The objective of this document is to provide you with current and helpful information regarding water protection, and the Michigan Agriculture Environmental Assurance Program (MAEAP).

**Drainage water management systems can improve economic and environmental benefits for new or existing tile drain systems**

Michigan’s soils, hydrology, and topography make tile drain systems an essential piece of agricultural systems in many areas of the state. Shifting weather patterns that bring heavy spring rain followed by summer droughts makes management of water in fields increasingly important for growers. At the same time, P and N losses are increasingly occurring in forms dissolved in water that can be lost from fields through tile drains.

Drainage water management (DWM) systems allow for the adjustment of the water table elevation in fields, allowing for a naturally high water table during non-cropping times of the year. This allows for greater water infiltration to groundwater while keeping unnecessary water out of drainage systems. During the growing season, the water table can be lowered to the typical functional level of the drain tile system, providing all the same benefits of tile drainage growers expect. DWM systems also allow for raising the water table during periods of typical summer droughts, keeping moisture in the soil profile for crop use.

Ongoing research by Michigan State University indicates DWM systems are effective tools for limiting nutrient loss from fields. Unlike most other nutrient loss reduction practices to protect water quality, DWM systems don’t take farmland out of production or require changing in-field agronomic management. They require minimal time to adjust water levels, taking just minutes to add or remove boards in the control structure. And unlike many other conservation practices, DWM systems offer immediate yield improvement opportunities.

Cost-share assistance programs are available in many counties. Growers are encouraged to contact their local conservation district offices to learn more about improving their tile drainage systems with drainage water management technology. As a conservation practice, DWM retains flexibility of in-field agronomic management, does not remove land from production, offers immediate yield increase potential, and has assessable cost-share opportunities - a combination not often seen with other conservation practices.