COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: June 24, 2013
AGENDA NUMBER: 7
FILE NUMBER: 13 - 022
ITEM: Deer Haven Hills 7th Addition

RECOMMENDATION: Table with 5 Stipulations

APPLICANT: Plowe Engineering, Inc.
6776 Lake Drive, Suite 110
Lino Lakes, Minnesota 55014
(651) 361-8210

PURPOSE: Subdivision Development Project

LOCATION: Near the corner of 149th Avenue NE and Naples Street NE in Ham Lake, Minnesota.
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.

EXHIBITS:
1. Site Narrative, Dated 06/11/13, Received 06/12/13
2. Grading Plan, Dated 06/12/13, Received 06/12/13
3. Temporary Ditch Grading Plan, Dated 06/12/13, Received 06/12/13
4. Irrigation Basins Plan, Dated 05/31/13, Received 06/10/13
5. Irrigation Basins Plan, Dated 06/12/13, Received 06/12/13

HISTORY & CONSIDERATIONS: This project was originally approved and permitted as a part of the Deer Haven Hills development. The approvals and permits for that project have since expired. The applicant has submitted updated plans addressing current CCWD Standards and Rules.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 11 and County Ditch 59. The trend in land use for this drainage area is toward open space. There are flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage and retention.

Floodplain: There is no floodplain on the property according to FEMA. The District XP SWMM model predicts the 100-year elevation for the subwatersheds 1101, 1102, and 5916 at 889.2, 890.2, and 889.2 feet respectively. The total floodplain impact is 0 acre-feet, within the flood/fringeway. Compensatory storage is not needed.

The applicant is advised to run the 100-year elevation for interior ponds using the NOAA Atlas 14 information as shown in the following web link.
http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mn

Groundwater: Limited geotechnical information was provided. According to soil boring information provided on the grading plan, the highest mottled soil elevation is 894.2 feet at SB#5. 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 Ham Lake (1 ft above mottled soil elevation, 1 ft above 100-year). Infiltration basins 5, 6, 7, and 8 have elevations below the 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. 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, Rifle, Markey and 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 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 not exist down-stream 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: Impaired waters are identified within 1 mile of the subject property. Project does include new impervious drainage areas greater than 1 acre. 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 do exist on-site according to the NWI and Soil Survey. The site was mass graded as a part of the Deer Haven Hills project. The original application did not propose any wetland impacts. The only changes to the currently proposed plans relate to the CCWD infiltration standards and there are no additional wetland impacts proposed.

There are no proposed wetland impacts.

Escrows: Escrows have not been paid. $1500 + (30 acre * 200/acre) = $7,500.00
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| **Escrows:** Escrows have not been paid.  
$1500 + (30 \text{ acre} \times 200/\text{acre}) = $7,500.00 | Performance Escrow: $1500 + (30 \text{ acre} \times 200/\text{acre}) = $7,500.00 |
| **Stormwater & Hydraulics:** The applicant adjusts the first inch of rainfall volume calculation by a factor of 0.9. CCWD does not have an adjustment factor for volume management calculations. | Provide justification for reduction in first inch of rainfall volume calculation. |
| **Groundwater:** Infiltration basins 5, 6, 7, and 8 have elevations below the mottled soil elevation. Mottled soil indicates high groundwater elevation. Three (3) feet of separation is needed between the bottom of the infiltration basin and groundwater elevation. Drain tile may be needed in these basins to prevent flooding but maintain filtration practices. | Revise design of infiltration basins 5, 6, 7, and 8 with drain tiles for filtration practices, or provide a groundwater record that indicates that normal groundwater levels are 3 feet or more below the infiltration basin bottoms. |
| **Soils & Erosion Control:** The site is within 1 mile of an Impaired Water. Stabilizing vegetation is not proposed for disturbed areas within one week of rough grading. | Add a note in erosion control plan that stabilizing vegetation is proposed within 7 days of rough grading. |

**CONCLUSIONS:** This project does not meet District standards. Performance Escrows must be submitted prior to issuance of a Permit.

**RECOMMENDATION:** Table with 5 Stipulations

**Stipulations:**
1. Receipt of escrows.
2. Provide justification for reduction in first inch of rainfall volume calculation.
3. Revise design of infiltration basins 5, 6, 7, and 8 with drain tiles for filtration practices, or provide a groundwater record that indicates that normal groundwater levels are 3 feet or more below the infiltration basin bottoms.
4. Add a note in erosion control plan that stabilizing vegetation is proposed within 7 days of rough grading.
5. Updated plans should be submitted based on revisions from CCWD and City of Ham Lake Comments.