



February 25, 2008

Mr. Tom Ford LANDDESIGN, Inc. Oak Square, Ste. 3, Central Avenue Ocean View, DE 19970

RE: PLUS review – 2008-01-05; Vessels

RESPONSE TO COMMENTS (in RED) – LANDDESIGN, inc – March 26th,2008

Dear Mr. Ford:

Thank you for meeting with State agency planners on January 30, 2008 to discuss the proposed plans for the Vessels project to be located at the intersection of Robinsonville Road and Kendale Road in Sussex County.

According to the information received, you are seeking site plan approval through Sussex County for a cluster development consisting of 213 residential units on 162.95 acres. The plan consist of 183 single family lots and 30 multi-family dwellings for a total of 213 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.

The following are a complete list of comments received by State agencies:

Office of State Planning Coordination – Contact: Bryan Hall 739-3090

This project is located with an Investment level 4 Area according to the Strategies for State Policies and Spending. It is located within the Environmentally Sensitive Developing Area (ESDA) according to the Sussex County certified comprehensive plan. The Sussex County plan clearly states that the purpose of the ESDA area is to recognize that the Inland Bays are a major resource of the County and must be protected from insensitive development of the surrounding area. The plan identifies this area as a developing district with special environmental design and protection requirement.

Because this parcel is identified in a Level 4 Investment area within the Environmentally Sensitive Developing area indicates that there are significant environmental features on this site that should be protected. In this case, 137 acres of the 162 acre site is forested. According to the PLUS application, the developer seeks to remove 70 acres,

more than half the forested acres, from this site for development. This has been revised with changes to the plan. As redesigned this plan will remove 62.6 acres +/- and reforestation of 7.41 acs.+/- shall be undertaken as mitigation. This would leave 60% of the existing wooded site in forested cover.

Because of its location in a Level 4 area and the negative impacts to the environmental features on this site, the State objects to the development of this parcel and respectfully requests that this site plan be denied. The parcel borders with Level 3 property on three sides. The lands across from and in the surrounding area have been developed and this application is in keeping with this development trend. It is apparent that there is significant gray area in setting the level of each particular parcel especially as growth trends in the proximity need to be taken into consideration. We do however agree that this parcel of land has unique and desirable natural qualities from which the plan has endeavored to preserve and augment. However this same site has been timbered numerous times in the past and has little old growth forest remaining. As per the Department of agricultural, during the PLUS review, it was stated that the forest area was considered to be a crop and that all of the forested area could be removed or harvested as such. In this regard; This application for development calculates that 60% of the forest will remain in the event that this plan is approved. We consider this an environmental Best Management Practice. Most importantly the riparian buffer will remain. Secondly; The plan could have sought, as per density allowance, as many as 325 dwelling units the application is for 213 dwelling units; a 35% reduction which encourages more open space and woodland preservation, again this is a Best Management Practice that is consistent with its environmental sensitive development status. This application will follow Conservation Design Techniques to ensure that the residential development is compatible with the rural character and natural resources present in this area as is exemplified by the average buffer width of 107'. The clearing calculations used for the forest were based on clearing all lots when in fact some lots may contain some tree preservation where grading is not a concern or being altered.

Division of Historical and Cultural Affairs – Contact: Terrance Burns 739-5685

At this time, there is no indication of a known historic and cultural resource, archaeological site, or national register listed property on this project area, but there is a known historic and cultural resource nearby. This historic and cultural resource located northeast side of Road 277-1500 feet-northwest of Road 277B intersection, and it is the (this property begins 1640' +/- from the Rte. 277B intersection.) M.B. Vessels House, which is a late 19th-century house and agricultural complex, along with a barn and garden (S-2927).

Another historical aspect is that according to the Beers Atlas of 1868, this project area appears to be within the area or vicinity of Indian River Hundred, and there is a variety of historical attributes or aspects within the area or vicinity of Indian River Hundred. Also according to the Beers Atlas of 1868, it appears that there was a dwelling nearby or very close to where the project area is today, and that dwelling was associate or affiliated with someone by the name of M.B. Vessels. It is a possibility that there could probably be potential historic and cultural resources or potential archaeological resources associated with that dwelling or related to that dwelling. We request the location and mapping of such concerns be presented to us in a timely manner wherefore accommodations for such a resource can be verified, assessed and planned for.

In addition, it is extremely important to remember and be aware that this project area (parcel/property) is in a Level-4 area. Level-4 areas are often or usually environmentally sensitive areas, and sometime there area historical attributes or aspects within these types of environmental sensitive areas. The State Historic Preservation Office of the Division of Historical & Cultural Affairs is not in favor of any type of zoning change, construction, building project, or development in Level-4 areas.

Since this project area is in a location where there are some historical attributes or aspects, it is also an indication that it is a possibility that there could probably be potential historic and cultural resources or potential archaeological resources on or within this project area. The potential historic and cultural resources or potential archaeological resources could a cemetery, burial ground, unmarked human remains, or some other type of hidden contents or remains, which has historical attributes or aspects.

Prior to any type of ground-disturbing activities, demolition, or construction, the developer show review Chapters 53 and 54, in Title 7, of the Delaware State Code. Chapter 53 pertains to the discovery and disposition of “Conservation of Archaeological Resources In or On State Lands”. Chapter 54 pertains to the “Delaware Unmarked Human Remains Act of 1987”, such as the discovery and disposition of Unmarked Human Burials or Skeletal Remains”. The unexpected discovery of unmarked human remains during construction can result in significant delays while the process is carried out. Will comply.

Also prior to any type of ground-disturbing activities, demolition, or construction, the developer may want to hire an archaeological consultant to check and examine the project area thoroughly. The purpose for this is to make sure that there is no indication or evidence of a potential historic and cultural resource or potential archaeological resource such as a cemetery, burial ground, unmarked human remains, or some other type of hidden contents or remains, which has historical attributes or aspects.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) The proposed development would warrant a traffic impact study under DelDOT’s newly adopted Standards and Regulations for Subdivision Streets and State Highway Access. Grandfathering provisions will exempt developments for which an application has been filed with the relevant government and accepted for review by that local government on or before March 31, 2008, and under the previous regulations such a study would not be required. Application will be filed prior to March 31st, 2008

Under the new regulations, responsibility for preparing the scope of work for a TIS has shifted to the developer’s engineer. If this development is proceeding under the new regulations, the developer’s engineer should contact Troy Brestel or Bill Brockenbrough from the DelDOT Planning Office when you are ready for a scoping meeting. Mr. Brestel may be reached at (302) 760-2167.

- 2) Robinsonville Road is classified as a local road. DelDOT’s policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project. Will comply
- 3) DelDOT will require the developer to provide a 10-foot wide shared-use path in a 15-foot wide permanent easement along the property frontage on Robinsonville Road. Will comply

- 4) DeIDOT recommends that stub streets be provided to Parcels 2-34-6.00-96.00 (Heirs of Joseph L. Street) and 2-34-6.00-95.01 (Deerfield Farms, Inc.) to allow for interconnections if those parcels are developed. Will comply by allocating R.O.W. that could be connected in future for Pedestrian and /or Vehicular traffic
- 5) There is what appears to be an easement in the adjacent Webbs Landing subdivision that stops at the property line near the proposed clubhouse. If the land just mentioned is walkable, DeIDOT recommends that a spur from the pedestrian trail proposed near Lot 182 be tied into that easement. A connection to the clubhouse would be much shorter, but they can understand a reluctance to connect another development directly to a community facility in which they would not share. The Plan will reflect a non improved path to this location; however its eventual improvement would be at the consideration of the HOA
- 6) The developer's site engineer should contact the DeIDOT Subdivision Manager for eastern Sussex County, Mr. John Fiori, to determine specific requirements for access and off-site improvements. Mr. Fiori may be reached at (302) 760-2260.

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

Investment Level 4 Policy Statement

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and County certified comprehensive plans. According to the *Strategies*, this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional State investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development. With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern are potential impacts to all three layers of the Green Infrastructure map (natural resource and recreation priorities, cropland, and forest), an increase in impervious cover, the loss/fragmentation of forest (71 out of 138 acres or 51%), potential impacts to wetlands, and the presence of a Site Investigation and Restoration Branch (SIRB) site. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

Local Land-use regulations typically allow residential land uses in agricultural zones. Although the State deems this use as not desirable it is sometimes inevitable in some instances. All Level 4 designated lands are not equal, and we submit that this land is located in an Environmentally Sensitive Development area, which allows for the development of Conservation oriented designs, which is inherently incorporated herewith. Remember portions of this land were used for industrial purposes as a lumber treatment facility, and the existing woodlands have been cut over numerous times and therefore doesn't comprise an unmolested forest. This application should be considered a re-development of the parcel into both a residential community and preservation of natural lands.

Green Infrastructure

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special State conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

We accept this appeal in the spirit of good stewardship and wish to comply by employing restraint in lot numbers and minimizing land disturbances where they can be avoided. Forest buffers and clustered lots demonstrate that commitment to Conservation Design. The site plan reflects the existing topography and drainage patterns of the site. Minimum grading and land disturbance will take place to construct this proposed plan. This maximizes the existing forest preservation.

Soils

Based on the Sussex County soil survey update, Downer, Fort Mott-Henlopen complex, Hambrook, Evesboro (D slopes: 10-15% slope), Pineyneck, and Manahawkin were mapped on subject parcel. Downer and Fort Mott-Henlopen complex and Hambrook are well-drained upland soils that, generally, have few limitations for development. The Evesboro soil mapping is a well-drained upland soil; however, it has severe limitations because of steep slopes and should be avoided. Pineyneck is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Manahawkin is a very poorly-drained wetland associated (hydric) soil that has severe limitations for development.

Wetlands

Based on the Statewide Wetland Mapping Project (SWMP) maps, tidally-influenced palustrine and estuarine wetlands were mapped along the entire northwestern and most of the northeastern boundaries of subject parcel. Additionally, some nontidal palustrine wetlands were mapped in the northern and southern portions of the parcel. The tidally-influenced wetland mapping closely mirrors the mapped occurrence of the hydric Manahawkin soil mapping unit.

Impacts to Palustrine wetlands are regulated by the U.S. Army Corps of Engineers (USACE, or “the Corps”) through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Corps also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and

Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Management Program (DCMP) Section. Each of these certifications represents a separate permitting process. Please be advised that nationwide permits have been suspended in Delaware and are pending further coordination with the Corps. Therefore, contrary to past practices, Coastal Zone Management approval can no longer be assumed. Individual certifications must be granted from the DCMP office for each project intending to utilize a Nationwide Permit. For more information on the Federal Consistency process, please contact the DCMP office at 302.739.9283. To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting. Consultants were hired to field map the 404 lands and the tidal wetlands areas. The flags were then surveyed and mapped prior to the development layout. We intend to avoid all disturbance to any wetland areas.

Based on a review of existing buffer research by Castelle et al. (1994), 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 wetlands and water bodies (including ditches).

1. This proposal is subject to regulations that require a 50' setback from the tidal wetlands. This application complies with that regulation; however in addition it has voluntarily provided additional setbacks from 404 lands with an average setback being 107.13'.
2. We appreciate the States' sensitivity to these natural aspects of our County and the applicant has clearly and effectively demonstrated sensitivity to the natural elements of this site by environmentally sensitive design and appropriate forested buffers. As a footnote; under current regulations a 50' setback from the tidal wetlands is required, which is exceed in this plan; and no regulations either state or federal, are in existence that would deny the property owner from clearing all forest stand including what's in tidal wetlands. In addition please note: There is scientific research and evidence to support the finding that the first several feet of typical buffers are the most effective in removing Total Phosphorous (TP), Total Suspended Sediment (TSS), and Total Nitrogen (TN) and the last several feet are the least effective. Thus you reach a point of diminishing returns when widening buffers. i.e., the rate of increase in pollutant removal efficiency decreases as buffer width increases. Buffers work until water begins to collect and flow like miniature streams. Concentrated flows have been known to occur in the 35-50' range and once that occurs pollution removal ceases. (Reference Stuart Z. Cohen, Ph.D., CGWP)

Impervious Cover

The applicant estimates this project's post-construction surface imperviousness to reach about 24 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout), this estimate appears to be a significant underestimate. This is a false observation by the DNREC. When calculating surface imperviousness, it is important to include all forms of constructed surface imperviousness (i.e., rooftops, sidewalks, open-water stormwater management structures/ponds, and roads) in the calculation for surface imperviousness; this will ensure a realistic assessment of this project's likely post-construction environmental impacts. All of the above was calculated into our numbers. Since it is apparent that the applicant's estimate for surface imperviousness is a significant underestimate of their project's actual post-construction impacts, it should be recalculated with all of the above-mentioned forms of constructed surface imperviousness. Failures to do so will significantly understate this project's true environmental impacts. Our original numbers do correctly reflect the impervious impact of this application. We therefore assume the State to be supportive of this proposal since there is such a significantly lower impact then they could envision and therefore minimum impacts on the natural terrain and adjacent environment. We request that the State revise their comments to reflect the hard facts of this proposal and cease their presumptive analysis in future comments.

We have addressed this concern on other applications and we will address it again herewith:

Please take careful note that public comments are received at the County hearings and this particular concern has become an item of contention when the State infers impropriety in the calculation. This false statement then transcends into all other factual areas of our presentation and taints our credibility and thence our entire application. It is highly irresponsible of the State DNREC to record publicly, with such bias, concerns that are baseless. This unqualified assessment has no standing in this review. Such comments should only be given if there was "a reasonable basis in the evidence". In other words; You shouldn't infer something without evidence to that effect. The State is burdened to prove that the numbers given were significantly underestimated before strongly inferring otherwise. No misrepresentation of this subject has been forwarded to the State by the applicant yet given the comments above would lead the reader to assume otherwise.

Given the State's strong statement on this issue it is imperative that the State make there own assessment of this issue and amend the above comments to reflect their detailed findings. For the record the State comments above are demonstrably wrong and the erroneous perception created thereby needs to be set right. In addition - There are no regulations being addressed with this concern and it should be so stated as well.

The State has ongoing concerns about impervious cover with all applications that run thru PLUS. The State should address this concern with specific criteria in the PLUS application so that the calculation can be made systematically. We suggest that the State employ Federal Technical Release 55 (TR55) as a primary guideline to impervious cover. This would be consistent with storm water regulations and standards to assess impervious cover. As an example for this project the following would be addressed:

	Site Area Total	Impervious Area
<u>• Right of Ways</u>		
<u>Lot area</u>	<u>+/- 58.13 ac.</u>	<u>+/- 22.09 acs.*</u>
<u>• Multi-Family</u>	<u>+/- 2.73 ac.</u>	<u>+/- 2.73 acs.</u>
<u>• Amenities+Path</u>	<u>+/- 2.55 ac.</u>	<u>+/- 2.55 acs.</u>
<u>• Open Space</u>	<u>+/- 97.78 ac.</u>	<u>+/- 0.00 acs.</u>
<u>• Ponds **</u>	<u>+/- 1.77 ac.</u>	<u>+/- 1.77 acs.</u>
TOTAL:	+/- 162.95 ac.	+/- 29.141 ACS. or
		+/- 17.9% of PROJECT

- *Calculated as 38% of Right of Way and Lot areas combined, per USDA Technical Release 55, Table 2-2a, ¼ ac. Residential District
- ** Pond Areas calculated at estimated permanent pool elevation
- Note that all elements requested above by the State have been included in this exercise.
- LANDDESIGN, inc understands that the actual % of impervious could be greater or less depending on further design engineering and “as built” construction activities; however, the preliminary numbers do reflect standard criteria used for storm water design that is accepted on a National level.
 - o The calculation could be run based on estimated size of houses and patios, drives and walks however this number could vary widely from application to application. Even with a 30% increase in our numbers as a safety factor the impervious for this application is under what we stated at the PLUS hearing.
- The State could have run some preliminary numbers themselves and avoided all their disingenuous anti-development comments stated above.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed’s overall water quality. A recently published technical source “The Practice of Watershed Protection” by Schueler and Holland 2002 states that **no** studies have been conducted that examine the effects of widespread applications of stormwater practices on impervious cover/stream quality relationships.(pg.16). Therefore it is also evident that stormwater practices mitigate adverse effects and % of imperviousness could potentially increase without a decrease in environmental aspects. Speaking specifically in regards to this site we will be required through the permitting of stormwater to provide capture, retention, and quality treatment of the predevelopment and post development flow differential. Given clear evidence above of a low % of impervious cover and the requirement to treat all stormwater is reflective of the Conservation approach to design inherent in this application. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of its most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials (“pervious pavers”) in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

ERES Waters

This project is located adjacent to receiving waters of the Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 5.6.3.5 of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. 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 water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. This project is located in the **low** nutrient reduction area requiring a 40 percent reduction in nitrogen and phosphorus, respectively. Additionally, a 40 percent reduction in bacteria will also be required.

Compliance with TMDLs through the PCS

As stated above, Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. The TMDL calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. Additionally, a 40 percent reduction in bacteria will also be required from baseline conditions. A Pollution Control Strategy (PCS) will provide the regulatory framework for achieving them. Additional nutrient reductions may be possible through the implementation of Best Management Practices such as wider vegetated buffers along watercourses (and wetlands), increasing passive, wooded open space which helps reduce surface imperviousness (i.e., pervious pavers), and the use of green-technology stormwater management technologies. The application proposes the use of many of these recommendations. Alterations to the site plan since the PLUS review has increased forest preservation, has removed and/or condensed improvements contained within the wooded areas, has diminished the surface areas of the storm water ponds and has made an extensive use of bio-swales to handle run-off and quality control of storm waters.

The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Water Supply

The project information sheets state that water will be provided to the project by a Public Company. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under

Certificate of Public Convenience and Necessity 83-W-15. It is recommended that the developer contact Tidewater Utilities to determine the availability of public water. We have preliminary approval from Tidewater of their interest in providing service to this project. A “willing and able” letter shall be forthcoming in this regard. Any public water utility providing water to the site must obtain a Certificate of Public Convenience and Necessity (CPCN) from the Public Service Commission. Information on CPCNs and the application process can be obtained by contacting the Public Service Commission at 302-739-4247. Should an on-site Public/Miscellaneous Public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, and it must also be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

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.

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 Superfund Site associated with Sussex Lumber Company DE-0118 located within 1000 feet of the proposed project.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944. Will Comply

Sediment and Erosion Control/Stormwater Management

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 pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees. Will Comply

Because of the parcel's location in an impaired watershed and the amount of impervious surface, please revise impervious surface comments after a detailed review. We calculate this application has less than 18% consider incorporating more green technology BMPs and low impact development practices to reduce stormwater flow and to meet water quality goals. Will Comply – a good start is the voluntary 107.13' average buffer along the riparian edge of the property's 404 land areas, a low density of plotted lots, and forest preservation. Please see the response comments contained in the above "Compliance with TMDLs through the PCS" section.

The Sediment and Stormwater Management Program ensures sediment and erosion control plans and stormwater plans comply with local land use ordinances and policies, including the siting of stormwater management facilities. However, we do not support placement in resource protection areas or the removal of trees for the sole purpose of placement of a stormwater management facility/practice.

Drainage

The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project. The Drainage Program requests that the engineer check existing downstream ditches and pipes for function and blockages prior to the construction.

The Drainage Program encourages the elevation of rear yards to direct water towards the streets and alleyways where storm drains are accessible for maintenance. However, the Drainage Program recognizes the need for catch basins in yards in certain cases. Therefore, catch basins placed in rear and side yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, pools, and kennels can hinder drainage patterns as well as future maintenance to the storm drain or catch

basin. Deed restrictions, along with drainage easements recorded on deeds, should ensure adequate future maintenance access. Will Comply

An increase of the side yard setback to 15 feet may be needed on all properties with a drainage easement on the side. The increase will allow room for equipment to utilize the entire easement and maneuver free of obstructions if the drainage conveyance requires periodic maintenance or future re-construction. The side yard setback would only increase on the side with the drainage easement. Every Lot line in Sussex Cty. , if shared, is the centerline of a 10' drainage easement or there is a 10' easement lot side of every R.O.W.. In addition this plan will be using numerous bio-swaes running parallel to side lot lines but not included within any lot areas. The location of these swales shall have a minimum width of 20'. As per maintenance each adjacent lot still would have a five-foot easement thus giving a minimum width of 30' toward the maintenance function.

All catch basins in rear or side yards should have a 10-foot drainage easement around them on all sides. Place restrictions on fences, sheds, and other structures within the easement to prevent obstructions from being placed next to the catch basin. Record the easement on the deed. Will Comply

Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any subsequent owner of the property, will be fully aware of the drainage easement on their property. Will Comply

Floodplains

A portion of this property contains a Zone A floodplain. Sussex County is a participating community in FEMA's National Flood Insurance Program. The floodplain ordinance they have adopted requires that a detailed flood study be done for any parcel containing a Zone A floodplain that is greater than 5 lots or 50 acres. This property would meet those requirements. A relatively small section of the site has a designated Flood Zone A; no part of any proposed lot is within 50' of such FEMA line A portion of this property lies within the Zone

AE (100 year) and Zone X (shaded) (500 year) floodplain. We recommend that the developer verify that no construction/land disturbance occur in the Floodway of Love Creek. No construction shall occur in the flood way of the Love Creek with exception to drainage outfall and a crabbing pier as shown on the site plan. This improvement will be required to seek all State and or Federal permits to construct such. It appears as though most of the homes are being placed outside of the Zone AE floodplain, although it is difficult to interpret from the site plan. For the benefit of future homeowners, we recommend that homes be placed outside of the floodplain. They would be at less risk for flooding and they would not be required to carry flood insurance. It is recommended that flood insurance be purchased.

State Resource Areas/Natural Areas

The forested area along Love Creek is on the Delaware Natural Areas Inventory (NA) and has also been identified as a State Resource Area (SRA). The boundary for the SRA/NA varies from 391 feet to 340 feet along the eastern portion of the property adjacent to Love Creek, then curves around the northern boundary of the parcel and dips down to the western portion of the site following the floodplain.

There are a number of lots proposed along Love Creek and its tributary. To maintain the integrity of the Natural Area and State Resource Area the Office of Nature Preserves urges the applicant to relocate lots 27 to 45, 38 to 34, and 26 to 14. Another possibility would be to move these lots closer into the interior portion of the property and away from the Natural Area associated with Love Creek. The site plan has been amended to reflect consideration of the above; Lots 26 to 14 have been removed and the wooded areas adjacent to them have now been preserved increasing the average buffer width across the plan to greater than 107'. Lots 27 to 45 and 38 to 34 already have an average buffer greater than 100' from the 404 lands. Remember there are no regulations for this effort and it was done voluntarily as a Best Management approach to Conservation Design. In addition this resource area could be completely harvested however much of this land is emergent growth with scattered young/mature growth throughout. The riparian areas along the Creek shall be maintained in the proposed buffer.

Rare Species

During July of 2007, this property was reviewed for rare species by Edna Stetzar, of the Delaware Natural Heritage and Endangered Species Program, at the request of Tom Ford of Land Design. As a result of an oversight during the review, several State-rare species that had been recorded during a survey in 1992 were not included in the response letter to Mr. Ford. These additional State-rare species do not change our recommendations for this project.

In 1992, botanical and zoological surveys of the Vessels property (known then as 'Robinsonville Woods') was conducted at the request of the Division of Parks and Recreation, which had interest in acquiring the property. The landowner at that time granted permission for access.

This property contains a Coastal Plain Rich Wood community considered to be of large size and good quality. Even though the site has some history of harvest, this community could still be intact due to persistence of the herbaceous layer. This forest community supports both rare plants and neotropical migratory songbirds. Described as a fern glade with rich, loamy soil, two State-rare plants were noted: *Liparis lilifolia* (large twayblade) and *Ruellia caroliniensis* (Carolina petunia).

The following State-rare birds were recorded: *Accipiter gentilis* (Northern Goshawk), *Vermivora pinus* (Blue-winged Warbler), and *Melanerpes erythrocephalus* (Red-headed Woodpecker). Also *Drycopus pileatus* (Pileated Woodpecker) were known to nest in great numbers in this woodland, although none were found during the survey.

Neotropical migratory songbirds utilize the woodlands at this site during stop-overs in both the spring and autumn. The scientist surveying the site considered this site to be one of the best migratory stop-over points in Sussex County. The following Neotropical migrant and resident birds were recorded during the survey: *Seiurus aurocapillus* (Oven bird), *Dendroica coronata* (Yellow-rumped Warbler), *Geothlypis trichas* (Common Yellowthroat), *Dendroica pinus* (Pine Warbler), *Carduelis tristis* (American Goldfinch), *Thryothorus ludovicianus* (Carolina Wren), *Pipilo erythrophthalmus* (Eastern Towhee), *Colaptes auratus* (Northern Flicker), *Baeolophus bicolor* (Tufted Titmouse), *Corvus brachyrhynchos* (American Crow), *Cyanocitta cristata* (Blue Jay), *Cardinal cardinalis* (Northern Cardinal), and *Poecile carolinensis* (Carolina chickadee).

Additional Rare Species that occur adjacent to this site or along Love Creek include:

Hyla gratiosa (barking treefrog), *Apeltes quadracus* (fourspine stickleback), *Eryngium aquaticum* var *aquaticum* (rattlesnake master), *Lobelia elongata* (elongated lobelia), *Sabatia dodecandra* (large marsh pink), *Sacciolepis striata* (gibbous panic-grass).

Several of the plant species are associated with the riparian buffer along Love Creek. **These will be preserved.** There is also a Bald Eagle nest upstream from the site and the trees along Love Creek are used for foraging and roosting. Therefore, the forested riparian buffer along the creek is extremely important not only for water quality, but also for supporting wildlife and plant species, some of which are rare.

Tidal Shrub Wetlands

Tidal shrub wetlands have been documented and mapped along the portion of Love Creek that borders this property. This wetland type is transitional between emergent wetlands and forested wetlands and possesses many important wetland values and functions, as well as providing important habitat for an array of wildlife species. Specific hydrologic, edaphic, and topographical conditions must be in place in order for tidal shrub wetlands to develop. If these conditions are disturbed or changed in any way from construction activities, the potential exists for community structure and plant species composition to shift in an unfavorable direction. Disturbance such as soil runoff from construction activities would be detrimental to this wetland type. Therefore, upland buffers are extremely important for maintaining the overall ecological integrity of these wetlands. **There are upland buffers planned for this application and no proposed lot will contain any Tidal shrub wetlands.**

Forested Wildlife Habitat

This project proposes to fragment a 137.60 acre forest and clear at least 70.53 acres of trees. **This proposal is a re-development of this land. The harvesting practices of the past have fragmented this woodland stand. Central to the woodland is 12.65 acs. of recently reforested emergent growth as well as 16.53 acs. along the south western section of the property.** Cumulative forest loss throughout the State is of utmost concern to the Division of Fish and Wildlife, which is responsible for conserving and managing the State's wildlife (see www.fw.delaware.gov and the Delaware Code, Title 7). Forest fragmentation separates wildlife populations and increases "edge effects" that leave many forest dwelling species vulnerable to predation and allows the infiltration of invasive species. Converting an established forest into a

residential area can result in human/animal conflicts including interactions on the roadways. It is debatable to label this woodland as an established forest when in fact it is predominantly emergent second growth. Although the forest on this site appears to be in various stages of succession, it does provide habitat for a variety of wildlife species, some of which are State-rare. In a landscape context it could be especially important to local wildlife because it abuts a creek and is separated from other woodlots by development, roadways, and fields.

Because of an overall lack of State and local forest protection, we have to rely on landowners/developers and/or the entity that approves projects (i.e. counties and municipalities) to consider implementing recommendations that will aide in reducing forest loss.

Recommendations:

1. DNREC recommends that consideration for preservation of all or at least part of the forest be made. Especially important is the Coastal Plain Rich Wood Community mentioned above. There are incentive-based programs for wildlife management available to private landowners through our agency. Please contact Shelley Tovell at (302) 735-3605 if the landowner(s) is interested in more information. The State is requested to forward a draft mapping of this community ASAP so we may take its location into consideration during the design layout.

If preservation is not going to be considered we recommend the following:

1 To reduce impacts to State-rare species and unique communities, boundaries of the Coastal Plain Rich Wood community should be mapped so that this unique resource could be preserved as open space. The site plan would have to be changed to minimize impacts. The program staff would map this community at no cost/liability to the landowner/developer. Please contact Edna Stetzar at (302) 653-2880 if the applicant is interested in preserving this unique community.

±2 Redesigning the site plan so that lots and infrastructure are clustered would minimize fragmentation of the existing forested area. This would benefit not only State-rare species but many other species of wildlife which require larger,

connected blocks of forest (such as the neotropical migratory songbirds listed above).

4. If over 70 acres of trees are still going to be cleared despite DNREC objections, DNREC recommends clearing not occur April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize forests for breeding. This clearing recommendation would only protect those species during one breeding season; once trees are cleared the result is an overall loss of habitat.

Please remember that the landowners could harvest all timber on this site as a crop and that it is with this development that preservation is proposed to occur. The applicant has made an effort based on Comments received by the PLUS process to reduce loss to the wooded areas by re-positioning Storm Water, increasing forested riparian buffers, adjusting lots and tightening Amenities and utility alignments in consideration of forest preservation.

Primarily the site consists of succession re-growth forest, only a small portion of the site hasn't been compromised by clear cutting activities at various times and the plan has made buffer and/or open space provisions for the most established sections of the intact woodland areas. The current Plan has been revised to now preserve 75 acs. vs. originally 67 acs. additionally the plan now reflect reforestation of 7.41 acs. in the existing open farm fields to mitigate disturbance to other wooded areas on site. Putting these Best Management practices together 60% of the land shall remain in forested

cover vs. the original plan of 48.74%.

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. 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. The Plan shall reflect this recommendation.

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 and/or size of the ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized. Will Comply

Site Investigation and Restoration

Only one Site Investigation and Restoration Branch (SIRB) site was found within a half-mile radius of the proposed site: Sussex Lumber Yard (DE-118) is located in the western portion of the proposed site. The site was used as a lumberyard. A remedial investigation was conducted in 1993. The investigation revealed the presence of elevated levels of metals in soil samples. A proposed plan of remedial action that was completed in 1996, recommended removing the contaminated soils. The site was remediated and a deed restriction was put in place. An Operations & Maintenance Plan will be prepared for the maintenance of the vegetative cap on the remediated soils. This area is located on the Plan and will be protected from any soil disturbance. DNREC recommends avoiding the use of groundwater as drinking water, and an environmental evaluation of the entire property prior to any development. This extensive study has been completed and was presented at the PLUS hearing. The owner could apply for Brownfield funds with DNREC-SIRB since this potentially qualifies as a Brownfield Property.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 16.3 tons (32,693.3 pounds) per year of VOC (volatile organic compounds), 13.5 tons (27,067.8 pounds) per year of NOx (nitrogen oxides), 10.0 tons (19,971.1 pounds) per year of SO₂ (sulfur dioxide), 0.9 ton (1,777.8 pounds) per year of fine particulates and 1,367.4 tons (2,734,751.0 pounds) per year of CO₂ (carbon dioxide).

However, because this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for

VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NOx; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NOx emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (level 1,2 or 3). **Because it has been labeled, as a Level 4 area doesn't mean the above statement on Air Quality is a valid assessment of its emissions. This project is surrounded on three sides by Level 3 growth areas and is in the environmentally sensitive development area. The level four designation of this property doesn't mean the emissions differ from what adjacent level three communities contribute.**

Emissions from area sources associated with this project are estimated to be 6.6 tons (13,186.7 pounds) per year of VOC (volatile organic compounds), 0.7 ton (1,450.9 pounds) per year of NOx (nitrogen oxides), 0.6 ton (1,204.1 pounds) per year of SO2 (sulfur dioxide), 0.8 ton (1,553.8 pounds) per year of fine particulates and 26.7 tons (53,455.9 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.6 tons (5,226.3 pounds) per year of NOx (nitrogen oxides), 9.1 tons (18,178.3 pounds) per year of SO2 (sulfur dioxide) and 1,340.6 tons (2,681,295.1 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO2	PM _{2.5}	CO2
Mobile	16.3	13.5	10.0	0.9	1367.4
Residential	6.6	0.7	0.6	0.8	26.7
Electrical Power		2.6	9.1		1340.6
TOTAL	22.9	16.8	19.7	1.7	2734.7

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.6 tons of nitrogen oxides per year and 9.1 tons of sulfur dioxide per year.

A significant method to mitigate this impact would be to require the builder to construct Energy Star qualified homes. Every percentage of increased energy efficiency translates into a percent reduction in pollution. Quoting from their webpage, <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of:

- building envelope upgrades,
- high performance windows,
- controlled air infiltration,
- upgraded heating and air conditioning systems,
- tight duct systems and
- upgraded water-heating equipment.”

The DNREC Energy Office is in the process of training builders in making their structures more energy efficient.

The Energy Star Program is excellent way to save on energy costs and reduce air pollution. The Energy Office recommends this project development and other residential proposals increase the energy efficiency of their homes.

They also recommend that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths, links to mass transit, and fund a lawnmower exchange program for their new occupants.

The developer shall endeavor to promote the above recommendations

State Fire Marshal's Office – Contact: Duane Fox 856-5298

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- ¾ 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.
- ¾ Where a water distribution system is proposed for townhouse type dwellings it shall be capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 feet spacing on centers are required.
- ¾ The infrastructure for fire protection water shall be provided, including the size of water mains.

b. **Accessibility:**

- ¾ 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 Robinsonville Rd. 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.
- ¾ 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.
- ¾ The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- ¾ The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

c. **Gas Piping and System Information:** ¾ Provide type of fuel proposed, and show locations of bulk containers on plan.

d. **Required Notes:**

- ¾ 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”

- ¾ Name of Water Supplier ¾ Proposed Use ¾ National Fire Protection Association (NFPA) Construction Type ¾ Townhouse 2-hr separation wall details shall be shown on site plans
- ¾ Maximum Height of Buildings (including number of stories)
- ¾ Provide Road Names, even for County Roads

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 Agriculture - Contact: Scott Blaier 698-4500

The proposed development is in an area designated as Investment Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* do not support this type of isolated development in this area. The intent of this plan is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities. This project is surrounded on three sides by Level 3 growth areas and is in the environmentally sensitive development area. Not all level 4 areas are created equal and there is a trend in this area to convert lands into residential neighborhoods. This is a compatible land use in this vicinity. Due to clustering of homesites on appropriate projects of this nature actually could help preserve farmlands subject to larger lot parceling in more rural areas and the sprawling consumption of those lands. This is an appropriate and sensitive use for this land in this vicinity and is located in the Developing area by the local County authority. 15.56 % of the site is in farm fields the remaining lands are emergent forest after various harvesting operations.

More importantly, the Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware’s resource industries - agriculture, forestry, horticulture - and the related industries they support. Often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. We oppose the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation. Infrastructure is available to this area and it could hardly be deemed an isolated area, this is why all level 4 designated areas are not created equally.

The developer should be aware that this property is subject to an Agricultural Lands Preservation Program District Agreement until March 29, 2010. Although the Department has received the required notification from the landowner to terminate the agreement after that date, no subdivision plan can be recorded by Sussex County until after that date. Due to the lengthy entitlement process this application will be seeking final recordation after March 29th, 2010.

Section 1. Chapter 99, Code of Sussex Section 99-6 may also apply to this subdivision when it is developed. 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.

The developer should also coordinate with Sussex County to ensure their project is in compliance with the County’s forested buffer requirements.

This site overlaps the State’s Green Infrastructure Investment Strategy Plan. The Forest and Natural Areas layers are present on the site. This designation identifies areas of the state that have viable and valuable forest land and natural resources, as discussed in Governor Minner’s Executive Order Number 61. Areas such as these should be preserved as such, and not developed for residential use. [This proposal respects the natural features of the site and is perfectly and legally valid to be developed as proposed.](#)

The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

Right Tree for the Right Place

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 Ash Trees
Leyland Cypress Red Oak (except for Willow Oak)
[Will Comply](#)

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. Existing forest materials grow along the only agricultural property (southeastern Line) and the closest rear proposed property line of Lot 180 is 40'. This buffer separation along with the rear yard of 10' equals the required 50'. There is no need to supplement this established forested buffer with additional plantings at this time.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a 1:1 ratio within the site and throughout the community. This will help to meet the community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754. The larger agricultural field that runs parallel with the road shall undergo a substantial reforestation to voluntarily mitigate the removal of existing trees in the wastewater disposal area. This is a reforestation area greater than 7 acres. The site design originally considered the field area as the disposal area but the soils work has indicated otherwise. This reforestation effort will be with mixed hardwood and evergreen seedlings and the applicant will work with the State forester on the mix, availability, timing of planting, type and maintenance suggestions for increased survivability.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Delaware State Housing Authority – Contact Vicki Powers 739-4263

The proposal is for a site plan review for 213 residential units on 162.95 acres, located on Robinsonville Road west of 24 near Rehoboth. According to the *State Strategies Map*, the proposal is located in an environmentally sensitive area. As a general planning practice, DSHA encourages residential development in these areas where residents will have proximity to services, markets, and employment opportunities. DSHA supports the fact that this proposal targets first-time homebuyers. According to the most recent real estate data collected by DSHA, the average home price in Sussex County is \$280,000. However, families earning respectively 100% of Sussex County's median income only qualify for mortgages of \$164,791, thus creating an affordability gap of \$115,209.

The provision of units within reach of families earning at least 100% of Sussex County's median income will ensure housing that is affordable to first-time homebuyers. To facilitate the units targeted for first-time homebuyers, DSHA encourages the developer to apply for Sussex County's Moderately Price Housing Unit

(MPHU) Program, which provides the following incentives: an expedited review, density bonuses, and full utilization of the zoning designated for the parcel.

A Request for Proposal (RFP) process has been established to select initial program participants. The developer is encouraged to call William C. Lecates, Director of Sussex County's Community Development and Housing Division at (302) 855-7777 to learn more about the RFP application process. In regards to affordable housing we believe this application will not qualify for strict adherence to the guidelines however the applicant is providing multi-family units moderately priced along the frontage of this plan. This would provide a mix of pricing from the more expensive Creek side residents to the more efficient and smaller multi-family units. This mix allows varying income levels to have an opportunity to buy within this Community.

Department of Education – Contact: John Marinucci 735-4055

DOE recognizes that this development project is in level 4 of the State Strategies for Policies and Spending and as such, DOE offers the following comments since this project is located within an environmentally sensitive developing area.

1 This proposed development is within the Cape Henlopen School District boundaries.

+2 DOE offers the following comments on behalf of the Cape Henlopen School District.

+3 Using the DOE standard formula, this development will generate an estimated 107 students. This estimate is based on a statewide boilerplate PLUS response formula and is very suspect to being inaccurate for the Coastal Sussex County areas. Studies by qualified private consultants have pointed out that growth in development doesn't necessarily mean a proportionate growth in student enrollment. Many homes are second homes or retirement homes where no children are in need of schooling. The density of students per household in the Cape Henlopen School District as a whole is about .23. That's 23 students per 100 households. Using this more specific formula to this development would yield an additional 49 students not 107. This increase would be spread across 13 grades from K through 12, which adds 3.8 students to each grade.

+4 DOE records indicate that the Cape Henlopen School Districts' *elementary schools are very close to 100% of current capacity* based on September 30, 2007 elementary enrollment.

+5 DOE records indicate that the Cape Henlopen School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2007 secondary enrollment.

+6 While the Cape Henlopen School District secondary and elementary schools are not currently beyond capacity, *the district does 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 district boundaries. The added students 3.8 per grade would be added over time. It will most likely take over ten years for the development to be near completion or built-out and occupied. Many other factors would need to be considered within that time frame to draw the conclusion that the schools couldn't accommodate the potential students from this development.

+7 Continued development will cause significant burden to the Cape Henlopen School District without the provision for additional educational infrastructure. The developer is strongly encouraged to the Cape Henlopen School District Administration to address the issue of school over-crowding that this development will exacerbate. Additional development gives more to the school system here in the Cape region than it takes

by way of taxes and low usage per household. Equalization and distribution of those funds to surrounding districts supports this as a reality.

+8 DOE requests the developer work with the Cape Henlopen 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 school district. Will comply

Sussex County – Contact: Richard Kautz 855-7878

This project is an AR-1 ESDA subdivision and the developer is allowed to reduce the lot size to provide for mitigation of the impact on environmental factors. Because this project is situated in an Environmentally Sensitive Development Area, the required report should discuss how both this requirement to mitigate environmental impact and the PLUS comments have been addressed. The report should also explain how the plan has been revised accordingly. Use of Low Impact Design principals and Green Technology helps address the environmental issues. The Sussex County Engineer Comments:

The proposed project is in the Environmentally Sensitive Developing Zone and the Angola Neck Planning Area. Sussex County plans to serve the area within the Angola Neck Sanitary Sewer District but does not expect to provide serve to the parcel before 2010. The project proposes to develop using a private central community wastewater system. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility that meets TMDL limits for Delaware's Inland Bays. In addition, we recommend they have a wastewater utility provider prior to approving the project. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots and separated from lot area.

If Sussex County ever provides sewer service and the project has a CPCN, it is recommended that the treatment system be abandoned and a direct connection made to the County system at the developer's and/or owners expense. If Sussex County ever provides sewer service and the project does not have a CPCN, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or owners expense.

Submission and approval of a sewer concept plan is not required.

For questions regarding these comments, contact Rob Davis, Sussex county Engineering Department at (302) 855-7820.

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: Sussex County

Thank you for the opportunity to hereby submit our response to the State Comments. We request that any and all inquiries for copies of this PLUS review include the applicant response herewith. Should you have any questions and or further comments please feel free to call us.

Sincerely,

Thomas J. Ford RLA
LANDDESIGN, inc