



Alternative Technology for Nitrogen Removal

Brackett Landing, Eastham, Massachusetts

Brackett Landing is an affordable housing community that will use advanced nitrogen removal technologies to treat wastewater. A large-scale septic system will treat the expected wastewater flow of 8,320 gallons per day. The project is located within a nitrogen sensitive drinking water area by virtue of the fact that the community will be served by on-site private wells.

The Horsley Witten Group designed a shared Nitrex treatment system for the project, capable of lowering total nitrogen concentrations in the effluent to 10 mg/L or less. The system consists of a gravity sewer collection system, equalization tanks and a trickling feature to nitrify the effluent with the Nitrex filter to complete the denitrification process. The Nitrex filter is a tank packed with a proprietary wood product media that has been shown to remove nitrate-nitrogen from domestic wastewater.

Permitted through the Massachusetts DEP Pilot Approval process, the Brackett Landing system has also been approved as a shared system for the 40 homes and commercial buildings in the proposed development.



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