COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 28, 2019
AGENDA NUMBER: 11
FILE NUMBER: 19-077
ITEM: Hennum Meadows 2nd Addition

RECOMMENDATION: Approve with 3 Stipulations

APPLICANT: Dan Hennum
10209 Jackson Street
Blaine, MN 55434

PURPOSE: 2 Single family lots on 0.97 Acres

LOCATION: SE of 102nd Lane NE and Jackson St NE, Blaine MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. High infiltration soils
3. Highly erodible soils

EXHIBITS:
1. Construction Plan set (5 sheets); by EG Ruud and Sons and PLOWE, dated April 10, 2019, received April 10, 2019.
4. Estimated Soil Infiltration Rates Letter; by Haugo Geotechnical Services, dated May 6, 2019, received May 8, 2019.

PREVIOUS ACTION TAKEN: This application was initially submitted on April 10, 2019. The application was tabled at the April 22, 2019, meeting with 10 stipulations:
1. Receipt of escrows.
2. The applicant must provide a soil boring within the proposed infiltration practice to ensure a 3ft separation from the bottom of the practice. If separation cannot be met, the basin must be lined. If separation is met, the under drain must be removed.
3. The applicant must provide a note on the construction plans that a post construction test on the infiltration basin will be conducted by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
4. Provide Darcy calculations to demonstrate that the proposed infiltration basin high water level will not impact adjacent homes or raise building low floor elevations.
5. It is recommended to install drain tile to the western edge of Lot 2 to ensure dry yards.
6. Recommended to plant filtration basin with sod/lawn seed to reduce maintenance requirements.
7. Update construction plans to stabilize vegetation within 7 days of rough grading or inactivity.
8. After initial grading completely surround the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
9. Provide an O&M Agreement that meets District requirements.
10. Provide permanent signage around filtration practices to insure their long-term operation. Detail to be provided by developer with wording to include “Filtration Area. No Fill or Structures Allowed Within.” or use MnDOT standard sign X3-6a.

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.

Erosion and Sediment Control: Soils affected by the proposal are 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 not have a note to stabilize within seven (7) days of inactivity.
- 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 not 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 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 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 does not exist on site. The project does not require dewatering.

Floodplain: There is no floodplain on the property according to the District model and FEMA.

High Water Flooding: Information/Darcy’s Law equation has been provided to substantiate low floor elevations. Low floor elevations do not meet the criteria for the City of Blaine; 2 ft above 100 yr.

Groundwater: A hand auger boring completed at the location of the proposed infiltration basin indicated a groundwater elevation 895.5 at the time of the boring, approximately 8 feet below ground surface.

Geotechnical information collected in July 2002 indicates long term groundwater elevation is present at 3 to 10 feet below the surface.

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 have not been notified or acknowledge the changes proposed.

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

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
<th>Inspection &amp; Maintenance Responsibility</th>
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</thead>
<tbody>
<tr>
<td>Basins</td>
<td>1</td>
<td>Unknown</td>
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A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.
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, though drain tile is included in the design. The stormwater management system utilizes infiltration. Calculations have been provided that illustrate the 1-inch infiltration volume is achieved below outlet.

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. 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 stormwater basins are pretreated via overland flow. 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 an unnamed ditch in the Pleasure Creek System. The ditch is impaired for Aquatic Life and aquatic recreation. 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.

**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 and is not required to.
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:** $2,375  
**Wetland Escrow:** $N/A  
There are not ditch liens on the property.

### ISSUES/CONCERNS:

<table>
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<tr>
<th>ISSUE</th>
<th>NEED</th>
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<tbody>
<tr>
<td><strong>Escrows:</strong> $2,000 + (0.75 ac * $500/ac) = $2,375</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Groundwater:</strong> Current design provides minimum cover over the drain tile. Over time, the drain tile could be exposed.</td>
<td>2. Recommend that the applicant adjust the elevation of the drain tile underdrain to provide minimum 18 inches of cover to avoid exposure of the pipe over time. It is understood that the drain tile will be below the outlet elevation. Provide cleanouts on both ends of the drain tile.</td>
</tr>
<tr>
<td><strong>Maintenance:</strong> It is unknown who will be responsible for the inspection and maintenance of stormwater facilities.</td>
<td>3. Provide an O&amp;M Agreement that meets District requirements.</td>
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</table>

### RECOMMENDATION: Approve with 3 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Recommend that the applicant adjust the elevation of the drain tile underdrain to provide minimum 18 inches of cover to avoid exposure of the pipe over time. It is understood that the drain tile will be below the outlet elevation. Provide cleanouts on both ends of the drain tile. A basin liner will not be required.
3. Provide an O&M Agreement that meets District requirements.