



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

June 17, 2005

Mr. Ron Sutton
McCrone, Inc.
111 South West Street, Suite 6
Dover, DE 19904

RE: PLUS review – PLUS 2005-05-23; Badger Creek Bayside at New Milford

Dear Mr. Sutton,

Thank you for meeting with State agency planners on June 1, 2005 to discuss proposed plans for the Badger Creek Bayside at New Milford project to be located on 393 acres east of Sharp Road and Route 1 in Sussex County.

According to the information received, you are seeking to construct 786 residential units in the Level 4 area.

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

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

Executive Summary

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

Project Location

- This project represents a major land development that will result in 786 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

Natural/Cultural Resources

- This proposal will have an adverse effect on the historic agricultural landscape.
- There are three probable historic archaeological sites within the parcel.
- The site is bordered and bisected by sensitive headwater wetlands associated with Beaverdam Branch. Vegetated buffers of at least 100-feet should be employed from the edge of the wetland complex.
- A portion of the site falls within an excellent recharge area. Guidelines are included in the Water Resource Protection Areas section of the letter.
- Portions of the property are located within the 100-year floodplain and must comply with County floodplain regulations. Development should be limited to areas outside of the 100-year floodplain.
- Preservation of forested areas should be a priority. Fragmentation of the existing forest will have irreversible impacts on the regional ecosystem. Lots currently shown within forested areas should be relocated.
- There is an Atlantic White Cedar swamp within Beaverdam Branch downstream of the site that could be detrimentally affected by changes to water quality.
- The site contains land currently identified as State Resource Areas and land listed on the Natural Areas Inventory.

Agricultural Preservation

- The site is bordered on three sides by agricultural preservation districts: over 500 acres of agricultural preservation districts (in the 10-year program) to the north; a 108-acre ten-year district to the west; and the permanently protected 367-acre Bennett agricultural preservation district to the south.
- If developed, the required 50-foot setback and 300-foot notification zones apply.

This office has received the following comments from State agencies:

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

This project represents a major land development that will result in 786 residential units in an Investment Level 4 area according to the *2004 Strategies for State Policies and Spending*. Investment Level 4 indicates where State investments will support agricultural

preservation, natural resource protection, and the continuation of the rural nature of these areas. New development activities and suburban development are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed is likely to bring nearly 2,000 new residents to an area where the State has no plans to invest in infrastructure upgrades or additional services. These residents will need access to such services and infrastructure as schools, police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, 100% of school transportation and paratransit services, up to 80% of school construction costs, and about 90% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the community matures and the cost of maintaining infrastructure and providing services increases.

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

State Historic Preservation Office (SHPO) – Contact Alice Guerrant 739-5685

The State Historic Preservation Office opposes this development because in the Level 4 area and will have an adverse effect on the historic agricultural landscape, including the loss of the historic setting of two farmsteads (S-3651 and S-3657). There are three probable historic archaeological sites within the parcel: a school house, the D.S. Hutchinson House, and the B. Sharp House. Additionally, all or parts of two others are within the parcel: the W.H. Parks House (S-3651) and the J.V. Titus House as shown on Beers Atlas of 1868. There are areas of moderate potential for prehistoric archaeological sites. Such resources cannot be replaced or recovered once disturbed.

If the development is approved, SHPO recommends landscaping to soften the adverse visual effect on the adjacent farms as well as opportunity to look for other archaeological sites that may be present.

Finally, through the services of an archaeological consulting firm, the developers have noted and delineated a historic cemetery on the parcel. An area within the development has been set aside to preserve the cemetery in place. SHPO appreciates their proactive approach to this resource.

Department of Transportation – Contact Bill Brockenbrough 760-2109

Key Properties, LLC seeks to develop 786 single-family detached houses on an approximately 393-acre assemblage of parcels (Tax Parcels 3-30-12.00-04.00, 11.00, and

11.02 through 11.13). The subject land is located on the north side of Sharps Road (Sussex Road 200) and the south side of Cedar Neck Road (Sussex Road 206). The land is zoned AR-1 in Sussex County and it would be developed by right.

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

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

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

The Department of Natural Resources and Environmental Control

Contact Kevin Coyle 739-3091

Green Infrastructure

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special state conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in

private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

Soils

According to the Kent County soil survey Evesboro, Sassafras, Rumford, Woodstown, Klej, and Johnston and Swamp were mapped in the immediate vicinity of the proposed construction. Evesboro is an excessively well-drained soil that has moderate limitations on account of its rapid permeability. Sassafras and Rumford are well-drained upland soils that, generally, have few limitations for development. Woodstown is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Klej is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Johnston is very poorly-drained wetland associated (**hydric**) floodplain soil that has severe limitations for development. Swamp is a very poorly-drained wetland associated (**hydric**) soil that has severe limitations for development.

Wetlands

The proposed development is bordered by Beaverdam Branch. Statewide Wetland Mapping Project (SWMP) maps indicate the presence of palustrine forested wetlands and palustrine tidal wetlands on site. These wetlands provide water quality benefits, attenuate flooding and provide important habitat for plants and wildlife. Vegetated buffers of no less than 100 feet should be employed from the edge of the wetland complex. The developer should note that both DNREC and 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 of homeowners.

As stated in *Better Models for Development in Delaware* (2004), “subdivision lines should be drawn so that stream banks are buffered with dedicated open space that protects water quality, wildlife habitat, and other riparian resources while also enhancing property values and reducing the likelihood of flood damage”. DNREC recommends that vegetated buffers of no less than 100 feet be employed around wetlands and waterbodies. Given that the site is within the headwaters of North Prong and within a mapped State Resource area, these buffers should be maximized, particularly because ground disturbance will occur within 100 feet of the wetland complex. To minimize potential homeowner activities within wetlands, no lot lines should contain wetlands, buffers or other resources of conservation concern.

It should also be noted that this parcel is bordered and bisected by sensitive headwater riparian wetlands associated with the Beaverdam Branch. Headwater streams are important for the protection of water quality and the maintenance/integrity of the ecological functions throughout the length of the stream, including the floodplain system downstream. Headwater streams are a major avenue for nutrient-laden stormwater and sediment runoff and their protection deserves the highest priority. In recognition of this concern, the Department strongly recommends that the applicant preserve the entire existing natural forested buffer adjacent to said Branch. Efforts to maximize or expand

the existing natural buffer width beyond the recommended minimum with native herbaceous or woody vegetation are strongly encouraged.

It is recommended that the Farm Services Agency of the USDA be contacted to assess whether farmed wetlands on the subject parcel meet recognized criteria for classification as “prior converted wetlands.” Prior converted wetlands are farmed wetlands that have been drained or altered before December 23, 1985, and no longer meet the wetland criteria established under the 404 program. Such wetlands are considered exempt from regulatory protection, provided that there is no proof of a continuous “fallow period” of five years or greater in the parcel’s cropping history. Parcels converted after said date, regardless of cropping history, are considered jurisdictional by the Army Corps of Engineers (ACOE). The USDA contact person for assessing a parcel’s cropping history is Sally Griffin, (302) 678-4182.

Wetland Permitting Information

The PLUS application indicates that there will be direct impacts to wetlands through construction activities for a wetland crossing. Impacts to streams and associated riparian wetlands, including road crossings, are regulated by the Subaqueous Land Section of DNREC Division of Water Resources and the Army Corps of Engineers.

Impacts to wetlands are regulated by the Army Corps of Engineers through Section 404 of the Clean Water Act. In addition, individual 404 permits and certain Nationwide Permits from the Army Corps of Engineers also require 401 Water Quality Certification from the DNREC Wetland and Subaqueous Land Section and Coastal Zone Federal Consistency Certification from the DNREC Division of Soil and Water Conservation, Delaware Coastal Programs Section. Each of these certifications represents a separate permitting process. To find out more about permitting requirements, the applicant is encouraged to attend a Joint Permit Process Meeting. These meetings are held monthly and are attended by federal and state resource agencies responsible for wetland permitting. Contact Denise Rawding, (302) 739-4691, to schedule a meeting.

TMDLs

A Total Maximum Daily Loads (TMDL) pollution runoff mitigation strategy to reduce nutrient loading has not yet been developed for most of the tributaries or subwatersheds of the Delaware Bay watershed. TMDLs for the Mispillion subwatershed, of which this parcel is part, are scheduled for completion in December 2005.

Until TMDL reductions and pollution control strategies are adopted, it is incumbent upon the developer to employ best available technologies (BATS) and/or best management practices (BMPs) as “methodological mitigative strategies” to reduce degradative impacts associated with development.

Impervious Cover

Given the environmentally sensitive nature of this watershed, the applicant should devote more effort to employing innovative efforts or BMPs to reduce the amount of impervious

cover on the parcel. Using pervious materials in lieu of impervious paving surfaces (asphalt or concrete) can significantly reduce the amount of pollutant-laden surface runoff into wetlands and streams.

Water Supply

Should dewatering points be utilized during construction, a permit must be obtained from the Water Supply Section in advance. A zoning verification form will also need to accompany the application. 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. Dewatering well permit applications take approximately 4 weeks to process. Questions concerning these comments can be directed to Rick Rios, (302) 739-3665.

Water Resource Protection Areas

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

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

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

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

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

- 4) Allow impervious cover of new development to exceed 20% within 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.

More information can be found at:

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

Ground-Water Recharge Design Methodology at

http://www.wr.udel.edu/swaphome/phase2/Manual/SwappManual_supplement_1.pdf .

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 and construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson, Program Manager, (302) 856-7219, for details regarding submittal requirements and fees.

Drainage

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

Precautions should be taken to ensure the project does not hinder any off-site drainage upstream or create problems downstream by the release of on-site storm water.

The Drainage Section strongly recommends any drainage conveyance between two parcels within the subdivision be dedicated as passive open space drainage easements and not owned by individual landowners. The easements should be of sufficient width to allow future drainage maintenance as follows.

- 1) Along an open ditch or swale, a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side. 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.
- 2) Along stormwater pipe, 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 buffer 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 easements not have structures, decks, buildings, sheds, kennels, fences or trees within them allow for future drainage maintenance.

Floodplains

Portions of the property are located within the 100-year floodplain and must comply with the County's floodplain regulations. Filling in floodplain is a regulated activity. It is recommended that development be limited to those areas outside of the 100-year floodplain.

Forests

According to 2002 aerial photos, forested areas exist on this parcel. The PLUS application indicates that 17 acres of forest will be removed. This forest tract is extremely beneficial to the region and provides important riparian habitat, wildlife connectors, and air and water quality benefits. Fragmentation of this forest will have irreversible effects to the regional ecosystem. The developer and County should relocate all lots within this area and preserve the forest.

Forested areas set aside for conservation purposes should be placed into permanent conservation easements 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 them.

Open Space

To maximize existing buffering capacity and wildlife habitat, it is recommended that lot lines and other infrastructure be excluded from the forest, which should then be designated as community open space along the forested/riparian areas.

Open space containing forest and/or wetlands 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 homeowner activities do not infringe upon them.

Rare Species

DNREC has not surveyed this site. There is potential for the federally-threatened swamp pink (*Helonias bullata*) to occur within the forested wetlands and the developer has given permission for a DNREC site visit to survey for this rare plant. Bill McAvoy, Program Botanist, (302) 653-2880 will be in contact to set up the site visit.

There is an Atlantic White Cedar Swamp within Beaverdam Branch downstream of the site that could be detrimentally affected by changes to water quality. This habitat is maintained by specific water quality parameters and hydrologic conditions which could

be altered by sedimentary and other inputs into Beaverdam Creek. Swamp pink and other rare plants and animals are located within this system as well. Due to the presence of these species, Beaverdam Branch and the tributaries located within the project boundaries are designated as a State Natural Heritage Site. This is one criteria used by the ACOE to determine the presence of critical resource waters.

Nuisance Geese

Ponds that remain in the subdivision will likely attract waterfowl like resident Canada geese and mute swans. Because this is a mixed residential community, typical methods of goose control utilized on golf courses are not advisable. The best method would be one of prevention. Native tall grasses, wildflowers, shrubs, and trees at the edge and within a buffer area around the perimeter are recommended. Waterfowl do not feel safe when they cannot possible predators in the surrounding area. It is easier to control a few geese than to remove a plentiful population. Planting should be completed as soon as possible. The Division of Fish and Wildlife does not provide goose control services and residents will have to accept this burden (for example permit applications and fees, securing services of certified wildlife professionals). Solutions can be costly and labor intensive. Reducing the number and/or size of ponds and providing proper landscaping and monitoring techniques will minimize nuisance geese.

State Resource Areas/Natural Areas Inventory

This project contains land currently identified as part of a State Resource Area. State Resource Areas contain a variety of natural, cultural and open space resources significant to the state. Development on both sides of the Beaverdam Branch headwaters will negatively impact the water quality downstream in Cedar Creek.

This project contains land currently listed on Delaware's Natural Areas Inventory. Natural Areas contain lands of statewide significance identified by the Natural Area Advisory Council as the highest quality and most important natural lands remaining in Delaware. The cul-de-sac and parcels west of the existing cemetery should be removed or relocated to protect the forested buffer along Beaverdam Branch. Also, the 8 isolated units between the utility easement and the branch should be removed or relocated.

Consideration should be given to protecting these resources along Beaverdam Branch during design and construction of the project and the developer is strongly encouraged to investigate dedicating the Natural Area as a Nature Preserve through a conservation easement or donation of land. For more information contact the Office of Nature Preserves, (302) 739-9235.

Recreation

Sidewalks fronting every residence and stub streets are recommended. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe and convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

If a trail system is planned, a series of stacking trail loops be designed with access points in each subdivision "pod" and connections to adjacent communities is recommended. Long, continuous, perimeter-only trails, and systems with few access points often go unused and neglected. For trail design/construction specifications, contact Susan Moerschel, (302) 739-9235.

It is recommended that the developer dedicate a portion of the development for a community park. 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 needed in outdoor recreation facilities. The high facility needs in Eastern Sussex County are Walking and Jogging, Bike Paths and Fishing Areas. The moderate facility needs are Picnic Areas, Skate Facilities, Canoe/Kayak Access, Hiking Trails, Swimming Pools, Playgrounds, Soccer Fields, Tennis Courts, Power Boat Access and Baseball/Softball Fields. Consideration should be given to incorporate some of these recreation opportunities in the project. For additional information about the outdoor recreation priorities, contact Bob Ehemann, (302) 739-9235.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house generates an additional 10,000 pounds of construction waste. Due to Delaware's present rate of growth and the impact it will have on existing landfill capacity, the applicant is requested to estimate the amount of solid waste that will be generated as a result of construction and occupancy of this development.

Air Quality

Annual vehicle emissions associated with this project at completion are estimated to be 60.3 tons (120,642.8 pounds) of VOC (volatile organic compounds), 49.9 tons (99,884.1 pounds) of NO_x (nitrogen oxides), 36.8 tons (73,696.3 pounds) of SO₂ (sulfur dioxide), 3.3 ton (6,560.2 pounds) of fine particulates and 5,045.8 tons (10,091,616.3 pounds) of CO₂ (carbon dioxide).

Annual emissions from area sources associated with this project at completion are estimated to be 24.3 tons (48,660.7 pounds) of VOC (volatile organic compounds), 2.7 ton (5,354.2 pounds) of NO_x (nitrogen oxides), 2.2 ton (4,443.2 pounds) of SO₂ (sulfur dioxide), 2.9 ton (5,733.7 pounds) of fine particulates and 98.6 tons (197,259.7 pounds) of CO₂ (carbon dioxide).

Annual emissions from electrical power generation associated with this project at completion are estimated to be 9.6 tons (19,285.6 pounds) of NO_x (nitrogen oxides), 33.5 tons (67,080.4 pounds) of SO₂ (sulfur dioxide) and 4,947.2 tons (9,894,356.6 pounds) of CO₂ (carbon dioxide).

	VOC	NOx	SO ₂	PM _{2.5}	CO ₂
Mobile	60.3	49.9	36.8	3.3	5045.8
Residential	24.3	2.7	2.2	2.9	98.6
Electrical Power		9.6	33.5		4947.2
TOTAL	84.6	62.2	72.5	6.2	10091.6

Electrical usage via electric power plant generation will produce an additional 9.6 tons of nitrogen oxides per year and 33.5 tons of sulfur dioxide per year. A Significant mitigation of this impact can be achieved through construction of Energy Star qualified homes. Every percentage of increased energy efficiency achieves a percent reduction in pollution. Quoting from their webpage <http://www.energystar.gov/>:

“ENERGY STAR qualified homes are independently verified to be at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than state energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment.”

The DNREC Energy Office trains builders to make their structures more energy efficient. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution. The project development team is strongly encouraged to increase the energy efficiency of its homes.

Delaware State Housing Authority – Contact Jimmy Atkins 739-4263

The proposal is to develop 786 units on 393 acres located between Cedar Neck Road, and Sharps Road, east of SR 1, southeast of Milford. According to the *Strategies for State Policies and Spending*, the proposal is located in the Level 4 area and east of SR 1. DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as found in Level 1 and 2 areas. The proposal is located in an area targeted for agricultural and natural resource protection and therefore inconsistent with where the State has planned for new residential development.

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

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

- 1) Fire Protection Water Requirements:

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)
- 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. (One & Two- Family Dwelling)
- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains of fire hydrants and sprinkler systems.

2) Fire Protection Features:

- All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sq.ft., 3-stories or more or over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

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

4) Gas Piping and System Information

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

5) Required Notes

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

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact Mark Davis 739-4811

The Delaware Department of Agriculture does not support the development of this site within the Level 4 area. The proposed plan will lessen the environmental resources found within and adjacent to the site. The Department cannot stress how valuable these resources are. The Department recommends that the developer find another location for this project and offers it services in the re-design of this project.

The Department specifically objects to development located east of SR1. There is a long-standing state policy designating areas east of SR1 as important agricultural and environmental land worthy of preservation and conservation. The subject site is bordered by agricultural preservation districts on three sides. Adjacent to the north are over 500-acres of agricultural preservation districts in the ten year preservation program. To the west is a 108-acre ten year district. To the south is the permanently protected 367-acre Bennett ag-preservation district. There is other significant agricultural and natural resource conservation and preservation activity in the area as well. The site also contains Excellent Recharge areas very important to the state's ground water supply and quality. The site is located on the state's Green Infrastructure Investment Map and contains very high value forestland and cropland.

If developed, the 50-foot setback and 300-foot notification zone requirements apply. The developer will be required to place the following deed notice in every new recorded deed located within the development.

§ 910. Agricultural use protections.

a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

“This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities.”

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees. (68 Del. Laws, c. 118, § 2.)

Right Tree for the Right Place

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

Small trees: varieties of plums, crabapple and cherry, Japanese Flowering Lilac, Crape Myrtle. Medium trees: varieties of maples, excluding invasive species such as Norway maple. Large trees: varieties of oaks, Green Ash, Japanese Zelkova, London Plane.

Native Landscapes

The developer is encouraged to use native trees and shrubs in buffering the property from adjacent land-use activities. A properly designed forested buffer creates wildlife habitat corridors, cleans rivers and creeks of storm-water run-off pollutants, and improves air quality to the area by removing six to eight tons of carbon dioxide annually. To learn

more about acceptable native trees and how to avoid plants considered invasive to local landscapes, contact the Delaware Department of Agriculture Plant Industry Section, (302) 698-4500.

Tree Preservation

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

Tree Mitigation

The Department notes the on-site waste-water system has been relocated and understands the challenges of its design and placement. It is acknowledged that tree removal will be necessary to this aspect of the development. The Forest Service encourages the developer to implement tree mitigation at a 1:1 ratio within the site to replace trees lost in construction.

Department of Education - Contact Nick Vacirca

It is estimated that 786 dwelling units will generate 393 additional students for the Milford School District. Sussex County does not have school concurrence legislation at this time and it is recommended that the developer submit a package to the school district for informational purposes.

Strategies for State Policies and Spending recommends no development in Level 4 areas and provides little or no support where development occurs. Development approved in Level 4 areas will require student transportation support, a State financed program.

If the development is approved and built, use the following guidelines for school transportation planning. If there are homes more than 1/2 mile from the nearest public road (outside the development), the developers should provide streets wide enough for large school buses to access and turn around without backing from the furthest areas within the development. Should there be no homes more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be made. The developer should work closely with the school district transportation supervisor.

Additionally, according to legislation passed in 2004, future public school sites must be located in designated growth areas and approved by the State Budget Director, the State Planning Director, and the State Secretary of Education.

Public Service Commission - Contact Andrea Maucher 739-4247

For water, the project is not within a certificated area. The City of Milford could serve the project and will need to apply to the Commission for a Certificate of Public Convenience and Necessity (CPCN) if it does not annex the property, or if it offers services prior to

annexation. Any expansion of natural gas or installation of a closed propane system must comply with Federal Pipeline Safety guidelines.

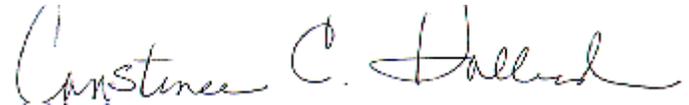
Delaware Emergency Management Agency – Contact Don Knox 659-3362

Due to the very large number of residential units being proposed and its location in the Level 4 area, a significant impact to public safety is foreseen by implementation of this project. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Sussex County to keep them apprised of all development activities. Portions of this property are located in the Special Flood Hazard Area inundated by the 100 and 500-year flood, (FIRM Maps 50 and 65). This area could also experience possible flooding from a category 2 or greater hurricane. Routes 1 and 113 are coastal storm evacuation routes and this development will be affected by traffic volume during a coastal storm event.

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

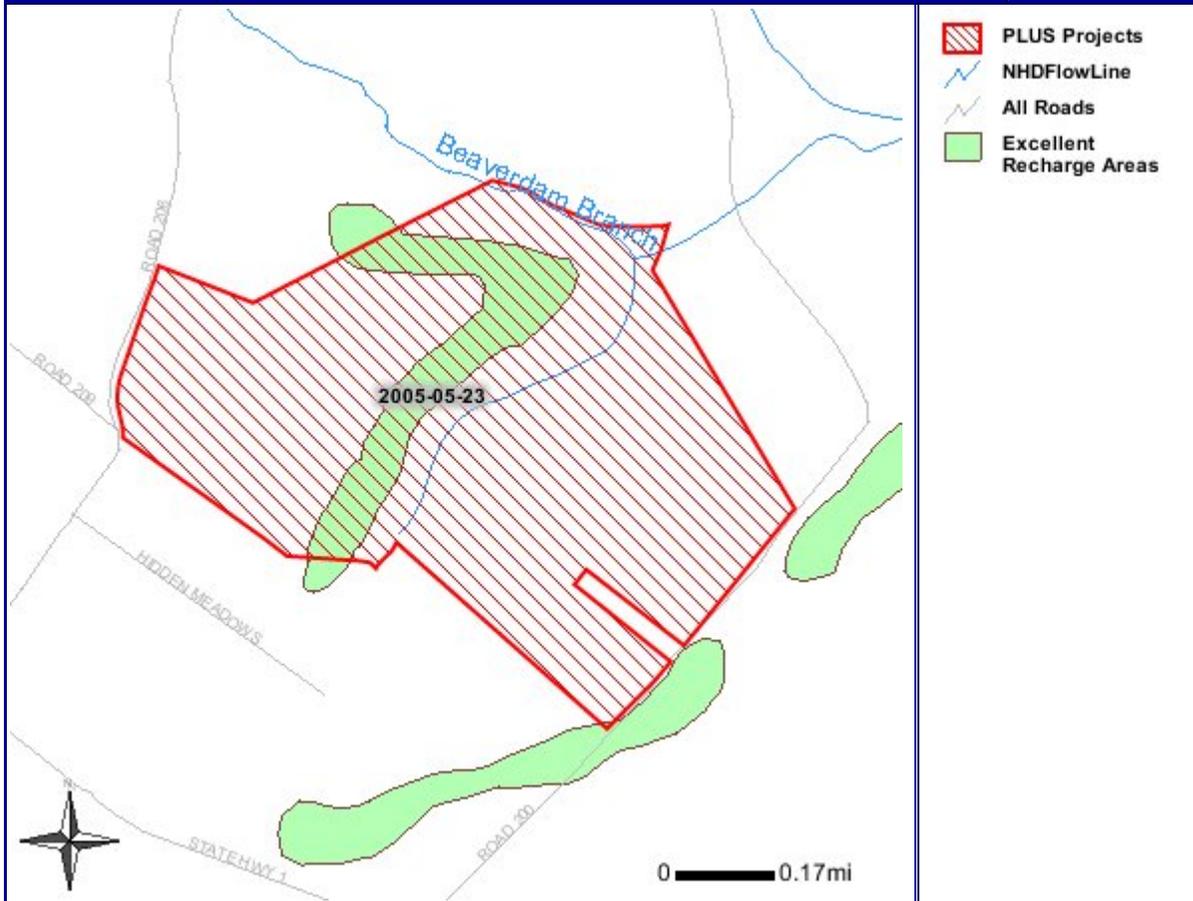
Director

CC: Sussex County



Badger Creek Bayside at New Milford

2005-05-23



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

