



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

June 22, 2010

Mr. Michael Riemann  
Becker Morgan Group, Inc.  
309 S. Governors Avenue  
Dover, De 19901

RE: PLUS review – 2010-05-05; Hidden Brook Subdivision

Dear Mr. Riemann:

Thank you for meeting with State agency planners on May 26, 2010 to discuss the proposed plans for the Hidden Brook Subdivision project to be located on the south side of Moorton Road near Cheswold.

According to the information received, you are seeking site plan approval through Kent County for 797 units consisting of townhomes, duplex lots, and single family homes. Our office is particularly encouraged that the developer is taking advantage of the Kent County Transfer of Development Rights (TDR) ordinance. We support equity transfer programs such as TDRs which preserve land in our rural areas while concentrating growth in designated growth zones where infrastructure and services will be available to new residents. In addition, Kent County's ordinance contains high standards for subdivision design and architecture in TDR developments, which will assure that the development is unique and attractive.

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 Kent 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. This site is also located in the Kent County Growth Zone. 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 will support growth in these areas, but please be advised that the State may have other priorities in the near term 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**

- 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.

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.

#### **Department of Transportation – Contact Bill Brockenbrough 760-2109**

- The site access and subdivision streets must be designed in accordance with DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access. Versions of this manual are available on-line at [http://www.deldot.gov/information/pubs\\_forms/manuals/subdivisions/pdf/standards\\_and\\_regulations\\_031108.pdf](http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/standards_and_regulations_031108.pdf) and <http://regulations.delaware.gov/documents/February2010c.pdf>. Please note that there are slight differences between the two versions. Section references in these comments refer to the version on the DeIDOT website, which is correct in most cases. However, where the versions differ, the version in the Register of Regulations is correct. DeIDOT is in the process of updating the version on their website.
- Moorton Road is classified as a local road which, per Section 3.6.5 and Figure 3-3 of DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access, requires a 60 right-of-way (30' from center). While the plan does not indicate what the existing right-of-way width is for Moorton Road, if the width does not meet our requirement, a dedication will be required toward the 60' minimum right-of-way width.
- Per Section 2.3.1 of DeIDOT's Standards and Regulations for Subdivision Streets and State Highway Access, a traffic impact study (TIS) is warranted for the subject development. A TIS was required for a previous plan for this site. That study was done by the developers' engineer and reviewed by DeIDOT, resulting in a letter to Kent County dated December 8, 2004, which identified certain needed offsite improvements. On January 21, 2009, DeIDOT met with the developers to discuss what additional

improvements would be necessary to accommodate the additional traffic associated with the current, more intense development proposal. It was agreed that a new TIS was not needed but that participation in improvements to three more intersections and to one railroad crossing would be required. Subsequently, to satisfy Kent County's Adequate Public Facilities Ordinance, participation in an additional intersection improvement was required in February 2010. From a regulatory perspective, all of the off-site improvements, or participation therein, are required pursuant to Section 3.10.2 of the Standards and Regulations. For ease of reference, these off-site improvements and the approximate dates that they were required are summarized as follows:

- a. The developer should design and construct improvements at the intersection of US Route 13 and South Messina Hill Road to provide separate left and right turn lanes on the Messina Hill Road approach. (December 2004)
- b. The developer should contribute toward improvements to the US Route 13 and Brenford Road/Big Oak Road intersection. (December 2004)
- c. The developer should enter into an agreement with DelDOT, whereby the developer would fund modifications to the US Route 13 and Brenford Road/Big Oak Road intersection. (December 2004)
- d. The developer should enter into an agreement with DelDOT, whereby the developer would fund a portion of the cost of a traffic signal at the Delaware Route 42 and Brenford Road/Seeneytown Road intersection. (December 2004)
- e. The developer should improve Moorton Road between Brenford Road and Willis Branch to DelDOT local roadway standards. (December 2004)
- f. The developer should enter into an agreement with DelDOT, whereby the developer would fund a portion of the cost of a traffic signal at the Moorton Road/Lynnbury Woods Road intersection. (January 2009)
- g. The developer should contribute toward improvements to the Messina Hill Road/Lynnbury Woods Road intersection. (January 2009)
- h. The developer should enter into an agreement with DelDOT, whereby the developer would fund a portion of the cost of a traffic signal at the Moorton Road/Delaware Route 42 (known as Commerce Street/Main Street in Cheswold) intersection. (January 2009)
- i. The developer should contribute toward improvements to the railroad grade crossing on Lynnbury Woods Road immediately east of Moorton Road. (January 2009)

- j. The developer should participate in further improvements at the intersection of US Route 13 and South Messina Hill Road, consisting of a traffic signal (to be addressed in a separate agreement), prohibition of the left turn from South Messina Hill Road, a second northbound left turn lane on US Route 13 and a receiving lane on Messina Hill Road, and 400 feet of storage for both of the northbound left turn lanes on US Route 13. (February 2010)
- The December 8, 2004, TIS letter also described the auxiliary lanes that would be needed at the site entrance. The final configuration of the entrance should be determined based on the current plan and Section 5.2 of the Standards and Regulations.
- Section 3.5.7.3 of the Standards and Regulations addresses linkages to undeveloped or redevelopable property. DelDOT offers the following comments pursuant to that section:
  - a. The proposed stub streets connecting to the Edward C. Brown property (Tax Parcel No. KH-00-036.00-02-33.00) to the west are acceptable as proposed.
  - b. The proposed stub street connecting to the Dean Swain property (Tax Parcel No. KH-00-037.00-01-08.01) to the south is acceptable for access to that property but because of wetlands on that property it would not help with connectivity. A stub street through the proposed passive open space to the Ruth M. Lewis property (Tax Parcel No. KH-00-0456.00-01-18.00) to the west would be desirable for connectivity but DelDOT accepts that there may be more value in preserving the woodlands that would need to be cleared to build such a street. The south stub street proposed to connect to the Brown property can serve much the same purpose
  - c. A stub street connecting to the Alberta F. Schmidt property (Tax Parcel No. KH-00-037.00-01-03.00) to the east should be provided. One way to do that would be to extend the cul-de-sac street proposed adjacent to it.

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

- **TMDLs.** The project is located in the greater Delaware River and Bay drainage, specifically within the Leipsic River watershed. In this watershed - under the auspices of Section 303(d) of the Federal Clean Water Act - the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nutrients (e.g., nitrogen, phosphorus), and bacteria. A TMDL is the maximum level of pollutant that 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 Leipsic River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction

in bacteria from baseline conditions. *John Martin, Watershed Assessment Section, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)*

- **Water Supply.** 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)*
- **Sediment and Stormwater Program.** A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. It is strongly recommended that the owner and consultant contact the Kent Conservation District to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan. 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 Kent Conservation District. Contact Jared Adkins, Program Manager, at the Kent Conservation District at (302) 741-2600, ext. 3 for details regarding submittal requirements and fees (Delaware Code, Title 7, Chapter 40; Delaware Regulations, Administrative Code, Title 7, 5101). *James Sullivan, (302) 739-9921, [James.Sullivan@state.de.us](mailto:James.Sullivan@state.de.us)*
- **Air Quality.** The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

**Regulation 1106 - Particulate Emissions from Construction and Materials Handling**

- Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.
- Using covers on trucks that transport material to and from site to prevent visible emissions.

**Regulation 1113 - Open Burning**

- Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year.
- Prohibiting the burning of land clearing debris, trash or building materials/debris.

**Regulation 1141** – Limiting Emissions of Volatile Organic Compounds From Consumer and Commercial Products

- Restricting the use of certain coatings and consumer products in typical architectural applications.

**Regulation 1145** - Excessive Idling of Heavy Duty Vehicles

- Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes. *Deanna Morozowich, (302) 739-9402, [Deanna.Morozowich@state.de.us](mailto:Deanna.Morozowich@state.de.us)*

- **Hazardous Waste Sites.** If it is determined by the Department that there was a release of a hazardous substance on the property in question, it is required that the guidelines and provisions of 7 Del.C. Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware *Regulations Governing Hazardous Substance Cleanup* be followed.

There is one SIRB site found within a ½-mile radius of the proposed project:

- Coker’s Landfill #1 & #2 Site (DE-0004) is adjacent to the southeast boundary of the project area.
  - The site was on the U.S. Environmental Protection Agency’s National Priority List. The U.S. EPA declared that the site would be deleted from the National Priority List in 2009 and an Environmental Covenant with Institutional Controls was filed.
  - The Environmental Covenant restricts any activity that could disturb the landfill surface or the underlying waste, including, but not limited to, excavation, construction and development.
- 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. *Krystal Stanley, (302) 395-2644, [Krystal.Stanley@state.de.us](mailto:Krystal.Stanley@state.de.us)*

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:

a. **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.

**b. 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

**c. 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. If a “center island” is placed at an entrance into the subdivision, 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.

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

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

e. **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

Department of Agriculture – Contact Scott Blaier 698-4529

- The proposed project is adjacent to a property permanently protected through the State’s Agricultural Lands Preservation Program (Bayview Farms Expansion of the Haman-Hoch Coleman District), (Parcel # 1301900009)). Therefore, the activities conducted on this preserved property are 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.

### **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.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There are two known historic or cultural resources on the parcel (property), one of them is a mid or late 19th-century house (K-1376), and the other is a late 19th or 20th-century house (K-1393). There are also a few other known historic or cultural resources nearby, right next to this parcel on the west and northwest side and they are as follows: a mid or late 19th-century house (K-1386) as well as some known archaeological sites

According to the 1931 USGS (15 minute series) Topographical Map of 1931 does show and indicate that there were dwellings/structures existing on this parcel, and it is a possibility that there may be archaeological sites associated with these dwellings/structures.

- The developer should also provide some landscaping along the borders of the parcel, in order to lessen the visual effects on the surrounding properties.
- Finally, 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 or in reference to historic or cultural resources. In addition, since there are two known historic houses/structures (K-1376 and K-1393) still existing on this parcel, the developer should consider that aspect of retaining it on a larger lot if possible.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- DelDOT recommends that the developer's engineer contact the Subdivision Manager for northern Kent County, Mr. Julio Seneus, to schedule a pre-submittal plan review meeting. Mr. Seneus may be reached at (302) 760-2145.
- There is a long straight street proposed to run from north to south near the west edge of the property. As proposed, this street design would likely result in speeding problems. DelDOT recommends that the developer include traffic calming features, e.g. islands or small roundabouts, in the design of this street.
- DelDOT has identified the following three elements of the site layout, all related to the active recreation areas planned along a north-south axis through the center of the development, that could result in operational problems. These elements will require further attention and may not be approved as currently proposed. If the developer wishes to keep them as proposed, their engineer should make a point of discussing them with Mr. Seneus, to verify that that will be possible.

1. South of the south soccer field and volleyball court, there are three closely spaced T intersections, two leading to the north and one leading to the south. DelDOT

recommends that the street leading to the south be shifted west to align with one of the streets leading to the north.

2. Similarly, north of the north soccer field and volleyball court, there are three closely spaced intersections where the pool parking lot entrance is proposed between the two north-south streets. DeIDOT recommends moving the parking lot north of the clubhouse, moving the pool and clubhouse south and placing the entrance on one of the north-south streets.
3. The triangular island proposed north of the active recreation areas poses a problem in that four single-family detached house lots would front on it. If the side where they would have frontage is one-way southbound, DeIDOT would expect enforcement issues involving those four driveways. If the side where they would have frontage is two-way, DeIDOT would expect safety problems at the Y-shaped intersection at the north end.

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

- **Hazardous 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.
- **Additional information on TMDLs.** A pollution control strategy (PCS) is the regulatory directive requiring the implementation of various best management practices (BMPs) that help reduce transport of nutrient and bacterial pollutant runoff from all waters draining into a “greater” common watershed, with the ultimate objective of achieving the obligatory TMDL reduction requirements for that watershed. However, the PCS for the Leipsic watershed has not been formally completed to date. In absence of a current PCS, the applicant is strongly urged to reduce nutrient and bacterial pollutants through the voluntary commitment to the implementation of the following recommended BMPs:
  - DNREC strongly recommends that the applicant retain the existing forested cover in its entirety. It is strongly recommended that a 100-foot upland buffer width be maintained from the water body and wetlands bounding the projects eastern and southern boundaries (Figure 1). 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.

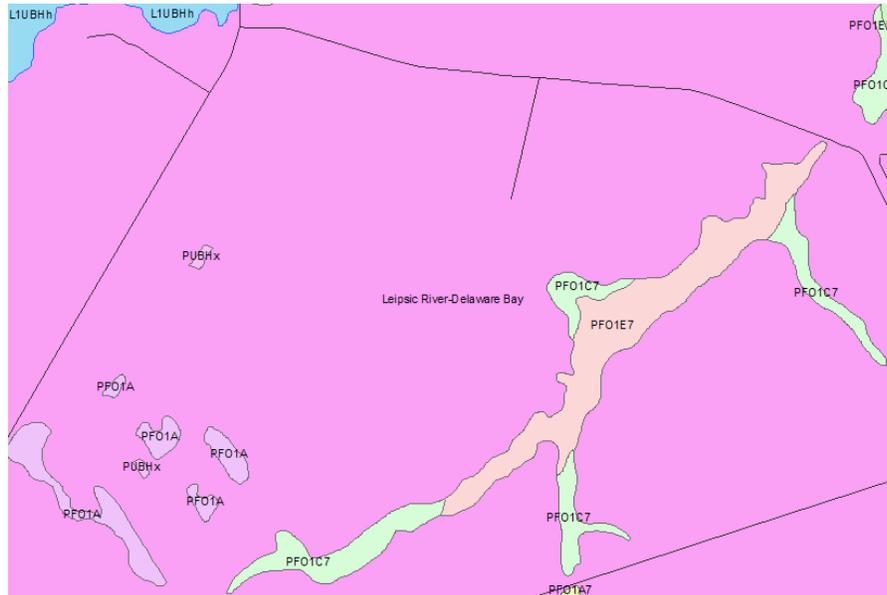


Figure 1: Statewide wetland mapping project (SWMP) in the immediate vicinity of the proposed project

- 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 further encourage the use of pervious paving materials (instead of conventional asphalt and concrete) to mitigate impacts from surface imperviousness.
- DNREC also strongly encourages the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to reduce nutrient pollutant impacts.
- The Department has also developed an assessment tool to evaluate how your proposed development may reduce nutrients and bacteria to help meet the TMDL requirements. Please contact Lyle Jones at 302-739-9939 for more information on the assessment tool. *John Martin, Watershed Assessment Section, (302) 739-9939, [John.Martin@state.de.us](mailto:John.Martin@state.de.us)*
- **Site survey request.** The applicant indicated a willingness to permit a State Agency site visit (question 30). Our Division ecologist, Robert Coxe, would like the opportunity to map the vegetation communities and evaluate habitat for species of concern at this site as part of a statewide effort to characterize the vegetation communities. The survey will be

conducted at no expense to the landowner/developer and a report will be generated for the applicants use in the planning of this project. We will get in touch with Robert Allen as indicated on the application.

- **State-rare species.** According to our current database the following state-rare plants and vegetation community occur within the forested riparian buffer of Willis Branch:

Scientific Name	Common Name	Taxon	State Rank	Global Rank
<i>Carex prasina</i>	drooping sedge	Plant	S1	G4
<i>Dryopteris celsa</i>	log wood fern	Plant	S1	G4
<i>Hepatica Americana</i>	roundlobed hepatica	Plant	S1	G5T5
<i>Mitella diphylla</i>	two-leaf bishop's cap	Plant	S2	G5
<i>Solidago flexicaulis</i>	broadleaf goldenrod	Plant	S1	G5
<i>Trillium cernuum</i>	nodding trillium	Plant	S2	G5
<i>Viburnum rafinesquianum</i>	Downy arrow-wood	Plant	S1	G5
<i>Fraxinus nigra</i>	black ash seepage swamp	Community	S2	G5

**State Rank:** S1- extremely rare within the state (typically 5 or fewer occurrences); S2- very rare within the state (6 to 20 occurrences);

**Global Rank:** G4 - apparently secure globally but uncommon in parts of its range; G5 - \secure on a global basis but may be uncommon locally; T - variety or subspecies rank;

The State-rare plant species listed above occur within a black ash seepage wetland community located within the forest along Willis Branch. Black ash seepage swamp communities are very rare within the State and are generally found at the headwaters of streams and at the bases of slopes where groundwater reaches the surface. Run-off from this project could impact this rare community and it is extremely important that stringent efforts to protect water quality from excess nutrients and sediments are implemented. Upland buffers are extremely important for protecting these state-rare elements. The applicant indicated that a buffer of at least 100 feet will be maintained between the wetlands and the lots. It is also important that infrastructure such as roadways and stormwater ponds (that may discharge into the wetlands) are also at least 100 feet from the wetlands. The buffer zone should be permanently protected via easement or deed restriction, otherwise homeowners may infringe upon this buffer in the future.

- In addition to water quality protection, buffers along streams and other water bodies connect areas of habitat and provide wildlife with cover and space as they move across the landscape during daily and migratory activities. Wildlife corridors are typically found adjacent to streams or wetlands and support the survival of many species by providing sources of food and water, providing protective cover from predators and

shelter from harsh weather, and reconnecting isolated populations. An effective wildlife corridor is generally much wider than buffers for water quality.

- **Key Wildlife Habitat.** The black ash seepage swamp described above is mapped as Key Wildlife Habitat (KWH) in the Delaware Wildlife Action Plan<sup>1</sup> (DEWAP) because it is rare within the state and supports a high diversity of state-rare plants. KWH can support the full array of species across the landscape and the maps in DEWAP show areas of the state where conservation efforts can be focused. Although designation as KWH is non-regulatory, these maps are intended to help guide site-specific conservation planning efforts.
- **Recreation.** In May and June of 2008, the Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings will be the foundation of the 2009-2011 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed outdoor recreation facilities.

Eighty-eight percent of Kent County residents indicated that outdoor recreation is very or somewhat important to them. Because of the importance of outdoor recreation in Kent County, the incorporation of active open space in this community is appreciated. *Kendall Sommers, (302) 739-9242, [Kendall.Sommers@state.de.us](mailto:Kendall.Sommers@state.de.us)*

- **Additional information on air quality.** Measures may be taken to substantially reduce the air quality emissions and include:
  - **Constructing only energy efficient buildings.** Energy Star qualified buildings are up to 30% more energy efficient. 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.
  - **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.

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<sup>1</sup> The Delaware Wildlife Action Plan (DEWAP) 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. Congress challenged the states to demonstrate comprehensive wildlife conservation. Delaware, along with all of the other states and provinces throughout the country are working to implement their wildlife action plans. This document can be viewed via our program website at <http://www.dnrec.state.de.us/nhp>. This document also contains a list of Species of Greatest Conservation Need, Key Wildlife Habitat, and species-habitat associations.

- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** For every vehicle trip that is replaced by someone using a sidewalk, bike path or mass transit can significantly reduce mobile source emissions.
- 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 is advised to contact DNREC Air Quality Management Section for measures that may be incorporated into the Silver Maple Farms property. *Deanna Morozowich, (302) 739-9402, [Deanna.Morozowich@state.de.us](mailto:Deanna.Morozowich@state.de.us)*

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.

Department of Education – Contact John Marinucci 735-4199

- The DOE requests that the developer work with the Smyrna School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the that school district.
- DOE recommends that playgrounds be installed and maintained in accordance with ASTM Designation F-1487 and CPSC PUB. 325.

Department of Agriculture – Contact Scott Blaier 698-4529

- The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. 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

Leyland Cypress

Ash Trees

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.

Delaware Division of Public Health – Contact: Michelle Eichinger (302)744-1011

To help facilitate active living and healthy eating for chronic disease prevention, environmental changes in a community is necessary. The Division of Public Health recommends the following:

- **Amenities to support active transportation**
  - Install bike racks to promote and support bikability, especially in the area of the recreational amenities.
  - Ensure walking trails are surfaced such that people with mobility impairments can utilize the walking trails. It is not recommended to use mulch or gravel. Instead, consider using a hard, smooth surface. Also, place park benches along the trail so that individuals may rest as needed while utilizing the walking trail.

- **Access to healthy foods**

- Consider placing a community garden around the proposed clubhouse. Community gardens (i.e. vegetable gardens) provide an opportunity for residents to have access to healthy food. In addition, community gardens provide a form of physical activity as well as support community cohesion and character. They also can improve the aesthetics of a community.
- Consider designating an area for a produce stand or mini-farmers' market.

**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,



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

CC: Kent County