



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
STATE PLANNING COORDINATION

May 31, 2006

Mr. George Schroeder  
Morris & Ritchie Associates  
18 Boulden Circle, Ste. 36  
New Castle, De 19720

RE: PLUS review – PLUS 2006-04-07; Forest Property

Dear Mr. Schroeder:

Thank you for meeting with State agency planners on May 3, 2006 to discuss the proposed plans for the Forest Property project to be located on the northwest side of Milford, south of Route 14.

According to the information received, you are seeking site plan approval for 216 residential units on 34.36 acres near Milford.

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

**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 Level 2 according to the *State Strategies for Policies and Spending*. This site is also located in the City of Milford. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas. Our office has no objections to the proposed Development of this project in accordance with the relevant City codes and ordinances.

### **Street Design and Transportation**

- 1) The developer should anticipate being required to improve Holly Hill Road to meet DelDOT's local road standards, which include 11-foot lanes and 5-foot shoulders, from Route 14 to the west edge of the site frontage.
- 2) Holly Hill Road is classified as a local road. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore we will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- 3) The plan for the development should include a 15-foot wide permanent easement across the frontage of the site for a future shared use path.
- 4) A sight distance analysis will be required for the proposed entrance.
- 5) The lots proposed along the south edge of the property should be buffered from the railroad line there. DelDOT recommends berms and vegetative screening, but at a minimum a fence should be provided to discourage residents from walking along the right-of-way.
- 6) The parking spaces at the entrance to the development should be relocated elsewhere. As proposed, vehicles exiting those spaces would conflict with traffic entering and exiting the development, which could in turn cause traffic to back up onto Holly Hill Road.

- 7) DelDOT recommends that traffic calming be designed into the north-south portions of the proposed loop street. Traffic calming is particularly important because of the long, straight sections of street flanked by perpendicular, head-in parking.

### **Natural and Cultural Resources**

- Project plans do not indicate any direct impacts to wetlands; however, cumulative and secondary impacts to wetlands from homeowner activities are likely to occur. The following steps should be taken to mitigate for potential adverse impacts to wetlands:
  1. Increase the proposed 20-foot buffer from wetlands to 100 feet.
  2. Ensure that lot lines exclude wetlands and their buffer zones
  3. Clearly demarcate open space, wetlands and buffers with permanent monuments.
  4. Place wetlands and other passive open space areas into a permanent conservation easement or other permanent protection mechanism.
- The DNREC Water Supply Section recommends that the portion of the new development within the excellent ground-water recharge area not exceed 20% impervious cover. Some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20% but is less than 50% of that portion of the parcel within this area. However, the development should not exceed 50% regardless. Ideally, relocating any open space areas to the part of the parcel within the excellent ground-water recharge area would decrease the total impervious area. Augmenting the groundwater recharge with clean rooftop run-off systems are another alternative to maintaining the quality and quantity of water recharging the aquifer.
- This project is within the Mispillion River Watershed and is on a tributary of Haven Lake. Preserve existing riparian buffers to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality in the Mispillion River watershed, the Drainage Program encourages additional widths of vegetated buffers and other water quality measures on this project to filter excess nutrients in stormwater runoff from this site before releasing stormwater into the tributary of Haven Lake.
- DNREC has never surveyed this property; however, there are records of rare plants and freshwater mussel species within the tributary system that empties into Haven Lake as well as rare species within the Lake. There is an estimated 32%

impervious surface, the tributary is the intended stormwater outlet, and there is an inadequate 20-foot wetland buffer. Therefore, run-off from this development could detrimentally affect water quality within the tributary as well as Haven Lake which is a public-owned, State-managed pond. Because of the State's concern regarding water quality, rare species and the amount of funding and staff time that is spent to manage water quality problems within State-owned ponds, the wetland buffer should be increased to a minimum of 100 feet. This would entail moving housing units and infrastructure out of this buffer zone or omitting them from the site plan. Essentially, the project should have a smaller footprint than that proposed.

- The applicant may want to reevaluate the estimated forest loss on the PLUS application (question #27) as the proposed 1.59 acres of forest removal may have been underestimated. The site plan depicts a portion of at least 20 individual housing units, part of a roadway/parking area and a stormwater management pond within the forested riparian zone.

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

**Office of State Planning Coordination – Contact: David Edgell 739-3090**

This project is located in Investment Level 2 according to the *State Strategies for Policies and Spending*. This site is also located in the City of Milford. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas. Our office has no objections to the proposed Development of this project in accordance with the relevant City codes and ordinances.

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

Nothing is known on this parcel. The Beers Atlas of 1868 shows the G. Knight House on or very close to this parcel. The house on Holly Hill Rd. first appears on the USGS 15' topographic map for Cedar Creek 1918. There may be archaeological resources associated with these houses. In addition, there are areas of high potential for prehistoric-period archaeological sites.

Small, rural, family cemeteries often are found in relation to historic farm complexes, such as the Knight house, usually a good distance behind or to the side of the house. The developer should be aware of Delaware's Unmarked Human Remains Act of 1987, which governs the discovery and disposition of such remains. The unexpected discovery of unmarked human remains during construction can result in significant delays while the

process is carried out. The Division of Historical and Cultural Affairs will be happy to discuss these issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400.

They would appreciate the opportunity to look for archaeological sites and learn something about their location, nature, and extent prior to any ground-disturbing activities. They would also appreciate the opportunity to document the house and any outbuildings on the parcel before any demolition activities occur.

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

1. The developer should anticipate being required to improve Holly Hill Road to meet DelDOT's local road standards, which include 11-foot lanes and 5-foot shoulders, from Route 14 to the west edge of the site frontage.
2. Holly Hill Road is classified as a local road. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore we will require right-of-way dedication along the frontage to provide any additional width needed from this project.
3. The plan for the development should include a 15-foot wide permanent easement across the frontage of the site for a future shared use path.
4. A sight distance analysis will be required for the proposed entrance.
5. The lots proposed along the south edge of the property should be buffered from the railroad line there. DelDOT recommends berms and vegetative screening, but at a minimum a fence should be provided to discourage residents from walking along the right-of-way.
6. The parking spaces at the entrance to the development should be relocated elsewhere. As proposed, vehicles exiting those spaces would conflict with traffic entering and exiting the development, which could in turn cause traffic to back up onto Holly Hill Road.
7. DelDOT recommends that traffic calming be designed into the north-south portions of the proposed loop street. Traffic calming is particularly important because of the long, straight sections of street flanked by perpendicular, head-in parking.

8. The developer's site engineer should contact Mr. Brad Herb, the DelDOT project manager for Kent County, regarding their specific requirements for access. He may be reached at (302) 266-9600.

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

**Soils**

According to the Sussex County soil survey Sassafras, Rumford, Woodstown, and Mixed alluvial were mapped on subject parcel. Sassafras and Rumford are well-drained upland soils that, generally, have few limitations for development. Woodstown is a moderately well-drained soil of low-lying upland that has moderate limitations for development. Mixed alluvial is poorly-drained wetland associated (hydric) floodplain soil that has severe limitations for development.

**Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on this parcel.

These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Project plans do not indicate any direct impacts to wetlands; however, cumulative and secondary impacts to wetlands from homeowner activities are likely to occur. The following steps should be taken to mitigate for potential adverse impacts to wetlands:

1. Increase the proposed 20-foot buffer from wetlands to 100 feet.
2. Ensure that lot lines exclude wetlands and their buffer zones
3. Clearly demarcate open space, wetlands and buffers with permanent monuments.
4. Place wetlands and other passive open space areas into a permanent conservation easement or other permanent protection mechanism.

It should also be noted that this parcel contains a sensitive headwater riparian wetlands associated with unnamed (or name unknown) tributary to the Lednum Branch, greatly increasing the probability of harmful impacts to surface and groundwater quality of all waters within the greater Mispillion watershed, ultimately reducing the probability that the State will achieve the required TMDL nutrient reductions. Headwater streams and their associated 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 downstream. In recognition of this concern, the

Watershed Assessment Section strongly recommends the applicant consider preserving the existing forested buffer in its entirety. Otherwise, a minimum 100-foot upland buffer (containing either indigenous or planted native species) is the minimum recommended buffer width that should be maintained from all wetlands and water bodies.

### **Impervious Cover**

The applicant should also be informed that all forms of constructed surface imperviousness (i.e., rooftops, sidewalks and roads) should be included in the impervious surface calculation; otherwise, an inaccurate assessment of this project's actual environmental impacts will be made. Based on the scope and density of this project, surface imperviousness is likely to be far higher than the figure (32%) reported by the applicant. It is strongly recommended that the applicant recalculate surface imperviousness to account for all created forms of post-development surface imperviousness.

Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline. Based on analyses of 2002 aerial photography by the University of Delaware, the Mispillion watershed, at that time, had about 8.5 percent impervious cover. Although this data is about 4 years old and likely an underestimate, it illustrates the importance of a proactive strategy to mitigate for predictable and cumulative environmental impacts. Since the amount of imperviousness generated by this project (reported as 32%, but likely to be significantly higher) will far exceed the desirable watershed threshold of 10 percent, the applicant is strongly advised to pursue best management practices (BMPs) that mitigate or reduce some of the 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 via preservation or additional tree plantings are examples of practical BMPs that could easily be implemented to reduce surface imperviousness.

### **TMDLs**

A Total Maximum Daily Load (TMDL) is the maximum level of pollution for which a water quality limited water body can assimilate without compromising use and recreational goals such as swimming, fishing, drinking water, and shell fish harvesting.

Compliance with TMDL nutrient loading reduction requirements will ultimately be assessed via nutrient budget protocol, a computer-based model that quantifies post-development nutrient loading under a variety of land use scenarios in combination with a variety (or absence) of BMP types and intensities. This post-development loading rate is

then compared with the pre-development loading rate as a means to assess whether the project meets the acceptable TMDL reduction levels. Although TMDLs have not yet been finalized for the Mispillion River watershed to date, the applicant should be made aware that they will be available in the near future (before December 2006), and may be applicable to this project given the large backlog of developments pending County review. It is strongly advised, therefore, that the applicant be proactive and employ best management practices (BMPs) and Best Available Technologies (BATs) as methodological mitigative strategies to reduce the likely degradative impacts associated with this development. Examples of BMPs or BATs that should be used to significantly reduce nutrient loading from this project, include practices that prevent or mitigate or minimize created surface imperviousness, maintenance of recommended wetland buffer widths (100 feet) and use of innovative “green-technology” stormwater methodologies rather than conventional open-water stormwater management structures. We suggest that the applicant periodically contact our office regarding the status of the nutrient budget protocol and obtain it as soon as possible. When it becomes available, we suggest that the applicant then verify their project’s compliance with the specified TMDL loading rates by running the model themselves, or contacting the Watershed Assessment Section if assistance is needed. The contact person for obtaining the protocol is Lyle Jones at 739-9939.

### **Water Resource Protection Areas**

The DNREC Water Supply Section has determined that the project falls partially within an excellent ground-water recharge area (see attached map). Excellent Ground-Water Recharge Areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. As such, these soils are able to transmit water very quickly from the land surface to the water table. Consequently, ground water in these areas may very readily be adversely affected by land use activities or impervious cover.

The DNREC Water Supply Section recommends that the portion of the new development within the excellent ground-water recharge area not exceed 20% impervious cover. Some allowance for augmenting ground-water recharge should be considered if the impervious cover exceeds 20% but is less than 50% of that portion of the parcel within this area. However, the development should not exceed 50% regardless. A water balance calculation will be necessary to determine the quantity of clean water to be recharged via a recharge basin. The purpose of an impervious cover threshold is to minimize loss of recharge (and associated increases in storm water) and protect the quality and quantity of ground water and surface water supplies.

The proposed development would change the impervious cover. Ideally, relocating any open space areas to the part of the parcel within the excellent ground-water recharge area would decrease the total impervious area. Augmenting the groundwater recharge with clean rooftop run-off systems are another alternative to maintaining the quality and quantity of water recharging the aquifer.

In addition, because the excellent ground water recharge area can so quickly effect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

For more information refer to the Final Source Water Protection Guidance Manual for the Local Governments of Delaware

<http://www.wr.udel.edu/swaphome/phase2/SWPguidancemanual.html>

and

Ground-Water Recharge Design Methodology

[http://www.wr.udel.edu/swaphome/phase2/Publications/swapp\\_manual\\_final/swapp\\_guidance\\_manual\\_supp\\_1\\_2005\\_05\\_02.pdf](http://www.wr.udel.edu/swaphome/phase2/Publications/swapp_manual_final/swapp_guidance_manual_supp_1_2005_05_02.pdf).

### **Water Supply**

The information provided indicates that the City of Milford will provide water to the proposed annexation project(s) through a central public water system. DNREC files reflect that the City of Milford does not currently hold a certificate of public convenience and necessity (CPCN) to provide public water in these areas. According to Senate Bill 135 that was signed on June 30, 2003 by Governor Minner, the municipality is required to give notice to the Public Service Commission when the annexation is complete. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at (302)739-4247.

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**

1. Land disturbing activities in excess of 5,000 square feet are regulated under the Delaware Sediment and Stormwater Regulations. A detailed sediment and stormwater management plan must be reviewed and approved by the Kent Conservation District prior to any land disturbing activity (i.e. clearing, grubbing, filling, grading, etc.) taking place. The review fee and a completed Application for a Detailed Plan are due at the time of plan submittal to the Kent Conservation District. Construction inspection fees based on developed area and stormwater facility maintenance inspection fees based on the number of stormwater facilities are due prior to the start of construction. Please refer to the fee schedule for those amounts.
2. The following notes must appear on the record plan:
  - The Kent Conservation District reserves the right to enter private property for purposes of periodic site inspection.
  - The Kent Conservation District reserves the right to add, modify, or delete any erosion or sediment control measure, as it deems necessary.
  - A clear statement of defined maintenance responsibility for stormwater management facilities must be provided on the Record Plan.
3. Ease of maintenance must be considered as a site design component and a maintenance set aside area for disposal of sediments removed from the basins during the course of regular maintenance must be shown on the Record Plan for the subdivision.
4. All drainage ways and storm drains should be contained within drainage easements and clearly shown on the plan to be recorded by Kent County.
5. A soils investigation supporting the stormwater management facility design is required to determine impacts of the seasonal high groundwater level and soils for any basin design.

Comments:

1. The designer is encouraged to consider the conservation design approach and limit the amount of tree clearing required for the development of the site including the stormwater management facilities shown in the wooded areas.
2. It appears that the site will have an adequate outfall (Beaver Gut Ditch); however, the ponds location within the development will cause the outfall pipe to run down lot lines. This area must be shown on the record plans as open space.
3. Access to the proposed stormwater facility must be provided for periodic maintenance. This access should be at least 12 feet wide to leading to the facility and around the facility's perimeter.
4. It is recommended that the stormwater management areas be incorporated into the overall landscape plan to enhance water quality and to make the stormwater facility an attractive community amenity.
5. A letter of no objection to re-recordation will be provided once the detailed Sediment and Stormwater Management plan has been re-approved.
6. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.
7. Based on the site characteristics, a pre-application meeting is suggested to discuss stormwater management and drainage for this site.

**Drainage**

Design recommendations:

- The Drainage Program does not support the removal of trees for the construction of stormwater management ponds.
- All drainage easements should be recorded on deeds.
- The Drainage Program requests that all storm drains and catch basins for this project be on open space, within street right-of-ways, or within alleys. 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, and kennels can hinder drainage patterns as well as future maintenance to the storm drain or

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

The Drainage Program requests that the engineer take precautions 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. The Drainage Program requests that the engineer check existing downstream ditches and pipes for function and blockages prior to the start of construction.

This project is within the Mispillion River Watershed and is on a tributary of Haven Lake. Preserve existing riparian buffers to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality in the Mispillion River watershed, the Drainage Program encourages additional widths of vegetated buffers and other water quality measures on this project to filter excess nutrients in stormwater runoff from this site before releasing stormwater into the tributary of Haven Lake.

### **Rare Species and Wetland Buffers**

DNREC has never surveyed this property; however, there are records of rare plants and freshwater mussel species within the tributary system that empties into Haven Lake as well as rare species within the Lake. There is an estimated 32% impervious surface, the tributary is the intended stormwater outlet, and there is an inadequate 20-foot wetland buffer. Therefore, run-off from this development could detrimentally affect water quality within the tributary as well as Haven Lake which is a public-owned, State-managed pond.

Because of the State's concern regarding water quality, rare species and the amount of funding and staff time that is spent to manage water quality problems within State-owned ponds, the wetland buffer should be increased to a minimum of 100 feet. This would entail moving housing units and infrastructure out of this buffer zone or omitting them from the site plan. Essentially, the project should have a smaller footprint than that proposed.

Because of the presence of the species mentioned above, the portion of the project within the forested riparian zone lies within a State Natural Heritage Site. This is one of the criteria used to determine the presence of Critical Resource Waters. The final decision regarding Critical Resource Waters – if this is an issue – will be made by the U.S. Army Corps of Engineers (ACOE).

### **Forest Preservation**

The applicant may want to reevaluate the estimated forest loss on the PLUS application (question #27) as the proposed 1.59 acres of forest removal may have been underestimated. The site plan depicts a portion of at least 20 individual housing units, part of a roadway/parking area and a stormwater management pond within the forested riparian zone.

Trees function in flood abatement and erosion control and it does not make sense to remove them to control stormwater, especially when tree removal can exacerbate flooding problems. The pond should be removed from the riparian buffer and relocated to another area or an alternate method of stormwater containment should be explored. In addition, trees should not be cleared from April 1st to July 31st to reduce impacts to birds and other wildlife species that utilize forested areas for breeding.

### **Nuisance Waterfowl**

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) 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, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

### **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.

### **Air Quality**

Once complete, vehicle emissions associated with this project are estimated to be 16.6 tons (33,153.7 pounds) per year of VOC (volatile organic compounds), 13.7 tons (27,449.1 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 10.1 tons (20,252.4 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.9 ton (1,802.8 pounds) per year of fine particulates and 1,386.6 tons (2,773,268.6 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 6.7 tons (13,372.4 pounds) per year of VOC (volatile organic compounds), 0.7 ton (1,471.4 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 0.6 ton (1,221.0 pounds) per year of SO<sub>2</sub> (sulfur dioxide), 0.8 ton (1,575.7 pounds) per year of fine particulates and 27.1 tons (54,208.8 pounds) per year of CO<sub>2</sub> (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 2.6 tons (5,299.9 pounds) per year of NO<sub>x</sub> (nitrogen oxides), 9.2 tons (18,434.3 pounds) per year of SO<sub>2</sub> (sulfur dioxide) and 1,359.5 tons (2,719,059.8 pounds) per year of CO<sub>2</sub> (carbon dioxide).

|                  | VOC  | NO <sub>x</sub> | SO <sub>2</sub> | PM <sub>2.5</sub> | CO <sub>2</sub> |
|------------------|------|-----------------|-----------------|-------------------|-----------------|
| Mobile           | 16.6 | 13.7            | 10.1            | 0.9               | 1386.6          |
| Residential      | 6.7  | 0.7             | 0.6             | 0.8               | 27.1            |
| Electrical Power |      | 2.6             | 9.2             |                   | 1359.5          |
| TOTAL            | 23.3 | 17.0            | 19.9            | 1.7               | 2773.2          |

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 2.6 tons of nitrogen oxides per year and 9.2 tons of sulfur dioxide per year.

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

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

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

The DNREC Energy office is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. 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: John Rossiter 739-4394**

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

b. **Fire Protection Features:**

- For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan

c. **Accessibility:**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Holly Hill Rd 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
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Townhouse 2-hr separation wall details shall be shown on site plans

- Provide Road Names, even for County Roads

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](http://www.delawarestatefiremarshal.com), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Milton Melendez 698-4500**

The Delaware Department of Agriculture has no objections to the development of this property. The *Strategies for State Policies and Spending* encourages environmentally responsible development within Investment Level 2 areas.

Portions of this site have been designated as an “Excellent and Good Recharge” areas, meaning that the area has valuable ground-water recharge qualities. Additionally, this site overlaps with the State’s Green Infrastructure Investment Strategy Plan. The Forest layer is present in this site; this designation identifies areas that possess unique natural features that are valuable for preservation. The Department encourages the developer consider the value of these designations in their plans, and make every reasonable attempt to maintain them.

**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 Karen Horton 739-4263**

The proposal is to develop 216 residential units on 34.36 acres located on the Northwest side of Milford, south of Route 14, south side of Holly Hill Road. According to the *State Strategies Map*, the proposal is located in an Investment Level 2 area. DSHA supports this proposal because 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 Kent County is \$189,500. However, families earning 100% of Kent County’s median income, only qualify for mortgages of \$176, 741. The provision of units within reach of families earning at least 100% of Kent County’s median income would help increase housing opportunities for first time homebuyers. To note another positive aspect of the proposed development is the use of mixed housing types to serve first time homebuyers, move-up buyers, and second homebuyers.

**Department of Education – Contact: John Marinucci 739-4658**

DOE offers the following coordinated comments in conjunction with and on behalf of the Milford School District.

1. Using the DOE standard formula, this development will generate an estimated 108 students.
2. The Milford School Districts' current total DOE calculated elementary student capacity is 1,759. The total Milford School District September 30, 2005 elementary enrollment is 1,902. Elementary schools within the Milford School District are therefore currently 143 students over capacity and the student enrollment number is expected to grow based upon already approved development.
3. This development will create additional student population growth which will further compound the existing shortage of space. The developer is strongly encouraged to contact the Milford School District Administration at 302-422-1607 to address the issue of school over-crowding that this development will exacerbate.
4. DOE requests developer work with the Milford 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 local 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,



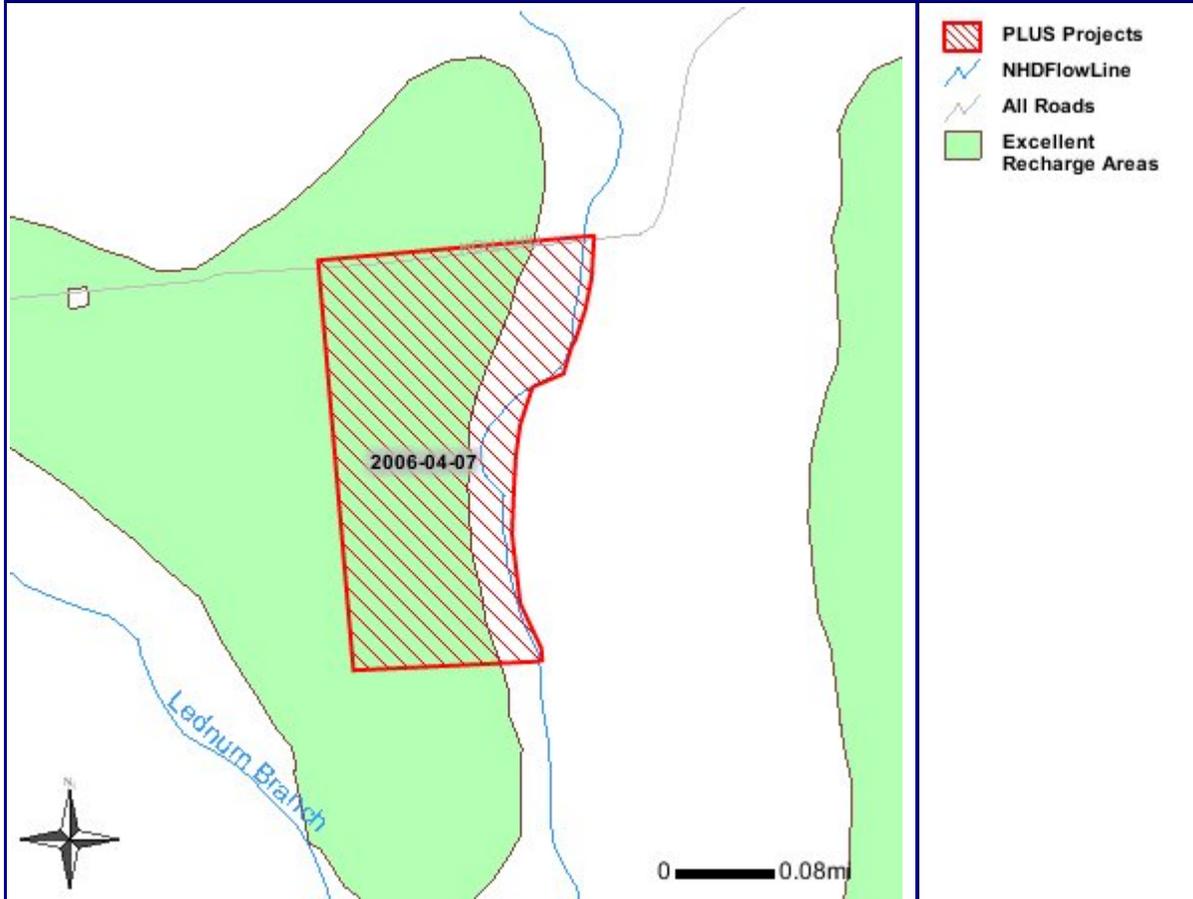
Constance C. Holland, AICP  
Director

CC: Kent County



# Forest Property

2006-04-07



This map was produced by the Delaware Department of Natural Resources and Environmental Control.

