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By: Certified Mail

Constance C. Holland, AICP, Director
Office of State Planning Coordination
540 S. DuPont Hwy, Suite 7, 3rd Floor
Thomas Collins Bldg
Dover, DE 19901

2006 AUG 18 PM 3 09
RECEIVED
OFFICE OF THE SUPERVISOR
August 2006

RE: PLUS Review 2005-06-19, Estuary

Dear Ms. Holland,

SECI is pleased to provide our responses to the PLUS comments for the Estuary per state requirements. Our specific responses are incorporated into your comment letter, which has been reproduced and paraphrased in Attachment 1: "PLUS Comments and Responses". The PLUS comments are in italics and our responses shown in red.

In general, the developer and SECI would like to express our appreciation for the input of various agencies contributing comments through the PLUS process. We have taken the time to make some revisions to the Preliminary Plan submitted August 2005 that incorporate, to the extent practical, many of the comments offered through PLUS. Some of the highlights include:

- eliminated over 1000 linear feet of road right of way with a concomitant reduction in impervious surfaces and increase in forest and other open spaces
- increased connectivity, reduced length of dead-end cul-de-sacs
- retained and added more upland forest
- avoided more impacts to streams by proposing bridges and bottomless box culverts at 70% of ditch crossings
- proposed creating 1-2 acres of Palustrine forest in a cultivated/farmed wetland
- increased average wetland buffer
- substituted forested floodplain/constructed wetland for "skinny ponds" noted by DNREC
- addressing DelDOT comments, including row dedications, round about guidance, cut number of entrances, and added "shared use patterns"
- addressing Fire Marshall comments
- coordinated with Sussex County Engineering for county sewer
- exceed TMDL goals for inland bays

- conducted a groundwater study to determine existing soil/groundwater conditions in anticipation of modeling and designing sustainable ponds and constructed wetland BMP's
- provided non-vehicular access paths and discovery trails for site wide interconnectivity
- established relationships with the Department of Agriculture, State Forester, and the Center for Inland Bays to initiate innovative designs and pilot projects
- prepared a "watershed" scale drainage analysis to analyze existing drainage and flooding conditions
- SECI has scheduled a JPP hearing to discuss the minimized impacts to "waters of the U.S." and our offers for compensation for any losses

Again, the developers and SECI wish to thank the PLUS review agencies for their input, which provided guidance we utilized in refining our substitute Preliminary Plan for the Estuary.

Sincerely,



William E. Stephens, President

WES/glb

Attachments: Attachment 1: PLUS Comments and Responses

Cc:	Jack Haese	via regular mail and email
	Jim Fuqua, Esq.	via regular mail and email
	Bill Lukens	via regular mail and email
	Chris Sollenberger	via email
	Anna Sollenberger	via email
	Bill Stephens	via email
	Bob Wijkowski	via email
	Rich Horenburger	via email

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**ATTACHMENT 1:
PLUS COMMENTS AND SECI RESPONSES
PLUS Review 2005-06-19, The Estuary,
Letter Dated July 13, 2005**

SECI has responded to the State Planning Coordination comments. Your comments are italicized and our responses are in red print.

Executive Summary

This section includes some site-specific highlights from agency comments found in this letter and is provided for your convenience and reference. The full text of this letter represents the official state response to this project. The applicants are responsible for reading and responding to this letter and all comments contained within it.

State Strategies/Project Location

- *This development is proposed for an Investment Level 4 area according to the Strategies for State Policies and Spending and is in the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. In this case, the Green Infrastructure value, forested areas, wetlands, and the State Resource Area/Natural Area on the site influenced the designation as Investment Level 4.*
- Acknowledged

Street Design and Transportation

- *Right-of-way dedication will be required along the frontage of Camp Barnes Road, Millers Neck Road and Old Mill Bridge Road.*
- SECI's Preliminary Plan has provided for the following right-of-way dedications: 70' equivalent provided on Camp Barnes, 70' Double Bridges, and 60' Old Mill Bridge Road. 110' ROW for realigned section of Millers Neck Road for balance of Millers Neck Road.
- *While cul-de-sacs are sometimes necessary to make efficient use of land with environmental constraints, they are not conducive to good traffic flow or a sense of community. Where possible, cul-de-sacs should be eliminated.*
- Several longer cul-de-sacs have been shortened or connected to other roads to improve circulation. All remaining cul-de-sacs meet applicable Sussex County and State Fire Marshall regulations.
- *A paved multi-modal path, located in a 15-foot wide permanent easement, is required across the frontage of the site on each road.*

- On the revised Preliminary Plan a “shared use or multimodal” path has been provided along at least one side of all public roads and the Estuary Boulevard (Private road) either within the right-of-way or within a 15’ easement along side the right-of-way depending upon available width, to accommodate non-vehicular traffic. These paths connect sidewalks within the neighborhoods and trails throughout the site linking individual homes with passive and active recreational facilities and adjoining properties.
- *DelDOT will require a new traffic impact study (TIS) for this development. The applicant’s traffic engineer should contact Todd Sammons, Development Coordination Section.*
- The project has Preliminary Approval of the TIS from DelDOT. The final site plan will submitted with the final TIS for DelDOT approval. The Traffic Group and SECI have worked closely with DelDOT to assure their requirements will be met.

Natural and Cultural Resources

- *Particularly because of the environmental sensitivity of this area, lots should be entirely removed from the wetland complex. No portion of any of the lots are in wetlands. Minimum 100 foot vegetated buffers comprised of native trees, shrubs or no-mow grasses should be employed from the edge of the wetland complex. Buffers vary and will remain as designed. The minimum buffer along 404 wetlands 30’, except along a small section of Estuary Boulevard and at Bridge/Culvert Crossings. The 404 buffer averages more than 70 feet. None of the lots are within the State Tidal Wetlands buffer as determined in the field by SECI. The Tidal Wetland Line will be field verified by DNREC following Preliminary Plan Approval, and any adjustments required will be made so that no portion of any lot falls within the Tidal Wetland buffer.*
- *All ditches on the property should be taken to ensure that construction does not hinder any off-site drainage upstream or create off-site drainage problems downstream by the release of on-site storm water.*
- SECI recognizes the environmental concerns and engineering considerations involved with ditches. Many ditches will be cleaned of invasive vegetation, recontoured, and replanted. A forested flood plain may be created along principle streams. A flood study is in progress to determine the extent of non-FEMA delineated flood plain. This study, coupled with engineering computations will be used to address these concerns.
- *Clearing trees here will cause fragmentation of the larger forest, resulting in a significant decrease in habitat value. The developer is strongly encouraged to preserve and enhance the forested resources on the site by minimizing clearing*

activities and removing lots and associated infrastructure, such as storm water management ponds, from forested areas.

- (The existing forest totals 421.11 acres. The design preserves 232.37 acres of forest and creates an additional 36.2 acres of forest, totaling 268.37 acres, or 64% exclusive of any landscape plantings/street trees, or constructed forested wetlands within stormwater out lots.).
- *Portions of the site are within the 100-year floodplain. It is recommended that filling, construction activities and buildings be kept out of the floodplain.*
- Flood plain fill will occur per design. FEMA will be consulted for map revisions etc.) Minor construction will occur in FEMA delineated areas. The construction, whether filling or placement of structures, will meet applicable codes. SECI plans to replace lost flood plain at a rate of 2:1 on surface area, and The Delmarva Fox Squirrel 4:1 for storage volume. The fee simple forested buffers required by Sussex County Code that parallel drainage ditches are proposed to be designed as forested flood plain.
- *The proposed project lies within a 3-mile radius of a known Delmarva fox squirrel population at the Assawoman Wildlife Area. Delmarva fox squirrels were listed as federally endangered in 1967 and are protected by the Endangered Species Act. Because the project site contains potential Delmarva fox squirrel habitat, the requirements are included in the "Rare Species" portion of the letter.*
- The Delmarva fox squirrel population at Assawoman is a released population that managed as "experimental, non-essential" population.
- *Because the project site is adjacent to the Assawoman Wildlife Area, the developer should work with Rob Gano, the Regional Wildlife Biologist, to address concerns.*
- Acknowledged.
- *Because of the environmental sensitivity of the area, the developer should use pervious alternatives to asphalt and concrete where possible to reduce the amount of impervious cover.*
- These alternatives are not practical or not permitted in most cases. The Boat/RV storage area and some areas within the amenities will utilize pervious "pavement". SECI's updated Preliminary Plan eliminated about 1000 linear feet of dual lane roadway (about three (3) acres of impervious surface) and retained about one (1) acre of existing forest as a response to this concern.

Office of State Planning Coordination – Contact Ann Marie Townshend 739-3090

This development is proposed for an Investment Level 4 area according to the Strategies for State Policies and Spending and is in the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. Based on the extensive data analysis used to develop the Strategies, the presence of Investment Level 4 in the Environmentally Sensitive Developing Area is an indication of sensitive natural resources on-site. In this case, the Green Infrastructure value, forested areas, wetlands, and the State Resource Area/Natural Area on the site influenced the designation as Investment Level 4.

In these areas, we recommend a design that is sensitive to the natural resources on and surrounding the site. We are aware that the developer has made efforts to design this project in a way that respects its natural surroundings; however, DNREC comments indicate significant environmental constraints on and surrounding the site. We ask that you continue to work with DNREC and the Department of Agriculture to address their issues regarding protection of natural resources in the development of the site.

- The Developer has been working with The Department of Agriculture and the Center for Inland Bays to help plan to protect and enhance the natural resources of the site.

State Historic Preservation Office (SHPO) – Contact Alice Guerrant 739-5685

SHPO opposes development of this site in the Level 4 area. Development as proposed will sacrifice historic farm landscape found in the area and will adversely affect the setting, noise level, and view shed of several historic properties nearby. In addition, there are two known archaeological sites on the parcel and other areas of high potential for historic and prehistoric period sites. The Beers Atlas of 1868 shows two properties, the J.W. Williams House and the E.F. Williams House, on the site. Generally, this area saw very early historic-period settlement so there is the potential for 17th- and 18th- century sites to be found along the creeks.

If an Army Corps of Engineers permit is required, the applicant will be required to consult with this office under Section 106 of the National Historic Preservation Act of 1966 (as amended). The applicant may also have to perform archaeological testing and/or data recovery excavations.

- A cemetery on site will be relocated. Phase 1 Archaeological is completed and was provided with the package. Following Preliminary Plan Approval, the developer plans to proceed with a Phase 2 Archaeological Assessment of areas identified in the Phase 1 as favorable for Palco Indian sites. Steps will be taken to relocate and to re-inter the remains within the cemetery.

- *If this development moves forward without an ACOE permit, SHPO requests the opportunity to perform archaeological testing to identify other sites within the property and to learn more about the character of known sites. Finally, it is recommended that any development be screened from nearby historic properties with appropriate landscaping.*

Department of Transportation – Contact Bill Brockenbrough 760-2109

Most of the area where this development is proposed is designated as Level 4 in the Strategies for State Policies and Spending. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 areas while avoiding the creation of isolated developments that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

Recognizing that this project is in an Environmentally Sensitive Developing Area, as designated by the Strategies and the Sussex County Comprehensive Plan, DelDOT is providing a technical review despite the project's being proposed for a Level 4 area.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. The use of transfer of development rights is encouraged where this growth management tool is available. Our technical comments are as follows:

- 1) *Camp Barnes Road, Millers Neck Road and Old Mill Bridge Road are classified as local roads. Double Bridges Road is classified as a collector road. Local roads in Delaware typically have right-of-way widths ranging from 33 to 50 feet. Collector road rights-of-way vary but are generally wider. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 (60' row) feet from the centerline on local roads and 40 (80' row) feet from the centerline on collector roads. Therefore right-of-way dedication will be required along the frontage to provide any additional width needed from this project.*

SECI's Preliminary Plan has provided for the following right-of-way dedications: 70' equivalent provided on Camp Barnes, 80' Double Bridges, and 60' Old Mill Bridge Road. 110' ROW for realigned section of Millers Neck Road and 60' for the balance of Millers Neck Road.

- 2) *A paved multi-modal path, located in a 15-foot wide permanent easement, is required across the frontage of the site on each road.*

On the revised Preliminary Plan a "shared use or multimodal" path has been provided along at least one side of all public roads and the Estuary Boulevard (Private road) either within the right-of-way or within a 15' easement along side the right-of-way depending upon available width, to accommodate non-vehicular traffic. These paths connect sidewalks within the neighborhoods and trails

throughout the site linking individual homes with passive and active recreational facilities and adjoining properties.

- 3) *DelDOT has seen several proposals for the development of more or less this same assemblage of parcels. On January 23, 2003, DelDOT commented to Sussex County on the results of a traffic impact study (TIS) done for a 750-dwelling proposal known as Palisades. This was followed by a July 2003 proposal for 381 dwellings under the name Williams Creek Estates and a September 2004 proposal for 1,460 dwellings under the name Double Bridges. The Double Bridges proposal was large enough to require a new traffic impact study. DelDOT received traffic counts for that study but has seen no further progress with regard to it.*

The Preliminary TIS has subsequently been approved by DelDOT. The Final TIS will be submitted shortly.

While the Palisades proposal was for a similar number of dwellings, it included duplex units, townhouses and condominiums as well as single-family detached houses. For that reason, the Palisades proposal would have generated substantially less traffic than 770 single-family detached houses. Accordingly, and because the traffic counts used in it are now about three years old, DelDOT will require a new TIS for this development.

DelDOT is now aware that a new TIS was in fact in progress at the time of this review.

These studies typically take 6 to 12 months from the initial scoping meeting to the completion of DelDOT's review. The applicants should have their traffic engineer contact Mr. Todd Sammons, Development Coordination Section, (302) 760-2134, as soon as possible to obtain a scope for this study. DelDOT will provide a copy of its January 2003 letter for the applicant's use with the final version of these comments.

- 4) *Some of the proposed cul-de-sacs should be eliminated. Cul-de-sacs are sometimes necessary to make efficient use of land with environmental constraints, but are not conducive to good traffic flow or a sense of community. Where possible they should be eliminated.*

Several longer cul-de-sacs have been shortened or connected to other roads to improve circulation. All remaining cul-de-sacs meet applicable Sussex County and State Fire Marshall regulations.

- 5) *The developer's site engineer should contact the DelDOT Subdivision Manager for Sussex County, Mr. John Fiori, regarding requirements for access. Mr. Fiori may be reached at (302) 760-2260.*

SECI met with John Fiori (2005) to discuss the entrances. The total number of entrances on public roads, either existing or proposed, has been cut about in half. The roundabouts have been updated to reflect DelDOT Guidance. Right of ways have been offered for dedication as requested by DelDOT.

Department of Natural Resources and Environmental Control- Contact: Kevin Coyle 739-9071 (Bill Stephens called 7/20/2005, left message to return call to discuss, no response received)

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.

- Acknowledged, Developer and design engineer have taken extraordinary steps to protect sensitive resources and preserves.

Soils

According to the soil survey update, most of the soils mapped on this parcel (approx. 80%) are wetland associated hydric soils. Hurlock, Askecksy, Mullica-Berryland, and Broadkill mucky silt loam are major hydric soil units found on this parcel.

- Acknowledged, SECI has the new mapping and has conducted detailed site specific soil and groundwater investigations.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine and estuarine wetlands on this parcel. The parcel is bisected by numerous blue line streams. Site plans show impacts to drainage ditches, streams, palustrine and estuarine wetlands.

- Impacts are minimal and will be mitigated. Palustrine and estuarine wetlands are not disturbed by this plan. Tidal Wetlands and associated buffers are avoided.

Particularly because of the environmental sensitivity of this area, lots should be removed in their entirety from the wetland complex. (No lots were/are shown within delineated wetland.) Vegetated buffers comprised of native trees, shrubs or no-mow grasses, of no less than 100 feet should be employed from the edge of the wetland complex. (Buffers will vary but are 30' or greater and average more than 70' across the site.) The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners. Also, other infrastructure (roads, stormwater management ponds) should not be located within this buffer zone.

It is recommended that the Farm Services Agency of the USDA be contacted to assess whether the farmed wetlands on subject parcel meet the recognized criteria for classification as "prior converted wetlands." Prior converted wetlands are farmed wetlands that have drained or altered before December 23, 1985, and no longer meet the wetland criteria established under the 404 program. Such wetlands are considered exempt from regulatory protection provided that there is no proof of a continuous "fallow period" of five years or greater in that parcel's cropping history. Parcels converted after said date regardless of cropping history are considered jurisdictional by the Army Corps of Engineers (ACOE). The contact person for assessing a parcel's cropping history is Sally Griffin at the USDA – she can be reached at 678-4182.

It should also be noted that this parcel borders or contains headwater or near headwater riparian wetlands (Williams and Dirickson Creek) which eventually drain to the environmentally-sensitive Little Assawoman Bay subwatershed of the greater Inland Bays watershed system. Headwater riparian wetlands are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system and/or waterbodies (Inland Bays) further downstream. Since such streams are a major avenue for nutrient-laden stormwater and sediment runoff, their protection deserves the highest priority. In recognition of this concern, the Department strongly recommends that the applicant preserve the as much of the existing natural buffer as possible, including and immediately adjoining forested uplands. Otherwise – and as mentioned previously - a 100-foot buffer width is considered the minimum acceptable distance from all wetlands and waterbodies (including ditches). In cases where natural buffer vegetation has been removed or

reduced by past development or farming activities, the developer is encouraged to restore/establish to said buffer width or greater with native herbaceous and/or woody vegetation.

- The current design complies with all applicable regulations. Great effort has been taken by this developer to protect regulated natural resources.

Wetland Permitting Information

The developer and County should note that impacts to these wetlands and drainage ditches are regulated by both the DNREC Wetlands and Subaqueous Lands Section and the Army Corps of Engineers through the Delaware Subaqueous Lands Act and Section 404 of the Federal Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers 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 Programs Section. Each of these certifications represents a separate permitting process.

- Acknowledged

Because there is strong evidence that federally regulated wetlands exist on site, wetland delineation, in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1) should be conducted. Once complete, this delineation should be verified by the Corps of Engineers through the Jurisdictional Determination process.

PLUS materials indicate that road crossings and bridges will run through the stream(s) on site. Impacts to streams and associated riparian wetlands, including road crossings, are regulated by the Subaqueous Land Section from DNREC Division of Water Resources and the Army Corps of Engineers.

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) 739-4691 to schedule a meeting.

- Wetland delineations and surveys were previously completed for entire project and provided to the reviewers commenting herein. SECI has scheduled a JPP hearing to review the project with these agencies. Following Preliminary Plan approval, SECI will submit a PCN/NWPV (using the individual permit application form) for the entire site.

Impervious Cover

Given the environmentally sensitive nature of this watershed, the Department believes that the applicant should devote more effort to the implementation of innovative efforts or BMPs to reduce impervious cover. The Department believes that the amount of imperviousness generated by this project (approximately 20%) should be reduced. Use of pervious materials (where possible) in lieu of impervious paving surfaces (asphalt or concrete), can significantly reduce the amount of pollutant-laden surface runoff into wetlands and streams.

- SECI recognizes the environmental concerns and engineering considerations involved with ditches. Many ditches will be cleared of invasive vegetation, recontoured, and replanted. A forested flood plain may be created along principle streams. A flood study is in progress to determine the extent of non-FEMA delineated flood plain. This study, coupled with engineering computations will be used to address these concerns to the extent practical.
- Pervious pavement is not practical or not permitted in street, sidewalk, and similar applications. The Boat/RV storage area and some areas within the amenities will utilize pervious "pavement". SECI's updated Preliminary Plan eliminated about 1000 linear feet of dual lane roadway (about three (3) acres of impervious surface) and retaining about one (1) acre of existing forest.
- The Developer has been working with The Department of Agriculture and the Center for Inland Bays to help plan to protect and enhance the natural resources of the site.
- The current design complies with all applicable regulations. Great effort has been taken by this developer to protect regulated natural resources.
- All stormwater ponds will have a minimum 15-30' vegetated constructed wetland safety bench buffer. Floodways/waterways will be cleaned and re-contoured. BMPs will be utilized to minimize pollutants and sediment entering waterways and the Bay.

ERES Waters

This project is located adjacent to receiving waters of 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 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as

defined in subsection 11.5(e) of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.

- SECI's pollution control strategy includes vegetated BMPs, constructed wetlands, landscaping, vegetated buffers, vegetated flood plain creation and other practices.

TMDLs

Adoption of Total Maximum Daily Loads (TMDLs) as a nutrient-runoff-mitigation strategy for the Inland Bays Watershed makes reduction of nitrogen and phosphorus loading mandatory. 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 authorized under federal code, states are charged with developing and implementing standards to support these desired use goals. The jurisdictional authority for these use goals falls under Section 11.5 of the Surface Water Quality Standards (as amended August 11, 1999), and will be achieved via nutrient reductions referred to as "pollution control strategies."

Nutrient reductions are assigned on the basis of water quality concerns. Regions of greatest environmental concern will require higher levels of nutrient reduction than those deemed less environmentally sensitive. In this watershed, the regions are demarcated as high and low reduction zones. The high reduction zone corresponds to the western portion and requires a reduction of nitrogen and phosphorus by 85 and 65 percent, respectively. The low reduction zone corresponds to the eastern portion and requires a reduction of nitrogen and phosphorus by 40 percent. This project is proposed within the low nutrient reduction zone.

The proposed Pollution Control Strategy for the Inland Bays watershed calls for wastewater treatment systems to meet performance standards for nutrient reduction. In order to assist in the achievement of water quality standards and the promulgated TMDLs, we recommend that the planned development incorporate the proposed performance standards within its large community design as they are anticipated to be required in the future.

The inclusion of stormwater management and/or wastewater treatment areas in open space calculations may underestimate nutrient loading rates. In order for the applicant to verify compliance with the TMDL mandate, a full nutrient accounting process known as nutrient budget should be prepared. The developer/consultant should contact Lyle Jones in the Department's Watershed Assessment Section for further information regarding the acceptable protocol for calculating a nutrient budget. He can be reached at 739-4590.

- SECI obtained the latest protocol model from DNREC in July, 2006. The Estuary meets the 40% reduction goals for nitrogen and phosphorous without BMPs, these nutrients are reduced by more than 40%. As such, the site will meet the TMDL goals. All agricultural fields are currently loaded with applied poultry manure. The proposed development eliminates this practice; wastewater from the development will be pumped to the South Coastal Waste Water Treatment Plant for treatment before discharge offshore. Afforestation, Reforestation together with the elimination of land application of animal waste reduction of nutrients and offsite disposal of treated wastewater achieve the reduction without BMPs. The BMPs we propose further enhance reduction of nutrients beyond those goals. Copies of the protocols are attached.

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. The plan review and approval as well as construction inspection will be coordinated through Sussex Conservation District. Contact Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies. This action will help achieve the required TMDL reductions for the Inland Bays Watershed.

- SECI plans to use mostly non-structural, vegetative practices, including forested flood plains and constructed wetlands to enhance water quality. The regulations will be met.

Drainage

This project involves both the Williams Canal and Brasure Branch Tax Ditch. The Drainage Section has met with representatives of this development effort and relayed the rights-of-way for ditches. They are awaiting a more detailed plan to review. Additional notes and concerns follow.

The Drainage Section requests all existing ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required before cleaning ditches.

- Agreed

The Drainage Section requests that all precautions be taken to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site storm water.

- SECI's design will assure this is addressed. SECI has a "watershed" level analysis of the existing conditions and plans to perform pre and post-development HEC-RAS Analyses, as well as, post-development drainage analysis and stormwater management to assure adequate drainage through the site is maintained, flood conditions are improved not exacerbated and stormwater is controlled per DNREC and Sussex County requirements.

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described below.

- SECI will address in the design phase of the project.

Along an open ditch or swale, the Drainage Section recommends a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.

- Acknowledged

*Along a stormwater pipe the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. **(Ok all Drainage Easements (30' or more)** This zone should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.*

The Drainage Section recommends any drainage/utility easement owned by an individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within the drainage easement to allow for future drainage maintenance.

- Easements will be provided as needed. We will coordinate with the Drainage Section during the design phase.

Floodplains

Portions of the site are within the 100-year floodplain. It is recommended that filling, construction activities and buildings be kept out of the floodplain. Development activities in the floodplain require approval by Sussex County and must conform to Sussex County's floodplain regulations.

Flood plain fill will occur per design. FEMA will be consulted for map revisions, etc. Minor construction will occur in FEMA delineated areas. This construction, whether filling or placement of structures, will meet applicable codes. SECI plans to replace lost Flood Plain at a rate of 2:1 on surface area, and 4:1 for storage volume.

Forests

According to 2002 aerial photos forested areas exist on this parcel; site plans show that lot lines will contain portions of the forest. 1937 images show that the existing trees were present at the time. Because of this, the forest is extremely beneficial as it is an old growth forest which provides important habitat for wildlife. PLUS materials indicate that 75 acres will be removed for development. This forest tract is extremely beneficial to the region as it is connected to the Assawoman Critical Natural Area. Large contiguous stretches of forest like this not only provide important water and air quality benefits, but provides important habitat for many wildlife species that depend on interior forest. Clearing portions of the forest within the parcel will reduce the habitat value of the entire forest stretch.

Old growth forests support a variety of species. The plants, wildlife, and insects found in this forest are dependent upon the ecological conditions that are present. These conditions do not occur in younger, less mature forests. Many species of birds that are present in old growth forests rely on these conditions, species such as; raptors, owls, and songbirds. Critical nutrient recyclers, like lichens and fungi appear in mature forests rather than younger forests. The fallen trees in a mature forest provide shelter for insects and small mammals, such as bats. Because of this forests maturity, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site. This includes removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately.

Forested areas on-site set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe upon these areas.

- The revised Plan attempts to address such concerns to the extent practicable. On the new plan, 232.37 acres of forest are retained and 36.20 acres are planted by

the updated plan. These credits do not include street trees, landscape trees or forested constructed wetlands in the 30 acres of stormwater out-lots..

Open Space

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that lot lines and other infrastructure (such as storm water management ponds) be pulled out of the forest and that areas of community open space be designated along the forested areas.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased runoff into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

- The revised Plan attempts to address such concerns to the extent practicable (See previous comments).

Site Visit Request

Based on review of topographic maps, aerial photographs, and because Delaware Natural Heritage Program has not visited the site previously, their DNHP botanist and zoologist request the opportunity to survey the forested and wetland resources which could potentially be impacted by the project. Their observations would allow the program to make more informed comments on this project and would allow the applicant the opportunity to reduce potential impacts to rare species. Please contact Bill McAvoy and Kitt Heckscher at (302) 653-2880 to set up a site visit.

- The Developer has engaged SECI to conduct relatively extensive studies on the property. Extraordinary steps have been taken to protect critical habitat. The plan has been revised to protect critical habitat to the extent that is practicable. DNHP's "visit" to the site is deemed unnecessary, as the Developer has already completed such studies and they were included in the submission.

Rare Species

This project is adjacent to Assawoman Pond Natural Area which contains several state rare plants and the only known population of Hirst's Panic Grass in Delaware. Hirst's Panic Grass, a globally rare grass species, is known from only a few other sites in the

United States. This development has the potential to alter the hydrology of the area and negatively impact these species.

- This plant does not exist onsite. The habitat of this grass is hydrologically disconnected from the project by the main trunk of Brasures Branch. The development will have no impact on the hydrology of the site. Following Preliminary Plan approval, SECI plans to contact the Assawoman Wildlife Refuge to determine if seed-stock may be harvested for use on the Estuary. SECI plans to examine the feasibility of planting this rare grass at two (2) locations onsite.

*In addition, the proposed project lies within three miles of a known Delmarva fox squirrel (*Sciurus niger cinereus*) population at the Assawoman Wildlife Area. Delmarva fox squirrels were listed as federally endangered in 1967 and are protected by the Endangered Species Act. They generally inhabit mature forests with open understories and wet woodlands, but can be opportunistic in their habitat choice. The proposed project area contains potential habitat for Delmarva fox squirrels and the following is required:*

- *Contact Trevor Clark (410-573-4527) of the US Fish and Wildlife Service for proper procedures prior to beginning work. A conference with the Service is required for any projects that will directly or indirectly impact habitat within 3 miles of the Assawoman Wildlife Area fox squirrel locations;*
- SECI will work with the service to minimize the effort required to address this issue. The Assawoman population is “experimental, non-essential” and will be treated like a “proposed to be listed” species for section 7 purposes. (See attached documentation from USFWS website current as of 8/9/2006) SECI has placed calls to Mr. Clark and as yet not received a response. Mr. Clark is no longer in charge of this species. We left message(s) with Ms. Charisa Morris (410-573-4550) regarding the above also.

AND/OR

- *Contact and Trevor Clark (410-573-4527) of the US Fish and Wildlife Service for proper procedures prior to beginning work. Have surveys conducted to determine if Delmarva fox squirrels are present. In accordance with Delaware’s fox squirrel site survey procedures, surveys must be conducted by a State approved fox squirrel surveyor two times between September and May: once in the fall, and again between March 15 and May 30. A list of qualified surveyors is available upon request. Please note that surveys may confirm the presence of fox squirrels but cannot confirm absence.*
- We do not plan to conduct survey; a habitat evaluation was previously submitted. If the US Fish and Wildlife Service provides documentation that a survey on this property is required by law, we will conduct the survey as part of the permit process..

Assawoman Wildlife Area

The project contains lands identified as part of the Inland Bays State Resource Area and borders the Assawoman Wildlife area. The state is concerned that the wildlife area may be negatively affected by this development. Developments that displace wildlife often put greater pressure on wildlife areas and increase animal-human conflicts. The following items are issues that should be discussed with the Regional Wildlife Biologist, Rob Gano (302-530-3160) prior to initiation of construction activities and should be disclosed to potential buyers:

1. *Because this project borders the wildlife area and an area containing rare species, an adequate buffer should be left intact between the project site and the wildlife area. This buffer should be forested and be placed in a conservation easement so that future clearing does not occur.*
 - Buffers are provided as shown on revised plan.
2. *The developer should be aware that the property in question will be subject to the effects of legal hunting activities in the Wildlife Area, such as firearm noise or dogs barking when pursuing game. The northeast portions of this development lie along Miller Creek. The State maintains waterfowl hunting blinds along this estuary. Legal hunting for deer, wild turkey, waterfowl, quail, gray squirrel, rabbit, and dove take place within the Wildlife Area and the developer should consider placing dwellings at least 100 feet from the property boundary for safety reasons. The property is bounded by other private property and separated from public hunting lands except along the northern part of the eastern boundary of the Keen Tract with the Camp Barnes property.*
3. *The use of ATV's on Wildlife Areas is illegal. This has been a problem on other Wildlife Areas that are in close proximity to housing developments, and could become an on-going enforcement issue.*
 - Agreed. The Developer shall incorporate prohibitions into the HOA documents against the operation of ATV's on the property.
4. *During construction, measures should be taken so that on-site construction trash does not blow onto the Wildlife Area. In addition, planting a wind break would be useful in preventing residential trash from blowing onto the wildlife area. Residents should be aware that dumping trash on wildlife areas is illegal.*
 - Agreed – Developer shall incorporate prohibition against littering into HOA Documents.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese. 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 grasses around ponds provide an attractive habitat for these species. DNREC recommends native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, property managers or owners 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 proper landscaping, monitoring, and other techniques, geese problems can be minimized.

- The developer plans to engage an experienced environmental contractor to provide for the ongoing maintenance of the ponds. SECI's pond design will incorporate design strategies to minimize nuisance waterfowl problems.

Underground Storage Tanks

There are no LUST site(s) located near the proposed project. However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would be need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel in the contaminated areas.

- Agreed.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to estimate the amount of solid waste that will be generated as a result of construction and occupancy.

- Acknowledged

Air Quality

Air pollution threatens the health of human beings and other living things on our planet. While often invisible, pollutants in the air create smog and acid rain, cause cancer or other serious health effects, diminish the protective ozone layer in the upper atmosphere, and contribute to the potential for world climate change. Breathing polluted air can have numerous effects on human health, including respiratory problems, hospitalization for heart or lung disease, and even premature death. Some can also have effects on aquatic life, vegetation, and animals.

Once complete, vehicle emissions associated with this project are estimated to be 59.1 tons (118,187.0 pounds) per year of VOC (volatile organic compounds), 48.9 tons (97,850.8 pounds) per year of NOx (nitrogen oxides), 36.1 tons (72,196.1 pounds) per year of SO₂ (sulfur dioxide), 3.2 ton (6,426.7 pounds) per year of fine particulates and 4,943.1 tons (9,886,189.0 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 23.8 tons (47,670.2 pounds) per year of VOC (volatile organic compounds), 2.6 ton (5,245.2 pounds) per year of NOx (nitrogen oxides), 2.2 ton (4,352.7 pounds) per year of SO₂ (sulfur dioxide), 2.8 ton (5,617.0 pounds) per year of fine particulates and 96.6 tons (193,244.2 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 9.4 tons (18,893.0 pounds) per year of NOx (nitrogen oxides), 32.9 tons (65,714.9 pounds) per year of SO₂ (sulfur dioxide) and 4,846.5 tons (9,692,944.8 pounds) per year of CO₂ (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	59.1	48.9	36.1	3.2	4943.1
Residential	23.8	2.6	2.2	2.8	96.6
Electrical Power		9.4	32.9		4846.5
TOTAL	82.9	60.9	71.2	6.0	9886.2

The Department of Natural Resources and Environmental Control is asking that local jurisdictions consider mitigation to help resolve this issue. Mitigation might involve limiting large new developments to growth zones, focusing development to urban areas capable of providing mass transit services, requiring more energy efficient homes which would lessen air quality impacts, and promoting walkability and bikability within and between developments and town centers.

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 9.4 tons of nitrogen oxides per year and 32.9 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 energy office in DNREC 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. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

- *The Developer plans to employ the Energy Star Program Construction Methods. The trails and walkways provide alternatives to vehicular transportation. The Developer plans to provide Mass transportation for beach and outlet visitation.*

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:

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. (Storage)

Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)

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. (One & Two- Family Dwelling)

Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. 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 of more or 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.

- The comments provided by the State Fire Marshall will be noted in the final design and adhered to during construction.

c. Accessibility

All premises which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Old Mill Bridge Road 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. (38' minimum pavement radius with 40' returns provided on all cul-e-sacs) 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.

Acknowledged – none shown or planned

The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.

Speed bumps are not incorporated into our design.

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

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

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

SECI will coordinate with local propane company.

e. **Required Notes:**

Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”

Proposed Use

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)

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

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.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

- The design plans will comply with the requirements of the State Fire Marshall.

Department of Agriculture - Contact Milton Melendez 698-4500

The Delaware Department of Agriculture does not oppose the Estuary; however they encourage the developer to implement environmentally sensitive design and tree mitigation, as well as reduce impervious surfaces. The Delaware Forest Service encourages the developer to take extra measures to minimize environmental impacts. This development as proposed may lessen the value of the environmental resources found within and adjacent to this site. The Delaware Forest Service encourages the developer to preserve some of the larger more mature trees present within the site. The Delaware Department of Agriculture Forest Service offers it services to the developer in the re-design of this project, to learn more please contact our office at (302) 698-4500.

- SECI and the Developer are working with the Forest Service to develop innovative forest management strategies onsite.

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.

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 (30’ buffer required by code has been provided) corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and 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.

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 reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

Delaware State Housing Authority – Contact Jimmy Atkins, 739-426

A This proposal is to develop 770 units on 516 acres located Southeast of Double Bridges Road, on either side of Camp Barnes Road, north of Old Mill Bridge Road, and on either side of Miller Neck Road, between Dirickson Creek and Millers Creek and east of Bayard and west of Assawoman Bay. According to the State Strategies Map, the proposal is located in an Investment Level 4 area and in an environmentally sensitive developing area. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2. However, the proposal is located in an environmentally sensitive developing area, which the State Strategies Map does permit limited development to occur. Furthermore, the proposal targets units for first time homebuyers, which will help create affordable housing opportunities for low- and moderate-income families.

Public Service Commission - Contact Andrea Maucher 739-4247

The application notes that Tidewater Utilities, Inc. will provide water to the project; however, Tidewater holds a Certificate of Public Convenience and Necessity (CPCN) for only a portion of the project. Other parcels in the project area are in an Artesian Water Company certificated service territory, and other parcels have not been included in any public water utility service territory.

- The Developer has worked to remove Artesian from all properties in the project. All properties will have CPCN's through Tidewater Utilities.

The application notes that Tidewater Utilities will provide wastewater services; however, the project is not within one of its certificated service areas. Tidewater will need to apply to the Commission for a Certificate of Public Convenience and Necessity (CPCN).

Any expansion of natural gas or installation of a closed propane system must comply with Federal Pipeline Safety guidelines.

- The selected vendor will address this following plan approval as is the convention.

Sussex County – Contact Richard Kautz 855-7878

Because this project is an AR-1 Cluster subdivision, the developer must include in the application a plan for the management of all open space. Also, the developer must document for the Planning and Zoning Commission how the proposed development: provides for a total environment and design which are superior to that which would be allowed under the standard lot option; preserves the natural environment and historic or archeological resources; and, will not have an adverse effect on any of the items included under Ordinance Number 1152 (County Code 99-9C). These issues can be addressed by including in the application an explanation of how the developer plans to mitigate the issues raised by the State agencies.

- See attached environmental report.

This summer Sussex County will be considering implementation of a Source Water Protection Program required by the State. Depending on the requirements adopted by the County Council this project might be affected. Any well location should insure that the wellhead protection area is entirely on site.

- Tidewater will address these issues during the design phase of the project.

The Sussex County Engineer Comments:

The project proposes the use of a private central community wastewater treatment system. However, its location lies within Sussex County's South Coastal Wastewater

Planning Area boundary, and the Engineering Department opposes private wastewater treatment facilities being constructed within its defined planning areas. The proposed project is contiguous to an existing sewer district and can readily be annexed when the developer completes certain administrative procedures. This will require the construction of regional transmission sewers that will have the added benefit of making sewer service available to existing residents as well as other proposed development. The project proposes 770 units on 516 acres, which results in a gross density of 1.50 EDU's/acre. All sewer infrastructure must be constructed in accordance with Sussex County Sanitary Sewer Standards as well as the South Coastal Area Planning Study, Update 2004. A sewer concept plan must be approved prior to any construction plan review.

See attached, "Checklist for preparing concept plan drawings" and "Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District". For questions regarding these comments, contact Chris Calio, Sussex County Engineering Department at (302) 855-7839.

- The entire project is now to be annexed into, and served by, the county sewer system. SECI and the developer are working closely with the county toward annexation. An escrow agreement is currently being negotiated, and will be signed after the Preliminary Plan Approval. Concept drawings have been submitted to the Sussex County Engineering Department for review.

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