

Comments by division and program follow.

## **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.

**Drainage Program.** 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](mailto:James.Sullivan@state.de.us)*

## **Water Resources**

**Soils Assessment.** According to the NRCS soil survey update Hambrook (HbA), Hambrook Urban-Land complex (HkB), Woodstown (WdA), and Fallsington (FaA) were mapped in the immediate vicinity of the proposed construction. Hambrook is a well-drained upland soil that, generally, has few limitations for development. Hambrook Urban- Land complex is a soil that has been extensively modified from grading, filling, or excavation practices, and may have variable site-specific limitations. Woodstown is a moderately well-drained soil of low-lying

uplands that has moderate limitations for development. Fallsington is a poorly-drained wetland associated (hydic) soil that has severe limitations for development.

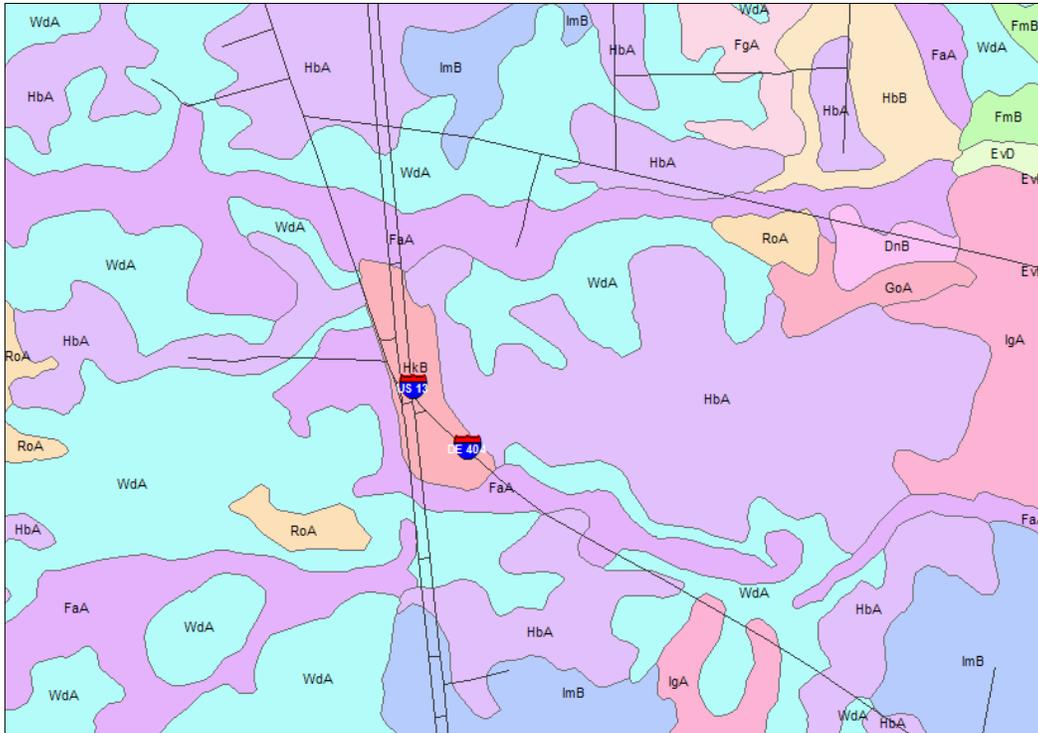


Figure 1: NRCE soil survey mapping in the immediate vicinity of the Bridgeville Commons project.

**Impervious Surfaces and Best Management Practices.** The applicant estimates this project’s post-development surface imperviousness to reach 75%. However, given the scope and density of this project this projection appears to understate the actual amount of created surface imperviousness. According to the TR-55 methodology for determining impervious cover, given a commercial and business land use, impervious cover is more likely to be 85%. The applicant should realize that all forms of constructed surface imperviousness (i.e., rooftops, parking lots, sidewalks, open-water stormwater management structures, and roads) should be included in the calculation for surface imperviousness. Failure to do so will result in an underestimate of this project’s likely post-construction environmental impacts. The calculation for surface imperviousness should be corrected and/or recalculated to reflect all the above-mentioned concerns.

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. Since this is a commercial project, it is strongly recommended that the applicant employ pervious paving materials, in lieu of conventional paving materials, for at least 50 percent of the project's total paved surface area(s).

**TMDLs.** Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Nanticoke 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.

In the greater Nanticoke watershed where this project is proposed, "target-rate-nutrient reductions" of 30 and 50 percent will be required for nitrogen and phosphorus, respectively. Additionally, "target-rate-reductions" of 2 percent will be required for bacteria. A Pollution Control Strategy (PCS) will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through increasing the amount of passive, wooded open space, use of pervious paving materials to reduce surface imperviousness, connection to central sewer (or performance based community system), and the deployment of green-technology stormwater management treatment technologies. 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](mailto:John.Martin@state.de.us)*

**Water Supply.** The information provided indicates that the Town of Bridgeville will provide water to the proposed projects through a public water system. Our files reflect that the Town of Bridgeville does not currently hold a Certificate of Public Convenience and Necessity (CPCN) to provide public water in these areas. According to §203C, Subchapter II, Chapter 1, Title 26, Delaware Code, the municipality is required to give notice to the Public Service Commission when the annexation is complete. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at 302-736-7547. The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be constructed and located in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

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

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

Potential Contamination Sources 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 are Underground Storage Tanks associated with (1) Pep-Up #2, and (2) Shore Stop #804, located on the Northwest corner within 1000 feet of the proposed project. Ricardo Rios - (302) 739-9944, [Ricardo.Rios@state.de.us](mailto:Ricardo.Rios@state.de.us)

**Water Resource Protection Areas.** The DNREC Ground Water Protection Branch (GPB) has determined that the project does not fall within any delineated wellhead protection area or an area of excellent groundwater recharge potential. However, we did find a discrepancy between the concept plan submitted with the application and the size of the parcel.

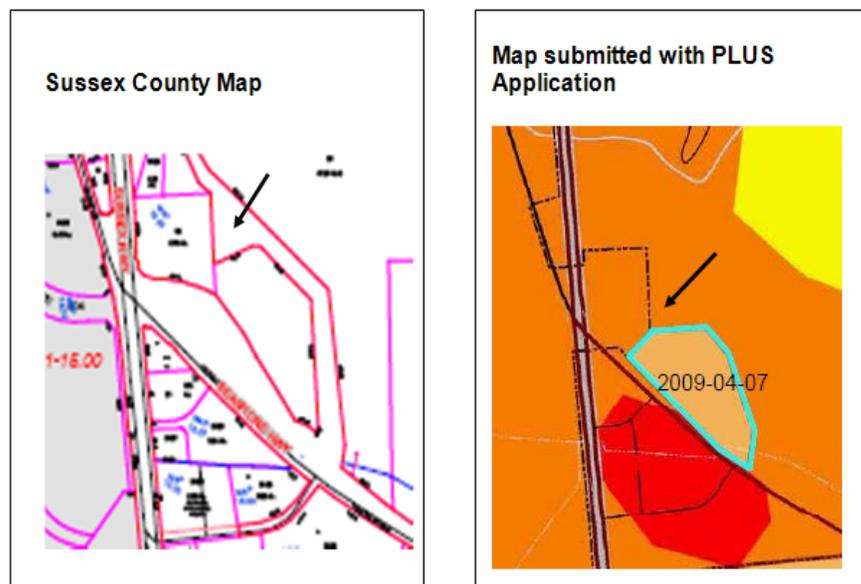
The size and shape of the parcel does not match the size and shape of the tax map parcel (TMP) found on the Sussex County website (Map 1). The parcel is approximately 9.36 acres. Efforts to geo-reference the concept plan in ArcMap were unsuccessful. Only the western and southern corners aligned with the TMP (Map 2). Recent visits to the area confirm that the DelDOT easements are paved.

It appears that the site plan was drawn from the DelDOT concept map of the area (Map 3). *GPB recommends a site visit to determine where the parcel lies.*

**Map 1: Comparison of Sussex County Parcel Map 131-15.00 showing the County's delineation of the parcel under review and the Applicants Map submitted with the Application.** Note misalignment of parcels indicated by arrows.

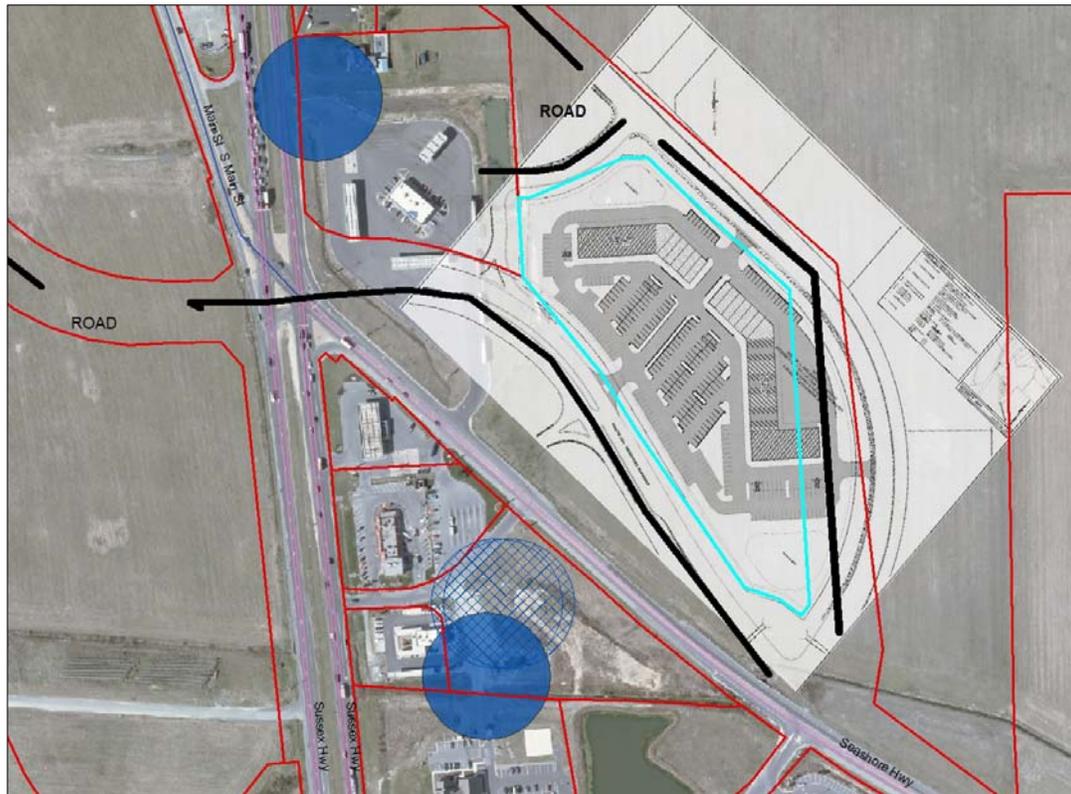
**Map 2: Bridgeville Commons (2009-04-07)**

The parcel under review is outlined in light blue. Delineated wellheads are shown in solid blue. The approximate locations of wellheads that are not delineated are shown in crosshatched blue. This crosshatch

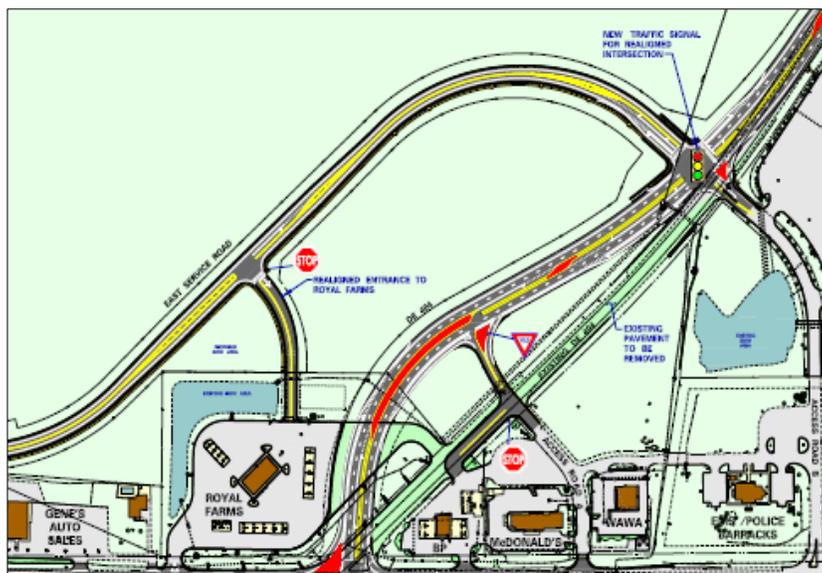


**Map 1**

represents the Safe Zone area as defined in Sussex County Ordinance No. 1979. Tax map parcels are shown in red. Known roads are indicated by black lines.



Map 2



Map 3

Anne Mundel - (302) 739-9945, [Anne.Mundel@state.de.us](mailto:Anne.Mundel@state.de.us)

## Air and Waste

**Hazardous Waste Sites.** 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](mailto:Krystal.Stanley@state.de.us)*

**Tank Management Branch.** There are five (5) LUST facilities including six (6) LUST project sites located within a quarter mile from the proposed project.

Name: Comfort Heating (Inactive)  
Facility ID: 5-000281  
Project: S9201018

Name: Comfort Heating (Inactive)  
Facility ID: 5-000281  
Project: S9203086

Name: Pep Up #2 (Active)  
Facility ID: 5-000153  
Project: S8904254

Name: Shore Stop #281 (Inactive)  
Facility ID: 5-000334  
Project: S8911276

Name: Royal Farms Store #109 (Active)  
Facility ID: 5-000971  
Project: S0310065

Name: Bridgeville BP-Uncle Willies #10 (Inactive)  
Facility ID: 5-000104  
Project: S0311069

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](mailto:Elizabeth.Wolff@state.de.us)