

Amendment to the Upper Rum River Watershed Management Organization (URRWMO) Watershed Management Plan

Wetland Standards

The following standards were recommended by a Technical Advisory Committee including representation from each URRWMO member city, local and state agencies, and the Builders Association of the Twin Cities. Each member community must update their local water plan and ordinances for consistency with this amendment within two years of the effective date. However, municipalities are encouraged to do amendment-related updates with updates related to the new URRWMO Plan (deadline for those updates is 4-25-09).

Effective date: Feb. 3, 2009 (date of URRWMO Board adoption)

Background

The URRWMO finds that wetlands serve a variety of beneficial functions. Wetlands within the URRWMO maintain water quality, reduce flooding and erosion, are groundwater recharge areas, provide food and habitat for wildlife, provide open space, and contribute to the area's rural "feel." Therefore, wetlands are important to the health, safety, economy, and general welfare of the communities. Regulating wetlands and the land uses around them is therefore in the public interest.

The state Wetland Conservation Act (WCA) provides many protections of the public benefits of wetlands, but does not address all areas of concern. These areas are left to local control. Topics not addressed by state law but considered by the URRWMO include special protections for the wetland types that are most highly valued locally, buffers, setbacks, excavations, and others. The URRWMO has set local standards and incentives for several of these topics. Each municipality must adopt standards at least as protective as the URRWMO standards in their local water plan and implement them.

Applicability

The following standards apply to all parcels where any of the following activities are proposed:

- Subdivision
- Any project with wetland impacts as defined by WCA (Minnesota Rules 8420).
- Wetland excavations >0.5 acres

Wetland Definition

For the purpose of these standards, wetlands:

- are defined in MN Statutes section 103G.005, subdivision 19
- include public waters wetlands defined in MN Statutes section 103G.005, subdivision 15a.

Wetland Classification

All wetlands do not have equal value. Some are healthier and provide more benefits to the community than others. The URRWMO seeks to identify these highly-valued wetlands and give them greater protections, and allow more flexibility in and around lower-valued wetlands. The URRWMO most highly values wetlands that provide (in order of preference):

1. Water quality treatment
2. Groundwater recharge
3. Wildlife habitat

The URRWMO allows more flexibility for wetlands that poorly provide these functions.

Classification Methodology

Proposers of applicable projects must hire a certified wetland delineator to perform a wetland delineation and MnRAM (the Minnesota Routine Assessment Method for Evaluating Wetland Functions) version 3.1 or newer. The results should be reported to the permitting authority, which will assign an appropriate wetland classification.

MnRAM scores 15 wetland functions. The URRWMO will use scores from five of these functions to classify wetlands, including:

Water Quality Treatment

1. Downstream water quality protection
2. Maintenance of wetland water quality

Wildlife Habitat

3. Vegetative diversity/integrity
4. Maintenance of characteristic wildlife habitat structure
5. Maintenance of characteristic amphibian habitat

Groundwater recharge functions will not be used in classifying wetlands because almost all URRWMO wetlands provide groundwater recharge functions and therefore the URRWMO will be protective of this function in all wetlands.

Classifications

Four wetland classes will be utilized:

1. High Priority Wetlands
2. Moderate Priority Wetlands
3. Low Priority Wetlands
4. Use Wetlands

The defining characteristics of each wetland class are summarized in the table below.

TABLE 1. Wetland Classifications

	High Priority Wetlands	Moderate Priority Wetlands	Minor Priority Wetlands	Use Wetlands
Description →	High quality natural basins that serve both target wetland functions of water quality treatment and wildlife habitat.	Wetlands that highly perform one of the two target wetland functions (water quality treatment or wildlife habitat).	Wetlands that do not highly perform either of the two target wetland functions (water quality treatment or wildlife habitat).	Wetlands created for stormwater management. These wetlands usually need periodic maintenance.

Targeted Wetland Functions	MnRAM Category						
Water Quality Treatment	Downstream water quality protection	MnRAM Score is "high" for at least one of these two MnRAM categories	MnRAM Score is "high" for at least one of these two MnRAM categories	AND	OR	Does not score "exceptional" or "high" for any of these MnRAM categories	Wetlands created for stormwater management. MnRAM scores are irrelevant.
	Maintenance of wetland water quality						
Wildlife Habitat	Vegetative diversity/integrity	MnRAM Score is "exceptional" or "high" for one or more of these three MnRAM Categories	MnRAM Score is "exceptional" or "high" for one or more of these MnRAM Categories				
	Maintenance of characteristic wildlife habitat structure						
	Maintenance of characteristic amphibian habitat						

Almost all wetlands in the URRWMO serve a groundwater recharge function, so wetland standards were designed to be protective of this function in all wetlands.

Appeals of Wetland Classification

If an applicant disagrees with a wetland classification, s/he bears the burden of supplying detailed information supporting their assertion. This may include historical aerial photography, topographic, hydrologic, floristic, or soils data deemed necessary by the permitting authority. The municipality or other permitting authority will review the appeal.

Wetland Buffers

Wetland buffers are unmowed areas adjacent to wetlands that contain non-invasive vegetation, preferably dense native vegetation. Buffers filter pollutants before they can enter the wetland, reduce erosion, protect vegetation diversity and wildlife habitat, and minimize human impacts to the wetland. The URRWMO requires buffers on wetlands, with the width dependent upon wetland classification. The buffer widths were selected based upon research literature, experiences in other communities, practical limitations, and city staff input. The largest buffers are needed to achieve wildlife habitat goals, but in sandy soils water quality goals can be achieved with lesser buffers.

Buffer Widths

The URRWMO allows minimum buffer widths and such that each municipality can choose a buffer width equal or greater that is most appropriate for their community based upon soil types, slopes, development rules, and other factors. Allowed buffer width ranges are shown in TABLE 2.

Buffer Averaging

Buffers are encouraged to have a meandering shape for a more natural appearance and in order to make reasonable accommodations for nearby features of the development or landscape. The buffer width may vary around the wetland such that:

- it may be 10 feet less than the minimum allowable (see TABLE 2), but not less than 5 feet.
- the total acreage of buffer cannot be reduced.
- in areas of concentrated inflow to the wetland the buffer cannot be less than the minimum allowable buffer width in TABLE 2 or the minimum allowed by the municipality, whichever is greater.

Buffer Variances

Variances of buffer width may, at the permitting authority's discretion, be granted for the following reasons:

- Part of the required buffer is outside of the wetland's watershed. Due to topography near the wetland, runoff flows away from and never enters the wetland through surface flows. Variances should only be for that portion of the buffer that would be outside of the wetland's watershed.

- If drainage is redirected to an area where a buffer is feasible.
- Non-conforming lots, as defined by the permitting authority.
- If the site is not generating stormwater or is using storm water minimizing techniques such as rain gardens, rain barrels, vegetated swales, and other Best Management Practices (BMP's) replace the functions of buffers.
- If the applicant is protecting additional upland, beyond that required by other ordinances or control measures, to connect existing wildlife habitat.
- Undue hardship.
- Others as determined by the permitting authority.
- Roads and other linear projects.

No Buffers Required

No buffers are required for small wetlands where the entire wetland area is less than or equal to the area of wetland impact allowed without replacement as *de minimis* under WCA.

Activities Prohibited within Buffers

Activities that disturb the roots or influence the growth of vegetation are prohibited, including:

- Mowing (except as part of municipality-approved wetland buffer management or for pedestrian trails)
- Structures
- Paving (except as allowed below in the "Activities Allowed within Buffers" section)
- Retaining walls
- Clearing and removal of vegetation (except selective clearing and pruning of individual trees and shrubs which are dead, diseased, hazards, or removal of noxious or invasive weeds)
- Introduction of non-native vegetation
- Filling, dumping, or yard waste disposal
- Fertilization
- Removal of buffer monuments
- Septic systems

Activities Allowed within Buffers

- Management needed to establish the buffer, such as mowing or burning.
- Activities consistent with municipal park management plans.
- Plantings that enhance the natural vegetation
- Selective clearing and pruning of individual trees and shrubs which are dead, diseased, or hazards
- Noxious or invasive vegetation removal
- Use and maintenance of an unimproved access strip not more than 10 ft wide for recreational access and the exercise of riparian rights
- Pedestrian trails, provided that at least 10 feet of buffer remains between the trail and wetland

- Placement, maintenance, or repair of utility and drainage systems that exist on creation of the buffer strip or are required by a permitting agency, as long as any adverse impacts have been avoided or minimized.
- Construction, maintenance, repair, or reconstruction of existing and future public roads as long as any adverse impacts have been avoided or minimized
- Others as approved by the municipality

Buffer Easements

A conservation easement (preferred), or functional equivalent such as a drainage and utility easement or outlot, is required on the wetland and buffer.

Use of Existing Vegetation as the Buffer

The existing vegetation is acceptable for a buffer and must not be disturbed if:

- It is continuous, dense perennials (can be trees and shrubs with 60% canopy cover), and
- <30% invasive plant species, and
- Not disturbed or mowed within the last 5 years, and
- Topography does not channelize runoff

Buffer Establishment and Seed

All buffers (natural or created) must be protected during construction with erosion control.

When existing vegetation is not acceptable for use as the buffer, then a buffer must be established by planting. Planting must meet these criteria:

- Planting must be identified on the wetland replacement plan or grading plan.
- Planting must be done by a qualified contractor.
- Install in accordance most current BWSR guidance.
- Replant vegetation that is unsuccessful during the first two growing seasons.
- No fertilizer may be used unless prescribed by accredited soil testing lab.
- The seed planted must be:
 - i. a 100% native BWSR seed mix or equivalent approved by permitting authorities, with the exception of a 1-time annual nurse or cover crop such as oats or rye.
 - ii. of local ecotype originating within 300 miles.
- Native trees/shrubs may substitute forbs at 60 per acre.

Buffer Monuments

Buffers shall be adequately marked with signage at a maximum 200 ft spacing.

Signs should be erected before occupation of new developments. Monument requirements can be waived where the permitting authority deems they would serve no practical purpose.

Buffer Maintenance

First two full growing seasons –

During first two full growing seasons the applicant must replant any vegetation that does not survive.

Municipalities are encouraged to consider buffer establishment and management in escrows.

After the first two full growing seasons-

After the first two full growing seasons the buffer must be reseeded if the buffer changes at any time through human intervention or activities.

Buffer Requirements for Mitigation Wetlands

Mitigation wetlands must have equal or better functions and values than the wetlands they replace. Buffers are required on mitigation wetlands. The buffer width must be the larger of the buffer required for:

- (a) the impacted wetland being replaced or
- (b) if mitigation is an expansion of an existing wetland with higher classification then meet that wetland's buffer requirement.

See TABLE 2 for buffer requirements.

Structure Setbacks

Each municipality may, at its own discretion, choose to establish structure setbacks from the wetland buffer, however none is required by the URRWMO.

Sequencing

Sequencing is the process under the state Wetland Conservation Act (WCA) of evaluating wetland impacts for just cause, first by trying to avoid wetland impact, then minimizing any impacts, and finally mitigating for impacts. The URRWMO restricts the use of sequencing in their most highly valued wetlands (see TABLE 2). No impacts (as defined by WCA) are allowed in the "high priority" wetland class unless significant public benefit can be demonstrated. WCA sequencing applies for impacts to all other wetlands.

Excavations

State law restricts excavations in some wetland types, but not in other wetlands. Pond digging and excavation are common in the URRWMO and have the potential for significant negative impacts if done improperly or in improper locations.

Excavations must be denied when the following conditions exist:

- Excavation in sedge meadow wetlands.
- Excavation in forested wetlands.
- Excavation in bogs.
- Excavations in wetlands identified as Natural Heritage Communities by the Minnesota County Biological Survey.

- Excavations in wetlands deemed natural community, supporting ecologically sensitive flora and fauna, based on field visit by the Soil and Water Conservation District.
- The excavation will not provide diversity to the wetland basin or complex (e.g. excavation in the fringe of a type 3, 4 5 wetland with standing open water throughout much of the growing season).
- Wetlands which support a wide variety of plant species (i.e. approximately 50% of the area supports species which individually comprise <5% of the wetland).
- Wetlands that score high on the MnRAM vegetative diversity criteria.
- Excavations for the purpose of creating aesthetic reflecting pools.

Performance Bonds

Municipalities are encouraged to consider costs associated with compliance with these standards (for example, buffer establishment and maintenance) when determining performance bonds and escrows required of applicants.

Reporting to the Upper Rum River Watershed Management Organization

State Rules 8410 require the URRWMO inventory the functions and values of wetlands. All member municipalities must include in their annual reports to the URRWMO a summary wetlands inventoried by MnRAM, including the functions and values and assigned classifications.

TABLE 2. Summary of Wetland Standards

Wetland Class	Minimum Buffer (municipalities set buffer width equal or greater)	Structure Setbacks	Sequencing and Avoidance	Wetland Replacement Ratios	Excavation
High Priority Wetlands	25 ft	At each municipality's discretion	No impacts allowed without demonstrating significant public benefit.	Minnesota Wetland Conservation Act (WCA) ratios apply	All excavations >0.5 acres regulated per text
Moderate Priority Wetlands	20 ft		WCA sequencing applies.		
Minor Priority Wetlands	15 ft		WCA sequencing applies.		
Use Wetlands	At each municipality's discretion		WCA sequencing applies.		