



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

December 23, 2005

Mr. Gary Cuppels  
ECI, Inc.  
P.O. Box 820  
Rehoboth Beach, De 19971

RE: PLUS review – PLUS 2005-11-08; Woods Edge

Dear Mr. Cuppels:

Thank you for meeting with State agency planners on November 30, 2005 to discuss the proposed plans for the Woods Edge project to be located on Carpenter Bridge Road, south of the intersection with SR 12.

According to the information received, you are seeking a rezoning from AR to RS-5 to develop a 115 unit residential subdivision on 30.2 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 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 Levels 2 and 3 according to the *Strategies for State Policies and Spending*. This site is also located in the Kent County Growth Zone. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments will support growth in these areas. Our office has no objections to the proposed development of this project in accordance with the relevant County codes and ordinances.

### **Street Design and Transportation**

- The response to Item 40 on the PLUS form is that the streets in the proposed development would be public. While DelDOT is not opposed to their being dedicated to public use, DelDOT will not accept streets in a condominium development for State maintenance
- The developer will be required to improve Carpenter Bridge Road to meet DelDOT's standard typical section for major collectors for the length of the site frontage. These improvements should include two twelve-foot travel lanes, two eight-foot shoulders, and possibly overlaying the existing through travel lanes. DelDOT will analyze the through travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if it is needed.
- There are three dead-end streets proposed in the development. We recommend that two of these streets be realigned and extended as stubs to the adjacent properties (Tax Parcels SM-00-141.00-01-19.02 and 19.04) and that cul-de-sacs or other turnarounds be provided at the currently proposed ends of all three streets. For the stub streets, those turnarounds would be temporary but for an indefinite length of time.

### **Natural and Cultural Resources**

- 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. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex.

- DNREC has not surveyed these parcels; therefore, a review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. They have records of Barred Owl (*Strix varia*), a state rare bird, in the general vicinity and it may utilize the forested area on this parcel for nesting, foraging, and roosting. Although forest preservation is preferred, they recommend that clearing not occur April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize forests. Large, mature trees should be left intact.

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 Levels 2 and 3 according to the *Strategies for State Policies and Spending*. This site is also located in the Kent County Growth Zone. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments will support growth in these areas. Our office has no objections to the proposed development of this project in accordance with the relevant County codes and ordinances.

This property does not appear to be in a receiving zone according to the Kent County Transfer of Development Rights Ordinance. It is unclear why this parcel was excluded, since it is inside the growth zone and does not appear to be the subject of a previously recorded subdivision. We encourage the County and the applicant to consider designating this parcel as a receiving zone and using the TDR ordinance rather than rezoning the property.

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

There is a known prehistoric archaeological site (K-635) at least partially within this parcel. The S. B. Fountain House (K-2794; on Beers Atlas of 1868) and the S. B. Fountain Tenant House (K-2795) are located on Carpenter Bridge Rd. just south of this parcel. There is only a low potential for other historic-period archaeological sites here, outside of the Fountain Houses, but there is medium to high potential for other prehistoric-period archaeological sites in the area.

Small, rural, family cemeteries often are found in relation to historic farm complexes, usually a good distance from 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. We will be happy to discuss these issues with the developer; the contact person for this program is Faye Stocum, 302-736-7400.

We request that the developer include sufficient landscaping along the southern edge of the development to block visual and noise intrusions on the adjacent historic properties. We would also like the opportunity to examine the known site and learn something about its extent and nature, and to look for other sites and learn about their location, extent, and nature prior to any ground-disturbing activities.

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

- 1) On November 29, 2005, DelDOT wrote to Kent County to advise them that they do not recommend that a traffic impact study (TIS) be required for this rezoning. However, in that same letter DelDOT informed them that participation in road improvements should still be required of this developer. TIS have been done for other, larger developments in this area, notably Tuscany Estates and Twin Farms (under the name Johnnycake Landing). For this reason, DelDOT will not require a TIS for this development, but they will require that the developer participate in some of the road improvements identified as being necessary in those studies.
- 2) The response to Item 40 on the PLUS form is that the streets in the proposed development would be public. While DelDOT is not opposed to their being dedicated to public use, DelDOT will not accept streets in a condominium development for State maintenance. Their regulations require that a street serve a minimum of five fee-simple property owners to be accepted for State maintenance.
- 3) Carpenters Bridge Road is classified as a major collector road. Collector road rights-of-way vary in Delaware but are typically wider than those of local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on collector roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.
- 4) DelDOT will also require that a paved multi-modal path, located in a 15-foot wide permanent easement, be provided across the frontage of the site.

- 5) The developer will be required to improve Carpenter Bridge Road to meet DelDOT's standard typical section for major collectors for the length of the site frontage. These improvements should include two twelve-foot travel lanes, two eight-foot shoulders, and possibly overlaying the existing through travel lanes. DelDOT will analyze the through travel lanes' pavement section and recommend an overlay thickness to the developer's engineer if it is needed.
- 6) There are three dead-end streets proposed in the development. We recommend that two of these streets be realigned and extended as stubs to the adjacent properties (Tax Parcels SM-00-141.00-01-19.02 and 19.04) and that cul-de-sacs or other turnarounds be provided at the currently proposed ends of all three streets. For the stub streets, those turnarounds would be temporary but for an indefinite length of time.
- 7) The developer's site engineer should contact Mr. Brad Herb, the project manager for Kent County, regarding 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**

Based on the Kent County soil survey, Sassafras and Johnston were mapped in the immediate vicinity of the proposed project. Sassafras is a well-drained upland soil that, generally, has few limitations for development. Johnston is a very poorly-drained wetland associated (hydric) floodplain soil that has the highest severity level 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. 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.

This project is located directly adjacent to headwater or near headwater riparian wetlands associated with the Murderkill River (i.e., Ash Gut and Ash Branch) – greatly increasing the probability of harmful impacts to surface and groundwater quality of all waters within the greater Murderkill River watershed - making it more difficult for the State to achieve future required TMDL nutrient reductions. Additionally, headwater streams and their associated wetlands are also important for the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system downstream. In recognition of these environmental concerns, the Watershed Assessment Section strongly urges the applicant to consider the preserving the existing natural buffer in its entirety. Otherwise, as mentioned previously, a 100-foot upland buffer width is the recommended minimum.

### **Wetland Permitting Information**

PLUS application materials indicate that wetlands have been delineated (presumably a field delineation). This delineation should be verified by the Army Corps of Engineers through the Jurisdictional Determination process. Please note that impacts to palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In situations where the applicant believes that the delineated wetlands on their parcel are nonjurisdictional isolated wetlands, the Corps must be contacted to make the final jurisdictional assessment. They can be reached by phone at 736-9763.

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**

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 Murderkill watershed, at that time, had about 8.1 percent impervious cover. Although this data is almost 4 years old and likely an underestimate - it illustrates the importance of a proactive strategy to mitigate for predictable and likely cumulative environmental impacts. Since the amount

of imperviousness generated by this project (approximately 21%) 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**

With the adoption of Total Maximum Daily Loads (TMDLs) as a “nutrient-runoff-mitigation strategy” for reducing nutrients in the Murderkill River watershed, reduction of nitrogen and phosphorus loading will be mandatory. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Nutrient reductions prescribed under TMDLs are assigned to those watersheds or basins on the basis of recognized water quality impairments. In the Murderkill watershed, the primary source of water quality impairment is associated with nutrient runoff from agricultural and/or residential development. In order to mitigate the aforementioned impairments, a TMDL reduction level of 50 and 30 percent will be required for nitrogen and phosphorus, respectively. Documentation of the compliance with post-development

TMDL nutrient load reductions will be assessed via nutrient budget protocol. The nutrient budget protocol is 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. We request that the applicant obtain the nutrient budget protocol to see for themselves whether their development meets the prescribed TMDL nutrient reductions. Please contact Lyle Jones at 739-9939 for further information about obtaining this protocol.

### **Water Resource Protection Areas**

The DNREC Water Supply Section has determined that it falls partially within a wellhead protection area for ILC Dover. The northwest part of the parcel is partially covered by the wellhead protection area (see following map and attached map). Wellhead protection areas are surface and subsurface areas surrounding a public water supply well

where the quantity and quality of groundwater moving toward such wells may be adversely affected by land use activities.

The DNREC Water Supply Section recommends that the portion of the new development within the wellhead protection area not exceed 50% impervious cover. Further, 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. 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 development plan includes open space for passive recreation and storm water management. The wellhead area corresponds with open space and an access road. This proposed use will increase the impervious cover for this area but will most likely not exceed the impervious cover threshold.

For more information refer to the March 2004 Final:

Source Water Protection Guidance Manual for the Local Governments of Delaware

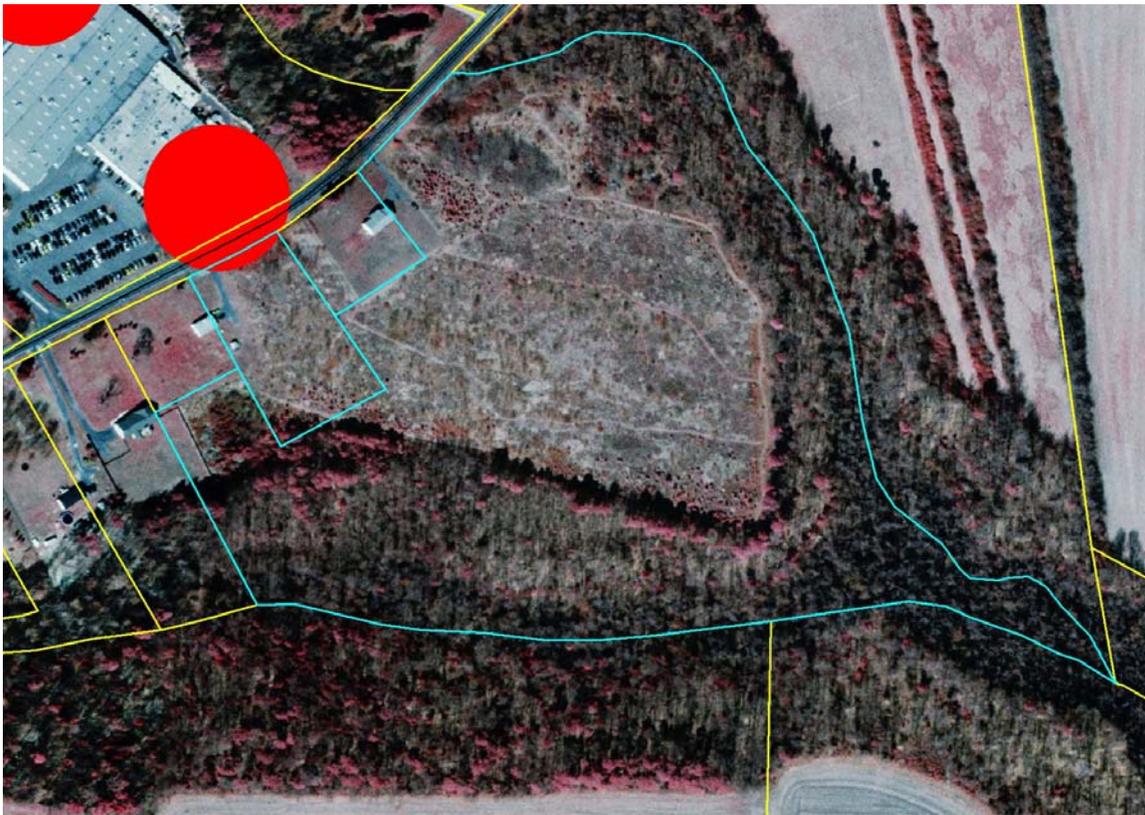
<http://www.wr.udel.edu/swaphome/phase2/SWPguidancemanual.html>

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)

**Map of Woods Edge as it impacts the wellhead protection area. The dark red area shows the wellhead protection area.**



**Water Supply**

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

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

### **Sediment and Erosion Control/Stormwater Management**

#### Requirements

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. Limited tree clearing must be considered by the designer.

Comments:

1. The submitted plus plans are not showing stormwater basin locations or types; however the site does appear to have a good outfall in the Ash gut. Provide soils for basin design verification.
2. The site does have some considerable slopes erosion and sediment control will need to be considered in the design.
3. 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.
4. 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.
5. 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.
6. A letter of no objection to re-recording will be provided once the detailed Sediment and Stormwater Management plan has been re-approved.
7. Proper drainage of developed lots and active open space should be considered in the development of the grading plan for this subdivision.
8. Based on the site characteristics, a pre-application meeting is suggested to discuss stormwater management and drainage for this site.

**Drainage**

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

The Drainage Program encourages the elevation of rear yards to direct water towards the streets for accessible maintenance. The Drainage Program recognizes the need for catch basins in rear yards in certain cases. Catch basins placed in rear yards will need to be clear of obstructions and be accessible for maintenance. Decks, sheds, fences, and kennels should not be placed along the storm drain or near the catch basin. Deed restrictions should be placed on the property to ensure maintenance access.

This project is within the Murderkill River Watershed, a designated critical area, with a promulgated Total Maximum Daily Load (TMDL). Preserve existing riparian buffers to aid in the reduction of nutrients, sediment, and other pollutants. For the further enhancement of water quality in the Murderkill watershed, the Drainage Program encourages additional widths of vegetated buffers and other water quality measures on this project.

### **Floodplains**

Portions of the proposed project are located within the 100-year floodplain. It is recommended that development be limited to those areas which are outside of the 100-year floodplain.

### **Forest Preservation**

Developments that are designed within wooded areas significantly reduce the value of the forest in terms of wildlife due to clearing, fragmentation, and subsequent landowner activities. When these areas are cleared, there is often an increase in human-animal conflicts and greater pressure on nearby preserves. Therefore, if preservation is not an option, it is recommended that clearing for structures and infrastructure be minimized. The current site plan utilizes the non forested area for open space, with most of the structures and roadways in the forested area. DNREC recommends that the site plan be changed so that clustering of structures and roadways occur in the non forested portion of the project area and the majority of open space occur in the forested area. This change would not only preserve more forest, but would provide recreational opportunities for residents and maintain some habitat for wildlife.

### **Open Space**

To maximize the existing buffering capacity and wildlife habitat on site, it is recommended that lot lines and other infrastructure (such as storm water management ponds) be pulled out of the forest and that areas of community open space be designated along the forested/riparian areas. Doing so will accomplish two things: it will preserve and expand the existing riparian buffers on site and its value for birds and wildlife and it will create recreational opportunities for residents by allowing them access to and views of the forest and stream.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased 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.

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.

### **Rare Species**

DNREC has not surveyed these parcels; therefore, a review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. They have records of Barred Owl (*Strix varia*), a state rare bird, in the general vicinity and it may utilize the forested area on this parcel for nesting, foraging, and roosting. Although forest preservation is preferred, they recommend that clearing not occur April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize forests. Large, mature trees should be left intact.

### **Natural Areas Inventory**

This project contains land currently listed on Delaware's Natural Areas Inventory. Natural Areas contain lands of statewide significance identified by the Natural Area Advisory Council as the highest quality and most important natural lands remaining in Delaware. Consideration should be given to protecting these resources during design and construction of this project. The developer should investigate dedicating the Natural Area as a Nature Preserve through a conservation easement or donation of land. For more information, please contact the Office of Nature Preserves at 739-9235.

The Office of Nature Preserves does not support the plan as proposed because a majority of the units are located in state designated Natural Areas. All forested lands on this site are in the Natural Area Inventory. Further, in order to protect the integrity of Ash Branch and the Burton-Derrickson Nature Preserve downstream, we strongly recommend relocating/removing units proposed within the forested area.

### **Recreation**

It is recommended that sidewalks be built fronting at least one side of residential streets and stub streets. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the

community, and 3) facilitate safe, convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

### **Underground Storage Tanks**

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

### **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 8.8 tons (17,651.3 pounds) per year of VOC (volatile organic compounds), 7.3 tons (14,614.1 pounds) per year of NOx (nitrogen oxides), 5.4 tons (10,782.5 pounds) per year of SO2 (sulfur dioxide), 0.5 ton (959.8 pounds) per year of fine particulates and 738.3 tons (1,476,508.8 pounds) per year of CO2 (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 3.6 tons (7,119.6 pounds) per year of VOC (volatile organic compounds), 0.4 ton (783.4 pounds) per year of NOx (nitrogen oxides), 0.3 ton (650.1 pounds) per year of SO2 (sulfur dioxide), 0.4 ton (838.9 pounds) per year of fine particulates and 14.4 tons (28,861.2 pounds) per year of CO2 (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 1.4 tons (2,821.7 pounds) per year of NOx (nitrogen oxides), 4.9 tons (9,814.6 pounds) per year of SO2 (sulfur dioxide) and 723.8 tons (1,447,647.6 pounds) per year of CO2 (carbon dioxide).

	VOC	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	8.8	7.3	5.4	0.5	738.3
Residential	3.6	0.4	0.3	0.4	14.4
Electrical Power		1.4	4.9		723.8
TOTAL	12.4	9.1	10.6	0.9	1476.5

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 1.4 tons of nitrogen oxides per year and 4.9 tons of sulfur dioxide per year.

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

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

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

The energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on energy costs and reduce air pollution. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

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 Carpenter Bridge Road must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. 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**

Neither the Delaware Department of Agriculture nor the Delaware Forest Service has any objections to the Woods Edge application. The site is located on a long-range designated controlled development area. The *Strategies for State Policies and Spending* encourages environmentally responsible development in areas within a Growth Level 2/3 Zone. We request that you consider limiting impervious cover as much as possible when designing this site. This site is a part of a “good recharge” area. The State of Delaware has mapped all ground water potential recharge areas. A “good” rating is the second highest rating and designates an area as having important groundwater recharge qualities. Maintaining pervious cover in “Excellent” and “Good” recharge areas is crucial for the overall environmental health of our state and extremely important to efforts which ensure a safe drinking water supply for future generations. Retention of pervious cover to ensure an adequate future water supply is also important for the future viability of agriculture in the First State. The loss of every acre of land designated as “excellent” and “good” recharge areas adversely impacts the future prospects for agriculture in Delaware.

This subdivision shares its northern boundary with the Mallow Expansion Agricultural District, this property is in the State of Delaware's Farmland Preservation Program; the below restrictions will apply to any development within 50 feet of any Agricultural Districts or Easements. Please see Delaware Code Title 3, Chapter 9, Subchapter II, Section 910.

**§ 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.).

### *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 our offices at (302) 349-5754.

### **Public Service Commission - Contact: Andrea Maucher 739-4247**

The information provided indicates that the Tidewater Utilities will provide water to the proposed projects through a central public water system. PSC files reflect that Tidewater Utilities 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.

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.

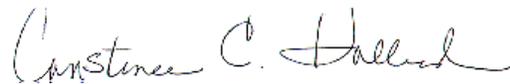
**Delaware State Housing Authority – Contact Jimmy Atkins 739-4263**

This proposal is to develop 115 units on 30 acres located on the southeast side of Carpenters Bridge Road, south of Johnnycake Landing Road, adjacent to Ash Gulf and west of Frederica. According to the State Strategies Map, the proposal is located in Investment Level 2 and 3 areas. DSHA supports this proposal because residents will have proximity to existing services, markets, and employment opportunities. Furthermore, the proposal targets units for first time homebuyers. For informational purposes, the most recent real estate data collected by DSHA, the median home price in Kent County is \$174,015. However, families earning 80% of Kent County's median income only qualify for mortgages of \$147,099. We recommend that some of the units be set-aside at this price level to ensure that working households have access to affordable housing.

**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,



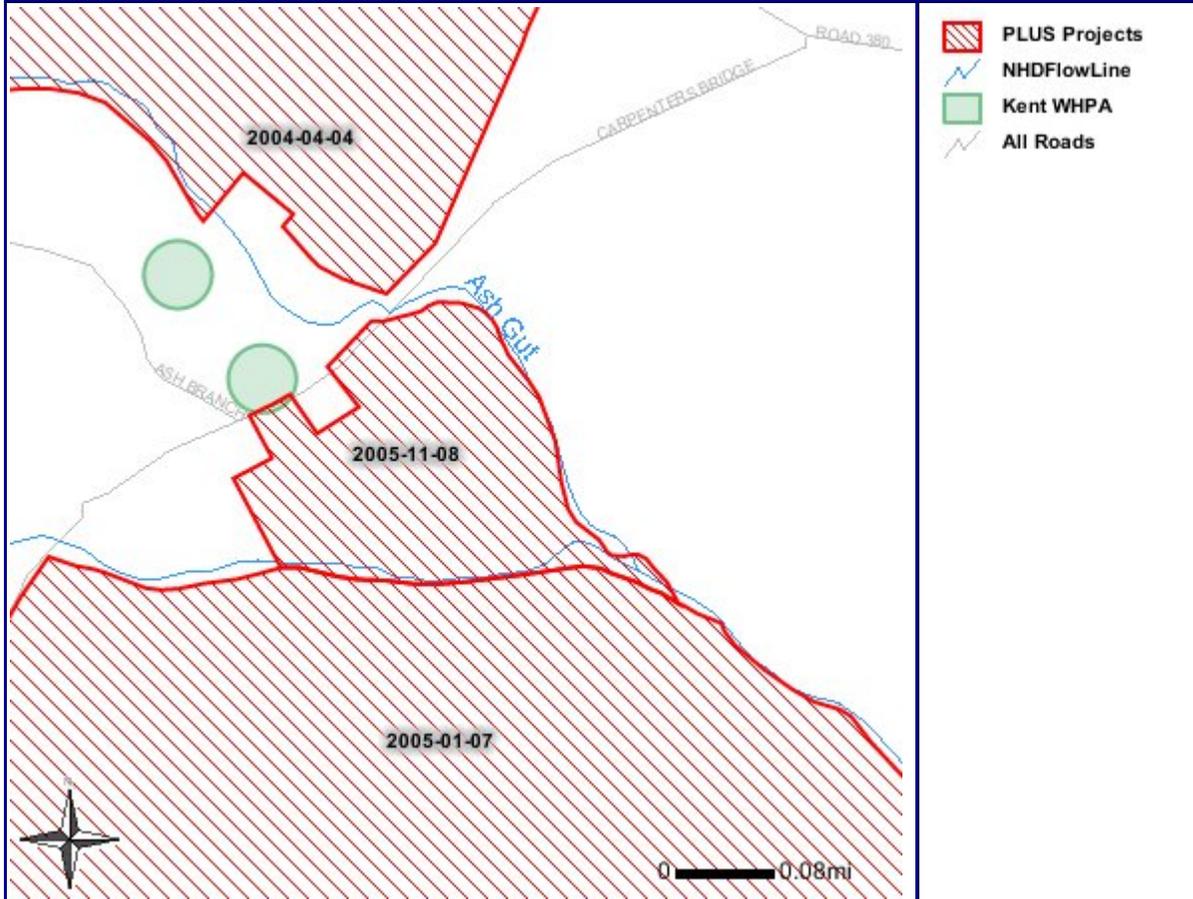
Constance C. Holland, AICP  
Director

CC: Kent County



# Woods Edge

2005-11-08



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

