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Subject: Fwd: ERC - SP 2018-HM-024 Request for  
Date: 31 May 2019 at 18:08

SD

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Katie and Camylyn-

I'm sorry that I missed your call this morning. I tried to return your call and did leave a voice mail indicating that I would get this email response out today as well. Thank you for reaching out, and for the clarification that the ERC might not be the right "fit" for the review that we're requesting of the Orr/Benchmark RPA Delineation Study. The HVA is concerned about what we perceive as a large (8,497 sf = 18.7%) variance/reduction to the NW portion of (what we knew to be) the existing RPA delineation line on lot 26. We recently documented (attached) and publicly shared the discrepancy that we discovered. The HVA was considering this large variance equivalent to a "disturbance", and as such, the area (8,497) was 3.4 times the minimum (2,500 sf) to justify submission for review by the ERC.

Reviewing everything again, per the Chesapeake Bay Preservation Ordinance 118-1-9, maybe the more appropriate request would have been for the HVA to ask the "Director" to review the 12/18 RPA Delineation Study for accuracy vs. an ERC submission. I'm not quite sure who the "Director" would be, but would appreciate your assistance in determining if this individual would be the appropriate point of contact for submission of our questions and requests. **Specifically, we are focused on how the Ordinary High Water Mark was established for the 12/18 RPA Delineation Study.** We believe a request for review is warranted since this is such an environmentally sensitive lot, and the difference of approx 15' in this case could determine whether or not the applicant's proposed reserve drain field design will not only be 100% within an existing county-owned Conservation Easement, but also encroaching into the RPA.

We were able to identify this RPA delineation variance (attached) by superimposing the most recent available digital Chesapeake Bay Preservation Area (CBPA) Map (7/12/05) for tile 37-2 and lot 26 onto the applicant's 4/19/19 submitted plat. The 4/19/19 plat reflects their newly established RPA Delineation line (based on the applicant's consultant's data), as well as an outline of their current reserve drain field design - indicating location and shape of the field.

#### Specific Questions:

1) **The wetlands study indicates it was conducted 3/2017.** There are some sources that recommend doing this type of study during the June-Sept months for the most accurate data. We have also seen significant changes recently in our weather patterns that have produced many high-water marks not seen previously seen by area residents.

Here is a link that shows a number of video clips of **Hunter Mill Road flooding on 8/1/18.** These clips show how extremely dangerous the flooding on Hunter Mill Rd - **where it intersects with Difficult Run near the W&OD trail. THIS IS ALSO ONE OF THE ROUTES THAT EMS VEHICLES WOULD NOT BE ABLE TO SAFELY USE DUE TO FLOODING CONDITIONS.** It should also be noted, if Hunter Mill Road had such high water levels, then Lawyers Road heading east into Vienna was also experiencing flooding and road closures at the same time...and actually is generally affected/closed for longer periods of time... due to its closer (lower) proximity to Angelico Branch Stream. **Flooding at the Lawyers Road location, where it intersects Angelico Branch Stream is downstream of the proposed Orr/Benchmark 86-bed medical facility site, would eliminate yet another route option for EMS vehicles providing support to this proposed medical facility. Flooding-related closures of Lawyers Rd also means more erosion damage to Angelico Branch. Erosion will be exacerbated by the proposed project's increased area of impervious surface (67,752 sf = 33.2% of the overall lot). Even though the applicant is proposing to control the outflow of the storm water runoff...the OVERALL QUANTITY of storm water outflow will be significantly increased.**

<https://patch.com/virginia/vienna/strong-currents-flooded-road-prompt-rescue-vienna>

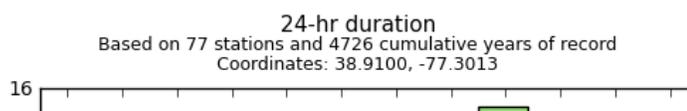
[https://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html](https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html)

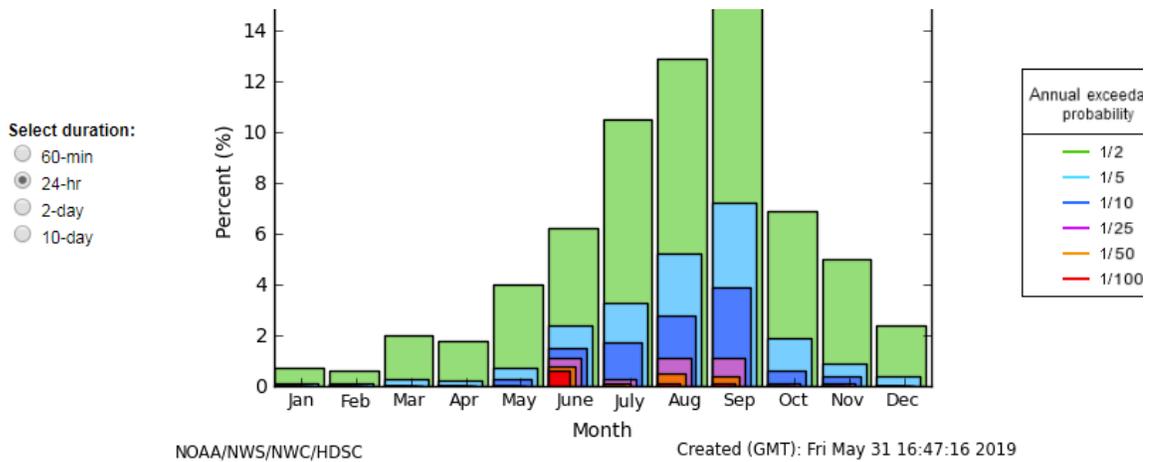
cumulative percentages of precipitation totals (see documentation for more information). To provide detailed information on the varying temporal distributions, see temporal distributions were derived for four precipitation cases defined by the duration quartile in which the greatest percentage of the total precipitation occurred

Duration:

#### V. Seasonality analysis

The seasonality graphs show the percentage of precipitation totals for a given duration that exceeded the precipitation frequency estimates for the duration and annual exceedance probabilities in each month for each region. The precipitation frequency estimates were derived from annual maximum series at each station region (as described in documentation). Results are provided for 60-min, 24-hr, 2-day, and 10-day durations and for annual exceedance probabilities of 1/2 (or 1 1/10, 1/25, 1/50, and 1/100. Seasonality graphs should not be used to derive seasonal precipitation frequency estimates.





2) Angelico Branch Stream has many curves/deviations, thus "measurements should be taken at each point of deviation along the entire length of the property to ensure an accurate line for the landward edge of the RPA buffer area." The study only references one data point location that we could see.

**GENERAL NOTES:**

1. THE WETLAND DELINEATION DEPICTED HEREON WAS CONDUCTED BY TNT ENVIRONMENTAL, INC. (TNT) IN MARCH 2017. THE WETLAND DELINEATION FLAGGING WAS SURVEYED BY VIKI VIRGINIA, LLC IN APRIL 2017. EXISTING CONDITIONS WERE PROVIDED BY URBAN, LTD. IN AUGUST 2018. THE WETLAND DELINEATION WAS CONFIRMED DURING A JURISDICTIONAL DETERMINATION WITH THE U.S. ARMY CORPS OF ENGINEERS (IAD-2017-01254, DATED JULY 19, 2017). IT SHOULD BE NOTED THAT ONE (1) DATAPPOINT FROM THE WETLAND DELINEATION CONDUCTED ON THIS PROPERTY IS CITED ON THIS RPA DELINEATION.
2. ACCORDING TO THE (FLOOD INSURANCE RATE MAP NO. 51059C0145E, PANEL 145 OF 450, EFFECTIVE DATE OF SEPTEMBER 17, 2010), THE SITE DOES NOT CONTAIN A FEMA 100-YEAR FLOODPLAIN. BASED ON EMAIL CORRESPONDENCE WITH FAIRFAX COUNTY STAFF ON MAY 2, 2017, THE SITE DOES NOT CONTAIN A COUNTY MAPPED OR A USGS MAPPED FLOODPLAIN.

**RPA BUFFER ANALYSIS:**

THE ONSITE RPA BUFFER IS COMPRISED OF THOSE COMPONENTS THAT ARE IDENTIFIED UNDER § 6-1704.2A THROUGH § 6-1704.2D OF THE FAIRFAX COUNTY PFM WHICH ARE SUBJECT TO RESOURCE PROTECTION AREA (RPA) BUFFER PROTECTION.

THE SITE-SPECIFIC AREA INCLUDES A 100-FOOT OFFSET OF ANGELICO BRANCH, AS SHOWN HEREON. NO CONTIGUOUS WETLANDS AND NO TIDAL SHORE/TIDAL WETLANDS ARE LOCATED ONSITE AND THEREFORE DO NOT CONTRIBUTE TO THE SITE-SPECIFIC RPA. THE CORE COMPONENTS OF THE RPA ARE ANGELICO BRANCH AND ITS 100-FOOT OFFSET.

**RPA NARRATIVE:**

§ 6-1704.4 (94-06-PFM) WATER BODIES WITH PERENNIAL FLOW WERE IDENTIFIED USING THE FAIRFAX COUNTY PERENNIAL STREAM FIELD IDENTIFICATION PROTOCOL (MAY 2003).

§ 6-1704.5 WETLAND DETERMINATIONS WERE PERFORMED USING METHODS SPECIFIED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE).

§ 6-1704.6 THE RPA BOUNDARY DELINEATION STUDY HAS BEEN CONDUCTED AND VERIFIED BY A LICENSED WETLAND DELINEATOR CERTIFIED TO PRACTICE IN THE COMMONWEALTH OF VIRGINIA.

THE TOPOGRAPHIC SURVEY WAS PROVIDED BY OTHERS AND IS BASED ON THE NAVD83 DATUM.

THIS RPA BOUNDARY DELINEATION STUDY HAS BEEN COMPILED IN ACCORDANCE WITH § 6-1704.8A THROUGH § 6-1704.8E. NO CONTIGUOUS WETLANDS TO ANGELICO BRANCH WERE DELINEATED.

**LEGEND**

- PERENNIAL WATERS OF THE U.S.
- SITE-SPECIFIC RESOURCE PROTECTION AREA (RPA)
- COUNTY-MAPPED RESOURCE PROTECTION AREA
- PROPERTY BOUNDARY
- APPROXIMATE DATAPPOINT LOCATION
- SURVEYED BENCHMARK LOCATIONS

3) Subjectivity is involved when determining an Ordinary High Water Mark (OHWM). OHWM's define a RPA. Even though the 12/18 submitted RPA Delineation Study indicates that determinations were made using prescribed criteria, there seems to be an element of subjectivity involved when establishing the OHWM. Thus the HVA is requesting the "Director" (per 118-1-9) review and validate all the measurements taken and utilized to establish the 12/18 submitted RPA Delineation Study.

4) Could the actual (not estimated) Flood Plain, Water Quality Impact Assessment and RPA Delineation Validation studies all be done at the same time? Since this SE Application has stated requirements that the applicant needs to submit actual (not estimated) Flood Plain and Water Quality Impact Assessment Studies, could the "Director" request that another RPA Delineation Validation Study be conducted at the same time as these other two studies? **Could all three of these studies be requested to be done by the applicant within the next couple of weeks, so their results could be included in the final Staff Report for SE 2018-HM-024 - not at time of site review" as is stated normal practice?** The HVA is respectfully requesting this sequencing of data due to the environmentally sensitive status of the proposed development site.

Thank you for your assistance with these requests for data. I hope that you both have a wonderful weekend.

Sincerely,

Sheila Dunheimer  
VP, Hunters Valley Association  
703-400-9091

RPA is defined by **(6) Ordinary high water mark**. The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the

bank, sneiving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.



## Resource Protection Area: Onsite Buffer Area Delineation Guidance on the Chesapeake Bay Preservation Area Designation and Management Regulations *September 16, 2002, Revised June 15, 2009*

NOTE: To ensure that the landward edge of the buffer area runs parallel to the edge of the RPA feature, this procedure will have to be performed in at least two locations across the site. If the edge of the RPA feature runs straight across the property with no curves or deviations, then a measurement taken at each property line will be sufficient. However, if the edge of the RPA feature is curved or deviates in and/or out, then measurements will need to be taken at each point of deviation along the entire length of the property to ensure an accurate line for the landward edge of the RPA buffer area.

Section 118-1-9. Chesapeake Bay Preservation Area Boundaries. (a) There shall be a map of Chesapeake Bay Preservation Areas adopted by the Board of Supervisors. **(b) A reliable, site-specific evaluation shall be conducted to determine whether water bodies on or adjacent to development sites have perennial flow and RPA boundaries shall be adjusted, as deemed necessary by the Director, on the site, based on this evaluation of the site. The site-specific evaluations shall be conducted in accordance with this Chapter and the Public Facilities Manual. (c) It is the burden of the applicant to show the appropriate RPA and RMA boundaries, applying the criteria in Section 118-1-7, on all plans of development submitted for review to the Director. Where RPA and RMA boundaries on the adopted map differ from boundaries as determined from the text of this Chapter, the text shall govern. Such boundary locations shown on plans of development can be approved, modified or disapproved by the Director. The Director may require the submission of an RPA boundary delineation study from the applicant to determine if the location of the RPA boundary shown on the plan of development is in accordance with the text of this Chapter.** (d) Any landowner or agent of the landowner may submit a site-specific determination of the location of RPA boundaries (RPA boundary delineation study) certified by a professional engineer, land surveyor, landscape architect, soil scientist, or wetland delineator certified or licensed to practice in the Commonwealth of Virginia for review and approval by the Director. For land in agricultural use, such site-specific determination of the location of RPA boundaries may be made by an agricultural water quality specialist designated by the Northern Virginia Soil and Water Conservation District. Such site-specific determinations of RPA boundaries shall be performed in accordance with the requirements of this Chapter and the Public Facilities Manual. (1) Any person who submits an RPA boundary delineation study

118-1-7

**The width of a perennial stream may be measured from top-of-bank to top-of-bank or at the Ordinary High Water Mark (OHWM) as defined by 33 CFR Part 328.3(e). The aerial extent of a pond or lake is measured at the OHWM. The full buffer area shall be designated as the landward component of the RPA notwithstanding the presence of permitted uses, encroachments, and permitted vegetation clearing in compliance with Article 3. Designation of the components listed in Sections 118-1-7(b)(1)-(4) shall not be subject to modification unless based on reliable, site-specific information as provided for in Section 118-1-9.**



Final Markup  
Exhibit...19).pdf