

**8420.0522 REPLACEMENT STANDARDS.**

Subpart 1. **General requirement.** Wetland replacement must replace the public value of wetlands lost as a result of an impact. Replacement of wetland function and value may occur at more than one location. The public value of wetlands is based upon the functions of wetlands, including:

A. water quality, including filtering pollutants to surface water and groundwater, using nutrients that would otherwise pollute public waters, trapping sediments, protecting shoreline, and recharging groundwater;

B. flood water and storm water retention, including the potential for flooding in the watershed, the value of property subject to flooding, and the reduction in potential flooding by the wetland;

C. public recreation and education, including hunting and fishing areas, wildlife viewing areas, and nature areas;

D. commercial uses, including wild rice and cranberry growing and harvesting and aquaculture;

E. fish, wildlife, and native plant habitats;

F. low-flow augmentation; and

G. other functions and public uses as identified in wetland evaluation methods demonstrated to reasonably identify appropriate candidates for wetland replacement. The board shall maintain a publicly available list of the methods that have been approved for wetland evaluation under the standards set out in this item.

Subp. 2. **Determining impacts of partial drainage.** In cases where wetlands will be partially drained, the amount of wetland to be replaced must be determined according to this subpart. The area impacted by partially draining a wetland is determined in two parts. The wetland area where the hydrology will be totally removed must be considered an impact in its entirety. The amount of impact for the area that is partially drained must be at least 50 percent of the acreage of the remaining wetland area determined by an assessment acceptable to the technical evaluation panel.

Subp. 3. **In-kind wetland replacement.** In-kind means a wetland of similar type and function to the impacted wetland. Wetland replacement is in-kind if it is:

A. the same type or plant community as the impacted wetland or, for degraded wetlands, the same type or plant community that historically occurred at the impact site; or

B. the same hydrologic conditions and landscape position as the impacted wetland.

Subp. 4. **Replacement ratios.**

A. The replacement ratio is 2.5 replacement credits for each acre of wetland impacted, except in greater than 80 percent areas or on agricultural land the replacement ratio is 1.5 replacement

credits for each acre of wetland impacted. The replacement ratio may be reduced by 0.5:1 when the replacement consists of:

(1) withdrawal of available credits from an approved wetland bank site within the same bank service area as the impacted wetland; or

(2) project-specific replacement within the same major watershed or county as the impacted wetland, a majority of which is in-kind.

Minimum Replacement Ratios: Banking		
Location of impact	Replacement	Minimum replacement ratio
>80% area or agricultural land	Outside bank service area	1.5:1
	Within bank service area	1.1
<50% area, 50-80% area, and nonagricultural land	Outside bank service area	2.5:1
	Within bank service area	2:1

Minimum Replacement Ratios: Project-Specific		
Location of impact	Replacement	Minimum replacement ratio
>80% area or agricultural land	Outside major watershed or out-of-kind	1.5:1
	Within major watershed and in-kind	1.1
<50% area, 50-80% area, and nonagricultural land	Outside major watershed or out-of-kind	2.5:1
	Within major watershed and in-kind	2:1

B. For replacement via banking, impacts in bank service area 10 that are replaced in bank service area 9 or the Des Moines River Basin in bank service area 8 and impacts in bank service area 1 that are replaced in bank service area 2 count as replacement within the same bank service area for the purpose of reducing the minimum required replacement ratio according to this subpart.

C. For purposes of determining project-specific replacement ratios, the local government unit may authorize the use of out-of-kind wetland replacement in the same ratio allowed for in-kind replacement. Out-of-kind replacement may qualify for the same ratio as in-kind when it consists of a type or plant community that has been significantly lost in the watershed or that will provide important functional benefits to the watershed in accordance with the principles described in part 8420.0830, subpart 5, as determined by the technical evaluation panel based on a review of available evidence or according to a local plan approved by the board. A reduced ratio for out-of-kind

replacement is typically not appropriate for wetlands that are difficult to replace, such as white cedar swamps or bogs.

D. Wetland replacement must be of a size sufficient to ensure that it provides equal or greater public value than the impacted wetland it will replace. The actual replacement ratio required may be more than the ratio required in item A if the local government unit determines that a higher ratio is necessary to replace the public value of the wetland lost. In no case shall the replacement ratio be less than 1:1 in greater than 80 percent areas or agricultural land, and 2:1 in all other areas.

E. Owners of wetlands impacted for use as agricultural land may make no use of the wetland area after it is impacted, other than as agricultural land, for a period of ten years unless future replacement to achieve a ratio equaling or exceeding the appropriate ratio for nonagricultural land in item A occurs. The landowner must record a notice of this restriction in the office of the county recorder in which the project is located, and, as a condition of local government unit approval, provide documentation of the recording to the local government unit.

F. The board may approve special replacement ratios based on data derived from comprehensive inventories of replacement opportunities. The board must give notice of the replacement ratios to local government units and must publish the ratios in the State Register. The board must provide opportunities for public input and comment before publishing the special replacement ratios. The conditions and standards take effect 30 days after publication and remain in effect unless superseded by subsequent statute, rule, or notice in the State Register.

**Subp. 5. Ecological suitability and sustainability.**

A. The preferred method of replacement is that which takes advantage of naturally occurring hydrogeomorphic conditions with minimal landscape alteration and is most likely to result in a wetland area that functions wholly, perpetually, and naturally. Wetland restoration is generally preferred over creation, and restoration of completely impacted wetlands is generally preferred over other methods of replacement.

B. Restoration and replacement of wetlands must be accomplished according to the ecology of the landscape area. The replacement site must be ecologically suitable for providing the desired functions and compatible with adjacent land uses. A replacement or banking plan that would result in wetland types or characteristics that do not naturally occur in the landscape area in which the replacement will occur must be denied. Replacement must not adversely affect other habitat types or ecological communities that are important in maintaining the overall biological diversity of the area.

C. Replacement projects must be located and designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. "Self-sustaining" refers to the ability of a wetland to provide the desired functions over time in a changing landscape without human intervention.

D. In addition to items A to C, when determining the location, type, function, and design of replacement, applicants and local government units must consider: landscape position, habitat

requirements, development and habitat loss trends, sources of watershed impairment, protection and maintenance of upland resources and riparian areas, and providing a suite of functions.

**Subp. 6. Required upland buffer.**

A. Establishment or preservation of unmanicured vegetated upland buffer areas is required adjacent and contiguous to replacement wetlands receiving credit under part 8420.0526, subparts 3 to 7.

B. For replacement wetlands less than two acres in size, the buffer must be a minimum average width of 25 feet. For all other replacement wetlands, the buffer must be a minimum width of 25 feet and an average width of 50 feet.

C. The applicant may request the local government unit to vary the upland buffer standards under items A and B. The local government unit may vary the standards under items A and B based on a recommendation by the technical evaluation panel when compliance is not practicable or feasible, and the replacement wetland will otherwise meet the requirements of subpart 5, or when the variance would be ecologically beneficial.

**Subp. 7. Siting of replacement.**

A. Siting wetland replacement must follow this priority order:

- (1) in the same minor watershed as the affected wetland;
- (2) in the same major watershed as the affected wetland;
- (3) in the same county as the affected wetland;
- (4) for replacement by wetland banking, in the same wetland bank service area as the impacted wetland, except that impacts in a 50 to 80 percent area must be replaced in a 50 to 80 percent area and impacts in a less than 50 percent area must be replaced in a less than a 50 percent area; and

(5) for project-specific replacement, in an adjacent major watershed to the affected wetland or, for replacement by wetland banking, in an adjacent wetland bank service area, except that impacts in a 50 to 80 percent area must be replaced in a 50 to 80 percent area and impacts in a less than 50 percent area must be replaced in a less than 50 percent area.

B. Notwithstanding item A, siting wetland replacement in greater than 80 percent areas may follow the priority order under this item:

(1) by wetland banking after evaluating replacement within the minor and major watersheds;

(2) replaced in an adjacent wetland bank service area if wetland bank credits are not reasonably available in the same wetland bank service area as the affected wetland, as determined by a comprehensive inventory approved by the board; or

(3) statewide.

C. Notwithstanding item A, siting wetland replacement in the seven-county metropolitan area must follow the priority order under this item:

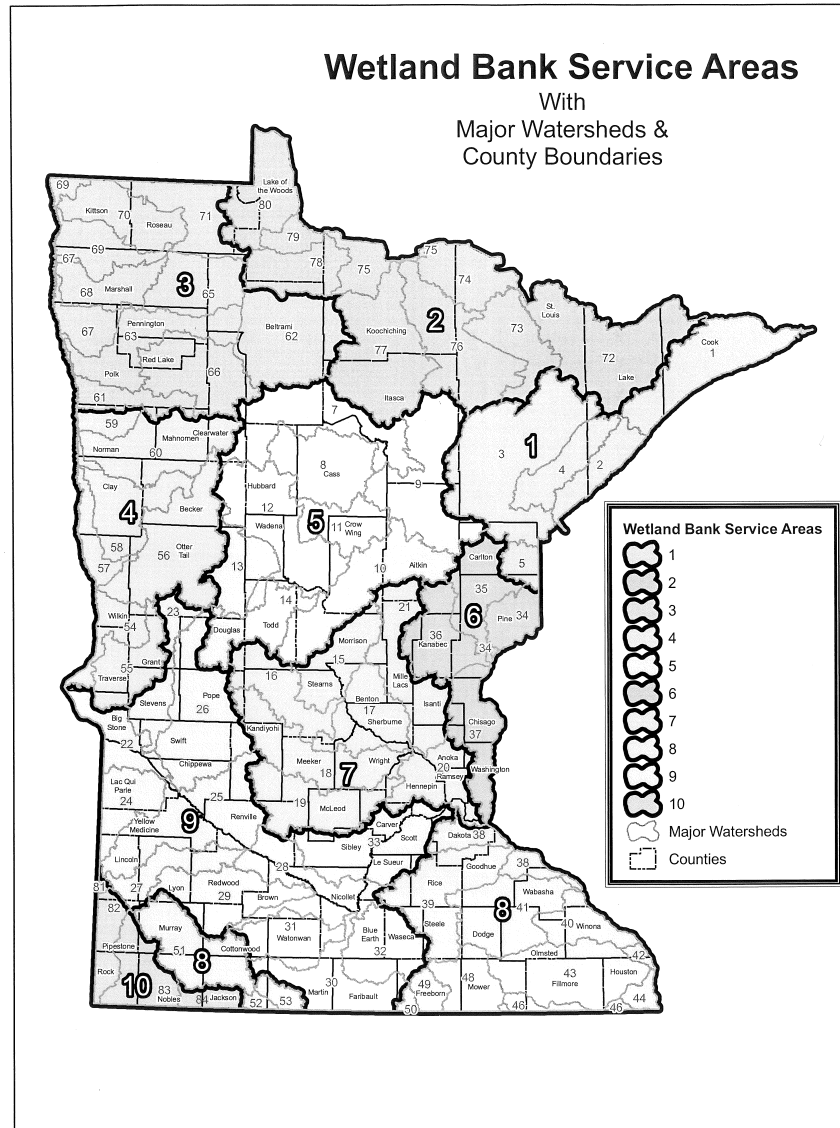
- (1) in the affected county;
- (2) in another of the seven metropolitan counties; or
- (3) in one of the major watersheds that are wholly or partially within the seven-county metropolitan area, but at least one-to-one must be replaced within the seven-county metropolitan area.

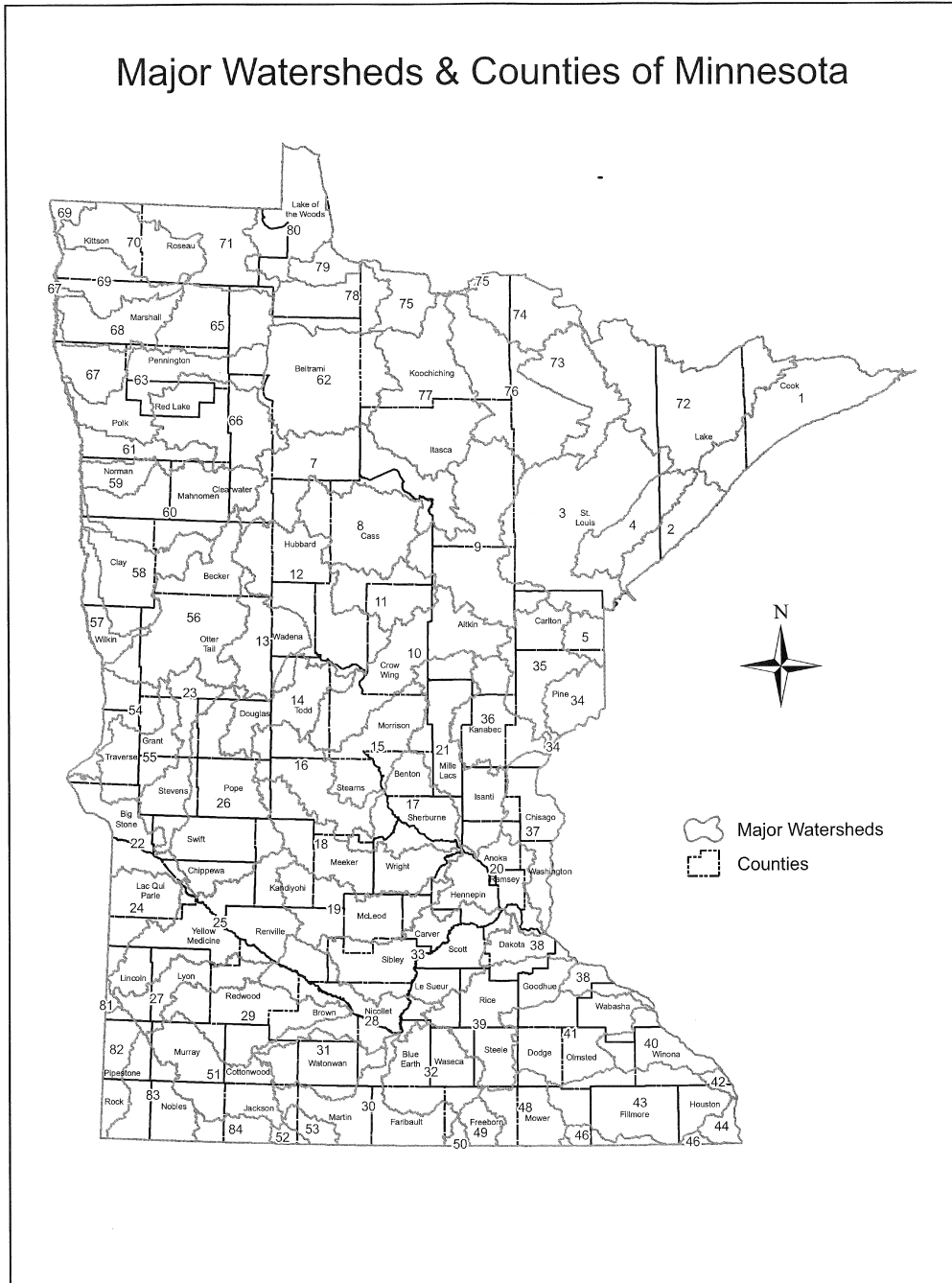
D. Siting wetland replacement for public transportation projects must comply with part 8420.0544.

E. When reasonable, practicable, and environmentally beneficial replacement opportunities are not available in siting priorities listed in items A to D, the applicant may seek opportunities at the next level. For the purposes of this item, "reasonable, practicable, and environmentally beneficial replacement opportunities" means opportunities that are:

- (1) ecologically suitable and sustainable according to subpart 5; and
- (2) available and capable of being done after taking into consideration cost, existing technology, and logistics consistent with overall project purposes. The cost of replacement credits alone is not sufficient reason to conclude that reasonable, practicable, or environmentally beneficial replacement opportunities are not available.

F. Regulatory agencies, local government units, and other entities involved in wetland restoration must collaborate to identify potential replacement opportunities in watersheds within their jurisdictional areas.





### LIST OF 81 MAJOR WATERSHED UNITS OF MINNESOTA

- 1 Lake Superior (north)
- 2 Lake Superior (south)

- 3 St. Louis River
- 4 Cloquet River
- 5 Nemadji River
- 7 Mississippi River (Headwaters, Lake Winnibigoshish)
- 8 Leech Lake River
- 9 Mississippi River (Grand Rapids)
- 10 Mississippi River (Brainerd)
- 11 Pine River
- 12 Crow Wing River
- 13 Redeye River (Leaf River)
- 14 Long Prairie River
- 15 Mississippi River (Sartell)
- 16 Sauk River
- 17 Mississippi River (St. Cloud)
- 18 North Fork Crow River
- 19 South Fork Crow River
- 20 Mississippi River (Metro)
- 21 Rum River
- 22 Minnesota River (Headwaters)
- 23 Pomme de Terre River
- 24 Lac qui Parle River
- 25 Minnesota River (Granite Falls)
- 26 Chippewa River
- 27 Redwood River
- 28 Minnesota River (Mankato)
- 29 Cottonwood River
- 30 Blue Earth River
- 31 Watonwan River



- 32 Le Sueur River
- 33 Minnesota River (Shakopee)
- 34 St. Croix River (Upper)
- 35 Kettle River
- 36 Snake River
- 37 St. Croix River (Stillwater)
- 38 Mississippi River (Red Wing) and Lake Pepin
- 39 Cannon River
- 40 Mississippi River (Winona)
- 41 Zumbro River
- 42 Mississippi River (La Crescent)
- 43 Root River
- 44 Mississippi River (Reno)
- 46 Upper Iowa River
- 47 Wapsipinican River (Headwaters)
- 48 Cedar River
- 49 Shell Rock River
- 50 Winnebago River (Lime Creek)
- 51 West Fork des Moines River (Headwaters)
- 52 West Fork des Moines River (Lower)
- 53 East Fork des Moines River
- 54 Bois de Sioux River
- 55 Mustinka River
- 56 Otter Tail River
- 57 Red River of the North (Headwaters)
- 58 Buffalo River
- 59 Marsh River
- 60 Wild Rice River

- 61 Sandhill River
- 62 Upper and Lower Red Lake
- 63 Red Lake River
- 65 Thief River
- 66 Clearwater River
- 67 Grand Marais Creek (Red River of the North)
- 68 Snake River
- 69 Tamarack River (Red River of the North)
- 70 Two River
- 71 Roseau River
- 72 Rainy River (Headwaters)
- 73 Vermillion River
- 74 Rainy River (Rainy Lake)
- 75 Rainy River (Manitou)
- 76 Little Fork River
- 77 Big Fork River
- 78 Rapid River
- 79 Rainy River (Baudette)
- 80 Lake of the Woods
- 81 Big Sioux River (Medary Creek)
- 82 Big Sioux River (Pipestone)
- 83 Rock River
- 84 Little Sioux River

**Subp. 8. Timing of replacement.**

A. Replacement of wetland function and value must be completed in advance of or concurrent with the actual wetland impact. For replacement that is not in advance, a financial assurance is required according to subpart 9.

B. Replacement is in advance if the replacement is:

(1) approved wetland bank credits withdrawn before the impact; or

(2) project-specific replacement for which construction has been certified and the first monitoring report of the first full growing season following construction certification has been submitted according to part 8420.0810, and the replacement meets all goals and performance standards applicable to that development stage of the replacement site.

C. Any action being proposed for replacement credit must be specifically identified for replacement purposes and approved by the local government unit as part of a replacement or banking plan before the actual restoration or creation activity is initiated.

**Subp. 9. Financial assurance.**

A. For wetland replacement that is not in advance, a financial assurance acceptable to the local government unit must be submitted to, and approved by, the local government unit to ensure successful replacement. The local government unit may waive this requirement if it determines the financial assurance is not necessary to ensure successful replacement. The local government unit may incorporate this requirement into any financial assurance required by the local government unit for other aspects of the project.

B. The financial assurance may be used to cover costs of actions necessary to bring the project into compliance with the approved replacement plan specifications and monitoring requirements. The financial assurance does not serve as an in-lieu fee and is not a substitute for enforcement, but may be used for repair, construction, vegetation establishment and management, maintenance, monitoring, or other actions the local government unit determines necessary to ensure adequate replacement.

C. Before drawing on the financial assurance, the local government unit must provide written notice to the landowner stating the actions necessary to bring the replacement project into compliance and that the landowner has 30 days to complete the actions, after which the local government unit will use the financial assurance to gain compliance. Use of the financial assurance by the local government unit may be appealed by the landowner within 30 days after the date on which the notice is mailed, according to part 8420.0910.

D. The local government unit may release a portion of the financial assurance upon successful completion of construction, but must retain a sufficient amount to ensure successful vegetative establishment and completion of the monitoring requirements. Within 60 days of certification of successful replacement and completion of monitoring according to part 8420.0820, subpart 2, the local government unit must release any remaining financial assurance submitted by the applicant, provided all other conditions of the approval are met.

**Statutory Authority:** *MS s 103G.2242*

**History:** *34 SR 145*

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