

***Performance standards for \_\_\_\_\_ bank credit approval***

1. **Annual mitigation monitoring reports** shall be submitted on the status of the mitigation. The reports shall be submitted by December 31 following each of the first five growing seasons. Failure to submit monitoring reports will result in delay of approval of any remaining credits and formal release from future monitoring requirements until reports are submitted and approved by the Corps in consultation with resource agencies.

The reports shall, at a minimum, include the following information:

i) All plant species along with their percent cover, identified using standard plots and/or transects, with at least one representative plot/transect in each plant community within the mitigation site including upland buffers. In addition, the presence, location and percent cover of invasive and/or non-native species, such as purple loosestrife and common buckthorn, in any of plant communities shall be noted.

ii) Vegetation cover maps at an appropriate scale shall be submitted for each reported growing season.

iii) Photographs showing all representative areas of the mitigation site taken at least once each reported growing season during the period of July 1 to September 30. Photographs shall be taken from a height of approximately five to six feet from at least one location per acre. Photos shall be taken from the same reference point and direction of view each reporting year.

iv) Surface water and groundwater elevations in representative areas (e.g., at least one sample point in each plant community) recorded at least once each week for the first 10 weeks of each growing season, thereafter taken monthly for the remainder of each growing season. The location of each monitoring site shall be shown on a plan view of the site. Surface water observations must be sufficient to support the claims that hydrologic success criteria are met for each wetland credit type claimed.

2. **A wetland delineation** of the site applying the 1987 *Corps of Engineers Wetlands Delineation Manual* and guidance shall be submitted at the close of the monitoring period. This delineation shall be prepared by a wetland professional.

3. To receive credit for the wetland types proposed for restoration, the site shall meet the following **Performance Standards**:

**i) Hydrology**

(A) **Seasonally Flooded Basins.** Hydrology shall consist of inundation by a few inches to 24 inches of water for a minimum of 15 consecutive days during the growing season under normal to wetter than normal conditions (70 percent of years based

on most recent 30-year record of precipitation). Inundation shall be typically absent following the first 6 weeks of the growing season and soil saturation drops below 12 inches from the surface for the majority of the growing season in most years.

**(D) Fresh (Wet) Meadows, Sedge Meadows and Wet Prairies (Mineral Soils).** Hydrology shall consist of saturation at or within 12 inches of the surface for a minimum of 30 consecutive days, or two periods of 15 consecutive days, during the growing season under normal to wetter than normal conditions (70 percent of years based on most recent 30-year record of precipitation). Inundation during the growing season shall not occur except following the 10-year frequency or greater storm/flood event. The depth of inundation shall be 6 inches or less and the duration of any inundation event shall be less than 15 days. An exception can be made for sites with hummocky microtopography -- hollows between hummocks can have standing water depths of up to 6 inches for extended duration.

**(E) Fresh (Wet) Meadows, Sedge Meadows, Calcareous Fens, Open Bogs, Conifer Bogs, Hardwood Swamps, Shrub-Carrs and Alder Thickets (Peat/Muck Soils).** Hydrology shall consist of saturation to the surface throughout the growing season, except in drought years (driest 10 percent of the most recent 30-year period of precipitation record). Inundation shall not occur (unless there are site-specific conditions). An exception can be made for sites with hummocky microtopography -- hollows between hummocks can have standing water depths of up to 6 inches for extended duration.

**(F) Shallow Marshes.** Hydrology shall consist of saturation to the surface, to inundation by up to 6 inches of water, for a minimum of 60 consecutive days or two periods of 30 consecutive days or four periods of 15 consecutive days, during the growing season under normal to wetter than normal conditions (70 percent of years based on most recent 30-year record of precipitation). During the growing season, inundation by up to 18 inches of water following the 2-year or greater storm/flood event is permissible provided that the duration does not exceed 30 days (e.g., water depth drops from 18 inches to 6 inches within the 30 days).

**(G) Deep Marshes.** Hydrology shall consist of inundation by 6 to 36 inches of water throughout the growing season, except in drought years (driest 10 percent of most recent 30-year period of precipitation record).

**ii) Vegetation:**

**(A) Herbaceous Species Composition:**

(1) Fresh (wet) meadows, sedge meadows, wet prairies, and seasonally flooded plant communities (Type 1 and Type 2 wetlands) shall each achieve a species composition that includes of 10 or more species of native/non-invasive grasses, sedges,

ferns, rushes and/or forbs by year 5. Alternatively, a MnRAM vegetative diversity and integrity score of “high quality” by year 5 would also satisfy this performance standard.

(2) Shallow marsh and deep marsh plant communities shall be dominated by 3 or more native aquatic species, with at least 4 native plant species occurring within the shallow marsh communities on the site by year 5. A MnRAM vegetative diversity and integrity score of “high quality” for each these plant communities will also satisfy this performance standard.

(3) restored tallgrass prairie in the upland buffer shall be dominated by 3 or more species of native grasses, sedges, rushes, forbs and/or ferns, with approximately 80% or greater areal coverage of the total mitigation site, and at least 10 native species occurring within the area of the upland communities on the site by year 5;

**(B) Hydrophytes.** More than 50% of all plant species within the wetland communities of the mitigation site shall be facultative (FAC) or wetter (FACW or OBL) excluding FAC-.

**(C) Control of Invasive and/or Non-Native Species:** Control of invasive and/or non-native plant species shall be carried out for five full growing seasons. Control shall consist of mowing, burning, disking, mulching, biocontrol and/or herbicide treatments. By the third growing season, any areas one-quarter acre in size or larger that have greater than 50 percent areal cover of invasive and/or non-native species shall be treated (e.g., herbicide) and/or cleared (e.g., disked) and then reseeded. Follow-up control of invasive and/or non-native species shall be implemented as stated above. At the end of the fifth growing season, the vegetative community shall not contain greater than 5 percent areal cover of invasive and/or non-native species including: reed canary grass (*Phalaris arundinacea*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), smooth brome grass (*Bromus inermis*), giant ragweed (*Ambrosia trifida*), common ragweed (*Ambrosia artemisiifolia*), quack grass (*Elytrigia repens*), black locust (*Robinia pseudoacacia*), sweet clovers (*Melilotus alba* and *M. officinalis*), non-native honeysuckles (e.g., *Lonicera x bella*), and non-native buckthorns (*Rhamnus cathartica* and *R. frangula*). The mitigation site shall have no purple loosestrife (*Lythrum salicaria*) present at the end of the monitoring period. Failure to meet any of the above criteria shall extend the permittee’s responsibility for monitoring and control of invasive/non-native species within the compensation site.