COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE:        April 23, 2018
AGENDA NUMBER:       6
FILE NUMBER:         18-081
ITEM:               Andover Commercial

RECOMMENDATION:      Table with 11 Stipulations

APPLICANT:           Greg Johnson, Bunker Lake Holdings, LLC
                      3300 Rice Street
                      St. Paul, MN 55126

PURPOSE:             New Commercial Building and Parking Lot
                      11,941 SQ FT Building on 1.42 Acre Lot

LOCATION:            13691 Grouse Street NW, Andover, Minnesota

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. One or more cumulative acres of land disturbance
3. Endangered, Threatened or Special concern species, elements or communities
EXHIBITS:

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 Sartell.
- Stabilizing vegetation is not 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.
- 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.
• 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 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.

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 has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Andover; 3 ft above mottled soils/groundwater, 2 ft over 100 yr.

Groundwater: Geotechnical information was not provided.

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>Inspection &amp; Maintenance Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>UG Infiltration Chamber</td>
<td>1</td>
<td>Unknown</td>
</tr>
<tr>
<td>Sumps</td>
<td>4</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. The stormwater management system utilizes underground infiltration chambers and regional ponding.

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 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 is 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.

**Wetland Replacement Plan:** A wetland replacement plan 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 endangered or threatened species, rare natural community is Blanding’s Turtle. The applicant will be provided a Blanding’s Turtle fact sheet.

**Performance Escrow:** $2,705.00  
**Wetland Escrow:** $ N/A

There are/are not ditch liens on the property.

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escrows: $2,000 + (1.41 ac * $500/ac = $2,705.00</td>
<td>1. Receipt of escrows.</td>
</tr>
</tbody>
</table>
| Stormwater & Hydraulics: The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.  
Sheet C2, Note 5 indicates infiltration basin on site.  
It is unclear if 1” storm event will drawdown in 48 hours.  
Inconsistent invert elevation of infiltration chamber on construction plans and HydroCAD model.  
Inconsistent routing of CBMH 2 on grading and utility plans.  
Information is unclear on outlet device #3 in Hydro CAD model. | 2. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin 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.  
3. Clarify the usage of infiltration basin. If an infiltration basin will not be utilized, remove note.  
4. Provide calculations/model to show that 1” storm will drawdown in 48 hours.  
5. Update construction plans and HydroCAD model to correct invert elevation of infiltration chamber.  
6. Update utility plans to have CBMH 2 route to CBMH 3 to ensure impervious is routed to infiltration system.  
7. Provide clarification on whether a weir is being constructed in CBMH 3 or if the weir that was modeled in HydroCAD is the rim of CBMH 3. |
Landscape plan shows Northern Pine Oaks being planted on top infiltration chamber.

| 8. Provide documentation from landscaper to ensure tree roots will not cause damage to infiltration chamber. |

**Soils & Erosion Control:** District requires all stabilization vegetation be within seven (7 days of rough grading or inactivity.

Provisions have not been made to minimize transport of sediment by vehicle tracking onto paved surface.

| 9. Update construction plans with the following information:  
   a. Update construction plans to stabilize vegetation within 7 days of rough grading or inactivity.  
   b. Provide note on erosion control plans to minimize transport of sediment by vehicle racking onto paved surface.  
   c. Provide detail for inlet protection for on and off-site storm sewer inlets |

**Water Quality:** All discharges into water quality basins are pretreated by a sediment sump manhole.

| 10. Provide calculations (SHASM can be used to indicate sumps are appropriately sized to meet district removal rates of 80% TSS). A minimum of 4-foot depth is required to prevent resuspension. |

**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.

| 11. Provide an O&M Agreement that meets District requirements. |

**RECOMMENDATION:** Table with 11 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin 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.
3. Clarify the usage of infiltration basin. If an infiltration basin will not be utilized, remove note.
4. Provide calculations/model to show that 1” storm will drawdown in 48 hours.
5. Update construction plans and HydroCAD model to correct invert elevation of infiltration chamber.
6. Update utility plans to have CBMH 2 route to CBMH 3 to ensure impervious is routed to infiltration system.
7. Provide clarification on whether a weir is being constructed in CBMH 3 or if the weir that was modeled is the rim of CBMH 3.
8. Provide documentation from landscaper to ensure tree roots will not cause damage to infiltration chamber.
9. Update Construction plans to include the following information:
   a. Update construction plans to stabilize vegetation within 7 days of rough grading or inactivity.
   b. Provide note on erosion control plans to minimize transport of sediment by vehicle racking onto paved surface.
   c. Provide detail for inlet protection for on and off-site storm sewer inlets
10. Provide calculations (SHASM can be used to indicate sumps are appropriately sized to meet district removal rates of 80% TSS). A minimum of 4-foot depth is required to prevent resuspension.
11. Provide an O&M Agreement that meets District requirements.