General Language:

Shellfish areas can be impacted by a variety of pollution sources, and on-site sewage disposal systems such as cesspools and septic systems can represent a pollution threat to shellfish beds. On-site sewage disposal systems that are poorly designed, improperly sited, or not properly maintained represent a potential pollution source. Antiquated sewage systems such as cesspools, or septic systems located too close to groundwater on small lots in coastal areas are especially a concern to nearby shellfish beds.

Septic systems are commonly used in CT to treat and disperse domestic sewage in areas without public sewer infrastructure, and they serve an estimated 40% of the state's population. The U.S. Environmental Protection Agency recommends states implement comprehensive septic system management programs to ensure these systems are utilized in a manner that is protective of public health and the environment. Septic system management assists in pollution prevention, and pollution identification and abatement. Septic system management also supports other environmental and public health programs (e.g., shellfish, source water protection, non-point source pollution, TMDL, storm water).

Septic systems installed in accordance with current codes provide effective treatment and dispersal of sewage effluent. Older sewage disposal systems and improperly sited septic systems do not offer the same safeguards as modern code compliant systems. Outdated and poorly sited sewage disposal systems in high density areas can contribute to community pollution problems, especially in environmentally sensitive areas. Coastal properties utilizing on-site sewage disposal systems face added challenges from tidally impacted water tables, and sea level rise and storm surges. Coastal communities that rely on on-site sewage disposal systems typically have a relatively large percentage of older systems. Field sanitary surveys of coastal area properties served by on-site sewage disposal systems can help identify system failures, and such surveys are a management tool that can help protect shellfish areas. Shellfish area pollution assessments should include an evaluation of local health department septic system documentation to assist in the identification of properties with potential pollution sources.

2013 National Shellfish Sanitation Program (NSSP) Model Ordinance

Although on-site sewage disposal systems are not specifically mentioned as an area of added concern while evaluating the location of a shellfish bed in the NSSP Model Ordinance, additional language is recommended to cite on-site sewage disposal systems and their potential impacts. The language form the NSSP Model Ordinance (highlighted below) could be adjusted to add language calling for the evaluation of actual and potential pollution sources that may affect shellfish growing areas, and to identify on-site sewage disposal systems as potential pollution sources that need to be evaluated.

NSSP Model Ordinance bottom of page 40, top of page 41:

D. Shoreline Survey Requirements.
(1) In the shoreline survey for each growing area, the Authority shall:
(a) Identify and evaluate all actual and potential sources of pollution which may affect the growing area;
(b) Determine the distance from the pollution sources to the growing area and the impact of each source on the growing area;
(c) Assess the reliability and effectiveness of sewage or other waste treatment systems;

Water Quality and Safe Shellfish Section

It is recommended that the language in the Water Quality and Safe Shellfish Section be revised to specifically mention on-site sewage systems. For example, consider the following wording:

- Pathogens (disease-causing microorganisms) and viruses in sewage, poorly renovated effluent from on-site sewage disposal systems, run-off or animal waste may be present in Long Island Sound and nearshore waters, and are concentrated by filter-feeding organisms like shellfish in their tissues.

Shellstock Growing Area Classification Program Section

It is recommended that the language in the Shellstock Growing Area Classification Program Section relative to sanitary surveys be amended to include further reference to on-site sewage disposal systems. For example, consider the following wording:

- The principal components of a sanitary survey are:
  (1) identification and evaluation of potential pollution sources that may affect the areas. Potential pollution sources include on-site sewage disposal systems, and the evaluation of these systems should consider the proximity of the systems from groundwater and surface water. The local health department should be consulted for information on these sewage systems.