## 10-6-17: WETLAND STANDARDS:

## (A) Definitions; Tables:

WETLAND FUNCTIONS: The natural processes performed by wetlands, including functions that are important in providing wildlife and fishery, habitat, facilitating food chain production, providing habitat for nesting, rearing, and resting sites for aquatic, terrestrial or avian species, maintaining the availability and quality of water, such as purifying water, acting as a recharge and discharge area for ground water aquifers and moderating surface water and storm water flows, improving storm water quality, providing aesthetic benefits, as well as performing other functions, including, but not limited to, those set out in U.S. army corps of engineers regulations at 33 CFR section 320.4(b)(2)(1988).

Note: In the definitions that follow, the methodology and criteria for evaluation of floral diversity/integrity are based on those detailed in the "Minnesota Routine Assessment Method for Evaluating Wetland Functions (Version 1.0)", Minnesota board of water and soil resources, September 1998; and criteria for susceptibility to storm water impacts are based on recommendations in "Storm Water and Wetlands: Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Storm Water and Snow-Melt Runoff on Wetlands", (Minnesota pollution control agency, June 1997).

The functional value for floral diversity/integrity determined from MNRAM is based on dividing wetlands into wetland communities (i.e., wet meadow, shallow marsh, floodplain forest, etc.) and providing a ranking, of exceptional quality, high quality, moderate quality and low quality to all major wetland communities within a wetland.

The major communities of a wetland also determine storm water susceptibility. "The Storm Water and Wetlands: Planning and Evaluation Guidelines for Addressing Storm Water and Snowmelt Runoff Impacts to Wetlands", evaluates wetland communities, and places wetland communities into the categories of highly susceptible, moderately susceptible, slightly susceptible, and least susceptible to storm water and snowmelt runoff.

The wetland inventory conducted as part of this chapter placed the wetland communities of the wetlands into the categories for floral diversity/integrity and storm water and snowmelt susceptibility. A functional value index, which is based on a scale of 0.1 to 1.0 with 0.1 being the lowest ranking and 1.0 being the highest ranking, was provided for each category as shown below:

Floral Diversity/Integrity	Functional Value Index
Exceptional quality	1.0
High quality	0.75
Moderate quality	0.5
Low quality	0.1

Storm Water Susceptibility	
	Functional Value Index
Highly susceptible	1.0
Moderately susceptible	0.75

Slightly susceptible	0.5
Least susceptible	0.1

Each wetland was given a ranking based on the functional value for each of the major wetland communities or community within the wetlands. The overall ranking for the wetland is based on a weighted average that incorporates the area of the wetland community (%) and the functional value index (0.0 - 1.0) for the wetland community within the wetland.

All wetlands located within a park or greenway corridor (as shown on the wetland management plan map) will not have a wetland management classification lower than manage 2. The overall wetland functional index range for floral diversity/integrity and storm water susceptibility and the associated wetland management classifications are shown in table 1 of this subsection. Table 2 of this subsection shows how final wetland management classifications were determined for an example wetland.

Table 1. Overall wetland functional index range for floral diversity/integrity and storm water susceptibility and the associated wetland management classification.

Floral Diversity/Integrity And Storm Water Susceptibility Functional Index (Range)	Wetland Management Classification
1.0 _ 0.60	Protect
0.59 _ 0.5	Manage 1
0.49 _ 0.3	Manage 2
Less than 0.3	Utilize

Table 2. Example showing, how final wetland management classifications were determined.

Wetland ID	Community	Storm Water Suscepti- bility	% Community	Storm Water Suscepti- bility Index	% Community * Storm Water Suscepti- bility Value
AV-W7.2	Deep marsh	Slightly	0.3	0.5	0.15
AV-W7.2	Shallow marsh	Moderately	0.6	0.75	0.45
AV-W7.2	Reed canary monotype	Least	0.1	0.1	0.1
				Total:	0.61

		% Community *	Floral
		-	

Wetland ID	Community	Floral Diversity/ Integrity	% Community	Floral Diversity/ Integrity Index	Diversity/ Integrity Value
AV-W7.2	Deep marsh	Moderate	0.3	0.75	0.225
AV-W7.2	Shallow marsh	Moderate	0.6	0.75	0.45
AV-W7.2	Reed canary monotype	Low	0.1	0.10	0.1
				Total:	0.685

Storm water susceptibility has a functional index of 0.61 and floral diversity/integrity has a functional index of 0.685. They fall within the range of protect (see table 1 of this subsection).

WETLANDS, MANAGE 1: These wetlands have plant communities that are in a largely unaltered state. The vegetative communities of these wetlands are characterized by moderate floral diversion and are slightly to moderately susceptible to stormwater and snowmelt impacts.

WETLANDS, MANAGE 2: These wetlands have usually been altered by human activities. These wetlands have low to medium floral diversity and wildlife habitat components. These wetlands are slightly susceptible to impacts from stormwater. In addition, if a wetland has characteristics of a utilized basin but is located within a park or greenway corridor (as shown on the wetland and water body classification map) it was put in this management classification.

WETLANDS, PROTECT: These wetlands exist in a largely unaltered state and have special and unusual qualities that call for a high level of protection. These wetlands may provide habitat for rare, threatened and/or endangered plant and animal species present; and/or have moderate to exceptional floral diversity/integrity and moderate to high susceptibility to stormwater and snowmelt; and/or are within the designated trout stream corridor identified on the city's wetland and water body classification map.

WETLANDS, UTILIZE: These wetlands have been significantly altered and degraded through past disturbances. They may be isolated, with altered hydrology from urban or agricultural land uses. These wetlands have low floral diversity, and for the most part are not connected to other ecosystems. These wetlands are the least susceptible to impacts from stormwater. (Ord. 002-469, 2-19-2002)

## (B) General Provisions:

- 1. This section shall apply to any applicant for a subdivision approval, or a grading, excavation, or mining permit to allow wetland disturbing activities after June 7, 1999. Any drainage, filling, excavation, or other alteration of a public waters wetland or wetland shall be conducted in compliance with MSA, section 103G.245, the WCA Minnesota rules 8420, and regulations adopted hereunder. Wetlands on agricultural land enrolled in the federal farm program retain the WCA exemption as long as wetlands are:
- (a) Not drained, excavated, or filled beyond that necessary to replace, maintain, or repair existing drainage infrastructure with a capacity not to exceed that which was originally constructed; or

- (b) Replaced at a ratio of one to one (1:1) or greater under United States department of agriculture provisions as supported by documentation from the United States department of agriculture, which must be included as evidence to support this exemption.
- 2. Per the WCA, if the activity would result in loss of eligibility or conversion to nonagricultural land within ten (10) years, the landowner cannot qualify for the exemption. This section applies to all land, public or private, located within the city.
- 3. When any provision of any ordinance conflicts with this section, that which provides more protection to the wetland or wetland buffer shall apply unless specifically provided otherwise in this section; provided, such exceptions shall not conflict with state regulations, such as the state shore land program.
- 4. This section shall apply to all land containing wetlands and land within the setback and buffer areas required by this chapter. Wetlands shall be subject to the requirements established herein, as well as restrictions and requirements established by other applicable federal, state, and city ordinances and regulations. These wetland protection regulations shall not be construed to allow anything, otherwise prohibited in the zoning district where the wetland area is located.
- 5. A wetland is land that meets the definition of "wetlands" set forth in this section. Wetlands have been identified and the wetland management classification as established by the officially adopted city maps shall be prima facie evidence of the location and classification of wetlands. The official maps shall be developed and maintained by the community development department. The presence or absence of a wetland on the official maps does not represent a definitive determination as to whether a jurisdictional wetland is or is not present. Wetlands that are identified during site specific delineation activities but do not appear on the official wetland maps are still subject to the provisions of this section. It will be the responsibility of an applicant to delineate the exact wetland boundary. All delineations must be reviewed by the Dakota County soil and water conservation district. The Dakota County soil and water conservation district will make recommendations to the city. The city council has delegated delineation review authority to its staff. The city will classify wetlands based on the criteria discussed under subsection (A) of this section. The applicant shall get final delineation approval from the city.
- 6. Applicants seeking a change in wetland classification must submit to the city a completed MNRAM version 1.0 form. The technical evaluation panel will review the request for change. The technical evaluation panel will make a recommendation to the city regarding the change in classification.
- 7. This subsection is applicable to wetlands that are determined to be jurisdictional wetlands, based on delineation procedures of the wetland conservation act.
- 8. This subsection establishes four (4) wetland classifications as defined in subsection (A) of this section: protect, manage 1, manage 2, and utilize. (Ord. 008-593, 12-1-2008)
  - (C) General Standards:
- 1. The following standards apply to all lands within and/or abutting a wetland:
- (a) Septic and soil absorption systems must be set back a minimum of one hundred feet (100') from the city approved boundary of the wetland.

- (b) Building elevation standards shall conform with the standards of the Farmington surface water management plan.
- (c) Structures intended to provide access across a wetland shall be prohibited unless a permit is obtained in conformance with state regulations.
- (d) The MPCA's best management practices shall be followed to avoid erosion and sedimentation during construction processes.
  - (D) No Net Loss And Wetland Alteration:
- 1. It is the intent of this section to avoid the alteration and destruction of wetlands. When wetlands or their buffer areas are altered or destroyed, mitigation must be provided to recreate the functions and values of the lost wetland and/or buffer area. To achieve no net loss of wetlands except as authorized by a wetland alteration permit issued by the city, a person may not drain, grade, fill, remove healthy native vegetation, or otherwise alter or destroy a wetland of any size or type. Any alteration to a wetlands permitted by a wetland alteration permit, must be fully mitigated so that there is no net loss of wetlands. (Ord. 002-469, 2-19-2002)
- 2. Where it is found that avoidance of direct impact on a wetland is not feasible, wetland replacement shall be done as per agency (VRWJPO, corps of engineers, department of natural resources), and city (WCA) standards. No permits will be granted until the WCA replacement plan is approved or exemption certificate is obtained. Wetland replacement/mitigation siting must follow the priority order below:
- (a) Mitigation on site.
- (b) Mitigation within the same minor subwatershed as established by the Minnesota department of natural resources for the "1979 watershed mapping project" pursuant to Minnesota laws, 1977, chapter 455, section 33, subdivision 7, paragraph (a).
- (c) Mitigation within the JPO boundary.
- (d) Mitigation within Dakota County.
- (e) Mitigation within major watershed number 38: Mississippi and Lake Pepin, excluding minor subwatersheds 3800400, 3800500, 3800401, 3801700, 3800402, 3800200, 3800302, 3800600, 3800800, 3800301, 3800300, 3800700, 3801601, 3800100, 3801800, 3801200, 3801100, 3801000, and 3800900, which are located in Goodhue County and are tributary to the Mississippi River instead of the Vermillion River.
- (f) Transportation projects shall pursue wetland mitigation projects to the extent practical using the criteria above. However, this does not preclude the use of the BWSR replacement program.
- 3. Drainage, grading, filling, removal of healthy native vegetation or otherwise altering or destroying a wetland of any size or type requires a wetland alteration permit. Other activities in a wetland requiring a wetland alteration permit include, but are not limited to:
- (a) Construction of new streets and utilities.
- (b) Installation of boardwalks.

- 4. When a wetland alteration permit is issued allowing filling in a wetland, the following standards shall be followed:
- (a) Filling must be consistent with the Farmington surface water management plan.
- (b) Filling in wetland areas will be required to be mitigated in accordance with the requirements of this section and the wetland conservation act. (Ord. 008-593, 12-1-2008)
- 5. When a wetland alteration permit is issued allowing dredging, excavating or grading in a wetland the following standards shall be followed in order to preserve WCA exemption or no loss determination in types 1, 2, 6, and 7 wetlands:
- (a) The dredging will not have a net adverse effect on the ecological and hydrological characteristics of the wetland.
- (b) It shall be located as to minimize the impact on vegetation and loss of wetland function (as determined by the VRWJPO or city). Exceptions may be allowed in basins dominated by invasive exotic species such as reed canary grass (Phalaris arundinacea). (Ord. 009-601, 3-16-2009)
- (c) It shall not adversely change water flow.
- (d) The size of the dredged area shall be limited to the minimum required for the proposed action.
- (e) Disposal of the dredged material is prohibited within the wetland area unless it is part of an approved wetland replacement plan.
- (f) Disposal of any dredged material shall include proper erosion control and nutrient retention measures.
- (g) Dredging in any wetland area is prohibited during waterfowl breeding season or fish spawning season, unless it is determined by the city that the wetland is not used for waterfowl breeding or fish spawning.
- (h) Dredging in wetland areas will be required to be mitigated in accordance with requirements of this section if the activity results in a loss of functional wetland. Dredging to create water quality or habitat improvements may be allowed by the city where reasonable alternatives are not available or where the wetland is of low quality and designated for this purpose by the Farmington surface water management plan.
- 6. When a wetland alteration permit is issued allowing stormwater runoff to discharge directly into a wetland, the permit will include requirements established by the Farmington surface water management plan. These requirements establish a maximum high water level bounce and allowable phosphorus loadings based on the city's wetland classification system. A protect or manage 1 public waters wetland or wetland may not be used for stormwater management and treatment unless the use will not adversely affect the function and public value of the wetland and other alternatives do not exist. (Ord. 008-593, 12-1-2008)
- 7. An applicant for a wetland alteration permit shall adhere to the following principles in descending order of priority:
- (a) Avoid the direct or indirect impact of the activity that may destroy or diminish the wetland;

- (b) Minimize the impact by limiting the degree or magnitude of the wetland activity and its implementation;
- (c) Rectify the impact by repairing, rehabilitating, or restoring the affected wetland function and its implementation;
- (d) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the activity; and
- (e) Replacing unavoidable impacts to the wetlands by restoring or creating substitute wetland areas having equal or greater public value as set forth in Minnesota rules 8420.0530 to 8420.0630.
- 8. A wetland alteration permit shall not be issued unless the proposed development complies, within the provisions of the mitigation subsection of this section, as well as the standards, intent, and purpose of this section. (Ord. 002-469, 2-19-2002)
  - (E) Wetland Buffer Areas:
- 1. For lots of record created after June 7, 1999 (date of original wetlands ordinance adoption), a buffer area shall be maintained abutting all wetlands. The following requirements shall be met concerning the wetland buffers:
- (a) Where a buffer is required, the city shall require the protection of the buffer under a conservation easement, or include the buffer in a dedicated outlot as part of platting and subdivision approval, except where the buffer is located in a public transportation right of way. (Ord. 009-601, 3-16-2009)
- (b) A wetland line and wetland buffer delineation line must be shown on the plan submitted to the city.
- (c) A silt fence shall be erected at the wetland buffer line during construction and shall not be removed until sod is installed on all lots adjacent to the wetland buffer.
- (d) Permanent monumentation shall be erected at the time of the installation of the silt fence as required in subsection (E)5 of this section.
- (e) Building permits shall not be issued until silt fence and monumentation are installed and disturbed areas of buffer are seeded, mulched, and disked.
- 2. Where acceptable natural vegetation exists in buffer areas, the retention of such vegetation in an undisturbed state is required unless approval to replace such vegetation is received. A buffer has acceptable vegetation if it:
- (a) Has a continuous, dense layer of perennial grasses that has been uncultivated or unbroken for at least five (5) consecutive years; or
- (b) Has an overstory of trees and/or shrubs that has been uncultivated or unbroken for at least five (5) consecutive years; or
- (c) Contains a mixture of the plant communities in subsections (E)2(a) and (E)2(b) of this section that has been uncultivated or unbroken for at least five (5) years.

- 3. Buffers shall be staked and protected in the field prior to construction unless the vegetation and the condition of the buffer are considered inadequate. Existing conditions vegetation will be considered unacceptable if:
- (a) Topography or sparse vegetation tends to channelize the flow of surface water.
- (b) Some other reason the vegetation is unlikely to retain nutrients and sediment.
- 4. Where buffer vegetation and conditions are unacceptable, or have been cultivated or otherwise disturbed within ten (10) years of the permit application, or where approval has been obtained to replant, buffers shall be replanted and maintained according to the following standards: (Ord. 008-593, 12-1-2008)
- (a) Buffers shall be planted with a native seed mix approved by MnDOT, BWSR, NRCS or the Dakota SWCD, with the exception of a onetime planting with an annual nurse or cover crop. Plantings of native forbs and grasses may be substituted for seeding. All substitutions must be approved by the city. Groupings/clusters of native trees and shrubs, of species and at densities appropriate to site conditions, shall also be planted throughout the buffer area.
- (b) The seed mix and planting shall be broadcast/installed according to MnDOT, BWSR, NRCS or Dakota SWCD specifications. The selected seed mixes and plantings for permanent cover shall be appropriate for the soil site conditions and free of invasive species.
- (c) Buffer vegetation (both natural and created) shall be protected by erosion and sediment control measures during construction.
- (d) During the first five (5) full growing seasons, except where the city has determined vegetation establishment is acceptable, the owner or applicant must replant buffer vegetation where the vegetative cover is less than ninety percent (90%). The owner or applicant must assure reseeding or replanting if the buffer changes at any time through human intervention or activities. (Ord. 009-601, 3-16-2009)
- (e) No fertilizer shall be used in establishing new buffer areas.
- (f) Applicants may obtain from the city a set of standard seeding and planting specifications for buffer areas, which meet all the city requirements.
- 5. Buffer areas shall be identified by permanent monumentation acceptable to the city at every other lot corner or every three hundred feet (300'), whichever is less, and at all angle points of lot.
- 6. Alterations, including building, storage, paving, routine mowing, burning, plowing, introduction of noxious vegetation, cutting, dredging, filling, mining, dumping, grazing livestock, agricultural production, yard waste disposal, or fertilizer application are prohibited within any buffer. Periodic mowing or burning, or the use of fertilizers and pesticides for the purpose of managing and maintaining native vegetation is allowed. Noxious weeds may be removed and mechanical or spot herbicide treatments may be used to control noxious weeds, but aerial or broadcast spraying is not acceptable. Prohibited alterations would not include plantings that enhance the natural vegetation or selective clearing or pruning of trees or vegetation that are dead, diseased or pose similar hazards, or as otherwise clarified in this section.

- 7. Where acceptable to adjacent properties, owners are encouraged to leave dead trees and branches in the buffer area, because they are part of the native natural environment and provide necessary habitat to many birds and native wildlife.
- 8. The following activities shall be permitted within any buffer, and shall not constitute prohibited alterations:
- (a) The following activities are allowed within both the minimum and average buffer width areas:
- (1) Use and maintenance of an unimproved access strip through the buffer, not more than ten feet (10') in width, for recreational access to the major waterway or wetland and the exercise of riparian rights.
- (2) Structures that exist when the buffer is created.
- (3) Placement, maintenance, repair, or replacement of public roads and utility and drainage systems that exist on creation of the buffer or are required to comply with any subdivision approval or building permit obtained from the municipality or county, so long as any adverse impacts of public road, utility, or drainage systems on the function of the buffer have been avoided or minimized to the extent practical.
- (4) Clearing, grading, and seeding is allowed if part of an approved wetland replacement plan, or approved stream restoration plan.
- (5) Construction of a multipurpose trail, including boardwalks and pedestrian bridges, provided it is constructed to minimize erosion and new impervious surface, and has an undisturbed area of vegetative buffer at least ten feet (10') in width between the trail and the wetland or public waters wetland edge, or the bank of the major waterway; or where needed to cross the major waterway, the minimum impact alignment is used.
- (6) The construction of underground utilities such as water, stormwater, and sanitary sewers and pipelines provided the minimum impact alignment is used, the area is stabilized in accordance with subsection (E)4 of this section, and setbacks established in subsection 10-5-25(F)2(b)(4) of this title are met.
- (b) The following activities are allowed within those portions of the average buffer width that exceed the minimum buffer width:
- (1) Stormwater management facilities, provided the land areas are stabilized in accordance with subsection (E)4 of this section, and alterations prohibited in subsection (E)6 of this section are upheld.
- (2) The area of shallow vegetated infiltration and biofiltration facilities, and water quality ponds not to exceed fifty percent (50%) of the pond area, adjacent to wetlands and major waterways may be included in buffer averaging provided the facilities do not encroach into the minimum buffer width, and the land areas are stabilized in accordance with subsection (E)4 of this section, and alterations prohibited in subsection (E)6 of this section are upheld.
- 9. All buffer areas are measured from the wetland edge as marked in the field.
- 10. The following buffer area sizes are minimum requirements:

Wetland Type	Protect	Manage 1	Manage 2	Utilize	
Average buffer width	75 feet	50 feet	30 feet	25 feet	
	100 feet "protect" wetlands in the designated trout stream corridor				
Minimum buffer	75 feet	30 feet	25 feet	16.5 feet	
Structure setback from outer edge of buffer	10 feet	10 feet	10 feet	0 feet	

- 11. Any wetland restored, relocated, replaced or enhanced because of wetland alterations should have at least the minimum buffer area required for the class of the wetland involved.
- 12. The city may recommend buffer area averaging in instances where it will provide resource protection to wetland or to valuable adjacent upland habitat, or allow for reasonable use of property as described in subsection (B) of this section, provided that the total buffer area on site contained in the buffer remains the same.
- 13. If the area of the buffer has a preconstruction slope of twelve percent (12%) or greater, the buffer shall be at the maximum width for the applicant's wetland classification. The use of a meandering buffer area to maintain a natural appearance is encouraged but not required in areas of flat topography. (Ord. 008-593, 12-1-2008)
  - (F) Wetland And Buffer Area Mitigation: Where wetland alteration is approved and mitigation is required, mitigation must result in equal or improved wetland function and value. Mitigation plans must address water quality improvement, and maintenance of preexisting hydrological balance and wildlife habitat. The wetland function and value will include improvement of water quality, maintaining hydrological balance, and provision of wildlife habitat. Mitigation will be performed at ratios required by the wetland conservation act to achieve replacement of the wetland function and value.

The following criteria shall be required for wetland or buffer area mitigation:

- 1. Wetland mitigation will be performed at a ratio required by the wetland conservation act. Buffers will be required to be replaced on the fill slope. When a wetland is completely filled, the buffer area requirement associated with the classification of the wetland that was filled will be required for the replacement wetlands unless replacement is occurring adjacent to a wetland with a higher classification. In this case, the buffer area requirement for the higher wetland classification will apply.
- 2. Mitigation should always result in equal or improved wetland function and value. The wetland function and value will include improvement of water quality, maintaining hydrological balance, and provision of wildlife habitat.
- 3. Mitigation shall provide a buffer area as set forth in this section.

- 4. Mitigation shall maintain or enhance the wetland hydrological balance through the following:
- (a) Restoration of partially drained wetlands.
- (b) Creation of new wetlands.
- (c) Restoration of buffer area functions.
- 5. Mitigation shall provide for pretreatment of water prior to entry to the wetland to improve water quality if required by the Farmington surface water management plan.
- 6. Mitigation involving the buffer area shall provide landscaping for nesting, and food for wildlife habitat. The buffer area landscape shall provide for wildlife cover and utilize a diversity of native flora (i.e., trees, shrubs, grasses, herbaceous plants) to encourage wildlife diversity.
- 7. Wetland and buffer area mitigation should be undertaken on site. If this is not feasible, mitigation should occur locally within the subwatershed. If this is not possible, mitigation should occur outside the subwatershed, elsewhere in the city. If mitigation cannot be accomplished on site, or if the city deems it necessary to perform mitigation off site, the applicant shall be responsible for contributing into the city's wetland restoration fund (described in the Farmington surface water management plan). The contribution will be based on the city's cost to create the new wetland. This includes, but is not limited to, the cost of land, design, engineering, legal, and construction activities needed to create the new wetland. The mitigation performed off site shall meet the requirements of this section.
- 8. Wetland and buffer area plantings that are completed for mitigation shall meet the standards for plantings specified in subsection (E) of this section. (Ord. 002-469, 2-19-2002)