STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

April 23, 2013

Mr. Ring Lardner
Davis, Bowen & Friedel, Inc.
23 North Walnut Street
Milford, De 19963

RE: PLUS review – 2013-03-03; Redden Farm

Dear Mr. Lardner:

Thank you for meeting with State agency planners on March 28, 2013 to discuss the proposed plans for the Redden Farm project located approximately 600 feet south of the intersection of Warrington Road and Old Landing Road across from the Landing Subdivision.

According to the information received, you are seeking site plan approval through Sussex County for a 97 unit residential subdivision on 34.65 acres.

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

Strategies for State Policies and Spending

- This project is located in Investment Level 1 and 2 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. Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near term future. State investments will support growth in these areas.

Code Requirements/Agency Permitting Requirements

State Historic Preservation Office – Contact Terrence Burns 736-7404

- There is a known archaeological site (S-7951, 7S-G-125) within this parcel. According to the Pomeroy and Beers Atlas of 1868 (a 19th-century historic map) it appears that there was some type of dwelling or structure within the parcel or very close it, which was associated with Mr. Kimmey. Furthermore, the USGS Topographic Map of 1918 indicated that there was a dwelling there as well. With this in mind, it is very important that the developer be aware of the Delaware Unmarked Human Burials and Human Skeletal Remains Law, which is outlined in Chapter 54 of Title 7 of the Delaware Code.

  Abandoned or unmarked family cemeteries are very common in the State of Delaware. They are usually in rural or open space areas, and sometimes near or within the boundary of an historic farm site. Even a marked cemetery can frequently have unmarked graves or burials outside of the known boundary line or limit. Disturbing unmarked graves or burials triggers the Delaware's Unmarked Human Burials and Human Skeletal Remains Law (Delaware Code Title 7, Chapter 54), and such remains or discoveries can result in substantial delays while the procedures required under this law are carried out. If there is a discovery of any unmarked graves, burials or a cemetery, it is very costly to have them archaeologically excavated and the burials moved. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area, to the full extent, to see if there is any unmarked cemetery, graves, or burial sites. In the event of such a discovery, the Division of Historical & Cultural Affairs also recommends that the plans be re-drawn to leave the full extent of the cemeteries or any burials on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with the landowner association or development. If you would like to know more information that pertains to unmarked human remains or cemeteries, please check the following websites for additional information: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml .

- Prior to any demolition or ground-disturbing activities, the developer should consider hiring an archaeological consultant to examine the parcel for potential historic or cultural resources, such as a potential archaeological site, a cemetery or unmarked human remains. Furthermore, if there is any federal involvement with the project, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. Owners and developers who may plan to apply for an Army Corps of Engineers permit or for federal funding, such as HUD or USDA grants, should be aware of the National Historic Preservation Act of 1966 (as amended). Regulations promulgated for Section 106 of this Act stipulate that no ground-disturbing or demolition activities

should take place before the Corps or other involved federal agency determines the area of potential effect of the project undertaking. These stipulations are in place to allow for comment from the public, the Delaware State Historic Preservation Office, and the Advisory Council for Historic Preservation about the project's effects on historic properties. Furthermore, any preconstruction activities without adherence to these stipulations may jeopardize the issuance of any permit or funds. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please review the Advisory Council's website at www.achp.gov .

Department of Transportation – Contact Bill Brockenbrough 760-2109

- While the proposed development would generate enough traffic to warrant a Traffic Impact Study (TIS) per Section 2.3.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, the development also qualifies for a waiver of that requirement per Section 2.3.2 of the Standards and Regulations if the developer chooses to pay the Area Wide Study Fee in lieu of doing a TIS. The fee in this instance would be $10,210 and would be payable when the Record plan is submitted for review. Payment of the fee would not exempt them from making off-site improvement or, in itself, exempt them from any County requirement for a TIS.

- The site entrance must be designed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access, which is available at http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf. DelDOT recognizes that the specific entrance improvements necessary are still under discussion following the pre-submittal meeting we held with the developer and their engineer on March 7. Presently, however, they anticipate requiring entrance improvements that include but are not limited to the following:

  - A protected left turn lane along Old Landing Road at the site entrance. According to the approved entrance plan for The Landing, dated August 15, 1985, the entrance for Landing Drive has a bypass lane. Since the entrance for Redden Farm is directly across from Landing Drive, a protected left turn lane will be required.

  - A deceleration lane along Old Landing Road for the site entrance.

  - Bicyclist and pedestrian facilities.

- Off-site improvements will be required in accordance with Section 3.10.2 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access. DelDOT recognizes that the specific off-site improvements necessary are still under discussion following the pre-submittal meeting held with the developer and their engineer on March 7. Presently, however, DelDOT anticipates requiring off-site improvements that include but are not limited to the following:

- An overlay along Old Landing Road, in which the overlay thickness will be determined at a later date. The limits of the overlay would be along the property frontage.

- Widening of Old Landing Road to provide 11-foot wide travel lanes and 5-foot wide shoulders. The limits of the widening would be along the property frontage.

- Execution of a signal agreement or Traffic Revolving Fund agreement for the intersection of Old Landing Road, Warrington Road and Strawberry Way.

- Execution of an agreement with DelDOT to contribute towards improvements to the intersection of Old Landing Road, Warrington Road and Strawberry Way.

- In accordance with Section 3.4.1.2 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Record Plan should show all existing entrances (residential/commercial) within 400-feet of the proposed site entrance.

- In accordance with Section 3.10 of the Standards and Regulations for Subdivision Streets and State Highway Access, the required off-site improvements and when they are warranted will need to be shown on the Record plan by note or illustration.

- Referring to the Standards and Regulations for Subdivision Streets and State Highway Access, Appendix J – General Notes for Construction Plan, the standard general notes for a major subdivision will need to be included on the record plan.

- In accordance with Section 5.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the sight distance triangle is required to be shown on the record plan.

- In accordance with Section 3.6.5 and Figure 3-3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require dedication of right-of-way along the site's frontage on Warrington Road (Sussex Road 275) to provide a minimum of 40 feet of right-of-way from the road centerline and on Old Landing Road Road (Sussex Road 274) to provide a minimum of 30 feet of right-of-way from the road centerline. From the concept plan presented, it appears that the developer's site engineer has accounted for this requirement already.

- In accordance with Section 3.6.5 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage on both Old Landing Road and Warrington Road for future 10-foot wide pedestrian/bike paths. The location of the easement shall be outside the limits of the ultimate rights-of-way for both roads. 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 for a future 10-foot wide multi-use path is hereby established, as per this plat.**" From the concept plan presented, it appears that the developer's site engineer has accounted for this requirement already.

- In accordance with Section 4.8 of the Standards and Regulations for Subdivision Streets and State Highway Access, a 20-foot wide buffer will be required from the edge of any stormwater management pond to the ultimate right-of-way of the nearest State-maintained road. The ultimate right-of-way is based on the functional classification of the road. From the concept plan presented, we do not see a problem in this regard.

- As specified in Section 3.4.1.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, a traffic generation diagram is required on the Record Plan.

- In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a record plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:

  Copy of the Initial Stage Fee Calculation Form
  Copy of the Initial Stage Review Fee
  Gate-Keeping Checklist – Site Plan
  Design Checklist – Record Plan
  Sight Distance Spreadsheet
  Auxiliary Lane Spreadsheet
  Owners and Engineer's name and e-mail address
  Three (3) paper sets of the Record Plan
  Conceptual Entrance Plan
  CD with a pdf of the Site Plan
  Submission of the Area-Wide Study Fee (if applicable)

- Referring to the "*Standards and Regulations for Subdivision Streets and State Highway Access*", Chapter 4 – Construction Plans, Section 4.3: Subdivision Construction Plan Checklist or Section 4.4: Commercial Entrance Plan Checklist, an entrance plan shall be prepared prior to issuing entrance approval. The following information will be required for Subdivision/Entrance Plan review;

  Copy of the Construction Stage Fee Calculation Form
  Copy of the Construction Review Fee
  Gate-Keeping Checklist – Entrance Plan
  Design Checklist – Entrance Plan
  Three (3) paper sets of the Entrance Plan
  SWM Report and Calculations (If applicable)
  CD with a pdf of the Entrance Plan

Department of Natural Resources and Environmental Control – Contact Bahareh van Boekhold 735-3495

Wetlands

- State regulated wetlands ARE NOT located on this property based on a review of the State wetland maps. State regulated wetlands are those wetlands identified on the State's official State Regulated Wetland Maps. Additional information about State regulated wetlands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx

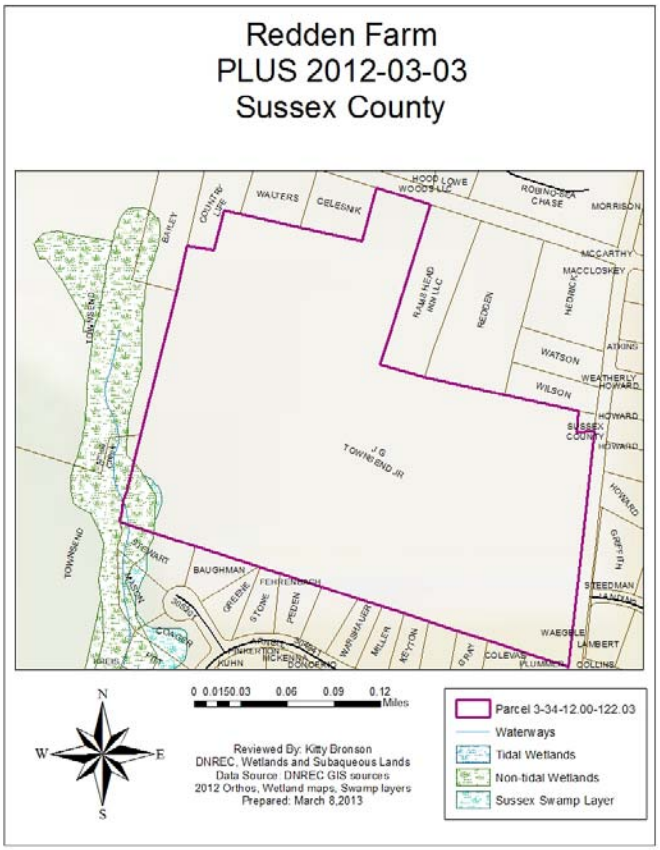
- State regulated subaqueous lands ARE likely to be located on this property based on a review of aerial photographs, State Wetland Mapping Project (SWMP) maps, Soil Surveys and/or USGS topographic maps. A water line is indicated at the SW edge of the property. If this area of the property may be impacted either temporarily by construction or permanently by structure, a jurisdictional determination by DNREC should be done. Please be sure to check the buffer zones required for subaqueous lands. 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. Additional information about State regulated subaqueous lands is available by contacting the Wetlands and Subaqueous Lands Section at (302) 739-9943 or on line at: http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx

- Waters of the U.S. regulated by the U.S. Army Corps of Engineers ARE likely to be located on this property based on a review of aerial photographs, SWMP maps, Soil Surveys and/or USGS topographic maps. According to our GIS SWMP maps, there wetlands regulated by the U.S. Army Corps of Engineers on the SW edge of the property. DNREC suggests contacting them for an on-site inspection. Please be sure to check the buffer zones required for wetlands.

  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.

  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 *low nutrient reduction* zone of the greater Inland Bays watershed. In this watershed, Total Maximum Daily Load (TMDL) pollutant reduction targets have been developed by the State of Delaware (under the auspices of Section 303(d) of the 1972 Federal Clean Water Act) for nutrients (e.g., nitrogen, phosphorus), and bacteria. 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 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 *low reduction* zone of the Inland Bays watershed calls for 40 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 40 percent reduction in bacteria from baseline conditions.

- A nutrient management plan is required under the *Delaware Nutrient Management law (3 Del. 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 739-4811 for further information concerning compliance requirements or view the following we blink for additional information: http://dda.delaware.gov/nutrients/index.shtml

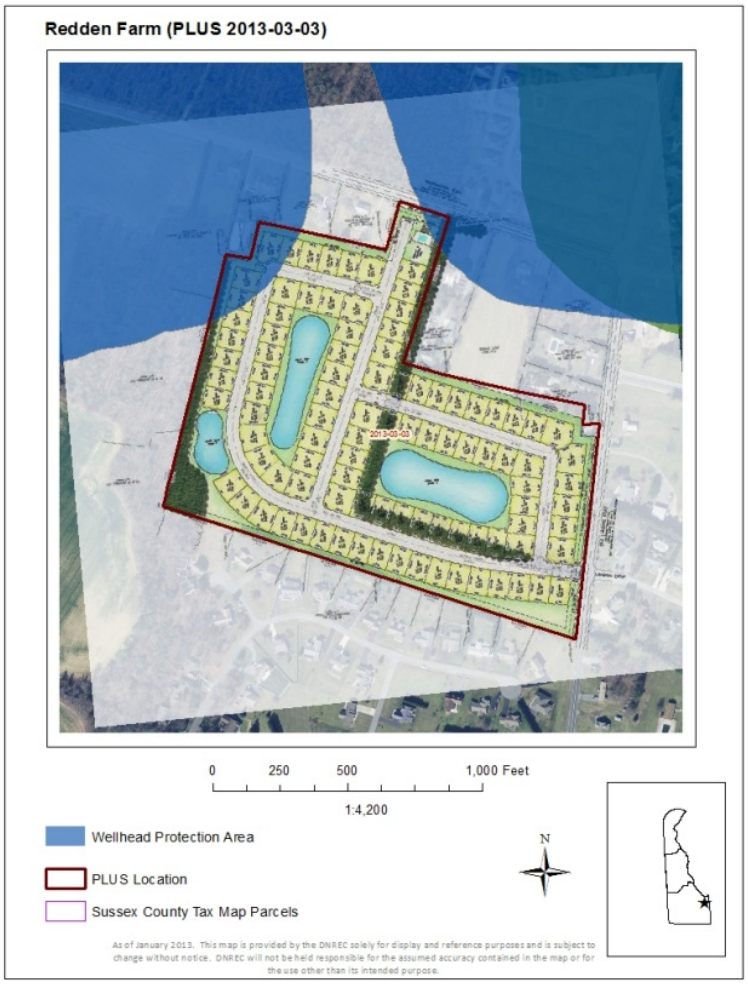
- The adopted Inland Bays Pollution Control Strategy regulation was published in the Delaware Register of Regulations on November 11, 2008 and is now an enforceable regulatory directive. A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary (regulatory and nonregulatory) to systematically reduce the pollutant loading to a given water body, and meet the TMDL reduction requirements specified for that water body. These regulations can be reviewed at http://regulations.delaware.gov/documents/November2008c.pdf and background information, guidance documents, and mapping tools can be retrieved from http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/ib_pcs.htm.

Water Resource Protection Areas

- The DNREC Ground-Water Protection Branch (GPB) has determined that that portions of the parcel falls within two wellhead protection areas for Sussex County (see map). The wellhead protection areas protect wells owned by the City of Rehoboth.

- Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where land use activities or impervious cover may adversely affect the quantity and quality of ground water moving toward such wells. Limitations to development within these areas are contained in the Sussex County source water protection ordinance.

- In addition, because the wellhead protection area is an existing source of public drinking water, the storage of hazardous substances or wastes should not be allowed within these areas unless specific approval is obtained from the relevant state, federal, or local program.



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 project 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 Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

- The concept plan does not show access to proposed stormwater management ponds 1 & 2. A 20 foot wide maintenance access way needs to be provided from the street to each of the stormwater management ponds.

Hazardous Waste Sites

- 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.

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 to your project:

Table 1: Potential Regulatory Requirements

Regulation	Requirements
7 DE Admin. Code 1106 - Particulate Emissions from Construction and Materials Handling	• 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	• 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 1144 – Control of Stationary Generator Emissions	• Ensure that emissions of nitrogen oxides (NO_x), non-methane hydrocarbons (NMHC), particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), and carbon dioxide (CO_2) from emergency generators meet the emissions limits established. (See section 3.2). • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive	• Restrict idling time for trucks and buses having a gross vehicle weight of

Idling of Heavy Duty Vehicles	over 8,500 pounds to no more than three minutes.

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

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 Transportation – Contact Bill Brockenbrough 760-2109

- As discussed at the pre-submittal meeting, DelDOT does not recommend or require that regular access on Warrington Road. Gated emergency access, however might be desirable. They recommend that such access be offered to the local fire company.

- What is the status of the 3.388-acre Residual Lands parcel? If it has the potential to be subdivided for further residential development, DelDOT would may require that a stub street be provided to it from the subdivision now proposed to avoid the need for an additional access on Warrington Road.

- Please check to determine if any utilities will need to be relocated as part of this project. DelDOT is aware from the discussion at the pre-submittal meeting that several utility poles may need to be relocated. This comment is to address these poles, the lines on them and any underground utilities that might be affected.

- The developer should anticipate a requirement that any sub-station and/or wastewater facilities have access from the internal subdivision streets with no direct access to the State-maintained highway.

- Consistent with Section 3.6.4 of DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT recommends that right-of-way monuments be placed along the private subdivision streets.

- All PLUS comments should be addressed prior to submitting record, subdivision or entrance plans for review.

- DelDOT anticipates having additional comments once the site and entrance plans are submitted for review.

Department of Natural Resources and Environmental Control – Contact Bahareh van Boekhold 735-3495

Soils Assessment

- Based on soils survey mapping update, following soil mapping units were mapped on subject parcel (grouped on the basis of drainage class):

  Well drained – Greenwich (GrA & GrB),
  Poorly drained (likely hydric) – Hurlock (HvA)

- Based on the soil survey mapping, Hurlock is the soil mapping units likely to have the most limitations for development on this site. Hurlock is a poorly-drained wetland associated (hydric) soil mapping unit with severe limitations for development (considered unsuitable for development).

- The Statewide Wetland Mapping Project (SWMP) often uses the soil survey as the basis for mapping and delineating wetlands The presence of a hydric soil is one of three parameters that must be met in order to meet jurisdictional wetland requirements (as specified by the USACOE). The other parameters are hydrophytic vegetation and hydrology. Thus the presence of hydric soils is a correlate with wetland presence. Building on hydric soils (i.e., Hurlock) is likely to increase the potential for on-site and off-site flooding potentials (See figure 1). We strongly recommend avoiding those areas containing hydric or potentially hydric soil mapping units.

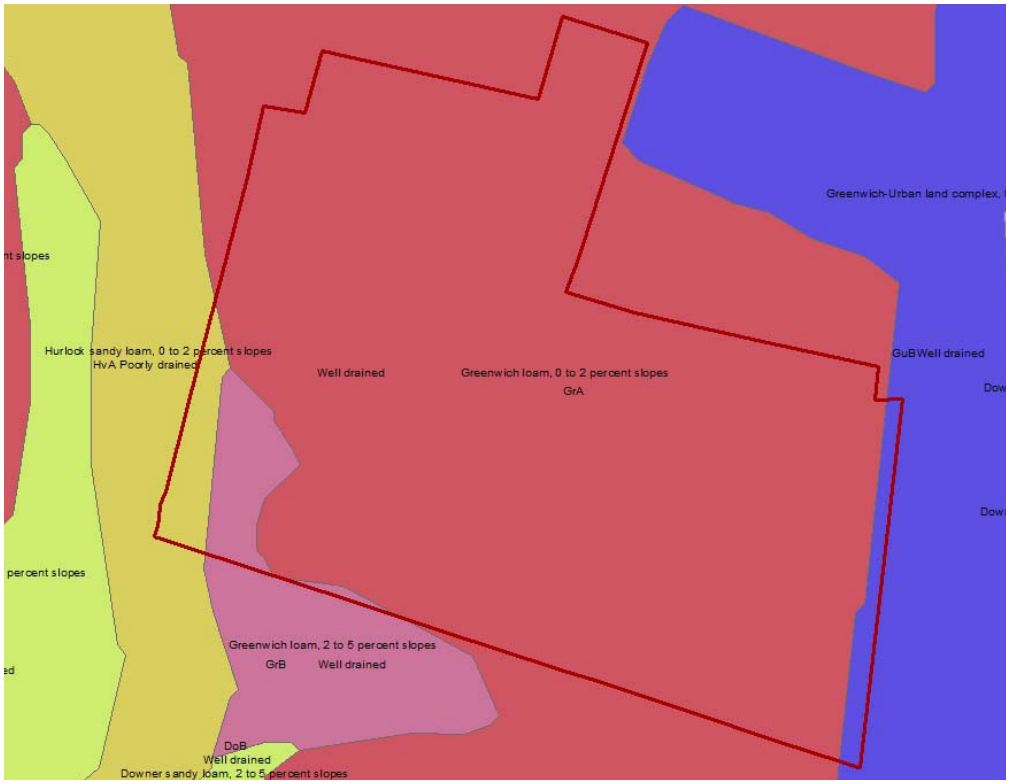


Figure 1: NRCS soil survey mapping update in the vicinity of the proposed construction.

Additional information on TMDLs and water quality

- The adopted Inland Bays Pollution Control Strategy regulation was published in the Delaware Register of Regulations on November 11, 2008 and is now an enforceable regulatory directive. A Pollution Control Strategy (PCS) is an implementation strategy that identifies the actions necessary (regulatory and no regulatory) to systematically reduce the pollutant loading to a given water body, and meet the TMDL reduction requirements specified for that water body.

- 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:

  - A United States Corps of Engineers (USACE) approved wetlands delineation is strongly recommended. According to information presented in the PLUS application, an approved wetlands delineation was conducted - however, it was not made available to DNREC at the time of review.

- Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review.* J. Environ. Qual. 23: 878-882.), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands (field delineated and approved by the USACE). Therefore, the 25- foot buffer proposed by the applicant from streams and wetlands is insufficiently protective of water quality**.**

- DNREC encourages the applicant to 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, and roads) included in the calculation.

- Wherever practicable, DNREC advises the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP(s) to reduce the impacts from all forms of created surface imperviousness.

- DNREC encourages the use of rain gardens, and green-technology storm water management structures (in lieu of open-water management structures) as BMPs to mitigate or reduce nutrient and bacterial pollutant impacts via runoff from impervious surfaces.

- The applicant should voluntarily 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) that result from the conversion of individual or combined land parcels to a different land use(s), while providing applicants with quantitative information about their project's impact(s) on baseline water quality. DNREC strongly encourages the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact Jen Walls or John Martin at (Division of Watershed Stewardship) at 302-739-9939 for more information on the protocol.

Riparian Buffers

- This project occurs at the headwaters of a tributary that empties into Love Creek and wider buffers (at least 100 foot) that are more protective of water quality are highly recommended. Riparian buffers also provide corridors for wildlife as they move across the landscape during daily and migratory behaviors. These buffers can support the survival of many species by providing sources of food and water, providing protective cover from predators and shelter from harsh weather, and reconnecting isolated

populations. Research studies show a great number of songbirds, game birds, small mammals, reptiles and amphibians, and other wildlife use corridors as a regular part of their life cycles. While 100 foot is recommended for water quality, buffers necessary to support wildlife can be much wider so 100 foot is the minimum recommended. In order to implement this recommendation, the site plan would need to be reconfigured.

Additional information on hazardous waste sites

- DNREC's Site Investigation and Restoration Section (SIRS) 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). SIRS 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 sustainable growth practices in their design, but we believe, however, that all the air quality impacts associated with the project should be considered. New homes and businesses 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 from new businesses 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 your homes and commercial space, 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 the application and data taken from the ITE Trip Generation Manual, 8th Edition. Table 2 – Projected Air Quality Emissions represents the actual impact the Redden Farm project may have on air quality.

Table 2: Projected Air Quality Emissions for Redden Farm

Emissions Attributable to Redden Farm (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 emissions	4.4	4.6	0.1	0.1	2,866.8
Power emissions	*	1.2	4.1	*	610.5
Area Source emissions	3.0	0.3	0.3	0.4	12.2
Total emissions	7.4	6.1	4.5	0.5	3,489.5

(*) *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.

- 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 which 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 excellent way to save on energy costs and reduce air pollution.

  - **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.

  - **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system**. These measures can significantly reduce mobile source emissions. **For every vehicle trip that is replaced by the use of a sidewalk, a bike path or mass transit, 7 pounds of VOC and 11.5 pounds of NOx are reduced each year.**

  - **Using retrofitted diesel engines during construction**. This includes equipment that are on-site as well as equipment used to transport materials to and from site.

  - **Using pre-painted/pre-coated flooring, cabinets, fencing, etc**. These measures can significantly reduce the emission of VOCs from typical architectural coating operations.

  - **Planting low VOC emitting trees in vegetative buffer areas**. Trees reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, thereby 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 Redden Farm project.

Delaware Department of Education – Contact Despina Wilson 735-4199

- The DOE requests that the developer work with the affected School District's transportation department to establish developer supplied bus stop shelter ROW.

- The DOE recognizes the integral role of educational facilities within communities. As such, the DOE seeks to assure that residential growth, that generates additional demand on educational facilities, is managed with adequate educational infrastructure being made a part of sub-division plans as appropriate, such as adequate width of roads to accommodate school buses and designated pick up and drop off sites.

- DOE records indicate that the Cape Henlopen School Districts' elementary schools are at or beyond 100% of current capacity based on the September 30, 2012 elementary enrollment.

- As such, the DOE requests that the developer contact the affected School District administration to address the issue of school over-crowding that this development has the potential to cause.

Department of Agriculture – Contact Scott Blaire 698-4529

- The Delaware Department of Agriculture Forest Service encourages the developer to use the "Right Tree for the Right Place" for any design considerations. This concept allows for the proper placement of trees to reduce heating and cooling costs. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource. To further support this concept the Delaware Forest Service does not recommend the planting of the following species due to the high risk of mortality from insects and disease:

Callery Pear	Ash Trees
Leyland Cypress	Red Oak (except for Willow Oak)

  If you would like to learn more about the potential problems or impacts associated with these trees, please contact the Delaware Forest Service for more information at (302) 698-4500.

Native Landscapes

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

to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

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

Sincerely,

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

CC: Sussex County