



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

June 21, 2010

Mr. Tom Coleman
17 Polly Drummond Circle
Newark, De 19711

RE: PLUS review – 2010-05-04; Silver Maple Farms

Dear Mr. Coleman:

Thank you for meeting with State agency planners on May 26, 2010 to discuss the proposed plans for the Silver Maple Farm project to be located on the south side of Bayview Road, east of Maplevue Subdivision.

According to the information received, you are seeking a site plan approval through New Castle County for 300 residential units on 197.24 acres.

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 New Castle 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 New Castle 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 DelDOT'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 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 DelDOT website, which is correct in most cases. However, where the versions differ, the version in the Register of Regulations is correct. We are in the process of updating the version on our website.
- Per Section 2.3.1 of DelDOT'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 DelDOT, resulting in letters to New Castle County dated December 28, 2004 and March 11, 2005, which identified certain needed offsite improvements, now listed in Note 31 on the plan provided. Because the present plan would generate less traffic than the previous plan, we do not require a new TIS. From a regulatory perspective, all of the off-site improvements, or participation therein as previously noted, are required pursuant to Section 3.10.2 of the Standards and Regulations.

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

- **Wetlands.** According to the Statewide Wetland Mapping Project (SWMP) maps, tidal (E2EM1P) and non-tidal riparian (PSS4/EM1A7 & PSS4/EM1A7) wetlands were mapped on subject parcel (Figure 1).

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.



Figure 1: SWMP mapping (with tax map #'s) in the immediate vicinity of the proposed project

- **TMDLs.** The project is located in the greater Delaware River and Bay drainage area, specifically within the Appoquinimink watershed. In this watershed, under the auspices of Section 303(d) of the 1972 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 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 Appoquinimink watershed calls for a 60 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for an 8 percent reduction in bacteria from baseline conditions.

- **Bog Turtle: Federally Protected Species.** A review of our database has revealed that there may be suitable habitat for the federally listed bog turtle (*Glyptemys muhlenbergii*) within the proposed project area. Bog turtles typically occur in freshwater wetlands with open canopies, mucky soils, and tussock vegetation; however, they can occur in more marginal habitats as well. Because the bog turtle is a **federally listed species, protected under the Endangered Species Act of 1973**([16 U.S.C. 1531-1544](#), 87 Stat. 884), its presence can affect the scope of work.

To ensure that the project will not impact bog turtles or their habitat, Phase I surveys for bog turtle habitat should be conducted. Phase I surveys can be conducted any time of year when ice and/or snow cover is not present. If potential habitat is found, however, please note there is a **time of year restriction** during which Phase II surveys for bog turtles ***must be*** conducted. *A Delaware approved bog turtle surveyor ***must be*** used to conduct the surveys.* Please contact Holly Niederriter (302-653-2880) to obtain a list of contacts to conduct Phase I and, if necessary, Phase II surveys.

- If potential bog turtle habitat is found during Phase I surveys, you are **required** to either:
 1. Completely avoid all direct and indirect project impacts to the wetland, in consultation with the U.S. Fish and Wildlife Service and Delaware Division of Fish and Wildlife;

OR

 2. Have Phase II surveys conducted to determine if bog turtles are present. In accordance with Delaware’s bog turtle site survey procedures, surveys must be conducted by a State-approved bog turtle surveyor between April 15 and June 15.
- **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.

- **Sediment and Stormwater Program.** A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a project application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre and post development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through New Castle County the Department of Land Use Engineering Section. Contact the Department of Land Use at (302) 395-5470 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*
- **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*

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 (DSFPR):

- **Fire Protection Water Requirements:**
 - Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. In the area of the Single Family dwellings, hydrants spacing can be reduced to 1000 feet on center
 - Where a water distribution system is proposed, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

- **Fire Protection Features:**
 - All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
 - Buildings greater than 10,000 sq.ft., 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
 - Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
 - Show Fire Lanes and Sign Detail as shown in DSFPR

- **Accessibility**
 - All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare must be constructed so fire department apparatus may negotiate it.
 - Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
 - Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
 - The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
 - The plan to place trees along the drive aisles may cause an obstruction to clear access by fire apparatus and needs to be addressed.

- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

- **Gas Piping and System Information:**
 - Provide type of fuel proposed, and show locations of bulk containers on plan.

- **Required Notes:**
 - Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
 - Proposed Use
 - Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
 - Square footage of each structure (Total of all Floors)
 - National Fire Protection Association (NFPA) Construction Type
 - Maximum Height of Buildings (including number of stories)
 - Where Townhouses are proposed, 2-hr separation wall details shall be shown on site plans
 - Note indicating if building is to be sprinklered
 - Name of Water Provider
 - Letter from Water Provider approving the system layout
 - Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
 - Provide Road Names, even for County Roads

Department of Education – Contact John Marinucci 735-4199

- This development will be subject to the New Castle Voluntary School Assessment Statutes 9 Del. C. Chapter 26, § 2661 and 14 Del. C. § 103(c). As this development is identified as an age restricted 55 plus development, it will be exempt from the Voluntary School Assessment requirements.

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 seems to be one known historic or cultural resource on the parcel (property), a mid or late 19th-century house (N-5164, J. Higgins House). There is another historic or cultural resource nearby, right next to this parcel, on the northwest side, and it is also a mid or late 19th-century house (N-5163).

According to the Pomeroy and Beers Atlas of 1868, which is a 19th-century historical map, it appears that there were two dwellings/structures associated with J. Higgins on this parcel. Another map that shows there were dwellings/structures there is the USGS (15 minute series) Topographical Map of 1931, and there is a possibility that there may be potential 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 is a known historic house/structure (N-5164) 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 has commended the developer for the proposed pedestrian path network. They support the recommendations from the Division of Public Health that the paths be paved and that the path network be extended to the community center. The proposed sidewalks will be helpful in this regard. At a minimum, they suggest that a path be extended from the end of Haven Court to the community center building. Ideally, the path could be extended, off-street and between lots, beyond Red Clover Drive to the community center.
- As proposed, the right-of-way and pavement on New Morning Road would narrow by ten feet from Crows Court to Red Clover Drive. Based on projected vehicular traffic volumes, this narrowing meets our standards. However, because we expect significant bicycle and pedestrian volumes between the pool and community center on the west side of the development and the homes on the east side of the development, we recommend that the developer continue the wider section on New Morning Road to Sticky Wicket Lane.

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

- **Soils Assessment.** DNREC strongly recommends that the applicant avoid soils mapped as Lenni (LhA), Tent (TeA), and Lenape-Nanticoke complex (Ln). These soils are poorly to very poorly-drained (hydric) and suggestive of wetland conditions. 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). We further recommend that Keyport (KmE) be avoided because of steeply-sloping topography (10-15% slope; See figure 2).

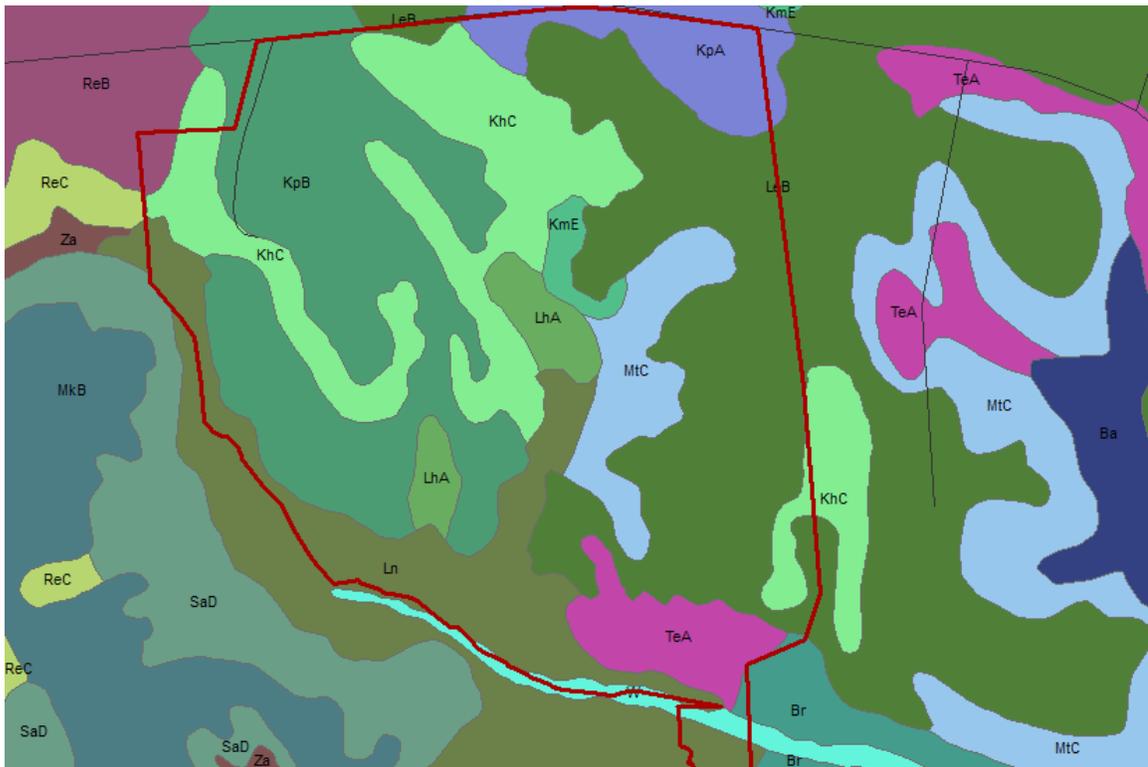


Figure 2: NRCS soil survey mapping in the immediate vicinity of the proposed project

- **Additional information on wetlands.** 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.
- 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 may be 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 nontidal 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.

- 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.
- **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 Appoquinimink 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 suggests that the applicant maintain as much of the existing forest cover as possible. We further suggest additional native tree and native herbaceous planting wherever possible.
 - Maintenance of 100-foot buffer width(s) from all delineated wetlands (USACE and State approved wetland delineations) is strongly recommended.
 - DNREC strongly recommends that the applicant calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, and roads) included in the calculation. 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 via the application/use of pervious paving materials (“pervious pavers”) in lieu of asphalt or concrete in conjunction with an increase in forest cover

preservation (or establishment of additional forest cover acreage) are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

- DNREC strongly recommends the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff from impervious surfaces.
- The 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.
- **Flood Management.** DNREC recognizes that a Letter of Map Revision (LOMR) was done as noted on the site plan (Case # 06-03-B010P). This LOMR is not reflected on the current effective Flood Insurance Rate Map (FIRM) dated January 17, 2007. The LOMR only revised the shape of the approximate Zone A area and did not establish a base flood elevation (BFE). Quoting the LOMR: "[FEMA] based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards." We feel a 300 lot subdivision is "future development" that was not taken into account when the LOMR went effective on August 28, 2006. The county may require further analysis to establish a BFE and any potential downstream impact of this proposal.
Gregory Williams - (302) 739-9921, Gregory.Williams@state.de.us
- **Natural Areas.** This site contains portions of the Appoquinimink River Natural Area. The area depicted on the development plan as Critical Natural Area does not conform to the current boundaries of the State designated Appoquinimink River Natural Area. State Natural Area maps were updated in September of 2006 and it is likely that what is showing as Critical Natural Area on this plan was depicted on the State's Inventory prior to September 2006.

The Office of Nature Preserves appreciates efforts taken to remain outside the Appoquinimink River Natural Area and DNREC looks forward to direct communication with Karins and Associates regarding accurate boundaries of the Natural Area, as required by the County's Unified Development Code.

- **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.

According to the SCORP, 92% of people living in this area indicate that outdoor recreation is very or somewhat important to them (more than any other area in the state). Because of the importance of outdoor recreation in this area and the lack of facilities in this region, the developer should consider offering more active recreation facilities in the proposed development plan. Priorities for this area include: Walking/Jogging/Bike paths, swimming pools, playgrounds, picnic areas, hiking trails, ball fields, soccer fields, basketball courts, tennis courts, and skate parks. For more information on outdoor recreation priorities in Delaware, the SCORP can be found online at: <http://www.dnrec.delaware.gov/parks/Information/Pages/scorp.aspx>.

- **State Rare Species/Species of Greatest Conservation Need.** Division scientists have not surveyed the project site; therefore, it is unknown if this project will impact State rare, threatened, endangered species or Species of Greatest Conservation Need (SGCN¹). We have records of several State-rare SGCN downstream along Silver Run that could also occur within the wetlands and wetland buffer areas of the project site: Great Blue Heron (*Ardea herodias*) and common ribbonsnake (*Thamnophis sauritus*). Great Blue Heron utilize wetlands and the upland buffers that surround wetlands while foraging in marshes, impoundments, streams and other water bodies that support fish. Although breeding is typically concentrated in colonies in trees, solitary nests on the ground near wetlands have also been reported. Common ribbonsnake rely heavily on vegetative cover in sun exposed buffers along rivers, ponds, marshes and other wetland habitats.
- Upland buffers along wetlands can provide critical habitat for wetland dependent species during a portion of their life cycles. In addition, vegetation that effectively provides cover and screening can help minimize disturbance. Providing adequate wetland buffers of at least 100 feet in width could minimize potential impacts of habitat fragmentation and disturbance as well as protect water quality. This buffer area should not be fragmented by lots and infrastructure.

¹ Species of greatest conservation need (SGCN) are indicative of the overall diversity and health of the State's wildlife resources. Some may be rare or declining, others may be vital components of certain habitats, and still others may have a significant portion of their population in Delaware. SGCN are identified in the Delaware Wildlife Action Plan (DEWAP) which 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. DEWAP can be viewed via the Natural Heritage and Endangered Species 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 Maps, and species-habitat associations.

- **Mosquito Control.** Wetlands adjacent to this project likely provide a vast area for mosquito breeding. Adult mosquitoes are not constrained by wetland boundaries and will certainly exist within the area of the development. Development projects that result in increased housing densities within 2 miles of large expanses of salt marshes or brackish wetlands or within 1 mile of large tracts of freshwater wetlands, can often lead to increased demands by the public for mosquito control services, going beyond what DNREC- Division of Fish and Wildlife, Mosquito Control Section currently has the budget or resources to provide. Adverse impacts upon the State's allocation of public funds for mosquito control services must be realistically recognized as a consequence of approving a development within proximity to mosquito breeding habitat. Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied "without posing any unreasonable risks to human health, wildlife or the environment" (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible.

Often the homeowner's association will inherit the burden of dealing with mosquito issues and should be aware of the following:

1. achieving good control in an environmentally compatible manner requires technical knowledge,
2. they will likely need concurrence from all their homeowners/residents for if, how, when and where any treatments will be done,
3. controlling mosquitoes can be quite costly and an on-going problem,
4. they should be aware that there can be liability issues that their treatment activities might cause, particularly in regard to any claims of chemical trespass, misapplications, or adverse impacts to human health or the environment from insecticide exposures.

If the applicant has any questions regarding mosquito control issues, they can contact Dr. Bill Meredith, Mosquito Control Administrator at 739-9917.

- **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.
 - **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*

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

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

Department of Education – Contact John Marinucci 735-4199

- DOE requests developer work with the affected 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, however since this is an age restricted development no such request is tendered.

- 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.

Division of Public Health- Contact Michelle Eichinger 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**
 - Designate a bike trail or lanes and install bike racks to promote and support bikability.
 - 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.

- Ensure safe connectivity within the site and between properties to facilitate active transportation both in walkability and bikability. This includes safe connectivity (via bike lanes, sidewalks, crosswalks, etc.) to the community center.
- Explore transit options so that as residents age, they have access to services.

- **Amenities to support active recreation**

- Designate open space for outdoor recreation such as a basketball or tennis courts, playgrounds, horseshoe pits, etc.

- **Access to healthy foods**

- Consider placing a community garden around the proposed community center. 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
Director

CC: New Castle County