COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: August 24, 2015
AGENDA NUMBER: 10
FILE NUMBER: 15-104
ITEM: Majestic Highlands

RECOMMENDATION: Table with 8 Stipulations

APPLICANT: KE Properties
3023 104th LN NE
Blaine, MN 55449

PURPOSE: Development of 3.17 acre residential parcel into 3 single family lots

LOCATION: 1016 Bunker Lake Blvd, NE, 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. High infiltration soils.
4. Highly erodible soils
5. Endangered, Threatened or Special concern species, elements of communities.

EXHIBITS:
1. Stormwater Drainage Report; by Plowe Engineering; Dated 8/11/2015; received 8/12/2015
2. Plan set; by Plowe Engineering; Dated 8/11/2015; received 8/12/2015
3. Wetland Delineation Report by Jacobson Environmental, PLLC; dated 10/23/13, received 8/12/15

HISTORY & CONSIDERATIONS:
This item has not been before the CCWD board.

FINDINGS:
Ditches and Drainage: There is not a public ditch on the property. The project site is tributary to County Ditch 57. The trend in land use for this drainage area is toward open space, and residential. There are no flooding concerns downstream. Alternatives to additional drainage considered and reviewed include infiltration.

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 895.3 feet. The total floodplain impact is 0 acre-feet. Compensatory storage is not needed.

Groundwater: Information not provided.

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 not been notified and have not acknowledged the changes proposed.

Soils & Erosion Control: Soils affected by the proposal are Lino, 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 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 not discharged into a well-defined receiving channel or pipe and routed to a public drainage system. Drainage sensitive uses do not 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 not 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.

**Wetlands:** Wetlands do not exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey.

**Wildlife:** The proposed project may 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 the takings permit process.

**Performance Escrow:** $3,250.00

**ISSUES/CONCERNS:**

| Stormwater & Hydraulics: 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 basin will be required to verify the assumed infiltration rates are obtained. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results. | 1. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results. |
The pipe system is not accurately modeled per the plan. In order to accurately account for system head losses all pipes, catch basins and manholes need to be modeled explicitly. This is particularly important given that there is only 1 foot of separation between low floors and the 100-year elevation of the basins, all pipes and catch basins need to be modeled with the appropriate flow directions in order to properly account for head loss.

No emergency overflow is provided. This is an issue if for any reason the basins get clogged and do not infiltrate. It is required that an emergency overflow is provided with 1 foot of separation between low floors.

It is not clear where the discharged water will be routed in case it is not infiltrated. A clear and definable discharge body of water needs to be defined.

**Soils & Erosion Control:** The east infiltration basin is not 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.

**Maintenance:** The east infiltration basin appears to be off the property and will need to be approved by the existing landowner.

**Wildlife:** The proposed project may include the threatened Black Huckleberry (*Gaylussacia baccata*).

**Escrow:** $2,000 + (2.5 ac * $500/ac) = $3,250
RECOMMENDATION: Table with 8 Stipulations

Stipulations:

1. Receipt of escrows.
2. The applicant must acknowledge that they will conduct a post construction test on the infiltration basin by filling the basin to a minimum depth of 6 inches with water and monitor the time necessary to drain. The Coon Creek Watershed District shall be notified prior to the test to witness the results.
3. Provide a clear and definable EOF that is 1 foot lower than the lowest floors of adjacent structures.
4. The pipe system needs to be modeled as shown on the plan using the dynamic routing option in HydroCAD.
5. Provide a clear discharge point for the overflow.
6. After initial grading completely surrounded the proposed east infiltration basins with erosion control measures to prevent the basin from clogging.
7. Provide approval from existing owner of property to the east for east infiltration basin.
8. Contact the DNR to complete a NHIS data review for the project.