COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: August 14, 2017
AGENDA NUMBER: 22
FILE NUMBER: 17-148
ITEM: Whitetail Crossing 2nd Addition

RECOMMENDATION: Table with 12 Stipulations

APPLICANT: Whitetail Crossing Investments, LLC
Attn: Larry Olson
729 152nd Ave NE
Ham Lake, MN 55304

PURPOSE: 12 Lots on 16 Acres

LOCATION: Northwest of Jackson St and 152nd Ave NE, Ham Lake MN

APPLICABILITY:
1. Within 1 mile of an impaired waters.
2. Any work within or adjacent to a Public ditch within the Watershed District.
3. Any work in or adjacent to wetlands, lakes or water courses
4. One or more cumulative acres of land disturbance
5. The lands and waters that have been, or may be covered by the regional flood.
6. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)
7. High water table, outwash and organic soils
8. High infiltration soils
9. Highly erodible soils
10. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1. Construction Plan set (7 sheets); by Carlson McCain, dated 7/24/17, received 7/31/17.
2. Stormwater Management Report; by Carlson McCain, dated 7/24/17, received 7/31/17.
3. Geotechnical Report; by Haugo Geotechnical Services, dated 5/10/17, received 7/31/17.
4. Utility plan sheet and drainage map; by Carlson McCain, dated 4/7/17, received 7/31/17.
5. Wetland Delineation Report: by Kjolhaug, dated 10/7/16, received 10/12/16.

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 a public ditch on the property. The public ditch is County Ditch 58 according to the public drainage map. The approved elevations through this property are 885.1 ft MSL at the downstream end and 885.2 ft MSL at the upstream end. The 2013 observed elevations through this property are 884.7 ft MSL at the downstream end and 885.9 ft MSL at the upstream end. Existing elevations of the ditch are represent a 0.7-0.2 foot variance from the as-built elevations. The ditch is a 4th order stream. The ditch serves the primary role of agricultural drainage and collector system. The ditch serves approximately 350 acres of agricultural land. Land use in the area is toward single family residential and agriculture. There are no flooding concerns upstream or downstream. The ditch has been inspected. Existing elevations, slopes and condition of ditch are good. The ditch is not in need of repair. Alternatives to repair and additional drainage have been considered and reviewed.

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

Erosion and Sediment Control: Soils affected by the proposal are Lino, Isanti, Rifle and Zimmerman.
  - 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 pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
  - All storm sewer inlets are not 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. The District’s floodplain elevation is at 893.4 feet (NAVD 88). The project does propose to place fill within the floodplain. The total floodplain impact is unknown. The proposed impact is within the floodway/flood fringe. Compensatory storage is provided but calculations are needed. There are flooding concerns 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 May 2017 indicates long term groundwater elevation is present at 3 - 8 feet below the surface.

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.

**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>
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</thead>
<tbody>
<tr>
<td>Infiltration Basin</td>
<td>3</td>
<td>unknown</td>
</tr>
<tr>
<td>Wet Basin</td>
<td>1</td>
<td>unknown</td>
</tr>
<tr>
<td>Pretreatment Chambers</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 include ditch maintenance easement. A ditch maintenance easement is 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. The stormwater management system utilizes infiltration basins
and a wet pond. Stormwater leaving the site is discharged into a well-defined receiving channel or pipe and routed to a public drainage system.

Drainage sensitive uses do exist downstream from the proposed site; however, the project is not anticipated to adversely impact the uses due to distance and ditch crossings that will act as the control for runoff rate. 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 or overland flow (1:1 flow path ratio), 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 completed on October 7, 2016. The wetland boundary has been checked and no impacts are proposed.

**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.

**Performance Escrow:** $6,900.00  
**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><strong>Escrows:</strong> $2,000 + (9.8 ac * $500/ac) = $6,900.00</td>
<td>1. Receipt of escrows.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> On-site impervious area is inconsistent between Stormwater Report (2.14 ac) and HydroCAD (3.7 ac). Utility spreadsheet and HydroCAD model are inconsistent for CB 110 and CB115. It is unclear on long term plan of connection of 154th Ave NE and Jackson St NE. Current grading plan shows the HWL of the basin extending south to approximate location of SP3 through potential road location.</td>
<td>2. Provide consistent information between Stormwater Report memo/calculations and HydroCAD model. 3. Provide consistent information between utility spreadsheet and HydroCAD for CB110 and CB115. 4. Clarify if Jackson St NE will be extended to existing cul-de-sac north of CD 58 and how grading plans will change. 5. Show pretreatment chambers on construction plans</td>
</tr>
<tr>
<td><strong>Soils &amp; Erosion Control:</strong> Riprap extends to proposed NWL of Pond 100. Erosion control plan does not meet District requirements.</td>
<td>6. Due to potential changes in NWL, extend riprap to 884 to protect basin from potential erosion. 7. Update erosion control plans to include the following: a. Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading. b. Soil stockpiles have not been proposed to be fitted with sediment-trapping measures to prevent soil loss. c. Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have not been provided. d. All storm sewer inlets are not protected from sediment-laden water during construction. e. Provisions have not been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.</td>
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</table>
It is unclear if dewatering is needed during the construction of the proposed project.

<table>
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<tr>
<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>
<th>9. Provide an O&amp;M Agreement that meets District requirements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ditch easement is not shown on plan sheets.</td>
<td>10. Ditch easement of 50 feet from centerline of CD 58 must be provided within project location.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Floodplain: Due to updated District Model, the HWL noted on plans for Ditch 893.6 (NAVD 88) is no longer correct.</th>
<th>11. Update Ditch 58 HWL on the plans to state 893.4 (NAVD 88).</th>
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<tbody>
<tr>
<td>Floodplain compensatory storage calculations not provided.</td>
<td>12. Provide floodplain compensatory storage calculations and map.</td>
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</table>

**RECOMMENDATION:** Table with 11 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Provide consistent information between Stormwater Report memo/calculations and HydroCAD model.
3. Provide consistent information between utility spreadsheet and HydroCAD for CB110 and CB115.
4. Clarify if Jackson St NE will be extended to existing cul-de-sac north of CD 58 and how grading plans will change.
5. Show pretreatment chambers on construction plans.
6. Due to potential changes in NWL, extend riprap to 884 to protect basin from potential erosion.

7. Update erosion control plans to include the following:
   a. Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading.
   b. Soil stockpiles have not been proposed to be fitted with sediment-trapping measures to prevent soil loss.
   c. Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have not been provided.
   d. All storm sewer inlets are not protected from sediment-laden water during construction.
   e. Provisions have not been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.
   f. Provisions have not been made for cleaning road surfaces where sediment is transported by the end of the day.
   g. The erosion and sediment control plan does not provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

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. Ditch easement of 50 feet from centerline must be provided.

11. Update Ditch 58 HWL on the plans to state 893.4 (NAVD 88).

12. Provide floodplain compensatory storage calculations.