**COON CREEK WATERSHED DISTRICT**  
**PERMIT REVIEW**

<table>
<thead>
<tr>
<th>MEETING DATE:</th>
<th>April 11, 2016</th>
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<tbody>
<tr>
<td>AGENDA NUMBER:</td>
<td>12</td>
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<tr>
<td>FILE NUMBER:</td>
<td>15 - 110</td>
</tr>
<tr>
<td>ITEM:</td>
<td>Hedgewood</td>
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**RECOMMENDATION:** Approve with 3 Stipulations

**APPLICANT:** Sharper Homes, Inc.  
1102 141st Lane NE  
Ham Lake, MN 55304

**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
4. Site Drainage Narrative, Calculations and HydroCAD model by Carlson McCain; dated 9/24/2015, received 9/29/2015.
5. Grading, Drainage and EC and Details construction sheet by Carlson McCain; dated 9/24/2015, received 9/29/2015.
6. Wetland Permit Application by Kjolhaug Environmental Services, dated 9/29/15; received 9/29/15
7. Natural Heritage Review letter by DNR, dated 2/18/16; received 2/23/16
8. Site Drainage Narrative, Calculations and HydroCAD model by Carlson McCain; dated 3/16/2016, received 3/16/2016.

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 October 12, 2015 but the applicant has revised the plans to include a new basin/pond on the east of wetland 2A (outside of delineated wetland boundaries) to produce fill material for the site. This new pond is not included in the stormwater management strategy for the site since the originally proposed basin provides sufficient rate control and volume reduction to meet district needs. Previous recommendations remain the same with the addition of recommending the new basin be revegetated in a manner consistent with the surrounding wetland buffer and wetland enhancement plans.

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 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. 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:** 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. The rate of post development runoff from the site does not 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 pretreated by a sediment basin/water quality pond and are designed correctly. 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.

**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 has decided to mitigate on-site versus purchasing wetland credits. The TEP has reviewed and approved the wetland replacement plan.

The proposed wetland impacts and required replacement at 2 to 1 are as follows:

<table>
<thead>
<tr>
<th>Wetland Impact ID</th>
<th>Wetland Type</th>
<th>Impact Amount (sf)</th>
<th>Required Replacement (sf)</th>
<th>Required Replacement (ac)</th>
<th>Impact Justification</th>
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<tbody>
<tr>
<td>Wetland 1 (impact A)</td>
<td>Type 2</td>
<td>9,040</td>
<td>18,080</td>
<td>0.4151</td>
<td>Roadway fill</td>
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<tr>
<td>Wetland 1 (impact B)</td>
<td>Type 2</td>
<td>17,096</td>
<td>34,192</td>
<td>0.7849</td>
<td>Roadway fill</td>
</tr>
<tr>
<td>Wetland 2 (impact A)</td>
<td>Type 1</td>
<td>3,927</td>
<td>7,854</td>
<td>0.1803</td>
<td>Roadway fill</td>
</tr>
<tr>
<td>Wetland 2 (impact B)</td>
<td>Type 1</td>
<td>3,170</td>
<td>6,340</td>
<td>0.1455</td>
<td>Driveway fill</td>
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<tr>
<td>Wetland 3</td>
<td>Type 1</td>
<td>3,868</td>
<td>7,736</td>
<td>0.1776</td>
<td>Roadway fill</td>
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Total: 37,101 sf, 74,202 sf, 1.7034 ac

Wetland impacts will be replaced on-site through:
- excavation of upland to create wetland
- hydrologic and vegetation restoration of partially drained and farmed/sod field wetland areas, and
- establishment of native upland buffer adjacent to created and restored/enhanced wetland areas

The applicant will be required to record the Minnesota Wetland Conservation Act (WCA) Declaration or Restrictions and Covenants for Project-Specific Wetland Replacement. The applicant will also be required to submit yearly monitoring reports for five years or until CCWD determines the goals of the wetland replacement plan have been met and monitoring is no longer needed. During the monitoring period, the applicant will be required to control noxious weeds and invasive non-native vegetation.

TEP recommends analysis on secondary impacts to wetland 2A from both the lot development and the newly proposed aggregate mine. TEP is also recommending monitoring wells in wetland 2A, the aggregate mine and the wetland replacement area so as to demonstrate no drainage impacts to Wetland 2A and that the replacement wetland will meet performance standards.

**Wildlife:** The proposed project had the potential to include the threatened Black Huckleberry (*Gaylussacia baccata*). The applicant contacted the DNR to have a DNR Natural Heritage Information System (NHIS) data review completed to determine if any records of state-protected species were located within the boundary of this project. The DNR sent a letter dated 2/18/16 indicating the plant is not of concern but the Blanding’s Turtle and Long-eared bat maybe in the project area. Guidance was provided to the applicant from the DNR.
**Performance Escrow:** $20,000 – paid 3/9/16

**ISSUES/CONCERNS:**

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<th>Soils &amp; Erosion Control: Revision 3 for this proposed single family development was submitted and includes a revised grading plan. A new basin/pond is proposed east of wetland 2A (outside of delineated wetland boundaries) to produce fill material for the site. This new pond is not included in the stormwater management strategy for the site since the originally proposed basins provide sufficient rate control and volume reduction to meet district needs. Previous recommendations remain the same with the addition of recommending the new basin be revegetated in a manner consistent with the surrounding wetland buffer and wetland enhancement plans.</th>
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<tbody>
<tr>
<td>1. Include the new basin in the revegetation plan so that it is consistent with the surrounding wetland buffer and wetland enhancement plans.</td>
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<tr>
<th>Wetlands: The Wetland Permit Application proposes to impact 37,101 square feet (0.8517 ac) in three wetlands. The applicant is proposing to replace on-site.</th>
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<td>2. Proof of the Minnesota Wetland Conservation Act (WCA) Declaration or Restrictions and Covenants for Project-Specific Wetland Replacement being recorded.</td>
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<td>3. TEP recommends analysis on secondary impacts to wetland 2A from both the lot development and the newly proposed aggregate mine. TEP is also recommending monitoring wells in wetland 2A, the aggregate mine and the wetland replacement area so as to demonstrate no drainage impacts to Wetland 2A and that the replacement wetland will meet performance standards.</td>
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RECOMMENDATION: Approve with 3 Stipulations

Stipulations:

1. Provide a SWPPP and a note on the SWPPP that stabilizing vegetation will be provided within 14 days of rough grading.

2. Proof of the Minnesota Wetland Conservation Act (WCA) Declaration or Restrictions and Covenants for Project-Specific Wetland Replacement being recorded.

3. TEP recommends analysis on secondary impacts to wetland 2A from both the lot development and the newly proposed aggregate mine. TEP is also recommending monitoring wells in wetland 2A, the aggregate mine and the wetland replacement area so as to demonstrate no drainage impacts to Wetland 2A and that the replacement wetland will meet performance standards.