



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

November 18, 2010

Frank Kea  
Solutions, IPEM, LLC  
132 East Market Street, Ste. B  
Wilmington, De 19947

RE: PLUS review – 2010-10-01; Pelican Point, Phase 1, 2 & 3

Dear Mr. Kea:

Thank you for meeting with State agency planners on October 27, 2010 to discuss the proposed plans for the Pelican Point subdivision, phases 1, 2, & 3 to be located on the west side of Route 5 at the intersection of Route 5 and Cannon Road.

According to the information received, you are seeking to replace the existing approved but un-built subdivision with 233 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**

This proposal is located in Investment Level 4 according to the Strategies for State Policies and Spending, and is in the low density area according to the Sussex County Comprehensive Plan. **The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

### **State Strategies/Project Location**

This project represents a major land development that will result in 233 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 570 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100 percent of school transportation and paratransit services, up to 80% of school construction costs, and the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

**It is noted that this parcel was previously approved for 252 residential units and that you are seeking this change for a standard cluster subdivision; however, development of this property is inconsistent with the Strategies for State Policies and Spending and the State remains opposed to this proposed subdivision.**

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

State Historic Preservation Office – Contact Terrence Burns 736-7404

- The developer should also be aware that there was a known historic or cultural resource site on this parcel, a 19th-century dwelling (S-2952), which is no longer there. According to the Pomeroy and Beers Atlas of 1868, which is a 19th-century historical map, there were structures of some type either on or very close to this parcel, associated with W.C. Burton and J.B. Stevenson. In addition, the USGS Topographic Quadrangle Map of 1918 also indicated that there were structures in approximately the same location as the Pomeroy and Beers Atlas indicated, and it is a possibility that there might be archaeological remains associated with them as well. With this in mind, 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 reason for emphasizing this is that the unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out.

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, such as a cemetery or unmarked human remains. 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 historic or cultural resources.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Because the subject land is located in a Level 4 area, the proposed development is necessarily inconsistent with the *Strategies for State Policies and Spending*. As part of our commitment to support the *Strategies*, DeIDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DeIDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary.

With that said, DeIDOT recognizes that the developer has worked with us over a period of several years to develop a plan that addresses their impact on the local road system. When completed as proposed, Pelican Point Phases 1 through 7 will include improvements to Cannon Road (Sussex Road 307) and Townsend Road (Sussex Road 303) and will use a subdivision street, Pelican Point Boulevard, to bypass a section of Townsend Road that will be closed to motor vehicle traffic.

- The site access and subdivision streets must be designed in accordance with DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access. This manual is available on-line at [http://www.deldot.gov/information/pubs\\_forms/manuals/subdivisions/pdf/Subdivision\\_Manual\\_Revision\\_1\\_proposed\\_060110.pdf](http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf).
- DeIDOT has evaluated the need for a Traffic Impact Study (TIS) for the subject development in accordance with Section 2.3.1 of our Standards and Regulations for Subdivision Streets and State Highway Access and has determined that one is not necessary. The development presently recorded for this land was not the subject of a TIS specific to it. Of the 171 lots, 27 were recorded as Phase 1 of Stonewater Creek (A TIS was done for Stonewater Creek Phases 1 through 6.) and 144 were recorded as Stonewater Creek Phases 8 and 9, which was too small a development to warrant a TIS at that time. However, all 171 lots were included as committed development in the November 2004 TIS for the 360-lot Prettyman Property (later known as Stonewater Creek Phases 10 through 13 and now known as Pelican Point Phases 4 through 7. While

a new 62-lot development would meet our warrants for a TIS, a 62-lot increase in the number of lots addressed in the Prettyman Property TIS would not substantially change the resulting recommendations.

The Prettyman Property TIS was reviewed by DeIDOT's consultant, McCormick Taylor, who prepared a January 7, 2005, comment letter with five numbered recommendations. The first three recommendations focused on the improvement of Townsend Road (Sussex Road 303) which is significantly substandard between the south limits of the property and Harmons Hill Road. In subsequent discussions with the developer, we have agreed to close Townsend Road to motor vehicle traffic north of Pelican Point Boulevard as part of Pelican Point Phases 4 through 7 and to route traffic that would otherwise use that Townsend Road by way of Cannon Road and Pelican Point Boulevard. Consequently those first three recommendations are no longer applicable as written. The developer will still need to improve Townsend Road south of Pelican Point Boulevard as part of Pelican Point Phases 4 through 7. Further information on our requirements in this regard is available from the DeIDOT Subdivision Manager for eastern Sussex County, Mr. John Fiori. Mr. Fiori may be reached at (302) 760-2260.

The fourth recommendation following from the Prettyman Property TIS was that the developer should enter a signal agreement, whereby they would participate in funding the installation of a traffic signal at the intersection of Delaware Route 5 and Delaware Route 23 (Beaver Dam Road). This recommendation is still valid.

The fifth recommendation following from the Prettyman Property TIS was that the developer should enter a signal agreement, whereby they would participate in funding the installation of a traffic signal at the intersection of Delaware Route 5, Harmons Hill Road and Phillips Branch Road (both Sussex Road 302). With Townsend Road being closed to motor vehicle traffic north of Pelican Point Boulevard and traffic being shifted to Cannon Road, this recommendation is no longer valid. Instead, the developer should enter a signal agreement whereby they would participate in funding the installation of a traffic signal at the intersection of Delaware Route 5 and Cannon Road.

- Section 5.1.6 of our Standards and Regulations for Subdivision Streets and State Highway Access addresses Shared Use Paths, which we would normally have required the developer to build for the length of their site frontage on both sides of Cannon Road. Having evaluated likely travel patterns in the area, DeIDOT will require a shared use path for the length of the site frontage only on the east side of Cannon Road. On the west side, we will require a shared use path from the northernmost cul-de-sac to the intersection of Route 5 and Cannon Road.

## Wetlands

- According to the Statewide Wetland Mapping Project (SWMP) maps, palustrine forested riparian wetlands (PF01C7) were mapped along the northern boundary of subject parcel (Figure 1).



Figure 1: SWMP mapping in the immediate vicinity of the proposed 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.

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.

## TMDLs

- The project is located in the greater Inland Bays drainage area; specifically, within the area designated as the “low nutrient reduction zone” of the Indian River Bay watershed. In this portion of the watershed, specific 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 a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction in bacteria from baseline conditions.

**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 regulation.** A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary 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](http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm). The regulations address establishing a buffer zone sediment and stormwater controls for new development projects, and additional measures and standards for onsite wastewater treatment and disposal systems. Additionally, a map of water features identifies the specific primary and secondary water features that require buffers; this can be reviewed at <http://maps.dnrec.delaware.gov/inlandbayspcs93/>.

- The regulations require that buffers of a specified width be established for State-regulated wetlands, tidal waters, primary and secondary water features. The width may be reduced when combined with advanced sediment and stormwater controls and upon the creation of a development-wide nutrient management plan. Buffers must be placed in common open space and be clearly demarcated, designated and recorded on final plans or plat. Buffers must be maintained in perpetuity and must have boundary signs or markers or distinctive vegetation identifying the upland edge of the buffer.

- The regulations also require that permanent sediment and stormwater management plans be designed and implemented to include design criteria to further reduce nutrient contributions. Compliance with this provision can be through any of the options below.
  - For properties with primary and secondary water features:
    1. Implement standard width buffers
    2. Implement reduced buffer widths in conjunction with the creation and use of a development-wide nutrient management plan (NMP), and the implementation of at least one advanced stormwater treatment control method.
- For properties without primary or secondary water features (the option most likely to apply to this project), or for those properties with primary and secondary water features that employ a reduced-width buffer (including the required NMP), select from at least one of the following advanced stormwater treatment control methods:
  1. Reduce nutrients by the TMDL percentage
  2. Reduce nutrients to irreducible concentration levels
  3. Implement three practices within a treatment train
  4. Establish 30% of the project parcels as forest in common open space (See appendix L in the PCS regulations for planting requirements).
- 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. A nutrient management plan (NMP) is also required when electing to pursue a reduced buffer width for their project. An NMP is also required for those properties without primary or secondary water features. The Nutrient Management Program link can be retrieved at [http://dda.delaware.gov/nutrients/nm\\_cert.shtml](http://dda.delaware.gov/nutrients/nm_cert.shtml). 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 project's consultants may want to contact Lyle Jones at 302-739-9939 to discuss using the Nutrient Budget Protocol. The Nutrient Budget Protocol is an assessment tool to help evaluate whether the proposed project will meet the TMDL nutrient reduction requirements.

## **Water Supply**

- The project information sheets state water will be provided to the project by Artesian Water Company via a public water system. Our records indicate that the project is located within the public water service area granted to Artesian Water Company under Certificate of Public Convenience and Necessity 04-CPCN-05.

- 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.

- Potential Contamination Sources exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case there is a Groundwater Management Zone B associated with Long Neck spray irrigation facility located in the southwest corner of the project within 1000 feet of the proposed project.

### **Sediment and Stormwater Program**

- You will need to contact the Sussex Conservation District to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the new 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.

### **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.C. Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware *Regulations Governing Hazardous Substance Cleanup* shall be followed.”

There are no SIRB sites or salvage yards found within a ½-mile radius of the proposed project.

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**

- 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 and 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.

### **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.
- 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.

### **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”

- Name of Water Supplier
- Proposed Use
- Provide Road Names, even for County Roads

Department of Agriculture – Contact Scott Blaier 698-4529

- The proposed development is near two properties currently enrolled in the State's Agricultural Lands Preservation Program (N & M Burton Farm Agricultural District, (Parcel Numbers # 2.34-16.00-11.00 and 2.34-16.00-17.00). Therefore, the activities conducted on these preserved properties will be protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300 foot notification requirement affects **all new deeds** in a subdivision located in whole or part within 300 feet of an Agricultural District. Please take note of these restrictions as follows:

**§ 910. Agricultural use protections.**

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no

improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:

(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

Section 1. Chapter 99, Code of Sussex Section 99-6 may also apply to this subdivision. The applicant should verify the applicability of this provision with Sussex County. This Section of the Code states:

G. Agricultural Use Protections.

(1) Normal agricultural uses and activities conducted in a lawful manner are preferred. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land uses adjacent to land used primarily for agricultural purposes shall be subject to the following restrictions:

(a) For any new subdivision development located in whole or in part within three hundred (300) feet of the boundary of land used primarily for agricultural purposes, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

“This property is located in the vicinity of land used primarily for agricultural purposes on which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities.”

(b) For any new subdivision development located in whole or in part within fifty (50) feet of the boundary of land used primarily for agricultural purposes no improvement requiring and occupancy approval for a residential type use shall be constructed within fifty (50) feet of the boundary of land used primarily for agricultural purposes.

### **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 the plan accompanying the PLUS application, two lots are proposed to front on an east-west collector street, Pelican Point Boulevard, east of, and across the street from, the proposed tot lot. These are the only two lots that would front on this street between Townsend Road (Sussex Road 303) and Cannon Road (Sussex Road 307). Because this street would likely carry a substantial volume of traffic, for a subdivision street, we recommend that the two lots be turned 90 degrees to front on a side street, as the other lots in the development would. DelDOT understands that the developer’s engineer has already made this change.
- On the plan accompanying the PLUS application, the plan for Pelican Point Phases 4 through 7 shows a loop street on the south side of Pelican Point Boulevard opposite the recreation area. This loop street replaces a previously proposed series of lots fronting on Pelican Point Boulevard. It is a significant design improvement.

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

### **Water Resource Protection Areas**

- The DNREC Source Water Assessment and Protection Program (SWAPP) has reviewed the above referenced PLUS project and determined that five lots on the northern edge that fall entirely within an excellent ground-water recharge area for the Sussex County, State Investment Level 4 (see attached map).
- Excellent Ground-Water Recharge Areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. These soils are able to transmit water very quickly from the land surface to the water table. This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.
- In addition, because the excellent ground water recharge area can readily affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.
- SWAPP Recommends:
  - Limiting impervious cover

### **References**

Andres, A. Scott, 2004, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, p. 14.  
<http://www.udel.edu/dgs/Publications/pubform.html#investigations>

### **Impervious Surfaces and Best Management Practices**

- DNREC strongly recommends that the applicant calculate post-construction surface imperviousness with all forms of created surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation. We also strongly encourage the use of pervious paving materials (in lieu of conventional asphalt and concrete) to mitigate surface imperviousness and its' impacts on water quality wherever practicable.
- They also recommend 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.

### **Rare/Threatened/Endangered Species/Habitat**

- Division 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 at this project site.

Impacts to wildlife will be minimized at this site by reducing forest removal and maintaining adequate upland buffers (at least 100 feet in width) to wetlands. If feasible, the applicant should consider reconfiguring the site plan so that the connection between Phases 1-3 and Phases 4-7 occurs to the north where there is a cul-de-sac in Phase 4-7 rather than bisecting the forest to make a connection in the south. This would further reduce forest removal and fragmentation.

### **Nuisance Waterfowl**

- Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds (to be planted in accordance with the Sediment and Stormwater Plan approval agency requirements). When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond.
- At this time, DNREC does not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.
- The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

### **Additional information on hazardous waste sites**

- SIRB strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Assessment 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.

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.

#### 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](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

#### Delaware Department of Education – Contact John Marinucci 735-4199

DOE offers the following comments on behalf of the Cape Henlopen and Indian River School Districts.

- Using the DOE standard formula, this development will generate an estimated 117 students.

DOE records indicate that the Cape Henlopen and the Indian River School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2009 elementary enrollment.

DOE records indicate that the Cape Henlopen School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2009 secondary enrollment.

While the Cape Henlopen and Indian River School Districts secondary schools are not currently beyond capacity, *the districts do NOT have adequate student capacity to accommodate the additional students likely to be generated from this development* given the number of planned and recorded residential sub divisions within districts' boundaries. This development, in conjunction with other planned developments within

the districts' boundaries will cause significant burden to both the Cape Henlopen and Indian River School District.

- The DOE requests that the developer contact the two affected School District Administrations to address the issue of school over-crowding that this development has the potential to cause.
- The DOE requests that the developer work with the two affected School District transportation departments to establish developer supplied bus stop shelter ROW

Department of Agriculture – Contact Scott Blaier 698-4529

- The Delaware Department of Agriculture Forest Service encourages the school district to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to reduce heating and cooling costs. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource. To further support this concept the Delaware Forest Service does not recommend the planting of the following species due to the high risk of mortality from insects and disease:

Callery Pear

Ash Trees

Leyland Cypress

Red Oak (except for Willow Oak)

If you would like to learn more about the potential problems or impacts associated with these trees, please contact the Delaware Forest Service for more information at (302) 698-4500.

**Native Landscapes**

- The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

**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, Office of State Planning Coordination

CC: Sussex County