COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: January 23, 2017
AGENDA NUMBER: 9
FILE NUMBER: 17-012
ITEM: Craig Swalchick - Outlot A Hills of Bunker Lake

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: Craig Swalchick
7225 Sterling Dr.
Rockford, MN  55373

PURPOSE: Infill development of remaining lot in Hills of Bunker Lake

LOCATION: 851 138th Ave NW, Andover MN
Outlot A Hills of Bunker Lake
APPLICABILITY:
1. High infiltration soils
2. Highly erodible soils
3. Within 1 mile of an impaired waters.
4. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Concept Grading Plan by Plowe Engineering, Inc. received 1/6/17.
2. Site Drainage Narrative and Calculations dated 11/22/16 received 1/6/17.

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. The project drains to Ditch 57.

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

Erosion and Sediment Control: Soils affected by the proposal are Lino and Seelyville.
• 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 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 not been provided.
• All work adjacent to water or related resource has not 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 not 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 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 highest anticipated water table. However, assuming the highest groundwater is a result of one one-hundred year event the height of water would be 887.54 relative to the low building floor of 890.23. Therefore, the application of Darcy’s law shows that the water would not be within three feet of the low floor long enough before it would recede by infiltration.

Groundwater: Geotechnical information has not been collected by the applicant but the UMN Geologic Survey-Geologic Atlas indicates 8.01 to 20.36 ft depth to water table.

The site is not within a Municipal Drinking Water Supply Area (DWSMA).

The project site is not within the Emergency Response Area or 10 Year Well Head Protection Area but is within the Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA). Those uses include:
• Storage, production, disposal or treatment of hazardous materials
• Dry cleaning, dyeing, printing, photo processing or any other uses of hazardous materials
• Disposal of septage or septic sludge
• Vehicle or equipment maintenance/fueling area
• Underground storage tanks
• Storage and use of petroleum products
• Chemical/pesticide/herbicide storage
• Storage and use of petroleum products exceeding fifty-five (55) gallons

The project does not propose a containment system.

The project does not propose a secondary containment system.

Underground storage tanks are not proposed.

Storage and use of petroleum products exceeding fifty-five (55) gallons are not proposed.

**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 been notified and acknowledge the changes proposed.

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

<table>
<thead>
<tr>
<th>Stormwater Treatment Practices</th>
<th>Number</th>
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<tbody>
<tr>
<td>Infiltration Basins</td>
<td>1</td>
</tr>
</tbody>
</table>

As a requirement of the City’s MS4 program, the city will inspect and maintain the stormwater facilities.

Easements: 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. The stormwater management system uses an infiltration basin. Stormwater leaving the site is not discharged into a well-defined receiving channel or pipe and routed to a public drainage system.

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. All on-site constructed storm water conveyance channels are constructed to withstand the expected velocity from a 2-year frequency storm without erosion.
The proposed basin overflows onto 138th Ave N. at the back-to-back 100 year events.

**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. 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 and drains to an Impaired Water. The Impaired Water is Coon Creek (County Ditch 57). Coon Creek is impaired for Aquatic Life (Macro-invertebrates)/Aquatic Recreation (E. coli). The major stressor is Total Phosphorus (TP). 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.

NOTE: The original plat shows wetland on the property however, the applicant had the property redelineated and there is no longer wetland on the property.

**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 endangered or threatened species, rare natural community is the Leonard’s Skipper (Hesperia leonardus leonardus)

The applicant has not contacted the MDNR natural heritage or endangered species program.

It is unknown if the project is present, if the project will propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $2,150.00
**Wetland Escrow:** N/A
There are not ditch liens on the property.
### ISSUES/CONCERNS:

<table>
<thead>
<tr>
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<th>NEED</th>
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<tbody>
<tr>
<td><strong>Escrows:</strong> $2,000 + (0.30 ac * $500/ac) = $2,150.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> 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.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Soils &amp; Erosion Control:</strong> District requires all stabilization vegetation be within seven (7) days of rough grading or inactivity.</td>
<td>3. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.</td>
</tr>
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<td>Infiltration basins are not protected from erosion and sedimentation during construction. After initial grading the District requires that infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging.</td>
<td>4. After initial grading completely surrounded the proposed infiltration basins with erosion control measures to prevent the basin from clogging.</td>
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<td><strong>A Storm Water Pollution Prevention Plan is needed.</strong></td>
<td>5. Provide a SWPPP.</td>
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<td><strong>Maintenance:</strong> 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.</td>
<td>6. Provide an O&amp;M Agreement that meets District requirements.</td>
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<td><strong>Stormwater &amp; Hydrology:</strong> The infiltration basin is designed for two one hundred year back-to-back events but the curb overflow elevation isn’t noted.</td>
<td>7. Show the curb emergency overflow elevation on the grading plan</td>
</tr>
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<td><strong>Wildlife:</strong> The applicant must contact the MDNR natural heritage or endangered species program.</td>
<td>8. Provide the District with documentation from the DNR that the project will not propose substantial adverse alteration or significant detrimental impact to the Leonard’s Skipper (<em>Hesperia leonardus leonardus</em>)</td>
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RECOMMENDATION: Table with 8 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. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.
4. After initial grading completely surrounded the proposed infiltration basins with erosion control measures to prevent the basin from clogging.
5. Provide a Storm Water Pollution Prevention Plan.
6. Provide an O&M Agreement that meets District requirements.
7. Show the curb emergency overflow on the grading plan.
8. Provide the District with documentation from the DNR that the project will not propose substantial adverse alteration or significant detrimental impact to the Leonard’s Skipper (Hesperia leonardus leonardus)