COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 28, 2019
AGENDA NUMBER: 10
FILE NUMBER: 19-109
ITEM: Jefferson Street Reconstruction

RECOMMENDATION: Table with 5 Stipulations

APPLICANT: City of Blaine
Attn: Stefan Higgins
10801 Town Square Drive NE
Blaine, MN 55449

PURPOSE: Reconstruction of Jefferson Street including replacement of curb and gutter, new storm sewer, water main, traffic control signage, culvert replacement, and asphalt surface replacement

LOCATION: Jefferson Street from 119th Avenue to 104th Ct. and 104th Ct. Cul-de-sac, Blaine
APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work in or adjacent to wetlands, lakes or water courses
3. One or more cumulative acres of land disturbance
4. The lands and waters that have been or may be covered by the regional flood.
5. Excavation or filling or a combination of excavation and filling of sand or other
   excavation or fill material including the laying, repairing, replacing or enlarging of a
   culvert or an underground pipe or facility where it crosses a public ditch or waters of
   the state.

EXHIBITS:
1. Construction Plan set (127 sheets); by SEH, dated 3/27/19, received 5/15/19.
2. Project Narrative; by City of Blaine, dated 5/15/19, received 5/15/19.
3. Drainage Area Map (4 sheets); by SEH, dated 3/26/19, received 5/15/19.
4. Minnesota No Rise Certification; by SEH, dated 5/9/19, received 5/15/19.
5. Culvert Analysis Report (15 sheets); by SEH, dated 5/6/19, received 5/15/19.
6. Flood Insurance Rate Map (FIRM); by Anoka County, undated, received 5/15/19.
7. Technical Memorandum (6 sheets); by SEH, dated 5/14/19, received 5/15/19.
PREVIOUS ACTION TAKEN: This is a new application.

FINDINGS:
Pre-application Meeting: The project as submitted has received a general review during a pre-application meeting.

Ditches: There are public ditches on the property. The public ditches are County Ditch 41 and County Ditch 39 according to the public drainage map. The approved/as-built elevations of CD 41 through this property are 882.65 ft MSL at the downstream end and 882.70 ft MSL at the upstream end.

The approved/as-built elevations and grades through this property 0.06% slope. Existing elevations, slopes and condition of the ditch are 882.94 and represent a 0.21 variance from the as-built elevations. Alternatives to repair and additional drainage have been considered and reviewed.
The ditch is a 4th order stream. The ditch serves the primary role of
a. Trunk drainage system

The ditch serves approximately 0 acres of agricultural land.
Land use in the area is toward residential.
There are no flooding concerns upstream and/or downstream.

**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 Isanti, Lino, Markey, Millerville, Sartell, Seelyeville, and Zimmerman.
- 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 and do have a note to stabilize within seven (7) days of inactivity.
- County Ditch 39 is 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 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 stabilize the work area during construction.
- Provisions have been made to minimize transport of sediment (mud) by runoff or vehicle tracking 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 not 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.
- Details provided for ESC (riprap, perimeter control, concrete washout, inlet protection, etc.)

**Dewatering:** Shallow ground water may exist on site. Dewatering is anticipated as part of the County Ditch 41 culvert replacement.

**Floodplain:** There is floodplain on the property according to the District model and FEMA. The District’s floodplain elevation for County Ditch 41 at Jefferson Street is 889.6 feet on the east side of the street and 889.3 feet on the west. The District’s
floodplain elevation for County Ditch 39 at Jefferson Street is 894.5 feet on the east side of the street and 893.8 feet on the west.

The project does not propose to place fill within the floodplain. Compensatory storage is not needed. There are no flooding concerns upstream or downstream.

**High Water Flooding:** Information to substantiate low floor elevations is not required as there are no new structures proposed.

MnDOT is replacing the culvert at Ditch 41 and has completed a “no-rise” analysis for the replacement pipe.

**Groundwater:** Geotechnical information is not required.

The project site is within the Emergency Response Area, 10 Year Well Head Protection Area, and 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 notified and acknowledge the changes proposed.

**Maintenance:** The owner of the Stormwater Management features and treatment practices is the City of Blaine. The Stormwater Treatment Practices (STPs) consisting of the following:

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<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
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<tbody>
<tr>
<td>Sumps</td>
<td>1</td>
<td>City of Blaine</td>
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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 not allowed within the project area. The 1-inch infiltration is not achieved. The City is currently working with the Coon Creek
Watershed District (CCWD) to develop a regional stormwater management plan in accordance with CCWD Rule 14.1 which will include stormwater management for this project as well as future projects and will allow this project to meet CCWD Rule 8.3.

Drainage sensitive uses do not 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.

The overall change in total impervious area from existing to proposed is 12.16 to 12.06 acres (0.8% decrease), respectively. As a result, volume, velocity, and peak flow rates of stormwater runoff are not expected to increase. Concentrated storm water leaving the 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. Discharge into County Ditch 41 is pretreated by a sump, but the sump is not designed properly. 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 Waters are Sand Creek and Pleasure Creek. Sand Creek and Pleasure Creek are impaired for Aquatic Life (Macro-invertebrates) and Aquatic Recreation (E. coli). The major stressors are Total Suspended Solids (TSS), Total Phosphorus (TP), and E. coli. There is an 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 not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have not been delineated. The wetland boundary has not been checked. An onsite assessment was provided by SEH from a certified delineation and found no wetlands.

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

**Wildlife:** The proposed project does not include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. 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: $9,890  
Wetland Escrow:  $N/A  
There are not ditch liens on the property.

### ISSUES/CONCERNS:

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<th>ISSUE</th>
<th>NEED</th>
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<tr>
<td>Escrows: $2,000 + (15.78 ac * $500/ac) = $9,890</td>
<td>1. Receipt of escrows.</td>
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<td><strong>Stormwater &amp; Hydraulics:</strong> The applicant is not meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. All projects in the Coon Creek Watershed District must meet this requirement.</td>
<td>2. The City of Blaine is currently working with the Coon Creek Watershed District (CCWD) to develop a regional stormwater management plan in accordance with CCWD Rule 14.1 which will include stormwater management for this project as well as future projects and will allow this project to meet CCWD Rule 8.3. Guarantee that this project be included as part of the regional stormwater management plan and funding is secured.</td>
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| **Soils & Erosion Control:** County Ditch (CD) 39 is not protected from sediment deposition. Construction entrance points are not clearly located on the erosion and sediment control plan. Construction activities will take place within County Ditch 41. Dewatering is anticipated as part of this project. Pump will be required to ensure unimpeded flow of County Ditch 41. | 3. Update Erosion Control Plan with the following:  
   a. Show double row perimeter control adjacent to CD 39 on the upstream and downstream banks.  
   b. Show the location of construction entrance on plans.  
   c. Provide for provisions to remove any accumulated sediment in CD 41 prior to removing floatation silt curtain.  
   4. Provide pump information and high flow contingency plan that will be used for CD 41 during culvert replacement. |
| **Water Quality:** Discharge into CD 41 is pretreated by a 3-foot-deep sediment sump manhole. This sump manhole is not designed correctly for water quality treatment. | 5. Provide calculations (SHSAM can be used) to indicate sumps are appropriately sized to meet District removal rates of 80% TSS for OK110 particle size. A minimum of |
RECOMMENDATION: Table with 5 Stipulations

Stipulations:
1. Receipt of escrows.
2. The City is currently working with the Coon Creek Watershed District (CCWD) to develop a regional stormwater management plan in accordance with CCWD Rule 14.1 which will include stormwater management for this project as well as future projects and will allow this project to meet CCWD Rule 8.3. Guarantee that this project be included as part of the regional stormwater management plan and funding is secured.
3. Update Erosion Control Plan with the following:
   a. Show double row perimeter control adjacent to CD 39 on the upstream and downstream banks.
   b. Show the location of construction entrance on plans.
   c. Provide for provisions to remove any accumulated sediment in CD 41 prior to removing floatation silt curtain.
4. Provide pump information and high flow contingency plan that will be used for CD 41 during culvert replacement.
5. Provide calculations (SHSAM can be used) to indicate sumps are appropriately sized to meet District removal rates of 80% TSS for OK110 particle size. A minimum of 4-foot depth is required to prevent resuspension.