



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF  
STATE PLANNING COORDINATION

June 28, 2005

Mr. Mark Chura  
Ocean Atlantic Associates  
4101 Highway One  
Rehoboth Beach, DE 19971

RE: PLUS Review 2005-05-20, Welsh Run

Dear Mr. Chura,

Thank you for meeting with State agency planners on June 8, 2005 to discuss the proposed plans for the Welsh Run project located on 172.12 acres at the intersection of Zoar Road and Hollyville Road in Sussex County. According to the information received, you are seeking to construct 301 residential units in the Level 4 area.

This site is located in Investment Level 4 according to the *Strategies for State Policies and Spending*, and is in the Low Density area according to the Sussex County 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.**

**Executive Summary**

This section includes some site-specific highlights from the agency comments found in this letter and 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.***

**Project Location/Strategies for State Policies and Spending**

- The proposal is located within the Investment Level 4 area according to the *Strategies for State Policies and Spending* and within the Low Density area of the Sussex County Comprehensive Plan. State priorities in these areas include conservation of natural resources and preservation of agriculture, not development.

- We are particularly concerned about the cumulative impact of this and other proposed and approved subdivisions in this area where the State and County have not planned for the infrastructure and services necessary to support growth.

**Natural/Cultural Resources**

- Vegetated buffers of at least 100 feet should be employed from the edge of the wetland complex.
- A portion of the site is within an excellent recharge area. Recommendations are included in the “Water Resource Protection Areas” section of this letter.
- If areas of mature forest remain on the site, they should be preserved.

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

This project represents a major land development that will result in 301 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. This project is also located in a Low Density area according to Sussex County’s 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 suburban development activities 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 750 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.

In the last year, the State has reviewed nearly 2,000 proposed units in this area, and notes that other approved subdivisions which pre-date the PLUS process exist in the immediate vicinity. We are particularly concerned about the cumulative impact of this growth in an area where neither the State nor the County plan to provide infrastructure and services. 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 Alice Guerrant 739-5685**

SHPO objects to this development in the Level 4 area because it will have an adverse effect on the historic agricultural landscape through destruction and alteration of the landscape. In this case, the crop is trees. No historic properties are known within the site and no National Register-listed or eligible properties are nearby. The Beers Atlas of 1868 shows the W.W. Hurdle House at the corner of Zoar and Hollyville roads, within the point of the western half of the project area, and an archaeological site associated with this house may survive. There are also areas of high and medium potential for prehistoric-period archaeological sites along the northern edge of the eastern part, and in the southeastern corner of the western part of the site. Silviculture can be very destructive to archaeological sites and SHPO would appreciate the opportunity to check for any intact remains before construction begins.

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

Delmarva Woodlands Alliance seeks to develop 301 single-family detached houses on an approximately 172.12-acre parcel (Tax Parcel 2-34-15.00-40.00). The site is located on both sides of Hollyville Road (Sussex Road 305) and the south side of Zoar Road (Sussex Road 48) and Harmons Hill Road (Sussex Road 302). The land is zoned GR in Sussex County and would be developed by right.

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The *Strategies* have deemed the type of development being proposed to be inappropriate for this area. As part of its 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.

**Department of Natural Resources and Environmental Control**

**Contact Kevin Coyle 739-3091**

**General Comment**

Following is a list of PLUS reviewed development proposals located near this project. Approval of these developments will add 1,909 homes to the Level 4 “rural” area. The cumulative impact of these seven subdivisions on habitat, water quality, air quality, traffic, etc. is greater than that of an individual development considered alone. The State should strongly oppose this project and/or require significant additional studies.

- Welsh Run, 301 units
- Wilkinson Property, 213 units
- Stonewater Creek, 400 units
- Avebury, 400 units
- Weatherby, 126 units
- Nassau Gardens, 14 units
- Indigo Run, 455 units

**Green Infrastructure**

Portions or all of the land 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. In that spirit of stewardship, the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

**Wetlands**

Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine wetlands on the site. These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and the Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances of homeowners.

### **Wetland Permitting Information**

If wetland impacts are considered, note that impacts to 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.

There is strong evidence that federally regulated wetlands exist on the site and a wetlands delineation must be conducted in accordance with the methodology established by the Corps of Engineers Wetlands Delineation Manual, (Technical Report Y-87-1). This delineation should then be verified through the Jurisdictional Determination process. Site plans indicate that structures will impact the stream on Site A. Impacts to streams and associated riparian wetlands are regulated by the DNREC Division of Water Resources Subaqueous Land Section and the Army Corps of Engineers.

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, (302) 739-4691, to schedule a meeting.

### **ERES Waters**

The site is located adjacent to receiving waters of the Inland Bays designated as having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State. Section 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specifies that all designated ERES waters and receiving tributaries have a "pollution control strategy" to reduce non-point sources of nutrient runoff. Subsection 11.5(e) expressly authorizes the Department to provide standard Best Management Practices (BMPs) for controlling, reducing, or eliminating the discharge of pollutants to the greatest degree practicable or attainable.

### **TMDLs**

Adoption of Total Maximum Daily Loads (TMDLs) as a nutrient-runoff-mitigation strategy for the Inland Bays Watershed makes reduction of nitrogen and phosphorus loading mandatory. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are authorized under federal code, states are charged with developing and implementing standards to support these desired use goals. The jurisdictional authority for these use goals falls under Section 11.5 of the Surface Water Quality Standards (as amended August 11, 1999), and will be achieved via nutrient reductions referred to as "pollution control strategies."

Nutrient reductions are assigned on the basis of water quality concerns. Regions of greatest environmental concern will require higher levels of nutrient reduction than those deemed less environmentally sensitive. In this watershed, the regions are demarcated as high and low reduction zones. The high reduction zone corresponds to the western portion and requires a reduction of nitrogen and phosphorus by 85 and 65 percent, respectively. The low reduction zone corresponds to the eastern portion and requires a reduction of nitrogen and phosphorus by 40 percent. This project is proposed within the high nutrient reduction zone.

The TMDL for the Inland Bays mandates reducing nutrient loading to waters of the Inland Bays, and significant nitrogen and phosphorus loading must be realized from all sources, including on-site community wastewater systems. The Department has developed performance standards for on-site community wastewater treatment and disposal systems. The proposed effluent standards would require that effluent concentration levels could not exceed average annual nitrogen and phosphorus concentration levels of 5 and 2 mg/l respectively. Phosphorus standards would apply only under certain circumstances. The Department has also proposed guidelines for these systems. For more information, contact Lyle Jones at (302) 739-4590.

The inclusion of stormwater management and/or wastewater treatment areas in open space calculations may underestimate nutrient loading rates. In order to verify compliance, a full nutrient accounting process known as nutrient budget should be prepared by the applicant. Lyle Jones, Watershed Assessment Section can be contacted at (302) 739-4590 for further information regarding acceptable protocol for calculating a nutrient budget.

### **Water Supply**

Well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the 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. A water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation. Dewatering well permit applications typically take approximately four weeks to process. Questions concerning these comments can be directed to Rick Rios, (302)739-3665.

### **Water Resource Protection Areas**

A portion of the site falls within an excellent recharge area (see map). According to State law, county and municipal governments are required to enact ordinances to protect Water Resource Protection Areas. The text below has been excerpted from the Source Water Protection Guidance Manual for Local Governments, Supplement 1 - Ground-Water Recharge Design Methodology. While local ordinances are not yet in place, the developer may find this wording useful in modifying the site plan to protect the wellhead protection area.

“Water Resource Protection Areas (WRPAs) are defined as (1) surface water areas such as floodplains, limestone aquifers, and reservoir watersheds, (2) wellhead areas, or (3) excellent recharge areas. The purpose of an impervious cover threshold is to minimize loss of recharge and protect the quality and quantity of ground and surface water supplies in WRPAs.

New development in WRPAs may exceed the 20 % impervious cover threshold, but be no more than 50 % impervious, provided the applicant submits an environmental assessment report recommending a climatic water budget and facilities to augment recharge. The environmental assessment must document that post-development recharge will be no less than predevelopment recharge when computed on an annual basis.”

Applicants commonly offset the loss of recharge due to impervious cover by constructing recharge basins that convey relatively pure rooftop runoff for infiltration to ground water. The DNREC recommends the following measures, ranked in order of preference:

- 1) Preserve WRPAs as open space and parks by acquisition or conservation easement;
- 2) Limit impervious cover of new development to 20 % by right within WRPAs;
- 3) Allow impervious cover of new development to exceed 20% within WRPAs (but no more than 50% impervious) provided the applicant develops recharge facilities that directly infiltrate rooftop runoff;
- 4) Allow impervious cover of new development to exceed 20% within WRPAs (but no more than 50% impervious) provided the applicant develops recharge facilities that infiltrate stormwater runoff from forested and/or grassed surfaces with pretreatment.

More information can be found at:

Source Water Protection Guidance Manual for the Local Governments of Delaware at

<http://www.wr.udel.edu/swaphome/phase2/Manual/SwappManual.pdf>

Ground-Water Recharge Design Methodology at

[http://www.wr.udel.edu/swaphome/phase2/Manual/SwappManual\\_supplement\\_1.pdf](http://www.wr.udel.edu/swaphome/phase2/Manual/SwappManual_supplement_1.pdf).

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

- 1) Due to the proximity of the site to sensitive areas, the Conservation District will require reinforced and super silt fence to adequately protect wetland areas during the construction of the project.
- 2) A Certified Construction Reviewer (CCR) is required for this development. The District’s CCR Policy can be found at [www.SussexConservation.org](http://www.SussexConservation.org).
- 3) The District will require a phased plan and sequence of construction for this project. DNREC regulations require no more than 20 acres to be disturbed at more time. Please address.

- 4) Under the DNREC Health and Safety Memo of 2000, all wet ponds are required to have an open space depth of 3 feet or more that comprises 50-75 percent of the area of the pond.
- 5) Consideration should be made for any adjacent properties during the design of this project, including drainage and erosion/sediment control.
- 6) 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 and construction inspection will be coordinated through Sussex Conservation District. Contact Jessica Watson, Program Manager, (302) 856-7219, for details regarding submittal requirements and fees.
- 7) It is strongly recommended that the applicant contact Sussex Conservation District to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.
- 8) A Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity must be submitted to DNREC Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval.
- 9) Applying practices to mimic the pre-development hydrology on the site, promote recharge, maximize the use of existing natural features on the site, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique.
- 10) Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption.
- 11) Clearly address how Stormwater Quality and Quantity Treatment will be provided. If this project is eligible for a Quantity Waiver, please make the request in the stormwater narrative citing the specific regulation.
- 12) Indicate on the sediment and stormwater management plan who will be responsible for maintenance of stormwater management facilities both during and after construction. During the design of the sediment control and stormwater management plan, considerations should be made for maintenance (access, easements, etc.) of any structures or facilities.

### **Drainage**

All ditches on the property should be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required in advance of ditch cleaning. Precautions should be taken to ensure that construction does not hinder any off-site drainage upstream or create off-site drainage problems downstream by the release of on-site storm water. Any drainage/utility easement owned by an individual landowner should not have structures, decks, buildings, sheds, kennels, fences or trees within it to allow for future maintenance.

It is strongly recommended that any conveyance between two parcels within the subdivision be dedicated as a drainage easement and designated as passive open space, rather than individually-owned. The easement should be of sufficient width to allow for future drainage maintenance. Along an open ditch or swale, 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 is recommended. Along a stormwater pipe, a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline is recommended. These zones should be maintained as buffers to reduce 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.

### **Forests**

Aerial photography from 2002 indicates the presence of forested areas on the site. Images from 1937 reveal that a large portion of the forest was present at that time. Discussion at the PLUS meeting and a site visit by the state's urban forester revealed that the site has been cut over. If areas of mature trees remain on the site, they should be conserved. Mitigation should be considered if any existing trees are removed.

Forested areas set aside for conservation purposes should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked so that residents understand their importance and homeowner activities do not infringe upon them.

### **Open Space**

Lot lines and other infrastructure, such as stormwater management ponds, should not be placed in the forest and areas of community open space should be designated along forested/riparian areas. This will expand existing buffers, enhance value for birds and wildlife, and create recreational opportunities for residents.

In areas set aside for passive open space, the developer should establish additional forested areas or meadow-type grasses. These ecosystems increase infiltration into groundwater, decrease run-off into surface water, and improve air quality. They also

require much less maintenance than traditional turf grass, an important consideration of homeowner associations. Open space containing forest or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should be marked to avoid infringement by homeowners.

### **Rare Species**

DNREC has not surveyed the site and has no record of state-rare or federally listed plants, animals or natural communities on it. However, there are at least six other developments being proposed in the general area and cumulative impacts are a concern. Providing adequate buffers of at least 100 feet and making efforts to preserve more of the forest are extremely important.

### **Recreation**

It is recommended that sidewalks be built fronting at least one side of residential streets and stub streets. A complete system of sidewalks will 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe and convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

DNREC recommends that the developer dedicate a portion of the site for a community park. The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation preferences and landscape perception. The findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) which provides guidance for investments in outdoor recreation facilities. The high facility needs in Eastern Sussex County are Walking and Jogging, Bike Paths and Fishing Areas. The moderate facility needs are Picnic Areas, Skate Facilities, Canoe/Kayak Access, Hiking Trails, Swimming Pools, Playgrounds, Soccer Fields, Tennis Courts, Power Boat Access and Baseball/Softball Fields. Consideration should be given to incorporate some of these recreation opportunities into the project. For additional information about the outdoor recreation priorities, contact Bob Ehemann at 739-9235.

### **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 estimate the amount of solid waste that will be generated as a result of construction and occupancy.

### **Air Quality**

Annual vehicle emissions associated with this project at completion are estimated to be 23.1 tons (46,200.4 pounds) of VOC (volatile organic compounds), 19.1 tons (38,250.8 pounds) of NOx (nitrogen oxides), 14.1 tons (28,222.1 pounds) of SO<sub>2</sub> (sulfur dioxide), 1.3 ton (2,512.3 pounds) of fine particulates and 1,932.3 tons (3,864,601.2 pounds) of CO<sub>2</sub> (carbon dioxide).

Annual emissions from area sources associated with this project at completion are estimated to be 9.3 tons (18,634.7 pounds) of VOC (volatile organic compounds), 1.0 ton (2,050.4 pounds) of NOx (nitrogen oxides), 0.9 ton (1,701.5 pounds) of SO2 (sulfur dioxide), 1.1 ton (2,195.7 pounds) of fine particulates and 37.8 tons (75,540.9 pounds) per year of CO2 (carbon dioxide).

Annual emissions from electrical power generation associated with this project at completion are estimated to 3.7 tons (7,385.5 pounds) of NOx (nitrogen oxides), 12.8 tons (25,688.5 pounds) of SO2 (sulfur dioxide) and 1,894.5 tons (3,789,060.2 pounds) of CO2 (carbon dioxide).

	VOC	NOx	SO <sub>2</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Mobile	23.1	19.1	14.1	1.3	1932.3
Residential	9.3	1.0	0.9	1.1	37.8
Electrical Power		3.7	12.8		1894.5
TOTAL	32.4	23.8	27.8	2.4	3864.6

For this project the electrical usage via electric power plant generation will produce an additional 3.7 tons of nitrogen oxides per year and 12.8 tons of sulfur dioxide per year. A significant mitigation of this impact can be achieved through construction of Energy Star qualified homes. Every percentage of increased energy efficiency achieves 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 trains builders to make their structures more energy efficient. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution. The project development team is strongly encouraged to increase the energy efficiency of its homes.

**State Fire Marshal’s Office – Contact Duane Fox 856-5298**

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):

- 1) 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.
- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly and Townhouses)
- The infrastructure for fire protection water shall be provided, including the size of water mains.

2) Accessibility

- All premises which the fire department may be called upon to protect 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 are accessible to fire apparatus. The access road to the subdivision from Zoar 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, 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.

3) Gas Piping and System Information

- Provide type of fuel proposed and show size and location of bulk containers on plan.

4) Required Notes

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Townhouse 2-hr separation wall details shall be shown on site plans
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout

- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from [www.delawarestatefiremarshal.com](http://www.delawarestatefiremarshal.com).

### **Department of Agriculture - Contact Mark Davis 739-4811**

The Delaware Department of Agriculture does not support the development of this site within the Level 4 area. Development as proposed will lessen the value of environmental resources found within and adjacent to the site. This area is a viable and productive agricultural community. The needs of suburban residents often conflict with the needs of rural landowners. The Department supports state spending strategies for better investment and agrees that development of this site will create an unnecessary financial burden to the residents of the State of Delaware. The Department offers its services to the developer to identify alternative uses for the site.

### **Right Tree for the Right Place**

The Department encourages the developer to use the “Right Tree for the Right Place” concept in any design considerations. This concept outlines the proper placement of trees to increase property value and reduce heating and cooling costs by an average of 20 to 35 dollars per month. A landscape design that uses this approach reduces maintenance costs to property owners and ensures a lasting forest resource.

### **Native Landscapes**

The Department encourages the developer to use native trees and shrubs to buffer the property from adjacent land-use activities near the site. A properly designed forested buffer can create wildlife habitat corridors, clean our rivers and creeks of storm-water run-off pollutants, and improve air quality to the area by removing six to eight tons of carbon dioxide annually. To learn more about acceptable native trees and how to avoid plants considered invasive to local landscapes, contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

### **Tree Preservation**

The Department encourages the developer to implement tree preservation activities to ensure the health and vigor of the resource. Trees are affected by compaction of soils during the construction process; guidelines established by the International Society of Arboriculture (ISA) serve to lessen this impact and provide increase value to the site.

### **Tree Mitigation**

It is acknowledged that tree removal will be necessary. The Forest Service encourages tree mitigation at a 1:1 ratio within the site to replace trees lost in construction.

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

This proposal is to develop 301 units on 172 acres located south of the intersection with Zoar Road and Harmons Mill Road, southwest of Fairmont. According to the *Strategies for State Policies and Spending*, the site is located in the Level 4 area. DSHA encourages residential development in areas where residents have proximity to services, markets, and employment opportunities such found in Level 1 and 2 areas. The site is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State has planned for new residential development.

**Department of Education – Contact Nick Vacirca**

According to legislation passed in 2004, future public school sites must be located in designated growth areas and approved by the State Budget Director, the State Planning Director, and the State Secretary of Education. It is estimated that 301 dwelling units will generate 151 additional students for the Indian River School District. Sussex County does not have school concurrence legislation at this time. The developer should submit a package to the school district for informational purposes.

If the development is approved and built, 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. Should there not be any homes more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be made. The developer should work closely with the school district transportation supervisor.

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

For both water and wastewater, the application notes “Artesian Water;” however the project is not within one of its certificated service areas. Artesian will need to apply to the Commission for a Certificate of Public Convenience and Necessity (CPCN). Any expansion of natural gas or installation of a closed propane system must comply with Federal Pipeline Safety guidelines.

**Delaware Emergency Management Agency – Contact Don Knox 659-3362**

Due to the large number of residential units proposed and its location in the Level 4 area, a significant impact to public safety is foreseen by implementation of this project. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Sussex County to keep them apprised of all development activities. Routes 5, 9, and 113 are coastal storm evacuation routes and this development will be affected by traffic volume during a coastal storm event.

**Sussex County – Contact Richard Kautz 855-7878**

The response to question 12 should be revised. The parcel is zoned GR and AR-1. Only the first 400' of the east side of Hollyville Road (Road 305) is zoned GR. The remainder of the property to the east is zoned AR-1.

The proposal is to develop a private central community wastewater system. The wastewater system should be operated under a long-term contract with a capable wastewater utility that meets TMDL limits for Delaware's Inland Bays. The wastewater utility provider should be in place prior to approving the project. The proposed project is located outside of the Inland Bays Planning 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 provides sewer service in the future the treatment system is required to be abandoned and a direct connection made to the County system at developer and/or homeowner association expense. For question regarding these comments, contact Rob Davis, Sussex County Engineering Department, (302) 855-7820.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



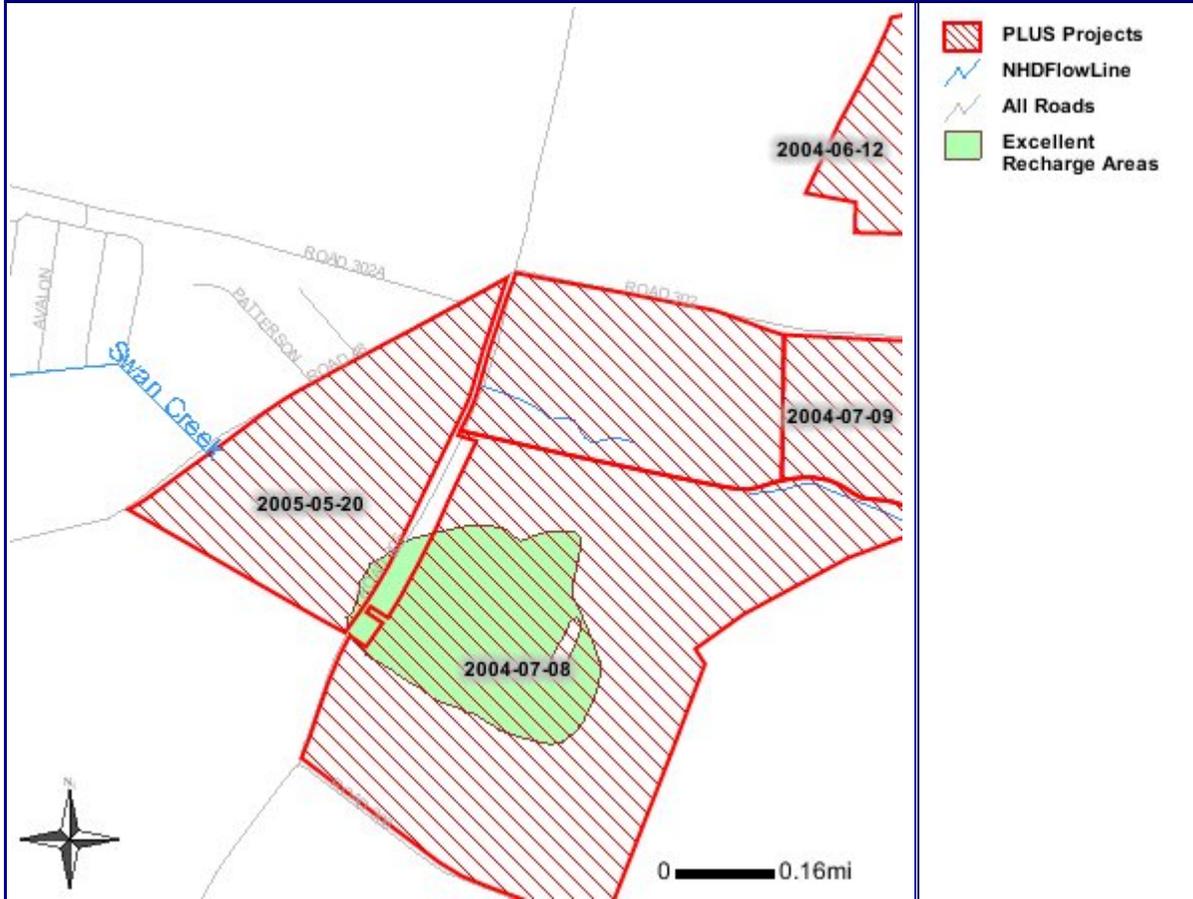
Constance C. Holland, AICP  
Director

CC: Sussex County



# Welsh Run

2005-05-20



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

