

**Frequently Asked Questions: the Town of Old Lyme’s Coastal Wastewater Project**

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## **What exactly is happening? I've heard that the town is considering building sewers for the shoreline?**

For many years, the Town of Old Lyme has had a policy of Sewer Avoidance; that is, seeking to address wastewater challenges on individual properties without the need for larger scale infrastructure. Recently, questions have been raised regarding the long-term suitability of this strategy for some areas of the town. A number of independent beach associations within the town also hired consultants to study the existing environmental conditions within their boundaries. The consultants came to the same conclusions that the continued use of onsite systems (septic systems) was no longer adequate to protect the environment and public health, and that the construction of sanitary sewers to an off-site treatment location was the most cost-effective solution. Three of those beach associations have appropriated funds to design and build their solution.

**Current Status:** The initial town study included the beach communities Sound View, White Sands, and Hawks Nest, which are under the town's jurisdiction, and three chartered beach associations (Old Colony, Old Lyme Shore, and Miami). White Sands was removed since the CT DEEP assessed that the cost to hook up White Sands would not be economical and that White Sands may have sufficient land area to handle its waste water using other means. Hawks Nest was deferred to a later phase to allow time for additional testing to ascertain the extent and distribution of its potential pollution contributions after prolonged discussions among CT DEEP, Hawks Nest, and Town of Old Lyme.

The current town project plan and the Environmental Impact Evaluation (EIE) are to be re-scoped to include only Sound View, Misc. Area B (north of Rte 156 in front of Sound View) and will clarify that the three chartered beach associations (Old Colony, Old Lyme Shore, and Miami) are not the responsibility of the town. Should the testing confirm the need for Hawks Nest to be included in the sewer project, it will be implemented in an additional Phase. It is imperative for WPCA to recommend moving ahead without Hawks Nest to demonstrate that the Town is making process such that Old Lyme can maintain Clean Water Fund (CWF) cost matching of this project.

### **1. Why is the town getting involved? Can't the beach associations solve the problems on their own?**

Sound View, White Sands, and Hawks Nest are under the Town's Jurisdiction. The town, understanding that a fragmented approach to such a solution would be more costly than a unified approach, initiated an area-wide wastewater management study. The town remains responsible to implement plans for areas within their jurisdiction and is continuing with this effort.

### **2. What kind of problems are we dealing with?**

Primarily, there are three challenges to adequate wastewater treatment in the study areas, these are soil conditions, depth to groundwater, and land area/density of development. Many of the areas are composed of filled wetlands, bedrock and other soils in which septic systems do not work well. Since a septic system has to be above the groundwater table to function, low-lying areas are an immediate problem. In order to properly treat sewage, a septic system needs a certain amount of land area,

which varies depending on the soil type. Many of the areas of concern are developed to such high densities that there is insufficient land to site code compliant (B-100a) septic systems. Many of the septic systems in the study areas are far smaller than the minimum required by the Public Health Code and do not provide adequate treatment of wastewater based on current standards. All of these problems were previously identified in the beach associations' reports and are well documented.

### 3. I've heard that the groundwater sampling showed that there was no pollution. Why are we still trying to find a solution?

Per CTDEEP: What you've heard was incorrect. The water quality sampling definitely showed groundwater contamination related to inadequate septic systems. Levels of ammonia, nitrates, and coliform bacteria were above background levels. The level of contamination clearly showed the impacts of development in soils which were poorly suited for the density of homes that currently exists.

Per CTDEEP: In addition, given the high density of development and the poor soil conditions, even if the sampling program had not identified a problem, the potential for such a problem is so high that a long-term solution to prevent future problems would still be appropriate.

The town sanitarian has also evaluated the nitrates level based on past data and determined that these contaminants are not sufficiently attenuated by the existing regime of on-site waste water disposal methods.

### 4. Why can't we get the individual property owners to solve their own problems?

The problem is not with individual properties, but rather with these areas having too many houses (and substandard septic systems) in too little space. That's why individual properties have not been targeted as being "the problem" and why just making a few repairs does not constitute a solution. This problem has an increasing affect, where a few inadequate properties may not cause a problem, however many inadequate properties in close proximity do cause a problem.

### 5. What alternatives have been considered?

The Town hired the firm of Woodard and Curran to review the existing information, collect new data, and re-evaluate the options for addressing Old Lyme's long-term wastewater needs. The studies have considered a wide range of alternatives, such as:

**Upgrading and rebuilding individual septic systems.** Consider replacement septic systems within the existing soil or, with additional fill, above the existing ground contours. Evaluate alternate septic system technologies.

**Creating neighborhood septic systems.** Consider extending the pipes from the existing homes to a large central septic tank and leaching field. This would be used for up to 25 or so homes.

**Constructing small community treatment plants.** Consider small decentralized facilities to treat the flow from communities of 100 homes or less.

**Constructing centralized facilities.** Consider conventional sewer and treatment facility layouts. In this case, the evaluation considered an in-town treatment and sub-surface disposal system, as well as connection to the New London Regional wastewater treatment plant via the East Lyme sewer system.

## **6. What was the conclusion of the Woodard and Curran study?**

The report recommended the construction of a sanitary sewer system to serve the beach communities, with conveyance to an offsite treatment facility.

It was hoped that a local solution, with a treatment facility and discharge into a large underground dispersal system, would be the optimal solution. Although costs were initially similar and the initial site that was tested yielded positive results, the proximity of the site to existing drinking water wells, and the cost and time needed to either relocate those wells to allow use of the tested site, or perform additional testing at secondary sites, would have negatively impacted the schedule for the unified approach between the Town and the chartered beaches towards solving the collective coastal wastewater management problems in Old Lyme. As a result, the recommendation of the study, which is endorsed by CT-DEEP, is now to convey the wastewater to the New London Regional wastewater treatment plant.

## **7. Once sewers are built, what's to prevent the expansion of the system and the overdevelopment of the shoreline?**

A number of different controls will be put in place to minimize the potential for additional growth or intensification of use. These will include development of an ordinance which defines and controls the sewer service area. Such ordinances and regulations have been adopted in other Connecticut communities with great success.

The sewer project will only address the waste water management need for the existing dwellings; it cannot be expanded to include excess capacity to enable over-development of the shoreline. State matching funds may only be used to address the scope of the approved project; it does not fund excess capacity over the need of the project. Since state funds are used to subsidize the project, they will include additional restrictions on expansion of the system.

## **8. What about seasonal conversions? Won't sewers allow all those seasonal lots to become year-round?**

The presence of sewers will remove this restraint on conversion from seasonal to year round occupancy. However, an adequate wastewater system is only one of several criteria that need to be addressed to allow the conversion, and any property seeking conversion from seasonal to year round will need to meet all those criteria.

## **9. Has the DEEP reviewed and accepted these recommendations?**

The Connecticut DEEP has reviewed all the reports prepared by Woodard and Curran for this project, as well as the reports prepared by other consultants for the beach associations. They have conceptually concurred with the recommendations of the current draft report, and are awaiting the submission of the final version to complete the environmental review process and qualify the project for funding assistance. That assistance is currently set at a grant for 25% of the eligible project costs, and a loan for the balance, at a 2% interest rate for 20 years. The Town has also applied for grant funding through HUD, Community Development Block Grant Program (CDBG), which will help further defray project costs.

**10. CT-DEEP has issued an order requiring the town to make progress completing the evaluation. Will all taxpayers bear the cost and not just the property owners who happen to live south of Route 156?**

Yes, the DEEP has issued an order. The developed properties in the affected areas will fund the capital projects related to improvement of their properties. The town intends to use its borrowing power, with substantially lower interest rate, to finance the project and recoup the costs from the properties over time. The users will also bear annual Operations & Maintenance (O&M) costs of the sewer system.

**11. How would such a consent order affect the town's borrowing power, bond rating?**

It would not affect the town's borrowing power as Old Lyme's credit rating is excellent and has sufficient reserves.

**12. Please explain the Town decision process, will this go to a Town Meeting for approval?**

The CT DEEP requires the town to finish the evaluation plan that comes with a recommendation. CT DEEP will review the evaluation plan and send the town an order that could simply say implement the plan. The WPCA will issue a recommendation to the Board of Selectmen in response to the CT DEEP review and order. The Board of Selectmen, in consultation with the Board of Finance, will decide whether to forward the project to a Town Meeting to vote to bond the project. The town meeting will be a presentation, discussion, and vote on the project costs, including design, bidding and construction phases. There are no absentee ballots for town meetings.

**13. There are about 5,168 septic systems in Old Lyme. How many of these will be required to hook up to the proposed sewer system?**

The proposed project plan only includes dwellings within Old Colony, Old Lyme Shore, Miami, and Sound View beach associations. Hawks Nest will undergo additional testing to determine whether it will be included in a future phase. Dwellings outside of the project area will not be hooked up to the proposed sewer system.

**14. There was a mention of building to maximum capacity. Is the town planning to sewer the entire town?**

The plan is to build the capacity needed for the critical areas previously mentioned. No, the town is not planning to sewer the entire town. The WPCA maintains a policy of sewer avoidance for the remaining areas of town. Most of the other town dwellings have sufficient acreage to treat their waste water adequately. In addition to the required 7-year septic tank pump out, the town sanitarian will continue to monitor these septic systems to ensure compliance and public health.

**15. What entity will own and maintain the pumps, pipes, and infrastructure?**

The town will own the collector sewers and any pump stations affecting the beaches under WPCA jurisdiction. The Independent beach associations will own their assets. The town and the independent beach associations may share a common pump station and centralized transmission mains.

**16. Will the old septic tanks need to be removed or filled?**

The homeowners will be responsible for connecting a small pipe from their homes to the mainline lateral/stub and decommissioning the septic systems. Decommissioning means that no more waste water may be deposited into these septic systems after the sewer system is operational and the dwelling is connected. Decommissioning typically includes closing the septic tank in place by filling with sand or gravel.

**17. What costs will be included in the benefit assessments paid by properties served by the proposed project?**

This will be the infrastructure costs including the engineering, permits, pipes, and installation of other equipment. The total costs of the project minus the state and federal grant funding will determine the net project costs. The benefit assessments will be used to repay the adjusted project costs.

**18. What costs will be included in the annual operation and maintenance (user) fees?**

The types of items paid for by user fees are mandated and monitored by the State of CT. The summary of items includes, but is not limited to: annual operating expenses, permitting fees, and reserve fund for eventual upkeep and maintenance of sewer equipment.

**19. Regarding the Inter Municipal Agreement (IMA), do we have one with each town between here and New London?**

The independent beach associations are forming an IMA with East Lyme only to connect to their pipe and transport our sewer material. The Town of Old Lyme will become a party to that agreement as part of the connection agreement. East Lyme has agreements with their neighboring towns into New London. We also will have an agreement with New London regarding the capacity required for areas.

**20. How will the bonding and assessment be made?**

The total costs of the project minus the various levels of funding we have fought to get will be divided by a specific number of equivalent dwelling units (EDUs), which are existing houses and buildable lots.

**21. Will the water lines be replaced?**

We are working with the State to encourage CT Water Company to coordinate updating old water mains at the same time to save on road repairs, disruptions and improve water quality. However, these costs would be separate from the sewer project.

**22. Can we relocate the pump houses as shown in the proposed plan?**

The engineering design is preliminary; detailed engineering analysis and design will take into account the topology, hydrology, flood, and other technical needs of gravity flow from each house to the lowest

point and then pumping to East Lyme. The final pump house location(s) will be adjusted based on engineering analysis and community inputs.

**23. Do any properties north of Route 156 pollute Long Island (LI) Sound?**

One area, named Miscellaneous Town Area B in the studies, is located north of the sound view area on the north side of Route 156. This area will be included in the sewer project due to the density of development on small parcels. Other areas north of Route 156 have adequate property size where code compliant septic system can be installed.

CT-DEEP, after review of the CWF Study conducted by the Town, determined that the dwellings in the project area, due to density, are collectively polluting LI Sound and adjoining streams and that this situation must be addressed. Three independent beach associations (Old Colony, Old Lyme Shore and Miami) agreed and two (Old Colony and Old Lyme Shore) took steps to address this. The Old Lyme WPCA also agreed and will take steps in concert with the other beach associations to address this pollution problem, to capture economy of scale benefits and minimize disruption to shore line routes during the construction period.

**24. In the previous WPCA meeting minutes there were references to studying a local alternative plan. Why did the town study a local alternative when they knew DEEP favored the connection to New London?**

CT-DEEP supported the investigation of all waste water treatment alternatives in order to select the most economical option that meets its clean water objectives. CT-DEEP encouraged the exploration of options and was involved throughout the study phase to evaluate local and regional options.

**25. Will the other beach WPCAs disband merge with the town's WPCA?**

No, they will remain separate entities.

**26. What is the estimated time line of each beach?**

It is not possible to accurately estimate the time line.

**27. Will Point of Woods need to make any changes or upgrades to its existing sewer system?**

The Old Lyme sewer project installation has no impact on Point of Woods.

**28. Can Hawks Nest residents on Columbus Ave (16 houses bordering Miami Beach Association) be added to the current project plan?**

At the July 2016 meeting, WPCA voted to have Woodward and Curran evaluate options to include these residences. However, there is no intention to carve out part of Hawks Nest beach association to include in the current project plan as it will incur substantial rework of the plan, hence delaying the CT-DEEP approval process. Future connections of small areas may be considered based on study data and in consultation with the project consultant and CTDEEP.

**29. For the beaches not included in the current plan (Hawks Nest and White Sands), how would the future costs to sewer these two beaches be equitably applied as it will cost more in the future as compared to including them in the original design?**

The costs to add sewer connections will be determined by a hired expert and is intended to cover the built infrastructure costs in a fair and reasonable method. It is likely that additional connections will occur before the 20 year loans are completed and could be adjusted if recommended by expert council and adopted by the town.

**30. Should it becomes necessary to provide sewer connections to beach communities not in the current plan, will a new waste water management project have to be developed and cost estimated?**

Yes additional evaluations will require waste water plans that would need to be estimated and approved by the town.