**The Montana Nitrogen Removal Program**

The Montana Department of Environmental Quality manages the NPDES surface water discharge program. Based on communication with the Montana Department of Environmental Quality permitting and water quality planning staff there are no municipal or publicly owned (POTW) NPDES major dischargers, (over one million gallon per day average flow) that are using a supplemental carbon source on a regular basis to achieve total nitrogen or nitrate nitrogen limits at this time.

The Montana Department of Environmental Quality published in July 2014, “Base Numeric Standards Implementation Guidance and Nutrient Standard Variances Circular DEQ-12B.” These documents required major municipal wastewater treatment facilities of > 1 million gallons per day flow to achieve a total nitrogen limit of 10 mg/l. Minor municipal wastewater treatment facilities of < 1 million gallons per day are required to achieve a 15 mg/l total nitrogen limit. The new requirements are presently being cycled in the each new five year NPDES permit cycle.

Once the new nitrogen standards are being met the Montana Department of Environmental Quality could further lower the nitrogen limit to 8 mg/l total nitrogen if needed to achieve state water quality goals. This would require a number of years as dischargers would have at least 5 additional years to achieve this requirement. Two municipal wastewater treatment facilities experimented with glycerin use on an intermittent basis to assist with nitrogen removal. After the trials the facilities did not need a supplemental carbon source to achieve the 10 mg/l nitrogen limit.

There are no large poultry and meat processing facilities in Montana that have NPDES discharge permits with nitrogen limits. Montana has two very small meat processing plants that presently are not using a supplemental carbon source to achieve nitrogen limits. There are several large mining operations in Montana that have nitrogen limits, however they are using simple anoxic lagoons to achieve limits without the need for supplemental carbon.