



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

September 15, 2005

John O' Murray
Kercher Engineering, Inc.
413 East Market Street
Georgetown, De 19947

RE: PLUS review – PLUS 2005-08-07; James W. Lee Property

Dear Mr. Murray:

Thank you for meeting with State agency planners on August 24, 2005 to discuss the proposed plans for the Lee property located on the south side of Delaware Road 40, , 580' west of SCR 591, southwest of Bridgeville.

According to the information received, you are seeking site plan approval for 251 residential units on 307 acres in Level 4.

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

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 would result in 251 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. For this reason, the State opposes this development.

Natural and Cultural Resources

- The addition of 251 individual on-site septic systems will have adverse impacts on water quality in the Nanticoke River watershed.
- The State is concerned about the loss of the riparian forest on the site and the impact this will have on the regional ecosystem, specifically riparian habitat and air and water quality.

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

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

This project represents a major land development that will result in 251 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This project is also located outside of a designated growth area in relevant municipal and county certified comprehensive plans. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring more than 625 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *Strategies for State Policies and Spending*, the State is opposed to this proposed subdivision.

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

The State Historic Preservation Office does not support the James W. Lee proposed development because it is in State Investment Level 4. Delaware has a strong rural heritage and many historic resources, architectural and archaeological, exist in these areas. SHPO discourages development in Investment Level 4 because development could affect the historic context of Delaware's rural heritage by intruding on agricultural lands and open space; development could affect historic architectural resources that are historically associated with Delaware's agricultural areas and open space; development could affect prehistoric and historic archaeological sites, many of which have not been recorded or studied for the important information they can provide about Delaware's history and prehistory; and SHPO encourages preservation and redevelopment in existing communities, Investments Levels 1 and 2. Based on the review of historic maps and other data in this office, the potential for both historic and pre-historic archeological sites to survive is significant. Historic buildings also survive on the property, all of which are demolished in this development scheme.

Burials, both marked and unmarked, are protected by Delaware law. Please refer to the following sections of the Delaware State Code: (1) Title 11 Sub-Chapter 1340, titled "Desecration of Burial Places"; and (2) Title 7 Chapter 54, known as the "Delaware Unmarked Human Remains Act". For more information about these laws and the implications for the project, contact Craig Lukesic of this office at 302-736-7400.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies for State Policies and Spending* have deemed the type of development being proposed inappropriate for this area. As part of our commitment to support the *Strategies*, DelDOT refrains from participating in the cost of any road improvements needed to support this development and is opposed to any road improvements that will substantially increase the transportation system capacity in this area. DelDOT will only support taking the steps necessary to preserve the existing transportation infrastructure and make whatever safety and drainage related improvements are deemed appropriate and necessary. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 Areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

If this development proposal is approved, notwithstanding inconsistencies with the relevant plans and policies, DelDOT will provide technical review and comments.

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

Investment Level 4 Policy Statement

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and county certified comprehensive plans. According to the *Strategies* this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional state investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. Of particular concern are: the project's potential impact on green infrastructure, including the loss or fragmentation of 23 out of 79 acres of forest; potential impacts to wetlands (inadequate buffers); tax ditch rights-of-way issues; and 251 individual on-site septic systems, leading to further degradation of water quality. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

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 Evesboro, Sassafra, Rumford, Woodstown, Fallsington, and Johnston were mapped on subject parcel. Evesboro is an excessively well-drained upland soil that has moderate limitations on account of its rapid permeability. Sassafra and Rumford are well-drained uplands soils that, generally, have few limitations for development. Woodstown is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Fallsington and Johnston are poorly to very poorly-drained wetland associated (hydric) soils that have severe to very severe limitations for development.

Wetlands

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands. PLUS application materials indicate that wetlands have been delineated. This delineation should be verified Corps of Engineers through the Jurisdictional Determination process.

PLUS materials indicate that wetlands will not be directly impacted by construction activities. If impacts are anticipated please note that 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. Disturbance to wetlands should be avoided and vegetated buffers of no less than 100 feet should be employed from all wetlands and water bodies.

To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-4691 to schedule a meeting.

This project is located directly adjacent to sensitive riparian wetlands associated with the Nanticoke River and the Gum Branch – greatly increasing the probability of harmful impacts

to surface and groundwater quality of all waters within the greater Nanticoke River subwatershed, and making it more difficult for the State to achieve the required TMDL nutrient reductions. In recognition of this concern, the Watershed Assessment Section strongly recommends that the applicant consider preserving the existing natural forested buffer in its entirety. Otherwise, a 100-foot upland buffer (between lot parcel/lines and wetlands/water bodies) is considered the recommended buffer width necessary to mitigate some of the expected impacts to water and habitat quality.

Wetland and Water Body Buffers

It appears that impacts to wetlands have been avoided in this site plan. However, buffer zones of at least 100 feet should be employed and lot lines should exclude both wetlands and their buffer zones to increase water quality benefits and to minimize the potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

ERES Waters

This project is located adjacent to receiving waters of Nanticoke River designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 11.5(e) of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Nanticoke River 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. In the Nanticoke Watershed, "target-rate-reductions" of 30 and 50 percent will be required for nitrogen and phosphorus, respectively.

Wastewater and TMDLs

The Department is concerned about the impact that 251 individual on-site septic systems will have on water quality and the ability to meet load reductions in the Nanticoke River watershed. While a community system might mitigate for some of these impacts, this type of large scale

development outside of designated growth areas, and the increase in impervious cover across the watershed that such development patterns cause, will ultimately have a degradative effect on water quality in the watershed.

Significant nitrogen and phosphorus loading reductions must be realized from all sources, including onsite wastewater systems, in order to achieve the TMDL. The Department has developed performance standards for on-site wastewater treatment and disposal systems that have been presented as a part of the proposed Pollution Control Strategy (PCS). Upon promulgation of the proposed PCS regulation, new and existing wastewater disposal systems will be required to significantly reduce nitrogen and phosphorus loading in the Inland Bays watershed. Such reductions – known as “Performance Standards” - will require (where applicable) nitrogen and phosphorus loading not exceed average annual discharge concentration levels of 5 and 2 mg/l for nitrogen and phosphorus, respectively for community systems and 20 mg/l for nitrogen for individual systems.

The proposed Pollution Control Strategy would also require the completion of a nutrient budget for the proposed project in order to estimate how nutrient loads will change with the development of the parcel. The applicant should be made aware that the inclusion of stormwater management, wastewater treatment, buffers and wetlands as metrics for open space calculations, may understate the actual nutrient runoff as calculated from the nutrient budget.

The project, as proposed, would significantly further degrade the quality of adjacent waterways. Not only does the project design ignore the need to reduce pollutant loadings, it promotes additional degradation. The Department requests that in order to verify your project’s compliance with specified TMDL loading rates, a full nutrient budget be calculated. Please contact Lyle Jones of Watershed Section at 739-4590 for the acceptable protocol.

Impervious Cover

Since residential development significantly increases the amount of impervious cover - leading to large volumes of contaminant-laden runoff which ultimately drain into streams or waterways - the applicant is strongly urged to pursue both natural and constructed Best Management Practices (BMPs) to reduce such impacts. Reducing the amount of impervious surfaces by planting more trees and/or the use of pervious paving surfaces (“pavers”) in lieu of asphalt or concrete, are examples of ways to reduce such impacts. Research has consistently shown that once a watershed exceeds a threshold of 10 percent imperviousness, water and habitat quality irreversibly decline.

Water Supply

The project information sheets state that individual on-site wells will be used to provide water for the proposed project. Our records indicate that the project is not located in an area where public water service is available. 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 **Sussex Conservation District**. Contact Jessica Watson at (302) 856-7219 for details regarding submittal requirements and fees.

As of April 11, 2005, stormwater best management practices must also consider water quality as well as quantity in impaired water bodies.

Drainage

This project involves portions of two tax ditches (see attached map). Although the plan states preliminary it should be noted that a few parcels fall within the construction rights-of-way and future landowners would be impacted by construction activities of the tax ditch. In addition, the following should be considered.

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

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

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as

passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described below.

- Along an open ditch or swale, the Drainage Section recommends a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.
- Along a stormwater pipe the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.

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

Floodplains

Portions of the property are located within the 100-year floodplain which has not been studied in detail. It is recommended that the floodplain be left as open space. It is required by FEMA and by Sussex County's floodplain regulation that a detailed flood study be performed to calculate base flood elevations and to properly delineate the floodplain. This study must be accepted by FEMA in order to have the floodplain map revised.

Forests

According to 2002 aerial photos there is a forested area in parcel. PLUS materials indicate that 23 acres will be removed for development. The forest provides important riparian habitat, wildlife connectors, and air quality and water quality benefits. This forest tract is extremely beneficial to the region. Fragmentation of this forest can have irreversible effects to the regional ecosystem.

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.

Open Space

Large open space areas abutting back yards are not well used by the community and are expensive to maintain. It is recommended that most open space be relocated to areas along the wooded area and that plans include forest and meadow restoration in these areas. Enlarging and enhancing community open space near the wooded area will increase its value for birds and wildlife and create recreational opportunities for residents by allowing all residents access to and views of the forest. It may also help reduce the long term cost of open space maintenance for the community.

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

We have not surveyed this parcel, so it is unknown if there are any state-rare or federally listed plants, animals or natural communities on the land based portion of this site.

DNREC has records of the following species within or adjacent to Gum Branch that could be affected by project activities if adequate forested buffers are not maintained for water quality:

Scientific Name	Common Name	Taxon	State Rank	State Status	Global Rank	Federal Status
<i>Percina peltata</i>	Shield Darter	Fish	S1		G5	
<i>Notropis chalybaeus</i>	Ironcolor shiner	Fish	S2		G4	
<i>Notropis amoenus</i>	Comely shiner	Fish	S2		G4	
<i>Enneacanthus chaetodon</i>	Blackbanded sunfish	Fish	S2		G4	
<i>Pseudotriton montanus</i>	Mud salamander	Amphibian	S1		G5	

State Rank: S1- extremely rare within the state (typically 5 or fewer occurrences); S2- very rare within the state (6 to 20 occurrences); B - Breeding; N - Nonbreeding; SX-Extirpated or presumed extirpated from the state. All historical locations and/or potential habitat have been surveyed; SH- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered; SE-Non-native in the state (introduced through human influence); not a part of the native flora or fauna.
State Status: E – endangered, i.e. designated by the Delaware Division of Fish and Wildlife as seriously threatened with extinction in the state;
Global Rank: G1 - imperiled globally because of extreme rarity (5 or fewer occurrences worldwide); G2 - imperiled globally because of great rarity (6 to 20 occurrences); G3 - either very rare and local throughout its range (21 to 100 occurrences) or found only locally in a restricted range; G4 - apparently secure globally but uncommon in parts of its range; G5 - secure on a global basis but may be uncommon locally; T_ - variety or subspecies rank; Q – questionable taxonomy;
Federal Status: LE – endangered, i.e. designated by the U.S. Fish and Wildlife Service as being in danger of extinction throughout its range; LT – threatened, i.e. designated by USFWS as being likely to become endangered in the foreseeable future throughout all or a significant portion of its range; Candidate – Taxa for which the U.S. Fish and Wildlife Service has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.

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 19.3 tons (38,525.9 pounds) per year of VOC (volatile organic compounds), 15.9 tons (31,896.8 pounds) per year of NO_x (nitrogen oxides), 11.8 tons (23,534.1 pounds) per year of SO₂ (sulfur dioxide), 1.0 ton (2,094.9 pounds) per year of fine particulates and 1,611.3 tons (3,222,640.8 pounds) per year of CO₂ (carbon dioxide).

However, because this project is in a level 4 area, mobile emission calculations should be increased by 118 pounds for VOC emissions for each mile outside the designated growth areas per household unit; by 154 pounds for NO_x; and by 2 pounds for particulate emissions. A typical development of 100 units that is planned 10 miles outside the growth areas will have additional 59 tons per year of VOC emissions, 77 tons per year of NO_x emissions and 1 ton per year of particulate emissions versus the same development built in a growth area (level 1,2 or 3).

Emissions from area sources associated with this project are estimated to be 7.8 tons

(15,539.2 pounds) per year of VOC (volatile organic compounds), 0.9 ton (1,709.8 pounds) per year of NOx (nitrogen oxides), 0.7 ton (1,418.9 pounds) per year of SO₂ (sulfur dioxide), 0.9 ton (1,831.0 pounds) per year of fine particulates and 31.5 tons (62,992.6 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 3.1 tons (6,158.6 pounds) per year of NOx (nitrogen oxides), 10.7 tons (21,421.3 pounds) per year of SO₂ (sulfur dioxide) and 1,579.8 tons (3,159,648.2 pounds) per year of CO₂ (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	19.3	15.9	11.8	1.0	1611.3
Residential	7.8	0.9	0.7	0.9	31.5
Electrical Power		3.1	10.7		1579.8
TOTAL	27.1	19.9	23.2	1.9	3222.6

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 3.1 tons of nitrogen oxides per year and 10.7 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. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

DNREC also recommends 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 and links to mass transport system, and fund a lawnmower exchange program for their new occupants.

State Fire Marshal's Office – Contact: Duane Fox 302-856-5298

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

a. **Fire Protection Water Requirements:**

- Since the dwellings of the subdivision are proposed to be served by individual on-site wells (No Central Water System), set back and separation requirements will apply.

b. **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 Redden 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.

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

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

d. **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
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- 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: Milton Melendez 698-4500

The proposed development is in an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* and the Sussex County Comprehensive Plan do not support this type of isolated development in this area. The intent of these plans is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes the proposed development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

More importantly, the Department of Agriculture opposes this project because it negatively impacts those land uses that are the backbone of Delaware's resource industries - agriculture, forestry, horticulture - and the related industries they support. Often new residents of developments like this one, with little understanding or appreciation for modern agriculture and forestry, find their own lifestyles in direct conflict with the demands of these industries. Often these conflicts result in compromised health and safety; one example being decreased highway safety with farm equipment and cars competing on rural roads. The crucial economic, environmental and open space benefits of agriculture and forestry are compromised by such development. We oppose the creation of isolated development areas that are inefficient in terms of the full range of public facilities and services funded with public dollars. Public investments in areas such as this are best directed to agricultural and forestry preservation.

Furthermore, the Department of Agriculture and the Department of Natural Resource and Environmental Control, along with other partners developed the State's "Green Infrastructure" Investment Strategy. This strategy identifies high-value cropland, forestland and natural resource lands for preservation and conservation. **This proposed development site is designated as high value Cropland, with some Natural Resource Lands on the Green Infrastructure Investment Strategy. In other words, in addition to their location in a rural area, due to their soil quality and other significant factors, these lands have been further designated by the State for conservation and preservation.**

In addition, almost this entire site is a part of a "Good Recharge" area. DNREC 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.

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

It is important to note that this site borders the 469-acre permanently preserved Passwaters Agricultural Preservation District to the west. **See the below cited statute for important information regarding developments bordering Agricultural Districts.** There are many other Agricultural Preservation Districts in the immediate area: the 288-acre Wheatley Farms, Inc. District is to the southwest, the 894-acre Wheatley Farm District is to the east and the 87-acre Tatman Expansion is just to the north of this site. The area is a vibrant, active and very viable agricultural community. The parcel proposed for development has a high agricultural value due to this strong community, and as a result of its own features. Delaware uses a national recognized model to assess farmland preservation suitability, which is really a measure of future agricultural viability. The farm proposed for development scores 234 points out of a possible 300 points, demonstrating a high preservation suitability and hence future viability. DDA strongly opposes development of this site.

Please be advised:

The location of this proposed development shares a boundary with a State Protected Agricultural Easement. This site borders the Please review the restrictions that are subject to properties surrounding Agricultural Districts and Easements.

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.)

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.

Project is not in a certificated water service territory. The utility selected to serve will need to apply to the Commission for a CPCN.

Project is not in a certificated wastewater service territory. If a community system is planned, the utility selected to serve will need to apply to the Commission for a CPCN.

Delaware State Housing Authority – Contact Karen Horton 739-4263

This proposal is to develop 251 units on 307 acres located on the south side of Redden Road (Road 40), west of Apple Tree Road, and east of Bridgeville. According to the *State Strategies Map*, the proposal is located in an Investment Level 4 area. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the *State Strategies Map*. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State would like to see new residential development

Delaware Economic Development Agency – Contact: Gary Smith 739-4271

The Delaware Economic Development Office (DEDO) is not in favor of this project in a Level 4 area. Our office supports the *Delaware Strategies for State Policies and Spending* policy regarding Level 4 activities

Department of Education – Contact: Nick Vacirca 739-4658

251 dwelling units could generate an estimated 126 additional students for the Woodbridge School District. Sussex County does not have school concurrence legislation at this time. We recommend that the developer submit a package to the school district for informational purposes.

State spending strategies recommend no development in level 4 areas, or if development occurred, there would be little or no State funding utilized. Development that is approved in level 4 areas will require student transportation support, a State financed program. If we are going to truly hold to the State strategies on spending, then any development approved and constructed in level 4 should not receive State funded school transportation. I don't believe this is a call the Department is in a position to make.

If the development is approved and built, please use the following information for school transportation planning. If there are homes more than 1/2 mile from the nearest public road (outside the development), developers should plan wide enough streets so that large school buses can access and turn around (without backing) from the furthest areas within the development while picking up and dropping off students. Should there not be any sites more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be included. The developer should work closely with the school district transportation supervisor.

Sussex County – Contact: Richard Kautz 855-7878

There is no context for this development and it is out of character with the surrounding farms.

The required 30' forested buffer should be added at the appropriate locations.

The Sussex County Engineer Comments:

Individual on-site wastewater systems are proposed to serve the subdivision. The proposed project is not within any Sussex County Planning Area boundary. Sussex County has no objection to the project being served by individual on-site systems.

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,

A handwritten signature in cursive script that reads "Constance C. Holland". The signature is written in black ink and is positioned above the printed name and title.

Constance C. Holland, AICP
Director

CC: Sussex County

