

Besides its location in Investment Level 4, DNREC has some significant concerns about this project and its impact on water quality, flooding and wildlife habitat, including:

- This entire parcel is located in a Special Flood Hazard Area, with the main road in and out of the property also located in a floodplain;
- The placement of several docks in tidal wetlands;
- An apparent underestimation of impervious cover; and
- Habitat for regulated species, including the Great Blue Heron and Delmarva Fox Squirrel

### **Investment Level 4 Policy Statement**

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and County certified comprehensive plans. According to the *Strategies*, this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional State investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner's Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC's programs. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project's conflict with our State growth strategies.

### **Green Infrastructure**

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

## **Island Farms**

**2008-12-07**

Page 2 of 13

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

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

### **Soils**

According to the Sussex County soil survey update, Downer, Ingleside, Rosedale, Zekiah, Longmarsh, and Transquaking-Mispillion complex were mapped in the immediate vicinity of the proposed construction. Downer, Ingleside, and Rosedale are well-drained upland soils that, generally, have few limitations for development. Zekiah, Longmarsh, and Transquaking-Mispillion complex are very poorly-drained wetland associated (hydric) floodplain soils that have severe limitations for development.

### **Wetlands**

- 1) The State-regulated wetlands do not appear to be accurately depicted on the project plans. The Wetlands and Subaqueous Lands section should be contacted to verify the State wetland line on the subdivision plan.
- 2) The developer should contact Sussex County to ensure that they are in compliance with the County's buffer requirements from tidal wetlands.
- 3) It is highly unlikely that the dock/pier/wetland walkways that provide water access to the Broadkill could be permitted as shown. Alternative water-access ideas for the community could be discussed at one of the monthly Joint Permit Processing (JPP) meetings.

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 Resources' 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.

## **Island Farms**

**2008-12-07**

Page 3 of 13

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.

The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE, or “the Corps”) manual is the acceptable basis for making a jurisdictional wetland determination for nontidal wetlands in Delaware. The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations.

To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant’s consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

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.

### **Impervious Cover**

The applicant estimates this project’s post-construction surface imperviousness to reach 16 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout) this estimate appears to be a significant underestimate. When calculating surface imperviousness it is important to include all forms of constructed surface imperviousness, such as: all paved surfaces including rooftops, sidewalks, driveways, and roads; open-water stormwater management structures swimming pools and ponds; and all area(s)

containing a community wastewater disposal system; this will ensure a realistic assessment of this project's likely post-construction environmental impacts. Surface imperviousness, therefore, should be recalculated to reflect all of the above-mentioned forms of surface imperviousness in the finalized calculation. Failure to do so will significantly understate this project's true environmental impacts. **Note:** Wetlands should be excluded from the parcel's total open space area when calculating the parcel's total surface imperviousness.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of this project's most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness. Since this is a commercial project, it is strongly recommended that the applicant employ pervious paving materials, in lieu of conventional paving materials, for at least 50 percent of this project's total paved surface area.

### **TMDLs**

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Broadkill watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. In the Broadkill watershed, "target-rate-nutrient reductions" of 40 percent will be required for nitrogen and phosphorus. Additionally, "target-rate-reductions" of 75 percent will be required for bacteria.

### **TMDL Compliance through the PCS**

As indicated above, TMDLs for nitrogen and phosphorus have been proposed for the Broadkill watershed. The TMDL 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 Pollution Control Strategy (PCS) will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of BMPs such as increasing the amount of passive, wooded open space (planted with native woody and herbaceous vegetation), use of pervious paving materials to reduce surface imperviousness, connection to central sewer (if available), and the deployment of green-technology stormwater

management treatment technologies. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

### **Water Supply**

The project information sheet state water will be provided by Artesian Water Company via a central water system. Our records indicate that part of this project (Parcel Identification 2-35-9-24.00) is located in an area where public water service is not available; however, the other part of this project (Parcel Identification #'s 2-35-9-21.03) is located within the public water service area granted to Artesian Water Company under CPCN 06-CPCN-45. Information on CPCN requirements and applications can be obtained by contacting the Public Service Commission at (302)736-7547. Should an on-site public well be needed, a minimum isolation distance of 150 feet is required between the well and any potential source of contamination, such as a septic tank and sewage disposal area, furthermore, they must be located at least 150 feet from the outermost boundaries of the project(s). The Division of Water Resources will consider applications for the construction of on-site wells provided the wells can be located and constructed in compliance with all requirements of the Regulations Governing the Construction and Use of Wells. A well construction permit must be obtained prior to constructing any wells.

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

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

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

### **Water Resource Protection Areas**

The DNREC Water Supply Section has determined that it does not fall within any delineated areas of excellent ground-water recharge. The review did show that a minute portion in the north tip of falls in a wellhead protection areas or (see map).

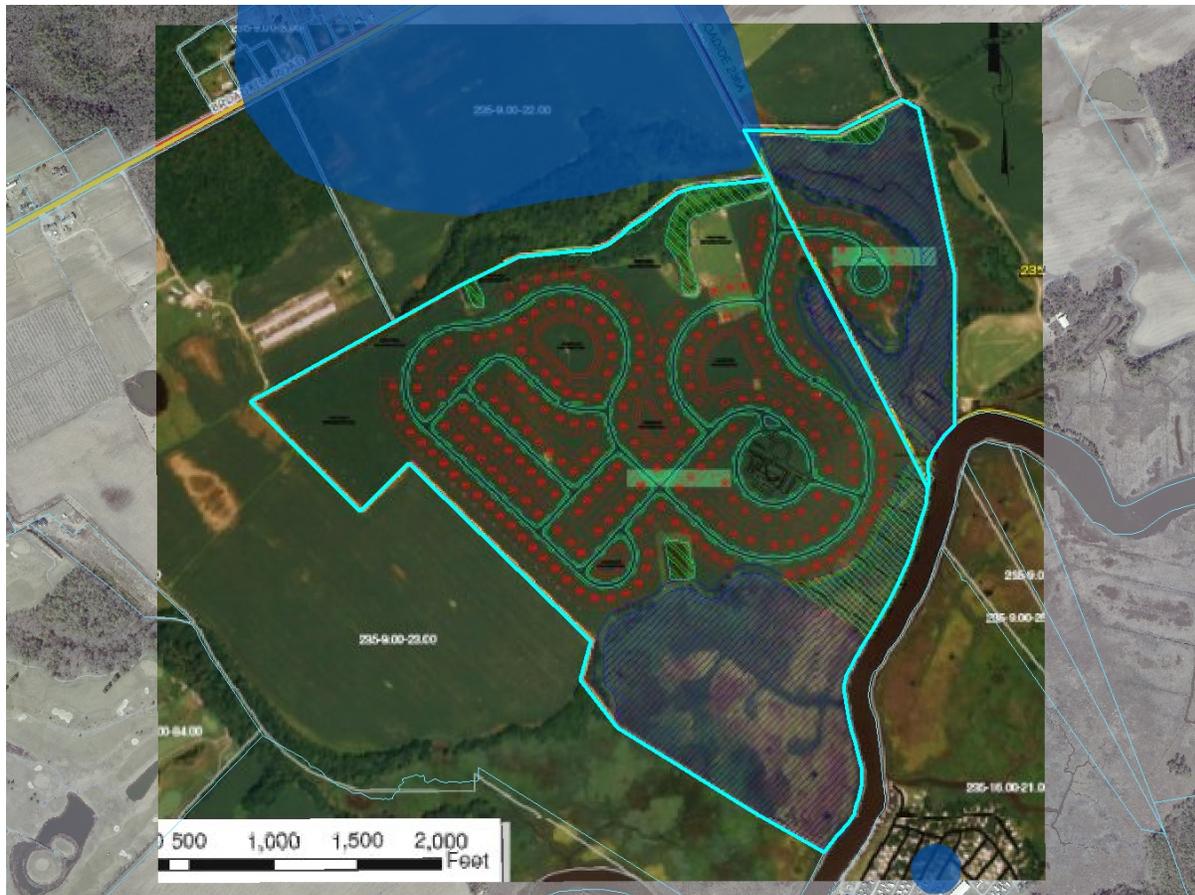
The site plan shows this area as wetlands and without development.

## Island Farms

2008-12-07

Page 6 of 13

**Map of Island Farms (PLUS 2008-12-07)** The wellhead protection area is shown in blue.



### Sediment and Stormwater

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.
- Because of the parcel's location in an impaired watershed and the amount of impervious surface, green technology BMPs and low impact development practices should be considered a priority to reduce stormwater flow and to meet water quality goals. The

Sediment and Stormwater Management Program ensures sediment and erosion control plans and stormwater plans comply with local land use ordinances and policies, including the siting of stormwater management facilities. However, we do not support placement in resource protection areas or the removal of trees for the sole purpose of placement of a stormwater management facility/practice.

### **Drainage**

- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project.
- Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any subsequent owner of the property, will be fully aware of the drainage easement on their property.

### **Floodplains**

This entire parcel is located in a Special Flood Hazard Area. We do not recommend placing 242 units in a floodplain with the main road in and out of the property also located in a floodplain. Statistically there is a 26% chance of a flood occurring in this area during the life of a typical 30 year mortgage.

### **Site Visit Request**

Our program scientists request the opportunity to conduct a survey of these parcels to evaluate the forested habitat, especially for use by Great Blue Heron (*Ardea herodias*). A field visit in April would be optimal as this species would be actively breeding and nesting at that time, making it easier to detect. This state-rare bird nests in colonies referred to as a heronry. It is protected by the federal Migratory Bird Treaty Act, which prohibits the destruction of native migratory birds, their nests, eggs and young. They are also protected by Delaware State Code, Title 7.

Hérons that were breeding in a nearby forest abandoned the site when construction of a golf course created disturbance. It is possible that they relocated to the riparian forest that occurs within the project parcels. There are only 6 known heronries in Delaware and the success of each one is important to the current and future status of this species in Delaware. The survey would be conducted at no expense to the landowner/developer. Please contact Edna Stetzar at (302) 653-2880 ext. 101 or at [Edna.Stetzar@state.de.us](mailto:Edna.Stetzar@state.de.us) if our scientists can survey the site.

## **Delmarva Fox Squirrel**

There are lot lines and other project activities proposed within or in close proximity to the forest. Because your project lies within the area where Delmarva fox squirrels (*Sciurus niger cinereus*, DFS) are likely to occur, you must contact the U.S. Fish and Wildlife Service. Delmarva fox squirrels are large-bodied tree squirrels that only inhabit mature forests on the Delmarva Peninsula. Threatened mainly by loss of its forested habitat, DFS have been protected as an endangered species since 1967. As required by the Endangered Species Act, the U.S. Fish and Wildlife Service reviews projects that may harm this species or their habitat. Based on past movement data, the Service only requires consultation on projects within 3 miles of known DFS populations.

Contact Trevor Clark of the U.S. Fish and Wildlife Service (410-573-4527) to learn how to avoid impacting the habitat. He may recommend simple alterations to your project or suggest you have surveys conducted to determine if Delmarva fox squirrels are present. If you have surveys conducted, they must be done by a federally approved fox squirrel surveyor, be conducted twice; once in the fall, and again between March 15 and May 30. A list of qualified surveyors is available upon request. Please note that surveys may confirm the presence of fox squirrels but cannot confirm absence.

## **Fisheries Habitat Issue**

The excessive number of docks being proposed will extend through wetlands and along the shore of the Broadkill River. Not only will these docks fragment a large area of wetlands, they will also replace shoreline habitat with man-made structure. The cumulative impacts from these projects may detrimentally impact fisheries in several ways: 1) alteration of shoreline habitat can affect the distribution of benthic and macro-invertebrates which serve as the forage base for many fish species, 2) directly impact important nursery habitat by replacing natural habitat with man-made materials along the shoreline and 3) limit the use of this shoreline by anglers fishing from the river. Cumulative impacts should be considered, especially future erosion problems that may occur as the result of placing docks along the shoreline where currently there are none. If erosion becomes a problem and shoreline stabilization (i.e. rip-rap) becomes desirable, even more fisheries habitat will be impacted.

## **Nuisance Species**

### *Mosquitoes*

Development projects that result in increased housing densities within 2 miles of large expanses of salt marshes or brackish wetlands or within 1 mile of large tracts of freshwater wetlands, can often lead to increased demand for mosquito control services, going beyond what DNREC's Mosquito Control Section currently has the budget or resources to provide. Adverse impacts upon the State's allocation of public funds for mosquito control services must be realistically

recognized (property taxes generated by this development will not result in an increase in the mosquito control operating budget).

Additionally, even though the EPA has scientifically determined that EPA-registered mosquito control insecticides can be applied “without posing any unreasonable risks to human health, wildlife or the environment” (when used in accordance with all product label instructions), avoiding or reducing the use of such pesticides should be employed whenever possible. Limiting development that is too close to wetlands will aide in achieving a reduction in pesticide use.

### *Waterfowl*

Wet ponds created for stormwater management purposes may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds provide an attractive habitat for these species. We recommend native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 ft in width) around the ponds (planted in accordance with the Sediment and Stormwater Plan approval agency requirements). When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond.

At this time, we do not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.

The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

### **Natural Areas**

The forest and wetland areas in this project are currently listed on Delaware's Natural Areas Inventory. Natural Areas contain lands of statewide significance identified by the Natural Areas Advisory Council as the highest quality and most important natural lands remaining in Delaware. Consideration should be given to protecting these resources during design and construction of this project. The developer should investigate dedicating the Natural Area as a Nature Preserve through a conservation easement or donation of land.

In an effort to protect the existing Natural Area on the site, we recommend keeping the lot lines of the subdivision outside of the existing forested area. This would require the removal or

relocation of lots #174 thru #178. By slightly altering the site design, these lots could be relocated in one of two places:

1. The area marked for reforestation on the northwest corner of the parcel

Or

2. In the open area marked for reforestation behind lots #170-172.

This would slightly reduce the amount of area slated for reforestation, but would protect the existing 'older' forested habitat that is currently on site.

Additionally, the area designated as 'nature easement' is located within tidal wetlands that are identified as Natural Area. Every effort should be made to protect these areas. As proposed, placing seven docks through this area would be detrimental to the habitat and compromise the integrity of the Natural Area. We strongly recommend redesigning the plan to include one community dock that could be utilized by all residents of the neighborhood. All efforts should be made to construct the dock outside of designated Natural Area (ideally the area of the northern most dock on the proposal).

For more information regarding Natural Areas or Nature Preserves, please contact the Office of Nature Preserves at 739-9235.

### **Site Investigation and Restoration**

No SIRB sites or salvage yards were found within a ½-mile radius of the proposed development. However, based on the previous agricultural use of the proposed project site, which may have involved the use of pesticides and herbicides, SIRB recommends that a Phase I Environmental Site Assessment be performed prior to development. In addition, should a release or imminent threat of a release of hazardous substances be discovered during the course of development (e.g., contaminated water or soil), construction activities should be discontinued immediately and DNREC should be notified at the 24-hour emergency number (800-662-8802). SIRB should also be contacted as soon as possible at 302-395-2600 for further instructions.

### **Under/Aboveground Storage Tanks**

There are no LUST sites located within a quarter mile of the proposed project. However, should any underground storage tanks or petroleum contaminated soil be discovered by any person during construction, the DNREC-TMB at (302) 395-2500 and the DNREC Emergency Response Hotline at (800) 662-8802 must be notified within 24 hours.

Should any contamination be encountered, PVC pipe materials would have to be replaced with ductile steel and nitrile rubber gaskets in the contaminated areas.

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

**Air Quality**

Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of 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 housing developments include emissions from:

- Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.

These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Island Farms development may have.

**Emissions Attributable to Island Farms Subdivision (Tons per Year)**

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NOx)	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Direct Residential	7.5	0.8	0.7	0.9	30.4
Electrical Power Generation	ND*	3.0	10.3	ND*	1,523.2
Mobile	16.6	13.7	11.3	1.0	1,553.5
<b>Total</b>	<b>24.1</b>	<b>17.5</b>	<b>22.3</b>	<b>1.9</b>	<b>3,107.1</b>

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, 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.

*Recommendations:*

The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

<p><b>Regulation 6 -</b> Particulate Emissions from Construction and Materials Handling</p>	<ul style="list-style-type: none"> <li>• <b>Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</b></li> <li>• <b>Using covers on trucks that transport material to and from site to prevent visible emissions.</b></li> </ul>
<p><b>Regulation 1113 –</b> Open Burning</p>	<ul style="list-style-type: none"> <li>• <b>Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</b></li> <li>• <b>Prohibiting the burning of land clearing debris.</b></li> <li>• <b>Prohibiting the burning of trash or building materials/debris.</b></li> </ul>
<p><b>Regulation 1145 –</b> Excessive Idling of Heavy Duty Vehicles</p>	<ul style="list-style-type: none"> <li>• <b>Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</b></li> </ul>

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

- **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These 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 increased 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.
- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.

Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:

- **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 at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by 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 on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Island Farms development. Air Quality Management Section points of contact are Phil Wheeler and Deanna Morozowich, and they may be reached at (302) 739-9402.