



**STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION**

June 19, 2012

Mr. Steve Marsh
George, Miles, & Buhr, LLC
206 W. Main Street
Salisbury, MD 21801

RE: PLUS review – 2012-04-03; Marina at Pepper Creek

Dear Mr. Marsh:

Thank you for meeting with State agency planners on May 23, 2012 to discuss the proposed plans for Marina at Pepper Creek project to seek approval through Sussex County to add 16 units to the previously approved 122 units located off Piney Neck Road, east of Marina Road near Dagsboro.

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 2 according to the 2010 Strategies for *State Policies and Spending*. 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

- Both of these parcels are in an area where there are known historic resources in the vicinity. There does not seem to be any known historic resources on or near the northern parcel, which is across Piney Neck Road, adjacent to the southern parcel. However, on the southwest side of the southern parcel, there was a dwelling (S-4408). According to

the USGS Topographic Map of 1918, this dwelling was probably built between the late 19th and early 20th-century, however, it may or may not be there anymore. Furthermore, not too far away, towards the southeast side of the parcel, there is also a known archaeological site (S-6935, 7S-K-034) and the S. Collins & Bro. S.S. Mill and Dwelling Complex (S-4409). The Pomeroy and Beers Atlas of 1868 shows and indicates that the S. Collins & Bro. S.S. Mill did exist near the parcel, and there is a possibility that there may be potential archaeological remains associated with it as well. With this in mind, it is very important that the developer be aware of Delaware's 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, and often they are on historic farm sites, rural areas or open space lands. Disturbing unmarked burials triggers 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. The Division of Historical & Cultural Affairs recommends that owners and/or developers have a qualified archaeological consultant investigate their project area for the presence of such a cemetery. If a cemetery is discovered, it is very costly to have it archaeologically excavated and the burials moved. In the event of such a discovery, the Division of Historical & Cultural Affairs recommends that the plans be re-drawn to leave the cemetery on its own parcel or in the open space area of the development, with the responsibility for its maintenance lying with a homeowners association or development. If you need or would like to see more information in reference to unmarked human remains or cemeteries, please see the following websites: www.history.delaware.gov/preservation/umhr.shtml and www.history.delaware.gov/preservation/cemeteries.shtml

- Prior to any demolition, ground-disturbing or construction activity, the developer should consider hiring an archaeological consultant to examine the parcel for archaeological sites, such as 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 the 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. Any preconstruction activities without adherence to these stipulations may jeopardize the issuance of a permit or receipt of funding if it is determined that such opportunity to comment has been foreclosed. If you need further information or additional details pertaining to the Section 106 process and the Advisory Council's role, please see the Advisory Council's website at www.achp.gov.

Department of Transportation – Contact Bill Brockenbrough 760-2109

- Please refer to DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access (February 15, 2010) for the design of the site entrance. The website for the Standards and Regulations is http://www.deldot.gov/information/pubs_forms/.
- Much of the land included in the present development proposal was also included in a previously proposed development known as Landings at Pepper Creek. An entrance plan was approved for that development on June 7, 2006. With the proposed change in use, that is the addition of 16 lots, that plan approval will need to be revisited. In accordance with Section 8.6 of the Standards and Regulations the developer will need to obtain both a Letter of No Objection and an entrance plan approval specific to the current development proposal.
- Related to trip generation and traffic impact, we have three comments:
 - When the Landings at Pepper Creek was approved in 2006, DelDOT volume-based warrant for requiring a Traffic Impact Study (TIS) for a residential development was 2,100 trips per day. Consequently, no TIS was done for Landings at Pepper Creek. However, in late 2007 (effective in April 2008) DelDOT adopted revised regulations, lowering the threshold at which TIS are warranted. As specified Section 2.3.1 of the Standards and Regulations, TIS are warranted for developments generating more than 400 trips per day. Accordingly, we anticipate requiring a TIS for the development that is now proposed.
 - Section 2.3.2 of the Standards and Regulations provides that where a TIS is required only because the volume warrants are met, and the projected trip generation will be less than 2,000 vehicles per day and less than 200 vehicles per hour, DelDOT may permit the developer to pay an Area Wide Study Fee of \$10 per daily trip in lieu of doing a TIS. While we have not made a final decision, that may be an option in this case.
 - Section 3.9 of the Standards and Regulations provides that in evaluating access, DelDOT may require an Operational Analysis. While it is not contained in our regulations, DelDOT uses a threshold of 200 daily trips to determine when to begin considering the need for an Operational Analysis. A decision in this regard will be made at the pre-submittal meeting discussed below.

- As indicated on the DelDOT Meeting Request Form, available at <http://www.deldot.gov/information/business/>, because the site would generate more than 200 trips per day, a pre-submittal meeting is required. The purpose of such meetings, similar to PLUS meetings, is to identify problems with your plan so that they can be corrected before the plan enters our formal plan review process. Please complete and submit the form to request such a meeting.
- Referring to the Standards and Regulations, Section 3.4.1, Traffic Information, a traffic generation diagram is required.
- Section 3.4.1.2 of the Standards and Regulations specifies that for roadways with a posted speed limit of 45 miles per hour, such as Piney Neck Road, all adjacent entrances within 450 feet of the site entrance must be shown on the site plan.
- Referring to the Standards and Regulations, Section 3.6.5, Dedication of Right-Of-Way, and Figure 3-3, Minimum Standards for Total Roadway Right-Of-Way, Piney Neck Road is a Local Road, which requires a 60-foot right-of-way (30 feet from road centerline). Therefore, DelDOT will require additional right-of-way dedication in order to obtain the required 30 feet from the centerline along the entire property frontage. The right-of-way dedication note should read as follows, **“A 30’ strip of right-of-way from the centerline of right-of-way is hereby dedicated to public use as per this plat.”**
- Referring to the Standards and Regulations, Section 5.1.6, Shared Use Path, a 15-foot wide permanent easement will need to be established across the property frontage for a future 10-foot wide multi modal path. The location of the easement shall be outside the limits of the ultimate right-of-way for the road. 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-modal path is hereby established, as per this plat.”**
- Referring to the Standards and Regulations, Section 1.4, Review Fees, the Initial Stage and Construction Stage review fees will be assessed for this project.
- In accordance with Section 3.4 of the Standards and Regulations, when submitting a site plan to obtain a Letter of No Objection for this project, following information will be required:

Initial Stage Fee Calculation Form
Initial Stage Review Fee
Gate-Keeping Checklist – Site Plan
Design Checklist – Record Plan*
Owners and Engineer’s name and e-mail address
Three (3) paper sets of the Site/Record Plan
Conceptual Entrance Plan

CD with a pdf of the Site/Record Plan
Submission of the Area-Wide Study Fee (If applicable)

*For the design checklist for the site plan, please refer to the Standards and Regulations, Appendix D, Checklist for Subdivision Record Plan Approval.

- Referring to the Standards and Regulations, Section 4.4, Commercial Entrance Plan Checklist, provides that an entrance plan shall be prepared prior to DelDOT issuing entrance approval. The following information will be required for Entrance Plan review:

Construction Stage Fee Calculation Form
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

**For the design checklist for the entrance plan, please refer to the Standards and Regulations, Appendix D, Plan Review Checklist.

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

Pepper Creek Marina/Water Quality Certification/Subaqueous Lands Permits.

- On July 14, 2011, permits for dredging, modification and expansion of the Pepper Creek Marina were extended to December 31, 2012. The following Permits were issued: MP-403/06, WQ- 402/06, and SL-401/06.

Wetlands

- The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C., Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water's Wetlands and Subaqueous Lands Section at (302) 739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.
- In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C., Chapter 72) and

the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. Please contact the Wetlands and Subaqueous Lands Section at (302) 739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

- When designing a project on a site with regulated watercourses, any extensive piping, filling or burying of streams or ditches in excess of the minimum needed for road crossings should be avoided. Where road crossings are necessary, bridge spans which avoid significant impacts to stream banks and channels should be used wherever possible. Where placement of culverts is unavoidable, culvert designs which utilize multiple barrels at different elevations to preserve a low flow channel are usually preferred. Contact the Wetlands and Subaqueous Lands Section for further information regarding preferred designs.



Figure1: SWMP mapping in the immediate vicinity of the proposed project

TMDLs

- The project is located in the *high 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 *high reduction* zone of the Inland Bays watershed calls for an 85 percent reduction in nitrogen and a 65 percent reduction in 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 web link 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 Supply

- The project information sheets state water will be provided to the project by Tidewater Utilities via a central water system. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 09-CPCN-17 and 04-CPCN-25.
- 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.

Water Resource Protection Areas

- The DNREC Ground Water Protection Branch (GPB) has determined that a portion of the northern area of the project falls within an area of excellent ground-water recharge potential for Sussex County (see map). This area is designated as “open space” on the site plan submitted with the application.
- As “open space”, the portion within the excellent groundwater recharge potential area should remain free of impervious cover. Impervious cover prevents precipitation from infiltrating through the soil to the water table aquifer. Impervious cover refers to structures including but not limited to roads, sidewalks, parking lots, and buildings. Any impervious cover within an area of excellent ground-water recharge potential area has the potential to have a negative effect the quality and quantity of drinking water available.
- Excellent groundwater recharge potential areas are those areas mapped by the Delaware Geological Survey where the first 20 feet of subsurface soils and geologic materials are exceptionally sandy. These soils are able to transmit water very quickly from the land surface to the water table. This map category (excellent) is an indicator of how fast contaminants will move and how much water may become contaminated (Andres, 2004). Land use activities or impervious cover on areas of excellent ground-water recharge potential may adversely affect ground water in these areas.
- As open space, the portion within the excellent groundwater recharge potential area should not be used for the storage of boats, vehicles, or machinery as they have the potential to release contaminants that may have a negative effect the quality and quantity of drinking water available.
- In addition, because the excellent ground water recharge area can readily affect the underlying aquifer if contaminants are spilled or discharged across the area, the storage of hazardous substances or wastes should not be allowed within the area unless specific approval is obtained from the relevant state, federal, or local program.

References

Andres, A. Scott, 2004, Ground-Water Recharge Potential Mapping in Kent and Sussex Counties, Delaware: Delaware Geological Survey Report of Investigations No. 66, p. 14.
<http://www.udel.edu/dgs/Publications/pubform.html#nvestigations>



Sediment and Stormwater Program

- Due to the proposed revisions a revised detailed sediment and stormwater plan may be required. Please 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 the Sussex Conservation District.

Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees. (Title 7, Delaware Code, Chapter 40 and Delaware Regulations, Title 7, Administrative Code, 5101)

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	<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 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).

	<ul style="list-style-type: none"> • Maintain recordkeeping and reporting requirements.
7 DE Admin. Code 1145 – Excessive Idling of Heavy Duty Vehicles	<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.

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

- The proposed streets would necessarily be maintained privately and therefore are outside DelDOT’s jurisdiction. Nonetheless, we recommend that consideration be given to either providing traffic calming along Wild Goose Way or revising the site plan so that lots 53 through 58 do not front on that street. As proposed, those six lots are the only lots that would front on Wild Goose Way, and given the site layout, DelDOT would expect this street to carry higher volumes at higher speeds than the other streets in the development.
- The developer’s engineer should determine whether any utilities will need to be relocated as part of this project. The developer should expect a requirement that any utility relocations necessary for their entrance construction be done prior to DelDOT issuing an entrance permit.
- The developer should expect a requirement for a 20-foot wide buffer from the edge of any stormwater management pond to the ultimate right-of-way line of Piney Neck Road, that is, in accordance with Section 3.6.5 in the Standards and Regulations, a line 40 feet from the centerline of the roadway.
- The developer should expect a requirement that the following note be added to the plan concerning the maintenance responsibility of the multi-use path, “The multi-use path shall be the responsibility of the developer, the property owners within this subdivision or both. The State assumes no responsibility for the future maintenance of the multi-use path.”

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

Recommendations

Additional information on TMDLs and water quality

- Maintain as much of the existing forest cover as possible. We further recommend additional native tree and native herbaceous planting wherever possible.
- A United States Army Corps of Engineers (USACE) approved wetlands delineation is strongly recommended. According to the PLUS application, a Corps-approved wetlands delineation was conducted; however, it was not 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, DNREC recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands.
- The applicant should 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.
- Since this is a large project that will likely generate a great amount of impervious cover, we strongly advise the use of pervious paving materials (instead of conventional asphalt and concrete) as a BMP to reduce the impacts associated with surface imperviousness, wherever practicable.
- We recommend 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 (e.g., nitrogen and phosphorus) and bacterial loading 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. We encourage the applicant/developer

use this protocol to help them design and implement the most effective BMPs. Please contact Lyle Jones at 302-739-9939 for more information on the protocol.

Confined Dredged Material Storage Facility

- There may have been a confined dredged material storage facility located on this property constructed and used for a contractual dredging project by the previous or current owner(s). We recommend a review of the Wetlands and Subaqueous Lands Section records to determine if this is the case. Please contact their office at (302) 739-9943.

Potential Ancient Sand Ridge Forest

- A review of our database indicates that there are currently no records of State-rare or federally listed plants, animals or natural communities on tax parcel 233-7-28.02. However, the 13.4 acre parcel on the opposite side of Piney Neck Road, currently designated as open space, could potentially support an ancient sand ridge forest according to our GIS database. The presence of this rare forest type would have to be field confirmed. This forest type develops on well-drained sandy substrates of ancient, prehistoric sand ridges or dunes. These ridges are unique geologic features on the landscape that were created by wind-blown sediments about 13,000 to 30,000 years ago when the climate was much cooler and drier. The forests are typically composed of several species of oak, as well as species of hickory and pine.
- Many of these ridges have been identified as occurring along the east side of the Nanticoke River, south of Seaford. However, their distribution in Delaware is not entirely clear and they may be more widespread in Sussex County, as well as in Kent County, but more study is needed. The ancient sand ridge forest type is often home to several state rare plant species and one species in particular, wild lupine (*Lupinus perennis*), is the host plant for a State and globally rare butterfly, the frosted elfin (*Callophrys irus*). More surveys are needed, but there is potential for other rare and uncommon insects and animals to be found within this forest type. Protection of these ancient sand ridges and associated forests are critical to the long term conservation of the State's natural heritage.
- It is not clear from the application what the intended use of this open space is or if there will be development of amenities within this area. We recommend that this parcel be left intact and preserved as open space with minimal disturbance.

Marina-Fisheries Concern

- The site plan depicts five piers with a number of boat slips, but other than the name of the development there is no reference to a marina or a description of the facility. Apparently the marina is going to be phased in over time along with portions of the development; however, cumulative impacts from the entire project should be considered from the onset. In addition, the applicant should be aware that when applying for a permit for the

marina, a time of year restriction on construction may be recommended to protect important fish species that utilize this area of the river.

Additional information on hazardous substances

- The 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). 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 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 homes 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 new homes, and
 - All transportation activity.

- Based on the information provided, the three air emissions components (i.e., area, electric power generation, and mobile sources) for this project were quantified. Table 2 – Projected Air Quality Emissions represents the actual impact the Marina at Pepper Creek project may have on air quality.

Emissions Attributable to Marina at Pepper Creek (Tons per Year)	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO ₂)	Fine Particulate Matter (PM _{2.5})	Carbon Dioxide (CO ₂)
Area Source	4.3	0.5	0.4	0.5	17.3
Electric Power Generation	*	1.7	5.9	*	868.6
Mobile Source	6.3	6.6	0.2	0.1	4,078.6
Total Emissions	10.6	8.8	6.5	0.6	4,964.5

(*) 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.
- DNREC 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 while at the same time protect our diminishing land base;
 - 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 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 trees in vegetative buffer areas.** 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 development. The applicant should submit a plan to the DNREC Division of Air Quality which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Marina at Pepper Creek project.

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

- At this time there are no additional items or requirements aside from those in the previous review of “The Landings at Pepper Creek” (2004-10-03), dated October 27, 2004.

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

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

Sincerely,

A handwritten signature in cursive script that reads "Constance C. Holland". The signature is written in black ink and is positioned above the printed name and title.

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

CC: Sussex County