

Permit Application No.: **17-181**

Rules: **Erosion Control, Wetland Protection, and Waterbody Crossings & Structures**

Applicant: **Hennepin County**

Received: **4/27/17**

Project: **CSAH 112 Phase II**

Complete: **9/5/17**

Location: **Wayzata Boulevard approximately Wolf Point Trail to Myrtlewood Road in the Cities of Long Lake and Orono**

Noticed: **9/7/17**

Board Meeting Noticed: **12/7/17**

**Recommendation:**

Staff recommend approval with the following conditions:

- Submission of an executed maintenance agreement for Wetland Buffers & Waterbody Crossings & Structures after approval of a draft by MCWD staff and addition of the wetland buffer areas to be created under this permit to the roster of those maintained under the existing programmatic maintenance agreement with Hennepin County
- Identification of the Contractor responsible for maintain the erosion control plan

**Background:**

The reconstruction of CSAH 112 is a three-phase project to meet public safety design standards and provide a pedestrian and bicycle trail. Hennepin County is in the process of reconstructing Phase I of CSAH 112 (MCWD permit # 16-179) with plans to complete Phase II in the spring of 2018 and Phase III in 2019-2020. Overall, all three phases of the linear redevelopment of CSAH 112 from approximately County Road 6 to Myrtlewood Road within the cities of Orono and Long Lake will result in an increase of 1.33 acres of new impervious surface.

Hennepin County has applied for a MCWD permit for Erosion Control, Wetland Protection, and Waterbody Crossings & Structures for Phase II of the linear redevelopment of CSAH 112 (Wayzata Boulevard approximately Wolf Point Trail to Myrtlewood Road) in the Cities of Long Lake and Orono. Phase II will include grading, bituminous paving, bituminous base, aggregate base, pedestrian and bicycle trail, curb & gutter, pedestrian ramps, signals, lighting, landscaping, watermain, sanitary sewer, stormsewer, culvert replacements, the installation of water quality baffles and a stormwater pond. The present application and, if issued, permit, applies only to the phase II work.

This phase of the project will result in 0.124 acres of temporary wetland impact which MCWD, acting as Local Government Unit administering the Wetland Conservation Act, has determined to be no-loss, and 0.345 acres of permanent wetland impact that will be replaced through the Board of Water and Soil Resources Local Government Road Wetland Replacement Program. Phase II will disturb approximately 13.70 acres of land and will create approximately 0.73 acres of new impervious surface. The trails that are proposed to be 10 feet in width will create approximately 0.66 acres of new impervious and linear improvements to the road will create 0.07 acres of new regulated impervious surface. The work qualifies as a “linear transportation project” as defined in and for purposes of the District rules.

Phase II:

Size of Site (ac)	Site Drains To	Existing Impervious in disturbed area (ac)	Proposed (regulated) Impervious in disturbed area (ac)
13.70	Long Lake	7.43	7.50

**Procedural Requirements:**

The applicant has submitted all exhibits, plans, and materials necessary to analyze compliance with MCWD rules. The phase II scope of work encompasses approximately one mile. Per section 7 of the District’s Procedural Requirements Rule, the project was publically noticed following the alternative notification procedure for linear projects one-half mile or greater. The notice was posted on the MCWD website and the Hennepin County project page website. Additionally, both the Cities of Long Lake and Orono have links on their websites to the Hennepin County project page website. An additional notification was sent via e-mail to the members of the Long Lake Waters Association. Notification of the Board Meeting for permit consideration was noticed via postcards through the mail to all residents within 600 feet of the project area. An electronic copy of the Board Meeting notification was also sent to Long Lake Waters Association.

Permit 17-181 does not require a variance or exception from MCWD rules, however, it was requested by a member of the public that the Board of Managers consider the permit application during the public notice period. An informal meeting was held with community residents on September 19<sup>th</sup>, 2017 to gain an understanding of community concern regarding the project. Members of the community have expressed concern with the tree removal associated with the proposed stormwater pond, the need for the stormwater pond, and if there was a greater opportunity for water quality improvement to Long Lake. A second community meeting was held with residents on December 18<sup>th</sup>, 2017. Staff presented an alternatives analysis for citing the location of the stormwater pond. Additionally, Staff investigated if there was an alternative location for the placement of the stormwater facility, The analysis revealed that while there was an alternative location available for a stormwater facility, the cost-benefit for pollution reduction was not significant. Additionally, members of the public expressed concern over the lack of clarity surrounding the final site conditions of the project ROW and also the proposed stormwater pond. MCWD staff have been in contact with the City of Orono and Hennepin County to gain clarity on the schedule for designing and implementing the final landscape plan and will be relaying information back to the community. The request for the Board of Managers consideration of the permit application was not withdrawn.

**Erosion Control:**

The District's Erosion Control rule is applicable for any project that proposes earth disturbance of 5,000 square feet and or 50 cubic yards of excavation or fill. Phase II of the project proposes approximately 13.70 acres of earth disturbance, therefore the rule is triggered. The applicant has provided the proper erosion control measures including silt fence, sediment control log, inlet protection, construction access stabilization, location of concrete washout, and final stabilization, including six inches of topsoil. A Minnesota Pollution Control Agency National Discharge Elimination System (NPDES) general permit was issued on October 9<sup>th</sup>, 2017 (permit # C00047862, attachment 4).

The erosion control plan meets the District's rule requirements.

**Wetland Conservation Act:**

Since the project proposes to temporarily impact 0.124 acres of wetland and permanently impact 0.345 acres of wetland, the Wetland Conservation Act (WCA) is applied. MCWD is the Local Unit of Government (LGU) charged with administering WCA in the Cities of Long Lake and Orono. MCWD W12-43 Notice of Decision (NOD) confirming Boundary and Type for wetlands located within the project boundary was sent on February 14<sup>th</sup>, 2013 (attachment 6). Ten wetlands were delineated within the project scope for Phase II, wetland 11, 12, 13, 14, 14b, 14c, 16, 17, 18, and 19 (attachment 5). Wetlands 11 and 12 are public water wetlands, impacts to which are regulated by the Department of Natural Resources under the Work in Public Waters rules. DNR has advised that General Permit 2001-6009 issued for work in the Minnehaha Creek watershed subject to a MCWD permit provides the necessary requirements for the applicant, whose responsibility it is to comply with General Permit conditions, to meet public waters wetlands requirements.

The temporary impacts to wetlands 11, 12, 13, 14, 14c were confirmed to meet No Loss Criteria and MCWD W17-06 NOD confirmation was sent on July 18<sup>th</sup>, 2017 (attachment 7). The permanent impacts to wetlands 11, 12, 13, 14, 14b, and 14c were confirmed to be eligible for the Board of Water and Soil Resources (BWSR) Road Bank Program on August 9<sup>th</sup>, 2017 (attachment 8). The applicant has also provided the appropriate restoration and seed mix for the temporary wetland impacts. There are no proposed impacts to wetlands 16, 17, 18, or 19. Attachment 9 shows the location of the temporary and permanent wetland impacts. The Wetland Protection Rule's replacement requirements are met by the replacement of permanently impacted wetlands through the BWSR Road Bank Program and the NOD finding that the temporarily impacted wetlands will be restored in a matter satisfying WCA No-Loss criteria.

**Wetland Protection:**

The Wetland Protection rule is applicable for any project proposing impacts to a wetland, additionally; the buffer provisions of the wetland protection rule are triggered when the Waterbody Crossing & Structure rule is triggered.

Per the Buffer Provisions of the Wetland Protection rule, wetland buffers are required around the entirety of wetlands disturbed by the proposed work and on edge of for wetlands downgradient of the proposed land-disturbing activities. Section 5(e) of the rule provides that the required buffer width for linear projects is limited to the extent of available right-of-way. The applicant has provided buffers for wetlands 11, 12, 13, 14, 14c, 16, 18 and 19. Wetland 14b will be completely filled. Per page 150 of the plan set, note B, the applicant has provided a narrative that buffer monumentation will be installed in accordance with section 5(d), to install wetland buffer signs along the wetland buffer contour spaced no less than 100 feet apart (attachment 11). In accordance with section 7(c), the applicant has provided with the appropriate restoration and seed mix for portions of the buffer that will be disturbed (attachment

12). A full maintenance and monitoring plan will be addressed within the maintenance agreement as listed as a recommendation of conditional approval in accordance with sections 7 and 10.

The wetland protection plans meet the District’s rule requirements.

**Waterbody Crossings and Structures:**

The District Waterbody Crossings & Structures rule is applicable for any project that proposes to place a road, highway, utility, bridge, boardwalk or associated structure in contact with the bed or bank of any waterbody. Because the project proposes to replace several culverts that come in contact with the bank of wetlands the rule is applied. None of the wetlands are considered to be navigable. The culverts that are proposed to be replaced convey drainage during rain events and do not convey continuous flow. The below table summarizes the proposed culvert replacements:

Culvert Replacement	Wetland
15" Reinforced Concrete Pipe (RCP)	discharges to 14b
24" RCP	discharges to 14c
24" RCP	discharges to 13
44" RCP	connects 11 & 12
36" x 36" box culvert to 42" RCP	connects 19 & 14

Per section 3(a), structures in public waters shall meet a demonstrated public benefit. Two culvert replacements take place within Public Water Wetlands, Wetlands 11 & 12. The applicant has demonstrated that the linear reconstruction to meet design safety standards and associated drainage improvements provides a public benefit. The remaining four culvert replacements meet a specific need to maintain hydraulic-conveyance capacity from existing to proposed conditions as required in Section 3.

Per the sections 3(b) and 3(e) placement of the utility may not adversely affect water quality and not negatively affect hydraulic capacity, specifically changes in hydraulic capacity may not result in upstream or downstream increases in flood stage. The applicant has demonstrated that placement of the utility structures will not adversely affect high water levels from existing to proposed conditions. Additionally, the culverts will have no adverse impacts on water quality as flow rates, high water levels, and overall drainage areas will be maintained from the existing to proposed scenarios.

For structures placed within wetlands 11, 12, and 13 the upstream hydraulic connections are being maintained in like and in-kind as are their respective drainage areas, therefore no modeling was necessary to determine high water levels. Particular areas of concern of hydraulic capacity were wetlands 14 & 19, 1200 Wayzata Boulevard, and an existing landlocked area between Russel Lane and Heather Lane. The applicant has shown that the existing 100 year high water levels will either be maintained or reduced in conformance with section 3(b) of the rule.

- The flows to wetlands 14 and 19 will be maintained by keeping consistent drainage areas and stormsewer connections.
- The ponding area on the 1200 Wayzata Boulevard property will be maintained by constricting the flow underneath Wayzata Boulevard. The culvert underneath Wayzata Boulevard that drains the landlocked area is being reduced from a 24 inch RCP to a 12 inch RCP.
- The landlocked area has a berm located at approximately the 992.0 foot elevation contour that is not being altered in this project. The landlocked area overland flows to a ditch that is then picked up by stormsewer and directed to the 1200 Wayzata Boulevard property.

The following table lists the existing and proposed 100-year high water levels (HWLs) as modeled by the applicant:

Ponding Area	HWL Elevations (ft)	
	Existing	Proposed
Wetland 19	966.2	966.0
Wetland 14	963.5	963.5
1200 Wayzata	983.5	983.5
Landlocked Area	992.5	992.5

Pre section 3(d) preservation of aquatic and upland wildlife passage shall be preserved along each bank and within the waterbody. The connection between wetland 11 & 12 is to be replaced in-kind with a 44 inch RCP. As the culvert is replacement of an existing structure that already has a waterway enclosed and does not have an existing bank or upland passage, there is no aquatic or upland wildlife passage to preserve.. The connection between wetlands 19 & 14 is proposed to be replaced with a 42 inch RCP arch and is within a segment of the road with a vehicle speed of 40mph or less, which is exempt from the requirements of 3(d)(3). Furthermore, multiple offset culverts or a wildlife shelf above bankful height would result in greater wetland impacts and impact hydraulic capacity. The culvert outfalls placed within wetlands 14b, 14c, and 13 were not analyzed under this section of the rule as they are the replacement of existing stormwater drainage outfalls and do not provide a hydrologic connection to an upstream waterbody or habitat.

Per section 3(f), the design must represent the minimal impact solution evaluated against two alternative designs. The first considered alternative was a “no-build” scenario which does not meet the goal of the project. The second alternative considered was to relocate the culverts. The design was not considered to be feasible as it would also cause drainage issues to adjacent properties, changes in the existing drainage pattern, potential impacts to downstream waterbodies, and may require greater wetland impact and tree removal. The applicant has demonstrated a minimal impact solution through replacing the culverts and outfalls at their existing locations.

The project does not propose horizontal directional drilling under a waterbody, or the placement of a sanitary sewer under a waterbody, therefore section 3(g) and 3(h) are not applicable to the project.

Hennepin County and MCWD will execute a maintenance agreement in accordance with section 6 as listed in the recommendation for conditional approval.

The Project as designed meets the District’s Waterbody Crossings and Structures rule.

**Stormwater Management:**

MCWD aggregates activity on property under common or related ownership for purposes of determining stormwater management requirements under section 2 of the Stormwater Management Rule. Staff have reviewed the cumulative total impervious surface for the first two of the three project phases for purposes of the following analysis. When the County applies for a permit for the third phase, the final quantity of impervious surface created will be added to the new impervious created in the first two phases, and the stormwater management requirements determined based on for the total for the three phases.

Under section 2(d) of the Stormwater Management Rule, linear projects that increase impervious surface less than 10,000 square feet (0.23 acres) and the construction of trails and sidewalks that do not exceed 12 feet in width and are bordered by a pervious buffer on the downgradient averaging at least one-half the width are exempt from the stormwater management rule.

Phase I of the CSAH 112 project decreased impervious surface by 0.61 acres. Phase II proposes 0.07 acres of new impervious. Since the aggregate total new impervious area is less an 10,000 square feet, the project is exempt from stormwater-management requirements under paragraph 2(d)(1) of the rule.

As the trails are proposed to be less than 12 feet in width with a buffer half the width on the downgradient edge the area of impervious surface is exempt from stormwater management.

Notwithstanding that the project is exempt from stormwater requirements under the MCWD rule, to reduce rates and provide water quality benefit to Long Lake the project is proposing to redirect portions of this section of CSAH 112 to the Cemetery Dry Pond (constructed as part of Phase I) and a new wet detention stormwater pond. The new wet detention stormwater pond is proposed to be constructed at the corner of Old Long Lake Road and CSAH 112. The pond will receive runoff from CSAH 112, Green Hill Lane, and Russell Lane along with the runoff from approximately 15 residential homes. The applicant has provided water quality calculations showing a reduction of approximately 2.6 lbs/yr of phosphorus and 1,490 lbs/yr of total suspended solids to Long Lake. Additionally, the pond will help reduce erosion in the drainage channel between the pond and Long Lake, by stabilizing the outlet and reducing the peak rates from the outlet of the Pond. The table below shows the existing and proposed rates at the outlet of the ponding area. The project area ultimately drains to Long Lake. Attachment 13 exhibits the drainage plan.

Long Lake Outlet Rates (cfs)		
Storm Event	Existing	Proposed
2-yr	5.42	4.07
10-yr	12.60	12.37
100-yr	31.14	29.87

**Summary:**

Hennepin County has applied for a MCWD permit for Erosion Control, Wetland Protection, and Waterbody Crossings & Structures for Phase II of the linear redevelopment of CSAH 112 (Wayzata Boulevard approximately Wolf Point Trail to Myrtlewood Road) in the Cities of Long Lake and Orono. The project as proposed meets the applicable requirements under the District's Erosion Control, Wetland Protection, and Waterbody Crossings & Structures rules. In addition, the construction of a stormwater pond will provide a water quantity and some water quality benefit to Long Lake. Staff recommends approval of the MCWD permit application with the condition of an executed maintenance agreement for Wetland Protection and Waterbody Crossings & Structures along with identification of the contractor responsible for maintaining the erosion control plan.

**Attachments:**

1. Permit Application
2. Site Location Map
3. Erosion Control Plan
4. NPDES Permit
5. Wetlands within Phase II
6. W12-43 NOD
7. W17-06 NOD
8. BSWR Road Bank Confirmation
9. Wetland Impacts
10. Wetland Buffer Plan
11. Buffer Monumentation
12. Seed Mix Plan
13. Drainage Plan