September 20, 2023

Mary Daley
9 Portland Avenue
Old Lyme CT, 06371

Sent via email to: SVSCLLC@gmail.com

Re: Unified Wastewater Project, Old Lyme, Connecticut

Dear Ms. Daley,

On August 14, 2023, the Department of Energy and Environmental Protection ("DEEP") received your letters submitted on behalf of the Sound View Sewer Coalition, LLC, an organization consisting of property owners in the Sound View and MTA-B neighborhoods of Old Lyme. The Soundview neighborhood is part of a cooperative plan between the Town of Old Lyme, the Old Lyme Shores Beach, Old Colony Beach Club, and Old Colony Beach Club Associations to address community pollution (collectively, Old Lyme project areas). While we have addressed several of these comments with you and the Sound View Sewer Coalition in the past, it is important that we reiterate a few key points.

Since 1991, DEEP has conducted an intensive year-round water quality monitoring program on Long Island Sound (Sound) on behalf of the **Long Island Sound Study** (LISS). The LISS identified Nitrogen pollution as the major cause of eutrophic conditions (low dissolved oxygen, decreased water clarity, increased plant growth, increased harmful algal blooms) in the Sound. Significant sources of Nitrogen pollution (in the forms of Ammonia and Nitrates) include wastewater treatment plant (WWTP) discharges, malfunctioning septic systems, and sewage spills. Nitrogen control efforts started in 1990 with the first priority being sewage discharges from WWTPs – completed at a significant cost to the state and municipalities. Subsequent WWTP upgrades have resulted in an annual reduction of more than 50 million pounds of Nitrogen to the Sound and reduced the area of hypoxia from 208 square miles (1987-1999 baseline) compared to 87 square miles (2018-2022). However, the LISS recognizes that additional measures are needed to support continued progress towards reducing the area of hypoxia and specifically targeting non-point sources of Nitrogen (including failing or substandard septic systems) to the Sound and the inner coastal areas (i.e., coves, harbors).

Focusing on the receiving waters off the Soundview area specifically, DEEP notes this estuary is impaired for shellfish harvesting based on elevated levels of fecal coliform bacteria, an indicator of sewage impacts. As such, this area is subject to a pollution abatement plan (plan), which identifies malfunctioning septic systems in the Soundview area as a source. Based on the analyses of data collected at six shoreline locations, fecal coliform bacteria exceeded the water quality standards for shellfish harvesting. The plan identifies pollution sources and provides target reductions. The plan also notes that Old Lyme was moving towards sewering most of the adjacent shoreline (including the Soundview area). Since sewering has not been implemented, it's assumed that the pollution issue persists and will continue until the sewering project is completed.

In addition to the body of science noted above, the Old Lyme project areas specifically have been studied and the 'Wastewater Management Plan, amended on June, 2012' (2012 Plan). One of the purposes of the 2012 Plan was to determine whether a community pollution problem exists, or can be anticipated, within the Old Lyme project areas. As part of the analysis undertaken to complete the 2012 Plan, numerous areas within the Old Lyme project areas were identified that could not support onsite wastewater treatment due to the overall density of development, lack of adequate space or too adverse onsite subsurface conditions, such as shallow groundwater,

bedrock, and rapidly draining soils. Ultimately, the 2012 Plan concluded that there was sufficient evidence to determine a community pollution problem exists. Further, the 2012 Plan identified as the most technically and economically feasible alternative the conveyance of the wastewater to an offsite facility for treatment and disposal. This plan factored many relevant criteria, such as development density and site-specific conditions (soil type, condition of existing septic systems, depth to groundwater and distance to sensitive receptors such as water bodies and drinking water wells).

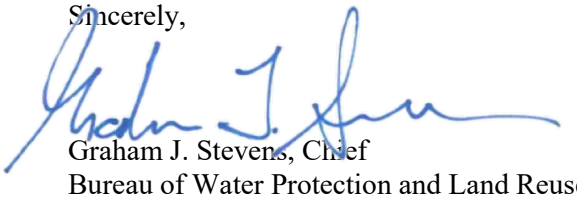
On the subject of water resources, groundwater in the Old Lyme project area travels in a north to south direction, discharging into the Sound and away from the well fields owned by Connecticut Water Company (CWC). Most of the community well fields (except for CWC's wells located within the Miami Beach Association) that supply water to the beach communities are located north of Route 156. These well fields are located up-gradient from the beach associations and therefore the aquifer in this area most likely recharges from groundwater flows coming from the north, not from the beach communities. Based on the anticipated generation of wastewater flows every year compared to the annual average precipitation received within the nearby watersheds, the impacts from the expected net export of groundwater associated discontinuation of septic systems is negligible. Furthermore, implementing the sewer project to solve the community pollution abatement project will have a significant positive impact on the area's water resources.

DEEP supports green solutions to pollution problems. In the case of this community pollution problem, DEEP is not aware of any viable alternative technology for wastewater treatment (other than code compliant septic systems) that would not require mechanized equipment or pumps. No such technology was identified in the planning study, which evaluated a range of feasible wastewater management options and associated cost-effectiveness. As you know, this evaluation identified the installation of sewers as the most cost-effective remedy to this community pollution problem.

The lack of an active enforcement action issued to the Town of Old Lyme should not be interpreted as a determination of the absence of community pollution. The Town of Old Lyme has proactively moved forward to address the pollution issue within Sound View and MTA-B and in close coordination with the chartered beach associations. DEEP views the Town of Old Lyme's voluntary pursuit of a corrective action plan as reasonable and reserves its regulatory right to pursue enforcement, as necessary.

We thank you for your continued interest and input on this pollution abatement project and for recognizing the importance of protecting Long Island Sound and groundwater resources of the State. Undertaking projects to address environmental impacts can be temporarily disruptive, at times, and do not come without a cost. DEEP has seen this in the communities that have upgraded and expanded wastewater treatment plants. Like those projects, we believe this project will remedy an environmental impact to our shared resource and will put these communities on a sustainable path. Please contact Carlos Esguerra of my staff at carlos.esguerra@ct.gov if you have any additional questions.

Sincerely,



Graham J. Stevens, Chief
Bureau of Water Protection and Land Reuse

cc (via email):
Tim Griswold, First Selectman, Town of Old Lyme
Old Lyme Shores Beach Association
Old Colony Beach Club Assn
Miami Beach Assn
Town of Old Lyme WPCA