

# TOWN OF OLD LYME

## Wastewater Management Task Force Members

We thank these very talented people for their time and effort on this important initiative:

- **Kurt Zemba**, Chairman. Kurt is a former Selectman, currently serves on the Open Space Commission, and has served on many boards and commissions in our community, including the Regional Board of Education. He has a background in Corporate consulting, management and strategic planning, and is a Moderator, with expertise in elections and parliamentary procedures.
- **Robert McCarthy**, who also serves on our Planning Commission, is an engineer with a focus on water resources and environmental consulting.
- **Douglas Wilkinson**, with a degree in accounting and over 40 years of management experience and project management
- **Dr. Frank Chan**, an engineer with an impressive career working for the Naval Submarine Forces in several high position capacities, and winner of **two** Navy Meritorious Civilian Service Awards
- **Richard Prendergast**, who has an Industrial Engineering education, and has served on the WPCA in Clinton, whose mission was sewer avoidance
- **Donna Bednar**, with a Masters in Biology and over 12 years of experience in the biotech/pharmaceutical industry
- **Dr. Ernest Lorda**, with a Masters in Engineering, a PhD in Biological Oceanography, and 25 years experience working on environmental issues in Long Island Sound and the Connecticut River
- **Tom Risom**, who also serves on our Zoning Commission, is an engineer and former Old Lyme WPCA Chair
- **Dimitri Tolchinski**, owner of Dimitri's Plumbing HVAC, with a Masters in Mechanical Engineering, and experience as Engineer/Designer of Nuclear Power Stations, Currently Old Lyme WPCA Chairman

**Q: How do we (the homeowners in the affected area) know that we are actually polluting the local ground water, surface water or even Long Island Sound?**

A: Since 1998, Old Lyme WPCA has been collecting water quality data from 39 test points throughout the town. The 39 points include driven test wells properly designed to provide consistent groundwater data; surface water sample sites including streams and ponds; and Long Island Sound in the area of the popular swimming beaches. Twice a year, using certified collection and testing procedures, water samples are drawn and tested by a certified laboratory. Samples are taken once in the spring (April/May) before the population spikes for the summer months and at the height of the season (August/September). All the collected data is available through the sanitarian's office. What the data has consistently shown us over the 15 years of testing is that the concentration of coliform in our ground water increases by a factor of 100 over the course of the summer. It shows that the coliform in our surface water increases even more, but that the Sound stays relatively constant. Studies have shown that due to the extent of wildlife in the wetlands, background coliform in the surface water there will always be elevated. We have also seen huge spikes in the coliform in the Sound after a heavy rain with an outgoing tide. This suggests problems up the Connecticut River with poorly performing sewer plants.

In addition to Old Lyme's empirical data, the DEEP has frequently pointed to the housing density south of the railroad from Cross Lane through Point-O-Woods as problematic. The DEEP uses dissolved groundwater nitrogen as their measure of pollution and they tell us that this many Septic Systems on this little land creates huge amounts of nitrogen that lead to algae blooms and contaminated wells. A typical septic system does not reduce nitrogen.

**Q: How does a specific homeowner know if their home is contributing to the pollution in the area of if their septic system is operating adequately?**

A: There are three factors that determine the effectiveness of a particular septic system. 1) The septic load, or the number of people using a particular leaching field; 2) The ability of the ground to absorb and treat the wastewater involving area (acreage), types of soil and height of groundwater; and 3) the design of the septic system.

In Old Lyme, the Minimum Area Building Lot (MABL) is 30,000 square feet. This is considered by the DEEP to be the smallest area lot that can sustain a typical four bedroom home with a well and a septic system. The majority of lots in the beach community are less than 10,000 sq. ft. (1/3 the minimum area) and many are less than 5,000 sq. ft. (1/6 the minimum area).

While the septic systems on adjoining 10,000 square foot lots may all be built in accordance with the current health code and functioning properly, their collective output is more than the land can handle, according to the DEEP. The Connecticut Department of Health regulates individual septic systems, while the CT DEEP regulates larger scale impacts and solutions. The answer goes back to the DEEP's correlation between density and pollution as measured by dissolved nitrogen. The short answer is that we are all contributing to the pollution.