



December 11, 2006

Mark Davidson
Design Consultants Group, LLC
18072 Davidson Drive
Milton, DE 19968

RE: PLUS review – PLUS 2006-11-13; Riverwalk on the Broadkilln

Dear Mr. Davidson:

Thank you for meeting with State agency planners on November 21, 2006 to discuss the proposed plans for the Riverwalk on the Broadkilln project to be located between the north bank of the Broadkill River and the south side of Atlantic Avenue.

According to the information received, you are seeking rezoning and site plan approval through the Town of Milton for 370 single family and multi family units on 76 acres.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as the Town of Milton is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. *Our office*

notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.

State Strategies/Project Location

- This project is located in Investment Levels 1, 2 and 3 according to *Strategies for State Policies and Spending*. This site is also located in the Town of Milton. Investment Levels 1 and 2 reflect areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Investment Level 3 generally indicate areas where growth is expected in the longer term future, or areas in designated growth zones that contain environmental resources. In this case, the Level 3 area is present because of the proximity to the Broadkill River.
- This project presented represents a mix of housing types including both single family and multi-family units. **Our office supports these mixes in municipalities as essential to the Livable Delaware strategy of concentrating growth in and around existing communities and infrastructure.** This is the type of project that is highly desirable to allow us to meet our goals of revitalizing our already urbanized areas while protecting agricultural lands and natural resource areas from encroachment by sprawling suburban and rural development. Our office has no objections to the proposed development of this project in accordance with the relevant Town codes and ordinances.

Street Design and Transportation

- The developer of this project voluntarily had a traffic impact study done for this development and DelDOT has had their consultant, McCormick Taylor, review it. A copy of their letter is enclosed, but briefly it says that the developer should be required to improve Atlantic Avenue to Town standards, overlay Country Road (Sussex Road 22A) and make various bicycle and pedestrian improvements. DelDOT concurs with those recommendations.

Natural and Cultural Resources

- The information provided indicates that The Town of Milton will provide water to the proposed projects through a central public water system. DNREC files reflect that The Town of Milton does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They

will need to file an application for a CPCN with the Public Service Commission, if they have not done so already.

- DNREC has a serious concern with some of the steep slopes that have been subdivided into lots (i.e. lots 56 and 57, lots 115 through 121, lot 136, lots 159 through 175, lots on the east side of Broadkill Reach) . A significant amount of grading will be necessary for 1672 Settlers Run, resulting in an extremely steep slope adjacent to the non-tidal wetland. This is especially a concern during bulk grading operations when very little buffer has been left along the wetlands. Since the site is not proposing stormwater management ponds, those areas are not available as sediment traps during construction. Sediment traps will need to be incorporated into the bulk grading plan for each phase of construction.
- **Site Visit Request -** In order to provide more informed comments and to make recommendations, the program zoologist and ecologist request the opportunity to survey the forest and wetland areas that could potentially be impacted by the project. This would also allow the applicant the opportunity to reduce potential impacts to rare species and unique habitats and to ensure that the project is environmentally sensitive. In addition, a survey of the project site will give staff an opportunity to document the biodiversity of the property before project activities begin.
- Your proposed project lies within the area where Delmarva fox squirrel (*Sciurus niger cinereus*, DFS) is likely to occur. In addition to the fox square, there are also records of the Black Vulture, the Juniper Hairstreak butterfly and the Blackbanded sunfish.
- The estimated forest loss of 16.75 acres should be re-evaluated because once this site is built out and homes, driveways, roadways, and all the amenities being proposed are put in place, the amount of forest loss will likely be higher. In terms of wildlife habitat, the value will be significantly reduced and the forest fragmented and converted into a residential woods. A greater effort to preserve forest should be made by the developer and DNREC has given specific examples of how this can be accomplished under the Forest Preservation section of this letter.
- DNREC strongly requests that no less than a 100-foot forested buffer be left intact along the Broadkill River to protect water quality as well as rare species. Buildings and infrastructure that are currently being proposed within this buffer zone should be omitted or relocated. They are also concerned that there will be

interest in clearing this buffer zone in the future for vistas and access of the water, so a conservation easement should be placed on this buffer zone.

- Question #32 of the application lists the Broadkill River as the intended outlet for stormwater discharge. DNREC is adamantly opposed, especially when the amount of impervious surface for this project is 48% and there are 370 residential units and associated infrastructure.
- The Office of Nature Preserves respectfully objects to the site design of this plan. A majority of the development planned for the northeastern portion of the site is within a State Resource Area (SRA) and the Broadkill River Natural Area.

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 in Investment Levels 1, 2 and 3 according to *Strategies for State Policies and Spending*. This site is also located in the Town of Milton. Investment Levels 1 and 2 reflect areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Investment Level 3 generally indicate areas where growth is expected in the longer term future, or areas in designated growth zones that contain environmental resources. In this case, the Level 3 area is present because of the proximity to the Broadkill River.

This project presented represents a mix of housing types including both single family and multi-family units. **Our office supports these mixes in municipalities as essential to the Livable Delaware strategy of concentrating growth in and around existing communities and infrastructure.** This is the type of project that is highly desirable to allow us to meet our goals of revitalizing our already urbanized areas while protecting agricultural lands and natural resource areas from encroachment by sprawling suburban and rural development. Our office has no objections to the proposed development of this project in accordance with the relevant Town codes and ordinances.

Division of Historical and Cultural Affairs – Contact: Alice Guerrant 739-5685

Nothing is known within this parcel. A late-19th-c. to early-20th-c. agricultural complex is adjacent on the northeast, but will be buffered from this development by the existing ball fields, which will be kept. There is a high potential for prehistoric-period archaeological sites here. Historic maps and photographs do not show any occupation, however.

The developer noted that an archaeological investigation was done and that a brick kiln site was discovered in the southeast portion of the parcel. The Division of Historical and Cultural Affairs will need a copy of the report on this investigation so they can add this information to their files. The developer and the Town of Milton are discussing using this site as an educational area, preserving the kiln. The DHCA are in favor of this, and will be happy to provide any information or technical assistance that we can. Historic industrial sites such as this are quite rare.

Depending on how much work was done by the archaeologists earlier, the DHCA would like to examine the area for any prehistoric archaeological sites that may be there, and learn something about their location, nature, and extent prior to any ground-disturbing activities.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Chestnut Properties IV, LLC, seeks to develop a 76.05-acre assemblage of parcels (Tax Parcels 2-35-14.00-132.00 and 132.03) on the northeast side of Milton. More specifically, the land is on the south side of Atlantic Avenue opposite Boxwood, Yew and Hemlock Streets. The land is zoned R-1 and R-3 in the Town of Milton and a rezoning to LPD (Large Parcel Development) would be needed to permit the proposed development.

DeIDOT comments are as follows:

- 1) The developer of this project voluntarily had a traffic impact study done for this development and DeIDOT has had their consultant, McCormick Taylor, review it. A copy of their letter is enclosed, but briefly it says that the developer should be required to improve Atlantic Avenue to Town standards, overlay Country Road (Sussex Road 22A) and make various bicycle and pedestrian improvements. DeIDOT concurs with those recommendations.
- 2) Because the development is in the Town and has no direct access to State-maintained streets, the following comments are only advisory:
 - a) The street name 1672 Settlers Run is likely to create confusion because it sounds like a specific address on a street named Settlers Run. DeIDOT recommends that the date be deleted.

- b) The triangular island at the north end of 1672 Settlers Run should be checked with a turning template to be certain that it can accommodate expected truck traffic.
- c) The dogleg at the north end of River Passage Road should be realigned to form a single four-way, right-angle intersection of River Passage Road, Captains Walk Boulevard, River Walk Boulevard and American Holly Loop.
- d) Button Lane should be moved further north so that a southbound driver on River Passage Road can know better whether a driver ahead of them signaling a right turn is turning at Button Lane or American Holly Loop and so that Button Lane aligns better with Button Alley.
- e) The west ends of American Holly Loop, Broadkilm Reach and Shipchanders Avenue all intersect 1672 Settlers Run on skewed angles. They should be realigned to form right-angle intersections with 1672 Settlers Run.
- f) The street or alley parallel to the south end of Broadkilm Reach appears to be unnamed. Because lots will front on this street, a name is needed.

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

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.

Soils

According to the Sussex County soil survey, Ingleside, Rosedale, Fort Mott/Henlopen, Hammonton, and Manahawkin were mapped on the subject parcel. Ingleside Rosedale and Fort Mott/Henlopen are well-drained upland soils that, generally, have few limitations for development. Hammonton 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) floodplain soil that has severe limitations for development.

Wetlands

Based on Statewide Wetland Mapping Project (SWMP) mapping, tidally-influenced palustrine forested wetlands were mapped along the entire southern boundary and immediately bordering the Broadkill River; emergent wetlands and freshwater tidal scrub shrub wetlands were also mapped on the parcel.

While PLUS materials indicate that there will not be direct impacts to these wetlands, it is important to note that these wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. 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.

Impacts to Palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the 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.

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.

Impervious Cover

Based on a review of the PLUS application, post-development surface imperviousness is estimated to be about 48 percent. However, given the scope and density of this project this estimate is likely to be **low**. Use of natural areas (forests, wetlands or buffers) wetland and stormwater management acreage for the calculation of open space, as reported in the PLUS application for this project, significantly underestimates this project's actual amount of created surface imperviousness, resulting in a significant understatement of its actual environmental impacts. Therefore, it is strongly recommended that the above-mentioned areas be omitted in the finalized open-space calculation. Furthermore, the applicant should also realize that all forms of constructed surface imperviousness (i.e., rooftops, sidewalks, and roads) should be accounted for when calculating surface imperviousness. It was not clear from the information submitted whether all forms of surface imperviousness were accurately assessed or accounted for in their impervious surface calculation.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. 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.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Broadkill 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. In the greater Broadkill watershed, in which this project is located, nutrient reductions" of 40 percent will be required for nitrogen and phosphorus.

TMDL Compliance through the Pollution Control Strategy (PCS)

As indicated above, Total Maximum Daily loads (TMDLs) for nitrogen and phosphorus have been proposed for the Broadkill watershed. The TMDL calls for a 40% reduction in nitrogen and phosphorus from baseline conditions. A pollution control strategy will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of Best Management Practices such as wider vegetated buffers along watercourses, increasing passive, wooded open space, and the use of stormwater management treatment trains. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Water Supply

The information provided indicates that The Town of Milton will provide water to the proposed projects through a central public water system. DNREC files reflect that The Town of Milton does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. They will need to file an application for a CPCN with the Public Service Commission, if they have not done so already. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-739-4247. Should an on-site public well be needed, it must 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.

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.

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

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 the Sussex Conservation District. Contact the Sussex Conservation District at (302) 856-7219 for details regarding submittal requirements and fees.

A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to the Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.

Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces and forested areas, should be considered in the overall design of the project as a stormwater management technique.

Green Technology BMPs must be given first consideration for stormwater quality management. In a residential project, we strongly discourage the use of underground BMPs such as the StormTech systems or the cartridge filtration systems due to the maintenance required, when Green Technology BMPs such as biofiltration swales, filter strips and bioretention can be used.

Each stormwater management facility should have an adequate outlet for release of stormwater. If it can be demonstrated that the site will have a non-erosive conveyance to tidal water, this project will be eligible for a waiver of stormwater quantity management.

It is strongly recommended that you contact the Sussex Conservation District to schedule a preliminary meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.

DNREC has a serious concern with some of the steep slopes that have been subdivided into lots (i.e. lots 56 and 57, lots 115 through 121, lot 136, lots 159 through 175, lots on the east side of Broadkilm Reach) . A significant amount of grading will be necessary for 1672 Settlers Run, resulting in an extremely steep slope adjacent to the non-tidal wetland. This is especially a concern during bulk grading operations when very little buffer has been left along the wetlands. Since the site is not proposing stormwater management

ponds, those areas are not available as sediment traps during construction. Sediment traps will need to be incorporated into the bulk grading plan for each phase of construction.

Drainage

The Drainage Program requests that the engineer take precautions to ensure that the project does not hinder any off site drainage upstream of the project.

The Drainage Program does not have a clear understanding how stormwater will convey to the stormwater management areas. The Drainage Program requests that the routing of major stormwater pipes through yards be prohibited.

The Drainage Program encourages the elevation of rear yards to direct water towards the streets where storm drains are accessible for maintenance. However, the Drainage Program recognizes the need for catch basins in rear yards in certain cases. Therefore, catch basins placed in rear yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, kennels, and other structures placed along the storm drains, or within 10 feet of the catch basins, can hinder drainage patterns as well as future maintenance to the storm drains or catch basins. Deed restrictions, along with drainage easements recorded on deeds, should ensure adequate future maintenance access.

The Drainage Program requests a 15-foot side yard setback on all lots with a drainage easement on the side unless otherwise specified. A 15-foot side yard setback will allow room for equipment to utilize the entire drainage easement and maneuver free of obstructions if the drainage conveyance requires periodic maintenance or future re-construction.

The Drainage Program requests a 10-foot drainage easement around all catch basins located on private property to ensure adequate room for maintenance. The Drainage Program recommends restrictions on fences, sheds, and other structures within the easement to prevent obstructions from being placed within 10 feet of the catch basin.

Record all drainage easements on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction.

Open Space

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Doing so will

provide wildlife habitat and it will create recreational opportunities for residents. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off 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. Natural habitat implementation efforts should be targeted to open space areas adjacent to forests and wetlands. Natural habitat could consist of reforesting portions of open space or establishing meadow grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off 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. The developer is encouraged to review "Community Spaces, Natural Places: A guide to restoration, management, and maintenance of community open space". This document provides a reference of practical and successful open space management techniques that emphasize natural landscape alternatives other than turf grass management. The guidebook is available online at: <http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/dcmp/>.

In addition, a detailed open space management plan should be recorded on the record plan. This plan should outline how to manage each open space area, as well as invasive species. 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.

Site Visit Request

In order to provide more informed comments and to make recommendations, the program zoologist and ecologist request the opportunity to survey the forest and wetland areas that could potentially be impacted by the project. This would also allow the applicant the opportunity to reduce potential impacts to rare species and unique habitats and to ensure that the project is environmentally sensitive. In addition, a survey of the project site will give staff an opportunity to document the biodiversity of the property before project activities begin. Please contact Robert Coxe or Kitt Heckscher at (302) 653-2880 to set up a site visit.

Rare Species

Delmarva Fox Squirrel

Your proposed project lies within the area where Delmarva fox squirrel (*Sciurus niger cinereus*, DFS) is likely to occur. Delmarva fox squirrels are large-bodied tree squirrels

that only inhabit mature forests on the Delmarva Peninsula. Threatened mainly by loss of its forested habitat, DFS have been protected as an endangered species since 1967. As required by the Endangered Species Act, the U.S. Fish and Wildlife Service review projects that may harm this species or their habitat. Based on past movement data, the Service only requires consultation on projects within 3 miles of known DFS populations. Please contact Cherry Keller of the U.S. Fish and Wildlife Service (410-573-4532) to learn how to avoid impacting the habitat. She may recommend simple alterations to your project or suggest you have surveys conducted to determine if Delmarva fox squirrels are present. If you have surveys conducted, they must be done by a federally approved fox squirrel surveyor, be conducted twice; 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.

In addition to fox squirrel, they also have records of the following rare species:

- Black Vulture (*Coragyps atratus*), a species that utilizes forested areas for breeding, occurs in an adjacent woodlot and could very well occur within the project area.
- Juniper hairstreak (*Callophrys gryneus*), is a state-rare butterfly that has been documented to occur on this site within the woodlands. Species of juniper and cedar are typical larval host plants and efforts to avoid clearing these species should be made.
- Blackbanded sunfish occur within the Broadkill River System. Maintaining adequate water quality is extremely important not only for rare species but for other fish and aquatic species as well.

Forest Preservation

The estimated forest loss of 16.75 acres should be re-evaluated because once this site is built out and homes, driveways, roadways, and all the amenities being proposed are put in place, the amount of forest loss will likely be higher. In terms of wildlife habitat, the value will be significantly reduced and the forest fragmented and converted into a residential woods.

Forest fragmentation separates wildlife populations, increases road mortality, and increases “edge effects” that leave many forest dwelling species, particularly songbirds, vulnerable to predation. Forest clearing causes wildlife to disperse into surrounding areas,

often resulting in human/animal conflicts. It also puts greater pressure on nearby Wildlife Areas, Nature Preserves, and other protected lands. A greater effort to preserve forest should be made and this could be accomplished by:

1. Downsizing the current site plan by omitting lots and associated roads so that a larger, connected area of forested open space remains. Currently there are areas designated as 'open space' that are behind lots, surrounded by streets, on corners or other places not likely to be utilized or accessed by most residents. These spaces could possibly be used for lots removed from the forested area.
2. Locating stormwater management ponds on the non-forested area of the parcel or utilizing an alternate method of stormwater control that does not require tree clearing.
3. If tree clearing occurs despite the recommendations above, clearing should not occur April 1st to July 31st to reduce impacts to birds and other wildlife species that utilize trees for breeding. This recommendation would only protect those species during one breeding season, as once trees are cleared the result is an overall loss of habitat.
4. 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.

Broadkill River and Water Quality Issues

DNREC strongly requests that no less than a 100-foot forested buffer be left intact along the Broadkill River to protect water quality as well as rare species. Buildings and infrastructure that are currently being proposed within this buffer zone should be omitted or relocated. They are also concerned that there will be interest in clearing this buffer zone in the future for vistas and access of the water, so a conservation easement should be placed on this buffer zone.

Question #32 of the application lists the Broadkill River as the intended outlet for stormwater discharge. DNREC is adamantly opposed, especially when the amount of impervious surface for this project is 48% and there are 370 residential units and associated infrastructure. Basically whatever homeowners use on their lawns (pesticides, herbicides), spill in the driveway (oil, antifreeze) and sediments from construction of sheds, play areas, kennels, etc., could end up in the river.

This area of the river is tidal and DNREC has records of rare species both upstream and downstream from this site that could be impacted by changes to water quality caused by run-off generated by this project. In addition, the Broadkill has a popular largemouth bass fishery and supports several tournaments each year. The Division monitors the population annually and stocks about 2,000 fingerlings each fall to supplement natural reproduction. The largemouth bass population is concentrated in the upper portion of the River from Milton downstream about 0.72 miles (1170 meters). During 2003 (the most recent statewide angler survey), licensed anglers expended 7,412 anglers trips on the Broadkill making it the third most popular tidal river fishery in Delaware (after Nanticoke and Brandywine). This does not include legally unlicensed anglers and is undoubtedly a low value as no license is required to fish in tidal waters. The Broadkill supports a variety of game fish species including largemouth bass, crappie, sunfish, chain pickerel, white perch, yellow perch, catfish, and striped bass. A fish ladder is also present at Wagamons Pond dam to provide access for anadromous fish, primarily river herring (alewife and blueback), to the pond for spawning.

Any activity which causes a decline in water quality will adversely affect largemouth bass spawning and degrade the aquatic habitat for many other fish species. The property in question is about in the middle of our largemouth bass sampling area.

Plant Rescue

Since forested areas are to be destroyed, filled, or disturbed, DNREC recommends that the developer/landowner contact the Delaware Native Plant Society to initiate a plant rescue. Selected plants from the site of disturbance will be collected by Society members and transplanted to the Society's nursery. Plants will then be used in restoration projects and/or sold at the Society's annual native plant sale. This can be done at no expense or liability to the developer/landowner". Please contact Lynn Redding at (302) 736-7726, (lynn_redding@ml.com) or William A. McAvoy at (302) 653-2880, (william.mcavoy@state.de.us).

Potential Hunting Issue

Because the project parcel is part of a larger forest block, legal hunting activities may take place on adjacent properties. Hunting within 100 yards of a dwelling is prohibited and the applicant should contact adjacent landowners to determine if this is going to be an issue. In effect, the adjacent landowner will be losing 100 yards of their property for hunting if there is not a buffer between lot lines and the adjacent property line. There is also noise associated with hunting, such as the discharge of firearms or dogs barking when pursuing game.

State Resource Areas/Natural Areas

The Office of Nature Preserves respectfully objects to the site design of this plan. A majority of the development planned for the northeastern portion of the site is within a State Resource Area (SRA) and the Broadkill River Natural Area.

Natural Areas involve areas of land or water, or of both land and water, whether in public or private ownership, which either retains or has reestablished its natural character (although it need not be undisturbed), or has unusual flora or fauna, or has biotic, geological, scenic or archaeological features of scientific or educational value.

State Resource Area lands include any open lands characterized by great natural scenic beauty, or whose existing openness, natural condition or present state of use, if retained, would maintain important recreational areas and wildlife habitat, and enhance the present or potential value of abutting or surrounding urban development, or would maintain or enhance the conservation of natural or scenic resources, including environmentally sensitive areas.

The Office of Nature Preserves strongly urges the developer to redesign the site in such a way as to maintain the integrity of the SRA and Natural Area, possibly by reducing the number of units in this area.

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 be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

Site Investigation and Restoration

One SIRB site was found within a half-mile radius of the proposed project site. Groundwater samples revealed PAHs and manganese. The result of a risk assessment showed that the calculated risk was above the accepted risk level, and the direction of groundwater flow is towards south which is away from the proposed site.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 28.4 tons (56,791.1 pounds) per year of VOC (volatile organic compounds), 23.5 tons (47,019.2 pounds) per year of NOx (nitrogen oxides), 17.3 tons (34,691.6 pounds) per year of SO2 (sulfur dioxide), 1.5 ton (3,088.2 pounds) per year of fine particulates and 2,375.3 tons (4,750,506.4 pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 11.5 tons (22,906.4 pounds) per year of VOC (volatile organic compounds), 1.3 ton (2,520.4 pounds) per year of NOx (nitrogen oxides), 1.0 ton (2,091.6 pounds) per year of SO2 (sulfur dioxide), 1.3 ton (2,699.1 pounds) per year of fine particulates and 46.4 tons (92,857.6 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 4.5 tons (9,078.5 pounds) per year of NOx (nitrogen oxides), 15.8 tons (31,577.3 pounds) per year of SO2 (sulfur dioxide) and 2,328.8 tons (4,657,648.8 pounds) per year of CO2 (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	28.4	23.5	17.3	1.5	2375.3
Residential	11.5	1.3	1.0	1.3	46.4
Electrical Power		4.5	15.8		2328.8
TOTAL	39.9	29.3	34.1	2.8	4750.5

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 4.5 tons of nitrogen oxides per year and 15.8 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. They highly recommend 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.

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):

❖ ***The State Fire Marshal’s Office has no objection to the re-zoning request. The information provided below shall be considered when plans are being designed.***

a. **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Apartments and Townhouses)
- 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 or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements
 - Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
 - Show Fire Lanes and Sign Detail as shown in DSFPR
 - For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.
- c. **Accessibility**
- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Atlantic Avenue must be constructed so fire department apparatus may negotiate it.
 - Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
 - Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
 - The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
 - The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- d. **Gas Piping and System Information:**
- Provide type of fuel proposed, and show locations of bulk containers on plan.
- e. **Required Notes:**
- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”

- Proposed Use
- 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)
- Townhouse 2-hr separation wall details shall be shown on site plans
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

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.

Department of Agriculture - Contact: Scott Blaier 698-4500

The Delaware Department of Agriculture has no objections to the proposed rezoning application. The project has been annexed into the Town of Milton, and the *Strategies for State Policies and Spending* encourages environmentally responsible development in areas in Investment Levels 2 and 3.

The proposed development is within 300 feet of a property currently enrolled in the State's Agricultural Lands Preservation Program (Sycamore Farms, Inc. District) (Parcel # 2.35-14.00-126.00). Therefore, the farming activities conducted on this preserved property will be protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300 foot notification requirement affects **all new deeds** in a subdivision located in whole or part within 300 feet of an Agricultural District. Please take note of these restrictions as follows:

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert

and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

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

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

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

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

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

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

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 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.

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 their offices at (302) 349-5754.

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 Walsh 739-4263

The proposal is for a site plan review for 370 residential units on 76 acres located between the north bank of the Broadkill River and the south side of Atlantic Avenue within the Town of Milton. According to the *State Strategies Map*, the proposal is located in Investment Level 1, 2 and 3 areas. As a general planning practice, DSHA encourages residential development inside growth zones, such as this, where residents will have proximity to services, markets, and employment opportunities. Furthermore, the proposal targets units for first time homebuyers. According to the most recent real estate data collected by DSHA, the average home price in Sussex County is \$236,000. However, families earning respectively 100% of Sussex County's median income only qualify for mortgages of \$171,216, thus creating an affordability gap of \$64,784. The provision of units within reach of families earning at least 100% of Sussex County's median income will ensure housing that is affordable for first time homebuyers.

Department of Education – Contact: John Marinucci 739-4658

This proposed development is in the Cape Henlopen School District. DOE offers the following comments on behalf of the Cape Henlopen School District.

1. Using the DOE standard formula, this development will generate an estimated 185 students.
2. DOE records indicate that the Cape Henlopen School Districts' *elementary schools are not at or beyond 100% of current capacity* based on September 30, 2005 elementary enrollment.
3. DOE records indicate that the Cape Henlopen School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2005 secondary enrollment.
4. 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.

5. Continued development will cause significant burden to the Cape Henlopen School District without the provision for additional educational infrastructure.
6. The developer is strongly encouraged to contact the Cape Henlopen School District Administration to address the issue of school over-crowding that this development will exacerbate.
7. 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.

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: Town of Milton