

## TOWN OF OLD LYME

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January 12, 2016

To: The Water Pollution Control Authority, Town of Old Lyme, CT:

**Regarding Pathogenic Contamination of Groundwater in the Vicinity of Hawk's Nest Beach Area, Old Lyme, CT**

Good evening and thank you for asking me to present to this commission my assessment and direction regarding this vitally important and potentially serious health problem as it has reached a critical juncture for the Town of Old Lyme to forthwith commence specific concrete steps to remediate.

As Director of Health for the Town of Old Lyme, many present this evening know me well and others may not. I arrived in town 30 years ago to join the original Old Lyme Family Practice on Davis Road West in 1985. Since then, I have been privileged to serve as the Lyme/Old Lyme Public Schools medical advisor for 23 years and Director of Health of the Town of Old Lyme for the past 16 years. During my tenure in all of these public health related roles, I have had the opportunity to develop a broad and deep understanding of the health status of this community. One salient characteristic that I have come to recognize in Old Lyme is the importance and priority its residents place in matters regarding good health for their families. Furthermore, I have consistently been impressed by this town's commitment to do what is right and to take whatever actions are necessary to promote public health whenever significant threats arise.

Over these many years, for example, residents have brought to my attention concerns about air quality in buildings, possible lead exposures, emissions of idling school buses, mosquito and tick-borne diseases, pandemic influenza and many other potential threats to their good health. In all of these situations, we have identified problems, evaluated risks scientifically and undertaken the best feasible remedial actions with the mutual collaboration of public health authorities, concerned citizens in the community, elected officials and dedicated volunteer town boards. The WPCA is one such essential commission charged with the vital responsibility of ensuring the quality and purity of the town's water resources and I commend you for your diligence toward that goal to help remedy the current public health hazard of contaminated ground water.

The threat to public health of contaminated groundwater in the Hawk's Nest vicinity and neighboring beach areas has been of growing concern to town governance, the WPCA, the Old Lyme Health Department, Connecticut State Department of Public Health, the Department of Energy and Environmental Protection as well as potentially affected

residents in recent years. Existing onsite sanitary disposal systems are progressively aging, failing and increasingly noncompliant with basic acceptable standards of hygiene. Unfavorable soil and other site conditions as well as excessively high development density and septic system crowding have created a perfect storm for serious health hazards to residents exposed to the groundwater in those areas.

Recognizing these potential hazards, the town has done commendable due diligence over recent years to study the water pollution problem and evaluated alternatives to rectify identified hazards. Specific proposed piecemeal remedial options such as upgrading existing onsite wastewater treatment systems, small community systems conveying wastewater to centralized locations and decentralized wastewater management of individual lots have all been carefully evaluated with considerable expenditure of time and fiscal resources. Unfortunately, none of these approaches offers a long-term comprehensive solution that is practically feasible. It should be noted that no personal, financial or other private considerations of individual lot owners have had any influence in reaching these conclusions. Indeed, there is now a consensus among experts whose sole motivation is to propose a realistic solution to this public health hazard that the only means of permanently overcoming this difficult predicament is construction of sanitary sewers.

As a scientist, I need hard data before I can come to intelligent credible and rational conclusions regarding health. We have now collected enough objective information to conclude that groundwater in the areas studied is undeniably contaminated with infectious pathogens that pose a real and present public health threat. What am I worried about? My concern is that no citizen of this town should be exposed to disease-causing microorganisms or associated toxins. The comprehensive data we have accumulated reveal that groundwater in these areas is polluted and an obvious hazard to health judged by current clean water standards. I am troubled by the possibility that infants, pregnant or breast-feeding women, the elderly and other vulnerable individuals with compromised immune systems might develop serious preventable diseases from exposure to water that is contaminated by pathogens or excess nitrates. Furthermore, I am concerned that there may be possible cancer risks from other potential toxins besides excess nitrates that may exist in polluted ground water that are currently the subject of research into water quality and its effects on human health. Even one individual developing serious disease from polluted water in this town is too many for me.

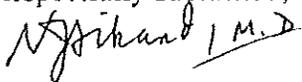
It has been brought to my attention that some residents in the affected areas question the veracity of the evidence documenting pollution of the groundwater referenced here. In my work, politics, personal agendas and financial considerations have absolutely no place in matters of public health. No matter how you slice and dice the data, an objective analysis in a nonpartisan scientific manner confirms the existence of a hazard. Just as denial of climate change is a recipe for future environmental disasters, I believe that ignoring the real and growing presence of pathogenic contamination of our ground waters is a sure path to adverse health events in the future.

The Health Department and consultants have provided relevant documentation from multiple sources to this commission. The detailed Public Health Assessment of Pathogenic Contamination of Ground Water in the Vicinity of Hawk's Nest Beach Area provided to you today delineates a summary of these contamination issues that pose significant hazards to residents in contact with the affected groundwater. Besides the scientific, microbiologic and engineering details, it is important to note that this assessment also addresses potential violations of state and federal statutes regarding public health nuisance and pollution of water occurring within municipal jurisdictions for which the town is potentially liable if remedial actions are not undertaken.

The Town of Old Lyme conducts its business in accordance with Connecticut State Statute Law. Public Health Code Section 19-13-B2 charges any local health director to investigate, within a reasonable time, the existence of a nuisance or any pollution occurring within his jurisdiction and to direct its abatement in writing. Pursuant to this mandate from the State of Connecticut, I state herewith my professional opinion as Director of Health that due diligence has now been thoroughly undertaken by the town, its WPCA and its Health Department to study all aspects of this matter and that a public health nuisance is thus identified. With this notification, it is now incumbent on the town to proceed forthwith to do what is right and practically feasible to abate the public health hazard.

In concluding this report, as a physician who also treats patients in clinical practice, I would like to present an analogy that may help to illustrate the scope and approach needed for the health problems we face with septic issues in our beach areas. Imagine a patient who comes to me complaining of chest pain. After careful examination and collection of data from stress tests or angiograms, I conclude that he has angina and blockage of arteries in the heart that may lead to a heart attack. If it's only one artery, I might recommend a simple, economical and less invasive approach like medications or a balloon angioplasty procedure to open up that artery and allow the blood to flow. If there are multiple arteries and heart areas involved in the disease, I would recommend open-heart surgery, creating multiple new channels for clean oxygenated blood to flow freely. This would be an invasive and more expensive procedure involving more pain, more time in the hospital and extended recovery, but this option would provide the best long-term solution to the problem, avoiding a heart attack and the many complications that arise when shortcuts or easier temporary measures are taken. Let's acknowledge the scope of the potentially serious public health problem we have with pollution of ground water on our shoreline and do the major surgery required to adequately address it.

Respectfully submitted,



Vijay Sikand, MD, FAAFP  
Director of Health

CC First Selectwoman and Board of Selectmen, Town of Old Lyme