COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: April 8, 2019
AGENDA NUMBER: 23
FILE NUMBER: 19-065
ITEM: Storage World

RECOMMENDATION: Table with 10 Stipulations

APPLICANT: Storage World, Inc.
16800 Hwy 65 NE
Ham Lake, MN 55304

PURPOSE: Gravel parking lot expansion and stormwater management improvements

LOCATION: Storage World, Inc.
16800 Hwy 65 NE
Ham Lake, MN 55304

APPLICABILITY:
1. One or more cumulative acres of land disturbance
2. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)
3. High infiltration soils
EXHIBITS:
1. Preliminary Construction Plan set (4 sheets); by Plowe Engineering, dated March 27, 2019, received March 27, 2019.

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.

Erosion and Sediment Control: Soils affected by the proposal are Lino and Zimmerman.
• 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 and do not have a note to stabilize within seven (7) days of inactivity.
• 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 not been made to minimize transport of sediment (mud) by runoff or vehicle tracking 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.
• Details are provided for ESC (riprap, perimeter control, concrete washout, inlet protection, etc.)

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.

Groundwater: Geotechnical information collected in April 2018 indicates long term groundwater elevation is present at 8 feet below the surface.

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 Storage World. 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>Infiltration Basins</td>
<td>1</td>
<td>Storage World</td>
</tr>
<tr>
<td>Sumps</td>
<td>1</td>
<td>Storage World</td>
</tr>
<tr>
<td>Pretreatment Forebay</td>
<td>1</td>
<td>Storage World</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 provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration may be achieved. The stormwater management system utilizes a sedimentation basin and infiltration basin. Calculations have been provided that illustrate the 1-inch infiltration volume is achieved below outlet.

Drainage sensitive uses do 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/stormwater basins 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 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 has not been submitted. and 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.

If the project is present, the project does not propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species.

**Performance Escrow:** $6,000 Application indicates 8 acres of grading and stormwater drainage report indicates 11 acres of disturbance.

**Wetland Escrow:** $N/A

There 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 + (8 ac * $500/ac) = $6,000 Amount is unconfirmed, application documents provide two separate areas.</td>
<td>1. Clarify total area of grading prior to receipt of escrows.</td>
</tr>
<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> There is a discrepancy between the inverts listed for the catch basins and the labeled pipe slopes shown on sheet C2.01. Southern most existing buildings drain to south, but existing conditions HydroCAD map only includes half of building. Existing infiltration basin will be impacted as part of the project. Proposed conditions indicate 3.35 acres of impervious draining to proposed infiltration basin. Entirety of subwatershed is impervious, except for the infiltration basin and forebay.</td>
<td>2. Update the pipe invert or slope information on sheet C2.01 accordingly. 3. Update HydroCAD to include entirety of southernmost existing buildings. 4. Clarify if previous project area treated by infiltration basin is still meeting site requirements. Unclear if impervious calculations also include impervious area added in 2014 – 2016. Update impervious area.</td>
</tr>
</tbody>
</table>
Location of Existing Infiltration Ditch (1P) not clear in HydroCAD model proposed condition.

Stormwater drainage report assumes type “B” soils in good condition. The existings soils are A soils in fair to poor condition.

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

Rock construction entrance location(s) need to be shown on the erosion control plan.

Wood fiber blanket installation detail not provided.

Inlet protection installation detail not provided.

**Water Quality:** Portion of discharges into wetlands/water quality basins are pretreated by a sediment sump manhole.

Portion of discharges to infiltration basin are pretreated by grass filter strip.

**Maintenance:** A maintenance agreement has not been executed. The applicant has not submitted a Maintenance Plan for each Stormwater Treatment Practice.

**RECOMMENDATION:** Table with 10 Stipulations

**Stipulations:**

1. Clarify total area of grading prior to receipt of escrows.
2. Update the pipe invert or slope information on sheet C2.01 accordingly.
3. Update HydroCAD to include entirety of southernmost existing buildings.
4. Clarify if previous project area treated by infiltration basin is still meeting site requirements. Unclear if impervious calculations also include impervious area added in 2014 – 2016. Update impervious area.
5. Clarify location of Existing Infiltration Ditch (1P).
6. Update stormwater drainage report and HydroCAD model as needed.
7. Update construction plans and/or SWPPP to:
   a. stabilize vegetation within 7 days of rough grading or inactivity.
   b. show the construction entrance location(s).
   c. include wood fiber blanket installation detail.
   d. include inlet protection installation detail.
8. Provide calculations (SHSAM 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.
9. Provide location and seeding information of grass filter strip and specify width (minimum 20 ft.).
a. stabilize vegetation within 7 days of rough grading or inactivity.
b. show the construction entrance location(s).
c. include wood fiber blanket installation detail.
d. include inlet protection installation detail.

8. Provide calculations (SHSAM 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.

9. Provide location and seeding information of grass filter strip.

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