



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

September 12, 2005

Mr. Roger Gross, P.E.
Merestone Consultants, Inc.
19633 Blue Bird Lane, Ste. 7
Rehoboth Beach, DE 19971

RE: PLUS review – PLUS 2005-08-10; Millwood Expansion

Dear Mr. Gross:

Thank you for meeting with State agency planners on August 24, 2005 to discuss the proposed plans for the Millwood Expansion.

According to the information received, you are seeking approval for the expansion of an approved but unbuilt residential subdivision in the Town of Millsboro. Specifically, this project is to add 139 additional residential units to the already approved 360 unit subdivision know as Millwood.

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 the Town of Millsboro is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the Town.

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

- The site is within an Investment Level 1 area according to the *Strategies for State Policies and Spending*, and within the Town of Millsboro. State policies generally support development activities in municipal areas that are consistent with the character of the area and the municipal comprehensive plan.
- The residential zoning and use proposed are inconsistent with the Town of Millsboro's 2004 Comprehensive Plan Update. This issue will need to be resolved before the project can move forward.
- The Delaware Economic Development Office is opposed to the rezoning of this large industrial site to residential.

Street Design and Transportation

- DelDOT recommends a TIS be required
- Before accepting that the land would be usable public open space, it is recommended that the Town verify that the land would be legally accessible by the public and add a requirement that the developer build that access.

Natural and Cultural Resources

- Portions of the proposed project are located within the 100-year floodplain. It is recommended that construction activities be kept outside of the 100-year floodplain.
- Impacts to wetlands should be avoided and vegetated buffers of no less than 100 feet should be employed from all wetlands and water bodies.
- Wharton's Branch runs through the lower south eastern portion of this parcel. Vegetated buffers comprised of native trees, shrubs or no-mow grasses, of no less than 100 feet should be employed from the edge of the stream to mitigate negative impacts
- Most of the project site is within an excellent groundwater recharge area. Guidelines for addressing this are included under "Water Resource Protection Areas".

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

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

The proposed project site is within an Investment Level 1 area according to the *Strategies for State Policies and Spending*, and within the Town of Millsboro. State policies generally support development activities in municipal areas that are consistent with the character of the area and the municipal comprehensive plan.

That said, according to the 2004 Millsboro Comprehensive Plan update, the project site is depicted as industrial on the future land use map, and has been zoned industrial. In order for the zoning of this site to be changed from industrial to residential, the Town must complete a comprehensive plan amendment to change the future land use map. We understand that the Town is in the process of completing an amendment to the plan to correct some errors on the future land use map. However, because of the site's size and location adjacent to the railroad line and other industrial lands, we are uncertain at this time that the State would be able to support such an amendment. In this regard, you are aware that we have set up a meeting with the Office of State Planning Coordination, the Delaware Economic Development Office, the Town of Millsboro, and the developer to discuss the State's concern about the rezoning of this industrial site. As noted in the comments submitted by DEDO, the State is very concerned about the potential loss of this as a potential industrial site.

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

The comments of the Division of Historical and Cultural Affairs focus on the protection of a known burial ground on the property. Previous survey determined the location of a burial of a US Colored Troop (Black Civil War Soldier) on this parcel. Burials, both marked and unmarked, are protected by Delaware law. Please refer to the following sections of the Delaware State Code: (1) Title 11 Sub-Chapter 1340, titled "Desecration of Burial Places"; and (2) Title 7 Chapter 54, known as the "Delaware Unmarked Human Remains Act". For more information about these laws and the implications for the project, contact Craig Lukesic of this office at 302-736-7400. Please send a copy of the cultural resource report identified in PLUS application question #41.

Department of Transportation – Contact: Bill Brockenbrough 760-2109

- 1) DelDOT's jurisdiction over Mitchell Street (Sussex Road 83, also known as Mitchell Road) extends north only as far as Industrial Street. Both Industrial Street and Mitchell Street north thereof are Town streets. Therefore the proposed expansion is outside DelDOT jurisdiction. The comments that follow are only advisory.
- 2) Access to the proposed public open space on the east side of the railroad tracks would appear to involve the creation of an at-grade crossing of the tracks. It is DelDOT's understanding that State and federal laws prohibit the creation of new at-grade crossings for public use. Before accepting that the land would be usable

public open space, it is recommended that the Town verify that the land would be legally accessible by the public and add a requirement that the developer build that access.

- 3) Because Millwood, in its entirety, would be a relatively large development, and because our knowledge of traffic conditions in the immediate area of this project is limited, DelDOT recommends that the Town require the developer to complete a traffic impact study (TIS) for this project and obtain DelDOT's recommendations based on that study before approving the plans for the expansion.

In September 2004, a scoping meeting was held for a traffic impact study for a different development proposal on the subject land. Fort-Maier Homes proposed to develop 450 dwellings of various types, using land on both sides of the railroad tracks. A significant portion of that study was already done, when Fort-Maier Homes asked their engineer to stop work on it in May 2005. If Robino-Millwood's engineer were to start now, working from what was done previously for the Fort-Maier Homes study, DelDOT believes that they could complete the study by the end of this calendar year.

- 4) The street and parking layout of the previously approved portion of Millwood is not designed to accommodate the traffic from the proposed development. The Town should require Robino-Millwood to submit a unified plan for the entire project.

If revisions to the previously approved portion cannot be required, the Town should require Robino-Millwood to build Industrial Street as the primary access to the new section and to build the development from there south to the proposed interconnection. Further, the developer should be required to provide for traffic calming measures, such as speed humps, to be installed in the previously approved section at their expense as the Town determines they are necessary. For technical assistance with regard to traffic calming, the Town may contact Mr. Michael Somers of our Traffic Section. Mr. Somers may be reached at (302) 659-2024.

- 5) Regardless of whether revisions to the previously approved portion can be required, DelDOT has two concerns about the plan for the proposed expansion. First, there is the development's proximity to the railroad tracks, which would be a source of noise and vibration and a safety hazard for the residents closest to the tracks. DelDOT recommends that the Town require a buffer area, including landscaped berms and perhaps a noise barrier, to shield residents from train traffic as much as possible. Unless a noise wall is required, the Town should require the developer to provide a fence along the tracks to keep children and pets away from the tracks.

Second, the long straight street proposed along the tracks should be broken into two or more sections to discourage speeding.

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

Soils

According to the soil survey update Evesboro, Pepperbox-Rosedale complex & Zekiah-Longmarsh was mapped on subject parcel. Evesboro is an excessively well-drained upland soil that has limitations associated with rapidly-permeable sandy subsoils which have little or no nutrient adsorptive capacity. Pepperbox-Rosedale is a moderately to well-drained upland soil that has moderate limitations. Zekiah-Longmarsh is a very poorly-drained wetland associated (**hydric**) soil that has severe limitations for development.

Wetlands

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

Impacts to wetlands should be avoided and vegetated buffers of no less than 100 feet should be employed from all wetlands and water bodies. Lots should exclude all wetlands and associated buffers. The developer should note that both DNREC and Army Corps of Engineers discourage allowing lot lines to contain wetlands to minimize potential cumulative impacts resulting from unauthorized and/or illegal activities and disturbances that can be caused by homeowners.

Impacts to Palustrine wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process. Impacts to streams and associated riparian wetlands, including road crossings, are regulated by the DNREC Wetlands and Subaqueous Lands Section, and by the 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 at (302) 739-4691 to schedule a meeting.

ERES Waters

This project is located adjacent to receiving waters of 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 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of nutrient runoff through implementation of Best Management Practices (BMPs). Best Management Practices as defined in subsection 11.5(e) of this section, expressly authorizes the Department to provide standards for controlling the addition of pollutants and reducing them to the greatest degree practicable, or where attainable, a standard requiring no discharge of pollutants.

Impervious Cover

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

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.

The proposed Inland Bays pollution control strategy will require nutrient reductions for all proposed land use changes within the Inland Bays watershed. Verification of nutrient reductions must be demonstrated through a nutrient budget calculation as a means to estimate how a land use change on a specific parcel will affect that parcel's ability to meet obligatory TMDL nutrient reduction target loading rates, and whether it complies with existing TMDL nutrient target reduction levels. Therefore, we currently request that verification of your project's compliance with specified TMDL loading rates be

confirmed through a nutrient budget calculation. Please contact Lyle Jones of Watershed Section at 739-4590 for the acceptable protocol.

The applicant should also be made aware that the inclusion of stormwater management, wastewater treatment, buffers and wetlands as metrics for open space calculations - may understate the actual TMDL nutrient loading and, subsequently, the actual nutrient runoff as calculated from the nutrient budget protocol.

Water Resource Protection Areas

The DNREC Water Supply Section has determined that most of the proposed area falls within an area of excellent ground-water recharge (see following map and attached map).

According to the State law that created the Source Water Protection Program, county and municipal governments with more than 2,000 residents will be required to enact ordinances to protect Water Resource Protection Areas. Municipalities with fewer than 2,000 residents are encouraged to enact such ordinances. The following language has been excerpted from the Source Water Protection Guidance Manual for Local Governments, Supplement 1 - Ground-Water Recharge Design Methodology. While the local ordinances may not yet be in place, the developer may find the language useful in modifying the site plan to protect water resources.

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.

The DNREC Water Supply Section recommends that that portion of the new development within the excellent recharge area not exceed 20% impervious cover. The site plan total impervious cover is proposed as 21%. This number should be clarified as to whether or not the open space area was considered in part of the calculation. A large open space area is located on the east side of the railroad tracks. The subdivided area in the excellent recharge area has the potential to exceed this threshold based upon the site plan. The excellent recharge area covers most of the two parcels proposed for development and open space.

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.

Commonly, the applicant offsets the loss of recharge due to impervious cover by constructing recharge basins that convey relatively pure rooftop runoff for infiltration to ground water.

The Department recommends the following (ranked in order of preference):

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

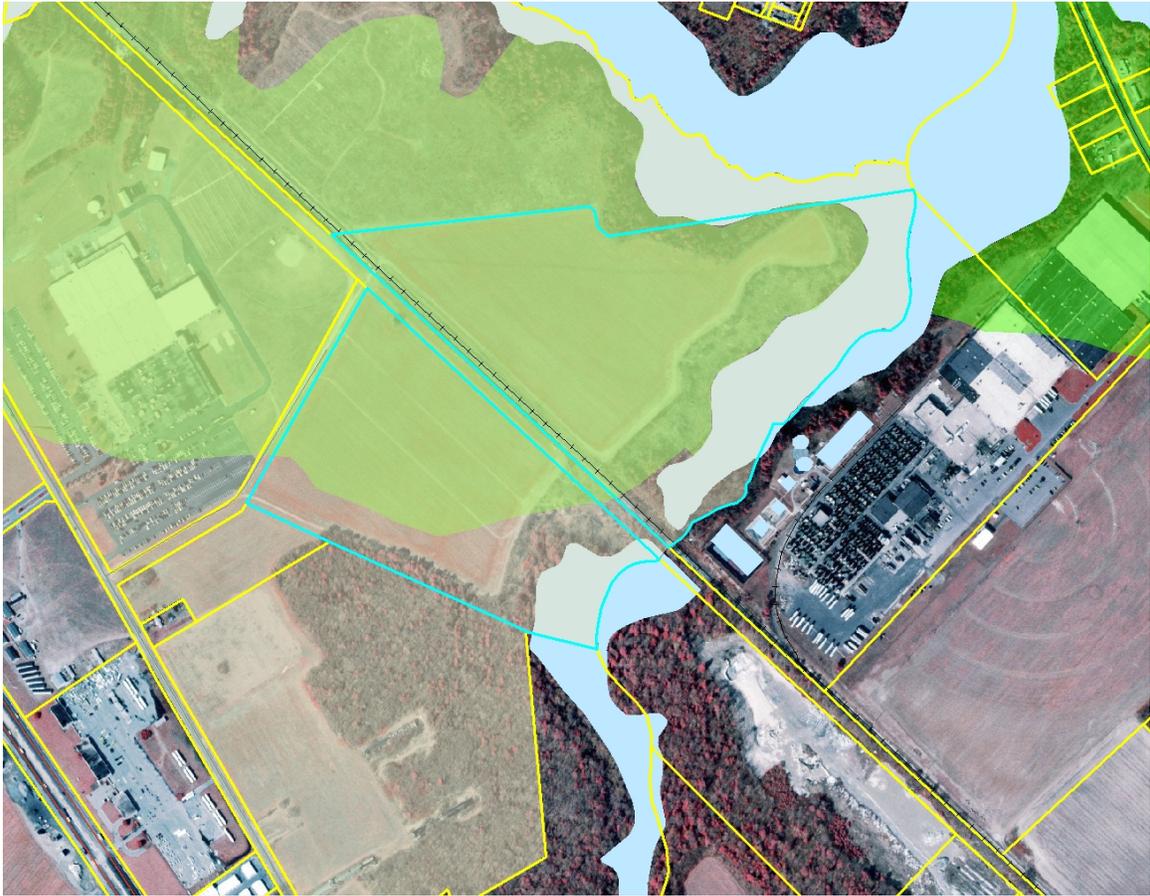
For more information, refer to:

Source Water Protection Guidance Manual for the Local Governments of Delaware at <http://www.wr.udel.edu/swaphome/phase2/SWPguidancemanual.html>

and

Ground-Water Recharge Design Methodology at http://www.wr.udel.edu/swaphome/phase2/Publications/swapp_manual_final/swapp_guidance_manual_supp_1_2005_05_02.pdf

Map of Millwood Expansion showing excellent recharge in green and the tax parcel impacted in light blue.



Water Supply

The project information sheets state water will be provided to the project by the Town of Millsboro via a central water system. DNREC records indicate that the project is located within the public water service area granted to the Town of Millsboro under Certificate of Public Convenience and Necessity 94-CPCN-10.

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.

Potential Contamination Sources do exist in the area, and any well permit applications will undergo a detailed review that may increase turnaround time and may require site specific conditions/recommendations. In this case there is a: First Omni Bank and a GMZ (Groundwater Management Zone) for NCR Corporation within 1000' of the proposed project.

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

Sediment and Erosion Control/Stormwater Management

A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval as well as construction inspection will be coordinated through **Sussex Conservation District**. Contact Jessica Watson at (302) 856-7219 for details regarding submittal requirements and fees.

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

Drainage

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

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

The Drainage Section strongly recommends any drainage conveyance between two parcels within a subdivision be dedicated as a drainage easement and such easement be designated as passive open space, not owned by individual landowners. The easement should be of sufficient width to allow for future drainage maintenance as described below.

- Along an open ditch or swale, the Drainage Section recommends a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a

10-foot setback zone measured from top of bank on the non-maintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species, selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.

- Along a stormwater pipe the Drainage Section recommends a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.

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

Floodplains

Portions of the proposed project are located within the 100-year floodplain. It is recommended that construction activities be kept outside of the 100-year floodplain. Mandatory flood insurance purchase requirements will apply to buildings in the floodplain.

Water Bodies

Wharton's Branch runs through the lower south eastern portion of this parcel. Vegetated buffers comprised of native trees, shrubs or no-mow grasses, of no less than 100 feet should be employed from the edge of the stream to mitigate negative impacts. Although stream impacts are not anticipated and construction activities will not occur within 100 feet of the stream; by removing 3.9 acres of forest along the stream it will result in streamside erosion from increased impervious surfaces.

Forest

The forest provides important riparian habitat, and wildlife connectors and water quality benefits. This forest tract is extremely beneficial to the region. Fragmentation of this forest can have irreversible effects to the regional ecosystem. Therefore, the developer is strongly encouraged to preserve, and where possible, enhance forested resources on site.

This includes removing lot lines and infrastructure (such as storm water management ponds) from forested areas to the extent possible and minimizing any clearing activities. The forested areas on-site should be viewed as a community asset and managed appropriately.

A storm water management pond is proposed in the forested tract. This SWM pond should be removed from the forest to a more appropriate area in the parcel.

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

Open Space

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

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. Once established, these ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements, and require much less maintenance than traditional turf grass, an important consideration if a homeowners association will take over responsibility for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other permanent protection mechanism. Conservation areas should also be demarked to avoid infringement by homeowners.

Rare Species

DNREC staff has not surveyed this parcel for rare, threatened and endangered species, so it is unknown if there are any state-rare or federally listed plants, animals or natural communities on the land based portion of this site. However, we do have records of a Bald Cypress community and mud sunfish (*Acantharchus pomotis*) within the wetlands associated with Wharton's Branch. In addition, there is an active Bald Eagle nest just downstream from the project area. Bald eagle nesting areas retain protection under the Federal Endangered Species Act. Although this project is not within the protection zones of the nest, the forested riparian

area along Wharton's Branch is likely utilized by this species for foraging and roosting. Therefore, maintaining the existing forested buffer is extremely important for protecting water quality and for avoiding impacts to rare species. Lots and infrastructure should be removed from this area and either omitted from the site plan or moved to an area of the project that is already cleared.

Nuisance Waterfowl

Stormwater management ponds that remain in the site plan may attract waterfowl like resident Canada geese and mute swans. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings of tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area (50 feet) around the perimeter. Waterfowl do not feel safe when they can not see the surrounding area for possible predators. These plantings should be completed as soon as possible as it is easier to deter geese when there are only a few than it is to remove them once they become plentiful. The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with proper landscaping, monitoring, and other techniques, geese problems can be minimized.

Recreation

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

The Division of Parks and Recreation conducted a telephone survey of Delaware residents to gather information on outdoor recreation patterns and preferences as well as other information on their landscape perception. These findings are the foundation of the 2003-2008 Statewide Comprehensive Outdoor Recreation Plan (SCORP) providing guidance for investments in needed 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.

Underground Storage Tanks

There are two inactive LUST site(s) located near the proposed project:

First Omni Bank, Facility # 5-000354, Project # S9203075
Suburban Propane, Facility # 5-000721, Project # S9302019

No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tank or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that any construction specifications would be need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel in the contaminated areas.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house constructed generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact that growth will have on the state's existing landfill capacity, the applicant is requested to be aware of the impact this project will have on the State's limited landfill resources and, to the extent possible, take steps to minimize the amount of construction waste associated with this development.

Site Investigation and Restoration Branch

Only one SIRB site was found within a ½ mile radius: NCR is located north of the proposed site. Operational history includes enameling, chrome plating, and degreasing. TCE was discovered during ground water monitoring at the site. Contaminant levels in the ground water remained below standard. As part of the remedy, an air stripper and recovery well was installed to clean the contaminated water. A Chromium bearing sludge has been excavated to get rid of the chromium contaminant. Considering the extent of the remediation, DNREC-SIRB does not for see any negative impact on the proposed site.

Air Quality

Once complete, vehicle emissions associated with this project are estimated to be 38.3 tons (76,591.3 pounds) per year of VOC (volatile organic compounds), 31.7 tons (63,412.4 pounds) per year of NO_x (nitrogen oxides), 23.4 tons (46,786.8 pounds) per year of SO₂ (sulfur dioxide), 2.1 ton (4,164.8 pounds) per year of fine particulates and 3,203.4 tons (6,406,764.1 pounds) per year of CO₂ (carbon dioxide).

Emissions from area sources associated with this project are estimated to be 15.4 tons (30,892.8 pounds) per year of VOC (volatile organic compounds), 1.7 ton (3,399.1 pounds) per year of NO_x (nitrogen oxides), 1.4 ton (2,820.8 pounds) per year of SO₂ (sulfur dioxide), 1.8 ton (3,640.1 pounds) per year of fine particulates and 62.6 tons (125,232.3 pounds) per year of CO₂ (carbon dioxide).

Emissions from electrical power generation associated with this project are estimated to be 6.1 tons (12,243.7 pounds) per year of NO_x (nitrogen oxides), 21.3 tons (42,586.7 pounds) per year of SO₂ (sulfur dioxide) and 3,140.8 tons (6,281,531.8 pounds) per year of CO₂ (carbon dioxide).

	VOC	NO _x	SO ₂	PM _{2.5}	CO ₂
Mobile	38.3	31.7	23.4	2.1	3203.4
Residential	15.4	1.7	1.4	1.8	62.6
Electrical Power		6.1	21.3		3140.8
TOTAL	53.7	39.5	46.1	3.9	6406.8

For this project the electrical usage via electric power plant generation alone totaled to produce an additional 6.1 tons of nitrogen oxides per year and 21.3 tons of sulfur dioxide per year.

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

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

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

The Energy office in DNREC is in the process of training builders in making their structures more energy efficient. The Energy Star Program is excellent way to save on

energy costs and reduce air pollution. We highly recommend this project development and other residential proposals increase the energy efficiency of their homes.

It is also recommend that the home builders offer geothermal and photo voltaic energy options. Applicable vehicles should use retrofitted diesel engines during construction. The development should provide tie-ins to the nearest bike paths and links to mass transport system, and fund a lawnmower exchange program for their new occupants.

Delaware State Fire Marshal's Office – Contact: Duane Fox 302-856-5800

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 Industrial Street must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

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

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

d. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- 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.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact: Milton Melendez 698-4500

Neither the Delaware Department of Agriculture nor the Delaware Forest Service opposes the Millwood Expansion application. The site is located on a designated controlled development area. The *Strategies for State Policies and Spending* encourage responsible development in areas within a Investment Level 1 area; the Delaware Department of Agriculture and the Delaware Forest Service supports growth in these areas, and encourages the applicant to contact the Department if they can be of service. In addition, the Delaware Forest Service asks the Developer to consider the following recommendations when developing this parcel to lessen impacts to the water resources adjacent to this site.

Right Tree for the Right Place

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

Native Landscapes

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat

corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Tree Mitigation

The Delaware Forest Service encourages the developer to implement a tree mitigation program to replace trees at a minimum 1:1 ratio within the site and throughout the community. This will help to meet the community's forestry goals and objectives and reduce the environmental impacts to the surrounding natural resources. To learn more, please contact our offices at (302) 349-5754.

Delaware State Housing Authority – Contact Karen Horton 739-4263

This proposal is to develop 139 units on 64 acres located on the south side of Industrial Street, west of Mitchell Street, in Millsboro. According to the *State Strategies Map*, the proposal is located in an Investment Level 1 area. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas outlined in the State Strategies Map. Furthermore, DSHA encourages residential development in Level 1 and 2 areas that is affordable to first time homebuyers. Although Millsboro has significant affordable housing needs, the proposal does not target any units for first time homebuyers. According to the Statewide Housing Needs Assessment in the Millsboro CCD, 36 % of households in Millsboro are low income. Of the 8,222 occupied units, 567 are substandard. The most recent real estate data collected by DSHA revealed that the average home price in Millsboro was \$250,000, which is outside the affordability range of what is considered affordable to first time homebuyers. In fact, low- and moderate-income households earning 80 % of Sussex County median-income qualify for mortgages of only \$142,040. The provision of units targeted towards low- and moderate-income households would help increase housing opportunities for this increasing underserved population in Sussex County.

Department of Education – Contact: Nick Vacirca 739-4658

139 dwelling units could generate an estimated 70 additional students for the Indian River School District. Sussex County does not have school concurrence legislation at this time. We recommend that the developer submit a package to the school district for informational purposes.

If the development is approved and built, please use the following information for school transportation planning. If there are homes more than 1/2 mile from the nearest public road (outside the development), developers should plan wide enough streets so that large school buses can access and turn around (without backing) from the furthest areas within

the development while picking up and dropping off students. Should there not be any sites more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be included. The developer should work closely with the school district transportation supervisor.

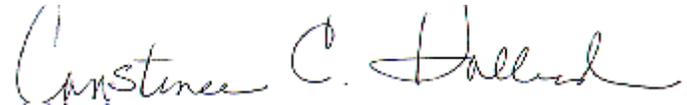
Delaware Economic Development Office – Contact: Gary Smith 739-4271

The Delaware Economic Development Office (DEDO) does not support the rezoning of the property from Industrial to residential. Within Sussex County the lack of industrial zone properties in a Level 1 or 2 area is a major concern of the office. They feel this project would be more appropriate at a location with the proper zoning. This property has rail access which could be another advantage to attract a company especially with rising fuel prices.

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".

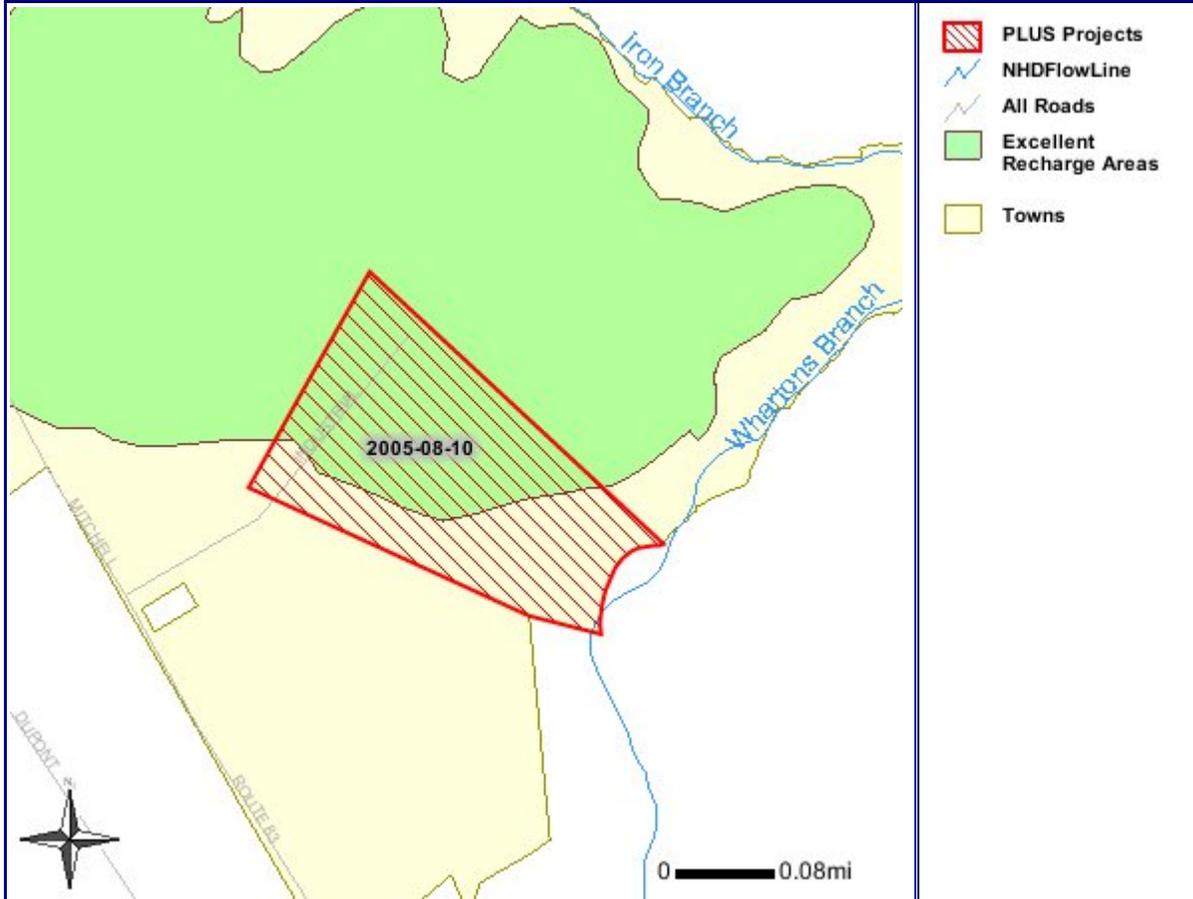
Constance C. Holland, AICP
Director

CC: Town of Millsboro



Millwood Expansion

2005-08-10



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

