



**ENGINEERING AND RESOURCE PROTECTION REVIEW COMMENTS
DOMINION – SKIFFES CREEK SWITCHING STATION
COUNTY PLAN NO. C - 035 - 15**

June 10, 2015

General:

1. A concept plan roundtable meeting was held for this project at the County Government Center on June 8, 2014.
2. Plan Scale. It is difficult to read text and specific line work details on the 11 x 17 inch size drawing as provided for the conceptual plan application. Even though a larger 24 x 36 inch size of the same drawing was presented at the roundtable meeting, it is still difficult to discern labels for existing topography and grading plan elements because there are no text labels, especially in the area of the stormwater management facility and along the east side of the Resource Protection Area where the retaining wall is shown. Also, labels for existing contours are not legible either.
3. Plan Information. For the conceptual plan application, it would be quite helpful to provide representative profiles views or cross-section(s) through the site to show representations of existing ground, proposed grading, different site features, and terrain changes (fill). This would be beneficial at/ through the RPA toward the east. In addition, a typical section for the proposed yard-gravel area (stone depth, type, geotextile, etc.) would be helpful along with conceptual intentions of any improvements needed within the defined Limits of Disturbance (Typ.) shown for the existing dirt access road from Pocahontas Trail US Route 60 to the main yard-gravel site. Lastly, the concept plan shows a retaining wall situated on the east side of the Resource Management Area (RPA); however, it is difficult to tell by plan text or grading just how tall that wall is going to be. It could be 2 ft. tall or 10 feet tall.
4. Plan Labels. Similar to that shown and labeled along the dirt road access portion of the concept plan, label the dashed linework for "Limits of Disturbance (Typ.)" on the main yard-gravel portion of the site.
5. Plan Differences. It is noted that there are differences in plan information presented in the conceptual plan application provided to the County compared to information posted and shown on the Sheet 8 exhibit for the USACOE NAO-2012-00080/13-V0408 public comments for the Skiffes Creek Section 106 NHPA Effects (05/21/15). More specifically the conceptual plan application to the County shows grading to the north and northeast of the proposed wet pond and the Sheet 8 exhibit on the USACOE website does not. Ensure plan information provided to various agencies is consistent.
6. Legislative Case. If the case is legislative, requiring rezoning or a special use permit, our Division will need to review any voluntary proffer conditions or crafted special use permit conditions or community impact statements. Legislative cases require an *Environmental Constraints Analyses* to be submitted in accordance with Section 24-23(a)(1)(c) of the County's Zoning ordinance and resolution adopted by

the Board of Supervisors dated June 12, 2012. The *Environmental Constraints Analyses* needs to cover both the proposed main site area (55 acres +/-) and the access corridor (12.6 acres +) from Pocahontas Trail US Route 60.

7. VPDES Industrial. Ensure the main site yard-gravel area operational area and activities would not require the need for a general Virginia Pollutant Discharge Elimination System (VPDES) Permit for Discharges of Stormwater Associated with Industrial Activity.
8. Newport News Reservoir. Due to the close general proximity of this project to and because runoff from the site will directly discharge into Skiffes Creek and within about 1 mile discharge into Skiffes Creek Reservoir, a drinking water reservoir for the City of Newport News, it is recommended that the concept plan be forwarded to the City of Newport News Waterworks, Water Resources Division for cursory review. This will be a requirement of the plan of development (site plan) also if the legislative approval is successful. Normally the County has collaborated with City water resource personnel such that City assigned watershed inspector are contacted and invited to attend preconstruction meetings County projects draining to City drinking water reservoirs and if any spill or emergency should occur during construction or post-construction activities at such sites, it is reported to City Waterworks Dispatch in addition to all other required state and local response requirements.
9. TMDL. Skiffes Creek (HUC Code JL35) is listed as a Category 4A impaired waterway for fecal bacteria in accordance with the 2014 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report. It also has an approved TMDL. See Fecal Bacteria Total Maximum Daily Load Development for Warwick River final report dated December 13, 2007 available on the County Stormwater Division and Virginia DEQ websites. (*Note: Also ultimately this site discharges into the tidal estuarine James River which is listed for multiple impairments, including mercury, PCB, chlorophyll, Escherichia coli, etc.*)

Virginia Stormwater Management Program/VPDES Construction General Permit:

10. VSMP/VPDES Construction. The proposed switching station (site buildings, yard components, yard gravel and grading, etc.) are not included in the linear project designation associated with the Virginia Stormwater Management Act and VSMP regulations and the recently issued DEQ guidance memorandum 15-2003. Therefore land disturbing associated with site activities are subject to local VESCP/VSMP program requirements. This would include the need to submit a Stormwater Pollution Prevention Plan (SWPPP) which consists of a site erosion and sediment control (E&SC) plan, a stormwater management plan (SWMP), and stormwater pollution prevention (P2) plan components as well as comply with any applicable impaired water and TMDL provisions of the state's VPDES construction general permit requirements (if applicable). These components are necessary to be provided and registration for general permit coverage for the site is through the local VSMP authority in accordance with local Erosion and Sediment Control and VSMP ordinance requirements. (*Note: Annual standards and specifications as developed to meet state VESCP requirements for linear projects would not cover site specific components such as impervious building or yard areas, grading, filling and use of onsite stormwater conveyance systems such as channels, storm piping, energy dissipators, as well as unique pollution potential on the site during sitework, utility and construction operations.*)

Chesapeake Bay Preservation:

11. CBPA. The current conceptual plan map shows no impact to onsite confirmed Resource Protection Area (RPA). However, proposed limit of work and features are very close to if not concurrent with the RPA buffer line which does not leave much room for construction of adjacent proposed features - such as the retaining wall and the earthen embankment necessary for the proposed wet pond. If there are any impacts to the RPA buffer, whether temporary or permanent in nature, a water quality impact assessment (WQIA) as well as review and approval of a formal exception through the County's Chesapeake Bay Board would be required. This is consistent with Sections 23-7(development criteria), 23-9 (performance standards), 23-10 (plan of development) and 23-11(water quality impact assessment) of Chapter 23 of the County Code. In addition, because all of James City County is designated as Resource Management Area (RMA) by Section 23-4 of the County Code, development criteria as outlined in Section 23-7(b) allows for the manager to request/require a water quality impact assessment for development within RMA if unique characteristics of the site, intensity of development, or potential impacts on water quality warrant the need for the WQIA. *(Note: It has always been our contention as administrator of the local Bay Act program, that the linear (powerline) portion of the project is subject to exemption provisions of the Chesapeake Bay Act and Chesapeake Bay Preservation Area Designation and Management Regulations and local CBPA ordinance. However, the proposed switching station (site buildings and yard components and grading) are not exempt. Site layout and design for the switchyard is different from the linear powerline portions of the project and there is ability to adhere to CBPA performance and plan of development criteria and, if RPA impacts are unavoidable, to conform to the requirements of Sections 23-14, 23-15 and 23-16 (Exceptions) of the local Chesapeake Bay Preservation ordinance.)*
12. Separation. Ensure there is proper room for construction between proposed features - such as the retaining and wet pond earthen embankment - and the confirmed/delineated RPA buffer line. A setback is encouraged from the location of the RPA buffer line to the limit of disturbance (limit of work) for such features so that they can be properly constructed.
13. Maintenance. State RPA guidance in the Riparian Buffer Handbook generally does not encourage use of herbicide in the RPA, except for the control of invasive species, and even then under stricter criteria and under the premise of a fully developed management plan. It is preferred that for that portion of "Overhead Transmission Easement" corridor shown across the confirmed/delineated RPA on the south middle portion of the main site, that herbicides not be used for tree growth control/routine maintenance purposes in the powerline corridor and that either through voluntary proffers or special use permit conditions; or alternatively, site operational type plans that it be specified that herbicides not be used within the onsite RPA.

Erosion & Sediment Control:

14. Site E&S. Information on the concept plans does not give a preliminary breakdown of disturbed area for the main yard-gravel site and the access road corridor. However, it does give site area statistics which show the main site to be approximately 55 acres and the access road corridor as 12.6 acres in size. For land disturbing activity (LDA) purposes, it would appear based on the 1 inch = 150 ft. scale concept plan map that limits of disturbance associated with the main site is approximately 27.5 acres disturbed which is a fairly significant size if done all at once. In addition preliminary soil map information shows that much of site disturbance area is situated on soil mapping unit 11C and 15E soils. Based on County soil survey information 11C and 15E type soils exhibit severe erosion hazard characteristics. The concept plan as presented shows the site in a final graded (cut-fill), developed and

stabilized configuration. This configuration shows final grading (contour text unlabeled) and perimeter channels and storm inlet/piping systems conveying surface runoff to the onsite wet pond. Prior to this ultimate condition, under existing site topography and when the site is first cleared/disturbed, it appears runoff from construction site land disturbing activities would be conveyed directly to the stream valley and RPA. Because of all these concerns it would appear that a multiple of strategies will need to be utilized during the LDA phase of the project and distinct phased plans will be necessary with clear sequences of construction, narratives, and detailed E&SC plans with proper keys and symbols. It would appear that multiple perimeter E&S control measures will need to be utilized such as silt fences, wire-reinforced silt fences, diversion dikes or channels, fill diversions with slope drains, and temporary sediment traps and basins. **Therefore, use of proper site erosion and sediment control measures and protection of receiving natural waterways from construction site runoff will be an important consideration during the plan of development (site plan) stage of the project and will be a component of the overall plan which is closely examined by County staff as local VESCP/VSMP authority.**

15. Access Road. It would be helpful if some conceptual level plan information or details or even a small narrative was provided about the access road and access corridor. Currently the concept plan map shows a limit of disturbance and label the feature as dirt road. It can be expected that some upgrade or modification may be required along this corridor as large, heavy machinery will be necessary during and following construction, including that for long term maintenance and emergency vehicles if necessary. Provide additional information as necessary for the road conceptual plan purposes such as a typical section which shows requirements for width, surfacing, etc.

Stormwater Management / Drainage:

16. General. Because of the proximity of the site to the Skiffes Creek Reservoir, a drinking water reservoir for the City of Newport News, and because runoff from this site will discharge into Skiffes Creek which is listed as an impaired County waterway and a local TMDL for fecal bacteria, use of higher pollutant removal efficiency BMPs are encouraged for site design in combination with other environmental site design, pollutant removal (PR), and runoff reduction (RR) practices.
17. SWPPP. For the final plan of development, a stormwater pollution prevention plan (SWPPP) will be required. A SWPPP includes a site erosion and sediment control (E&SC) plan, a stormwater management plan (SWM) and a pollution prevention plan (PPP or P2 plan), which address runoff reduction and water quality consistent with current County stormwater management requirements. Refer to the local VSMP ordinance and state regulations, the 2013 revised Virginia Stormwater Management Handbook, the Virginia BMP clearinghouse website, the DEQ Stormwater Design Specifications, and the Virginia Runoff Reduction (VRRM) compliance worksheet for SWPPP requirements.
18. Stormwater Management. A basic stormwater management plan narrative was provided on the concept plan map. This development is subject to County VSMP regulations that require use of Virginia Runoff Reduction Method (VRRM) compliance worksheet to ensure stormwater management plan compliance (as a component of an overall stormwater pollution prevention plan) is achieved for both water quality and quantity control. VRRM worksheets should be provided at the concept plan stage to give some sort of preliminary indication of SWM compliance. Detailed designs are not necessary at this stage. Final stormwater management - plan of development requirements need to adhere to standards outlined by DEQ on the Virginia BMP Clearinghouse website, the Virginia DEQ

Stormwater Design Specifications, the revised Virginia Stormwater Management Handbook, and the Virginia Runoff Reduction Methods worksheets for new development. This includes DEQ guidance on use of proprietary Manufactured Treatment Devices (MTDs), if the Jellyfish Filter® filtering device, or similar equal, as shown on the concept plan is to be utilized.

19. Stormwater Hotspot. Operations or activities known to produce higher concentrations of stormwater pollutants and/or have a greater risk for spills, leaks, or illicit discharge can be designated as stormwater hotspots. Because of these characteristics and due to the size, nature and remote location of this facility, the County will designate the main site as a stormwater hotspot consistent with the criteria outlined in the revised Virginia Stormwater Management Handbook and the Virginia DEQ Stormwater Design Specifications. It will be required that a Stormwater Pollution Prevention Plan (SWPPP) or sometimes otherwise called a Spill Prevention Containment Plan (SPCP) or Spill Prevention and Control Plan (SPCP), be developed for the operational phase of the facility in its final form. This requirement can be satisfied by commitment using voluntary proffer conditions, special use permit conditions, or confirmation that it will be a plan of development requirement.
20. Open Space. In addition to the wet pond and manufactured treatment device (MTD) shown on the concept plan map, it is unclear if part of overall stormwater management plan compliance for the project using the VRRM is to dedicate natural open space on the site consistent with conserved open space (COS) requirements of Virginia DEQ Stormwater Design Specification No. 2. It is unclear if use of just the wet pond and single MTD as currently shown on the concept plan map will meet VRRM requirements or if additional measures are needed (see comment # 18 above). There would appear to be about 25 acres or so of remnant lands remaining on the 55 acres main site which would appear to remain vegetated after the switching station, as shown, is developed and areas not within the direct powerline corridors could be dedicated perpetually to receive natural open space credit.
21. VRRM. A bit of helpful advice is provided that utility rights-of-way that will be left in a natural vegetative state, including those which will be bush hogged no more than four times per year, ie. routinely but yet minimally not intensively maintained, can receive credit in accordance with definitions for forest and open space per state Virginia Runoff Reduction (VRRM) guidance dated March 2011 and other references such as DEQ SWM training participant guides.
22. P2 Plan. A pollution prevention (P2) plan as required for VSMP/VPDES construction general permit programs is required to be submitted, reviewed, and approved by the County prior to site implementation. This may be different compared to other jurisdictions you may have worked with on site development applications. See Section 8-26(d) of the County Code.