



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF MANAGEMENT AND BUDGET
Budget Development, Planning and Administration
State Planning Coordination

January 15, 2009

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

RE: PLUS review – 2008-12-03; Wilde Woods

Dear Mr. Cuppels:

Thank you for meeting with State agency planners on December 17, 2009 to discuss the proposed plans for the Wilde Woods project to be located near the intersection of Mt. Joy road and Oak Street in Sussex County.

According to the information received, you are seeking a rezoning of 22 acres from GR to GR-RPC for a 37 unit subdivision on 22.7 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 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.

This proposal is located in Investment Level 4 according to the *Strategies for State Policies and Spending*, and is within the Low Density area according to the Sussex County certified comprehensive plan. **The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

This office has received the following comments from State agencies:

Office of State Planning Coordination – Contact: Bryan Hall 739-3090

This project represents a major land development that will result in 37 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This proposal is located in Investment Level 4 according to the *Strategies for State Policies and Spending*, and is within the Low Density area according to the Sussex County certified comprehensive plan. 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 80 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.

State Historic Preservation Office (SHPO) – Contact: Terrence Burns 739-5685

No comments received.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Harry Caswell seeks to develop 37 single-family detached houses on a 22.7-acre parcel (Tax Parcel 2-34-21.00-74.00). The land is located north of Millsboro and more specifically northwest of the intersection of Mount Joy Road (Sussex Road 297) and Oak Street, a private subdivision street in the Edward Cordrey Subdivision. The parcel has about 50 feet of frontage on each of these roads and is proposed to have access on Oak Street. The land is zoned GR and an RPC overlay zoning is being sought.

Because this land is located in a Level 4 Area, development of it as proposed is inconsistent with the *Strategies for State Policies and Spending*. As part of our commitment to support the *Strategies*, DeIDOT 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. DeIDOT 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. DeIDOT 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 rezoning is approved, notwithstanding inconsistencies with the relevant plans and policies, DeIDOT will provide technical review and comments on the proposed development. Further, we understand that the applicant seeks to have the subject land and the surrounding area redesignated with regard to the *Strategies for State Policies and Spending*. If this redesignation occurs, please notify us and we will provide technical review and comments.

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

Besides its location in Investment Level 4, DNREC's concerns with this project include:

- Its location in a TMDL high reduction zone within the Inland Bays Watershed, which is now regulated by an enforceable Pollution Control Strategy;
- An apparent underestimation of impervious cover; and
- The observation that tax ditch rights-of-way shown on the preliminary site plan do not correspond with the existing tax ditch rights-of-way.

See comments below for more information.

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. In addition, if a new public well is installed onsite, a wellhead protection area must be established in accordance with Sussex County regulations. 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.

Soils

Based on the NRCS soil survey update, Pepperbox-Rosedale complex (PsA) was mapped in the immediate vicinity of the proposed construction. Pepperbox-Rosedale complex is a moderately well to well-drained soil found on the lower portions of the upland landscape.

Figure 1: NRCS soil survey update mapping in the immediate vicinity of the proposed Wilde Woods subdivision.

Wetlands

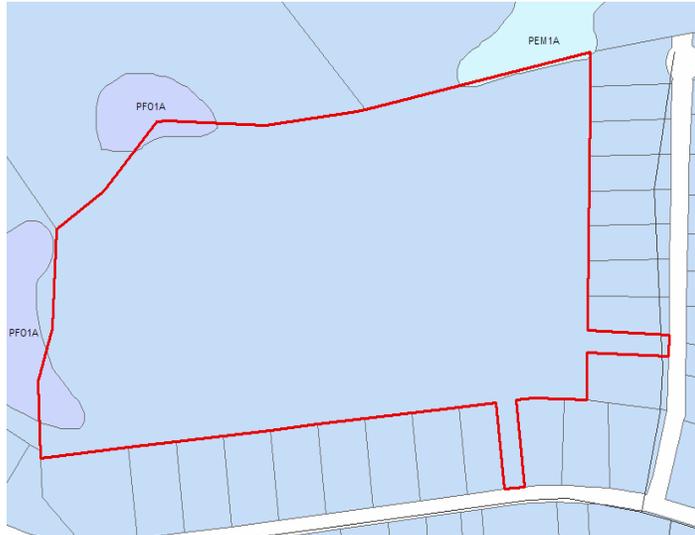
Based on the Statewide Wetland Mapping Project (SWMP) maps, palustrine forested wetlands (PF01A) and palustrine emergent wetlands were mapped along the northern and western boundaries of the area proposed for construction (See figure 2). It is also likely that



some unmapped wetlands may also be found on other portions of this parcel as well.

Figure 2: SWMP mapping in the immediate vicinity of the proposed Wilde Woods subdivision.

The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C. Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water Resources' Wetlands and Subaqueous Lands Section at 302/739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.



In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C. Chapter 72) and the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. Since a tax ditch(s) is present on this parcel (L& T tax ditch), State-regulated wetlands are likely on this parcel. Please contact the Wetlands and Subaqueous Lands Section at 302/739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE, or "the Corps") manual is the acceptable basis for making a jurisdictional wetland determination for nontidal wetlands in Delaware. The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations. To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be

given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant's consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands.

Impervious Cover

The applicant estimates this project's post-construction surface imperviousness to reach only 17 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout) this estimate appears to be a significant underestimate. Using the TR-55 methodology and applying it to the project's average lot size of about 0.2 acres, impervious cover is roughly calculated to be in the neighborhood of 40-50%. When calculating surface imperviousness, it is important to include all forms of constructed surface imperviousness, such as: all paved surfaces including rooftops, sidewalks, driveways, and roads; open-water stormwater management structures and/or ponds; and community wastewater systems. Failure to do so will significantly understate this project's true environmental impacts. Therefore, surface imperviousness should be recalculated to reflect all of the above-mentioned forms of surface imperviousness in the finalized calculation for surface imperviousness. **Note:** wetlands should be excluded from the parcel's total open space area when calculating the parcel's total surface imperviousness.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of this project's most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness.

ERES Waters

This project is located adjacent to receiving waters of the Inland Bays designated as waters having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or

restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware’s “Surface Water Quality Standards” (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a “pollution control strategy” to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 5.6.3.5 of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

TMDLs

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited water body” can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. This project is located in the high nutrient reduction area requiring an 85 and 65 percent reduction in nitrogen and phosphorus, respectively. Additionally, a 40 percent reduction in bacteria is also required.

Compliance with TMDLs through the PCS

As stated above, TMDLs for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. The TMDL calls for an 85 percent reduction in nitrogen and phosphorus from baseline conditions. Additionally, a 40 percent reduction in bacteria will also be required from baseline conditions. Additional nutrient reductions may be possible through the implementation of best management practices (BMPs) such as wider vegetated buffers along watercourses (and wetlands), increasing passive, wooded open space, use of pervious paving materials to reduce surface imperviousness (i.e., pervious pavers), connection to a central sewer (or a performance-based community wastewater system), and the use of green-technology stormwater management technologies.

A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary to systematically reduce the pollutant loading rate for a given water body and meet the TMDL reduction requirements specified for that water body. As mentioned previously, the pollutants specifically targeted for reduction in the Inland Bays watershed are nutrients (e.g., nitrogen and phosphorus) and bacteria. A variety of site-specific BMPs will be the primary actions required by the PCS to reduce nutrient and bacterial pollutant loadings. The PCS for the Inland Bays was approved on November 11, 2008, and is now an enforceable regulatory directive.

The Department has developed an assessment tool that will help evaluate whether your proposed development meets the required TMDL nutrient reduction requirements specified by the PCS. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Water Supply

The information provided indicates that Tidewater Utilities will provide well water to the proposed project(s) through a public water system. Our 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 302-736-7547. Since an on-site public well will be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, furthermore, it must be located at least 150 feet from the outermost boundaries of the project. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

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

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

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

Sediment and Stormwater

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact

Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

- Because of the parcel's location in an impaired watershed and the amount of impervious surface, green technology BMPs and low impact development practices should be considered a priority to reduce stormwater flow and to meet water quality goals. The Sediment and Stormwater Management Program ensures sediment and erosion control plans and stormwater plans comply with local land use ordinances and policies, including the siting of stormwater management facilities. However, we do not support placement in resource protection areas or the removal of trees for the sole purpose of placement of a stormwater management facility/practice.
- Include Brooks Cahall, of the Drainage Program, in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch. Show the location and width of tax ditch rights-of-way on the sediment and stormwater plans.

Drainage

- This project is located within the L & T Tax Ditch. The tax ditch rights-of-way shown on the preliminary site plan do not correspond with the existing tax ditch rights-of-way. Any change to the location of the tax ditch or existing tax ditch rights-of-way will require a change to the L & T Tax Ditch court order. The placement of permanent obstructions within tax ditch rights-of-way is prohibited. Please contact Brooks Cahall of the Drainage Program in Georgetown at (302) 855-1930 as soon as possible to discuss the tax ditch rights-of-way for this project. It is suggested to include Brooks Cahall in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch.
- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of onsite storm water. The Drainage Program requests that the engineer check existing downstream ditches and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.
- Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any

subsequent owner of the property, will be fully aware of the drainage easement on their property.

- Excessive tree removal contributes to drainage problems and requires additional stormwater management measures. Where practical, plant native trees and shrubs to compensate for the loss of nutrient uptake and stormwater absorption the removed trees provided.

Site Visit

The Division of Fish and Wildlife's community ecologist, Robert Coxe, conducted a vegetative community survey at this project site on September 24, 2008. A summary of Robert's findings is included below. He did not note any rare community types on this site. Please note that this report constitutes a vegetative community survey only. Surveys for specific rare plant and rare animal species were not conducted, however, at this time there are no further requests from our program for additional surveys.

Three natural vegetation communities were noted. The National Vegetation Classification (NVC) Association number is given with the vegetation community and their approximate acreage in the project area. Names of communities correspond with the common names as given in the NVC.

Red Maple-Sweetgum Swamp (5.6 acres)

This community, located at the west end of the site near the ditch for the small tributary to Swan Creek, has a medium age canopy dominated by red maple (*Acer rubrum*) and associated by black gum (*Nyssa sylvatica*), sweetgum (*Liquidambar styraciflua*), wild black cherry (*Prunus serotina*), water oak (*Quercus nigra*) and black gum (*Nyssa sylvatica*). Smaller members of the canopy plus a few willow oak (*Quercus phellos*) and sassafras (*Sassafras albidum*) make up the canopy. Common greenbrier (*Smilax rotundifolia*) is common in places in the vine layer. Few, if any, herbs were seen in this community. Woody debris and snags are small and scattered with this community.

Southern Red Oak/Heath Forest (15.1 acres)

A fair successional (medium age) example of a Southern Red Oak/Heath Forest covers most of the site. Species in the low canopy include southern red oak (*Quercus falcata*), northern red oak (*Quercus rubra*), white oak (*Quercus alba*), mockernut hickory (*Carya tomentosa*) and scattered red maple (*Acer rubrum*) and blackjack oak (*Quercus marilandica*). The understory is composed of smaller members of the canopy plus devil's walking stick (*Aralia spinosa*), American holly (*Ilex opaca*), sassafras (*Sassafras albidum*) and a few eastern red cedar (*Juniperus virginiana*). The shrub layer has occasional dense patches of low bush blueberry (*Vaccinium pallidum*) and huckleberry (*Gaylussacia frondosa*) that are likely remnants of the previous forest before cutting. Other shrubs include inkberry (*Ilex glabra*) and dense patches of common greenbrier

(*Smilax rotundifolia*). The few herbs seen include wintergreen (*Gaultheria procumbens*), indian pipes (*Monotropa uniflora*) and bracken fern (*Pteridium aquilinum*).

Successional Sweetgum Forest (0.7 acres)

A poor example of a Successional Sweetgum Forest covers a ditch draining a small tributary to Swan Creek. The ditch area is covered by a low dense canopy of sweetgum (*Liquidambar styraciflua*) with inkberry (*Ilex glabra*), low bush blueberry (*Vaccinium pallidum*) and American holly (*Ilex opaca*) making up the small “understory.” Hay-scented fern (*Dennstaedtia punctilobula*) and deer-tongue grass (*Dichanthelium clandestinum*) compose the dense herbaceous layer.

Wildlife Habitat Loss

Cumulative wildlife habitat loss throughout the State is of utmost concern to the Division of Fish and Wildlife which is responsible for conserving and managing the State’s wildlife (see www.fw.delaware.gov and the Delaware Code, Title 7). Because of an overall lack of habitat protection, we have to rely on applicants and/or the entity that approves the project (i.e. counties and municipalities) to consider implementing measures that will aide in habitat loss reduction.

This project proposes the removal and/or fragmentation of forest (15 out of 22 acres or 68%). Although leaving a forest intact is usually more beneficial to the existing wildlife and is preferential to clearing, we offer the following recommendations which if implemented will reduce impacts to natural resources.

1. This site is entirely forested, so the optimal way to reduce forest loss would be to consider preservation or downsize the project. If preservation is an option, there are incentive-based programs for wildlife management available to private landowners, some of which are through our agency. Shelly Tovell of the Landowner Incentive Program can be contacted at (302) 735-3600 if the landowner(s) is interested in more information.
2. To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st. This clearing recommendation would only protect those species during one breeding season; once trees are cleared the result is an overall loss of habitat.
3. Explore green technologies and alternatives to clearing trees for stormwater management.

Nuisance Waterfowl

Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. 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, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds (planted in accordance with the Sediment and Stormwater Plan approval agency requirements). When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond.

At this time, we do not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.

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 a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Air Quality

Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
- The emission of greenhouse gases which are associated with climate change, and
- The emission of air toxics.

Air emissions generated from housing developments include emissions from:

- Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.

These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor

that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Wilde Woods development may have.

Emissions Attributable to Wilde Woods Subdivision (Tons per Year)

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Direct Residential	1.1	0.1	0.1	0.1	4.6
Electrical Power Generation	ND*	0.5	1.6	ND*	232.9
Mobile	16.6	13.7	1.7	0.2	237.5
Total	17.7	14.3	3.4	0.3	475.0

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

Recommendations:

The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

Regulation 6 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> • Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. • Using covers on trucks that transport material to and from site to prevent visible emissions.
Regulation 1113 – Open Burning	<ul style="list-style-type: none"> • Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibiting the burning of land clearing debris. • Prohibiting the burning of trash or building materials/debris.
Regulation 1145 – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> • Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These savings come from building envelope upgrades, high performance windows, controlled air

infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.

- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions.
- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.

Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:

- **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Wilde Woods development. Air Quality Management Section points of contact are Phil Wheeler and Deanna Morozowich, and they may be reached at (302) 739-9402.

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

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

the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

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 the main thoroughfare must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance into the subdivision, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
- 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.
- 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”
- Name of Water Supplier
- 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.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Scott Blaier 739-4811

The proposed development is in an area designated as Investment Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* do not support this type of isolated development in this area. The intent of this plan 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 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.

Section 1, Chapter 99, Code of Sussex Section 99-6 may apply to this subdivision. The applicant should verify the applicability of this provision with Sussex County. This Section of the Code states:

G. Agricultural Use Protections.

- (1) Normal agricultural uses and activities conducted in a lawful manner are preferred. 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 uses adjacent to land used primarily for agricultural purposes shall be subject to the following restrictions:
 - (a) For any new subdivision development located in whole or in part within three hundred (300) feet of the boundary of land used primarily for agricultural purposes, 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 land used primarily for agricultural purposes on 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.”

(b) For any new subdivision development located in whole or in part within fifty (50) feet of the boundary of land used primarily for agricultural purposes no improvement requiring and occupancy approval for a residential type use shall be constructed within fifty (50) feet of the boundary of land used primarily for agricultural purposes.

This site overlaps with the State’s Green Infrastructure Investment Strategy Plan. Both the Forest and Natural Areas layers are present on the site. This designation indicates the land has valuable agricultural and environmental characteristics which are discussed in Governor Minner’s Executive Order Number 61. They should be preserved as such, and not developed for residential or other incompatible uses.

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.

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.

Do Not Plant List

Due to the high risk of mortality from insects and disease, the Delaware Forest Service does not recommend planting any of the following species:

Callery Pear
Leyland Cypress
Red Oak (except for Willow Oak)
Ash Trees

Please contact the Delaware Forest Service for more information at (302) 698-4500.

Public Service Commission - Contact: Andrea Maucher 739-4247

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

Delaware Economic Development Office – Contact: Jeff Stone 672-6849

No comments received.

Delaware Division of Public Health- Health Promotion Bureau- contact Michelle Eichinger (302) 744-1011

Ensuring that new residential and commercial development incorporates pedestrian- and bicycle-friendly features allows people to travel by foot or by bicycle and promotes physical activity as part of daily routines. Regular physical activity offers a number of health benefits, including maintenance of weight and prevention of heart disease, type 2 diabetes and other chronic diseases.¹ Research shows that incorporating physical activity into daily routines has the potential to be a more effective and sustainable public health strategy than structured exercise programs.² This is particularly important considering about 65% of adult Delawareans are either overweight or obese.³ This current obesity crisis is also affecting children. Approximately 37% of Delaware's children are overweight or obese⁴, which places them at risk for a range of health consequences that include abnormal cholesterol, high blood pressure, type 2 diabetes, asthma, depression and anxiety.¹

In Delaware, as in other states across the nation, certain patterns of land use can act as a barrier to physical activity and healthy eating for children and adults alike. Examples of such barriers include neighborhoods constructed without sidewalks or parks and shopping centers with full-service grocery stores situated too far from residential areas to allow for walking or biking between them.

This proposed development is in a Level 4 area. Developing in such an area is inconsistent with the *Strategies for State Policies and Spending*. DPH is committed to the *Strategies* and therefore, does not support development in the proposed area.

DPH supports new development in and around existing towns and municipalities where compact and mixed land use patterns facilitate physical activity.

¹Nemours Health and Prevention Services (2005). *Delaware Children's Health Chartbook*, Newark, DE.

² Active Living by Design. *Transportation Fact Sheet*. Retrieved May 17, 2007, from http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation_Factsheet.pdf.

³ Delaware Health and Social Services (2008), *Division of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 1990-2007*.

⁴ Nemours Health and Prevention Services (2007). *2006 Delaware Survey of Children's Health Descriptive Statistics Summary, Volume 1*.

Delaware State Housing Authority – Contact Vicki Powers 739-4263

This proposal is for a site plan review of 37 residential units on 22 acres, located near the intersection of Mt. Joy and Oak Street by the Town of Millsboro. 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 only in areas where residents will have proximity to services, markets, and employment opportunities, such as Investment Level 1 and 2 areas, as outlined in the State Strategies Map. Since, 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, DSHA does not support this proposal.

Department of Education – Contact: John Marinucci 735-4055

DOE recognizes that this development project request is in level 4 of the State Strategies for Policies and Spending and as such, DOE does not support the approval of projects in level 4 of the State Strategies for Policies and Spending.

1. This proposed development is within the Indian River School District boundaries.
2. DOE offers the following comments on behalf of the Indian River School District.
3. Using the DOE standard formula, this development will generate an estimated 19 students.
4. DOE records indicate that the Indian River School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2008 elementary enrollment.
5. DOE records indicate that the Indian River School Districts' *secondary schools are not at or beyond 100% of current capacity* based on September 30, 2008 secondary enrollment.
6. In multiple correspondences from the Indian River School District administration, the district asserts that while the Indian River High Schools have capacity, the Indian River Middle Schools' student population exceeds student capacity.
7. This development will create additional elementary school and middle school student population growth which will further compound the existing shortage of space.
8. The developer is strongly encouraged to contact the Indian River School District Administration to address the issue of elementary and middle school overcrowding that this development will exacerbate.

9. DOE requests the developer coordinate with the Indian River School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the local school district.

Sussex County – Contact: Richard Kautz 855-7878

The proposed RPC development is not within a Sussex County designated Growth Area according to the recently adopted and certified Comprehensive Plan.

The Sussex County Engineer Comments:

The project proposes to develop using a central community wastewater system. They recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility. In addition, we recommend they have a wastewater utility provider and that the disposal location for treated wastewater be identified prior to approving the project. The proposed project is located outside of the Environment Sensitive Developing Area where Sussex County expects to provide sewer service. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots and separated from lot area. If Sussex County ever provides sewer service and the project has a CPCN, it is recommended that the treatment system be abandoned and a direct connection made to the County system at the developer's and/or owners expense. If Sussex County ever provides sewer service and the project does not have a CPCN, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or owners expense.

Sussex County recently adopted new road standards. The standard becomes affective January 1, 2009 and will apply to this project.

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".

Constance C. Holland, AICP
Director, Office of State Planning

CC: Sussex County