



**STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION**

January 18, 2013

Mr. Kenneth Usab
Morris & Ritchie Associates, Inc.
2113 Sterling Avenue, Ste. 7
Georgetown, De 19947

RE: PLUS review – 2012-12-02 – Bay Forest Club

Dear Mr. Usab:

Thank you for meeting with State agency planners on December 19, 2013 to discuss the proposed plans for the Bay Forest Club to be located at 30379 Whites Neck Road near Dagsboro.

According to the information received, phases 1 and 2 (271 single-family detached houses and 261 townhouses/condominiums) of this project are largely built. phases 3 and 4 (117 single-family detached houses and 159 townhouses/condominiums) have not begun. The developers now seek to add two parcels totaling 27.73 acres (Tax Parcels 1-34-8.00-17.00 and 18.00) to the presently approved phases 3 and 4 (123.53 acres on Tax Parcels 1-34-8.00-15.02, 15.03 and 17.02). This addition will increase the number of dwellings contemplated for Phases 3 and 4 to 401 (145 single-family detached houses, 256 townhouses, villas, duplexes and cottages). It will necessarily eliminate a 188-lot campground currently located on Tax Parcel 1-34-8.00-18.00. Two of the parcels being added are presently zoned AR-1 and would need to be rezoned to MR-RPC to permit the proposed development.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

Strategies for State Policies and Spending

This project is located in Investment Level 3 according to the Strategies for State Policies and Spending. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to

development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future. We encourage you to design the site with respect for the environmental features which are present.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are no known historic or cultural resources, such as an archeological site or National Register listed property on this parcel, but there is a 20th-century dwelling (S-2555) within the parcel on the west side, near Whites Neck Road. We would appreciate the opportunity to take some photographs of this dwelling prior to any demolition activities. However, if there is going to be any development or construction project of any kind, on this parcel, the developer should definitely be aware of Delaware's Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.
- Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Delaware Code Title 7, Chapter 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you need or would like to read more information in reference to unmarked human remains, burials or cemeteries, please go to the following websites for additional information:

www.history.delaware.gov/preservation/umhr.shtml

www.history.delaware.gov/preservation/cemeteries.shtml

- Prior to any demolition or ground disturbing activities, the developer should consider hiring an archaeological consultant to examine the parcel for potential historic or cultural resources, such as a potential archaeological site, a cemetery or unmarked human remains. The developer should also include a barrier or sufficient landscaping between

the proposed RV Resort and the house/dwelling (S-2555) within parcel, towards the west side, in order to protect them from the various visual or sound effects that may adversely affect them. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Any preconstruction activities without adherence to these stipulations may jeopardize the issuance of a permit or receipt of funding if it is determined that such opportunity to comment has been foreclosed. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Bay Forest Club, along with a related development known as Bay Forest West (now Bethany Ridge) was the subject of a Traffic Impact Study (TIS) in 2003. At that time, completion of the development in 2012 was anticipated. For the purposes of that TIS, Bay Forest Club was treated as 475 single-family detached houses and 326 townhouses/condominiums. Subsequently, a plan was developed for the site with 808 dwelling units, 388 single-family detached houses and 420 townhouses/condominiums. The table below shows what was platted and what has been built thus far.

	Single-Family Detached	Townhouse/Condominium
TIS	475	326
Current Plan	Built/Recorded	Built/Recorded
Phases 1 and 2	237/271	159/261
Phases 3 and 4	0/117	0/159
Total	237/388	159/420
Proposed Plan	Built/Recorded or Planned	Built/Recorded or Planned
Phases 1 and 2	237/271	159/261
Phases 3 and 4	0/145	0/256
Total	237/416	159/517

- Now, with the addition of new lands, the developers seek to reconfigure Phases 3 and 4, and in the process add 125 dwelling units, 28 single-family detached houses and 97 townhouses/condominiums. The following table compares the expected trip generations of what the TIS examined, what was previously approved and what is now proposed.

Case/Dwelling Type (All Phases)	Average Daily Traffic	AM Pk Hr	PM Pk Hr
TIS	6,202	475	585
Single-Family Detached	4,404	342	427
Townhouse/Condominium	1,798	133	158
Current Plan	5,898	444	551
Single-Family Detached	3,656	281	356
Townhouse/Condominium	2,242	163	195
Proposed Plan	6,584	493	610
Single-Family Detached	3,898	301	379
Townhouse/Condominium	2,686	192	231

- While the proposed plan for the site would generate more than the 400 trips per day and 50 trips per hour necessary to warrant a TIS under Section 2.3.1 of Del-DOT’s Standards and Regulations for Subdivision Streets and State Highway Access, the increase in traffic over what was contemplated in the 2003 TIS is, in our view, negligible. Del-DOT does not recommend that a new TIS be required.
- In accordance with Section 2.10 of Del-DOT’s Standards and Regulations for Subdivision Streets and State Highway Access, a review of the 2003 TIS recommended ten things that should be required of the subject development, summarized as follows:
 - 1) Construction of separate southbound left and right turn lanes on Irons Lane (Sussex Road 348) at Delaware Route 26.
 - 2) Construction of separate southbound left and right turn lanes on White’s Neck Road (Sussex Road 347) at Delaware Route 26.
 - 3) Agreement to fund a signal at the intersection of Irons Lane and Delaware Route 26.
 - 4) Agreement to fund a signal at the intersection of Irons Lane and White’s Neck Road.
 - 5) Agreement to fund construction of additions to DelDOT’s planned improvements at the intersections of Delaware route 26 with Old Mill Road and Central Avenue.
 - 6) Agreement to build or fund improvements at the intersection of Old Mill Road and White’s Neck Road.

- 7) Construction of sidewalks and shoulders along the site's frontage on White's Neck Road.
- 8) Construction of a bus stop for future service to the site.
- 9) Construction of pedestrian and bicycle facilities within the site.
- 10) Limitation of the on-site amenities to use by residents and guests to discourage traffic from outside the area.

With the exception, discussed below, that the standard pedestrian improvement along local roads in such areas is now a multimodal path rather than a sidewalk, Del-DOT finds that these recommendations are still valid. These items should be shown on the record plan by note or illustration. Del-DOT is working with the applicant's engineer to determine which of these items have been done and which have not. To the extent that there are items outstanding, they may recommend to the County that building permits be withheld pending adequate progress toward compliance.

- The following comments pertain to the site plan and entrance plan that will need to be prepared and submitted if the County approves the rezoning that is now being sought:
 - The site access must be designed in accordance with Del-DOT's Standards and Regulations for Subdivision Streets and State Highway Access, which is available at:
http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf.
 - In accordance with Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Initial Stage review fee shall be assessed to this project.
 - In accordance with Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Construction Stage review fee shall be assessed to this project.
 - In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a site plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:

Initial Stage Fee Calculation Form
Initial Stage Review Fee
Gate-Keeping Checklist – Site Plan
Design Checklist – Record Plan

- Owners and Engineer's name and e-mail address
Six (6) signed & sealed paper sets of the Site Plan by the owner and engineer
Conceptual Entrance Plan
CD with a pdf of the Site Plan
- Please refer to Appendix D - Plan Review Checklist, of the Standards and Regulations for Subdivision Street and State Highway Access, pages D-2 through D-39, for the new checklists for all types of plan submittals.
 - In accordance with Section 3.4.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, the traffic generation diagram is required to be shown on the site plan.
 - In accordance with Section 3.5.7.3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT may require that access be provided for future interconnections to the Simpler and Sprogell parcels and the various parcels bordering the north edge of the subject lands. We acknowledge that there is no intention to include these parcels in the subject development now but to our knowledge there was no intent to include the Jim's Hideaway campground when Bay Forest was first established. Placement of stub street rights-of-way and appropriate sizing of the streets now can help to prepare for future expansions when opportunities occur.
 - In accordance with Section 3.6.5 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage for a future 10-foot wide multi modal path. The location of the easement shall be outside the limits of the ultimate right-of-way for White's Neck Road. The easement area can be used as part of the open space calculation for the site. The following note is required, "**A 15-foot wide permanent easement for a future 10-foot wide multi-modal path is hereby established, as per this plat.**"
 - Also, in accordance with Appendix J – General Notes for Construction Plan, of the Standards and Regulations for Subdivision Streets and State Highway Access, the note concerning the maintenance of the multi-use path is required.
 - In accordance with Section 3.6.5 and Figure 3-3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require dedication of right-of-way along the site's frontage on White's Neck Road to provide a minimum of 30 feet of right-of-way from the centerline.
 - In accordance with Section 4.8 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require a 20-foot wide buffer between the ultimate right-of-way line of White's Neck Road and the edge of any storm water management facilities other than bio-swales.

- In accordance with Sections 4.3 and 4.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a subdivision plan or an entrance plan shall be prepared prior to DelDOT issuing subdivision/entrance approval. The following information will be required for Subdivision/Entrance Plan review;

Construction Stage Fee Calculation Form
Construction Review Fee
Gate-Keeping Checklist – Entrance Plan
Design Checklist – Entrance Plan
Three (3) paper sets of the Entrance Plan
SWM Report and Calculations (If applicable)
CD with a PDF of the Entrance Plan

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

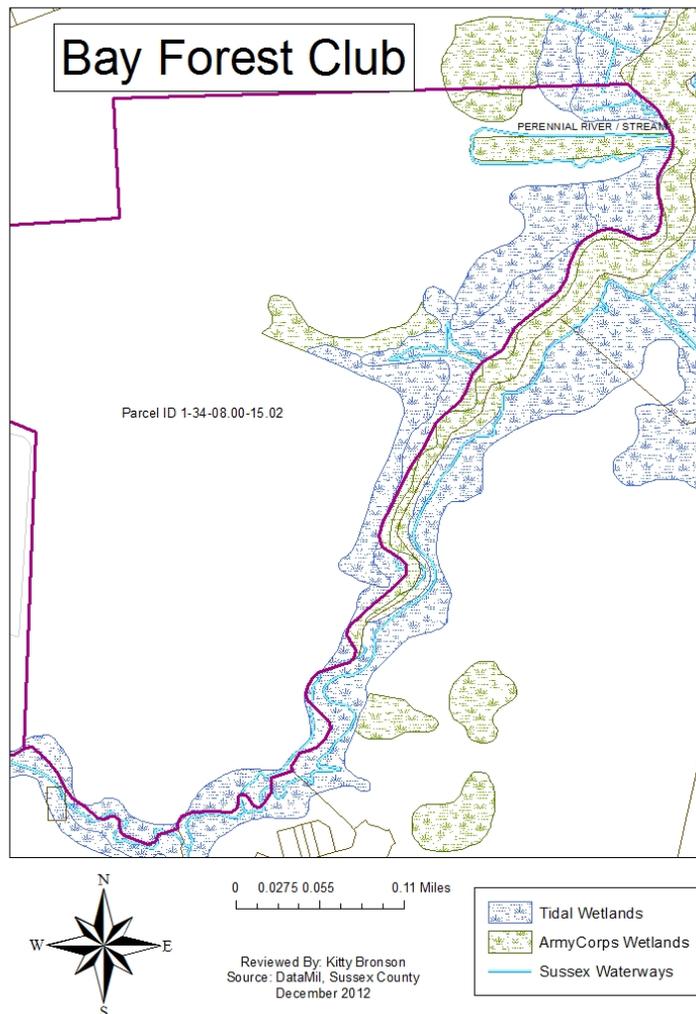
Wetlands

- State regulated wetlands ARE located on this property based on a review of the State wetland map number 55. Parcel 1-34-08.00-15.02 show significant tidal wetlands on the east portion of the property. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Any activity in State regulated wetlands may require a permit from DNREC's Wetlands and Subaqueous Lands Section. We suggest a state jurisdictional determination and a joint permit processing meeting to review plans. Additional information about State regulated wetlands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at:

<http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>.

- State regulated subaqueous lands ARE located on this property based on a review of aerial photographs, State Wetland Mapping Project (SWMP) maps, Soil Surveys and USGS topographic maps. State subaqueous lands include all tidal waters (up to the mean high water line), most non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line), most perennial streams and ditches and many intermittent streams and ditches. An on-site inspection by a representative of the Wetlands and Subaqueous Lands Section or an environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Upon review of the GIS layers, Perennial River/Streams are located at the edge of the property. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at:

<http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>.



TMDLs

- The project is located in the *low nutrient reduction zone* of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; *State of Delaware Surface Water Quality Standards, as amended July 11, 2004*) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the *low reduction zone* of the Inland Bays watershed calls for 40 percent

reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction in bacteria from baseline conditions.

A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del. Chapter 22)* for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. This project's open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at 739-4811 for further information concerning compliance requirements or view the following web link for additional information:

<http://dda.delaware.gov/nutrients/index.shtml>.

The adopted Inland Bays Pollution Control Strategy regulation was published in the Delaware Register of Regulations on November 11, 2008 and is now an enforceable regulatory directive. A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary (regulatory and nonregulatory) to systematically reduce the pollutant loading to a given water body, and meet the TMDL reduction requirements specified for that water body. These regulations can be reviewed at:

<http://regulations.delaware.gov/documents/November2008c.pdf>

and background information, guidance documents, and mapping tools can be retrieved from:

http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm.

Water Supply

- The project information sheets state water will be provided to the project by Tidewater Utilities via a public water system. Our records indicate that the project is located within the public water service area granted to Public Water Supply (a.k.a. Tidewater Utilities) under Certificate of Public Convenience and Necessity 83-W-6.
- Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Sediment and Stormwater Program

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post- development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101)

Hazardous Waste Sites

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del. Code, Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation:

- **Fire Protection Water Requirements:**
 - Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.
 - Where a water distribution system is proposed for townhouse type dwelling sites, the infrastructure for fire protection water shall be provided, including the size of water mains.
- **Fire Protection Features:**
 - For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.
- **Accessibility:**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The proposed bridge must be of such specification so as to allow its use for travel by large fire department apparatus.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- **Gas Piping and System Information:**
 - Provide type of fuel proposed, and show locations of bulk containers on plan.
- **Required Notes:**
 - Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
 - Proposed Use
 - Square footage of each structure (Total of all Floors)
 - National Fire Protection Association (NFPA) Construction Type
 - Maximum Height of Buildings (including number of stories)
 - Name of Water Provider
 - Letter from Water Provider approving the system layout
 - Townhouse 2-hr separation wall details shall be shown on site plans
 - Provide Road Names, even for County Roads.

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site

design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- On June 27, 2012, a letter was sent out explaining the changes in the way checks should be submitted to DelDOT. A copy of the letter is available at:

<http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>.

- DelDOT recommends that the developer have their site engineer contact our Subdivision Manager for this part of Sussex County, Mr. John Fiori, for a pre-submittal meeting prior to submitting a site plan for review and approval. A checklist of requirements for pre-submittal meetings and a Meeting Request Form are available on DelDOT's website at:

<http://www.deldot.gov/information/business/>.

As necessary, Mr. Fiori can be reached at (302) 760-2260.

Department of Natural Resources and Environmental Control – Contact Kevin Coyle 739-9071

Soils Assessment

- Based on soils survey mapping update, following soil mapping units were mapped on subject parcel (grouped on the basis of drainage class):

- 1) Somewhat excessively well drained – Henlopen (HpB)
- 2) Well drained – Rosedale (RoA), Fort Mott Henlopen complex (FhA)
- 3) Moderately well drained – Pepperbox-Rosedale complex (PsA)
- 4) Somewhat poorly drained (potentially hydric)- Klej (KsA)
- 5) Poorly drained (likely hydric) – Askecksy (AsA)
- 6) Very poorly drained (hydric) – Manahawkin (Ma), Purnell (Pu), and Salt pond mucky sand (Sp)

- Based on the soil survey mapping, Klej and Askecksy, Manahawkin, Purnell and Salt pond mucky sand are the soil mapping units likely to have the most limitations for development on this site. Klej is a somewhat poorly-drained mapping unit that occurs in transitional zones between wetland and upland environments; consequently, this soil mapping unit may or may not be hydric. Askecksy, Manahawkin, Purnell and Salt pond mucky sand are poorly to very poorly-drained wetland associated (hydric) soil mapping units with severe limitations for development. (Considered unsuitable for development). DNREC recommends that a certified and licensed soil scientist (ARCPACs certified and Class D licensed) to make a site-specific evaluation of the soils in this area. Please contact the Underground Discharges Branch at 739-9948 for a list of soil scientists.

- The Statewide Wetland Mapping Project (SWMP) often uses the soil survey as the basis for mapping and delineating wetlands. The presence of a hydric soil is one of three parameters that must be met in order to meet jurisdictional wetland requirements (as specified by the USACOE). The other parameters are hydrophytic vegetation and hydrology. Thus the presence of hydric soils is a correlate with wetland presence. Building on hydric soils is likely to increase the potential for on-site and off-site flooding potentials (See figure 1). DNREC recommends avoiding those areas containing hydric or potentially hydric soil mapping units.

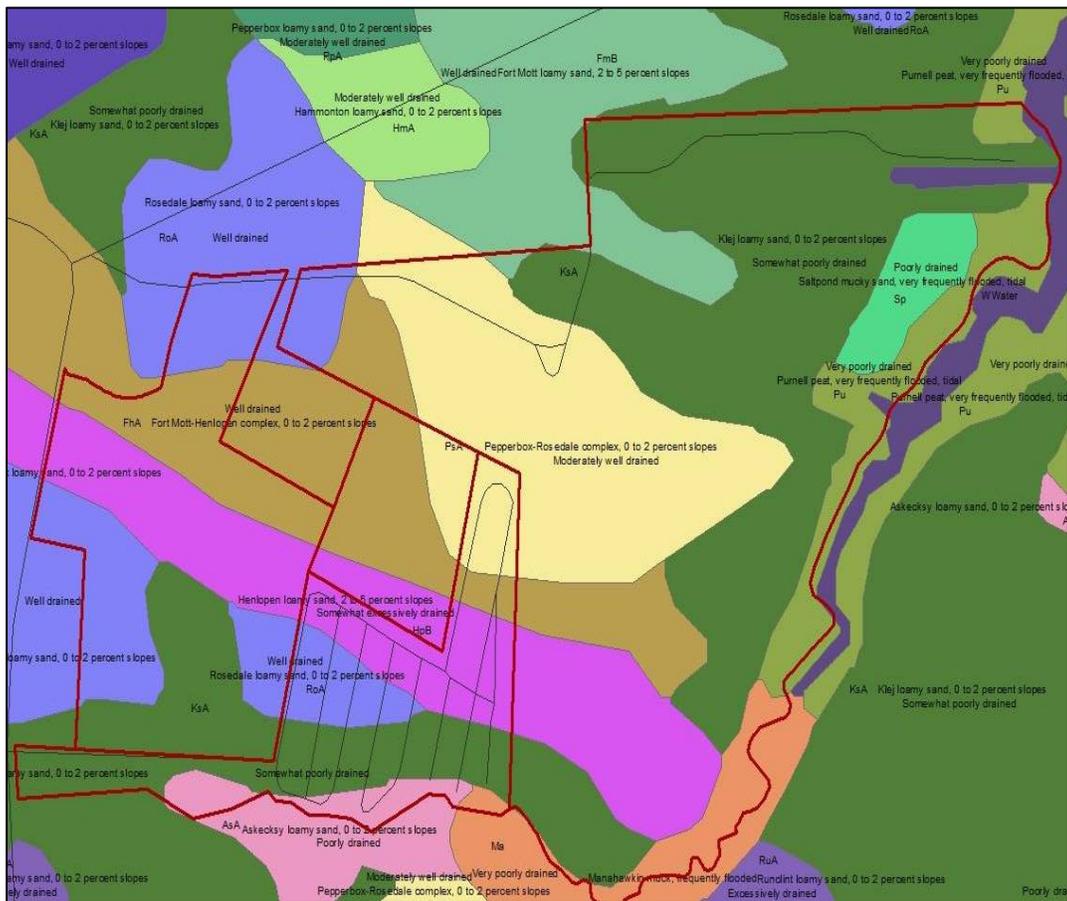


Figure 1: NRCS soil survey mapping update in the vicinity of the proposed construction.

Flood Management

- Portions of this site lie within Flood Zone AE, the high risk or 1% annual chance floodplain. This is not depicted on the site plan. A significant portion of this site also lies within Flood Zone X (shaded), the moderate risk or 0.2% annual chance floodplain. This is also not depicted on the site plan. Sussex County will require the flood zone be

properly depicted on the site plan. A small portion of this property is located in Flood Zone X, which is a low risk area. There is currently a FEMA map update in process for the entire coastline of Delaware. Sussex County will have Preliminary maps by the end of January that will show a significant portion of this site to be in the Zone AE floodplain. In other words more of this site will be located in the high risk flood zone. We encourage the developer to utilize these maps in the design of the site as mortgage lenders require owners to purchase flood insurance for lots located in the floodplain.

Additional information on hazardous waste sites

- SIRS strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

Additional remediation may be required if the project property or site is re-zoned by the county.

Should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

Additional information on TMDLs and water quality.

- A United States Corps of Engineers (USACE) approved wetlands delineation is recommended. According to information presented in the PLUS application, an approved wetlands delineation was conducted; however, it was not made available to DNREC at the time of review.
- Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all waterbodies (including ditches) and wetlands (field delineated and approved by the USACE).

- Removal of forest cover to accommodate stormwater management structures is strongly discouraged. Removal of the existing forest cover will likely increase nutrient runoff or discharges into both surface and groundwaters.
- DNREC recommends that the applicant calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation.
- Since this project that will likely generate large amounts of impervious cover, we advise, wherever practicable, the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP(s) to reduce the impacts from all forms of created surface imperviousness.
- We encourage the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff from impervious surfaces.
- The applicant should voluntarily assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project’s impact(s) on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact the Watershed Assessment Section at 302-739-9939 for more information on the protocol.

Habitat and Forest Preservation

- DNREC scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of State-rare or federally listed plants, animals or natural communities. In the absence of site specific survey information, we have the following comments:

Bald Eagle Nest: There is an active Bald Eagle (*Haliaeetus leucocephalus*) nest north of and adjacent to the project area. The current project area is outside of the protection zones of this nest, therefore, this information is provided in the event there are plans for future phases to the north. Bald eagles and their nests are protected under the federal Bald and Golden Eagle Protection Act (BGEPA).

The U.S. Fish and Wildlife Service (USFWS) developed *National Bald Eagle Management Guidelines*, to help landowners and others minimize impacts to eagles,

including disturbance, which is prohibited by the BGEPA. The guidelines focus on minimizing disturbance through the use of suggested buffer zones (330 feet to 660 feet from a nest) and time-of-year restrictions for certain activities in several categories. Determinations of allowable activities within protection distances are evaluated on a case-by-case basis by USFWS biologists. The USFWS has jurisdiction regarding Bald Eagles protection via BGEPA and works with landowners regarding all eagle disturbance issues. If you have any questions about this particular nest, please contact our program biologist that manages Delaware Bald Eagle nesting data, Anthony Gonzon at (302) 735-8673 or Anthony.Gonzon@state.de.us. Other questions can be directed to Craig Koppie of the USFWS at (410) 573-4534 or Craig_Koppie@fws.gov.

Marsh Nesting Birds: Division of Fish and Wildlife scientists have not surveyed this project area for animal species of concern, but it is possible that the wetlands are utilized by birds for nesting. Impacts to these species can be minimized by: 1) avoiding fragmentation of habitat. Some species are very sensitive to human disturbance and require larger, contiguous areas of habitat for nesting and 2) by beginning work activities prior to April 1st when adults begin establishing nesting sites, incubating eggs and tending young. Nests could be destroyed by heavy machinery and adults could be forced to abandon nest sites due to construction activity disturbance. Most young fledge by July 31st. Therefore, if approved, work should begin prior to April 1 or after July 31.

Wildlife Habitat

- The wetlands at this site are part of the Delaware Ecological Network (DEN) which is a statewide conservation network developed using GIS and field collected datasets that help to identify and prioritize ecologically important areas for natural resource protection. The DEN includes ecologically important areas such as forests, wetlands, streams, habitat that supports rare species and areas of especially high quality. The DEN includes the following key elements: 1) core areas- contain relatively intact natural ecosystems, and provide high-quality habitat for native plants and animals, 2) hubs-slightly fragmented aggregations of core areas, plus contiguous natural cover and 3) corridors-link core areas together, allowing wildlife movement and seed and pollen transfer between them.

Although non-regulatory, the DEN can guide conservation planning efforts. For this project, these efforts should include minimizing impacts to wetlands and wildlife by providing for adequate upland buffers *between* wetlands and lots/infrastructure. We recommend an upland buffer of at least 100ft in width. This buffer should be comprised of existing vegetation or planted with Delaware native species of trees, shrubs, grasses or wildflowers.

The applicant doesn't indicate how much of the existing forest (approximately 21+acres) will be removed by this project. Based on the site plan, most if not all of the forest will be cleared or fragmented by this project. The plan could have been designed to leave this forest intact, and it is recommended that consideration be made to reconfigure so that the

forest doesn't have to be cleared. IF the forest is cleared despite this recommendation, birds and other wildlife that utilize forested areas are most vulnerable to impacts during the breeding/nesting season which for many species occurs between April 1 and July 31st.

Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in blue ink that reads "Constance C. Holland". The signature is written in a cursive style with a large initial 'C'.

Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: Sussex County