COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: July 11, 2016
AGENDA NUMBER: 10
FILE NUMBER: 16-109
ITEM: 155th Ave Culvert

RECOMMENDATION: Approve with 4 Stipulations

APPLICANT: City of Ham Lake/RFC Engineering
13635 Johnson Street NE
Ham Lake, MN 55304

PURPOSE: Culvert replacement on County Ditch 44-9 at 155th Ave.

LOCATION: 155th Ave. NE and County Ditch 44-9, Ham Lake MN

APPLICABILITY:
1. Any work within or adjacent to a Public ditch within the Watershed District.
2. Any work in or adjacent to wetlands, lakes or water courses
3. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1) Figure Packet by RFC Engineering, dated 6/22/2016; received 6/23/2016

PREVIOUS ACTION TAKEN: This is the first application for this project.

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

Ditches: There is a public ditch on the property. The public ditch is County Ditch 44-9 according to the public drainage map. The approved/as-built elevations through this property are 891.0 ft NAVD 1988 at the downstream end and 890.98 ft NAVD 1988 at the upstream end.

The approved/as-built elevations and grades through this property are 891.0 ft NAVD 1988 and 0.025% slope. Existing elevations, slopes and condition of the ditch are 891.2 and represent a 0.02% variance from the as-built elevations. Alternatives to repair and additional drainage have been considered and reviewed.

The ditch is a 2nd order stream. The ditch serves the primary role of
a. Agricultural drainage

The ditch serves approximately 103.94 acres of agricultural land.
Land use in the area is toward residential. There are flooding concerns upstream and downstream.

The ditch has been inspected. Existing elevations, slopes and condition of ditch are good. The ditch is not in need of repair. Alternatives to repair and additional drainage have been considered and reviewed.

**Ditch Hydraulics:** A crossing of the ditch is proposed. The proposed crossing involves the replacement of a culvert. The proposed culvert is of sufficient hydraulic capacity.

**Erosion and Sediment Control:** Soils affected by the proposal are Rifle.

- Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading.
- Soil stockpiles have not been proposed to be fitted with sediment-trapping measures to prevent soil loss.
- Adjacent properties and stormwater ponds are not 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 not been provided and are not needed.
- Stormwater runoff does not pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
- Stabilization adequate to prevent erosion has been provided at the outlets of all storm sewer pipes.
- 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 not provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

**Dewatering:**
Shallow ground water does not exist on site

**Floodplain:** There is floodplain on the property according to the District model and FEMA. The project does not propose to place fill within the floodplain. The total floodplain impact is 0 acre-feet. Compensatory storage is not needed. There are no flooding concerns upstream and/or downstream.

**Groundwater:** Geotechnical information is not provided and is not needed.
The site is not within a Municipal Drinking Water Supply Area (DWSMA).

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

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

**Hydraulics:** A crossing of the ditch is proposed. The proposed crossing involves the replacement of a bridge/culvert. The proposed bridge/culvert is of sufficient hydraulic capacity.

**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 have been notified and acknowledge the changes proposed.

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

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Culvert</td>
<td>1</td>
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</table>

Inspection and maintenance of stormwater facilities will be the responsibility of Ham Lake.

As a requirement of the City’s MS4 program, the city will inspect and maintain the stormwater facilities.

**Easements:**
The proposed project does include ditch maintenance easement. A ditch maintenance easement is required.

**Stormwater & Hydrology:** Infiltration is allowed within the project area but is not required for this project.

Drainage sensitive uses exist downstream from the proposed site. The rate of post-development runoff from the site does not exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses.

**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, and are designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are not 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 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 an EPA approved Total Maximum Daily Load (TMDL) or Waste Load Allocation (WLA) for this water.

There are no new impervious surfaces proposed as part of this project.

**Wetlands:** Wetland do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey.

**Wetland Replacement Plan:**
A wetland replacement plan has not been submitted and is not needed.

**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 Black Huckleberry (*Gaylussacia baccata*)

The applicant has not contacted the MDNR natural heritage or endangered species program.

If the project is present, the project does not propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $2,055.00
**Wetland Escrow:** N/A
There are not ditch liens on the property.

**ISSUES/CONCERNS:**

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<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td><strong>Soils &amp; Erosion Control:</strong> District requires all stabilization vegetation be within seven (7) days of rough grading or inactivity.</td>
<td>1. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.</td>
</tr>
<tr>
<td>There are no erosion control measures proposed for the in ditch portion.</td>
<td>2. Provide a location for all erosion control measures including silt</td>
</tr>
<tr>
<td>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.</td>
<td>1. Contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.</td>
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<td>Escrows: $2,000 + (0.11 ac * $500/ac) = $2,055.00</td>
<td>3. Receipt of escrows.</td>
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</table>

**RECOMMENDATION:** Approve with 4 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.
3. Provide a location for all erosion control measures including silt fence and silt curtains that will prevent sedimentation downstream.
4. Contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.