Molly Graffam, PhD Water Resource Geochemical Specialist Cornell Cooperative Extension of Suffolk County Marine Program

Email: meg372@cornell.edu

Molly received her Bachelor's Degree in Biochemistry at Fairfield University. While at Fairfield she spent many early mornings rowing out from the Norwalk River into the Long Island Sound. The contrast between the picturesque scenery and the pollution she observed in the river was unsettling and it piqued her interest in learning about water pollutants and improving water quality. Molly completed her PhD in Marine Science at the Stony Brook School of Marine and Atmospheric Sciences. Her dissertation research, advised by Dr. Nils Volkenborn and funded by the Center for Clean Water Technology, was on the biogeochemistry of permeable reactive barriers (PRBs) and nitrogen removing biofilters (NRBs) which are groundwater and wastewater treatment systems, respectively. Her research focused on linking the hydraulic and redox conditions which are critical for microbially mediated nitrogen removal and understanding the alternative metabolic pathways that can sometimes lead to pollutant generation during water treatment. Molly has been working for Cornell Cooperative Extension of Suffolk County (CCE) for about 3 years and was highly involved in the first of its kind bulkhead PRB installed in Hampton Bays, NY by the Hampton Hills Association in consultation with CCE. She continues to provide geochemical expertise while on the CCE team as they locate and quantify rates of groundwater discharge along the shoreline of nitrogen-impacted waterbodies and make recommendations about strategies intended to help meet nitrogen load reduction targets.