COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: July 22, 2013
AGENDA NUMBER: 16
FILE NUMBER: 13 - 045
ITEM: Catcher’s Creek

RECOMMENDATION: Table with 25 Stipulations

APPLICANT: Hedlund
2005 Pin Oak Drive
Eagan, MN 55122

PURPOSE: 70 lot residential development on 36.6 acres

LOCATION: Located inside the southeast quadrant of the intersection of Andover Boulevard NW (145th Avenue NW) and Prairie Road NW in the southeast corner of the City of Andover in Anoka County, 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:
2. Geotechnical Exploration and Review, Dated 4/23/2013, Received 6/28/2013
3. Small set of Catchers Creek Plans – Sheets C-1, C-2.0, C-2.1, C-3.0, C-3.1, C-4.0, C-4.1, C-5.0, C-5.1, CG-1.0, CG-1.1, CG-1.2, CG-1.3, CG-1.4, Dated 6/18/2013, Received 6/28/2013
4. Large set of Catchers Creek Plans – Sheets C-1, C-2.0, C-2.1, C-3.0, C-3.1, C-4.0, C-4.1, C-5.0, C-5.1, CG-1.0, CG-1.1, CG-1.2, CG-1.3, CG-1.4, Dated 6/18/2013, Received 6/28/2013
5. Wetland delineation report by KES, dated 6/3/13, received 6/5/13
6. Application for wetland impacts by KES, dated 6/6/13, received 6/7/13

HISTORY & CONSIDERATIONS: The applicant originally submitted on 5/13/13 to the CCWD. After a meeting with City and Watershed District staff the applicant re-submitted the application package with significant changes to the stormwater infrastructure on 6/12/13.

FINDINGS:
Ditches and Drainage: There is a public ditch on the property. The ditch is County Ditch 57. The ditch has not been inspected. There are approximately 0 acres of existing agricultural land affected by this ditch. The project site is tributary to County Ditch 57. The trend in land use for this drainage area is toward residential. There are not flooding concerns downstream. Alternatives to additional drainage considered and reviewed include storage and infiltration. The ditch was last repaired in 2001. The ditch is not in need of repair.

Floodplain: There is floodplain on the property according to FEMA. The District model predicts the 100-year elevation for the subwatershed at 878.1 feet. The FEMA map predicts the 100-year elevation for the property at 879 feet. The floodplain is impacted in the proposed development. The total floodplain impact is 3.9 acre-feet, within the flood/fringeway. Compensatory storage is provided. However, the compensatory storage in the southeast corner meant to provide floodplain mitigation needs to drain down to be able to receive water during a storm event and not be continuously full. It is unclear how flood water will access and drain out of the mitigation area.
The applicant is advised to run the 100-year elevation for interior pond 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:** The applicant did not submit a complete geotechnical report. The geotechnical report was missing half of the pages. Complete information has not been provided to substantiate low floor elevations. Based on HWL, low floor elevations do not meet the criteria for the City of Andover (3 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 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. The compensatory storage construction abutting the creek comes right to the top of bank making the transit of a backhoe for ditch maintenance impossible. There needs to be a 20’ minimum width between the top of the ditch bank and the compensatory storage for a maintenance access way. It is unknown if adjacent property owners have been notified of the proposed changes in drainage and have acknowledged the proposed changes. The applicant is proposing grading on the property to the East and West. No documentation has been provided to verify that permission has been granted for such encroachments.

**Soils & Erosion Control:** Soils affected by the proposal are Sartell, Markey, Rifle, Zimmerman and Alluvial Land. 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 not 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 exist downstream from the proposed site. It is unclear if the rate of post development runoff from the site does exceed predevelopment rates, or rates which would interfere with sensitive downstream land uses. The proposed pond is a combination pond which is attached to the adjacent Hickory Meadows pond and proposes to use the existing outlet in Hickory Meadows pond.
**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 not designed correctly. The proposal may 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 & threatened species, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas, wildlife travel corridors. The site does not include rare natural communities. 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, Soil Survey and 1987 Manual Midwest Regional Supplement. The wetland boundary has been reviewed. Staff will be issuing and approval of the wetland boundary application.

The project is not exempt.
The proposed project is not wetland dependent.

The applicant is proposing 7995 square feet of wetland impact in one location.

Three project alternatives have been provided.

The applicant is pursuing sequencing flexibility.

Plans submitted in the application for wetland impacts do not match the overall plans for the grading and development application. Particularly as it relates to stormwater ponding and utilities. While it does not have an impact directly on the application for wetland impacts or the sequencing discussion the plans should be updated appropriately.

The TEP recommends that the project be tabled and conditions of the table are listed below.

**Wetland Replacement:** The applicant is proposing replacement of impacted wetlands at a 2:1 ratio.

The applicant is proposing mitigation via wetland bank credits.

The TEP has approved utilization of the proposed wetland bank for mitigation pending resolution of the application for wetland impacts.

**Escrows:** Escrows have not been paid. $1500 + ($200 per acre * 37 Acres) + (180 lf adjacent to ditch * $10 per lf) = $10,700
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<td><strong>Escrows:</strong> Escrows have not been paid. $1500 + (30 acre *200/acre) = $7,500.00</td>
<td><strong>Performance Escrow:</strong> $1500 + (39 acre *200/acre) = $9,300.00</td>
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<td><strong>Floodplain:</strong> It is unclear how the floodwater will access and drain out of the floodplain mitigation area. The compensatory storage in the southeast corner of the development will need to drain completely to ensure adequate compensatory storage has been provided in the flood fringe. It is also unclear if the proposed mitigation will provide the volume proposed. The contour elevations at the adjacent ditch show a minimum elevation of 874 ft. The normal water surface elevation at the adjacent ditch should be determined to identify the low limit elevation that can be used in determining the storage.</td>
<td>If the basin is not able to drain down completely only volumes between the NGWL or adjacent NWL of Coon Creek and the 100 year elevation will account towards the floodplain mitigation volume.</td>
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<td>The plans do not show the area where applicant intends to access proposed floodplain mitigation. Include methods and means of restoring this area to preconstruction conditions after activities cease.</td>
<td>Provide detail and identify area where applicant intends to access proposed floodplain mitigation. Include methods and means of restoring this area to preconstruction conditions after activities cease.</td>
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<td><strong>Stormwater and Hydraulics:</strong> Not all corrections were made to the HydroCAD report. However, these are minor and will not affect the results significantly. The issues with the HydroCAD report include the length of the weir for the infiltration shelf. The plans show the weir is 20ft long and the model uses 30ft long. Another issue is the routing of subcatchment 2CS. This should be routed to the infiltration shelf 1SH.</td>
<td>Revise Hydrologic calcs to accurately reflect the weir for the infiltration shelf and routing of subcatchment 2CS to 1SH.</td>
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<td><strong>Maintenance:</strong> The compensatory storage construction abutting the creek comes right to the top of the bank making the transit of</td>
<td>There needs to be a 20’ minimum width between the top of the ditch bank and the compensatory storage for a maintenance</td>
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### Soils & Erosion Control

The pond and infiltration basins are not protected from erosion and sedimentation during construction. After initial grading the District requires that ponds and infiltration basins be completely surrounded by erosion control measures to prevent the basin from clogging.

Curb and gutter inlet protection is not included in the erosion control plans.

A note should be included in the grading plans to prevent equipment traffic and activities which could compact the soils in the proposed infiltration areas.

Provide landscaping plan for proposed infiltration area.

Adjacent properties are not protected from sedimentation during construction. A note should be included in the grading and erosion control plans that identifies no access is provided to the project site on the eastern side of the development via 143rd avenue and 144th avenue until streets and utilities are completed, or rock construction entrances should be added the plans.

### Wetlands

Wetlands do exist on-site according to the NWI, Soil Survey and the 87 Manual’s regional supplements. The applicant proposes 7,995 square feet of wetland impact in one location. A wetland application has been submitted and distributed to the TEP members.

The TEP has reviewed the project and recommended that it be tabled with stipulations.

Grading plans provided in the application for wetland impacts do not match those provided in the grading and development application. Significant changes in the ponding layout and proposed infiltration BMPs have been identified. While this

Provide a grading plan which clearly identifies all proposed wetland impacts. (Identify wetland Basin ID and total impacted area of the basin via separate hatching). This plan should be provided in the CCWD submittal and separately provided in the Wetland application package for TEP review in a scale which is sufficient for review.

The TEP has reviewed the application for wetland impacts.

a. TEP approval will be needed.

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<td>does not have a significant impact on the application for wetland impacts it is important that the plans approved are generally consistent.</td>
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| application should clarify the proposed wetland impact size. |
| Part I of the Joint application states both 1,236 sq-ft (line 5) and 7,995 sq-ft (line 11). |

| The application should clearly show the location and square-footage of the proposed wetland impacts. On Figure CG– 1.0 it’s difficult to determine delineated wetland locations. |
| The area of excavation within the 100 year floodplain of Coon Creek along the southeast side of the development will likely require the crossing of wetland 2 with heavy machinery. This area should be identified and remediation plan provided including appropriate seed mix. |

| Provide supporting evidence for the applicants assertion that “it is not possible to treat stormwater to required standards and discharge it into Wetland 1 as would be necessary to maintain wetland hydrology” or modify the statement. |
| Provide clarification on the requirement of 71 residential lots on the proposed development parcel or clarify that this is a project goal which may not be feasible under WCA. |

| Provide sufficient supporting evidence for the claim that Wetland 1 is surface water driven or modify the statement appropriately. |

| Clearly identify the wetland buffer signage on the proposed plans. |

**CONCLUSIONS:** This project does not meet District standards. Issues and concerns listed below must be submitted prior to further Board review.
RECOMMENDATION: Table with 24 Stipulations

Stipulations:
1. Receipt of escrows.
2. After initial grading completely surround the proposed infiltration basin and pond with erosion control measures to prevent the basin and pond from clogging.
3. If site will be accessed from East on proposed 143rd avenue at all provide a Rock construction entrance. If not place a note on the plans identifying that no access is provided until streets and utilities are completed.
4. Provide a note on the grading plan to prevent equipment traffic and activities which could compact the soils in the proposed infiltration areas.
5. Include a minimum 20’ maintenance travel way between the top of the ditch and any proposed construction within the ditch easement.
6. Provide detail and identify area where applicant intends to access proposed floodplain mitigation. Include methods and means of restoring this area to preconstruction conditions after activities cease.
   a. It is recommended that this access be at the shortest possible crossing of wetland.
7. Add curb and gutter inlet protection to erosion control plans and legend.
8. Provide landscaping plan for proposed infiltration area.
9. Provide details on how floodwater will access the compensatory storage and how it will drain to ensure adequate storage has been provided in the flood fringe.
10. Revise Hydrologic calcs to accurately reflect the weir for the infiltration shelf and rouding of subcatchment 2CS to 1SH. Run the Atlas 14 100-year precipitation in the model for the interior pond.
11. Include a pretreatment device prior to runoff discharged from the storm sewer system into any infiltration areas.
12. Provided written documentation which shows that it is allowable to combine the Catchers Creek pond with the Hickory Meadows pond and to grade off of the Catchers Creek property.
13. Provide written documentation which shows permission has been granted for grading on to adjacent Western property.
14. Adjust grading and low floor elevations to meet the requirement of 2ft above the 100-year elevation as needed.
   a. Verify that HWL for infiltration area is the same as the connected pond.
15. Provide a grading plan which clearly identifies all proposed wetland impacts. (Identify wetland Basin ID and total impacted area of the basin via separate hatching). This plan should be provided in the CCWD submittal and separately provided in the Wetland application package for TEP review in a scale which is sufficient for review
16. The TEP has reviewed the application for wetland impacts.
   b. TEP approval will be needed.
17. The TEP has reviewed the application for wetland impacts. The TEP has reviewed the application for wetland impacts. The application should clarify the proposed wetland impact size.
18. Part I of the Joint application states both 1,236 sq-ft (line 5) and 7,995 sq-ft (line 11).
19. The application should clearly show the location and square-footage of the proposed wetland impacts. On Figure CG– 1.0 it’s difficult to determine delineated wetland locations.
20. The area of excavation within the 100 year floodplain of Coon Creek along the southeast side of the development will likely require the crossing of wetland 2 with heavy machinery. This area should be identified and remediation plan provided including appropriate seed mix.
21. Provide supporting evidence for the applicants assertion that “it is not possible to treat stormwater to required standards and discharge it into Wetland 1 as would be necessary to maintain wetland hydrology” or modify the statement.
22. Provide clarification on the requirement of 71 residential lots on the proposed development parcel or clarify that this is a project goal which may not be feasible under WCA.
23. Provide sufficient supporting evidence for the claim that Wetland 1 is surface water driven or modify the statement appropriately.
24. Clearly identify the wetland buffer signage on the proposed plans.
25. Due to complications with the adjacent Hickory Meadows 2nd development and unknowns related to the current application CCWD is extending 15.99 for an additional 60 days to work through any additional complications related to the project and its updates.