**The Tennessee Nitrogen Removal Program**

The Tennessee Department of Environment and Conservation, Division of Water Resources manages the NPDES surface water discharge program. Tennessee has total nitrogen limits on nineteen major municipal dischargers (over 1 million gallons per day) with mass based total nitrogen limits. The limits are based on an average mass (pounds per day) of nitrogen discharged. Twelve of the dischargers have year round 12 month limits and seven seasonal from May through October.

The mass based limits were set at the design flow limit for each facility and when calculated as mg/l of nitrogen discharged they range between 8-10 mg/l total nitrogen. At this level the facilities will not need to utilize a supplemental carbon source.

Tennessee also has two poultry processing plants that have individual permits with surface water discharges. The poultry processing plant permits are 103 mg/l total nitrogen monthly average (the federal US EPA technology based limit). The two poultry facilities have the capability of using glycerin as supplemental carbon source.

The largest potential for nitrogen limits in Tennessee is from the Gulf of Mexico/Mississippi River hypoxia study. The Tennessee Department of Environment and Conservation is actively involved in the larger basin study with the US EPA. The drainage basin for the Mississippi River in Tennessee will affect the majority of large wastewater treatment plants in the western portion of the state. The likely schedule for actual wastewater nitrogen limits for dischargers and completed wastewater improvements with nitrogen limits is greater than five years.