

STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

December 23, 2015

Mr. Brian Bassett
Cape Henlopen School District
1270 Kings Highway
Lewes, DE 19958

RE: PLUS review 2015-11-06; Cape Henlopen School District – Milton Elementary

Dear Brian,

Thank you for meeting with State agency planners on November 25, 2015 to discuss the feasibility of replacing an existing school with an 83,000 square foot school on property already owned by the district at 512 Federal St. in Milton.

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

Strategies for State Policies and Spending

This project is located in Investment Level 1 according to the *Strategies for State Policies and Spending*. Investment Level 1 reflects areas that are already developed in an urban or suburban fashion, where infrastructure is existing or readily available, and where future redevelopment or infill projects are expected and encouraged by State policy. Our office has no objections to the proposed development of this project in accordance with the town codes and ordinances.

Code Requirements/Agency Permitting Requirements

Delaware Department of Transportation – Contact Bill Brockenbrough 760-2109

- The proposed school's site plan and entrance plan must be designed in accordance with DelDOT's Development Coordination Manual (formerly the Standards and Regulations)

122 Martin Luther King Jr. Blvd. South – Haslet Armory · Third Floor · Dover, DE 19901
Phone (302)739-3090 · Fax (302) 739-5661 · www.stateplanning.delaware.gov

for Subdivision Streets and State Highway Access), which is available at <http://www.deldot.gov/information/business/subdivisions/changes/index.shtml>.

- From the information provided, it does not appear that the proposed development would meet DeIDOT's volume-based criteria, found in Section 2.2.2.1 of the Manual, for recommending that a Traffic Impact Study (TIS) be required (an increase of 500 vehicle trips per day or 50 vehicle trips per hour).
- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Development Coordination Manual, DeIDOT will require dedication of right-of-way along the site's frontage on Federal Street. By this regulation, this dedication is to provide a minimum of 40 feet of right-of-way from the road centerline on Federal Street. The following right-of-way dedication note is required, "An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."
- In accordance with Section 3.2.5.1.2 of the Development Coordination Manual, DeIDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on Federal Street. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, "A 15-foot wide permanent easement is hereby established to the State of Delaware, as per this plat."
- In accordance with Section 5.3.1 of the Manual, the curb ramps and cross-walks at the site entrances should be improved as necessary to comply with the Americans with Disabilities Act (ADA). The remainder of the frontage sidewalk should be checked for tripping hazards and repaired as necessary but full ADA compliance is not required.

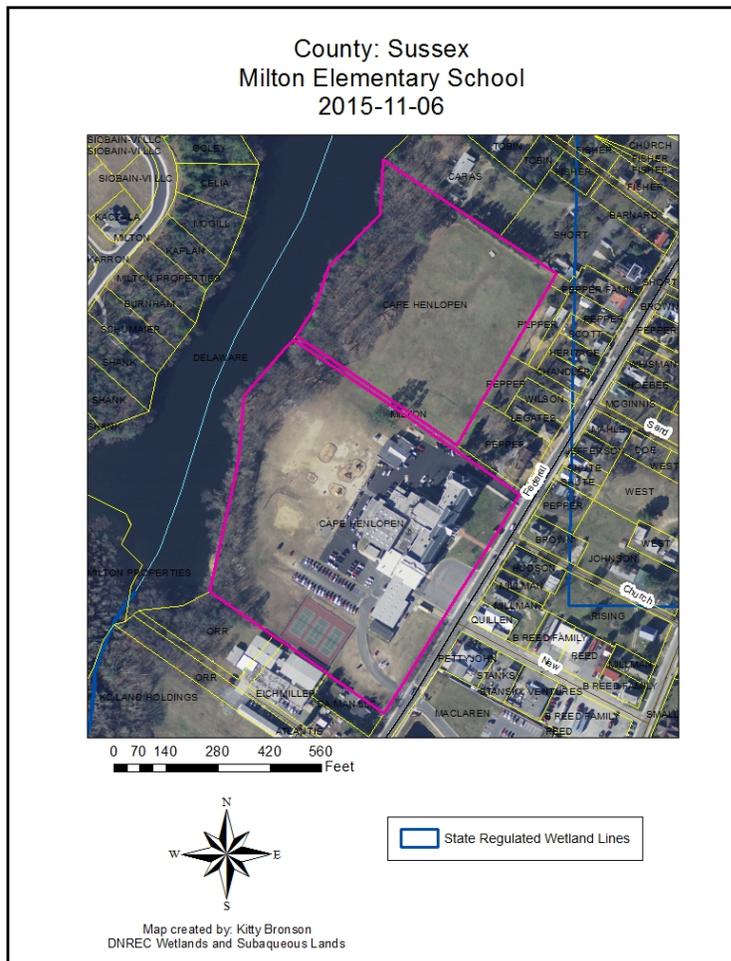
Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352

Wetlands.

- State subaqueous lands include all tidal waters (up to the mean high water line), most non-tidal rivers, streams, lakes, ponds, bays and inlets (up to the ordinary high water line), most perennial streams and ditches and many intermittent streams and ditches. State regulated subaqueous lands are likely to be located adjacent to this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. An on-site inspection by a representative of the DNREC Wetlands and Subaqueous Lands Section or an environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Upon review of the GIS layers, Wagamon's Pond is adjacent to this property. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or online at: <http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx>.

Waters of the United States include the following: navigable waters of the United States; wetlands; tributaries to navigable waters of the United States, including adjacent wetlands and lakes and ponds; interstate waters and their tributaries, including adjacent wetlands; and all other waters of the United States not identified above, such as isolated wetlands, intermittent streams, and other waters that are not part of a tributary system to interstate waters or to navigable waters of the United States, where the use, degradation or destruction of these waters could affect interstate or foreign commerce.

Waters of the U.S. regulated by the U.S. Army Corps of Engineers are not likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and USGS topographic maps. The extent of Federal jurisdiction over Waters of the United States is determined by the U.S. Army Corps of Engineers and is based on site specific conditions. Therefore, an on-site inspection by an environmental consultant is recommended to determine if Waters of the U.S. are located on the property and the limits of Federal jurisdictional. The U.S. Army Corps of Engineers can be contacted at (215) 656-6728 or online at: <http://www.nap.usace.army.mil/cenap-op/regulatory/regulatory.htm>.



TMDLs.

- The project is located in the greater Delaware River and Bay drainage area, specifically within the Broadkill River watershed. In this watershed, the State of Delaware has developed specific Total Maximum Daily Load (TMDL) pollutant reduction targets for nitrogen, phosphorus, and bacteria (under the auspices of Section 303(d) of the Clean Water Act). A TMDL is the maximum level of pollution allowed for a given pollutant below which a “water quality limited waterbody” can assimilate and still meet State water quality standards (e.g., dissolved oxygen, nutrients, and bacteria; State of Delaware Surface Water Quality Standards, as amended July 11, 2004) to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. The TMDL for the Broadkill River watershed calls for a 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 75 percent reduction in bacteria from baseline conditions.

A nutrient management plan is required under the *Delaware Nutrient Management Law* (3 Del.C., Chapter 22) for all persons or entities who apply nutrients to lands or areas of open space in excess of 10 acres. This project’s open space may exceed this 10-acre threshold. Please contact the Delaware Nutrient Management Program at (302) 739-4811 for further information concerning compliance requirements, or view the following web link for additional information: <http://dda.delaware.gov/nutrients/index.shtml>

Water Supply.

- The project information sheets state water will be provided to the project by the Town of Milton via a public water system. Our records indicate that the project is located within the public water service area granted to the Town of Milton under Certificate of Public Convenience and Necessity 91-CPCN-08.

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 take approximately four weeks to process, which allows the necessary time for technical review and advertising. Should you have any questions concerning these comments, please contact Rick Rios at (302) 739-9944.

Sediment and 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 the Division of Soil and Water Conservation Sediment and Stormwater Program. Contact Elaine Webb with the Sediment and Stormwater Program at (302) 739-9921, for details regarding submittal requirements and

fees. It is strongly recommended that you contact the reviewing agency to schedule a pre-application meeting with the Sediment and Stormwater Section to discuss the sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion.

Air Quality.

The applicant shall comply with all applicable Delaware air quality regulations. Please note that the following regulations in Table 1 – Potential Regulatory Requirements may apply:

Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> • Use dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads. • Use covers on trucks that transport material to and from site to prevent visible emissions.
7 DE Admin. Code 1113 – Open Burning	<ul style="list-style-type: none"> • Prohibit open burns statewide during the Ozone Season from May 1-Sept. 30 each year. • Prohibit the burning of land clearing debris. • Prohibit the burning of trash or building materials/debris.
7 DE Admin. Code 1135 – Conformity of General Federal Actions to the State Implementation Plan	<ul style="list-style-type: none"> • Require, for any “federal action,” a conformity determination for each pollutant where the total of direct and indirect emissions would equal or exceed any of the de minimus levels (See Section 3.2.1)
7 DE Admin. Code 1141 – Limiting Emissions of Volatile Organic Compounds from Consumer and Commercial Products	<ul style="list-style-type: none"> • Use structural/ paint coatings that are low in Volatile Organic Compounds. • Use covers on paint containers when paint containers are not in use.
7 DE Admin. Code 1144 – Control of Stationary Generator Emissions	<ul style="list-style-type: none"> • Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), and carbon dioxide (CO₂) from emergency generators meet the emissions limits established. (See section 3.2). • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty	<ul style="list-style-type: none"> • Restrict idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.

Vehicles	
----------	--

For a complete listing of all Delaware applicable regulations, please look at our website:
<http://www.awm.delaware.gov/AQM/Pages/AirRegulations.aspx>.

Hazardous Waste.

- If it is determined by the Department that there was a release of a hazardous substance on the property in question and the Department requires remediation pursuant to the Hazardous Substance Cleanup Act, the provisions of 7 Del.C., Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.

There are two Site Investigation and Restoration Section (SIRS) sites found within a half mile radius of the proposed project.

Milton Rail to Trails (DE-1460) is located 0.06 miles south of the proposed project:

- The Town of Milton is redeveloping the Property as a public-access walking/biking trail. The rail-road tracks were constructed in the 1900s with a passenger depot and other freight buildings. The buildings and depot were removed between 1960 and 1977.
- A Phase I Site Assessment was conducted in April 2006 and indicated some potential for contamination.
- A Limited Surface Soil Evaluation was completed in May 2007 and identified PAHs and arsenic exceeding the regulatory limits.
- The Site entered the Brownfields Program in April 2009 followed the Proposed Plan in May 2009.
- The Final Plan was published in June 2009 and required that contaminated soil be excavated and transported off site, implementation of a semi-annual monitoring plan and the placement of Environmental Covenant on the property.
- The Site is currently under development in phases. The Environmental Covenant was recorded September 2015.

King Cole Cannery (DE-1252) is located 0.16 miles east of the proposed project property:

- A Preliminary Environmental Evaluation was performed on the Site in October 2001, and soon after entered the Voluntary Clean-up Program (VCP) in December the same year.
- The environmental concern at the site was the use of chemicals in the wastewater treatment areas and the use of staging areas for coal burning residuals.
- A Remedial Investigation followed by an Interim Action in both 2002 and 2003.

- The Final Plan for the Site required that a Groundwater Management Zone (dated January 2005) and an Environmental Covenant (dated March 2006) be established.
- The Site was given a Certificate of Completion of Remedy (COCR) in 2006.

Tank Management.

If a release of a Regulated Substance occurs at the proposed project site, compliance with 7 Del.C., Chapter 60; 7 Del.C., Chapter 74; and DE Admin. Code 1351, State of Delaware *Regulations Governing Underground Storage Tank Systems* (the UST Regulations) is required.

The following confirmed leaking underground storage tank (LUST) project is located within the boundary of the project parcel area:

Milton Middle School, Facility: 5-000913, Project: S9907131 (Inactive)

- Two (2) USTs removed from project parcel including two (2) heating fuel UST's. Project closed in 1999. For follow up, please contact Ross D. Elliott at Ross.Elliott@state.de.us.

The following (LUST) projects are located within a quarter mile from the proposed project area:

- Hopkins Granary, Facility ID: 5-000099, Project: S9206169, (Inactive)
- Pettyjohns Custom Engines Facility ID: 5-000831 , Project: S9601017, (Inactive)
- Draper Canning Company Trucking Facility ID: 5-000080, Project: S0111103, (Inactive)
- Jensen Fred H & Sons Facility ID: 5-000592 , Project: S9108182, (Inactive)

Per the UST Regulations: Part E, § 1. Reporting Requirements:

Any indication of a Release of a Regulated Substance that is discovered by any Person, including but not limited to environmental consultants, contractors, utility companies, financial institutions, real estate transfer companies, UST Owners or Operators, or Responsible Parties shall be reported within 24 hours to:

- The Department's 24-hour Release Hot Line by calling (800) 662-8802; and
- The DNREC Tank Management Section by calling (302) 395-2500.

Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

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):

- **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.

- Where a water distribution system is proposed for an educational site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.
- **Fire Protection Features:**
 - All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.
 - Buildings greater than 10,000 sqft, 3-stories or more, 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
- **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.
 - 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.
 - 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.
- **Gas Piping and System Information**
 - Provide type of fuel proposed, and show locations of bulk containers on plan.
- **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)
 - 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

Recommendations/Additional Information

This section includes a list of site specific suggestions that are intended to enhance the project. These suggestions have been generated by the State Agencies based on their expertise and subject area knowledge. **These suggestions do not represent State code requirements.** They are offered here in order to provide proactive ideas to help the applicant enhance the site design, and it is hoped (**but in no way required**) that the applicant will open a dialogue with the relevant agencies to discuss how these suggestions can benefit the project.

Department of Natural Resources and Environmental Control – Contact Michael Tholstrup 735-3352

Flooding and Sea Level Rise:

- Portions of the planned development area lies within an area that will be subject to direct and permanent inundation from sea level rise (<http://de.gov/slrmap>).

Sea levels in Delaware have risen by about a foot over the past century (NOAA, 2014). This rate of sea level rise is likely to accelerate in the coming decades as a result of global climate change and local subsidence. Accelerated sea level rise will result in permanent flooding of low-lying coastal areas and increased risk of flood damage during storms (DNREC, 2012).

DNREC Preliminary Land Use Service maps depicting future inundation risk from sea level rise indicate that approximately .72 acres of this site out of 17.54 acres or 4 percent could be inundated by sea level rise of 1.5 meters. In the short-term, sea level rise on this parcel, combined with periodic coastal flooding events, may result in repetitive flood damage to roads and significant difficulties maintaining storm water, drainage and other infrastructure. In the long-term, this increased flood and inundation risk could result in costly public and private flood abatement and drainage projects and an eventual abandonment of structures.

- Any structures that are built within an area mapped as both floodplain and sea level rise zone should be constructed with 18 inches of freeboard plus additional freeboard to accommodate future sea levels.
- Filling to elevate land to above base flood elevation is discouraged.
- Access roads should be designed to be flood resilient for the entirety of the project's designed life span. This includes ensuring that the roadway functions for the 1 percent chance flood plus anticipated future sea level rise.

References:

NOAA (National Oceanic and Atmospheric Administration). (2014). Mean Sea Level Trend, Lewes, DE. Retrieved from http://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?stnid=8557380.

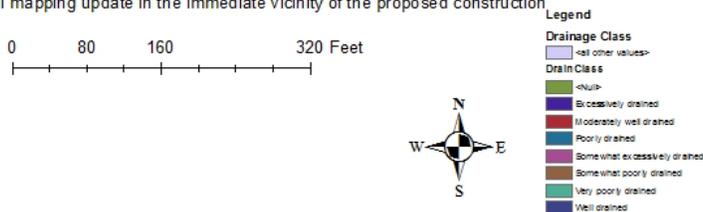
DNREC Delaware Coastal Programs. (2012). Preparing for Tomorrow's High Tide: Sea Level Rise Vulnerability Assessment for the State of Delaware. Dover, DE: Department of Natural Resources and Environmental Control. Retrieved from <http://de.gov/slrva>.

Soils Assessment.

- Based on soils survey mapping update, the Fort Mott (FmB) and Henlopen-Rosedale-Urban land complex (luB) are the primary soil mapping units mapped in the immediate vicinity of the proposed project construction. These soil mapping units are well-drained and somewhat well-drained, and generally have few limitations for development (Figure 1).



Figure 1: NRCS soil mapping update in the immediate vicinity of the proposed construction



Wagamons Pond.

- Note that the parcel is adjacent to Wagamons Pond, which is owned by the Delaware Division of Fish and Wildlife. Wagamons Pond is one of the most popular Largemouth Bass fishing tournament sites in Delaware and is popular with recreational anglers as well. The water quality in the pond has already been degraded by excess nutrients and the state expends funds and resources on an annual basis trying to control aquatic weeds and algae fueled by these nutrients. We strongly recommend that the forest along the shoreline be retained to ensure that there is an adequate buffer to this water body. Additionally, stringent stormwater management plans coupled with best management practices (e.g. minimizing fertilizer use) are strongly recommended. Finally, it is essential that sediments are contained during construction.

Blackbanded Sunfish.

- According to our database, blackbanded sunfish (*Enneacanthus chaetodon*), a state-rare species, occurs within the Wagamons Pond system. This species is found in the calm waters of ponds and small streams, where it favors heavily vegetated areas on sand or mud bottoms. Efforts should be made to avoid impacts to dense patches of aquatic vegetation within and adjacent to the project site in order to maintain habitat for this rare fish. This is yet another reason to ensure that sediments are not allowed to enter the pond system.

High Performance School.

- DNREC encourages the school district to use High Performance School standards in planning, design, and construction of the proposed school project. High performance schools provide high quality learning environments, conserve natural resources, consume less energy and are easier to maintain, while providing an effective tool for teaching about environmental responsibility.

Creating a high performance school is not difficult, but it requires an integrated, “whole building,” team approach to the design process. Key systems and technologies must be considered together, from the beginning of the design process, and optimized based on their combined impact on the comfort and productivity of students and teachers. High performance schools take advantage of recent advances in energy efficiency and incorporate heating, cooling, and lighting systems that produce the highest comfort levels for the least cost. Daylight is brought into the school to enhance the learning environment and decrease the need for electrical lighting. The building shell integrates the most effective combination of insulation, glazing, and thermal mass to ensure energy efficiency and occupant comfort. Modern plumbing fixtures and innovative water use strategies combine to reduce water consumption and buildings are commissioned to ensure building performance. Furthermore, in high performance schools, Best Management Practices (BMP) in site design and stormwater management such as constructed wetlands, vegetated buffers, vegetated roofs, and rain gardens offer resources for hands on educational opportunities.

In order to achieve a high performance school, consider following recommendations:

1. Design with the “Whole Building” in mind,

2. Set performance goals early,
3. Choose and develop the site wisely utilizing optimum orientation, maximizing natural resource preservation and reducing heat island effect,
4. Protect indoor air quality,
5. Optimize acoustics,
6. Incorporate daylighting,
7. Incorporate high performance electric lighting and controls,
8. Install high performance HVAC strategies,
9. Incorporate water conservation measures, and
10. Commission the school after construction.

The DNREC Division of Energy and Climate is interested in working with the Cape Henlopen School District to provide assistance and facilitate resources in design and planning of proposed school project.

Additional information on TMDLs and water quality.

- In response to concerns about the need for reducing nonpoint source nutrient (nitrogen and phosphorus) and bacterial pollutants to levels sufficient to meet the TMDL reduction requirements prescribed for waters of the greater Broadkill River watershed, a multifaceted and comprehensive process known as a Pollution Control Strategy (PCS) was developed. Specifically, a PCS is a combination of best management practices and control technologies that reduce nutrient and bacterial pollutant runoff loading in waters of a given watershed to levels consistent with the TMDL reduction levels specified for that watershed. The PCS for the Broadkill River watershed consists of recommendations from the following three areas: agriculture, stormwater, and wastewater. Additional information about Broadkill River PCS can be reviewed at the follow web link: <http://www.dnrec.delaware.gov/swc/wa/Pages/WatershedManagementPlans.aspx>

In further support of the PCS, the applicant is also strongly urged to reduce nutrient and bacterial pollutants through voluntary commitment to the implementation of the following recommended BMPs, which would:

- Preserve and/or maintain as much of the existing open space as possible; we further suggest additional native tree, shrub and/or native herbaceous vegetation plantings, wherever possible.
- Calculate post-construction surface imperviousness with all forms of created (or constructed) surface imperviousness (e.g., rooftops, driveways, parking lots, sidewalks, open-water storm water management structures, ponds, and roads) included in the calculation. Omission of any of the above-stated forms of surface imperviousness will result in an underestimate of the actual post-development surface imperviousness and the associated environmental impacts.
- Employ green-technology storm water management and rain gardens (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant runoff. Please contact Lara Allison at (302) 739-9939 for further information about the possibility of installing rain gardens on this parcel.

- Use pervious paving materials instead of conventional paving materials (e.g., asphalt or concrete) to help reduce the amount of water and pollutant runoff draining to adjoining streams and wetlands. Pervious pavers are especially recommended for areas designated for parking.
- Assess nutrient and bacterial pollutant loading at the preliminary project design phase. To this end, the Watershed Assessment Section has developed a methodology known as the “Nutrient Load Assessment protocol.” The protocol is a tool used to assess changes in nutrient loading (e.g., nitrogen and phosphorus) resulting from the conversion of individual or combined land parcels to a changed land use; thus providing applicants and governmental entities with quantitative information about the project’s impact on baseline water quality. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact John Martin or Jen Walls of the Division of Watershed Stewardship at (302) 739-9939 for more information on the protocol.

Additional information on tank management.

- When contamination is encountered, PVC pipe materials should be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

If any aboveground storage tanks (ASTs) less than 12,500 gallons are installed, they must be registered with the TMS. If any ASTs greater than 12,500 gallons are installed, they are also subject to installation approval by the TMS.

Additional information on hazardous waste sites.

- DNREC strongly recommends that the land owner perform environmental due diligence of the property by performing a Phase I Environmental Site Assessment (including a title search to identify environmental covenants) in accordance to Section 9105(c) (2) of the Delaware Hazardous Substance Cleanup Act (HSCA). While this is not a requirement under HSCA, it is good business practice and failure to do so will prevent a person from being able to qualify for a potential affirmative defense under Section 9105(c) (2) of HSCA.

Additional remediation may be required if the project property or site is re-zoned by the county.

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.

Additional information on air quality.

- DNREC encourages developers and builders to consider all sustainable growth practices in their design, but we believe, however, that the air quality impacts associated with the project should be completely considered. New homes, businesses, and schools may emit, or cause to be emitted, air contaminants into Delaware’s air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:
 - Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
 - The emission of greenhouse gases which are associated with climate change, and
 - The emission of air toxics.

Air emissions generated include emissions from the following activities:

- Area sources such as painting, maintenance equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity needed to support the facility, and
- All transportation activity.

Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) could not be quantified. DAQ was able, however, to quantify the mobile emissions based on the proposed daily trip data presented in each application and data taken from the ITE Trip Generation Manual, 8th Edition. Each PLUS project anticipates 200 vehicle trips per day for a new school or an increase of 200 vehicle trips per day for a renovated school. Table 2 – Projected Air Quality Emissions represents the actual impact the Cape Henlopen School District may have on air quality.

Emissions Attributable to Cape Henlopen School District (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Mobile Source emissions	0.66	0.88	*	*	*

(*) Indicates data is not available.

Note that emissions associated with the actual construction of the road, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

The DNREC Division of Air Quality (DAQ) encourages sustainable growth practices that:

- Control sprawl;
- Preserve rural and forested areas;
- Identify conflicting land use priorities;
- Encourage growth on previously developed sites and denser communities;
- Coordinate transportation, housing, environment, and climate protection plans with land use plans; and

- Demonstrate that communities can achieve the qualities of privacy, community, and contact with nature without degrading the natural environment or generating unacceptable environmental costs in terms of congestion, use of natural resources, or pollution.

Additional measures may be taken to substantially reduce the air emissions identified above.

These measures include:

- **Constructing with only energy efficient products.** Energy Star qualified products are up to 30% more energy efficient. Savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of energy efficiency translates into a percent reduction in pollution. The Energy Star Program is an excellent way to save on energy costs and reduce air pollution.
- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation and from the use of oil or gas heating equipment.
- **Constructing with high albedo, high solar reflectance materials.** This includes roofing and hardscape. These materials help to reduce heat island impacts and, by extension, help to minimize the potential for localized ground-level ozone formation. These materials also help reduce demands on air conditioning systems and save on energy costs.
- **Providing shade for parking lot areas.** Approaches may include architectural devices, vegetation, or solar panels. Providing shade for parking areas helps to reduce heat island impacts, and, by extension, helps to minimize the potential for localized ground-level ozone formation. Such measures can also have the additional benefit of channeling or infiltrating stormwater.
- **Encouraging the use of safe multimodal transportation.** This measure can significantly reduce mobile source emissions. **For every vehicle trip that is replaced by the use of a sidewalk or bike path, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.**
- **Using retrofitted diesel engines during construction.** This includes equipment that is on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees in vegetative buffer areas.** Native trees reduce emissions by trapping dust particles and replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the

project. The applicant should submit a plan to the DNREC DAQ which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Wilmington Country Club project. The DAQ point of contact is Deanna Cuccinello, and she may be reached at (302) 739-9402.

Delaware State Fire Marshall's Office – Contact Duane Fox 739-4394

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov technical services link, plan review, applications or brochures.

State Historic Preservation Office – Contact Terrence Burns 736-7404

- The Milton Public School (S09140), 1931, is a fine example of school construction during the second phase of school development funded by P. S. du Pont. While not currently listed in the National Register of Historic Places, it has been determined eligible for listing and will probably be part of the proposed expansion of the Milton Historic District. The proposed demolition of additions and the construction of a new addition to the rear may not prevent this listing, as long as the addition is in keeping in scale and materials with the original section. We applaud the Cape Henlopen School District's decision to maintain the historic character of this building, and would be happy to provide technical advice in accomplishing this.

Department of Agriculture – Contact Scott Blaier 698-4529

- The Department of Agriculture favors replacing or expanding the school on the current site, or within the Town of Milton, as opposed to developing new land for a school, especially farmland.

Department of Education-Contact Karen Field Rogers 857-3392

- The DOE will continue to work with the district, architect, site engineer, municipal government and various state agencies regarding the project. The DOE reserves the right to provide continued and on-going comments and input as the project develops.

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

Sincerely,



Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: Sussex County