COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE:       June 10, 2013
AGENDA NUMBER:      12
FILE NUMBER:        13 - 042
ITEM:               The Woods at Quail Creek 2nd Phase

RECOMMENDATION:     Approve with 5 Stipulations

APPLICANT:          Hedlund Engineering
                    2005 Pin Oak Drive
                    Eagan, MN 55122

PURPOSE:            2nd Phase of a Subdivision Development

LOCATION:           Across the road from Malmborg’s Garden Center near the
                    intersection of Main St NE & Cloud Dr. NE
**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. High water table, outwash and organic soils.
5. High infiltration soils.
6. Highly erodible soils

**EXHIBITS:**
1. Site plan, Survey, Grading and Erosion Control plans and site details by Hedlund Engineering.
2. Stormwater Report by Barr Engineering

**HISTORY & CONSIDERATIONS:**
Phase 2 of the Woods at Quail Creek development is a follow up phase to the Phase 1 development reviewed and approved by the District (Permit 07-022). Phase 2 plans were originally submitted to the District for review in anticipation of construction in 2008. Due to the economy, construction was tabled until now and since then the CCWD stormwater rules have changed. The currently-proposed development is similar to the originally-proposed development, with stormwater management practices that meet current watershed district rules to the maximum extent practicable.

The site is located in a “drainage sensitive uses area” therefore post-development 100-year discharge rate cannot exceed the pre-development 25-year discharge rate. Majority of the site’s subwatersheds drain into stormwater BMP’s, however there is a small portion of a roadway from Phase 2 of the development that discharges into a pond that was constructed during Phase 1 of the development. A few other subwatersheds, that don’t drain to Phase 2 Stormwater BMP’s, consist of backyard drainage (disconnect impervious) that surface flow off site. Based on the applicant’s discussions with CCWD, those subwatershed do not need to be included in the rate control analysis.

The proposed development will be contributing stormwater runoff to adjacent wetlands. Buffer strips 20’ wide will be included around the wetlands. Additional information about the wetland mitigation plan will be submitted under separate cover.

**FINDINGS:**
**Ditches and Drainage:** There is a public ditch on the property. The ditch is County Ditch 59, Branch 4 and Branch 8. The ditch has been inspected. The project site is tributary to County Ditch 59. The trend in land use for this drainage area is toward open space and residential. There are no flooding concerns downstream.

**Floodplain:** There is no 100 year floodplain on the property according to FEMA. The District model predicts the 100-year elevation for the subwatershed at 896.8 feet. The total floodplain impact is 0 acre-feet, within the flood/fringeway. Compensatory storage is not needed.
Groundwater: Borings show ground water present at 889.3 feet and 890.5 based on soil borings 2 & 5, respectively. 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 Blaine.

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. A drainage and utility easement is provided for the storm water/infiltration pond shown on the drainage plan.

Soils & Erosion Control: Soils affected by the proposal are Zimmerman. Stabilizing vegetation is not 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 not 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 an average 20’ wetland buffer. 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.

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. No substantial adverse alteration or significant detrimental impact on a species food supply, security or reproductive cycle or the alteration or removal of a plant species will occur.

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 7,100 S.F. of wetland is proposed to be impacted in 2 locations. The grading plan clearly identifies the proposed impacts.

Three alternatives, plus the proposed project, have been submitted. All wetland impacts are related to public health safety and welfare along the corridor an bringing the site up to current safety standards.

The applicant is minimizing wetland impact with the preferred construction 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>4</td>
<td>6,400</td>
<td>0</td>
<td>1,2</td>
<td>Road/slopes</td>
</tr>
<tr>
<td>6</td>
<td>700</td>
<td>0</td>
<td>1,2</td>
<td>Road slopes/sequencing flexibility</td>
</tr>
<tr>
<td><strong>Total Impacts (S.F.)</strong></td>
<td><strong>7,100</strong></td>
<td><strong>0</strong></td>
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**TOTAL FILL IMPACT = 7,100 S.F.**

**Wetland Replacement Plan:**
Mitigation is proposed at a 2:1 ratio via wetland credit purchase from an existing wetland bank.

The TEP has reviewed and approved the application and provided comments.

**Escrows:** Escrows have not been paid
**Performance Escrow**- $1500 + ($200*13acres) = $4,100

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<tr>
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<th>Needs</th>
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<td><strong>Performance Escrow; $1500 + ($200*13acres) = $4,100</strong></td>
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<td>Provide appropriate erosion control around infiltration basins after construction to prevent sedimentation. Extend Rip-Rap from infiltration overflow to a minimum of 5’ below the existing water elevation to prevent scouring.</td>
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**Wetland Replacement Plan:**
Mitigation is proposed at a 2:1 ratio via wetland credit purchase from an existing wetland bank.

Proof of purchase for wetland bank credit transaction is to be provided.

**CONCLUSIONS:** This project does meet District standards. Performance Escrows and Erosion Control items must be submitted prior to issuance of a Permit.

**RECOMMENDATION:**  Approve with 5 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Provide appropriate erosion control around infiltration basins after construction to prevent sedimentation.
3. Extend Rip-Rap from infiltration overflow to a minimum of 5’ below the existing water elevation to prevent scouring.
4. Provided details and specs for the proposed sump catch basin and SAFLE baffle pre-treatment chamber.
   a. The applicant has provided preliminary details, but they are to be incorporated into the updated plans.
5. Proof of purchase for wetland bank credit transaction is to be provided.