

Tred Avon River Maryland – Nitrogen Reduction Required

Tred Avon is a major tributary of the Choptank River, which leads to the Chesapeake Bay. Location and soil conditions of this property are what created the special dispersal needs of this project. Subject property is a waterfront property located on the Tred Avon River in beautiful Talbot County Maryland. Nitrogen removal within the critical area of tidal waters in the state of Maryland is a high priority when it comes to onsite septic systems. Bay Area Environmental, a division of Jones Pump Service, consults with contractors and designers throughout the state of Maryland to determine the Best Available Technology (BAT) on projects. Jones Pump Service and Bay Area Environmental offers services for project design, regulatory management, installation oversight and start up certification. After the project is complete, Jones Pump Service provides/offers on-going service contracts for the treatment unit and the soil-based dispersal technology.



A series of sand beds with Perc Rite drip dispersal components were used for effluent dispersal. For the three-bedroom home, a peak flow of 450 gallons per day was used to design the treatment needs and to size the dispersal beds. As stated earlier, nitrogen removal is always a concern when designing projects this close to tidal waters. A Fuji Clean USA treatment unit was used to achieve the highest possible nitrogen removal. Third party testing has determined that the Fuji Clean CEN 5 nitrogen removal average is 76%. This is the highest nitrogen removal percentage of Best Available Technologies in the state of Maryland. The Fuji Clean unit was also chosen due to access issues. A small Excavator is able to set the Fuji Clean treatment unit because of its compact size and light weight. An Infiltrator dose tank was utilized to provide storage for the Perc Rite dispersal pump system. The complete system was installed by CH Tyler Excavating and a Doosan DX63 mini excavator was used to set the Infiltrator dose tank and the Fuji Clean CEN5. Bay Area Environmental provided the components needed to construct the complete onsite system. Jones Pump Service/Bay Area Environmental will provide operation and maintenance for the complete dispersal system

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for two years under the sales contract. Maryland Department of Environment (MDE) mandates all service visits be reported to a state- run database. Jones Pump Service will dispatch a technician to the site for routine maintenance of the Fuji Clean technology every 6 months and report the findings to the MDE data base as required. Each county can reference the database to track the mandated service of every BAT.

The Fuji Clean USA treatment units are a tool for designers and installers in the state of Maryland as we work toward clean water and the ability to provide options not only for sites that require a treatment unit with a small footprint, but for any size area or facility. The use of the Fuji Clean treatment unit on the Tred Avon River project takes us one step closer towards clean water in the Chesapeake Bay.

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