COON CREEK WATERSHED DISTRICT
PERMIT REVIEW

MEETING DATE: July 25, 2015
AGENDA NUMBER: 09
FILE NUMBER: 16-102
ITEM: Quail Creek 10th Addition

RECOMMENDATION: Table with 9 Stipulations

APPLICANT: PSG Bridger, LLC
8354 N Via Mia
Scottsdale, AZ 85258

PURPOSE: Proposed site development for 96 single family homes and associated infrastructure.

LOCATION: Approximately 2 miles north of Interstate 35W and half mile east of Radisson Road in the City of 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 waters that have been, or may be covered by the regional flood.
5. Appropriation and use of groundwater
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.
10. Endangered, Threatened or Special concern species, elements or communities

EXHIBITS:
1) Stormwater Management Plan, dated June 13, 2016 prepared by Carlson McCain
2) Construction Plan set (15 Sheets) prepared by Carlson McCain, dated May 13, 2016, received June 16, 2016
4) Wetland Replacement Plan, dated June 14, 2016; received June 15, 2016

PREVIOUS ACTION TAKEN: This is a new application.

FINDINGS:
Pre-application Meeting: The project as submitted has received a general review during a pre-application meeting.

Ditches: There is a public ditch on the property. The public ditch is County Ditch 59-4, 59-8 and 59-9 according to the public drainage map. The approved/as-built elevations through this property are 894.7 ft MSL at the downstream end and 898.4 ft MSL at the upstream end.

The existing elevations and grades through this property are 898.4 ft MSL and 0.11% slope. Alternatives to repair and additional drainage have been considered and reviewed.

The ditch is a 3rd order stream. The ditch serves the primary role of
  a. Storm water conveyance
  b. Collector system

The ditch serves approximately 8.867 acres of agricultural land.
Land use in the area is open space.
There are no flooding concerns upstream or downstream.

The ditch has been inspected.
Existing elevations, slopes and condition of ditch are good.
The ditch is not in need of repair.
Alternatives to repair and additional drainage have been considered and reviewed.

Ditch Hydraulics: A crossing of the ditch is proposed. The proposed crossing involves the installation of a culvert. The proposed culvert is of sufficient hydraulic capacity but the inverts are not consistent with approved ditch elevations at the proposed location. The pipe inverts should be 893.8 US and 893.7 DS (1929 datum).

Erosion and Sediment Control: Soils affected by the proposal are Lino, Isanti, Rifle and Zimmerman. A SWPPP has not been provided. No SWPPP provided.
  - Stabilizing vegetation is not proposed for disturbed areas within seven (7) days of rough grading.
  - Soil stockpiles have not been proposed to be fitted with sediment-trapping measures to prevent soil loss.
  - Adjacent properties and stormwater ponds are protected from sediment deposition.
  - Construction schedules detailing when sediment trapping measures will occur; stabilization of earthen structures and the general timing of construction phases have not been provided.
  - Stormwater runoff does not pass through a sediment basin or other sediment trapping BMP with equal or greater storage capacity.
  - Stabilization adequate to prevent erosion has not been provided at the outlets of all storm sewer pipes.
  - All storm sewer inlets are protected from sediment-laden water during construction.
• All work adjacent to water or related resource has taken precautions to contain sediment, and stabilize the work area during construction.
• Provisions have not been made to minimize transport of sediment (mud) by runoff or vehicle racking onto the paved surface.
• Provisions have not been made for cleaning road surfaces where sediment is transported by the end of the day.
• Construction entrance points are clearly located on the erosion and sediment control plan.
• The erosion and sediment control plan does not provide for the repair and maintenance of all temporary and permanent erosion and sediment control practices.

Dewatering: Shallow groundwater does exist on site. It is unknown whether this project will need dewatering.

Floodplain: There is floodplain on the property according to the District model (896.4) but not FEMA. The project does propose to place fill within the floodplain. It is unknown what floodplain impact is, no calculations provided. The proposed impact is within the flood fringe. Compensatory storage has not been calculated. There are no flooding concerns upstream and/or downstream.

High Water Flooding:
Information has been provided to substantiate low floor elevations. Low floor elevations do meet the criteria for the City of Blaine; 1 ft above mottled, 2 ft above 100 yr

Groundwater: Geotechnical information collected in June 2016 indicates long term groundwater elevation is present at 7 feet below the surface.

The site is not within a Municipal Drinking Water Supply Area (DWSMA).

The project site is not within the Emergency Response Area/10 Year Well Head Protection Area/Drinking Water Supply Management Area.

The proposal does not contain a land use discouraged or prohibited by the Safe Drinking Water Supply Act (SDSA).

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.

Property owners affected by changes in drainage have been notified and acknowledge the changes proposed.
**Maintenance:** The Owner of the Stormwater Management features and treatment practices will be owned by either the HOA or homeowner. The Stormwater Treatment Practices (STPs) consisting of the following:

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<tr>
<th>Stormwater Treatment Practices</th>
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<tr>
<td>Infiltration Basins</td>
<td>7</td>
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<tr>
<td>Stormwater Ponds</td>
<td>2</td>
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<tr>
<td>Deep Water Basin</td>
<td>1</td>
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Inspection and maintenance of stormwater treatment practices will be the responsibility of the owner. It is unknown who is responsible for the inspection and maintenance of the stormwater treatment practices. No maintenance plan has been provided for the stormwater treatment practices.

**Easements:**
The proposed project does include ditch maintenance easement. A maintenance access to all storm water management features is provided.

**Stormwater & Hydrology:** Infiltration is allowed within the project area. The 1-inch infiltration is not achieved. The stormwater management system utilizes wet ponds and infiltration basins. 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 downstream from the proposed site. It is unknown if the rate of post-development runoff from the site exceeds predevelopment rates, or rates which would interfere with sensitive downstream land uses, model needs to be updated. Properties and waterways downstream from the project may not be protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. Concentrated storm water leaving a site is discharged directly into a well-defined natural or man-made off-site receiving channel or pipe. No proposed on-site constructed storm water conveyance channels for this project.

**Water Quality:** The proposed project does not cause an exceedance of State water quality standards. The project may contribute to the adverse impact of wetlands through inundation or volume of flow. All discharges into wetlands are pretreated by a sediment basin/water quality pond, and are designed correctly. All work adjacent to wetlands, waterbodies and water conveyance systems are protected from erosion. 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.

**Impairments:** This project is not within one (1) mile and drains to an Impaired Water. There are new impervious surfaces proposed as part of this project.

**Wetlands:** Wetlands do exist on-site according to the 1987 Federal manual, NWI, PWI and Soil Survey. Wetlands have been delineated. The most recent delineation was completed on July 27, 2015. The wetland boundary has been checked.
The wetland is not a DNR protected water.

The total proposed wetland impact is 0.4706 acres. The impact is through fill in 9 locations as shown below:

The proposed project results in wetland impact greater than 10,000 sf over the de minimis. TEP members have been notified with a complete plan and have been requested to submit comments.

The project is not wetland dependent.

The project is not exempt.

The applicant does need to contact the Army Corps of Engineers.

Two alternatives, plus the proposed project, have been submitted. On-site sequencing does apply. The avoidance alternatives are considered good faith efforts.

1. The applicant suggests that avoidance is not reasonable because there is no alternative. No alternative exists because:
   1) The basic purpose of the project cannot reasonably be accomplished at an alternative site, alternative sites are not available, alternative sites are not practical/prudent;
   2) The applicant has made a good faith attempt in pursuing alternatives;
3) The applicant has demonstrated that the activity will minimize wetland impacts through:
   a. modifying the size, scope, configuration, and density of the project,
   b. attempted to remove or accommodate site constraints including zoning, infrastructure, access, or natural features, and
   c. otherwise minimize wetland impacts.

2. The applicant suggests that avoidance is not reasonable because sequencing flexibility applies citing that:

   1) The site where the wetland to be impacted has been degraded to the point where replacement of it would result in a certain gain in function and public value.

   2) The site of the impacted wetland, should it be preserved, would result in an inability to function or provide values because of surrounding land uses and could not be reasonably maintained through other land use controls or mechanisms.

   3) The wetland is a site where human health and safety is a factor.

   4) The applicant suggests that avoidance is not reasonable because there is a compelling public need. There is a compelling public need because
      a. The wetland impact is minimized and proposed to be mitigated;

**Wetland Replacement Plan:**
A wetland replacement plan has been submitted.
A replacement plan application has been submitted.
The wetland replacement plan has been sent to TEP members for comment.
Declaration of Restrictions, Affidavit of Landowner, Consent to Replacement, and Proof of Property Ownership have not been completed for replacement wetland.
Replacement is proposed to be through restoration and protection of exceptional natural resource value at a ratio of 2:1.

The TEP has not approved the wetland mitigation plan.

**Wildlife:**
The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors.

The endangered or threatened species, rare natural community are *Xyris torta* (Endangered), *Viola lanceolata* (Threatened), *Fimbristylis autumnalis* (Special Concern), *Rubus stipulatus* (Proposed Endangered, Globally Rare), *Rubus vermontanus* (Proposed Threatened), *Rubus dissensus* (Not Listed, Very Rare In Minnesota).

The applicant has contacted the MDNR natural heritage or endangered species program.
The applicant has indicated that contact was made August 1, 2013

It is unknown if the MDNR has responded to the applicant.

If the project is present, the project does not appear to propose substantial adverse alteration or significant detrimental impact on a species or removal of a plant species will occur.

**Performance Escrow:** $58,000.00  
**Wetland Escrow:** $16,971.00

There are not ditch liens on the property.

### ISSUES/CONCERNS:

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| Escrows: $2,000 + (112 ac * $500/ac) = $58,000.00  
**Wetland Escrow:** $500 + (0.4706 ac * $35,000) = $16,971.00 | 1. Receipt of escrows. |
| Ditch Hydraulics: A crossing of the ditch is proposed. The inverts are not consistent with approved ditch elevations at the proposed location. | 2. Provide culvert inverts at approved ditch elevation. Inverts should be at 893.8 US and 893.7 DS (1929 datum). |
| Stormwater & Hydraulics: The proposed model is not consistent with grading plan.  
a. Area in new nodes do not match area removed from node 599B-0.00. Area removed from 599B-0.00 is 34.43 ac and new runoff nodes have 33.13 acres.  
b. Impervious area in model is approximately 12.6 acres but stormwater report indicates 13.6 acres of impervious are proposed. | 3. Update model to provide consistent information between model and grading plan. |
| Properties and waterways downstream from the project may not be protected from erosion due to increases in the volume, velocity and peak water flow rates of stormwater runoff. | 4. Outlets of Pond100 and Pond200 need to have riprap at downstream inverts to prevent erosion at wetlands. |
| **Soils & Erosion Control:** No SWPPP provided. | 5. Provide SWPPP that addresses all items under the Erosion and Sediment Control section above. |
| **Utility plan does not show storm sewer information such as inverts, pipe sizes and pipe slopes.** | **6. Provide utility plan with storm sewer details.** |
| **Maintenance:** It is unknown who is responsible for the inspection and maintenance of the infiltration basins. No maintenance plan has been provided for the infiltration basins. | **7. Provide O&M agreement for infiltration basins and specify owner of basins.** |
| **Wetlands:** The TEP has not approved the Wetland Replacement Plan. | **8. TEP approval of the Wetland Replacement Plan** |
| **Wildlife:** The proposed project does include endangered or threatened species, rare natural communities, colonial waterbird nesting sites, migratory waterfowl concentration areas, deer wintering areas or wildlife travel corridors. | **9. DNR approval to modifications to the rare natural community** |

**RECOMMENDATION:** Table with 9 Stipulations

**Stipulations:**

1. Receipt of escrows.
2. Provide culvert inverts at approved ditch elevation. Inverts should be at 893.8 US and 893.7 DS (1929 datum).
3. Update model to provide consistent information between model and grading plan for total and proposed impervious areas.
4. Outlets of Pond 100 and Pond 200 need to have riprap at downstream inverts to prevent erosion at wetlands.
5. Provide SWPPP that addresses all items under the Erosion and Sediment Control section above.
6. Provide utility plan with storm sewer details.
7. Provide O&M agreement for infiltration basins and specify owner of basins.
8. TEP approval of the Wetland Replacement Plan
9. DNR approval to modifications to the rare natural community