**Maryland Nutrient Removal Program for Chesapeake Bay**

Maryland is part of the Chesapeake Bay watershed and almost all of the wastewater treatment plants in the state discharge into Chesapeake Bay or one of its tributaries. In 2010, after decades of voluntary efforts to fully restore the Chesapeake Bay, the United States Environmental Protection Agency (EPA) established pollution load limits (annual mass based load limits) to restrict three major pollutants fouling the Bay’s waters: nitrogen and phosphorus (nutrients) and sediment (soil). These loading limits, which set clear goals for reducing excess pollution, are science-based estimates of the amount of each substance the Chesapeake Bay and its tributaries can receive and still meet standards for clean, healthy water. The goals, or pollution reduction targets, require the seven jurisdictions in the Chesapeake Bay watershed (Maryland, Virginia, Pennsylvania, Delaware, West Virginia, New York and the District of Columbia) to reduce their nutrient and sediment loadings to the Bay until these protective limits are met, within a specific time frame.

In response to the new pollution limits, also known as the Total Maximum Daily Load (TMDL), the seven Bay jurisdictions created individual Watershed Implementation Plans (WIPs), or restoration blueprints that detail specific actions each would take to meet their pollution reduction goals by 2025. The blueprints guide local and state Bay restoration efforts through the next decade and beyond.

EPA requires that the six states and the District of Columbia each reach 60 percent of their 2025 restoration targets for nitrogen, phosphorus and sediment pollution reduction by the year 2017. This progress is measured from the baseline established in the TMDL and compared to full blueprint implementation, which must be achieved by the year 2025.

The Nitrogen removal portion of the Chesapeake Bay TMDL for Maryland includes 71 municipal wastewater treatment plants that are > 0.5 million gallons per day average design flow. This includes six military treatment facilities and four Maryland State owned treatment plants at correctional institutes. The Maryland nitrogen removal program also includes a portion of the 370 million gallon per day Blue Plains Wastewater Treatment plant that is operated by the District of Columbia Water and Sewer Authority.

As of December 2014, 36 Maryland wastewater treatment plants are achieving the enhanced nitrogen removal limit of 3 mg/l total nitrogen. 2015 is projected to have an additional 16 facilities completing construction and achieving permitted nitrogen removal. By December 2017 all 71 municipal treatment plants in Maryland are scheduled to completed and operational.

33 municipal treatment plants are listed in the Maryland database that are > 1 million gallons per day in average design flow and are using or are in design for nitrogen processes that will require supplemental carbon. Many of the facilities in the database are using denitrification filter technology that uses methanol as the primary supplemental carbon source.