COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 9, 2018
AGENDA NUMBER: 11
FILE NUMBER: 17-171
ITEM: 167th-Frazier-165th Ave Reconstruction

RECOMMENDATION: Approve with 2 Stipulations

APPLICANT: City of Ham Lake
15544 Central Ave NE
Ham Lake, MN 55304

PURPOSE: 3,643 LF of street reconstruction and culvert updates

LOCATION: NW of Lexington Ave and Constance Blvd NE, Ham Lake MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work within or adjacent to a Public ditch within the Watershed District.
3. Any work in or adjacent to wetlands, lakes or water courses
4. One or more cumulative acres of land disturbance
5. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)
6. High water table, outwash and organic soils
7. High infiltration soils
8. Highly erodible soils
9. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Construction Plan set (32 sheets); by RFC Engineering, undated, received 2/28/18.

PREVIOUS ACTION TAKEN: The application was tabled at the March 12, 2018 meeting with 4 stipulations:
   1. Receipt of escrows.
   2. Either provide updated model to provide consistent drainage areas between existing and proposed conditions or explanation of why total areas are different.
   3. Provide drainage map with subcatchments and receiving waters labeled to match HydroCAD.
   4. Provide sediment capture at concrete spillways to protect receiving waters.

FINDINGS:
Pre-application Meeting: The project as submitted has not received a general review during a pre-application meeting.

Ditches: There is not a public ditch on the property.

Ditch Hydraulics: A crossing of a public ditch is not proposed.

Erosion and Sediment Control: Soils affected by the proposal are Lino, Markey, Isanti and Rifle.
   • Stabilizing vegetation is proposed for disturbed areas within seven (7) days of rough grading.
   • Soil stockpiles have been proposed to be fitted with sediment-trapping measures to prevent soil loss.
   • Adjacent properties and stormwater ponds are protected from sediment deposition.
   • Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have been provided.
   • Stabilization adequate to prevent erosion has been provided at the outlets of all storm sewer pipes.
   • All storm sewer inlets are protected from sediment-laden water during construction.
• All work adjacent to water or related resource has taken precautions to contain sediment, and stabilize the work area during construction.
• Provisions have been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.
• Provisions have been made for cleaning road surfaces where sediment is transported by the end of the day.
• Construction entrance points are clearly located on the erosion and sediment control plan.
• The erosion and sediment control plan does provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

Dewatering: Shallow ground water may exist on site. The project does not require dewatering.

Floodplain: There is floodplain on the property according to the District model and FEMA. The District’s floodplain elevation is at 900.1 feet along 167th Ave NE and Frazier St NE and 901.0 feet along 165th Ave NE. The project does not propose to place fill within the floodplain. There are flooding concerns upstream and downstream.

High Water Flooding: No structures proposed.

Groundwater: Geotechnical information was not provided and is not needed.

The project site is not within the Emergency Response Area/10 Year Well Head Protection Area/Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA).

Historic Sites: The proposed project does not include sites of historic or archeological significance.

Local Planning & Zoning: The proposed project is consistent with local planning and zoning. There is an approved local water plan.

Property owners affected by changes in drainage should be been notified and acknowledge the changes proposed.

Maintenance: The Owner of the Stormwater Management features and treatment practices is the City of Ham Lake. The Stormwater Treatment Practices (STPs) consisting of the following:

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain Gardens</td>
<td>4</td>
<td>City of Ham Lake</td>
</tr>
</tbody>
</table>
As a requirement of the City’s MS4 program, the city will inspect and maintain the stormwater facilities.

Easements: The proposed project does not include ditch maintenance easement. A ditch maintenance easement is not required. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration is achieved to the maximum extent practicable. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system.

Drainage sensitive uses do exist downstream from the proposed site. The rate of post-development runoff from the site does exceed predevelopment rates. However, rates are not expected to interfere with sensitive downstream land uses. Properties and waterways downstream from the project are protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving a site is discharged directly into a well-defined natural or man-made off-site receiving channel or pipe. All on-site constructed storm water conveyance channels are constructed to withstand the expected velocity from a 2-year frequency storm without erosion.

**Water Quality:** The proposed project does not cause an exceedance of State water quality standards. The project does not contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands are pretreated by a sediment basin/water quality pond. All work adjacent to wetlands, waterbodies and water conveyance systems are protected from erosion. The proposal will not detrimentally affect the existing water quality of the receiving water. The proposal will not cause extreme fluctuations of water levels or temperature changes.

**Impairments:** This project is within one (1) mile of and drains to an Impaired Water. The Impaired Water is Coon Creek. Coon Creek is impaired for (Aquatic Life (Macro-invertebrates)/ Aquatic Recreation (E. coli). The major stressors are Total Suspended Solids (TSS)/ Total Phosphorus (TP)/E.coli. There is no EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water.

There are new impervious surfaces proposed as part of this project.

**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was completed on 9/1/17. The wetland boundary has been checked.

The project does propose wetland impacts in 2 locations shown below.
Replacement is proposed through the Local Road Replacement Program. The project is not wetland dependent. The project is not exempt.

The applicant has contacted the DNR area hydrologist and the Corps of Engineers. Three alternatives have been submitted. On-site sequencing does apply. The avoidance alternatives are considered good faith efforts. None of the avoidance alternatives are considered feasible and prudent. Alternatives include:

1. No Build – rejected current conditions of the road prevent drainage and several culverts are collapsed.
2. Realignment of 167th – applicant claims larger southern wetland impacts as a result of realignment.
3. Proposed project.

**Wetland Replacement Plan:** A wetland replacement plan has been submitted and the applicant will be purchasing credits through the Local Road Replacement Program.

**Wildlife:** The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. The endangered or threatened species, rare natural community is the Blanding’s Turtle. The applicant has contacted the MDNR natural heritage or endangered species program. MDNR has responded to the applicant.

**Performance Escrow:** $4305.00  
**Wetland Escrow:** $ N/A

There are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td>Escrows: $2,000 + (4.61 ac * $500/ac) = $4305.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Water Quality:</strong> The spillway invert elevations are unclear with respect to the bottom/top elevation of rain gardens.</td>
<td>2. Provide table with spill inverts and top and bottom rain garden elevations for clarity.</td>
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2. Provide table with spill inverts and top and bottom rain garden elevations for clarity.