COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: September 25, 2017
AGENDA NUMBER: 12
FILE NUMBER: 17-175
ITEM: National Sports Center Soccer Fields

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: National Sports Center
Attn: Neil Ladd
1700 105th Ave NE
Blaine, MN 55449

PURPOSE: Artificial Turf and grass soccer fields

LOCATION: SW of 105th Ave NE and Davenport St NE, Blaine MN

APPLICABILITY:
1. Any work within or adjacent to a Public ditch within the Watershed District.
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

EXHIBITS:
1. Construction Plan set (18 sheets); by LHB, dated 9/13/17, received 9/13/17.
3. Geotechnical Report; by NTI, dated 8/15/17, received 9/13/17.
PREVIOUS ACTION TAKEN: This is a new application.

FINDINGS:
Pre-application Meeting: The project as submitted has 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: Soils affected by the proposal are Isanti and Rifle.
  - 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.
  - 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 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 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 899 feet. The project does propose to place fill within the floodplain. The total floodplain impact is approximately 6 acre-feet. The proposed impact is within the flood fringe. Compensatory storage is provided. There are flooding concerns upstream and downstream.
High Water Flooding: No structures proposed as part of the project.

Groundwater: Geotechnical information collected in August 2017 indicates long term groundwater elevation is present at 5 feet below the surface.

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 National Sports Center. 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>Trenches</td>
<td>4</td>
<td>National Sports Center</td>
</tr>
<tr>
<td>Perforated Pipes</td>
<td>Numerous</td>
<td>National Sports Center</td>
</tr>
<tr>
<td>RainGuardians</td>
<td>2</td>
<td>National Sports Center</td>
</tr>
</tbody>
</table>

Inspection and maintenance of stormwater facilities will be the responsibility of National Sports Center. 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 provided.

Stormwater & Hydrology: Infiltration is allowed within the project area. The 1-inch infiltration may be achieved, model updates required. The stormwater management system utilizes trenches and underground storage. 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 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 not within one (1) mile of an Impaired Water.

There are no 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 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:** $7,150.00

**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><em>Escrows:</em> $2,000 + (10.3 ac * $500/ac) = $7,150.00</td>
<td>1. Receipt of escrows.</td>
</tr>
</tbody>
</table>

**Stormwater & Hydraulics:** Model clarity needed:

- Surface area used in model for 6P & 7P (200,000 sq ft) does not match field surface area for grass soccer field (167,000 sq ft) on construction plans.
- Unclear why two separate exfiltration discharges are listed in the model for 3P

2. Update HydroCAD model to match construction plans for storage volumes in proposed systems.

3. Update HydroCAD model to only use only one exfiltration system for 3P.
Model storage inputs do not match construction details depths for 5P, 6P, 7P and 8P.

Perforated pipe not included in storage for 5P.

A post construction test on the infiltration basin will be required to verify the assumed infiltration rates are obtained.

4. Include storage volume for perforated pipe in 5P.

5. 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.

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

It is unclear if dewatering is needed during the construction of the proposed project.

6. Update construction plans to stabilize vegetation in 7 days of rough grading or inactivity.

7. 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.

**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.

8. Provide an O&M Agreement that meets District requirements.

**RECOMMENDATION:** Table with 8 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Update HydroCAD model to match construction plans for storage volumes in proposed systems.
3. Update HydroCAD model to only use only one exfiltration system for 3P.
4. Include storage volume for perforated pipe in 5P.
5. 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.
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7. 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.

8. Provide an O&M Agreement that meets District requirements.