COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: January 8, 2018
AGENDA NUMBER: 19
FILE NUMBER: 17-235
ITEM: Gallagher Shores

RECOMMENDATION: Table with 10 Stipulations

APPLICANT: R&B Development
1600 Hastings St NE
Ham Lake, MN 55304

PURPOSE: 19 Lots on 21 Acres

LOCATION: South of 164th Ave NE and Constance Blvd NE, Ham Lake, MN
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. High water table, outwash and organic soils
6. High infiltration soils
7. Highly erodible soils
8. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Construction Plan set (12 sheets); by Carlson McCain, dated 11/30/17, received 12/14/17.
2. Stormwater Management Report; by Carlson McCain, dated 11/30/17, received 12/14/17.

PREVIOUS ACTION TAKEN: This is a new application.

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 the ditch is not proposed.

Erosion and Sediment Control: Soil affected by the proposal is Zimmerman. No SWPPP provided.
- 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 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.
- 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 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 not been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.
- Provisions have not 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 exist on site. The project may require dewatering.

Floodplain: There is floodplain on the property according to the District model and FEMA at 897.3 ft (NAVD 88). The MnDNR has set an OHWL of 897.2 (NGVD 29) for Ham Lake.

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 November 2017, and August 2013 indicates long term groundwater elevation may be present at the mottled soils depth of 2 to 5 feet below the surface. No groundwater was noted during soil boring activity.
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.

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 unknown. 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>Basins</td>
<td>2</td>
<td>Unknown</td>
</tr>
<tr>
<td>Sumps</td>
<td>2</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

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 not provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration is achieved; however, project may need to be redesigned to use filtration due to seasonally high groundwater under current design. The stormwater management system utilizes wet ponds.

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 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 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 Ham Lake. Ham Lake is impaired for mercury. The major stressors are mercury. 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 completed on 10/18/16. The wetland boundary has been checked and approved. The wetland is not a DNR protected water. There is no known wetland impact.

**Wetland Replacement Plan:**
A wetland replacement plan is not required.

**Wildlife:**
The proposed project may 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 are the Black Huckleberry and the Lance-Leaf Violet. The applicant should contact the MDNR natural heritage or endangered species program.

**Performance Escrow:** $12,500.00
**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 + (21 ac * $500/ac) = $12,500.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td>Stormwater &amp; Hydraulics: The mottled soils and historically aerial photos indicate that the NWL of the on-site wetlands are closer to the proposed</td>
<td>2. Provide starting WSE in HydroCAD that are consistent with the outlet elevations of W10 and W20.</td>
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<tr>
<td>NWLs; 902.0 for W10 and 900.5 for W20.</td>
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<td>--------------------------------------</td>
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<tr>
<td>Based on mottled soils elevation around P100, groundwater separation for infiltration shelf will not be meet.</td>
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<td>1S in the proposed model does not reflect the additional water surface that is added under proposed project</td>
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<tr>
<td>Model uses Stor-Ind+Trans method. Unclear if tailwater conditions will impact flow between P100 and W10.</td>
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<tr>
<td>Outlet structure for P100 has a minimal separation between the bench (892.5) and outlet (892.8) to provide volume management requirements.</td>
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<th>Soils &amp; Erosion Control: Erosion control plan does not meet District requirements.</th>
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<td>It is unclear if dewatering is needed during the construction of the proposed project.</td>
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<th>Maintenance: It is unknown who will be responsible for the inspection and maintenance of stormwater facilities. A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.</th>
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<td>3. Redesign infiltration shelf at P100 as a filtration shelf to ensure drawdown is achievable during seasonally high groundwater.</td>
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<td>4. Update area of water surface is 1S of proposed model.</td>
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<td>5. Update model to use dynamic routing.</td>
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<td>6. Provide as-built of P100’s outlet structure to ensure required volume management requirements are met.</td>
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<td>7. Provide erosion control plan (SWPPP) that meets District requirements.</td>
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<td>8. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.</td>
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<td>9. Provide an O&amp;M Agreement that meets District requirements.</td>
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<td>10. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.</td>
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**RECOMMENDATION:** Table with 10 Stipulations

**Stipulations:**

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2. Provide starting WSE in HydroCAD that are consistent with the outlet elevations of W10 and W20.
3. Redesign infiltration shelf at P100 as a filtration shelf to ensure drawdown is achievable during seasonally high groundwater.
4. Update area of water surface is 1S of proposed model.
5. Update model to use dynamic routing.
6. Provide as-built of P100’s outlet structure to ensure required volume management requirements are met.
7. Provide erosion control plan (SWPPP) that meets District requirements.
8. Provide statement whether dewatering will be required for the construction of the proposed project. If yes, provide well-field location, rates, discharge location, schedule and quantities.
9. Provide an O&M Agreement that meets District requirements.
10. Provide documentation from the DNR if the proposed project includes endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.