



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

March 24, 2009

Mr. Mark Davidson
DC Group
18072 Davidson Drive
Milton, De 19968

RE: PLUS review – 2009-02-03; Deep Valley Farm Subdivision

Dear Mr. Davidson:

Thank you for meeting with State agency planners on February 25, 2009 to discuss the proposed plans for the Deep Valley Farm Subdivision project to be located on the south side of Route 9, approximately 1.4 miles west of Route 1.

According to the information received, you are seeking site plan approval through Sussex County for 192 residential units on 88.44 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.

Executive Summary

The following section includes some site specific highlights from the agency comments found in this letter. This summary is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

State Strategies/Project Location

- This project is within a Level 3 area according to the Strategies for State Policies and Spending and within the Environmentally Sensitive Developing Area according to the Sussex County comprehensive plan. Level 3 areas are areas where the State has determined growth will go in the future; however, the State may not be prepared to fund infrastructure for the project in the near future. In addition, Level 3 areas and the Environmentally Sensitive Developing Area designation indicate that there could be environmental issues on or around the site. While the State has no objections to the development of this property any issues outlined in this letter should be addressed before the site plan is approved.

Street Design and Transportation

- DelDOT recommends that the right-of-way on the turnarounds between Lots 162 and 163 and between Lots 177 and 178 be extended to provide for future interconnections to the adjoining properties.
- The north-south connector street proposed through the north part of the development has the potential to attract cut-through traffic. For that reason, DelDOT offers the following recommendations:

Consideration should be given to moving the clubhouse and pool closer to the roundabout so that pedestrians crossing the street to reach these amenities will have a well-defined and safer crossing location.

Consideration should be given to designing and building the connector street to State standards and dedicating it to public use. As DelDOT recognizes that cost is an important consideration, at a minimum, they request that the connector street be a public right-of-way. That will provide transportation benefits consistent with plans for the area, including the relocation of Route 9.

To slow traffic on the connector street, DelDOT suggests that other traffic calming measures be considered, in addition to the roundabout. Such measures include raised crosswalks and landscaping to provide visual cues.

Other comments notwithstanding, splitter islands should be added on all three approaches at the roundabout proposed on the north-south connector street to direct traffic the proper way around the roundabout.

Natural and Cultural Resources

- DNREC highly recommends that the site plan be revised to allow for the protection of these headwaters. This would entail leaving at least a 100-foot

upland buffer between lots and infrastructure. This buffer zone should not be comprised of mowed grass, but of the existing vegetation or planted with Delaware native trees, shrubs, grasses or wildflowers.

- DNREC recommends 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.
- 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.

This office has received the following comments from State agencies:

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

This project is within a Level 3 area according to the Strategies for State Policies and Spending and within the Environmentally Sensitive Developing Area according to the Sussex County comprehensive plan. Level 3 areas are areas where the State has determined growth will go in the future; however, the State may not be prepared to fund infrastructure for the project in the near future. In addition, Level 3 areas and the Environmentally Sensitive Developing Area designation indicate that there could be environmental issues on or around the site. While the State has no objections to the development of this property any issues outlined in this letter should be addressed before the site plan is approved.

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

No comments received for this project.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

Cedar Creek Properties, LLC, proposes to develop 192 single-family detached houses on an 88.44-acre assemblage of parcels (Tax Parcels 3-34-5.00-176.00 and 177.00). The land is located on the south side of US Route 9 and both sides of Delaware Route 23 about 1.4 miles west of Delaware Route 1.

- 1) DelDOT appreciates the developer's continuing willingness to work with them in planning for the relocation of US Route 9. Their plan is consistent with the current concept for that relocation.
- 2) The following comments apply to the plan that was presented with the PLUS application and reviewed at the PLUS meeting. DelDOT has since met with the applicant and their engineer. They are working with the developer and expect to

reach agreement on a plan for their development that serves their needs while allowing DelDOT to provide for the needs of the traveling public.

- a) As the placement of stormwater ponds on the plan suggests, the proposed access on Route 23 will be affected by DelDOT's planned relocation of US Route 9. Future access on the north side could be addressed through a modest realignment of the proposed connector street. Access on the south side (designing for both future access and interim access) until the relocation is done is more difficult, but we believe possible.
 - b) DelDOT recommends that the right-of-way on the turnarounds between Lots 162 and 163 and between Lots 177 and 178 be extended to provide for future interconnections to the adjoining properties.
 - c) The north-south connector street proposed through the north part of the development has the potential to attract cut-through traffic. For that reason, DelDOT offers the following recommendations:
 - i) Consideration should be given to moving the clubhouse and pool closer to the roundabout so that pedestrians crossing the street to reach these amenities will have a well-defined and safer crossing location.
 - ii) Consideration should be given to designing and building the connector street to State standards and dedicating it to public use. As DelDOT recognizes that cost is an important consideration, at a minimum, they request that the connector street be a public right-of-way. That will provide transportation benefits consistent with plans for the area, including the relocation of Route 9.
 - iii) To slow traffic on the connector street, DelDOT suggests that other traffic calming measures be considered, in addition to the roundabout. Such measures include raised crosswalks and landscaping to provide visual cues.
 - d) Comment 2) c) above notwithstanding, splitter islands should be added on all three approaches at the roundabout proposed on the north-south connector street to direct traffic the proper way around the roundabout.
- 3) The developer's site engineer should contact Mr. John Fiori, Subdivision Manager for eastern Sussex County, regarding specific requirements for access and off-site improvements. He may be reached at (302) 760-2260.

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

DNREC notes that this project is in the Inland Bays Watershed. A Pollution Control Strategy for the Inland Bays was approved on November 11, 2008, and is now an enforceable regulatory directive.

Fish and Wildlife

Forested Wetland Buffers. The headwaters of the Goslee Creek System occur within the project area. Currently there is a road, two stormwater facilities and lot numbers 178-182 (there may be additional lots) within 100 feet of these wetlands. Current codes may not require 100-foot buffers, but ecologically the 50 feet being proposed is inadequate for water quality protection and for providing habitat necessary to sustain wetland dependent species that utilize these buffers for a portion of their life cycle. With the amount of impervious surface being proposed and the plan to use Goslee Creek as an outlet for stormwater, DNREC asks the developer to consider the importance of water quality protection on-site as well as downstream.

Recommendation: DNREC highly recommends that the site plan be revised to allow for the protection of these headwaters. This would entail leaving at least a 100-foot upland buffer between lots and infrastructure. This buffer zone should not be comprised of mowed grass, but of the existing vegetation or planted with Delaware native trees, shrubs, grasses or wildflowers. DNREC has made this same recommendation for 100-foot buffers four times via PLUS (PLUS 2004-09-11, Graves Property; 2006-05-04, Graves Property; and 2007-10-09, Deep Valley Farm) and via the Sussex County Technical Advisory Committee (TAC) as #2007-37 Deep Valley Farm.

Nuisance Geese. 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.

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

Recommendation: DNREC recommends 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. When geese are on the pond, if the view of the surrounding area is blocked, they can't scan for predators and are less likely to reside and nest in the area

of the pond. The vegetation also blocks the ability to easily move between land and water.

At this time, DNREC does 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. *Edna Stetzar - (302) 653-2880, Edna.Stetzar@state.de.us*

Soil and Water

Sediment and Stormwater Program. 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.

Consider including 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 Program. The Drainage Program has researched the Tax Ditch rights-of-ways for parcel # 334-5.00-177.00. The information is as follows:

This parcel lies on both sides of Road 285, partially in the **Graves-Rollins** Tax Ditch. The Main has rights-of-way on both pieces of the property. From Sta 1+00 to Sta 3+60, there are 35-foot construction rights-of-way on the left side of the Main, looking upstream. These rights-of-way are measured from the top of the ditch bank, and include the ditch from the centerline to the top of the bank. There are 20-foot rights-of-way on both sides of the Main, looking upstream, from Sta 4+16 to Sta 6+10. These are measured from the centerline of the ditch. The Main also has 16.5-foot access rights-of-way around the upper end measured from top of the bank.

Any change to the location of the tax ditch or existing tax ditch rights-of-way will require a change to the Graves-Rollins 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.

Sediment/stormwater and drainage comments provided by James Sullivan - (302) 739-9921, James.Sullivan@state.de.us

Water Resources

Soils Assessment. Based on the Sussex County soil survey update, Downer and Hammonton were mapped in the immediate vicinity of the proposed construction. Downer is a well-drained upland soil that, generally, has few limitations for development. Hammonton is a moderately well-drained soil of low-lying uplands that has moderate limitations for development.

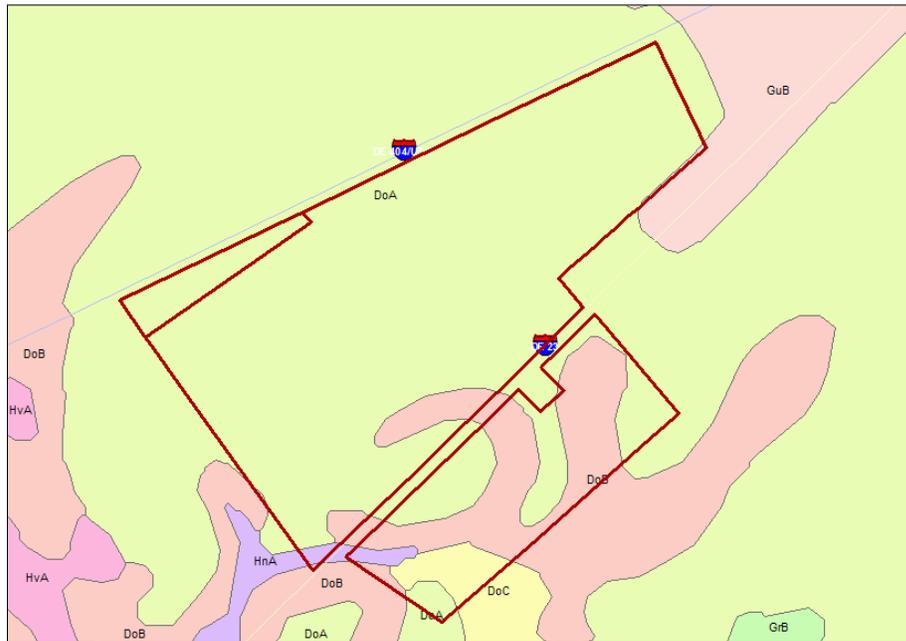


Figure 1: NRCS soil survey update mapping in the immediate vicinity of the proposed Deep Valley Farm subdivision

Wetlands. Based on the Statewide Wetland Mapping Project (SWMP) maps, palustrine forested wetlands were mapped in the northwestern and southwestern portions of the parcel. Impacts to Palustrine wetlands are regulated by the U.S. Army Corps of Engineers (USACE, or “the Corps”) through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Corps 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 Management Program (DCMP) Section. Each of these certifications represents a separate permitting process. Please be advised that nationwide permits have been suspended in Delaware and are pending further coordination with the Corps. Therefore, contrary to past practices,

Coastal Zone Management approval can no longer be assumed. Individual certifications must be granted from the DCMP office for each project intending to utilize a Nationwide Permit. For more information on the Federal Consistency process, please contact the DCMP office at 302.739.9283. To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting.



Figure 2: SWMP mapping in the immediate vicinity of the proposed Deep Valley Farm subdivision.

These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding at (302) 739-9943 to schedule a meeting.

It is recommended that vegetated buffers should be employed from the edge of the wetland complex and other water bodies on site. It is important to note that both DNREC and the Corps discourage allowing lot lines to contain wetlands and associated buffers, to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

Impervious Surfaces and Best Management Practices. Based on information provided by the applicant in the PLUS application form, this project's post-development surface imperviousness is estimated to reach 34 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout) this estimate appears to be an underestimate. Based on the TR-55 methodology for determining impervious cover, with the prevailing lot size the surface imperviousness is estimated to be higher than 40 percent. When calculating surface imperviousness, it is important to include all forms of constructed surface imperviousness (i.e., rooftops, sidewalks, stormwater management structures, and roads) in the calculation for surface imperviousness; this will ensure a realistic assessment of this project's likely post-construction environmental impacts. Surface imperviousness should be recalculated with all of the above-mentioned forms of constructed surface imperviousness included.

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 its 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.

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 low nutrient reduction area requiring a 40 percent reduction in nitrogen and phosphorus. Additionally, 40 percent reduction in bacteria will also be required.

As stated above, TMDLs for nitrogen and phosphorus have been promulgated through regulation for the Inland Bays Watershed. The TMDL calls for a 40 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 such as wider vegetated buffers along watercourses (and/or wetlands), increasing passive, wooded open space that reduce surface imperviousness (i.e., pervious pavers), 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 to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

Soils, wetlands, subaqueous lands and TMDL comments provided by John Martin, Watershed Assessment Section, (302) 739-9939, John.Martin@state.de.us

Water Allocation. The project information sheets state water will be provided to the project by Tidewater Utilities via a public water system. DNREC records indicate that the

project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 83-W-15.

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. *Ricardo Rios* - (302) 739-9944, Ricardo.Rios@state.de.us

Parks and Recreation

To provide optimal recreational opportunities for all residents of the community, it is recommended that the clubhouse and pool be relocated to a more centralized location of the development. Placing these amenities in the center of the community will:

1. Make the clubhouse and pool easily accessible and convenient to everyone
2. Decrease the need to drive to these destinations
3. Decrease the disturbance in the wooded area

DNREC supports the incorporation of a play area within the proposed complex, but do not support the clearing of forested areas to fit it into the community. DNREC recommends repositioning the tot lot behind the clubhouse and pool out of the wooded area possibly to the south side of the clubhouse (depicted as open space). By moving the play area to this location, you will:

1. Increase the security of the play area- At its proposed location, the play area is isolated and indiscernible. This could create apprehension of parents to allow their kids to use this area. It also increases the incidence of vandalism.
2. Decrease disturbance in the wooded area.

Relocating the clubhouse, pool, and tot lot to a centralized location within the community could reduce the need to provide multiple tot lots on the northern side of Road 285.

Kendall Sommers - (302) 739-9242, Kendall.Sommers@state.de.us

Air and Waste

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 Deep Valley Subdivision development may have.

Emissions Attributable to Deep Valley 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	5.9	0.7	0.5	0.7	24.1
Electrical Power Generation	ND*	2.4	8.2	ND*	1,208.5
Mobile	8.8	9.2	0.3	0.1	5,674.6
Total	14.7	12.3	9.0	0.8	6,907.2

(*) 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:

<p>Regulation 6 - Particulate Emissions from Construction and Materials</p>	<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
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Handling	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 Deep Valley Subdivision development. Air Quality Management Section points of contact are Phil Wheeler and Deanna Morozowich, and they may be reached at (302) 739-9402. *Deanna Morozowich - (302) 739-9402, Deanna.Morozowich@state.de.us*

Hazardous Waste Sites. DNREC's Site Investigation and Restoration Branch (SIRB) has reviewed the proposed project. No SIRB sites or salvage yards were found within a ½-mile radius of the proposed development. However, based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. In addition, should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions. *Krystal Stanley - (302) 395-2644, Krystal.Stanley@state.de.us*

Tank Management Branch. The Delaware Department of Natural Resources and Environmental Control-Tank Management Branch (TMB) appreciates the opportunity to comment on the proposed development. There are two (2) inactive LUST sites located within a quarter mile of proposed rezoning location.

Name: Edgehill Pharmacy Warehouse (Inactive)
Facility ID: 5-000661
Project: S9512290

Name: Bests Store Inc (Inactive)
Facility ID: 5-000710
Project: S9212279

No environmental impact is anticipated; however, should any underground storage tanks or petroleum contaminated soil be discovered by any person during construction, the

DNREC-TMB at (302) 395-2500 and the DNREC Emergency Response Hotline at (800) 662-8802 must be notified within 24 hours.

Should any contamination be encountered, PVC pipe materials will have to be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

Also, please note that if any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMB. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMB. *Elizabeth Wolff* - (302) 395-2500, Elizabeth.Wolff@state.de.us

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.
- Where a water distribution system is proposed for townhouse type dwellings it shall be capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 800 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 thoroughfares 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.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or

turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.

- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

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

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

d. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Townhouse 2-hr separation wall details shall be shown on site plans
- 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 Delaware Department of Agriculture has no objections to the proposed project. The *Strategies for State Policies and Spending* encourages environmentally responsible development in Investment Level 2 and 3 areas.

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 the State’s Green Infrastructure Investment Strategy Plan. The cropland layer is present on the entire site. This designation identifies areas of the state that have viable and valuable cropland, as discussed in Governor Minner’s Executive Order Number 61. Areas such as these should be preserved as such, and not developed for residential use.

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.

Native Landscapes

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

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 for this project.

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 2/3 area. Developing in such an area is consistent with the *Strategies for State Policies and Spending*. DPH is committed to the *Strategies* and therefore, does 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. As a way to promote physical activity and access to healthy foods, we recommend that the following amenities be included in the Deep Valley Subdivision plan:

Amenities to encourage active transportation

- Ensure that there is safe connectivity, via crosswalks and sidewalks, within the development.
- Ensure that there are sidewalks, crosswalks and walking/bicycling paths connecting Deep Valley Subdivision to the neighboring residential developments and/or the larger bike/pedestrian network.
- Designate bike paths to supplement the sidewalks already proposed in the plan so that residents can travel by foot or by bicycle. In addition, install bike racks in convenient locations within the development.

A survey by the Surface Transportation Policy Project found that 55% of Americans want to walk more on a daily basis to get exercise or to travel to specific destinations, and 63% want to walk more to stores and other locations.⁵

Amenities to encourage recreation

- The proposed plan includes a few tot lots. To encourage active recreation for all age groups, also include amenities such as a basketball court, a tennis court, bocce court, etc in areas designated as open space, especially around the proposed pool. If feasible, consider including a walking path around any proposed amenities.

Increase opportunities for healthy eating

- Designate an area for a community garden. Community gardens not only provide residents access to healthy nutrition, but they also provide opportunities for physical activity and community cohesiveness.⁶

¹ Nemours 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*.

⁵ Surface Transportation Policy Project (2003). *Americans' Attitudes Toward Walking and Creating Better Walking Communities*. Retrieved February 12, 2008, from http://www.transact.org/library/reports_pdfs/pedpoll.pdf

⁶ Hancock, T. (2001). People, partnerships and human progress: building community capital. *Health Promotion International*, 16(3), 275-80.

Delaware State Housing Authority – Contact Valerie Miller 739-4263

This proposal is for a site plan review of 192 residential units on 88.44 acres, located on the south side of Delaware Route 9, northwest and southeast side of Sussex County Road 285, approximately 1 mile west of Route 1. Per their application, it was indicated that first-time homebuyers would be targeted for the development; we strongly encourage and support home prices that fall into an affordable range for such buyers. For informational purposes, the most recent real estate data collected by DSHA shows the median home price in Sussex County to be \$210,000. However, households earning respectively 100% of Sussex County's median income only qualify for mortgages of \$199,104, thus creating an affordability gap of \$10,896. The provision of units within reach of households earning at least 100% of Sussex County's median income would help increase their housing opportunities.

Department of Education – Contact: John Marinucci 735-4055

This proposed development is within the Cape Henlopen School District boundaries. DOE offers the following comments on behalf of the Cape Henlopen School District.

1. Using the DOE standard formula, this development will generate an estimated 95 students, when this project was reviewed in October of 2007, the estimated student generation was 92.
2. DOE records indicate that the Cape Henlopen School Districts' *elementary schools are at or beyond 100% of current capacity* based on September 30, 2008 elementary enrollment.
3. DOE records indicate that the Cape Henlopen School Districts' *secondary schools are at or beyond 100% of current capacity* based on September 30, 2008 secondary enrollment.
4. As noted in 2007, the Cape Henlopen School District ***does NOT have adequate student capacity to accommodate the additional students likely to be generated from this development*** given the number of planned and recorded residential subdivisions within district boundaries.
5. Continued development will cause significant burden to the Cape Henlopen School District without the provision for additional educational infrastructure. The developer is strongly encouraged to the Cape Henlopen School District Administration to address the issue of school over-crowding that this development will exacerbate.
6. DOE requests the developer work with the Cape Henlopen 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 school district.

Sussex County – Contact: Richard Kautz 855-7878

Please refer to PLUS comments for 2004-09-11, 2006-05-04 and 2007-10-09.

Page 3-17 of the Comprehensive Plan notes that developments in the Environmentally Sensitive Developing Area should “provide information that analyzes the development’s potential environmental impacts, including effects on stormwater runoff, nitrogen and phosphorous loading, wetlands, woodlands, wastewater treatment, water systems, and other matters that affect the ecological sensitivity of the inland bays.” Use of Low Impact Design principals and Green Technology could help address the environmental issues.

The developer has determined that as an AR-1 subdivision using public water and sewer 192 lots averaging 20,000 sq. ft. or larger are allowed. If that option is selected the average lot size should be increased to over 20,000 sq. ft.

Because this project is in an AR-1 ESDA area the developer is also allowed, as an alternate, to reduce the lot size to provide for mitigation of the impact on environmental factors. If that option is selected 176 lots are allowed.

If the smaller lot design is selected, the reduction of the proposed 176 lots from 20,000 sq. ft. to an average lot size of 8,310 sq. ft. allows for more than 47 acres of open space merely through the reduction in lot size. Yet, only 36 acres of total open space, including stormwater management and wetlands, is provided.

Also, because this project is situated in an Environmentally Sensitive Development Area, the required report should include how environmental issues and the PLUS comments have been addressed and how the plan has been revised accordingly.

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