COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: May 12, 2014
AGENDA NUMBER: 14
FILE NUMBER: 14 - 056
ITEM: Preserve at Legacy Creek 1st and 2nd Addition

RECOMMENDATION: Approve with 3 Stipulations

APPLICANT: Westwood Professional Services, Inc.
Attn: Francis D. Hagen II
7699 Anagram Drive
Eden Prairie, MN 55344

PURPOSE: Preserve at Legacy Creek 1st and 2nd Addition

LOCATION: Northwest quadrant of Main Street (Hwy 14) and Legacy Creek Parkway, 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 water that have been, or may be covered by the regional flood.
5. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Uses).
6. High water table, outwash and organic soils.
7. High infiltration soils.
8. Highly erodible soils.
9. Excavation or filling or a combination of excavation and filling of sand or other excavation or fill material including the laying, repairing, replacing or enlarging of a culvert or an underground pipe or facility where it crosses a public ditch or waters of the state.

EXHIBITS:
1. Preserve at Legacy Creek Grading, Drainage & Erosion Control Construction plans and SWPPP. Plans (17 sheets), Revision 4, dated 01/15/2014, received 4/25/2014.
2. Preserve at Legacy Creek 2nd Addition Sanitary Sewer, Water Main, Storm Sewer and Streets Construction Plans (9 sheets), Revision 2, dated 04/15/2014, received 4/25/2014.

HISTORY & CONSIDERATIONS:
These projects are resubmittals of the previous permit applications:

07-010 Preserve at Legacy Creek (Formerly Rushes)

11-041 Preserve at Legacy Creek 2nd Addition

07-010 Preserve at Legacy Creek Phase II (Formerly Rushes) 2013 – Meeting Date 5-27-2013

HISTORY & CONSIDERATIONS:
Preliminary construction plans previously approved with stipulations in 2012.

ISSUES/CONCERNS:
Stormwater & Hydraulics: The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation to the extent practicable. Due to groundwater levels and adjacent wetlands, it is unlikely that the infiltration basins will function as modeled, rendering them less efficient than stated. However, it is apparent that it is not practical given the grades and site limitations to attempt to address this and there is no adverse effect.
to the system hydraulically since there are equalizer pipes connecting the infiltration basins to adjacent ponds.

A final utility plan was not submitted. However, based on a discussion and email from the project engineer nothing has changed to the pond outlets and utility infrastructure from the submittal in 2012.

**RECOMMENDATION:** Approve with 1 Stipulations

**Stipulations:**
Receipt of escrow

07-010 Preserve at Legacy Creek Phase II (Formerly Rushes) 2013 – Meeting Date 5-28-2013, Agenda #8

**HISTORY & CONSIDERATIONS:**
Preliminary construction plans previously reviewed in 2012. Application for wetland impacts was reviewed and approved at the November 13, 2012 Board meeting.

**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 states that 105,839 S.F. of wetland is proposed to be impacted in 8 locations. The grading plan clearly identifies the proposed impacts.

Three alternatives, plus the proposed project, have been submitted. The applicant is pursuing sequencing flexibility for all impacts not associated with the ditch meander excavation/mitigation.

The applicant is minimizing wetland impact with the preferred construction plans. Wetland impacts quantities have been clarified on the grading plans.

The project is not wetland dependent.

The impacts are not exempt.

**Total Proposed Permanent Wetland impact quantities for project to date are:**

<table>
<thead>
<tr>
<th>Wetland ID</th>
<th>Area of Proposed Fill (S.F.)</th>
<th>Proposed Area of No Loss Excavation (S.F.)</th>
<th>Wetland Type</th>
<th>Purpose of Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>0</td>
<td>9,550</td>
<td>2</td>
<td>Mitigation Excavation</td>
</tr>
<tr>
<td>G2</td>
<td>210</td>
<td>0</td>
<td>2</td>
<td>Sequencing Flexibility</td>
</tr>
<tr>
<td>G3</td>
<td>449</td>
<td>21,344</td>
<td>2</td>
<td>Mitigation Excavation</td>
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PAN 14-056 Preserve at Legacy Creek 1st and 2nd Addition, Page 4 of 6

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<tbody>
<tr>
<td>H1</td>
<td>0</td>
<td>36,657</td>
<td>2</td>
<td>Mitigation Excavation</td>
</tr>
<tr>
<td>H2</td>
<td>0</td>
<td>8,745</td>
<td>2</td>
<td>Mitigation Excavation</td>
</tr>
<tr>
<td>H3</td>
<td>1,535</td>
<td>0</td>
<td>2</td>
<td>Sequencing Flexibility</td>
</tr>
<tr>
<td>O</td>
<td>1,080</td>
<td>0</td>
<td>2</td>
<td>Sequencing Flexibility</td>
</tr>
<tr>
<td>Ditch</td>
<td>26,563</td>
<td>2,980</td>
<td>N/A</td>
<td>Ditch Meander/Mitigation Excavation</td>
</tr>
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**Total Impacts (S.F.)**

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<tr>
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<td>29,837</td>
<td>79,276</td>
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**TOTAL FILL IMPACT = 29,837 S.F.**

**Wetland Replacement Plan:**
Mitigation is proposed at a 2:1 ratio via the On-Site and In-Kind replacement. Total fill 29,837 S.F. * 2:1 replacement ratio = 59,674 S.F. of required mitigation. The applicant is proposing buffers with non-native vegetation, thus 10% credit for the buffer areas.

<table>
<thead>
<tr>
<th>Total Proposed Mitigation Areas</th>
<th>(S.F.)</th>
<th>(Acres)</th>
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<tbody>
<tr>
<td>Created Wetland (75371 @ 75% = 56,528 S.F.)</td>
<td>56,528</td>
<td>1.30</td>
</tr>
<tr>
<td>Created non-native Upland Buffer Areas (@10%)</td>
<td>7,537</td>
<td>0.17</td>
</tr>
<tr>
<td>Total Area mitigation credits</td>
<td>64,065</td>
<td>1.47</td>
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*Represents a surplus of 4,391 square feet of mitigation credits

The TEP has reviewed and approved the application for impacts and the replacement plan with stipulations which are included below.

The CCWD Board reviewed and approved the application for wetland impacts and the replacement plan on November 13, 2013.

**Escrows:** Escrows have been paid

**Performance Escrow** - $1500 + ($200*83 acres) + ($10 * 2400 linear feet of ditch disturbance) = $42,100

**Wetland Escrow** - $500 + ($45,000 per acre of impact * 0.68 impacted acres) = $31,100

**RECOMMENDATION:** Approve with 2 stipulations

**Stipulations:**
1. Provide proof of recording for the Declaration of Restrictions and Covenants.
2. The applicant is to provide as-built elevations for the new culverts on the CD 59-7 alignment to verify they are placed within 0.2’ of the proposed elevations.

**FINDINGS:**

**Ditches and Drainage:** There is a public ditch on the property. The ditch is County Ditch 59-7. The ditch was inspected in 2012. The trend in land use for this drainage area...
is toward open-space, agriculture and residential. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage, retention, and wetland conservation. Portions of the public ditch were last repaired in 2005. The ditch is proposed to be rerouted in this area with the starting and ending points to remain unchanged.

**Floodplain:** There is no floodplain on the property according to FEMA. The District model predicts the 100-year elevation for the subwatershed at 895.7 feet.

**Groundwater:** Ground water is present between 889 and 899 feet. The site does include groundwater sensitive areas. Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Blaine (2 ft above mottled soil elevation, 2 ft above 100-year).

**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 Markey, 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, water bodies, 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 to the extent practicable. 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:** There are wetlands on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. The wetland work was completed as part of the Preserve at Legacy Creek permit #1397.

**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:** $7,000.00

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<tr>
<th>ISSUES/CONCERNS:</th>
<th>NEEDS:</th>
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<tr>
<td><strong>Stormwater &amp; Hydraulics:</strong> The applicant is meeting the volume management requirement equivalent to infiltrating runoff from the first inch of precipitation. A post construction test on the infiltration basins will be required to verify the assumed infiltration rates are obtained.</td>
<td>1. The applicant must acknowledge that they will conduct a post construction test on the infiltration basins by filling the basins to a minimum depth of 6 inches with water and monitor the times necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.</td>
</tr>
<tr>
<td><strong>Soils &amp; Erosion Control:</strong> Infiltration basins are protected from erosion and sedimentation during construction. After initial grading the District requires that infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging.</td>
<td>2. After initial grading the infiltration basins must be completely surrounded by erosion control measures to prevent the basins from clogging.</td>
</tr>
<tr>
<td><strong>Escrow:</strong> $2,000 + (10 ac x $500/ac) = $7,000.00</td>
<td>3. Receipt of escrows.</td>
</tr>
</tbody>
</table>

**RECOMMENDATION:** Approve with 3 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. The applicant must acknowledge that they will conduct a post construction test on the infiltration basins by filling the basins to a minimum depth of 6 inches with water and monitor the times necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
3. After initial grading the infiltration basins must be completely surrounded by erosion control measures to prevent the basins from clogging.