



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
Budget Development, Planning and Administration  
State Planning Coordination

January 18, 2010

Mr. Lawton Myrick  
George, Miles & Buhr, LLC  
206 West Main Street  
Salisbury, MD 21801

RE: PLUS review – 2009-12-02; Americana Bayside

Dear Mr. Myrick:

Thank you for meeting with State agency planners on December 23, 2009 to discuss the proposed plans for the Americana Bayside project to be located on County Road 394, southeast of the intersection of Mastif Way and E. Sand Cove Road.

According to the information received, you are seeking a rezoning through Sussex County on 20.94 acres from AR to MR-RPC for 59 multi-family residential units

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**

The proposed rezoning of 20.94 acres from AR to MR-RPC for 59 multi-family residential units lies adjacent to the pre-existing community of Americana Bayside an approved RPC with Conditions. The site in question and the pre-existing development are within a Level 3 Investment Area according to the State Strategies for Policy and Spending and within the Environmentally Sensitive Developing Area according to the 2007 Certified Sussex County Comprehensive Land Use Plan. The proposed rezoning is in compliance with the goals and objectives identified within both the State Strategies

and the County's Comprehensive Land Use Plan. This office recommends that the applicant work closely with the County throughout the re-zoning process and ask that you consider the following code requirements and recommendations related to the preliminary site plan provided as part of the rezoning application.

## **Code Requirements/Agency Permitting Requirements**

### **State Historic Preservation Office**

- It is important that the developer be aware of the Delaware Unmarked Human Remains Act of 1987, outlined in Chapter 54 of Title 7 of the Delaware Code, which pertains to the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out.

### **DNREC**

- There is a Bald Eagle nest on the parcel across East Sand Cove Road, and this development is approximately 750 feet from the nest. Bald Eagles and their nests are protected under the federal Bald and Golden Eagle Protection Act (BGEPA) and State law (7 Del. C. § 739). 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.

These guidelines were drafted on a national level, so regional or local needs for greater protection of certain eagle populations are not necessarily addressed by these guidelines. The nest was established in 2007, and the area immediately surrounding the nest was being used as a construction yard and the adjacent golf course had been in operation since 2004. Determinations of allowable activities are evaluated on a case by case basis and Craig Koppie, biologist with the USFWS, consulted with the developer at that time to limit the amount of disturbance. Three eaglets were successfully fledged in 2009, which is considered a high level of productivity. In consultation with Mr. Koppie, the Division of Fish and Wildlife agrees that this particular pair of eagles is relatively accustomed to disturbance given all of the activity around the nest at the time it was constructed as well as ongoing activities around the nest site. Please note that each individual nest within the State is subject to varying levels of disturbance and conditions at this site are not a general indication of the tolerance levels and limits and sensitivity of all Bald Eagle pairs nesting in the State.

It is unlikely that activities associated with the current project will produce negative impacts to this pair; however, the developer should continue to consult with Craig Koppie, biologist with the USFWS, at (410) 573-4534 or [craig\\_koppie@fws.gov](mailto:craig_koppie@fws.gov) to ensure that current and future projects do not impact

this nesting pair. Anthony Gonzon is the Delaware Division of Fish and Wildlife contact regarding questions about the nest and can be reached at (302) 653-2880 ext. 123 or [Anthony.Gonzon@state.de.us](mailto:Anthony.Gonzon@state.de.us) .

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. A pre-application meeting is required for this site. Contact the reviewing agency to schedule a pre-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.
- This parcel is located in the Perch Creek Tax Ditch watershed and is affected by the Main with 250-foot and 80-foot rights-of-way on both sides of the ditch looking upstream measured from the centerline of the ditch. Any change to the location of the tax ditch or existing tax ditch rights-of-way will require a change to the Perch Creek Tax Ditch court order. The placement of permanent obstructions within tax ditch rights-of-way is prohibited. Please contact the Drainage Program in Georgetown at (302) 855-1930 as soon as possible to discuss the tax ditch rights-of-way for this project.
- The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C. Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water Resources' Wetlands and Subaqueous Lands Section at 302/739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.

In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C. Chapter 72) and the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. Please contact the Wetlands and Subaqueous Lands Section at 302/739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

- The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE or “the Corps”) manual is the acceptable basis for making a jurisdictional wetland determination for non-tidal wetlands in Delaware.

The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations. To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant’s consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

- The information provided indicates that Tidewater Utilities will provide well water to the proposed project through a central water system. Our files reflect that Tidewater Utilities does not currently hold a Certificate of Public Convenience and Necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-736-7547. Should an on-site public well be needed, it must be located at least 150 feet from the outermost boundaries of the project and a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.
- 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. *Ricardo Rios - (302) 739-9944, [Ricardo.Rios@state.de.us](mailto:Ricardo.Rios@state.de.us)*

- 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.
- The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

<p><b>Regulation 6</b> - Particulate Emissions from Construction and Materials Handling</p>	<ul style="list-style-type: none"> <li>• <b>Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</b></li> <li>• <b>Using covers on trucks that transport material to and from site to prevent visible emissions.</b></li> </ul>
<p><b>Regulation 1113</b> – Open Burning</p>	<ul style="list-style-type: none"> <li>• <b>Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</b></li> <li>• <b>Prohibiting the burning of land clearing debris.</b></li> <li>• <b>Prohibiting the burning of trash or building materials/debris.</b></li> </ul>
<p><b>Regulation 1145</b> – Excessive Idling of Heavy Duty Vehicles</p>	<ul style="list-style-type: none"> <li>• <b>Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</b></li> </ul>

**DelDOT**

- The PLUS application shows an estimated weekday trip generation of 360 trips per day. However, DelDOT calculates that the development would generate 406 trips per day, and with that volume the proposed development warrants a traffic impact study (TIS). This study would need to be completed and reviewed, prior to County acceptance of the rezoning application. This process usually takes 6 to 12 months. Accordingly, if the developer wishes to proceed with that study, DelDOT recommends that they have their traffic engineer meet with Mr. Troy

Brestel of the DelDOT Planning Office to establish a scope of work for the study as soon as they are ready to do so. Mr. Brestel may be reached at (302) 760-2167.

With that said, for two reasons, a TIS may not be needed in this instance. First, if the development were two units smaller, at 57 dwellings, it would generate less than 400 trips per day and a TIS would not be warranted. Therefore the developer may want to refine their site plan further and verify the number of buildable lots before beginning a TIS.

Second, DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access provide that if no other warrants are met, for developments generating less than 200 peak hour trips and 2,000 trips per day, the developer has the option of contributing toward a future area-wide study at a rate of \$5 per daily trip in lieu of doing a TIS. For a 59-unit development, the area-wide study fee would likely be less expensive than doing a TIS. If the developer pursues this option, they should notify the DelDOT Planning Office so that we can advise the County accordingly, but payment of the fee would be due with their initial stage fee when the site plan is submitted for review.

- Sand Cove Road East is classified as a local road. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- A 20-foot wide buffer will be required from the edge of the stormwater management ponds to the ultimate right-of-way of the Sand Cove Road East. See Comment above regarding the ultimate right-of-way width.
- Permanent easements shall be established at the entrances for the neighborhood signs/structures. The easements must be located outside of any existing and/or proposed right-of-way. It will also need to be verified that the signs/structures do not pose a sight distance and/or safety hazard. Please refer to the Standards and Regulations for Subdivision Streets and State Highway Access under Chapter 3; Site Plan Design, Section 3.4.1.4 – Gateway Feature Easements, page 3-4.
- The location and design of the northern entrance will need to be reviewed. DelDOT has several concerns about how traffic would operate in this area. In the present design, the access for Units 4 and 38 is located such that drivers would back out into a relatively busy intersection. Also, drivers using the west end of the parking area across from Units 4 and 5 would be back out into the path of drivers coming around a curve. While that is true for the other parking areas as well, it is more of a concern for location just cited because it is a wider turn and located closer to the entrance, so drivers would likely be moving faster. Possible options include moving the unit driveways north, moving parking spaces and moving the site entrance north so that the northern street extends straight to Sand Cove Road East, although that would place the entrance even closer to Mastif

Way, which is already undesirably close.

- Sight distance at the southern entrance will need to be checked.
- Metes and bounds and total areas need to be shown for any drainage easements. A minimum 20-foot wide drainage easement must be provided for storm drainage systems, open or closed, that fall outside the existing right-of-way or the drainage/utility easement. These easements must be shown on record plan. Referring to them in a note is not sufficient.
- As proposed, the development would have three entrances. Together with the Mastif Way and Rico Road intersection, they would result in five intersections within about 1,100 feet on Sand Cove Road East. While this arrangement may be acceptable, further review will be required.
- DelDOT is pleased to see that some sidewalks are proposed in the main part of the development. They recommend that sidewalks be provided on both sides of all development streets and connecting to the existing shared use path on Sand Cove Road East for pedestrian safety and to promote walking.
- The developer's engineer should contact the DelDOT Subdivision Manager for eastern Sussex County, Mr. John Fiori, regarding more detailed comments on the plan. Mr. Fiori may be reached at (302) 760-2260.

### **State Fire Marshal's Office**

- 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:
  - a. **Fire Protection Water Requirements:**
    - Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
    - Where a water distribution system is proposed for townhouse type dwellings it shall be capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 feet spacing on centers are required.
    - The infrastructure for fire protection water shall be provided, including the size of water mains.
  - b. **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 East Sand Cove Drive must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance into the subdivision, such as shown at the north entrance off of East Sand Cove Drive, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.

- 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 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.

c. **Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

d. **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”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Townhouse 2-hr separation wall details shall be shown on site plans
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

## **Suggestions/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, and compliance with these suggestions is at the discretion of the applicant.** 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.

### **DelDOT**

- DelDOT's standard typical section for a local road is 12-foot lanes and 8-foot shoulders and normally they would require the developer to improve their frontage to provide that section. Recognizing that Sand Cove Road East has recently been improved to a typical section resembling that of a subdivision street, DelDOT may make an exception in this case.
- The preliminary site plan appears to show right turn acceleration and deceleration lanes. DelDOT does not usually require acceleration lanes at subdivision street entrances. The preliminary calculations, which the developer's engineer should verify, indicate that neither right turn deceleration lanes nor left turn bypass lanes will be needed at the proposed entrances.

### **Delaware State Housing Authority**

- DSHA supports this proposal because residents will have proximity to existing services, markets, and employment opportunities. In addition, this proposed subdivision is a residential planned community that features a variety of housing types and targets first-time homebuyers. For your informational purposes, according to the most recent real estate data collected by DSHA, the average home price in Sussex County is \$180,000. This price point is well within the reach of Sussex County residents who are making 100 percent of the median income. This proposal offers an excellent opportunity to target first-time homebuyers and provide housing to support the local workforce in an area that lacks affordable homes.

### **State Historic Preservation Office**

- The developer should also be aware that is one known archaeological site (S-9184, 7S-K-128) on this parcel and 1930s timber bridge (S-8376) nearby on Farmstead Road, which are historic and cultural resources, and since there is an archaeological site on this parcel, there is a high probability for additional prehistoric or historic archaeological sites there as well. Therefore,

prior to any demolition or ground-disturbing activities, the developer may want to consider hiring an archaeological consultant to examine the parcel for archaeological sites, including a cemetery or unmarked human remains. If you have any questions, or would like to discuss these comments further, please contact Terence Burns at 302-736-7404.

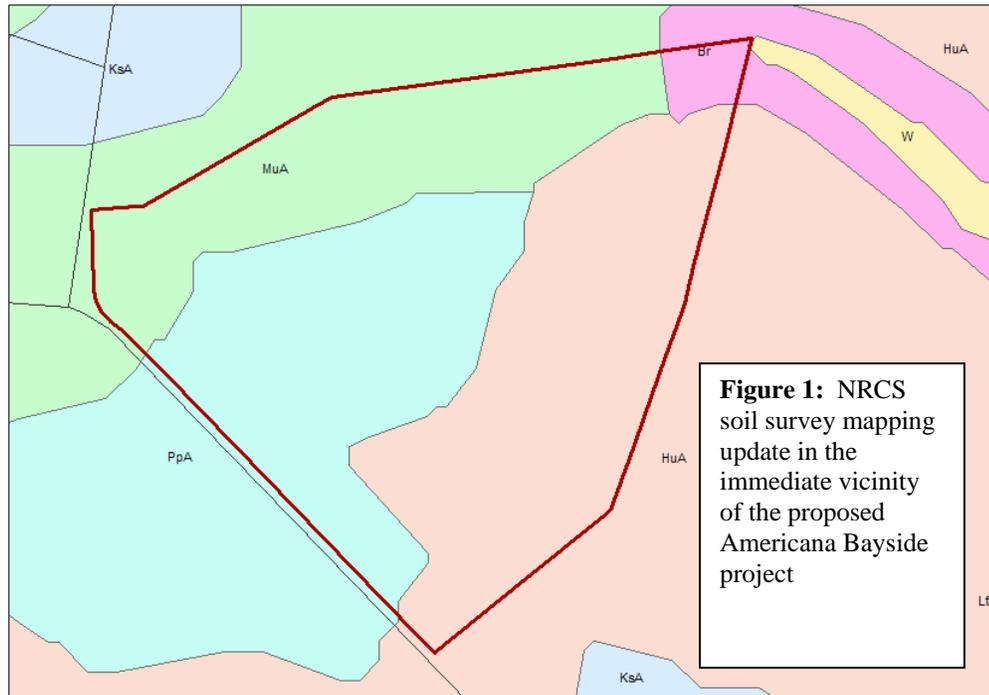
## **DNREC**

- The forested wetlands on this parcel are mapped as Key Wildlife Habitat (KWH) in the Delaware Wildlife Action Plan (DEWAP) due to potential for supporting an array of plant and animal species and being part of a larger wetland complex. The plan is a comprehensive strategy for conserving the full array of native wildlife and habitats-common and uncommon- as vital components of the State's natural resources. This document can be viewed via the Delaware Natural Heritage and Endangered Species Program's website at <http://www.dnrec.state.de.us/nhp> .

Direct impacts to the forested wetlands within the project area have been minimized and this is appreciated. However, upland buffers around the wetlands may be inadequate for protecting water quality and providing habitat for wildlife. Buffer areas as utilized for breeding, foraging and also provide habitat connections across the landscape which are important for maintaining the viability of some wildlife populations. Stormwater BMPs are likely designed to protect water quality, but consideration should also be made for creating a buffer area that is beneficial to wildlife. The buffer should be not be comprised of mowed lawn area , but rather trees, shrubs, grasses or wildflowers that are native to Delaware. Consideration should also be made for increasing the buffer widths being proposed (50 feet for tidal wetlands, 25 feet for non-tidal wetlands) to provide habitat for species sensitive to disturbance that require larger, connected areas of open space. *Edna Stetzar - (302) 653-2880, [Edna.Stetzar@state.de.us](mailto:Edna.Stetzar@state.de.us)*

- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of onsite stormwater. Notify downstream landowners of the change in volume of water released on them. If you have any questions, please contact James Sullivan at (302)739-9921 of [James.Sullivan@state.de.us](mailto:James.Sullivan@state.de.us)

- Soils Assessment.** According to the Sussex County soil survey update, Pepperbox (PpA), Hurlock (HuA), and Mullica (MuA) were mapped in the immediate vicinity of the proposed construction (See figure 1). Pepperbox is a moderately well-drained soil of low-lying upland that has moderate limitations for development. Hurlock and Mullica are poorly to very poorly drained wetland associated (hydric) soils that have severe limitations for development and should



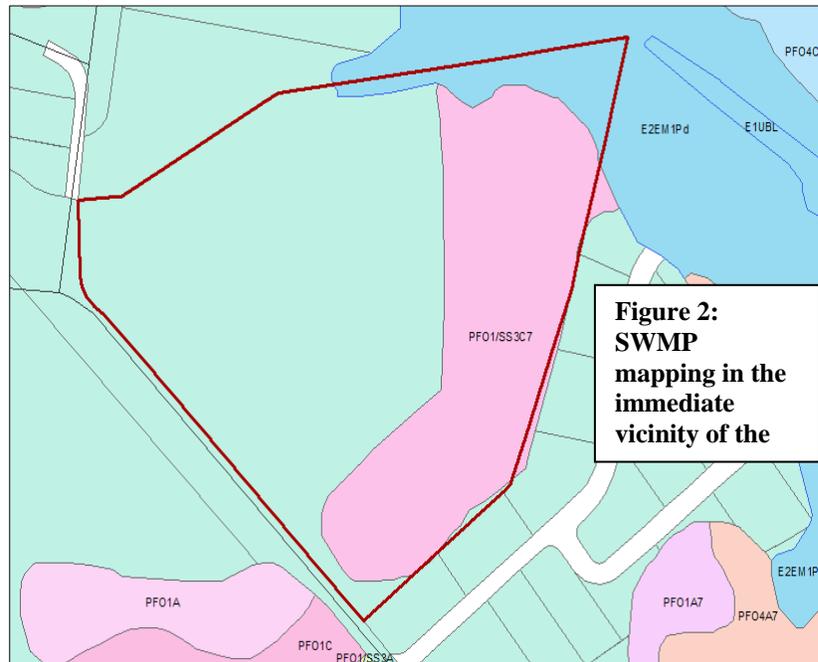
not be developed or disturbed.

- A significant portion of this parcel contains poorly to very poorly drained wetland associated (hydric) Hurlock and Mullica soils (approximately 50% of the project area). These soils have a seasonal high water table occurring at or near the soil surface (within one foot of soil surface or less). Building in such soils is likely to leave prospective residents of this and adjoining properties susceptible to future flooding problems from groundwater-driven surface water ponding, especially during extended periods of high-intensity rainfall events such as tropical storms/hurricanes or “nor’easters.” This is in addition to the increased probability of flooding due to or increased surface water runoff emanating from future created or constructed forms of structural imperviousness (e.g., rooftops, roads, parking areas, sidewalks, and stormwater management structures).

Based on the Chapter 99, Section 16A of the Sussex County Code (paraphrased), lands compromised by improper drainage or flooding potential pose significant threats to the safety and general welfare of future residents and, therefore, shall not be developed. Soils mapped as Hurlock and Mullica fit the criterion for improper drainage or high flooding potential and, therefore, should be avoided.

The Watershed Assessment Section believes permitting development on such soils would be inconsistent or counter to say regulatory guidelines in the Sussex County Code.

- **Wetlands.** According the Statewide Wetland Mapping Project (SWMP) maps, palustrine forested/scrub-shrub riparian wetlands (PFO1/SS3C7) and tidally-influenced estuarine emergent wetlands (E2EM1Pd) were mapped in the immediate vicinity of the proposed project (See figure 2).



When designing a project on a site with regulated watercourses, any extensive piping, filling or burying of streams or ditches in excess of the minimum needed for road crossings should be avoided. Where road crossings are necessary, bridge spans which avoid significant impacts to stream banks and channels should be used wherever possible. Where placement of culverts is unavoidable, culvert designs which utilize multiple barrels at different elevations to preserve a low flow channel are usually preferred. Contact the Wetlands and Subaqueous Lands Section for further information regarding preferred designs.

- 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 water bodies (including ditches) and wetlands.

- **Impervious Surfaces and Best Management Practices.** The applicant states that post-construction impervious cover will be **27 percent**. Please detail how you derived that percentage; the TR-55 methodology indicates closer to **65 percent** imperviousness for a development of this type and coverage. It is not clear if the impervious cover figure truly reflects all post-construction forms of created surface imperviousness. In the calculation for surface imperviousness, all forms of surface imperviousness should be included in the calculation, including rooftops, sidewalks, roads, parking areas, and open-water stormwater structures. Failure to comprehensively account for all these source of imperviousness will not accurately reflect this project's true environmental impacts. If this calculation does not reflect all of the aforementioned forms of post-construction surface imperviousness, it should be recalculated.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of its most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover protection or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

- **TMDLs.** Most of the Assawoman watershed lies within the jurisdictional boundaries of the State of Maryland; therefore, TMDL development is the responsibility of this State. Please contact the Maryland TMDL program for any applicable TMDL regulatory requirements; they can be reached at (410) 537-3902.

Soils, wetlands, subaqueous lands and TMDL comments provided by John Martin, Watershed Assessment Section, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)

- **Air Quality.** Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
  - Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
  - The emission of greenhouse gases which are associated with climate change, and the emission of air toxics.
- Air emissions generated from housing developments include emissions from:
  - Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.

- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.
- These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Americana Bayside development may have.

**Emissions Attributable to Americana Bayside Subdivision (Tons per Year)**

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO <sub>x</sub> )	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Direct Residential	1.8	0.2	0.2	0.2	7.4
Electrical Power Generation	ND*	0.7	2.5	ND*	371.4
Mobile	2.7	2.8	0.1	0.0	1,743.7
<b>Total</b>	<b>4.5</b>	<b>3.7</b>	<b>2.8</b>	<b>0.2</b>	<b>2,122.5</b>

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

- Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:
  - **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.
  - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
  - **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions.

- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.
- Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:
  - **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
  - **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
  - **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Americana Bayside development. *Deanna Morozowich - (302) 739-9402, [Deanna.Morozowich@state.de.us](mailto:Deanna.Morozowich@state.de.us)*

- **Hazardous Waste Sites.** No SIRB sites or salvage yards were found within a ½-mile radius of the proposed development. However, based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. *Krystal Stanley - (302) 395-2644, [Krystal.Stanley@state.de.us](mailto:Krystal.Stanley@state.de.us)*

### **Department of Health and Social Services**

- Ensuring that new residential and commercial development incorporates pedestrian- and bicycle-friendly features allows people to travel by foot or by bicycle and promotes physical activity as part of daily routines. Regular physical activity offers a number of health benefits, including maintenance of weight and prevention of heart disease, type 2 diabetes and other chronic diseases.<sup>1</sup> Research shows that incorporating physical activity into daily routines has the potential to be a more effective and sustainable public health strategy than structured exercise programs.<sup>2</sup> This is particularly important considering about 65% of adult

Delawareans are either overweight or obese.<sup>3</sup> This current obesity crisis is also affecting children. Approximately 37% of Delaware's children are overweight or obese<sup>4</sup>, which places them at risk for a range of health consequences that include abnormal cholesterol, high blood pressure, type 2 diabetes, asthma, depression and anxiety.<sup>1</sup>

In Delaware, as in other states across the nation, certain patterns of land use can act as a barrier to physical activity and healthy eating for children and adults alike. Examples of such barriers include neighborhoods constructed without sidewalks or parks and shopping centers with full-service grocery stores situated too far from residential areas to allow for walking or biking between them.

DPH supports new development in and around existing towns and municipalities where compact and mixed land use patterns facilitate physical activity. As a way to promote physical activity and access to healthy foods, we recommend that the following amenities be included in the Americana Bayside plan:

#### **Amenities to encourage active transportation**

- Ensure safe connectivity with sidewalks, crosswalks and walking/bicycling paths within the site. This includes connectivity between the residential parcels.
- Designate bike paths to supplement the sidewalks already so that residents can travel by foot or by bicycle. In addition, install bike racks at locations within the site, especially around the amenities for recreation.

#### **Amenities to encourage recreation**

- Designate open space for active recreation. To support active and passive recreation for all ages, it is recommended to include recreational amenities such as a playground, park benches, basketball/tennis courts, etc.
- Consider placing a community center in the site. This will allow residents an opportunity to engage in social activities and the center could be a site for recreational activities.

#### **Increase opportunities for healthy eating**

- Designate an area for a community garden. Community gardens not only provide residents access to healthy nutrition, but they also provide opportunities for physical activity and community cohesiveness.<sup>5</sup>

<sup>1</sup> Nemours Health and Prevention Services (2005). *Delaware Children's Health Chartbook*, Newark, DE.

<sup>2</sup> Active Living by Design. *Transportation Fact Sheet*. Retrieved May 17, 2007, from [http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation\\_Factsheet.pdf](http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation_Factsheet.pdf).

<sup>3</sup> Delaware Health and Social Services (2008), *Division of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 1990-2007*.

<sup>4</sup> Nemours Health and Prevention Services (2007). *2006 Delaware Survey of Children's Health Descriptive Statistics Summary, Volume 1*.

<sup>5</sup> Hancock, T. (2001). People, partnerships and human progress: building community capital. *Health Promotion International*, 16(3), 275-80.

**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 cursive script that reads "Constance C. Holland".

Constance C. Holland, AICP  
Director

CC: Sussex County