COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: September 14, 2015
AGENDA NUMBER: 15
FILE NUMBER: 15 - 110
ITEM: Hedgewood

RECOMMENDATION: Table with 10 Stipulations

APPLICANT: Sharper Homes, Inc.
1102 141st Lane NE
Ham Lake, MN

PURPOSE: Construction of 18 new single family homes

LOCATION: ½ mile N of Constance Boulevard and ½ mile W of Lexington Avenue, located in section 11 of Ham Lake, MN.
APPLICABILITY:
1. Any work in or adjacent to wetlands, lakes or water courses.
2. One or more cumulative acres of land disturbance.
3. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Uses)
4. High water table, outwash and organic soils.
5. High infiltration soils.
6. Highly erodible soils
7. Endangered, Threatened or Special concern species, elements of communities.

EXHIBITS:
1. Stormwater Management plan; by Carlson McCain; dated 7/22/2015; received 8/24/2015
2. Plan set; by Carlson McCain; dated 7/21/2015; received 8/24/2015
3. Wetland Delineation and Wetland Permit Application by Kjolhaug Environmental Services; dated 8/24/15; received 8/27/15

HISTORY & CONSIDERATIONS:
The existing site is approximately 36 acres of agricultural land, grassland, woods and wetlands. This site was approved for an 18 lot subdivision on March 26, 2007 but a permit was never issued and has expired.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 11. The trend in land use for this drainage area is toward open space, and agriculture. There are flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage, retention, and wetland conservation.

Floodplain: There is no floodplain on the property according to FEMA. The District Atlas 14 model predicts the 100-year elevation for the subwatershed at 899.5 feet. The total floodplain impact is 0 acre-feet. Compensatory storage is not needed.

Groundwater: Surficial ground water is present at 900 feet. The site does not include groundwater sensitive areas. Information has been provided to substantiate low floor elevations. Low floor elevations meet the criteria for the City of Ham Lake (1 ft above mottled soil elevation).

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 proposed project does not include a ditch maintenance easement or utility line crossings. A drainage and utility easement is provided for the storm water/infiltration ponds shown on the drainage plan. It is unknown if property owners affected by changes in drainage have been notified and have acknowledged the changes proposed.

Soils & Erosion Control: Soils affected by the proposal are Lino, Isanti and Zimmerman. Stabilizing vegetation is proposed for disturbed areas within two weeks of rough grading. Adjacent properties are protected from sediment deposition. All wetlands, waterbodies, ponds, infiltration basins and water conveyance systems are protected from erosion and sedimentation. Project site is greater than 1 acre; an NPDES permit is required.

Stormwater & Hydraulics: It is unclear if the applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. 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. It is unclear if the rate of post development runoff from the site does exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses.

Water Quality: Project does include new impervious drainage areas greater than 1 acre. All discharges into wetlands are not pretreated by a sediment basin/water quality pond and are not designed correctly. The proposal will detrimentally affect the existing water quality of the receiving water. The proposal may cause extreme fluctuations of water levels or temperature changes.

Wetlands: Wetlands exist on-site according to the 1987 Federal Manual and its associated supplement(s), NWI, and Soils Survey. Wetlands have been delineated. The wetland boundary has been approved.

The Wetland Permit Application proposes to impact 37,101 square feet (0.8517 ac) in three wetlands. The applicant is proposing to replace the wetland impacts through the purchase of 72,202 (1.7034 ac) wetland credits. The TEP has not reviewed the Wetland Permit Application.

Wildlife: The proposed project has the potential to include the threatened Black Huckleberry (Gaylussacia baccata). The applicant must contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project. If the review determines that rare species may be impacted, avoidance recommendations or instructions on subsequent procedure and protocols for survey requirements will be provided. The purpose of the survey would be to reduce the likelihood of an inadvertent takings and, if needed, to inform of the takings permit process.
**Performance Escrow:** $20,000

**ISSUES/CONCERNS:**

<table>
<thead>
<tr>
<th>Maintenance: It is unknown if property owners affected by changes in drainage have been notified and have acknowledged the changes proposed.</th>
<th>1. Provide documentation that homeowners affected by changes in drainage have been notified and accepted the proposed changes.</th>
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<tr>
<td>Stormwater &amp; Hydraulics: 1S –W1 and 1S-W2 are listed as having 0% imperviousness in the HydroCAD model but the drainage maps show Lots 1 and 2 of Block 3 are located in these areas.</td>
<td>2. Update impervious areas in HydroCAD model that accurately reflect grading plan.</td>
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<td>The site is tributary to County Ditch 11, there is drainage sensitive agricultural in that watershed. Therefore, the District’s drainage sensitive uses rules apply where the post conditions 100-year rate leaving the site needs to be less than the 25-year existing rate.</td>
<td>3. Provide rate control calculations that show that the proposed 100-year rates are less than the existing 25-year rates.</td>
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<td>It is unclear how the first inch of runoff from ALL new impervious will be directed into the infiltration basins for pretreatment before entering the stormwater basins. Stormwater basins cannot be used to meet infiltration requirements since there is less than 3 feet of separation from groundwater.</td>
<td>4. Provide an updated hydrologic and hydraulic analysis to account for stipulation #5 listed above. 5. Provide additional details that illustrate how the infiltration basins will treat the first 1” of runoff from all new impervious on site.</td>
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<td>The site has predominantly fine grained to medium grained sands which post development will likely be more compacted than pre development state. In order to account for additional runoff from the change in infiltration capacity of the soil, it is recommended that post condition soils be modeled with a B type soil (one less than the A soil), or, the applicant can choose to amend the soil so that it has runoff characteristics of an A soil. This will need to be labeled on the plan accordingly.</td>
<td>6. Provide post project conditions analysis with B type soils or include soil amendments adequate to maintain A type soils as part of the plan.</td>
</tr>
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**Soils & Erosion Control:** A SWPPP 7. Provide a SWPPP and a note on the
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**Wetlands:** The Wetland Permit Application proposes to impact 37,101 square feet (0.8517 ac) in three wetlands. The applicant is proposing to replace the wetland impacts through the purchase of 72,202 (1.7034 ac) wetland credits. The TEP has not reviewed the Wetland Permit Application.

**Wildlife:** The proposed project has the potential to include the threatened Black Huckleberry (*Gaylussacia baccata*). The applicant must contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.

**Escrow:** $2,000 + (36 ac * $500/ac) = $20,000

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**RECOMMENDATION:** Table with 10 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Provide documentation that homeowners affected by changes in drainage have been notified and accepted the proposed changes.
3. Update impervious areas in HydroCAD model that accurately reflect grading plan.
4. Provide additional details that illustrate how the infiltration basins will treat the first 1” of runoff from all new impervious on site.
5. Provide post project conditions analysis with B type soils or include soil amendments adequate to maintain A type soils as part of the plan.
6. Provide an updated hydrologic and hydraulic analysis to account for stipulation #5 listed above.
7. Provide rate control calculations that show that the proposed 100-year rates are less than the existing 25-year rates.
8. Provide a SWPPP and a note on the SWPPP that stabilizing vegetation will be provided within 14 days of rough grading.
9. Review and approval by the TEP for the wetland impacts.
10. Contact the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species may be located within the boundary of this project.