COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: July 8, 2019
AGENDA NUMBER: 13
FILE NUMBER: 19-069
ITEM: Hidden Forest East 2nd Addition

RECOMMENDATION: Approve with 4 Stipulations

APPLICANT: Knoll Family LLLP
12218 Buchanan Ct. NE
Blaine, MN 55434

PURPOSE: Single Family Residential Subdivision
44 Lots on 100 Acres

LOCATION: 143rd Avenue NE & Opal Street NE Ham Lake
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. 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. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
PREVIOUS ACTION TAKEN: District staff did not review the application at the May 28, 2019 Board meeting. The application was determined to be incomplete with 11 stipulations:

1. Receipt of escrows.
2. Update HydroCAD model to include proposed infiltration basins.
3. Update design to include additional infiltration basins where feasible that are capable of infiltrating the first 1-inch of runoff to the maximum extent practicable. This stipulation is subject to the results of future soil borings.
4. Update preliminary plat to allow for construction of additional rate control BMPs to meet rate control requirements. Drainage sensitive requirements must be met for discharges to the west ditch. Provide an updated rate control table that includes all discharge points in the Drainage Report.
5. Update drain tile detail to show 2 inches of choking stone above washed #57 stone.
6. Provide an O&M Agreement that meets District requirements.
7. Provide soil boring, test pit, or infiltrometer test in the location of all infiltration practices to determine infiltration rates.
8. More soils borings are needed to ensure a minimum of three (3) feet of separation from the seasonally saturated soils and required infiltration practices.
9. Include an impermeable liner for all NURP basins.
10. Quantify floodplain fill and provide equivalent compensatory storage.
11. Move grading limits further from wetland edge to ensure there is no fill impacts occurring.

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

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

Ditch Hydraulics: A crossing of the ditch is not proposed.

Erosion and Sediment Control: Soils affected by the proposal are Lino, Isanti, 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.
- 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.
- Stormwater runoff does 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 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 exist on site. The project will likely require dewatering.

**Floodplain:** There is floodplain on the property according to the District model and FEMA. The District’s floodplain elevation is at 893.9 feet on the west and 900.3 feet on the east side of the project. The project does not propose to place fill within the floodplain. Compensatory storage is not required. There are no flooding concerns upstream and/or downstream.

**High Water Flooding:** Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Ham Lake; 1 ft above mottled soil or 100 yr.

**Groundwater:** Geotechnical information collected in June 2003 indicates long term groundwater elevation is present at 3-12 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 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>Inspection &amp; Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basins</td>
<td>4</td>
<td>City of Ham Lake</td>
</tr>
<tr>
<td>Infiltration Areas</td>
<td>8</td>
<td>City of Ham Lake</td>
</tr>
<tr>
<td>Rain Guardians</td>
<td>9</td>
<td>City of Ham Lake</td>
</tr>
</tbody>
</table>

Inspection and maintenance of stormwater facilities will be the responsibility of the City 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 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. The stormwater management system utilizes infiltration basins and NURP basins.

Drainage sensitive uses do exist downstream from the proposed site. The rate of post-development runoff from the site does exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. However, at a meeting with CCWD staff on 6/7/2019, it was determined that rate control comparison could omit the backyard drainage areas. The result is that the drainage sensitive requirement is achieved.

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 may contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands/stormwater basins are pretreated by a sediment basin/overland flow and are designed correctly. 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 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 exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was approved on 1/25/19. The wetland boundary has been checked.

There is a DNR protected water, PWI Basin #2-529P on the eastern portion of the site, in its entirety it falls under DNR jurisdiction.

The total proposed wetland impact is 0 square feet.

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

**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 applicant has contacted the MDNR natural heritage or endangered species program. MDNR has responded to the applicant with a letter dated 12/13/18.

If the project is present, the project may propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species.

**Performance Escrow:** $23,450

**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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</thead>
<tbody>
<tr>
<td><strong>Escrows:</strong> $2,000 + (42.9 ac * $500/ac) = $23,450</td>
<td>1. Receipt of escrows.</td>
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<tr>
<td><strong>Groundwater:</strong> Dewatering may be required.</td>
<td>2. Provide well-field location, rates, discharge location, schedule quantities when available, and DNR Permit.</td>
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<td><strong>Stormwater &amp; Hydraulics:</strong> Sheet C1.01 was not included in last submittal.</td>
<td>3. Provide updated Utility plan that reflects plan set dated 6/26/19.</td>
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<td><strong>Wetland:</strong> Unclear of wetland boundary around Wetland 3. Appears there are grading impacts in wetland.</td>
<td>4. Clarify the correct wetland boundary and/or impacts.</td>
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RECOMMENDATION: Approve with 4 Stipulations

Stipulations:
1. Receipt of escrows.
2. Provide well-field location, rates, discharge location, schedule quantities when available, and DNR Permit.
4. Clarify the correct wetland boundary and/or impacts.