified continuity of knowledge and internal on the job training shortfalls within the state due to staff turnover, retirement, and work from home policies. Some believe that work from home policies in place for state workers should be revisited to ensure that there is adequate in office time for senior and experienced staff to transfer knowledge and provide training.

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4) Timeliness and Consistency in Review Processes

Issue

Review timelines for Local Health Departments and Districts (LHDs), the Department of Public Health (DPH), and the Department of Energy and Environmental Protection (DEEP) are both lengthy and inconsistent. This unpredictability leads to inefficiencies within the approval process.

Discussion

Unreliable and prolonged design and approval processes have a greater impact on increasing development costs than high review fees themselves. LHDs often struggle to meet permit demand due to budgetary limitations and insufficient staffing, and DPH and DEEP reviews face a spectrum of application review and response, some of which can be understood as challenges created by the wide variety of application details and quality of submission. Further, the demand for reviews and related services does not remain constant, making it challenging for both local and state agencies to maintain staffing levels that can address high-demand periods. As a result,

large projects and the required inspections once they advance to production stages experience significant delays.

Recommendation

We recommend a maximum of 20 days for initial plan reviews/comment and two days from request to start inspections to be conducted by local and state entities. This does not stipulate approval in 20 days but rather the completion of the initial review of the application with comments, and it does assume and require sufficient staffing levels to process applications.

Implementing a work-sharing system among health districts during periods of high demand, supported by memorandums of understanding and standardized policies, would improve both consistency and efficiency. Additionally, consideration should be given to the development of a unified fee structure across all related agencies to provide the staffing and training required to better address peaks in demand. Consideration should also be given to instituting an expedited fee option, which would fund the work-sharing program and potentially support the creation of a moonlighting initiative for sanitarians and local health professionals. Developers are likely to accept higher fees in exchange for more timely services.

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5) Impact of Failing Onsite Wastewater Systems on Surface Water Quality

Issue: Failed existing systems provide a larger threat to surface water quality and pollution than the installation of new septic systems.

Discussion: Failing septic systems presents a significant challenge, as issues often remain undetected until the property changes ownership. Despite concerns raised by neighbors regarding a potentially malfunctioning system, these complaints frequently go unresolved. This is primarily because local health departments lack straightforward methods to observe and effectively test the operational status of onsite wastewater systems. Furthermore, many property owners are aware of system failures and wish to address them but are unable to do so due to financial constraints.

Recommendation: Establishment of a Homeowner Assistance Fund to effectively abate any sewage that discharges or flows into any storm drain, gutter, street, roadway or public place, and shall not allow such material to discharge onto any private property so as to create a nuisance or condition detrimental to health or improve or repair the existing subsurface sewage disposal system. We recommend creating a dedicated fund that offers need-based loans to homeowners for the repair and replacement of failing onsite wastewater systems. By addressing existing system failures or the improvement of the existing subsurface sewage disposal system, this initiative would help prevent unnecessary environmental contamination and protect public health.

The proposed loan structure would provide flexibility for borrowers, allowing loans to be paid off through scheduled payments or repaid in full—with interest—at the time of property transfer.

Ensuring the program is straightforward and user-friendly is vital to encourage widespread participation and maximize its effectiveness.

Program administrator will need to be determined but it is recommended that this not be managed through DPH or DEEP but rather a government agency with similar programs in place.