BOARD OF WATER AND SOIL RESOURCES

Wetland Replacement Credit for Combined Wetland and Stream Replacement Projects

May 24, 2022

This document describes and justifies an approach for determining potential wetland replacement credits when areas involved in generating wetland credit overlap with areas involved in generating stream credits. This applies to Wetland Conservation Act (WCA) implementation and compliance.

Background and Need

The Minnesota Wetland Conservation Act (WCA) has rules, policies, guidance, and administrative procedures for replacing the functions and values of impacted wetlands, including a well-established wetland banking system. However, WCA does not recognize replacement for impacts to streams. WCA rules prohibit areas used for wetland replacement to also be used for other regulatory purposes such as stream replacement/mitigation (MN Rules 8420.0330 Subp. 3B(11)(d)). The Federal Mitigation Rule (CFR 332.3(j)(1)(ii) [230.93(j)(1)(ii)]) also prohibits using credits for the same or similar environmental benefits twice (often referred to as double-dipping).

Recent interest and new developments in compensatory mitigation for streams have prompted proposals that could potentially generate both stream and wetland replacement credits as part of the same project. Specifically, Minnesota has developed a stream quantification tool (SQT) that measures the functional lift of a stream restoration project. The SQT expresses functional gain as functional foot credits used to replace or mitigate for the functional loss due to stream impacts. The SQT identifies a riparian area adjacent to a stream reach (referred to as the **Effective Riparian Area** or **ERA**) that contributes to stream functioning. In some instances the ERA may include restorable wetland area. Restorable wetland areas within the ERA of a restorable stream reach have the potential to contribute to the generation of both stream and wetland credits (credit stacking).

Because both wetland and stream credits represent a bundle of different functions (species habitat, water quality, flood control, etc.) which partially overlap, using the same stacked credit to offset both wetland and stream impacts may result in an overall ecosystem loss for some of these overlapping functions. However, potential synergistic functional improvements of restoring different aquatic resources on one site/project such as providing a larger block of contiguous wildlife habitat may partially offset this potential functional loss.

The only way to provide both wetland and stream credit for the same area is to account for overlapping functions and apportion credit only for functional improvements specific to each aquatic resource. In the SQT, the ERA contributes to several catchment scale parameters involved in determining functional lift for several reach scale functional categories (Hydrology and Hydraulics). The effect on stream credits due to wetland restoration within the ERA cannot be reasonably and readily identified because of the inter-related, multi-metric weighting and calculations that determine functional lift and credits in the SQT. However, it is possible to compare SQT metrics applicable within the ERA with factors influencing wetland credit values. If there are factors influencing wetland credit values that do not correspond to an SQT metric for streams, then those

factors could be considered *value added*. If wetland restoration within the ERA results in value added, then the value added by the wetland restoration may justify generation of wetland credits in the ERA.

The SQT includes a measurement of riparian vegetation related to overall percent vegetated, herbaceous vegetation cover, canopy cover, and woody stem basal area. In contrast, functional lift and associated credit allocation related to vegetation for most restored wetlands is based on the presence of hydrophytic vegetation, species richness, and percent cover of native/noninvasive species. These specific vegetation metrics for wetlands generally do not influence or contribute to the much broader vegetation metrics considered in the SQT. Therefore, when wetland restoration is a conducted within the ERA, the lift provided by meeting typical vegetation performance standards for wetlands is additional to the lift provided to stream functions.

Credit release schedules for most replacement wetland projects in Minnesota include releases based on hydrology and vegetation. Achievement of vegetation performance standards (% native species cover, species richness, etc.) typically accounts for 30% of the total credit release. Initial and final releases typically account for 35% of the total and are equally associated with hydrology and vegetation (i.e. 50% of initial and final releases associated with vegetation and 50% associated with hydrology). Adding half of those releases to the 30% associated with vegetation results in approximately 50% of the overall credit release for a wetland replacement project to be attributable to vegetation.

Restoring native/noninvasive wetland vegetation in the ERA adds value beyond that accounted for in the functional lift of a restored stream reach as measured by the Minnesota SQT. The value added for restoring wetland vegetation accounts for approximately half of the functional improvement in the ERA for wetlands. The other half related to hydrologic restoration also contributes to and overlaps with stream functional lift.

Determining Wetland Credit Potential in the ERA

- Upland areas and preserved wetland areas in the ERA are *not* eligible for any type of WCA wetland replacement credit.
- Wetland credit potential for restored wetland areas is determined using the same criteria, process, etc. as for restored wetlands outside the ERA. If restored wetland areas in the ERA involve restoration/establishment of native/noninvasive vegetation *only*, then credit potential is not adjusted. If restored wetland areas involve *both* vegetative and hydrologic restoration, then the credit potential is reduced by half.