Appendix J – Wetland Restoration

Last Revised: June 2020

The restoration of wetlands is an option available for generating water quality credits. Reductions are calculated by comparing the previous loading, typically under an agricultural land use setting, with a permanently vegetated scenario. Research indicates that overtime, wetlands can become sources of phosphorus and may seasonally alter between being a nutrient sink and nutrient source as vegetation dies back in the late fall and early spring. Steps such as reducing agricultural runoff entering wetlands, harvesting vegetation, and drawing down in-situ soil phosphorus levels are methods that can mitigate phosphorus export. In addition, design considerations such as slope, residence time, hydraulic loading rate, presence of carbon, soil pH, microbial activity, wetland shape, and water depth are all factors that influence the ability of a wetland to more efficiently retain phosphorus.

Due to a combination of both Federal and U.S. Army Corps of Engineers' requirements, wetland acres enrolled in the wetland mitigation bank are unable to generate water quality trading credits and vice-versa. However, a wetland restoration project can potentially generate both types of credits provided documentation clearly indicates which specific acres of restored wetland are destined for mitigation credits and which are being used for water quality trading credits. For example, wetlands restored for mitigation purposes are required to have a protective buffer around them and this buffer, along with other potential areas of a site not suitable for wetland mitigation, could be used to generate water quality trading credits.

When examining a potential site for wetland restoration and mitigation, consideration should be given to the quality and type of wetland restoration, the location, current land use(s) and nutrient load, adjacent/upgradient land-use(s) that contribute nutrients, via runoff, to the proposed wetland restoration site and the demand for mitigation credits or water quality trading credits. A wetland restoration plan that is utilizing both mitigation and water quality credits needs to clearly specify which restoration acres are being used for which program. Please see the WDNR Wetland webpage (https://dnr.wi.gov/topic/Wetlands/Mitigation/) for contact information and additional resources on wetland restoration and mitigation.