

# MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS,  
AND LANDSCAPE ARCHITECTS



October 29, 2013

State of Delaware  
Office of State Planning Coordination  
Haslet Armory - Third Floor  
122 Martin Luther King, Jr. Boulevard South  
Dover, Delaware 19901

ATTN: Ms. Constance C. Holland, AICP

RE: Bay Forest Club  
Plus Review – 2012-12-02  
MRA 12347x08

Dear Ms. Holland:

This letter is pursuant to your letter dated January, 18, 2013 and the meeting with State agency planners on December 19 2013 to discuss the proposed plans for an amendment to Bank Forest Club Subdivision in Sussex County, Delaware.

Each comment in your letter is shown in *italicized text* followed by our responses on behalf of the Applicant, Bay Forest Club, LLC.:

### **"Strategies for State Policies and Spending"**

*This project is located in Investment Level 3 according to the Strategies for State Policies and Spending. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer term future, or areas that may have environmental or other constraints to development. State investments may support future growth in these areas, but please be advised that the State has other priorities for the near future. We encourage you to design the site with respect for the environmental features which are present"*

**Response:** The Applicant is aware that the project is located in an "Investment Level 3" area. The proposed project has been designed with respect for environmental features that are present.

### **Code Requirements/Agency Permitting Requirements**

#### **State Historic Preservation Office – Contact Terrence Burns 736-7404**

- *There are no known historic or cultural resources, such as an archeological site or National Register listed property on this parcel, but there is a 20th-century dwelling (S-2555) within the parcel on the west side, near Whites Neck Road. We would appreciate the opportunity to take*

21133 Sterling Avenue, Suite 7, Georgetown, DE 19947 (302) 855-5734 Fax: (302) 855-0157 www.mragla.com

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*some photographs of this dwelling prior to any demolition activities. However, if there is going to be any development or construction project of any kind, on this parcel, the developer should definitely 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.*

**Response:** Based on a conversation with Terrence Burns on October 29, 2013, it appears likely that the referenced structure was razed as part of ongoing work on previously approved phases of the Bay Forest Club Project and is not on the new "infill area" that is the subject of the current review. The Applicant will comply with the requirements of 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 need or would like to read more information in reference to unmarked human remains, burials or cemeteries, please go to the following websites for additional information:*

[www.history.delaware.gov/preservation/umhr.shtml](http://www.history.delaware.gov/preservation/umhr.shtml)

[www.history.delaware.gov/preservation/cemeteries.shtml](http://www.history.delaware.gov/preservation/cemeteries.shtml)

**Response:** The Applicant has noted the comment and will comply with the requirements of Delaware's *Unmarked Human Burials and Human Skeletal Remains Law* (Delaware Code Title 7, Chapter 54). Nearly the entire area proposed to be developed on the subject parcels is presently developed as a single family residences and a commercial campground facility.

- *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. The developer*

*should also include a barrier or sufficient landscaping between the proposed RV Resort and the house/dwelling (S-2555) within parcel, towards the west side, in order to protect them from the various visual or sound effects that may adversely affect them. 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. 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 review the Advisory Council's website at [www.achp.gov](http://www.achp.gov).*

**Response:** The Applicant has noted the comments above. Based on a conversation with Terrence Burns on October 29, 2013, it appears likely that the referenced structure was razed as part of ongoing work on previously approved phases of the Bay Forest Club Project and is not on the new "infill area" that is the subject of the current review. No RV resort is proposed. The proposed uses are consistent with the previously approved Bay Forest Club residential planned community surrounding the subject parcels.

"Department of Transportation – Contact Bill Brockenbrough 760-2109"

- *Bay Forest Club, along with a related development known as Bay Forest West (now Bethany Ridge) was the subject of a Traffic Impact Study (TIS) in 2003. At that time, completion of the development in 2012 was anticipated. For the purposes of that TIS, Bay Forest Club was treated as 475 single-family detached houses and 326 townhouses/condominiums. Subsequently, a plan was developed for the site with 808 dwelling units, 388 single-family detached houses and 420 townhouses/condominiums. The table below shows what was platted and what has been built thus far.*

	<i>Single-Family Detached</i>	<i>Townhouse/Condominium</i>
<i>TIS</i>	475	326
<i>Current Plan</i>	<i>Built/Recorded</i>	<i>Built/Recorded</i>
<i>Phases 1 and 2</i>	237/271	159/261
<i>Phases 3 and 4</i>	0/117	0/159
<i>Total</i>	237/388	159/420
<i>Proposed Plan</i>	<i>Built/Recorded or Planned</i>	<i>Built/Recorded or Planned</i>
<i>Phases 1 and 2</i>	237/271	159/261
<i>Phases 3 and 4</i>	0/145	0/256
<i>Total</i>	237/416	159/517

- Now, with the addition of new lands, the developers seek to reconfigure Phases 3 and 4, and in the process add 125 dwelling units, 28 single-family detached houses and 97 townhouses/condominiums. The following table compares the expected trip generations of what the TIS examined, what was previously approved and what is now proposed.

<i>Case/Dwelling Type (All Phases)</i>	<i>Average Daily Traffic</i>	<i>AM Pk Hr</i>	<i>PM Pk Hr</i>
<b><i>TIS</i></b>	<b>6,202</b>	<b>475</b>	<b>585</b>
<i>Single-Family Detached</i>	4,404	342	427
<i>Townhouse/Condominium</i>	1,798	133	158
<b><i>Current Plan</i></b>	<b>5,898</b>	<b>444</b>	<b>551</b>
<i>Single-Family Detached</i>	3,656	281	356
<i>Townhouse/Condominium</i>	2,242	163	195
<b><i>Proposed Plan</i></b>	<b>6,584</b>	<b>493</b>	<b>610</b>
<i>Single-Family Detached</i>	3,898	301	379
<i>Townhouse/Condominium</i>	2,686	192	231

- *While the proposed plan for the site would generate more than the 400 trips per day and 50 trips per hour necessary to warrant a TIS under Section 2.3.1 of Del-DOT's Standards and Regulations for Subdivision Streets and State Highway Access, the increase in traffic over what was contemplated in the 2003 TIS is, in our view, negligible. Del-DOT does not recommend that a new TIS be required.*
  
- *In accordance with Section 2.10 of Del-DOT's Standards and Regulations for Subdivision Streets and State Highway Access, a review of the 2003 TIS recommended ten things that should be required of the subject development, summarized as follows:*
  - 1) *Construction of separate southbound left and right turn lanes on Irons Lane (Sussex Road 348) at Delaware Route 26.*
  
  - 2) *Construction of separate southbound left and right turn lanes on White's Neck Road (Sussex Road 347) at Delaware Route 26.*
  
  - 3) *Agreement to fund a signal at the intersection of Irons Lane and Delaware Route 26.*
  
  - 4) *Agreement to fund a signal at the intersection of Irons Lane and White's Neck Road.*
  
  - 5) *Agreement to fund construction of additions to DelDOT's planned improvements at the intersections of Delaware route 26 with Old Mill Road and Central Avenue.*
  
  - 6) *Agreement to build or fund improvements at the intersection of Old Mill Road and White's Neck Road.*
  
  - 7) *Construction of sidewalks and shoulders along the site's frontage on White's Neck Road.*
  
  - 8) *Construction of a bus stop for future service to the site.*
  
  - 9) *Construction of pedestrian and bicycle facilities within the site.*
  
  - 10) *Limitation of the on-site amenities to use by residents and guests to discourage traffic from outside the area.*

*With the exception, discussed below, that the standard pedestrian improvement along local roads in such areas is now a multimodal path rather than a sidewalk, Del-DOT finds that these recommendations are still valid. These items should be shown on the record plan by note or illustration. Del-DOT is working with the applicant's engineer to determine which of these items have been done and which have not. To the extent that there are items outstanding, they may recommend to the County that building permits be withheld pending adequate progress toward compliance.*

- *The following comments pertain to the site plan and entrance plan that will need to be prepared and submitted if the County approves the rezoning that is now being sought:*
  - *The site access must be designed in accordance with Del-DOT'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](http://www.deldot.gov/information/pubs_forms/manuals/subdivisions/pdf/Subdivision_Manual_Revision_1_proposed_060110.pdf).*
  - *In accordance with Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Initial Stage review fee shall be assessed to this project.*
  - *In accordance with Section 1.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, the Construction Stage review fee shall be assessed to this project.*
  - *In accordance with Section 3.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a site plan shall be prepared prior to issuing "Letter of No Objection". The following information will be required for the "Letter of No Objection" review:*

*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*

*Six (6) signed & sealed paper sets of the Site Plan by the owner and engineer*

*Conceptual Entrance Plan*

*CD with a pdf of the Site Plan*

- *Please refer to Appendix D - Plan Review Checklist, of the Standards and Regulations for Subdivision Street and State Highway Access, pages D-2 through D-39, for the new checklists for all types of plan submittals.*
- *In accordance with Section 3.4.1 of the Standards and Regulations for Subdivision Streets and State Highway Access, the traffic generation diagram is required to be shown on the site plan.*
- *In accordance with Section 3.5.7.3 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT may require that access be provided for future interconnections to the Simpler and Sprogell parcels and the various parcels bordering the north edge of the subject lands. We acknowledge that there is no intention to include these parcels in the subject development now but to our knowledge there was no intent to include the Jim's Hideaway campground when Bay Forest was first established. Placement of stub street rights-of-way and appropriate sizing of the streets now can help to prepare for future expansions when opportunities occur.*
- *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 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 White's Neck 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.**"*
- *Also, in accordance with Appendix J – General Notes for Construction Plan, of the Standards and Regulations for Subdivision Streets and State Highway Access, the note concerning the maintenance of the multi-use path is required.*
  - *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 White's Neck Road to provide a minimum of 30 feet of right-of-way from the centerline.*
  - *In accordance with Section 4.8 of the Standards and Regulations for Subdivision Streets and State Highway Access, DelDOT will require a 20-foot wide buffer between the ultimate right-of-way line of White's Neck Road and the edge of any storm water management facilities other than bio-swales.*

- *In accordance with Sections 4.3 and 4.4 of the Standards and Regulations for Subdivision Streets and State Highway Access, a subdivision plan or an entrance plan shall be prepared prior to DeIDOT issuing subdivision/entrance approval. The following information will be required for Subdivision/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”*

**Response:** The Applicant has undertaken significant coordination with DeIDOT representatives and complied with applicable DeIDOT requirements, entering into an agreement regarding construction of the proposed entrance and off-site improvements. DeIDOT has issued a LONO for the proposed development of the parcels indicated as part of this application. A copy of the LONO was forwarded to Sussex County Planning and Zoning on October 4, 2013. A copy is attached to this response as Exhibit 1. The Applicant will comply with DeIDOT design standards and requirements for the final design and permitting of the on-site and off-site improvements.

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

### **Wetlands**

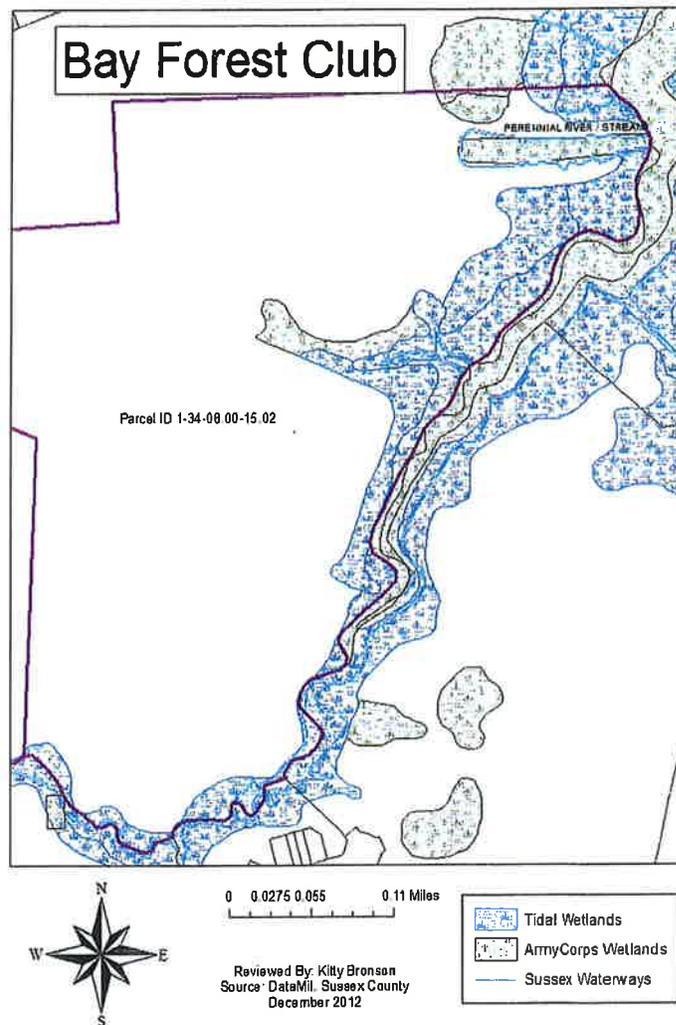
- *State regulated wetlands ARE located on this property based on a review of the State wetland map number 55. Parcel 1-34-08.00-15.02 show significant tidal wetlands on the east portion of the property. State regulated wetlands are those wetlands identified on the State’s official State Regulated Wetland Maps. Any activity in State regulated wetlands may require a permit from DNREC’s Wetlands and Subaqueous Lands Section. We suggest a state jurisdictional determination and a joint permit processing meeting to review plans. 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 located on this property based on a review of aerial photographs, State Wetland Mapping Project (SWMP) maps, Soil Surveys and USGS topographic maps. 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. An on-site inspection by a representative of the Wetlands and Subaqueous Lands Section or an*

*environmental consultant is recommended to determine the limits of jurisdictional State subaqueous lands. Upon review of the GIS layers, Perennial River/Streams are located at the edge of the property. 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>."



**Response:** A jurisdictional determination was completed by Environmental Resources, Inc. for the subject properties and the previously approved jurisdictional determination for the surrounding Bay Forest Club parcels was updated. A copy of the approved jurisdictional determination approvals is enclosed as Exhibits 2A / 2C (Approval Letters) & 2B / 2D (Plans). The Applicant has noted the comments above should there be any impacts to State wetlands and/or subaqueous lands. No impacts are anticipated at this time.

#### **“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 web link for additional information:*

<http://dda.delaware.gov/nutrients/index.shtml>

**Response:** A nutrient management plan will be implemented by the Applicant for the open space areas associated with this application in accordance with State regulations. A preliminary report documenting reductions is attached as Exhibit 3. In addition, removing septic systems for 188 campground units and two single family residential units by connecting the proposed residential project to the County Wastewater Treatment Facilities will remove a minimum of 90% of related loading, according to DNREC publications.

*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/lb\\_pcs.htm](http://www.dnrec.state.de.us/water2000/Sections/Watershed/ws/lb_pcs.htm).”

**Response:** Comment noted by Applicant.

**“Water Supply**

- *The project information sheets state water will be provided to the project by Tidewater Utilities via a public water system. Our records indicate that the project is located within the public water service area granted to Public Water Supply (a.k.a. Tidewater Utilities) under Certificate of Public Convenience and Necessity 83-W-6.*

**Response:** Comment noted by Applicant.

- *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.*

**Response:** Comment noted by Applicant.

*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.*

**Response:** Comment noted by Applicant.

**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 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)*

**Response:** Comment noted by Applicant.

### **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. Code, Chapter 91, Delaware Hazardous Substance Cleanup Act and the Delaware Regulations Governing Hazardous Substance Cleanup shall be followed.*

**Response:** Comment noted by Applicant. The Applicant has conducted a Phase 1 ESA (Refer to Exhibit 4 and no recognized environmental conditions (REC's) were noted.

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

*At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation:*

- **Fire Protection Water Requirements:**
  - *Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers.*
  - *Where a water distribution system is proposed for townhouse type dwelling sites, the infrastructure for fire protection water shall be provided, including the size of water mains.*
- **Fire Protection Features:**
  - *For townhouse buildings, provide a section / detail and the UL design number of the 2-hour fire rated separation wall on the Site plan.*

- **Accessibility:**
  - *All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare must be constructed so fire department apparatus may negotiate it.*
  - *Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.*
  - *Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.*
  - *The proposed bridge must be of such specification so as to allow its use for travel by large fire department apparatus.*
  - *The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.*
  - *The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.*
- **Gas Piping and System Information:**
  - *Provide type of fuel proposed, and show locations of bulk containers on plan.*
- **Required Notes:**
  - *Provide a note on the final plans submitted for review to read " All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"*
  - *Proposed Use*
  - *Square footage of each structure (Total of all Floors)*
  - *National Fire Protection Association (NFPA) Construction Type*
  - *Maximum Height of Buildings (including number of stories)*
  - *Name of Water Provider*
  - *Letter from Water Provider approving the system layout*
  - *Townhouse 2-hr separation wall details shall be shown on site plans*
  - *Provide Road Names, even for County Roads.*

**Response:** Comment noted by Applicant. The required information will be furnished for the final plans for approval by the Office of State Fire Marshall.

**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**

- *On June 27, 2012, a letter was sent out explaining the changes in the way checks should be submitted to DeIDOT. A copy of the letter is available at:*

<http://www.deldot.gov/information/business/subdivisions/PaymentProcedure.pdf>

**Response:** Comment noted by Applicant.

- *DeIDOT recommends that the developer have their site engineer contact our Subdivision Manager for this part of Sussex County, Mr. John Fiori, for a pre-submittal meeting prior to submitting a site plan for review and approval. A checklist of requirements for pre-submittal meetings and a Meeting Request Form are available on DeIDOT's website at:*

<http://www.deldot.gov/information/business/>

*As necessary, Mr. Fiori can be reached at (302) 760-2260.*

**Response:** A pre-submittal meeting has already been held between the Applicant and DeIDOT. The Applicant has entered into an Agreement with DeIDOT regarding the required improvements and DeIDOT has issued a LONO for this Project as presently configured.

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

### **Soils Assessment**

- *Based on soils survey mapping update, following soil mapping units were mapped on subject parcel (grouped on the basis of drainage class):*
  - 1) *Somewhat excessively well drained – Henlopen (HpB)*
  - 2) *Well drained – Rosedale (RoA), Fort Mott Henlopen complex (FhA)*
  - 3) *Moderately well drained – Pepperbox-Rosedale complex (PsA)*
  - 4) *Somewhat poorly drained (potentially hydric)- Klej (KsA)*
  - 5) *Poorly drained (likely hydric) – Askecksy (AsA)*
  - 6) *Very poorly drained (hydric) – Manahawkin (Ma), Purnell (Pu), and Salt pond mucky sand (Sp)*
  
- *Based on the soil survey mapping, Klej and Askecksy, Manahawkin, Purnell and Salt pond mucky sand are the soil mapping units likely to have the most limitations for development on this site. Klej is a somewhat poorly-drained mapping unit that occurs in transitional zones between wetland and upland environments; consequently, this soil mapping unit may or may not be hydric. Askecksy, Manahawkin, Purnell and Salt pond mucky sand are poorly to very poorly-drained wetland associated (hydric) soil mapping units with severe limitations for development. (Considered unsuitable for development). DNREC recommends that a certified and licensed soil scientist (ARCPACs certified and Class D licensed) to make a site-specific evaluation of the soils in this area. Please contact the Underground Discharges Branch at 739-9948 for a list of soil scientists.*

**Response:** The Applicant has retained Geo-Technology Associates, Inc. to conduct the environmental and geotechnical studies including soils evaluations related to this project. Environmental Resources, Inc. has completed updates to the wetland delineation for the project site. No underground discharges are proposed by the Applicant because the site will be connected to the public water (Tidewater Utilities) and sewer systems (Sussex County), thereby eliminating on-site septic systems for approximately 188 campground units and 2 single family detached dwelling units.

- *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).*



**Flood Management**

- *Portions of this site lie within Flood Zone AE, the high risk or 1% annual chance floodplain. This is not depicted on the site plan. A significant portion of this site also lies within Flood Zone X (shaded), the moderate risk or 0.2% annual chance floodplain. This is also not depicted on the site plan. Sussex County will require the flood zone be properly depicted on the site plan. A small portion of this property is located in Flood Zone X, which is a low risk area. There is currently a FEMA map update in process for the entire coastline of Delaware. Sussex County will have Preliminary maps by the end of January that will show a significant portion of this site to be in the Zone AE floodplain. In other words more of this site will be located in the high risk flood zone. We encourage the developer to utilize these maps in the design of the site as mortgage lenders require owners to purchase flood insurance for lots located in the floodplain.*

**Response:** The Applicant has been informed by MRA of the existing and proposed flood mapping for the project site. The Applicant has directed MRA to design the proposed site improvements to minimize future requirements for residents to obtain flood insurance for new residential and community structures where feasible, given structural design, site planning and other related restrictions/limitations. A similar approach has been implemented in the existing Bay Forest Club, Phases 1 & 2 and FEMA CLOMR-F / LOMR-F approvals have been issued for nearly all units in the existing flood plain.

**Additional information on hazardous waste sites**

- *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.*

**Response:** Comment noted by Applicant. Geo-Technology Associates, Inc. conducted a Phase I Environmental Site Assessment for the subject parcels on January 11, 2013.

***Additional information on TMDLs and water quality.***

- *A United States Corps of Engineers (USACE) approved wetlands delineation is 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.*

**Response:** A USACE wetland delineation was conducted by Environmental Resources, Inc. for the subject properties and approved by the USACE. Copies are enclosed as Exhibit 2A, 2B, 2C & 2D.

- *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 waterbodies (including ditches) and wetlands (field delineated and approved by the USACE).*

**Response:** Comment noted by Applicant. The design as proposed expands the existing buffers along the headwaters of Collins Creek and regulated tidal / non-tidal wetland areas. Approximately 0.6 acres of afforestation to expand the existing forested buffer is proposed as shown on the RPC Plan attached with this Application.

- *Removal of forest cover to accommodate stormwater management structures is strongly discouraged. Removal of the existing forest cover will likely increase nutrient runoff or discharges into both surface and groundwaters.*

**Response:** Comment noted by Applicant. The Applicant will document 40% minimum reductions in the nutrient runoff resulting from the project per State standards related to protection of the Inland Bays. Groundwater protection is significantly enhanced by the project due to the removal of the on-site wastewater disposal for 188 campground units and 2 existing detached single family residences that will be connected to the Sussex County sewer system.

- *DNREC recommends that the applicant 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.*

**Response:** The post-construction imperviousness has been calculated as part of the preliminary stormwater management and nutrient reduction analysis. Refer to attached Exhibit 3.

- *Since this project that will likely generate large amounts of impervious cover, we advise, wherever practicable, 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.*

**Response:** Comment noted by Applicant. In most areas, the existing soils and highly disturbed nature of the project area that is the subject of this application will make use of pervious paving materials not feasible. Much of the area has been compacted due to long-term access by individuals using the existing campground facilities.

- *We encourage 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.*

**Response:** The use of green-technology storm water management facilities has been implemented widely throughout the Bay Forest Club project. In many cases, rain gardens are not feasible due to the high groundwater table at the site. Grass / bioswales, filter strips, wetland ponds and sheet flow to buffer areas are proposed to be implemented, subject to review and approval by Sussex Conservation District.

- *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. We strongly encourage the applicant/developer use this protocol to help them design and implement the most effective BMPs. Please contact the Watershed Assessment Section at 302-739-9939 for more information on the protocol.*

**Response:** Comment noted by Applicant.

### **Habitat and Forest Preservation**

- *DNREC scientists have not surveyed this project area; therefore, we are unable to provide information pertaining to the existence of State-rare or federally listed plants, animals or natural communities. In the absence of site specific survey information, we have the following comments:*

**Bald Eagle Nest:** *There is an active Bald Eagle (*Haliaeetus leucocephalus*) nest north of and adjacent to the project area. The current project area is outside of the protection zones of this nest, therefore, this information is provided in the event there are plans for future phases to the north. Bald eagles and their nests are protected under the federal Bald and Golden Eagle Protection Act (BGEPA).*

*The U.S. Fish and Wildlife Service (USFWS) developed National Bald Eagle Management Guidelines, to help landowners and others minimize impacts to eagles, including disturbance, which is prohibited by the BGEPA. The guidelines focus on minimizing disturbance through the use of suggested buffer zones (330 feet to 660 feet from a nest) and time-of-year restrictions for certain activities in several categories. Determinations of allowable activities within protection distances are evaluated on a case-by-case basis by USFWS biologists. The USFWS has jurisdiction regarding Bald Eagles protection via BGEPA and works with landowners regarding all eagle disturbance issues. If you have any questions about this particular nest, please contact our program biologist that manages Delaware Bald Eagle nesting data, Anthony Gonzon at (302) 735-8673 or [Anthony.Gonzon@state.de.us](mailto:Anthony.Gonzon@state.de.us). Other questions can be directed to Craig Koppie of the USFWS at (410) 573-4534 or [Craig\\_Koppie@fws.gov](mailto:Craig_Koppie@fws.gov).*

**Response:** Comment noted by Applicant. ERI previously requested and obtained a clearance letter from the US Fish and Wildlife Service for the area encompassing the existing Bay Forest Club RPC surrounding the parcels addressed in this rezoning application. No federally listed plants, animals or natural communities were noted as shown in Exhibit 5 and none are anticipated on the “infill parcels”, particularly considering their highly-developed existing condition. The Applicant will comply with all applicable State and Federal requirements.

**Marsh Nesting Birds:** *Division of Fish and Wildlife scientists have not surveyed this project area for animal species of concern, but it is possible that the wetlands are utilized by birds for nesting. Impacts to these species can be minimized by: 1) avoiding fragmentation of habitat. Some species are very sensitive to human disturbance and require larger, contiguous areas of habitat for nesting and 2) by beginning work activities prior to April 1<sup>st</sup> when adults begin establishing nesting sites, incubating eggs and tending young. Nests could be destroyed by heavy machinery and adults could be forced to abandon nest sites due to construction activity disturbance. Most young fledge by July 31<sup>st</sup>. Therefore, if approved, work should begin prior to April 1 or after July 31.*

**Response:** A concerted effort has been made to retain and / or enhance the existing riparian buffer along Collins Creek to minimize fragmentation of existing potential marsh nesting bird habitat.

### **Wildlife Habitat**

- *The wetlands at this site are part of the Delaware Ecological Network (DEN) which is a statewide conservation network developed using GIS and field collected datasets that help to identify and prioritize ecologically important areas for natural resource protection. The DEN includes ecologically important areas such as forests, wetlands, streams, habitat that supports rare species and areas of especially high quality. The DEN includes the following key elements: 1) core areas- contain relatively intact natural ecosystems, and provide high-quality habitat for native plants and animals, 2) hubs-slightly fragmented aggregations of core areas, plus contiguous natural cover and 3) corridors-link core areas together, allowing wildlife movement and seed and pollen transfer between them.*

*Although non-regulatory, the DEN can guide conservation planning efforts. For this project, these efforts should include minimizing impacts to wetlands and wildlife by providing for adequate upland buffers between wetlands and lots/infrastructure. We recommend an upland buffer of at least 100ft in width. This buffer should be comprised of existing vegetation or planted with Delaware native species of trees, shrubs, grasses or wildflowers.*

*The applicant doesn't indicate how much of the existing forest (approximately 21+acres) will be removed by this project. Based on the site plan, most if not all of the forest will be cleared or fragmented by this project. The plan could have been designed to leave this forest intact, and it is recommended that consideration be made to reconfigure so that the forest doesn't have to be cleared. IF the forest is cleared despite this recommendation, birds and other wildlife that utilize forested areas are most vulnerable to impacts during the breeding/nesting season which for many species occurs between April 1 and July 31<sup>st</sup>.*

**Response:** There are approximately 9.51 acres of existing forest on the parcels subject to the proposed rezoning. Approximately 5.65 acres will be cleared for the proposed construction and 0.63 acres will be planted along the existing wetland buffer as part of the environmental enhancement proposed on the parcels subject to this rezoning application. It should be noted that the proposed land plan will increase the width of the wetland buffer compared to the existing campground use as shown on Exhibit 6. The rezoning and MR-RPC infill application as proposed will clearly enhance / expand "core areas" along the existing nontidal wetlands and contiguous forest to the South. Most of the development area that is the subject of this rezoning application is directed towards existing highly disturbed areas and away from the more sensitive wetland area. Passive community open space and SWM facilities are directed to the areas along the expanded wetland buffer to provide a buffer expansion between the more "active" residential development and areas considered to be more environmentally sensitive.

Ms. Constance C. Holland  
**Bay Forest Club**  
Plus Review – 2012-12-02  
October 29, 2013  
Page 22 of 22

Open space corridors with interspersed forest vegetation between the proposed land bays will enhance the connection to the internal forest “hub” areas compared to the existing site conditions.

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

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

**Response:** Representatives of MRA and the Applicant met with Duane Fox on May 23, 2013 to review the project and solicit input from the Delaware State Fire Marshall's Office regarding our design.

If you have any questions regarding the preceding, please do not hesitate to call.

Very Truly,  
MORRIS & FITCH ASSOCIATES, INC.



Keith A. Morse  
Principal

KMU/kmu



Exhibit 1

STATE OF DELAWARE

**DEPARTMENT OF TRANSPORTATION**

800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

SHAILEN P. BHATT  
SECRETARY

October 4, 2013

Mr. Lawrence Lank, Director  
Sussex County Planning & Zoning Commission  
Sussex County Administration Building  
P.O. Box 417  
Georgetown, Delaware 19947

**SUBJECT: Letter of No Objection to Recordation  
Bay Forest Club  
Tax Parcel #1-34-08.00-15.00, 15.01, 15.03, 15.03, 17.00, 17.01, 17.02, 17.03,  
18.00, 20.00, 20.01 & 628.00 – 832.00  
SCR 347 (Whites Neck Road) & SCR 349 (Old Mill Road)  
Baltimore Hundred, Sussex**

Dear Mr. Lank:

The Department of Transportation has reviewed the Site Plan, dated September 26, 2013, for the above referenced site, and has no objection to its recordation as shown on the enclosed drawings. This "No Objection to Recordation" approval shall be valid for a period of **five (5) years**. If the Site Plan is not recorded prior to the expiration of the "No Objection to Recordation", then the plan must be updated to meet current requirements and resubmitted for review and approval.

**This letter does not authorize the commencement of entrance construction.** Entrance plans shall be developed in accordance with DelDOT's Standards and Regulations for Subdivision Streets and State Highway Access manual and submitted to the Development Coordination Section for review and approval.

This "No Objection to Recordation" letter is not a DelDOT endorsement of the project discussed above. Rather, it is a recitation of the transportation improvements, which the applicant may be required to make as a pre-condition to recordation steps and deed restrictions as required by the respective county/municipality in which the project is located. If transportation investments are necessary, they are based on an analysis of the proposed project, its location, and its estimated impact on traffic movements and densities. The required improvements conform to DelDOT's published rules, regulations and standards. Ultimate responsibility for the approval of any project rests with the local government in which the land use decisions are authorized. There may be other reasons (environmental, historic, neighborhood composition, etc.) which compel

Bay Forest Club  
Mr. Lawrence Lank  
Page 2  
October 4, 2013

that jurisdiction to modify or reject this proposed plan even though DelDOT has established that these enumerated transportation improvements are acceptable.

If I can be of any further assistance, please call me at 302-760-2266.

Very truly yours,



Todd Sammons  
Subdivision Engineer,  
Development Coordination

TS/jtf

Enclosure (1)

Cc: Steven Hutchins, Morris & Ritchie Assoc., Inc. (3)  
James Osborne, South District Subdivision Manager (1)  
Jessica L. Watson, Sussex Conservation District  
Steve Sisson, Sussex County Review Coordinator  
File (1)



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**

PHILADELPHIA DISTRICT CORPS OF ENGINEERS  
WANAMAKER BUILDING, 100 PENN SQUARE EAST  
PHILADELPHIA, PENNSYLVANIA 19107-3390

**Exhibit 2A**

Regulatory Branch  
Application Section I

**AUG - 2 2013**

**SUBJECT:** CENAP-OP-R 2013-277-23 (Preliminary JD)  
**Project Name:** Jim's Hideaway Campground SX  
**Location:** 38.569182 and -75.119195

Patrick Moreland  
Environmental Resources, Incorporated  
38173 DuPont Boulevard  
Post Office Box 169  
Selbyville, Delaware 19975

Dear Mr. Moreland:

The plan identified on the following page depicts all delineated waterways and wetlands on the subject site that may be jurisdictional under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbor Act.

Pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, a Department of the Army permit is required for work or structures in navigable waters of the United States and the discharge of dredged or fill material into waters of the United States including adjacent and isolated wetlands. Any proposal to perform the above activities within any waters of the United States requires the prior approval of this office.

This preliminary determination has been conducted to identify the location(s) of wetlands and waters that may be waters of the United States for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participating in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This preliminary jurisdictional determination is non-binding and indicates that there may be waters of the United States, including wetlands on the parcel. Pursuant to Federal Regulations at 33 C.F.R. 331.2, preliminary JDs are advisory in nature and may not be appealed (see attached Notification of Appeal Form - Enclosure 1). However, the applicant retains the right to request an approved jurisdictional determination, which may be appealed. Also enclosed (Enclosure 2) is a copy of the Preliminary Jurisdictional Determination Form signed by the applicant or his agent agreeing to accept a preliminary jurisdictional determination. Please be aware that for purposes of computation of impacts, compensatory mitigation requirements, and

other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity as if they are jurisdictional waters of the U.S.

This letter is valid for a period of five (5) years. However, this preliminary jurisdictional determination is issued in accordance with current Federal regulations and is based upon the existing site conditions and information provided by you in your application. This office reserves the right to reevaluate and modify the preliminary jurisdictional determination at any time should the existing site conditions or Federal regulations change, or should the information provided by you prove to be false, incomplete or inaccurate.

If you should have any questions regarding this matter, please contact me at 302-736-9763 between the hours of 1:00 and 3:30 p.m. or write to the above address.

Sincerely,



John Brundage  
Regulatory Branch

\*\*\*\*\*  
SUBJECT PROPERTY: Jim's Hideaway Campground, 31.91 acres, Parcels 17, 17.02, & 18, Tax Map 1-34-8, Baltimore Hundred, Sussex County, Delaware.

\*\*\*\*\*  
SURVEY DESCRIPTION: Plan prepared by MRA, Inc., dated January 23, 2013, entitled: *Boundary of Waters of the United States Including Wetlands, Parcels 17, 17.02, & 18, Tax Map 1-34-8, Baltimore Hundred, Sussex County, Delaware*, one sheet.

\*\*\*\*\*  
Enclosures



REPLY TO  
ATTENTION OF

## DEPARTMENT OF THE ARMY

PHILADELPHIA DISTRICT CORPS OF ENGINEERS  
WANAMAKER BUILDING, 100 PENN SQUARE EAST  
PHILADELPHIA, PENNSYLVANIA 19107-3390

Exhibit 2C

Regulatory Branch  
Applications Section I

AUG - 1 2013

SUBJECT: CENAP-OP-R-2013-803-23 (JD)  
Project Name: Bay Forest SX  
Location: 38.5648 and -75.1201

Edward M. Launay  
Environmental Resources, Incorporated  
38173 DuPont Boulevard  
Post Office Box 169  
Selbyville, Delaware 19975

AUG - 5 2013

Dear Mr. Launay:

The plans identified on the following page depict the extent of Federal jurisdiction on the subject property. The basis of our determination of jurisdiction is also provided (Enclosure 1).

Pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, a Department of the Army permit is required for work or structures in navigable waters of the United States and the discharge of dredged or fill material into waters of the United States including adjacent and isolated wetlands. Any proposal to perform the above activities within the area of Federal jurisdiction requires the prior approval of this office.

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participating in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This letter is valid for a period of five (5) years. However, this jurisdictional determination is issued in accordance with current Federal regulations and is based upon the existing site conditions and information provided by you in your application. This office reserves the right to reevaluate and modify the jurisdictional determination at any time should the existing site conditions or Federal regulations change, or should the information provided by you prove to be false, incomplete or inaccurate.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at

33 CFR 331. Enclosed you will find a combined Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form (Enclosure 2). If you request to appeal this determination, you must submit a completed RFA form to the North Atlantic Division Office at the following address:

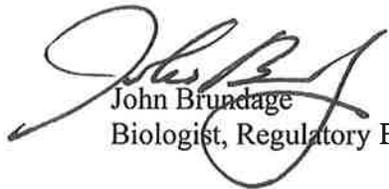
Michael G. Vissichelli  
Regulatory Appeals Review Officer  
North Atlantic Division, U.S. Army Corps of Engineers  
Fort Hamilton Military Community  
General Lee Avenue, Building 301  
Brooklyn, NY 11252-6700  
EMAIL: Michael.G.Vissichelli@usace.army.mil

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by October 1, 2013.

It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

If you should have any questions regarding this matter, please contact me at 302-736-9763 between the hours of 1:00 and 3:30 p.m. or write to the above address.

Sincerely,

  
John Brundage  
Biologist, Regulatory Branch

\*\*\*\*\*  
SUBJECT PROPERTY: Bay Forest, located north of the intersection of CR-17 & SR 26, Millville, Baltimore Hundred, Sussex County, Delaware.

\*\*\*\*\*  
SURVEY DESCRIPTION: Plans prepared by Morris & Ritchie Associates, Inc., dated July 24, 2013, entitled: *Boundary of Waters of the United States Including Wetlands Subject to the Corps of Engineers Regulatory Program, Bay Forest, Sussex County, Delaware*, three sheets.

\*\*\*\*\*  
Comments: This jurisdictional determination supersedes an earlier jurisdictional determination made for this site on July 25, 2013 under file number CENAP-OP-R-2008-911.

Enclosures

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# Nutrient Reduction Stormwater Management Report

Exhibit 3

**Bay Forest Club, Phases 3, 4 and 5**  
**Old Mill Road & White's Neck Road, Sussex County, Delaware**

---

Owner/Developer:  
**Bay Forest, LLC**  
**506 Main Street, 3<sup>rd</sup>. Floor**  
**Gaithersburg, Maryland 20878**  
Attn: **Mr. Thomas Natelli, Sr.**  
**Phone: 301-670-4020**  
**Fax: 301-258-7453**

*Steven W. Hutchins*

## Professional Certification

"I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the State of Delaware, License No. 13954."



PREPARED BY:



**MORRIS & RITCHIE ASSOCIATES, INC:**  
ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS, & LANDSCAPE ARCHITECTS  
21133 Sterling Ave  
Georgetown, Delaware 19947  
(302) 855-5734  
FAX (302) 855-0157  
CONTACT: Steven M. Hutchins, P.E.

---

October 28, 2013



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### **II APPENDIX**

**A. INTRODUCTION:**

Natelli Communities, Inc. proposes to construct Bay Forest Club, Phase 3.1; the latest phase of a 417-acre residential planned community in unincorporated Sussex County, Delaware, located northeast of the White Necks Road / Old Mill Road intersection. The project, originally approved in 2005, consists of approximately 481 single-family residential homes and cottages, 327 multi-family attached residential units, (for a total of 808 residential units), a community center, pedestrian paths, roadway, utility improvements and stormwater management facilities. The site will be developed in five phases. The current recorded plan includes 388 Single Family Detached units and 420 Townhomes, (again totaling 808 residential units). The Developer has recently acquired the adjacent infill parcel, known as Jim's Hide-A-Way, reconfigured phases 3, 4, and 5, and in the process, added approximately 105 dwelling units to Phases 1 through 5. Thus, a total of 913 residential units are now proposed.

The existing conditions include forest, agricultural land, Jim's Hide-A-Way Commercial Campground, non-tidal and tidal wetlands. The site soils are mapped as Borrow Pits (Bo), Evesboro Loamy Sand (EvA), Klej Loamy Sand (Kl), Matawan Loamy Sand (Mm), Matawan Sandy Loam (Mn), Ostler Loamy Sand (Os), Rumford Loamy Sand (RuA), Salty Tidal Marsh (Tm), and Woodstown Loam (Wo). Note that the soils are mapped per the 2005 approved Existing Conditions Map. The site drains to the tidal waters of Collins Creek and is tributary to the lower Indian River Bay.

The proposed conditions site soils, are based on updated soils mapping, and consists of Askecksy Loamy Sand, 0-2% Slopes (AsA), Fort Mott-Henlopen Complex, 0-2% Slopes (FhA), Fort Mott Loamy Sand, 2-5% Slopes (FmB), Henlopen Loamy Sand, 2-5% Slopes (HpB), Klej Loamy Sand, 0-2% Slopes (KsA), Manahawkin Muck, frequently flooded (Ma), Pepperbox-Rosedale Complex, 0-2% Slopes (PsA), Purnell Peat, very frequently flooded tidal (Pu), Rosedale Loamy Sand, 0-2% Slopes (RoA).

Due to the project's location in close proximity to Delaware's Inland Bays, the provision of effective and reliable qualitative control is of great importance, particularly with respect to non-point source nutrient loads. The Delaware Inland Bays Comprehensive Conservation and Management Plan (CCMP), together with the adoption of Total Maximum Daily Load (TMDL) regulations, mandate a 40 percent reduction in non-point source nitrogen and



phosphorus loads entering the Inland Bays. This project was approved prior to the adoption of the 40 percent reduction but voluntarily complied with the present standards in a 2005 Nutrient Reduction Report for the original Bay Forest Project. The purpose of this Nutrient Reduction narrative is to describe how the nutrient reduction goals of the CCMP and TMDL standards are met at this site, while updating the 2005 calculations to reflect the reconfiguration of Phases 3, 4, and 5.

**B. METHODOLOGIES USED:**

The nutrient reduction strategy employed at Bay Forest consists of the following basic components:

Provide the necessary wastewater infrastructure to accommodate the future connection of the adjacent existing communities to the County Wastewater Treatment Facility;

Employ "low impact development" techniques, such as clustering, non-structural SWM practices, and other "conservation design" measures were implemented in the layout and design of the proposed subdivision in order to: increase open space; create, preserve and expand vegetated riparian buffers; preserve existing upland forest resources; reduce impervious surfaces; and reduce post-development nutrient loads. Effective and reliable treatment of stormwater runoff is addressed through the careful placement and design of several retention ponds and other best management practices (BMPs), scattered throughout the development.

**1. Low Impact Development:**

The layout and design of the proposed Bay Forest development incorporates several "conservation design" techniques. These techniques include:

- A. Where appropriate, the use of open section roadways with vegetated swales rather than conventional closed section roads with curb, gutter and conventional storm drainage systems;
- B. Where appropriate, the elimination of sidewalks along the roadways;
- C. Identification of existing natural resource areas such as forests and wetlands, and the clustering of the proposed units so as to preserve more of these valuable natural resources;



- D. The use of smaller lot sizes and clustering to provide substantially larger areas dedicated for open space;
- E. The creation, preservation and enhancement of vegetated riparian buffers, and;
- F. The preservation of existing upland forests.

Compared to conventional designs, the use of such innovative, low impact development techniques has been shown to significantly reduce impervious surfaces, thereby resulting in substantial reductions in pollutant loads, including nutrients. When applied to a typical medium density residential development, the application of these techniques alone, without considering the benefits of any SWM measures, can reduce post-development non-point source nitrogen and phosphorus loads by 20 percent (Caraco, et al., 1998). At Bay Forest, a total of approximately 200 acres, or about 48 percent of the tract, will be set aside as open space, forests and wetlands.

## **2. Stormwater Management Measures:**

Several stormwater BMPs are proposed at Bay Forest. The use of open section roads with vegetated swales is one such practice employed in portions of Phases 1 and 2 of the subdivision. Such vegetated waterways provide pretreatment of stormwater runoff before discharging to other BMPs.

In accordance with the DNREC SWM regulations in effect at the time of the original 2005 design, retention ponds are the preferred SWM practice and several of these ponds are proposed at Bay Forest. Where it is both feasible and desirable, these ponds are placed in series. Placing BMPs in series has been recommended as a means to improve overall nutrient removal efficiencies (Herson-Jones, et al., 1993).

Perimeter "bio-filtration" swales are also utilized in some areas at Bay Forest. These "bio-filters" are located along some of the residential areas where they capture runoff from small areas such as rooftops that might otherwise bypass the retention ponds. These bio-retention swales are also used as pre-treatment for discharges to the retention ponds, thus offering another opportunity to employ BMPs in series.



Rather than employ the conventional approach of constructing only a few SWM ponds in strategic locations, the SWM approach proposed at Bay Forest utilizes decentralized BMPs scattered throughout the project. While the conventional approach results in fewer facilities, it can also result in poorer pollutant removal performance, because runoff from many small areas cannot be directed to a pond, and therefore, discharge uncontrolled to receiving waters. In addition, the conventional approach offers little or no opportunity to place BMPs in series, resulting in lower pollutant removal efficiencies. Finally, the conventional approach often results in post-development discharges to receiving waters that are concentrated at only a few points. By using smaller facilities distributed throughout the site, we provide better overall pollutant removal and more closely mimic the pre-development hydrology.

**C. NUTRIENT LOADS:**

**1. Pre-Development Conditions:**

The current land uses at Bay Forest are a combination of residential development, agricultural uses and mixed forests, brush, wetland and the existing 188 lot campgrounds. Table 1 lists average nutrient loading rates from typical farming activities in Sussex County as reported by DNREC and based on a study by Dr. Ritter of the University of Delaware College of Agriculture and Engineering.

<b>Table 1</b>			
<b>Nutrient Loading Rates for Typical Farming Activities in Sussex County, Delaware</b>			
<b>(lb/ac/yr)</b>			
<b>Nutrient</b>	<b>Dry Year</b>	<b>Normal Year</b>	<b>Wet Year</b>
Nitrogen	9.99	19.98	29.97
Phosphorus	0.40	0.80	1.34

Schueler (1987) reports event mean concentrations (EMCs) for hardwood forests in northern Virginia of 0.78 mg/l and 0.15 mg/l for total nitrogen and total phosphorus, respectively, stating that these values "were obtained from extensive storm monitoring of pollutant levels in several small forested watersheds." Using these EMCs and Schueler's "Simple Method" yields the following nutrient loading rates for the forests and other "wild" areas at Bay Forest:



TN =  $[40(0.9)(0.05)/12](0.78)(1.0)(2.72) = 0.32 \text{ lb N/ac/yr}$ , and

TP =  $[40(0.9)(0.05)/12](0.15)(1.0)(2.72) = 0.06 \text{ lb P/ac/yr}$ , from forests.

Using the values published above for forested areas and the "normal year" values for agriculture, the pre-development nutrient loads are tabulated below:

<b>TABLE 3 PRE-DEVELOPMENT NUTRIENT LOADS</b>						
Land Use	Impervious Coverage (%)	Area (acres)	Nitrogen		Phosphorous	
			Loading Rate (lbN/yr)	Annual Load (lbN/yr)	Loading Rate (lbN/yr)	Annual load (lbP/yr)
FOREST	0	225.9	0.32	72.29	0.06	13.47
AGRICULTURE	0	167.2	19.98	3340.66	0.80	133.76
OPEN	0	14.7	0.80	11.76	0.11	1.62
CAMP GOUNDS	45	9.2	7.40	68.08	0.97	8.92
188 EX SEPTIC				909.90		189.56
<b>TOTALS</b>		<b>417.0</b>		<b>4402.69</b>		<b>347.42</b>
<b>Notes:</b>						
1. septic system nitrogen load:						
(188 campsite) (12.0 g N/day /person)(1 kg/1000 g)(2.21 lb/kg)(0.5 EDU/campsite)(365 d/yr.) =					909.9 lb N/yr	
2. septic system phosphorous load:						
(188 campsite)(12.0 g N/day/person)(1 kg/1000g)(2.21lb/kg)(0.5 EDU/campsite)(365d/yr.) =					189.6 lbP/yr	
3. Nitrogen and phosphorus estimated loads for septic systems from White Paper: Non-Modeling Methods for Estimating Nutrient loads from varies sources, prepared by Tetra Tech Inc., April 29, 2004						

**2. Post-Development Uncontrolled Conditions:**

Based on his "Simple Method," Schueler (1987) tabulates typical nutrient loading rates for various land development activities. Table 3 lists the estimated acreage of each post-development land use at Bay Forest, together with its loading rate and contribution to the total post-development uncontrolled (i.e., without SWM) nutrient



load.

A comparison of Tables 2 and 3 reveals that the total nitrogen load may be reduced by a minimum of 40% and up to 65%, while total phosphorus load may be reduced by a minimum of 40% and up to 42% as a result of the proposed development. These changes with respect to the pre-development condition are based solely on the uncontrolled post-development loads, which do not consider any nutrient reductions associated with the proposed SWM practices.

Land Use	Impervious Coverage (%)	Area (acres)	Nitrogen		Phosphorous	
			Loading Rate (lbN/yr)	Annual Load (lbN/yr)	Loading Rate (lbN/yr)	Annual load (lbP/yr)
SFD	14	119.9	6.00	719.40	0.77	92.32
COTTAGES	40	15.8	6.70	105.86	0.87	13.75
VILLAS	45	45.5	7.40	336.70	0.87	39.59
TOWNHOUSE	50	20.0	8.20	164.00	1.06	21.20
CLUBHOUSE	65	8.2	10.40	85.38	1.35	11.08
MARINA	15	3.3	3.00	9.90	0.39	1.29
OPEN SPACE	0	82.6	0.80	66.06	0.11	9.08
FOREST	0	121.7	0.30	36.51	0.10	12.17
<b>TOTALS</b>		<b>412.7</b>		<b>1523.8</b>		<b>200.5</b>

Note: Does not consider benefits of SWM measures. Changes in nutrients loads are:  
Nitrogen – 65% and Phosphorous – 42%

### 3. Stormwater Management Practices and Estimated Nutrient Removal Rates:

As stated above, the primary means of meeting the 40 percent non-point source nutrient reduction goal at Bay Forest will be the use of several retention ponds. The nutrient removal efficiency of a "wet pond" is related to the pond's **retention time**, which is in turn related to the pond's **volume ratio**. The volume ratio is expressed as the volume of water provided in the permanent pool divided by the volume of runoff entering the pond from an average storm (Harrington, 1986). As the volume ratio



increases the retention time becomes longer, resulting in higher nutrient removal efficiencies. A minimum  $V_b/V_r$  of 2.5 has been recommended and results in an average retention time of 9 days (Harrington, 1986). In order to maximize nutrient removal, a  $V_b/V_r$  of 4.0 has been recommended and results in an average retention time of 2 weeks (Harrington, 1986). Beyond a 2-week retention time, nutrient removal efficiencies become almost constant, indicating that further increases in the pond's size beyond a volume ratio 4.0 will result in little or no improvement in the pond's performance (Schuler, 1987).

Retention ponds will be used to treat runoff from the single family detached (SFD), cottages, villas, townhouses, and clubhouse areas. These areas encompass 209.4 acres and exhibit an average percentage impervious coverage of 39 percent. The original pre-2005 DNREC SWM regulations required a minimum permanent pool volume of  $\frac{1}{2}$ " over the area of the site. Applying this minimum standard to the above described land uses yields a volume ratio of 3, which is equivalent to a retention time of about 11 days. Estimated nutrient removal efficiencies published by Schueler (1987) are given below in Table 4 for various volume ratios.

Retention Pond Volume Ratio	Nitrogen		Phosphorus	
	Removal Rate (%)	Loading Factor (1-Removal Rate)	Removal Rate (%)	Loading Factor (1-Removal Rate)
2.5	40	0.60	50	0.50
*3.0	43	0.57	55	0.45
4.0	45	0.55	62	0.38

Note: The minimum pond volume per DNREC SWM regulations yields a  $V_b/V_r = 3$  for the land uses proposed at this site.

#### 4. Ponds in Series and Other Innovative Strategies:

Because BMPs placed in series yield higher overall nutrient removal rates (Herson-Jones, et al., 1993), such an approach offers an opportunity to achieve better performance while minimizing the size and cost of the SWM practices. As reported by the Metropolitan Washington Council of Governments (Herson-Jones, et al., 1993), the "total efficiency of a series of BMPs is not equal to the simple sum of the efficiency of each BMP." As published by the Council of Governments, the pollutant load removed by a series of BMPs is calculated as follows:



Total load removed by BMP series =

$$L_{\text{post}} - [L_{\text{post}}(1 - \text{BMP efficiency}_1)(1 - \text{BMP efficiency}_2) \dots (1 - \text{BMP efficiency}_{\text{last}})]$$

The dominant post-development land use at Bay Forest, other than forests and other "wild" areas, will be single family detached residential (SFD). If we imagine two SFD areas of similar size, say 10 acres each, both served by retention ponds, and we link the two ponds in series, the upper pond will have a drainage area of only 10 acres and the lower pond will serve the combined watershed of 20 acres. The resulting computations reveal that the total pond volume required under this strategy is only 12 percent larger, while improving the phosphorus removal efficiency by 4 percent, relative to two ponds acting independently, each having a volume ratio of 4. Phase I Ponds 11, 12A, 12B, and 12C have been linked in this fashion, as well as Ponds 13 and 14 in current Phase 3.1 and in future phases, Ponds 15 to 21 will also function in series.

As mentioned above, bio-retention or other bio-filtration practices have been placed along portions of the perimeter of development. For purposes of this report, bio-filters are estimated to provide removal efficiencies of 25 percent and 20 percent for nitrogen and phosphorus, respectively. This strategy clearly shows how placing BMPs in series can significantly reduce pond sizes while providing very high pollutant removal efficiencies. Stormwater Management Pond 12C has a bio-retention media bed and treats discharge from Ponds 11, 12A and 12B, which act in series. Bioswales 11A, 11B, 11C and 11D also pretreat surface flows into Pond 11.

#### **D. SUMMARY**

Existing agricultural uses (prior to initial construction of Phases 1 and 2) occupy approximately 167 acres, or about 40 percent of the property, and as indicated above in Table 2, these existing agricultural uses contributed substantial nutrient loads to Collins Creek, especially nitrogen. Developing the project as shown on the plan, without the provision of SWM, results in nearly a 65 percent reduction in nitrogen loads and a 42 percent reduction in phosphorus loads. (Table 3)

When including effects of the proposed BMP facilities, the SWM practices all achieved reductions in nitrogen loads approaching approximately 78 percent and reductions in phosphorus loads approaching 70 percent. The Applicant will comply and likely exceed



## **F. CONCLUSIONS**

Based on this analysis, we conclude the following:

1. As shown from Table 7B, the estimated load reduction was greater than 40%, totaling approximately 78 percent for Nitrogen (N) and 70 percent for Phosphorous (P). This will allow the Applicant to exceed the voluntary 40 percent non-point source reduction as set forth by CCMP and TMDL for the previously approved phases and new infill parcels. See the detailed nutrient reduction calculations for Phases 3, 4, and 5 in Appendix I.
2. For the originally approved portion of the project in 2005, MRA attempted to use the DURMM spreadsheet for the original nutrient reduction calculations. However, after extensive conversations with Ms. Elaine Webb and Mr. David Twing, engineers of DNREC Sediment and Stormwater Program, we concluded the DURMM spreadsheet was unsuitable for this site. This is because DURMM spreadsheet is unable to calculate nutrient reduction using retention ponds. Also, the spreadsheet is unable to handle interconnected ponds and multiple drainage sheds. According to Ms. Webb and Mr. Twing, it would be unfeasible if the spreadsheet was used, since watershed discharge would have to be summed individually. Similar to TR-20, the events are time-dependent, and DURMM does not provide the peak time. This may result in an over-estimation of un-removed minerals and nutrient, resulting in over-design.

The requirements for voluntary 40% nutrient reduction have been met for this project for the previously approved Phases and the Applicant will be able to meet and/ or exceed the 40 percent reductions for the proposed infill parcels. Therefore, concurrence of this report and accompanying plans is respectfully requested from DNREC.



---

REPORT OF  
PHASE I ENVIRONMENTAL SITE ASSESSMENT

**BAY FOREST, SECTIONS 3 & 4**  
Sussex County, Delaware

January 11, 2013

Prepared for:

**NATELLI COMMUNITIES**  
506 Main Street, 3<sup>rd</sup> Floor  
Gaithersburg, Maryland 20878

Attn: Mr. Tom Natelli

---

Prepared by:

**GEO-TECHNOLOGY ASSOCIATES, INC.**  
*Geotechnical and Environmental Consultants*  
14280 Park Center Drive, Suite A  
Laurel, Maryland 20707  
(410) 792-9446 or (301) 470-4470  
Facsimile (410) 792-7395  
[www.mragta.com](http://www.mragta.com)

GTA Project No: 120712

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND  
ENVIRONMENTAL CONSULTANTS

*A Practicing ASPE Member Firm*



January 11, 2013

Natelli Communities  
506 Main Street, 3<sup>rd</sup> Floor  
Gaithersburg, Maryland 20878

Attn: Mr. Tom Natelli

Re: Phase I Environmental Site Assessment  
***Bay Forest, Sections 3 & 4***  
Sussex County, Delaware

Dear Mr. Natelli:

In accordance with our agreement dated December 3, 2012, Geo-Technology Associates, Inc. (GTA) has performed a Phase I Environmental Site Assessment (ESA) of the above referenced property. The subject property is located east of Whites Neck Road (Delaware Road 347), and both north of and at the terminus of Bucks Road, in the Ocean View area of Sussex County, Delaware. The subject property contains Jim's Hideaway Campground, which consists of 113 mobile homes and various related structures and improvements. The remainder of the site contains a mobile home, several barns and outbuildings, open and agricultural land, and woods. GTA understands that the subject property is planned to be developed with single-family and villa-style residences and will be serviced by publicly available water and sewer utilities.

We appreciate the opportunity to be of assistance on this project. Should you have any questions regarding this information, or should you require additional information, please contact the undersigned at your convenience.

Sincerely,  
**GEO-TECHNOLOGY ASSOCIATES, INC.**

Kevin P. Plocek  
Senior Environmental Scientist

Samuel J. Stevenson  
Associate

TCH/KPP/SJS  
120712

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44280 Park Center Drive Suite A Laurel, Maryland 20707 (410) 792-9436 (301) 470-4470 Fax (410) 792-7393

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*ASFE Publication – Important Information about Your Geoenvironmental Report (3 pages)*

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	Figure 1 – Site Location Map ( <i>color</i> )
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	Figure 3 – Site Sketch
	Figure 4 – 1937 Aerial Photograph
	Figure 5 – 2010 Aerial Photograph ( <i>color</i> )
Appendix B	Site Photographs ( <i>9 pages, color</i> )
Appendix C	Correspondence ( <i>29 pages</i> )
Appendix D	InfoMap Environmental FirstSearch™ Report ( <i>21 pages</i> )

## EXECUTIVE SUMMARY

Geo-Technology Associates, Inc. (GTA) has performed a Phase I Environmental Site Assessment (ESA) of Bay Forest, Sections 3 & 4 (the “subject property”). This ESA was performed in general accordance with ASTM International (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-05)*.

This *Executive Summary* is limited in scope and detail and is presented for the convenience of the reader. Do not rely on this *Executive Summary* for any purpose except that for which it was prepared. Please refer to the full report for details concerning the environmental condition of the subject property, as well as the scope and limitations of this ESA. Rely only on the full report for information about the findings, recommendations, and other concerns.

The subject property is located east of Whites Neck Road (Delaware Road 347), and both north of and at the terminus of Bucks Road, in the Ocean View area of Sussex County, Delaware. The subject property contains Jim’s Hideaway Campground, which consists of approximately 113 mobile homes and associated sheds, a campground office/storage building, a former residence, a warehouse, an in-ground pool, two bathhouses, two metal storage container units, and three storage outbuildings. The remainder of the subject property contains a mobile home, several barns and outbuildings, open and agricultural land, and wooded areas. Historically, the subject property primarily consisted of open and wooded land. Prior to 1953, a farm complex was constructed on the western portion of the subject property and was removed and replaced with two existing barns and a former mobile home during the 1990s. The mobile home was removed by 2011. During the 1970s, the eastern and southeastern portions of the subject property were developed with the existing Jims Hideaway Campground. The campground is serviced by private wells and septic systems, and several structures and mobile homes in the campground are heated with propane stored in above ground tanks. A pallet of empty 275-gallon above-ground storage tanks (ASTs) is located on the southeastern portion of the subject property; however, the manager of the campground indicated that the ASTs are for his personal contracting company and are not associated with the campground. No other ASTs, underground storage tanks (USTs), groundwater monitoring wells, or similar environmental concerns were identified in association with the subject property. The subject property was not identified as a site of known environmental concern or regulation in an environmental regulatory database report.

The surrounding vicinity has historically contained open fields, wooded land, farms, and scattered residences. Residential development has occurred in the surrounding vicinity in recent years, primarily corresponding to other portions of the Bay Forest development south of the subject property. A federal and state environmental regulatory database report did not identify sites of environmental concern in the surrounding vicinity.

This Phase I ESA has revealed no evidence of recognized environmental conditions (RECs) in connection with the subject property.

Although not considered a REC at this time, several structures were previously located on the subject property and are no longer present. Such former structures may have utilized USTs for the storage of heating oil, farm fuel, or other products. GTA recommends that if buried wastes, USTs, or contaminated media are encountered during future site activities, such materials should be removed and an environmental evaluation of the area performed.

Although not considered a REC at this time, several water supply wells are currently located on the site. GTA recommends that if the wells are no longer needed, they should be properly abandoned by a State of Delaware licensed driller in accordance with applicable state and local regulations.

# PHASE I ENVIRONMENTAL SITE ASSESSMENT

BAY FOREST, SECTIONS 3 & 4  
SUSSEX COUNTY, DELAWARE  
JANUARY 11, 2013

## 1.0 INTRODUCTION

### 1.1 Purpose

At the request of Natelli Communities (Client), Geo-Technology Associates, Inc. (GTA) performed the following Phase I Environmental Site Assessment (ESA) to identify recognized environmental conditions (RECs) that may be associated with the subject property, which is described in *Section 2.0* of this report. The ASTM International (ASTM) has defined a REC as “the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.”

This report was prepared by GTA for the sole and exclusive use of Natelli Communities. Use and reproduction of this report by any other person without the expressed written permission of GTA and Natelli Communities is unauthorized, and such use is at the sole risk of the user.

### 1.2 Scope of Services

This ESA was performed and this report was prepared in general accordance with applicable standards and with a review of reasonably ascertainable data, as set forth in the ASTM *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-05)*. The scope of services for this Phase I ESA generally included the following:

- Records Review - Review of reasonably ascertainable current and historical records for the subject property and site vicinity, including, but not limited to, a regulatory database report summarizing Federal and State environmental agency records; aerial photography; street directories; *Sanborn® Fire Insurance Maps*; property tax files;

chain of title information for the subject property (if provided by the Client or property owner); physical setting documentation; and previous environmental reports.

- Site Reconnaissance - Non-intrusive visual observations of the subject property for indications of hazardous substances, petroleum products, above-ground storage tanks (ASTs), underground storage tanks (USTs), groundwater monitoring wells, polychlorinated biphenyl (PCB)-containing equipment, stained soil, stressed vegetation, pits, ponds, lagoons, structures, utilities, access roads, and similar features of potential environmental concern.
- Interviews – Interviews (in person, via telephone, or via written request) with, but not limited to, relevant regulatory authorities and present and past property owners, operators, or occupants, where relevant.
- Report - Preparation of a Phase I ESA Report summarizing the information collected.

Considerations that were not reviewed as part of this ESA, and that are considered non-scope issues by ASTM and/or otherwise beyond the scope of this assessment, include, but are not limited to, asbestos-containing materials (ACMs), radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, biological agents, mold, water potability issues (e.g., nitrates, pH, turbidity, coliforms, etc.), other substances under naturally occurring conditions (e.g., metals such as arsenic), methane, miscellaneous building components (e.g., mercury-containing switches or bulbs, PCB-containing light ballasts), and high voltage power lines.

### **1.3 Limitations**

GTA's conclusions regarding this site have been based on observations of existing conditions at the time of the site reconnaissance and an interpretation of site history and site usage data. Therefore, conclusions reached regarding the conditions of this site do not represent a warranty that all areas within the site are of a similar quality as may be inferred from observable site conditions and available site history. Please be advised that as stated in the ASTM Standard, no environmental site assessment can wholly eliminate uncertainty regarding the potential for environmental liability in connection with the property. GTA's evaluation and

analysis are intended to reduce, but not eliminate, the potential for conditions that result in liability for the Client.

Please be advised that ASTM indicates that a Phase I ESA completed less than 180 days prior to the date of the property transaction is presumed to be valid. To satisfy the ASTM Standard, ESAs completed more than 180 days prior to the date of the property transaction are required to be updated.

The following limitations should be noted with respect to this Phase I ESA. These limitations are not necessarily exceptions to the ASTM Standard.

- No chain of title documentation has been provided to GTA.
- The earliest available historical use information consisted of a 1918 United States Geological Survey (USGS) Map.
- Due to the campground being closed for the winter season, GTA was not provided access into the privately-owned structures, sheds, or mobile homes improved on eastern portion of the subject property, limiting GTA's site observations.
- Information has been requested but not yet received from the Sussex County Emergency Operations Center (EOC) and the Delaware Electric Cooperative (DEC). If such information is received at a later date and materially alters the findings of this Phase I ESA, GTA will submit an addendum to the Client.
- GTA requested contact information for the previous property owner from the current property owners, who indicated that such information was not available.

#### **1.4 Significant Assumptions**

As part of this ESA, GTA has obtained data from various sources (e.g., historical documents, regulatory information, site drawings, interviews with individuals familiar with the site and regulatory representatives). GTA relies on this information in forming a professional opinion and assumes that the information is accurate and correct. GTA shall not be responsible for conditions or consequences arising from incorrect data sources or relevant facts that were concealed, withheld or not fully disclosed at the time this report was prepared.

## **1.5 Data Gaps**

ASTM defines a “data gap” as a lack of or inability to obtain information required by the Phase I ESA standard despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by the Phase I ESA, including, but not limited to, the site reconnaissance and interviews. Common data gaps include the inaccessibility of structures and inability to interview key site managers. Significant data gaps are those that affect the ability of the environmental professional to identify RECs. Significant data gaps were not identified as part of this ESA.

## **1.6 Qualifications**

I, Kevin P. Plocek, declare that, to the best of my professional knowledge and belief, I meet the definition of an *Environmental Professional* as defined in Part 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the “All Appropriate Inquiries” in general conformance with the standards and practices set forth in 40 CFR Part 312. The qualifications of the environmental professionals who performed this Phase I ESA are available to the Client upon request.

## **2.0 PHYSICAL SETTING**

### **2.1 Site Location**

The subject property is located east of Whites Neck Road (Delaware Road 347), and both north of and at the terminus of Bucks Road, in the Ocean View area of Sussex County, Delaware. The subject property contains Jim’s Hideaway Campground, which consists of approximately 113 mobile homes and associated sheds, a campground office/storage building, a former residence, a warehouse, an in-ground pool, two bathhouses, two metal storage container units, and three storage outbuildings. The remainder of the subject property contains a mobile home, several barns and outbuildings, open and agricultural land, and wooded areas. A *Site Location Map* for the subject property is presented as *Figure 1 (Appendix A)*.

According to the Sussex County tax records and information provided by the Client, the subject property encompasses two parcels and a portion of another within District 134 on Tax Map 8.00. The Sussex County tax information is summarized in the following table.

<b>PROPERTY SUMMARY INFORMATION</b>				
<b>Parcel</b>	<b>Owner</b>	<b>Address</b>	<b>Land Use</b>	<b>Land Area (Acres)</b>
17.00	Ms. Eileen McCaffery	E/RT 347 & W/ Collins Creek	Commercial	7.27
17.02	Bay Forest, LLC	E/RT 347, N/RT 349	Residential	4.17
18.00 (portion)	Ms. Eileen McCaffery	Jim's Hideaway in Whites Neck	Manufactured home park	20.11
<b>Total Acreage</b>				<b>31.55</b>

Although the Sussex County tax records indicate that Parcel 18 encompasses approximately 20.11 acres, information provided by the Client indicates that a portion of this parcel is excluded from this ESA. According to the Client, this area is located south of Bucks Road, between White Necks Road and the terminus of Bucks Road at Hideaway Lane. As such, the western portion of the subject property (Parcel 17.02) is separated from the eastern portion of the site (Parcel 17 and the remainder of Parcel 18). The subject property parcel boundaries are identified on the attached *Site Sketch (Figure 3, Appendix A)*.

The Sussex County tax records indicate that the prior owner of Parcel 17 was Ms. Lynn Simpler-Hoyle, and did not identify structures on Parcel 17. According to the Sussex County tax records, the prior owners of Parcel 17.02 were Mr. John Mitchell, Jr., Ms. Ethelyn Mitchell, and Mr. Elmer and Mrs. Alice Simpler; and Parcel 17.02 is developed. The Sussex County tax records indicate that the prior owners of Parcel 18 were the Mitchell and Simpler families, Mr. James and Mrs. Eileen Buck, and Miss Grace Hudson and the Clogg family; and did not identify structures on Parcel 18. The tax records indicate that these parcels are zoned as "agricultural/residential."

GTA was not provided development plans for subject property. It is GTA's understanding that the subject property is planned to be developed with single-family and villa-style residences that will be serviced by public water and sewage utilities.

## **2.2 Topography**

The topographic information on the USGS Topographic Quadrangle Map (Bethany Beach, DE) for the site vicinity indicates that the ground surface elevations on the site range from greater than 10 feet above Mean Sea Level (MSL) on the northeastern portion of the subject property, to less than 5 feet above MSL on the southeastern portion of the subject property. A northwest to southeast trending topographic ridge is located on the northeastern portion of the subject property, dividing surficial drainage on the site. The western and southern portions of the subject property slope downward to the south and southeast, toward a tributary of Collins Creek that crosses the southeastern portion of the subject property. The northeastern portion of the subject property slopes downward to the northeast and east, toward the northeasterly flowing Collins Creek. Surficial drainage is collected by Collins Creek and is directed toward the northeast, subsequently discharging into the Indian River Bay. A *Topographic Map* for the site and vicinity, based on the USGS Map, is included as *Figure 2*.

## **2.3 Soils**

According to the U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) Web Soil Survey (reviewed on December 15, 2012), the site is underlain by Askecksy loamy sand (AsA), Fort Mott-Henlopen complex (FhA), Henlopen loamy sand (HpB), Klej loamy sand (KsA), Pepperbox-Rosedale complex (PsA), and Rosedale loamy sand (RoA).

## **2.4 Geology and Hydrogeology**

According to the Delaware Geological Survey *Report of Investigations No. 58* and *The Cross Section of Pliocene and Quaternary Deposits of Delaware* (1999), the site vicinity is situated within the Coastal Plain Physiographic Province, which is generally characterized by interlayered sedimentary deposits from historic marine and estuarine environments. Specifically, the site is indicated to be underlain by the Sinepuxent Formation, which is characterized by dark, poorly sorted silty fine to medium sands with the lower part of the unit being fine grained with thin beds of black clay.

Hydrologically, the Coastal Plain is underlain by both unconfined and confined aquifers of unconsolidated sediments, which overlie consolidated bedrock and dip toward the southeast. Groundwater storage and movement are functions of the primary porosity of the sediments. Larger storage is provided by gravel and sand, with little to no storage provided by clay. Near-surface, unconfined aquifers typically consist of sediments of higher permeability and are recharged locally, primarily through precipitation that permeates through the unsaturated zone into the aquifer. The water table in unconfined aquifers is therefore highly variable, fluctuating with the seasons and with rates of precipitation. Variations in the groundwater surface and flow generally reflect the topography and relative locations of surface water features. Intermittent confining layers can locally alter the water table conditions. The deeper, confined aquifers are bound by confining layers above and below, creating an artesian system. Confined aquifers are recharged in areas where the formation crops out, generally in more remote areas to the west.

The groundwater flow direction in the site vicinity is assumed to mirror surficial topography. Accordingly, the groundwater flow direction is assumed to be divided, with flow toward the south, southeast, east, and northeast in the immediate site vicinity.

### **3.0 SITE AND VICINITY DESCRIPTION**

#### **3.1 Site Conditions**

GTA personnel performed a site reconnaissance on December 20, 2012, accompanied by Mr. Frank Uzman, a representative of Natelli Communities and Bay Forest LLC; and Mrs. Melissa Buck, a representative of Jim's Hideaway Campground. Due to the campground being closed for the winter season, GTA was not provided access into the privately-owned structures, sheds, or mobile homes on eastern portion of the subject property, limiting GTA's site observations. A *Site Sketch* is included as *Figure 3*. Photographs taken during GTA's site reconnaissance are presented as *Appendix B*.

### **3.1.1 Site Description**

The subject property currently contains open and agricultural land, wooded areas, a mobile home, several barns and outbuildings, and the Jim's Hideaway Campground. Jim's Hideaway Campground contains approximately 113 mobile homes and associated sheds, a campground office/storage building, a former residence, a warehouse, an in-ground pool, two bathhouses, two metal storage container units, and three storage outbuildings. Access to the barns and the remainder of the western portion of the subject property are provided directly from Whites Neck Road or Bucks Road. Access to the eastern portion of the subject property that contains the campground is provided by Hideaway Lane, which originates from Bucks Road, or several other unimproved interior roadways and alleyways.

Surface water drainage on the subject property is conveyed via overland flow into an easterly flowing tributary of Collins Creek, located on the southeastern portion of the subject property, or toward Collins Creek east and northeast of the subject property.

### **3.1.2 Structures**

#### Parcel 17 (Northeastern Portion of the Subject Property)

One mobile home structure is located on Parcel 17. No other structures or evidence of former structures are located on Parcel 17.

#### Parcel 17.02 (Western Portion of the Subject Property)

Two barns are located on the northern portion of Parcel 17.02. One barn faces west towards White Necks Road and consists of four open bays and one bay with a wooden door. This barn is constructed of wood framing with a combination of wooden and corrugated metal walls. The first bay appeared to have been used as a chicken coop with a dilapidated run-out attached to the rear. Dirt floors and relic concrete flooring were observed throughout this barn. This barn appeared vacant with the exception of the third and fourth bays that contained wooden pallets and firewood. Based on observations of utility connections located southwest of this barn, it appeared that a mobile home was previously on this parcel. The second barn is located adjacently east of the western-

facing barn. This barn faces towards the south and is constructed of a wood frame with both wooden and corrugated metal exterior walls. The main entrance of this barn led into a single room, constructed of paneled walls and ceilings and a concrete floor, which contained wood construction materials. A doorway from this room connected to a garage constructed of corrugated walls, dirt floors covered with plywood, ceiling rafters covered with plastic, and sliding barn doors. The garage contained large equipment associated with fountains used in the landscaping design of the Bay Forest at Bethany Beach residential community located south of the subject property.

#### Parcel 18 (Southeastern and Eastern Portions of the Subject Property)

Approximately 113 mobile homes and associated storage sheds, a campground office/storage building, a former residence, a warehouse, two bathhouses, an in-ground pool, two metal storage containers, and three storage outbuildings are located on Parcel 18. As discussed in *Section 3.3*, the manager of the campground indicated that these structures and the in-ground pool are approximately 30 years old. The structures and associated storage sheds throughout the campground are locked during the winter season and privately-owned; therefore, GTA was not provided access into these structures. The campground manager indicated that the mobile homes and associated sheds are vacant during the winter season, and the remaining structures and outbuildings are either vacant or used for his personal storage. Additional details regarding the structures located on Parcel 18 are presented below.

#### Mobile Homes

The mobile homes are situated on concrete slabs and located along the seven unimproved roadways throughout the campground. Each mobile home slip is approved for one storage shed, which appeared to range from small dilapidated wooden sheds to prefabricated plastic units that are installed on ground surface.

#### Former Residence

A former residence is located along Hideaway Lane, approximately 300 feet northeast of the campground's entrance near the intersection with Bucks

Road. The structure is a 1½-story residence with an attached mobile home along the southern side of the structure. The residence appeared to be constructed on concrete slab with no basement, although a crawl space constructed of cinder block walls was observed under the structure's attached mobile home. Drains installed in this structure are presumably connected to the campground's septic system. Unimproved parking areas are located along the western and northern sides of this structure.

#### Warehouse

A large warehouse constructed of vinyl siding, concrete slab flooring, metal roof, and one metal bay door (facing west towards Hideaway Lane) is located approximately 40 feet north of the former residence.

#### Campground Office/Storage Building

A single-story structure, located adjacently north of the warehouse along Hideaway Lane, was constructed of cinder block, concrete slab flooring, and metal roof. The southern-most doorway of this structure was identified by a sign as Jim's Hideaway Campground Office, and appeared to be used for the campground's registration and administration purpose. The two doorways located in the central portion of this structure were unmarked, but based on GTA's historical records review of the subject property, these doorways led into a former retail store known as Hideaway Outpost that sold weapons and hunting supplies. A metal bay door is constructed north of the central doorways in addition to two unmarked doorways located on the structure's north side. An in-ground concrete pool surrounded by concrete walking areas and chain-link fence is located in the rear of this structure.

#### Bathhouses

One bathhouse is located along the northern curve of Hideaway Lane, approximately 25 feet east of the pool's chain-link fence. The entrances into this bathhouse are located on the structure's northern side. The other bathhouse is

located approximately 100 feet northwest of the intersection of Hideaway Lane and Oak Street. The entrances into this bathhouse are located on the structure's east and west sides. Both bathhouses are constructed of cinder block with metal roofs and concrete flooring; drains in these structures are presumably connected to the campground's septic system. Both bathhouses appeared to be constructed with a utility room in the central portion of the structure that contain a propane gas furnace and water heater. GTA was able to observe the utility room in the bathhouse located near the pool.

#### Metal Storage Containers (approximately 8 feet wide by 40 feet long)

One metal storage container is located adjacently south of the campground office/storage building and northwest of the warehouse. The other metal storage container is located adjacently south to the warehouse. Both containers are located along Hideaway Lane, and situated atop ground surface.

#### Storage Outbuildings

One wooden storage outbuilding is located along the western side of Hideaway Lane, across from the campground office/storage building. This outbuilding was situated atop of ground surface and appeared to contain firewood. A mobile office trailer is located between the warehouse and campground office/storage building. A wooden storage shed with metal roof is located in the rear of the mobile office trailer and warehouse.

### **3.1.3 Storage Tanks**

GTA personnel observed two pallets of new, empty 275-gallon ASTs stored near the warehouse. According to the campground's manager, these ASTs are being stored at the campground temporarily, and are intended for his personal business outside of the campground. GTA personnel observed propane gas tanks attached to grills and mobile homes throughout the campgrounds. GTA personnel did not observe other evidence of ASTs or surface features that would be indicative of USTs (e.g., fill pipes, vent pipes, manholes) on the subject property.

#### **3.1.4 Petroleum Compounds/Hazardous Substances**

GTA personnel did not observe indications of the use, storage, or disposal of petroleum compounds or hazardous substances on the subject property. Although GTA was not provided access into the site's structures or outbuildings, the campground is serviced by propane gas and electric utilities with no evidence of heating oil, gasoline products, or other hazardous wastes. The campground's manager indicated that the warehouse stores containers of petroleum products that range from several quarts to five gallons, which he disposes of at the local landfill's recycling center on a regular basis. These petroleum products are primarily associated with used motor oil and other lubricants from lawn maintenance equipment.

Six pole-mounted electrical transformers are located throughout the subject property. One pad-mounted electrical transformer is located in the central portion of the campground. GTA personnel did not observe obvious signs of leaks or spills in the vicinity of the transformers. On December 27, 2012, GTA contacted the Operations Department of the local utility company, Delaware Electric Cooperative (DEC), regarding the possible PCB content of these transformers. Due to the lack of addresses for these transformers, being located along unimproved roadways within a campground, DEC responded that they would perform a site visit to gather the information necessary to research their database and determine if the transformers contain PCBs. A response from the DEC is pending at this time. A record of communication with the DEC is attached in *Appendix C*.

#### **3.1.5 Solid Waste**

GTA personnel did not observe obvious indications of landfilling or buried waste on the subject property.

#### **3.1.6 Utilities**

The majority of the storage structures located on the subject property did not appear to be heated. The mobile home located within and adjacent to the campground, as

well as the structural amenities within the campground, appeared to be heated via propane.

The developed portions of the subject property appear to be serviced by electric and telephone utilities. No indications of utility services were observed on Parcel 17.

GTA personnel observed overhead electric lines along White Necks Road, adjacently west of Parcel 17.02. Aboveground electric cable connections, associated with a former mobile home, were observed approximately 50 feet southwest of the western-facing barn on Parcel 17.02. A small wooden shed, located near this former mobile home area, contained a pump for a water supply well. Approximately 50 feet southeast of the pump shed, GTA personnel observed a possible location of the water supply well, approximately 8 inches round and 5 feet deep, suggesting that the well has been abandoned.

GTA personnel observed overhead electric lines within the campground on Parcel 18. According to the campground's manager, the water is provided by two domestic wells located on Parcel 18. GTA personnel observed one water supply well along Cedar Lane; and a small, locked wooden shed that may have been a well pump house near the intersection of Hideaway Land and Holly Lane. According to the campground's manager, the septic system consists of multiple septic fields located throughout the parcel. The mobile homes and structures utilize propane gas for heating and cooking purposes.

### **3.1.7 Other Site Information**

In the southwestern portion of Parcel 17, GTA personnel observed an area of stockpiled debris that consisted mostly of wooden pallets and leaves in addition to scattered tires, a plastic 55-gallon drum, and a metal 55-gallon drum. The drums were sealed closed; therefore, GTA was not able to identify the liquid contents of these drums. The remaining portions of Parcel 17 were wooded.

The majority of Parcel 17.02 consisted of agricultural fields, with some grassed areas. In the western portion of Parcel 17.02, GTA personnel observed a polyvinyl chloride (PVC) pipe buried approximately six inches below ground surface that was exposed in deep tire tracks that extended throughout the western portion of the parcel. This pipe appeared to run in a north and south direction, and is likely associated with irrigation of the adjacent agricultural fields.

An intermittent stream is located within a wooded area on the southern portion of Parcel 18. GTA personnel did not observe indications of stained soil, stressed vegetation, monitoring wells, pits, ponds, or lagoons on the subject property.

### **3.2 Surrounding Land Uses**

The western portion of the subject property (Parcel 17.02) is bordered to the north by a parcel of open land, followed by a residence and Sprogell Lane; to the east by the same open land parcel, followed by Hideaway Lane within the subject property's campground; to the south by Bucks Road, followed by a residence and wooded land; and to the west by White Necks Road, followed by wooded land and a horse farm/track.

The eastern portion of the subject property (Parcels 17 and 18) is bordered to the north by open land, followed by Sprogell Lane; to the east by wooded and open land, followed by future residential development; to the south by wooded land, followed by residential development; and to the west by agricultural land, Parcel 17.02, and a residence, followed by White Necks Road.

On the adjacent portion of Parcel 18 located along Bucks Road, GTA personnel observed two 275-gallon gasoline ASTs with attached pumps and two 55-gallon plastic drums located within a fenced area immediately southwest of the campground's entrance. This portion of Parcel 18 is the residence of Mr. John Buck and not a part of the subject property.

In general, land uses in the site vicinity consist of residential development, open fields, agricultural land, undeveloped woods, and scattered commercial areas. GTA personnel did not observe other indications of gasoline stations, dry cleaners, landfills, industrial areas, or similar

sites of known environmental concern within an approximate ¼-mile radius of the subject property.

Locally, surficial drainage is collected by the northeasterly flowing unnamed tributaries, located north and south of the subject property, that flow towards Collins Creek that connects with Indian River Bay. The subject property appears to receive some surficial drainage from residential areas located west and northwest of the subject property. Accordingly, surficial drainage from upgradient sources is unlikely to have adversely affected the environmental condition of the subject property.

### **3.3 Interviews**

On December 20, 2012, GTA personnel interviewed Mr. Frank Ucman, a representative of Natelli Communities and Bay Forest LLC, the current property owner of Parcel 17.02. On December 20, 2012, GTA personnel also interviewed Mrs. Melissa Buck, a representative of Jim's Hideaway Campground (Parcel 18) and relative of Ms. Eileen McCaffery, the current property owner of Parcels 17 and 18. On December 27, 2012, GTA personnel interviewed Mr. John Buck, manager of Jim's Hideaway Campground, an adjacent resident, and relative of Ms. Eileen McCaffery.

Mr. Frank Ucman indicated that he manages field operations associated with the Bay Forest at Bethany Beach residential development located south of the subject property. Mr. Ucman indicated that Bay Forest, LLC is currently utilizing the western-facing barn within Parcel 17.02 to store firewood and wooden pallets. He indicated that the southern-facing barn is currently used to store lumber and fountainheads associated with the landscaping design plans at the Bay Forest at Bethany Beach development. Mr. Ucman indicated that Parcel 17.02 was historically improved with a mobile home until approximately 18 months ago. He indicated that the two barns use electric power, and that the parcel historically used a domestic water supply well. Mr. Ucman indicated that he thought the parcel used a septic system for the former mobile home, but he was not aware of the septic system's location. Mr. Ucman indicated that he had no knowledge of the current use or history regarding Parcels 17 and 18 of the subject property other than the parcels are intended for purchase to be incorporated into future development plans of the

Bay Forest at Bethany Beach site as Sections 3 and 4. Mr. Ucman indicated that he was not aware of historical use of ASTs, USTs, or environmental concerns related to the site or the surrounding vicinity. Mr. Ucman did not have contact information for previous or current property owners of the subject property.

Mrs. Melissa Buck indicated that she is associated with the management of Jims Hideaway Campground with her husband, Mr. John Buck, and both reside at 36022 Bucks Road, adjacently south of Parcel 17.02 and southwest of the campground (Parcel 18). Mrs. Buck indicated that their residential property encompasses the part of Parcel 18 that extends from White Necks Road (Delaware Road 347) along the southern side of Bucks Road and terminates at its intersection with Hideaway Lane. Mrs. Bucks indicated that their property is not included in the Bay Forest at Bethany Beach development; this information was confirmed to GTA by Mr. Frank Ucman. Mrs. Buck indicated that the campground was closed at the time of GTA's site reconnaissance and the majority of the structures were not accessible. She indicated that each campground structure uses propane gas tanks, water from on-site domestic wells, and a septic system. Mrs. Buck indicated that the campground has existed for over 40 years, and that she was not aware of historical use of ASTs, USTs, or environmental concerns related to the site or the surrounding vicinity. Mrs. Buck did not offer contact information for previous or current property owners of the subject property.

Mr. Buck indicated that the campground has been in existence for at least 41 years, and is open between the months of April through October to tenants that rent the mobile homes and former residence structure. Mr. Buck indicated that each mobile home slip typically includes a mobile home, small storage shed, and propane or charcoal grill. The mobile homes and storage sheds are locked during the off-season (November through March); however, Mr. Buck indicated that the homes and sheds are vacant and generally not used for storage of any kind. Mr. Buck indicated that each slip is serviced with hook-ups to electricity, water from on-site domestic wells, and the campground's septic system. Mr. Buck indicated that the campground utilizes two domestic water supply wells that are currently permitted by DNREC. Propane gas tanks are provided for use by the campground structures, mobile homes, and gas grills. Mr. Buck indicated that the former residence along Hideaway Lane is used as living quarters by the

campground tenants, and is provided the same utility services as the mobile homes. Mr. Buck indicated that the warehouse structure is used by his personal contracting company for the storage of construction and landscaping equipment. Mr. Buck indicated that he stores petroleum oil/lubricant products for this equipment that range from several quarts to five gallons, which he disposes of at the local landfill's recycling center on a regular basis. Mr. Buck indicated that the campground office/storage building is used during the camping season as the administration office for the campground, storage of pool chemicals, and concession store that sells toiletries to the campers (no food products or kitchen area). He indicated that this structure historically operated a laundry service for the campers that included washing and drying clothing; no dry cleaning services were provided. Mr. Buck indicated that the campground office/storage building's drains are connected to the campground's septic system. Mr. Buck indicated that the two bathhouses, which contain showers, toilets, and sinks, are also connected to the septic system. He indicated that the bathhouse located near Oak Street within the campground has not been in service during the past 10 years. Mr. Buck indicated that the campground's sewage dumping station, located under Hideaway Lane north of the bathhouse, is connected to the campground's septic system. Mr. Buck indicated that the outbuildings store accessories and equipment associated with the mobile homes, household cleaning chemicals (primarily for cleaning the bathhouse), and firewood used at his personal residence.

Mr. Buck indicated that Parcel 18 was undeveloped wooded land prior to being developed into the campground during the early 1970s. Mr. Buck indicated that he does not store or use gasoline or other petroleum products within the campground structures or elsewhere on the campground. Mr. Buck indicated that Parcel 17.02 was historically owned by the Simpler family, who reside north of this parcel along Sprogell Lane. Mr. Buck indicated that the Simpler family farmed the land for corn, and formerly rented a portion of the parcel to a mobile home tenant. Mr. Buck indicated that he did not know the name of the person currently farming the cornfield portion of Parcel 17.02, although he has not observed the farmer using fertilizers, pesticides, etc. Mr. Buck indicated that Parcel 17 has never been developed, and the mobile home located within the southwestern portion of that parcel is vacant and not connected to utilities. Mr. Buck indicated that, to the best of his knowledge, the subject property has not operated as a gas station, dry cleaner, landfill, or other environmentally-sensitive business during

the past 41 years. He indicated that he was not aware of the historical use of ASTs, USTs, or environmental concerns related to the site or the surrounding vicinity. Mr. Buck did not provide GTA with contact information for Ms. Eileen McCaffery.

GTA provided the Client with a User questionnaire regarding Natelli Communities' knowledge of environmental concerns associated with the subject property. The Client has indicated that Natelli Communities is unaware of:

- environmental cleanup liens against the subject property (filed under federal, tribal, state, or local law);
- activities and land use limitations (AULs), such as engineering controls, land use restrictions, institutional controls that are in place at the subject property;
- specialized knowledge or experience related to the environmental condition of the site or nearby properties;
- lowering of the purchase price of the site because contamination is known or believed to be present;
- information about the site that would help identify conditions indicative of releases or threatened releases; or
- obvious indicators that point to the presence or likely presence of contamination at the subject property.

A copy of the completed User questionnaire is included in *Appendix C*.

## **4.0 SITE HISTORY**

### **4.1 Aerial Photographs**

In an effort to assess historical land use practices on the site and in the vicinity, GTA reviewed aerial photographs dated 1937, 1953, 1954, 1961, 1963, 1968, 1992, 1997, 1999, 2002, 2005, 2006, 2007, 2009, 2010, and 2011 maintained by the Delaware Geologic Survey's DataMIL, Nationwide Environmental Title Research, LLC, Terraserver, and Google. Copies of the 1937 and 2010 aerial photographs are included as *Figures 4* and *5*, respectively. A summary of GTA's interpretation of the aerial photographs follows. The aerials were reviewed chronologically, and significant land use changes that were observed are described below.

The 1937 (*Figure 4*) aerial photograph indicates that Parcel 17 appeared as undeveloped wooded land, and that Parcel 17.02 appeared as agricultural land with no structures or roadways

improved throughout the parcel. Parcel 18 appeared as open land with sections of wooded land in the central and southern portions of the parcel. The site vicinity contained mostly agricultural land, wooded land, and scattered farm complexes. Local roadways observed near the subject property included White Necks Road to the west and Sprogell Lane to the north. No indications of large-scale industrial or commercial land uses were observed near the subject property.

The 1953, 1954, 1961, 1963, and 1968 aerial photographs indicate that Parcel 17.02 was improved with a small farm complex that apparently contained four structures, which do not appear to correspond to the existing barn structures. An unimproved driveway appeared to provide access from White Necks Road to this farm complex. Parcels 17 and 18 appear as wooded land. Conditions of the surrounding vicinity appeared generally consistent with those observed on the 1937 aerial photograph, with some additional residential development. A farm complex appeared approximately 270 feet north of Parcel 17.02 and approximately 800 feet south of Sprogell Lane.

The 1992 aerial photograph indicates that the structures improved on Parcel 17.02 appeared to correspond to the existing western-facing barn and part of the southern-facing barn. One structure on this parcel observed on the 1953 through 1968 aerial photographs, located near the center of the unimproved driveway, remained on this aerial photograph. An additional structure, possibly a mobile home, was observed on this parcel approximately 75 feet northwest of the western-facing barn. Site conditions on Parcels 17 and 18 appeared generally as they currently exist; Parcel 17 remained as undeveloped woods, and Parcel 18 (Jims Hideaway Campground) appeared to contain numerous mobile homes, the existing structural amenities, and unimproved roadways. An additional structure was observed in the southwestern corner of Parcel 18, adjacent to the intersection of Bucks Road and Hideaway Lane. The conditions of the surrounding vicinity appeared generally consistent with those observed on the 1953 through 1968 aerial photographs with an increase in residential and commercial development north and northeast of the subject property. A horse track and associated complex, located off of Main A Dieu Lane and Track Lane, were observed approximately 900 feet west/southwest of Parcel 17.02.

The 1997 and 1999 aerial photographs indicate that site conditions on Parcel 17.02 appeared generally as they currently exist, in addition to a mobile home approximately 50 feet southwest of the western-facing barn and a shed immediately east of the southern-facing barn. The structure located near the center of Parcel 17.02's unimproved driveway, as observed on the 1938 through 1992 aerial photographs, appeared to be removed.

The 2002 aerial photograph indicates that conditions on the subject property and surrounding vicinity appeared generally consistent with those observed on the 1997 and 1999 aerial photographs. The structure located on Parcel 18 near the intersection of Bucks Road and Hideaway Lane appeared to be removed.

The 2005 aerial photograph indicates that the portion of land on Parcel 17.02 previously used for agricultural purposes, located south of the parcel's structures and north of Bucks Road, appeared to be open land. Areas north and east of Parcel 17.02 remained as agricultural land. The adjacent residence of Mr. John Buck was present, in addition to an overall increase of residential development to the northeast, east, and southeast of the subject property.

The 2006 aerial photograph indicates that conditions on the site and surrounding vicinity appeared generally consistent with those observed on the 2005 aerial photograph. Cleared land prepared for development was observed south of the subject property in the location of the current Bay Forest at Bethany Beach site.

The 2007 aerial photograph indicates that site and surrounding vicinity appeared generally consistent with those observed on the 2006 aerial photograph. Development of the Bay Forest at Bethany Beach site appeared to have begun, and a structure related to the existing water treatment system plant for that development, located approximately 360 feet south of Parcel 17.02 along White Necks Road, was observed.

The 2009 and 2010 aerial photographs indicate that the two sheds located east of Parcel 17.02's southern-facing barn appeared to be removed. The portion of Parcel 17.02 located south of the parcel's structures appeared to be used for agricultural purposes again. The Buck

residence appeared to have expanded with sheds and a cleared area west of the main residence, and stored equipment and tractors west of the campground. Development of the Bay Forest at Bethany Beach site appeared to continue with improved roadways and residential structures.

The 2011 aerial photograph indicates that the mobile home located northwest of the western-facing barn on Parcel 17.02 appeared to have been removed. Conditions on the remaining portions of the subject property and surrounding vicinity were generally consistent with those observed on the 2009 and 2010 aerial photographs.

#### **4.2 Historical Maps**

GTA personnel searched the ProQuest database of *Sanborn Fire Insurance Maps* for the subject property and/or site vicinity. *Sanborn Maps* depicting the subject property and/or site vicinity were not available for review.

GTA reviewed the previous edition of the USGS Rehobeth, DE 15 Minute Quadrangle Map, dated 1918. The 1918 USGS Map depicts one residence in the northwestern portion of Parcel 17.02, just east of White Necks Road. The USGS Map did not identify the ground cover on the subject property or in the site vicinity. Scattered residential structures and open land dominated land uses in the immediate site vicinity.

GTA reviewed the USGS Bethany Beach, DE and Frankford, DE 7.5 Minute Quadrangle Maps, dated 1984 (based on 1981 aerial photography) and revised in 1991. The USGS Map base information and photo-revisions depict conditions on and near the subject property that were generally consistent with those observed on the aerial photographs.

#### **4.3 Other Sources**

GTA was not supplied with chain of title documentation concerning the subject property. Based on the availability of other historical resources summarized herein, no city directories were reviewed as part of this ESA.

#### **4.4 Previous Reports**

GTA requested copies of previous ESAs or other environmental investigations from the Client and Mr. John Buck (a representative of the current property owner). The Client and Mr. Buck indicated that they were not aware of other ESAs or other environmental investigations of the site.

#### **4.5 Historical Summary**

Based on a review of historical information and information provided by the property owners or representatives thereof, the subject property has historically contained open and wooded land. Prior to 1953, a farm complex was constructed on the western portion of the subject property. Between 1992 and 1997, this farm complex was removed and replaced with two existing barns and a former mobile home. The mobile home was removed by 2011. During the 1970s, the eastern and southeastern portions of the subject property were developed with the existing Jims Hideaway Campground. The surrounding vicinity has contained open fields, wooded land, farms, and scattered residences. Residential development recently commenced south of the subject property.

### **5.0 REGULATORY INFORMATION**

#### **5.1 Local Regulatory Review**

GTA submitted written and electronic mail inquiries, dated December 17, 2012 and December 21, 2012, to the Sussex County EOC and DNREC's Division of Air and Waste Management and Division of Ground Water Discharge concerning potential environmental issues associated with the subject property. Between December 24, 2012 and January 9, 2013, GTA received responses from DNREC's Division of Air and Waste Management (Tank Management Branch, Site Investigation and Restoration Branch, Emergency Prevention and Response Branch, Division of Air Quality, and Enforcement Branch), each of which indicated that "No records have been found in this branch pursuant to the... request." Between January 2 and 7, 2013, GTA received responses from DNREC's Division of Ground Water Discharge. This information primarily pertained to the Jim's Hideaway Campground and a former residence located near the campground and included records pertaining to septic systems and a domestic

<b>FEDERAL DATABASES SEARCHED BY INFOMAP</b>		
<b>Database</b>	<b>Description</b>	<b>ASTM Search Distance</b>
CERCLIS-NFRAP	Archived CERCLIS sites with a status of No Further Remedial Action Planned (NFRAP), denoting sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. The NFRAP status does not necessarily indicate that no environmental concerns are present.	½ mile
RCRA COR	Hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity.	1 mile
RCRA TSD	Resource Conservation and Recovery Information System, hazardous waste Treatment, Storage, and Disposal Facilities.	½ mile
RCRIS LQG	RCRIS sites that are hazardous waste large-quantity generators.	Subject property and adjoining properties
RCRIS SQG	RCRIS sites that are hazardous waste small-quantity generators.	Subject property and adjoining properties
IC/EC	Institutional Controls or Engineering Controls maintained for the purpose of tracking sites that may contain residual contamination and activity and use limitations.	Subject property
ERNS	Emergency Response Notification System. Information on releases of oil and hazardous substances.	Subject property

<b>STATE &amp; TRIBAL DATABASES SEARCHED BY INFOMAP</b>		
<b>Database</b>	<b>Description</b>	<b>ASTM Search Distance</b>
NPL	Equivalent of Federal NPL sites.	1 mile
STATE SITES	State Hazardous Waste Sites, which is the state equivalent to CERCLIS.	½ mile
SWL	Solid Waste Acceptance Facilities/Landfills, which may include active or inactive facilities, landfills, or open dumps.	½ mile
UST/AST	Registered underground and above-ground storage tank sites.	Subject property and adjoining properties
LUST	Cases monitored by the Oil Control Program (OCP), which can be leaking underground storage tanks (LUSTs), other below ground releases, leaking above-ground storage tanks (LASTs), spills, and inspections.	½ mile
Brownfields	MDE/EPA Voluntary Cleanup Program	½ mile
IC/EC	Equivalent to Federal IC/EC Registries.	Subject property

The InfoMap Report did not identify sites that appear to correspond to the subject property, or sites within the ASTM search distances.

## **6.0 FINDINGS**

### **6.1 Summary**

The subject property is located east of Whites Neck Road (Delaware Road 347), and both north of and at the terminus of Bucks Road, in the Ocean View area of Sussex County, Delaware. The subject property contains Jim's Hideaway Campground, which consists of approximately 113 mobile homes and associated sheds, a campground office/storage building, a former residence, a warehouse, an in-ground pool, two bathhouses, two metal storage container units, and three storage outbuildings. The remainder of the subject property contains a mobile home, several barns and outbuildings, open and agricultural land, and wooded areas. Historically, the subject property primarily consisted of open and wooded land. Prior to 1953, a farm complex was constructed on the western portion of the subject property and was removed and replaced with two existing barns and a former mobile home during the 1990s. The mobile home was removed by 2011. During the 1970s, the eastern and southeastern portions of the subject property were developed with the existing Jims Hideaway Campground. The campground is serviced by private wells and septic systems, and several structures and mobile homes in the campground are heated with propane stored in above ground tanks. A pallet of empty 275-gallon ASTs is located on the southeastern portion of the subject property; however, the manager of the campground indicated that the ASTs are for his personal contracting company and are not associated with the campground. No other ASTs, USTs, groundwater monitoring wells, or similar environmental concerns were identified in association with the subject property. The subject property was not identified as a site of known environmental concern or regulation in an environmental regulatory database report.

The surrounding vicinity has historically contained open fields, wooded land, farms, and scattered residences. Residential development has occurred in the surrounding vicinity in recent years, primarily corresponding to other portions of the Bay Forest development south of the subject property. A federal and state environmental regulatory database report did not identify sites of environmental concern in the surrounding vicinity.

## **6.2 Conclusions**

GTA has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-05 of the subject property (Bay Forest, Sections 3 and 4), as described herein. Any exceptions to, or deletions from, this practice are described in *Section 1.3* of this report. This assessment has revealed no evidence of RECs in connection with the subject property.

Although not considered a REC at this time, several structures were previously located on the subject property and are no longer present. Such former structures may have utilized USTs for the storage of heating oil, farm fuel, or other products. GTA recommends that if buried wastes, USTs, or contaminated media are encountered during future site activities, such materials should be removed and an environmental evaluation of the area performed.

Although not considered a REC at this time, several water supply wells are currently located on the site. GTA recommends that if the wells are no longer needed, they should be properly abandoned by a State of Delaware licensed driller in accordance with applicable state and local regulations.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***

# Important Information about Your Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

## **Beware of Change; Keep Your Geoenvironmental Professional Advised**

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

## **Recognize the Impact of Time**

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

## **Prepare To Deal with Unanticipated Conditions**

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at

adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered*, because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

### **Do Not Permit Any Other Party To Rely on the Report**

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

### **Avoid Misinterpretation of the Report**

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

### **Give Contractors Access to the Report**

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

### **Do Not Separate Documentation from the Report**

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

### **Understand the Role of Standards**

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.

Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

### **Realize That Recommendations May Not Be Final**

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

### **Understand That Geotechnical Issues Have Not Been Addressed**

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The

equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

### **Read Responsibility Provisions Closely**

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

### **Rely on Your Geoenvironmental Professional for Additional Assistance**

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.

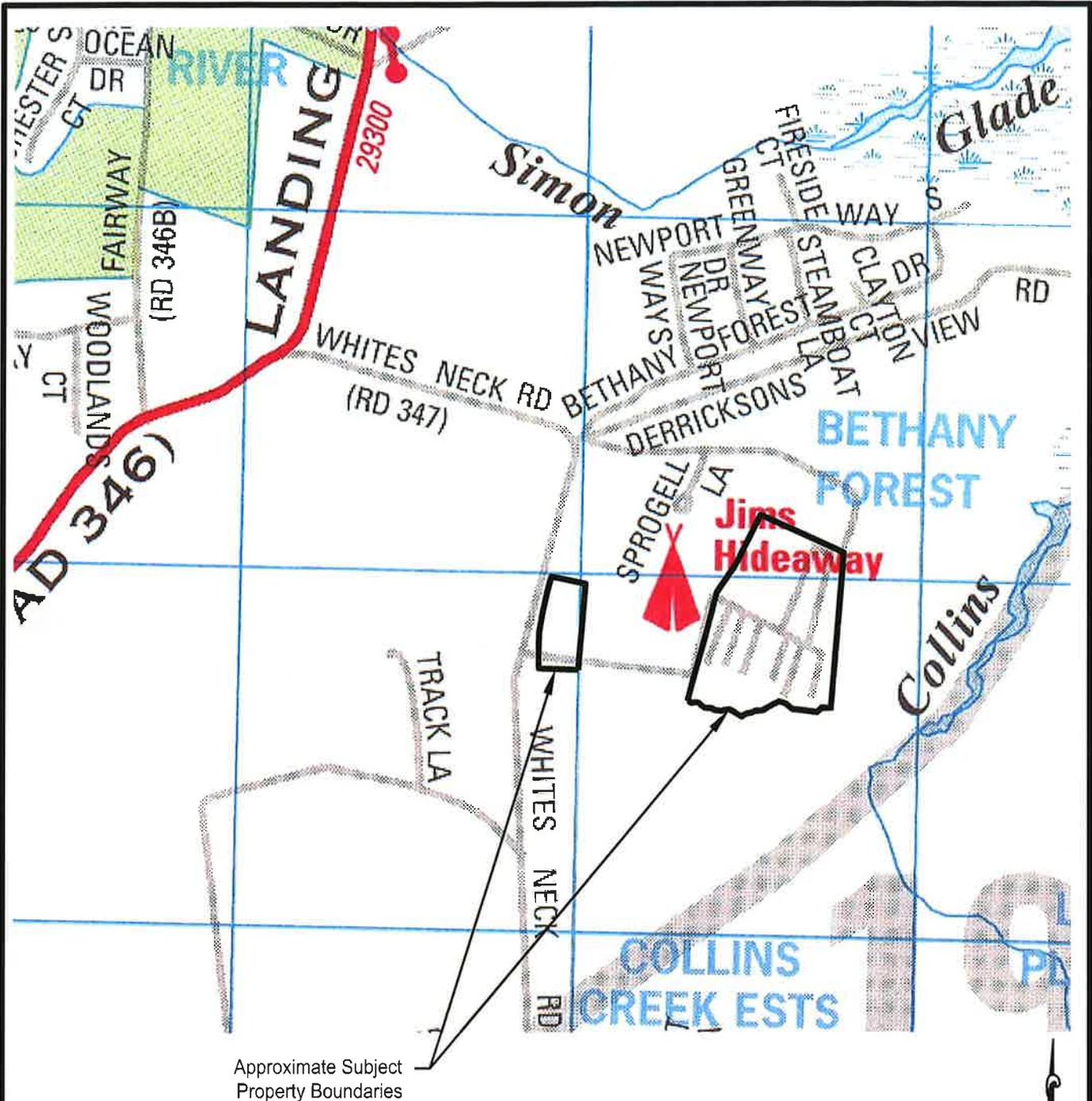


8811 Colesville Road/Suite G106, Silver Spring, MD 20910  
Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: [info@asfe.org](mailto:info@asfe.org) [www.asfe.org](http://www.asfe.org)

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# **APPENDIX A**

## **FIGURES**



**Notes**

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 Permitted Use Number 21006238



Approximate Scale  
 1 inch = 1,000 feet

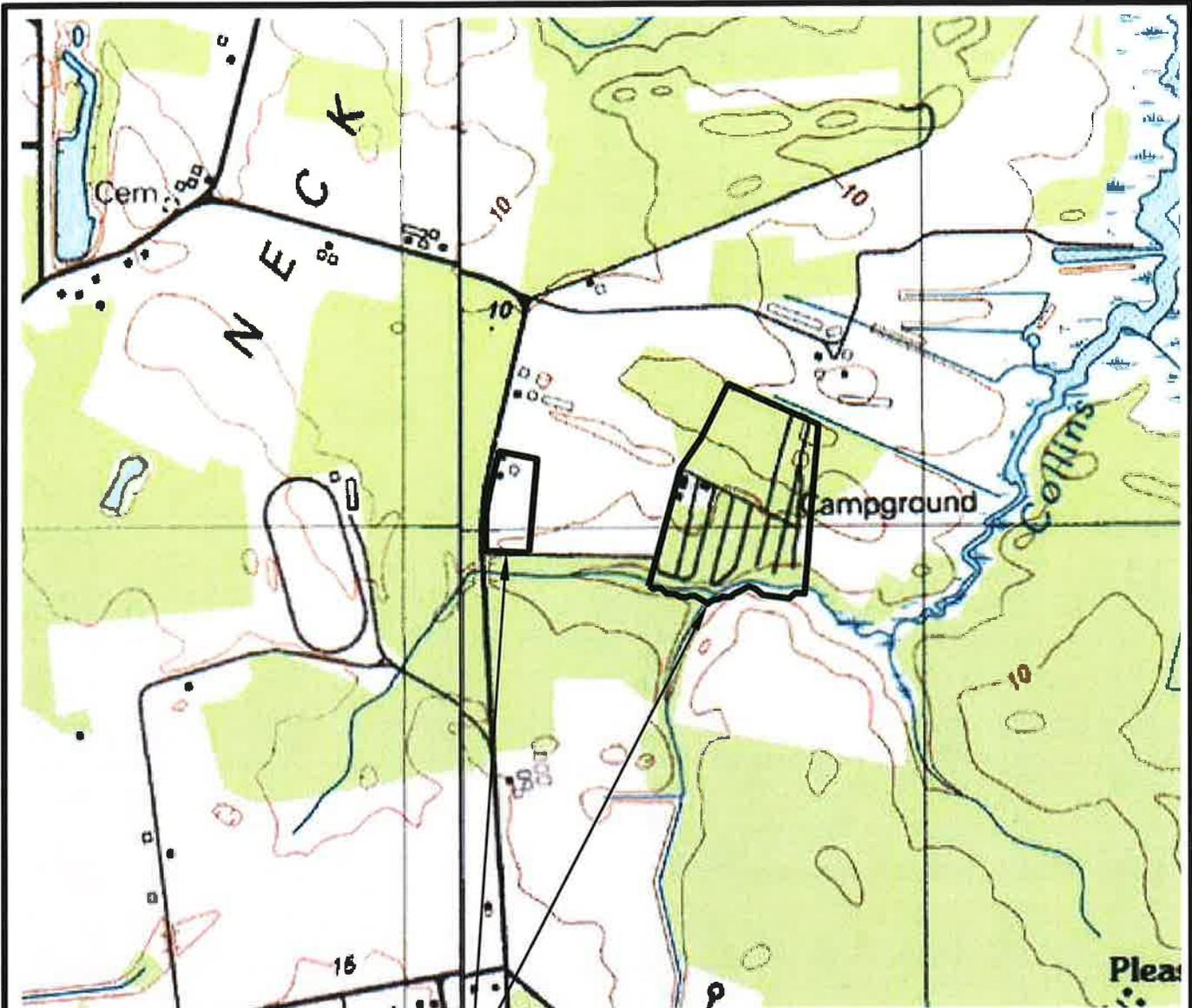


**GEO-TECHNOLOGY ASSOCIATES, INC.**  
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

14280 PARK CENTER DRIVE, SUITE A  
 LAUREL, MARYLAND 20707  
 (410) 792-9446 OR (301) 470-4470  
 FAX: (410) 792-7395  
 www.mragta.com  
 © Geo-Technology Associates, Inc.

BAY FOREST, SECTIONS 3 & 4  
 SUSSEX COUNTY, DELAWARE

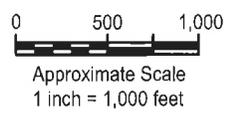
**SITE LOCATION MAP**



Approximate Subject  
Property Boundaries

**Notes**

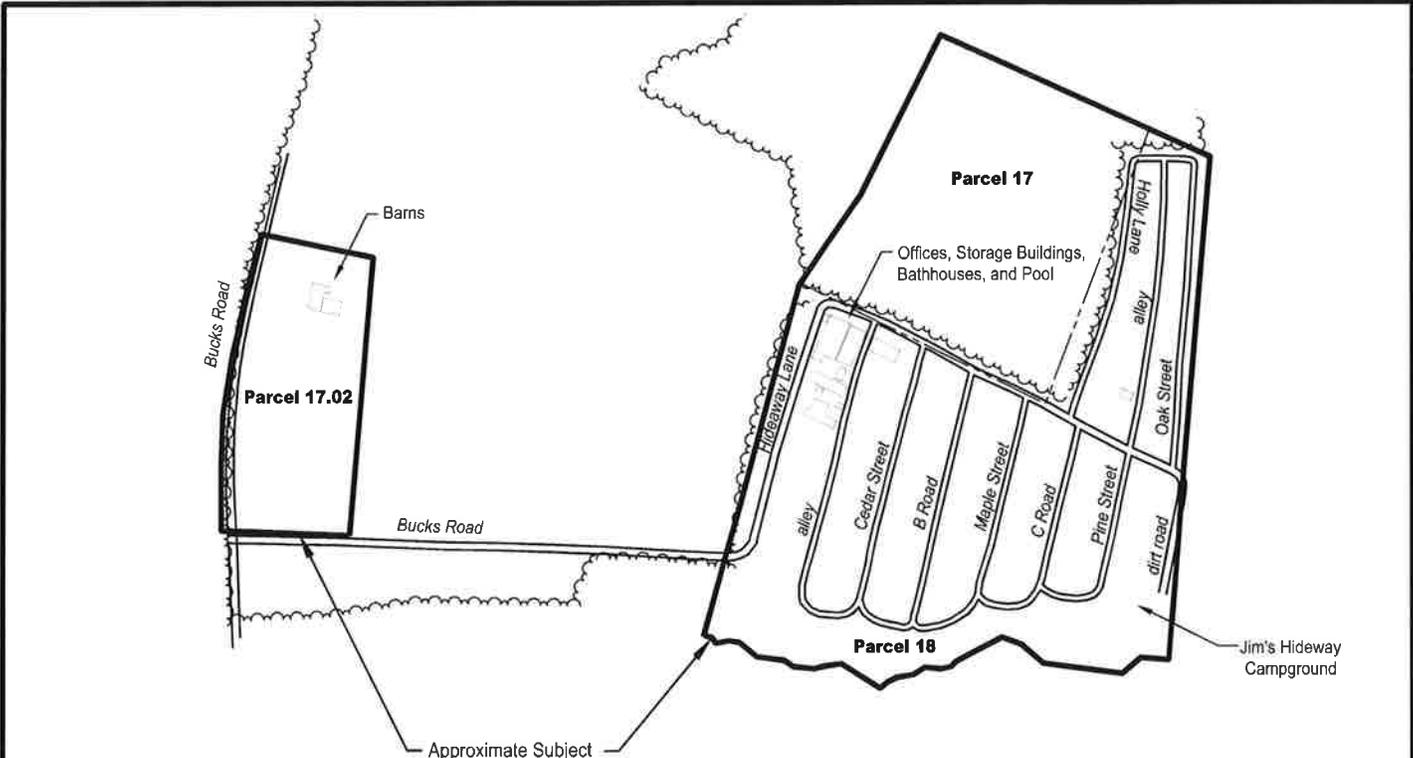
1. Based on the USGS Frankford, DE & Bethany Beach, DE 7.5 Minute Quadrangle Maps.
2. Copyright 2010 MyTopo, Inc.



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 (410) 792-9446 OR (301) 470-4470  
 FAX: (410) 792-7395  
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**BAY FOREST, SECTIONS 3 & 4**  
**SUSSEX COUNTY, DELAWARE**

**TOPOGRAPHIC MAP**



**Legend**

-  Treeline
-  Parcel Boundary

0 150 300  
 Approximate Scale  
 1 inch = 300 feet



Approximate Subject  
 Property Boundaries

**Notes**

1. Based on a 2012 aerial photograph and site observations.
2. Property boundaries and site conditions are approximate.



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BAY FOREST, SECTIONS 3 & 4  
 SUSSEX COUNTY, MARYLAND

**SITE SKETCH**

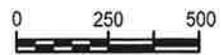
PROJECT: 120712	DATE: DECEMBER 2012	SCALE: 1" = 300'	DESIGN BY: SAM	REVIEW BY: KPP	FIGURE: 3
-----------------	---------------------	------------------	----------------	----------------	-----------



Approximate Subject  
Property Boundaries

**Notes**

1. Base map image obtained from Delaware DataMIL.



Approximate Scale  
1 inch = 500 feet



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14280 PARK CENTER DRIVE, SUITE A  
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(410) 792-9446 OR (301) 470-4470  
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**BAY FOREST, SECTIONS 3 & 4**  
**SUSSEX COUNTY, DELAWARE**

**1937 AERIAL PHOTOGRAPH**

PROJECT: 120712

DATE: DECEMBER 2012

SCALE: 1" = 500'

DESIGN BY: SAM

REVIEW BY: KPP

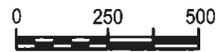
FIGURE: 4



Approximate Subject  
Property Boundaries

**Notes**

1. Base image obtained from Google Earth.



Approximate Scale  
1 inch = 500 feet



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(410) 792-9446 OR (301) 470-4470  
FAX: (410) 792-7395  
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**BAY FOREST, SECTIONS 3 & 4**  
SUSSEX COUNTY, DELAWARE

**2010 AERIAL PHOTOGRAPH**

PROJECT: 120712

DATE: DECEMBER 2012

SCALE: 1" = 500'

DESIGN BY: SAM

REVIEW BY: KPP

FIGURE: 5

**APPENDIX B**

**SITE PHOTOGRAPHS**



**Photo 1:** Overview of the mobile home located within Parcel 17 of the subject property. View looking north.



**Photo 2:** Overview of the debris pile located east of the mobile home within Parcel 17. View looking east.



**Photo 3:** Overview of the scattered tires and metal 55-gallon drum located within Parcel 17. View looking east.



**Photo 4:** Overview of the plastic 55-gallon drum located within Parcel 17. View looking northwest.



**Photo 5:** Overview of Parcel 17.02 looking at the cornfield north towards the barns. View is to the north.



**Photo 6:** Overview of the western-facing barn located within Parcel 17.02. View is to the northeast.



**Photo 7:** Overview of the first bay (chicken coup) of the western-facing barn on Parcel 17.02. View looking west.



**Photo 8:** Overview of the second bay of the western-facing barn on Parcel 17.02.



**Photo 9:** Overview of the third and fourth bays of the western-facing barn on Parcel 17.02.



**Photo 10:** Overview of the fifth bay of the western-facing barn on Parcel 17.02.



**Photo 11:** Overview of the rear of the western-facing barn and dilapidated chicken coup run-out, and the northern side of the southern-facing barn on Parcel 17.02. View looking west.



**Photo 12:** Overview of the southern-facing barn on Parcel 17.02. View looking northwest.



**Photo 13:** Overview of the room entered through the main entrance of the southern-facing barn on Parcel 17.02.



**Photo 14:** Overview of the fountain equipment stored in the southern-facing barn on Parcel 17.02.



**Photo 15:** Overview of a buried PVC pipe in the northwestern portion of on Parcel 17.02. View looking west towards White Necks Road (Delaware Road 347).



**Photo 16:** Overview of electric power connections for the former mobile home near the western-facing barn on Parcel 17.02. View looking east.



**Photo 17:** Overview of the water supply well pump installed in a small wooden shed near the western-facing barn on Parcel 17.02.



**Photo 18:** Overview of the possible location of an abandoned water supply well (sticks in the hole), with pump shed in the background, on Parcel 17.02. View looking northwest towards White Necks Road (Delaware Road 347).



**Photo 19:** Overview of the entrance into Jims Hideaway Campground (Parcel 18) from Bucks Road. View looking northeast.



**Photo 20:** Overview of the western side of the former residence located along Hideaway Lane within Parcel 18. View looking northeast.



**Photo 21:** Overview of the eastern side of the former residence located along Hideaway Lane within Parcel 18. View looking southwest.



**Photo 22:** Overview of the warehouse and metal storage container located adjacently to the former residence along Hideaway Lane within Parcel 18. View looking northeast.



**Photo 23:** Overview of the campground office/storage building and metal storage container located along Hideaway Lane adjacently to the warehouse. View looking northeast.



**Photo 24:** Overview of the northern and western sides of the campground office/storage building followed by the warehouse along Hideaway Lane within Parcel 18. View looking southeast.



**Photo 25:** Overview of a storage outbuilding located along Hideaway Lane across from the campground office/storage building within Parcel 18. View looking northwest.



**Photo 26:** Overview of the in-ground pool located in the rear of the campground office/storage building, followed by the mobile office trailer, grey storage outbuilding, and warehouse within Parcel 18. View looking southeast.



**Photo 27:** Overview of the sewage dumping station located within Hideaway Lane, north of the bathhouse and northeast of the campground office/storage building, within Parcel 18. View looking southwest.



**Photo 28:** Overview of the northern side of the bathhouse located along Hideaway Lane within Parcel 18. View looking southeast.



**Photo 29:** Overview of the utility room inside the bathhouse located along Hideaway Lane within Parcel 18.



**Photo 30:** Overview of the bathhouse located along Oak Street within Parcel 18. View looking west.



**Photo 31:** Overview of the utility room inside the bathhouse located along Hideaway Lane within Parcel 18.



**Photo 32:** Overview of an electric panel and pad-mounted transformer located along C Road within Parcel 18. View looking southwest.



**Photo 33:** Overview of a typical pole-mounted located within Parcel 18.



**Photo 34:** Overview of a domestic water supply well located along Cedar Lane within Parcel 18.



**Photo 35:** Overview of Bucks Road and the portion of Parcel that is part of the Buck residence. View looking southwest from Hideaway Lane towards White Necks Road (Delaware Road 347).



**Photo 36:** Overview of two 275-gallon gasoline ASTs and two 55-gallon plastic drums located within a fenced area south of Bucks Road that is used by the Buck family (not part of the subject property). View looking west.

**APPENDIX C**  
**CORRESPONDENCE**

**GEO-TECHNOLOGY ASSOCIATES, INC.**

GEOTECHNICAL AND  
ENVIRONMENTAL CONSULTANTS

*A Practicing ASFE Member Firm*



December 17, 2012

Emergency Operations Center  
21911 Rudder Lane  
P.O. Box 589  
Georgetown, DE 19947

Re: Phase I Environmental Site Assessment  
**Bay Forest-Sections 3 & 4**  
Oceanview, Delaware 19970

To Whom It May Concern:

Geo-Technology Associates, Inc. (GTA) is conducting a Phase I Environmental Site Assessment (ESA) of the above referenced property, which is located along **Bucks Road**, which is east of Whites Neck Road (Delaware Road 347, in the Oceanview area of Sussex County, Delaware. A site location map is attached to this request. According to the Sussex County Assessment Department, the Beaver Dam Estates property is identified by the following **Tax Information**:

District: 1-34  
Map: 8.00  
Parcel: 17.0, 17.02, and 18.0

As part of this ESA, GTA is requesting information concerning any known environmental incidents or accidents; operating, inactive, or proposed landfills; hazardous waste facilities; leaking underground storage tanks; past HAZMAT responses; or similar information regarding the subject property and vicinity.

If you have any questions, please contact GTA at the number below. Thank you for your attention to this matter, and we look forward to your response.

Sincerely,  
**GEO-TECHNOLOGY ASSOCIATES, INC.**

Tracy C. Hayden  
Environmental Scientist

Attachment (Site Location Map)

S:\Project Files\2012\120712 Bay Forest\Doc\rescueltr.doc

11200 Bucks Corner Drive, Suite 11, Laurel, Maryland 20637 Phone: 410-525-5444, (301) 470-4470 Fax: (301) 792-7395

✦ Abingdon, MD ✦ Laurel, MD ✦ Frederick, MD ✦ Waldorf, MD ✦ Sterling, VA ✦ Somerset, NJ  
✦ New Castle, DE ✦ Georgetown, DE ✦ York, PA ✦ Quakertown, PA ✦ Charlotte, NC

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# Delaware Division of Water Resources

## Public Record Request

I request permission to review the following documents, pursuant to the Freedom of Information Act ("FOIA"), Title 29, [Delaware Code](#), Chapter 100.

Date:

\*Name:

Company:

\*Address:

\*City:

\*State:

\*Zip Code:

\*Telephone Number:

Fax Number:

Email Address:  (Optional)

\*I request access to or a copy of the following Division of Water Resources public records:

I am performing a Phase I Environmental Site Assessment of property located east of Whites Neck Road and north of Bucks Road in the Ocean View area of Sussex County, DE. Tax records indicate that the site's property address is "E/RT 347 2655' N/RT 349" and is identified as District 134, Tax Map 8, Parcel 17.02 (owned under the name Bay Forest, LLC). Mr. Frank Ucan, a representative of the development Natelli Communities, indicated that a mobile home was using a private well at this site. Previous owners include Ethelyn Mitchell and Alice Simpler. I am requesting any information your department would have regarding this site. Please note my company's project reference number #120712 in your reply, thank you!

(Please identify the facility or site records as accurately as possible. Use of tax parcel numbers, etc., will facilitate processing your request.)



Or print form and fax to: 302.739.1892 or mail to:

Division of Water  
 Attention: FOIA Staff  
 Department of Natural Resources and Environmental Control  
 89 Kings Highway  
 Dover, DE 19901



[| DNREC Home](#)

[| Delaware's Home Page](#) | [Privacy](#) | [Translate](#) |

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Natural Resources and Environmental Control  
Division of Water  
89 Kings Hwy  
Dover, DE 19901  
(302) 739-9950

## Plocek, Kevin

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:24 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request

---

From: Shotwell Lori L. (DNREC) [Lori.Shotwell@state.de.us]  
Sent: Wednesday, January 02, 2013 11:17 AM  
To: Hayden, Tracy  
Cc: Owens Jennifer D. (DNREC)  
Subject: FW: FOIA Request

There is no information on file under that tax map number or previous owner names. Thanks.

-----Original Message-----

From: Lovell Stewart E. (DNREC)  
Sent: Wednesday, January 02, 2013 11:02 AM  
To: Shotwell Lori L. (DNREC)  
Subject: FW: FOIA Request

One well record

-----Original Message-----

From: Owens Jennifer D. (DNREC)  
Sent: Monday, December 24, 2012 7:14 AM  
To: Lovell Stewart E. (DNREC); Schepens Dave J. (DNREC)  
Subject: FW: FOIA Request

Please compile the data requested below.

Jennifer Owens  
Ground Water Discharge Section  
Department of Natural Resources and Environmental Control  
302-739-9948

-----Original Message-----

From: [thayden@gtaeng.com](mailto:thayden@gtaeng.com) [mailto:[thayden@gtaeng.com](mailto:thayden@gtaeng.com)]  
Sent: Friday, December 21, 2012 2:07 PM  
To: Dwrfoia (MailBox Resources)  
Subject: FOIA Request

I request permission to review the following documents, pursuant to the Freedom of Information Act (FOIA), Title 29, Delaware Code, Chapter 100.

Date: 12/21/2012  
Name: Tracy Hayden  
Company: Geo-Technology Associates, inc.  
Address: 14280 Park Center Drive, Suite A

City: Laurel  
State: MD  
Zip Code: 20707  
Telephone Number: 4438783686  
Fax Number: 4107927395  
Email Address: [thayden@gtaeng.com](mailto:thayden@gtaeng.com)

I request access to or a copy of the following Division of Water Resources public records:

I am performing a Phase I Environmental Site Assessment of property located east of Whites Neck Road and north of Bucks Road in the Ocean View area of Sussex County, DE. Tax records indicate that the site's property address is "E/RT 347 2655' N/RT 349" and is identified as District 134, Tax Map 8, Parcel 17.02 (owned under the name Bay Forest, LLC). Mr. Frank Ucan, a representative of the development Natelli Communities, indicated that a mobile home was using a private well at this site. Previous owners include Ethelyn Mitchell and Alice Simpler. I am requesting any information your department would have regarding this site. Please note my company's project reference number #120712 in your reply, thank you!



# Delaware Division of Water Resources

## Public Record Request

I request permission to review the following documents, pursuant to the Freedom of Information Act ("FOIA"), Title 29, [Delaware Code](#), Chapter 100.

Date:

\*Name:

Company:

\*Address:

\*City:

\*State:

\*Zip Code:

\*Telephone Number:

Fax Number:

Email Address:  (Optional)

\*I request access to or a copy of the following Division of Water Resources public records:

I am performing a Phase I Environmental Site Assessment of property known as Jim's Hideaway campground located along Hideaway Lane (east of Whites Neck Road, off of Bucks Road) in the Ocean View area of Sussex County, DE. Tax records indicate that the site is identified as District 134, Tax Map 8, Parcels 17 and 18 (owned under the name Eileen P. McCaffery). Mr. John Buck, family member of the property owner, indicated that the campground utilizes two private wells in addition to multiple septic systems. I am requesting any information your department would have regarding this site. Please note my company's project reference number #120712 in your reply, thank you!

(Please identify the facility or site records as accurately as possible. Use of tax parcel numbers, etc., will facilitate processing your request.)

Or print form and fax to: 302.739.1892 or mail to:

Division of Water  
Attention: FOIA Staff  
Department of Natural Resources and Environmental Control  
89 Kings Highway  
Dover, DE 19901



[| DNREC Home](#)

[| Delaware's Home Page](#) | [Privacy](#) | [Translate](#) |

© 2005 Delaware Department of  
Natural Resources and Environmental Control  
Division of Water  
89 Kings Hwy  
Dover, DE 19901  
(302) 739-9950

## Plocek, Kevin

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:23 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request project reference number #120712  
**Attachments:** 210404.pdf; 210404b.pdf

---

From: Shotwell Lori L. (DNREC) [Lori.Shotwell@state.de.us]  
Sent: Wednesday, January 02, 2013 11:26 AM  
To: Hayden, Tracy  
Cc: Owens Jennifer D. (DNREC)  
Subject: FW: FOIA Request project reference number #120712

-----Original Message-----

From: Lovell Stewart E. (DNREC)  
Sent: Wednesday, January 02, 2013 11:02 AM  
To: Shotwell Lori L. (DNREC)  
Subject: FW: FOIA Request

Two well records

-----Original Message-----

From: Owens Jennifer D. (DNREC)  
Sent: Monday, December 24, 2012 7:13 AM  
To: Lovell Stewart E. (DNREC); Schepens Dave J. (DNREC)  
Subject: FW: FOIA Request

Please compile the data requested below.

Jennifer Owens  
Ground Water Discharge Section  
Department of Natural Resources and Environmental Control  
302-739-9948

-----Original Message-----

From: [thayden@gtaeng.com](mailto:thayden@gtaeng.com) [mailto:[thayden@gtaeng.com](mailto:thayden@gtaeng.com)]  
Sent: Friday, December 21, 2012 1:58 PM  
To: Dwrfoia (MailBox Resources)  
Subject: FOIA Request

I request permission to review the following documents, pursuant to the Freedom of Information Act (FOIA), Title 29, Delaware Code, Chapter 100.

Date: 12/21/2012  
Name: Tracy Hayden  
Company: Geo-Technology Associates, inc.  
Address: 14280 Park Center Drive, Suite A  
City: Laurel  
State: MD  
Zip Code: 20707

Telephone Number: 4438783686  
Fax Number: 4107927395  
Email Address: [thayden@gtaeng.com](mailto:thayden@gtaeng.com)

I request access to or a copy of the following Division of Water Resources public records:

I am performing a Phase I Environmental Site Assessment of property known as Jim's Hideaway campground located along Hideaway Lane (east of Whites Neck Road, off of Bucks Road) in the Ocean View area of Sussex County, DE. Tax records indicate that the site is identified as District 134, Tax Map 8, Parcels 17 and 18 (owned under the name Eileen P. McCaffery). Mr. John Buck, family member of the property owner, indicated that the campground utilizes two private wells in addition to multiple septic systems. I am requesting any information your department would have regarding this site.

Please note my company's project reference number #120712 in your reply, thank you!

MAN 10

WATER SUPPLY SECTION  
DIVISION OF WATER RESOURCES  
BY KING'S HIGHWAY  
DOVER, DELAWARE 19901

PHONE: 302-739-3665  
FAX: 302-739-7764

STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL

WELL COMPLETION REPORT

http://www.dnr.state.de.us

WELL COMPLETION REPORT  
MUST BE RETURNED WITHIN 30  
DAYS OF COMPLETION. A  
WELL IDENTIFICATION TAG MUST BE  
INCLUDED WITH THIS REPORT.  
- OFFICIAL USE ONLY -

ILLEGIBLE OR INCOMPLETE FORMS WILL BE RETURNED  
PLEASE PRINT OR TYPE - USE BLUE OR BLACK INK ONLY

PAGE \_\_\_ OF \_\_\_ PAGES

Permit # of completed well: 61041061 Local ID: \_\_\_\_\_

File Map/Sheet #: 1-21-9-18

Property Owner: McLafferty

Water Well Contractor: Wagner Well Use: LD

Well Owner in Charge during Construction: Secheji

Well Construction Method:

Augered  Piled  Cable Tool

Driven  Jetted  Air Rotary

Mud Motor  Reverse  Washed

Other (Specify): \_\_\_\_\_

Test Depth of Excavation: 100

Construction Date: 8/30/05

**CASING INSTALLATION:**

CASING JOB	INNER CASING					OUTER CASING
	(1)	(2)	(3)	(4)	(5)	
CASING BOTTOM:	<u>90</u>					
CASING DIA/WEIBER:	<u>4</u>					
CASING MATERIAL:	<u>PVC</u>					

**SCREEN INSTALLATION**

SCREEN TOP: 80

SCREEN BOTTOM: 90

SCREEN DIAMETER: 2

SCREEN MATERIAL: PVC

Ground Jack Form: 80 to 90

Ground Type:  Concrete  Benneite Clay

Other: \_\_\_\_\_ From: 0 ft. To: 80 ft.

Type of Hole About Backfill of Well Annulus: \_\_\_\_\_

From: \_\_\_\_\_ To: \_\_\_\_\_

Static Water Level: 4 ft.  Below  At  Above Ground Surface

On date: 8/30/05

Pumping Water Level: 10 ft. On date: 8/30/05

After: 2 hrs. Pumping at: 25 GPM

Was a Geophysical Log Taken?  YES  NO

**WELL HEAD COMPLETION:**

Type:  Flange Adapter  Standard "T"

Well Pit  Pad Mount

Other - Specify: \_\_\_\_\_

Well Head Completed: 5 inches  Above (OR)  Below Ground Surface

Was the Well Tag attached in accordance with current regulations?  YES  NO If "NO" Please Explain: \_\_\_\_\_

**TYPE OF PERMANENT PUMP INSTALLED:**

Pump Manufacturer: bon 105

Rated Capacity (GPM): 18

Pump Intake Setting: 30 ft.  Below  At  Above Ground Surface

Pump Installed by: Wagner On date: 8/30/05

The location and construction of this well is in Compliance with all permit conditions and all applicable well construction regulations  YES  NO

If "NO," attach a copy of the opinion of well permit showing the revised location clearly marked.

COMMENTS: \_\_\_\_\_

FOR ANY APPLICABLE INFORMATION HAVE SUBMITTED IS ACCURATE AND COMPLETE.

Signature: Well Owner in Charge of Well Construction: Secheji Date: 8/30/05

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

RECEIVED  
SEP 14 2005  
WATER SUPPLY



WATER SUPPLY SECTION  
DIVISION OF WATER RESOURCES  
50 KINGS HIGHWAY  
DOVER, DELAWARE 19701

PHONE: 302-739-3665  
FAX: 302-739-9761

STATE OF DELAWARE  
DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL  
JUN 21 2005  
APPLICATION FOR A PERMIT  
GROUNDWATER CONSTRUCT A WELL

APPLICATION MUST BE SUBMITTED  
AND PERMIT RECEIVED BEFORE  
DRILLING IS STARTED.

- OFFICIAL USE ONLY -

PAGE # \_\_\_\_\_ OF \_\_\_\_\_ PAGES  
PERMIT NO: 210404

ILLEGIBLE OR INCOMPLETE FORMS WILL BE RETURNED

PLEASE TYPE OR PRINT - USE BLUE OR BLACK INK ONLY

Property Owner: EILEEN McCaffery  
Address: 32471 VINES CREEK RD  
City: DOVER State: DE Zip: 19939  
Telephone Number: 302-539-6095  
Licensed Preparer/WC: W. WEBER  
Lic. #: 319 Date of Application: 6-17-05  
Estimated Construction Date: 6-23-05

PURPOSE:  Test  Permanent  Temporary for Well Construction

USE:  Domestic  Irrigation  
 Industrial  Agricultural  
 Public  Heat Pump Supply  
 Miscellaneous Public  Heat Pump Recharge  
 Other (Specify)  Closed Loop Heat Pump

Is this a replacement well?  NO  YES (Reason): \_\_\_\_\_

Is public water available?  NO  YES (Utility): \_\_\_\_\_

On public sewer?  YES  OR Septic system permit #: 200621-5

PROPOSED WELL CONSTRUCTION:

Approximate total depth: \_\_\_\_\_ ft.  
Casing top (above grade): \_\_\_\_\_ in.  
Casing bottom (below grade): \_\_\_\_\_ ft.  
Casing diameter: \_\_\_\_\_ in.  
Casing material: \_\_\_\_\_  
Proposed screen setting: \_\_\_\_\_ ft. TO: \_\_\_\_\_ ft. Material: PVC  
Type of Grout: BENT From: \_\_\_\_\_ To: \_\_\_\_\_  
Gravel pack:  NO  YES Front: \_\_\_\_\_ To: \_\_\_\_\_  
Maximum capacity: 10 (GPM) Max. Daily Withdrawal: 500 (GPD)

Will the operation of this well by itself or in combination with any other well(s), owned or operated by the permittee, withdraw greater than 50,000 gallons in any 24 hr. period?  NO  YES

I HEREBY AFFIRM THE INFORMATION I HAVE SUBMITTED IS ACCURATE AND COMPLETE.

Signature - Licensed Preparer/Water Well Contractor: Wanda S. Weber 6/18/05

Signature - Property Owner: Eileen McCaffery 6/16/05

Please release the contractor's copy of the permit and the well tag to the water well contractor noted on this application:

YES  NO

- FOR OFFICIAL USE ONLY - DO NOT WRITE BELOW THIS LINE -

Received By: LB Modified Grid: \_\_\_\_\_ DRBC:  YES  NO X-Coord: \_\_\_\_\_  
Amount: 35.00 Draining Basin: \_\_\_\_\_ H2O Utility: \_\_\_\_\_ Y-Coord: \_\_\_\_\_  
Date: 6-21-05 Quad: \_\_\_\_\_ Flood Zoning (Consolidated) 5 601 1674 DOT #: MISC IS-04

Ink - Water Supply

Canary - Work

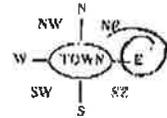
Pink - Owner

Doc No. 40-08/8/05/01-EC 2

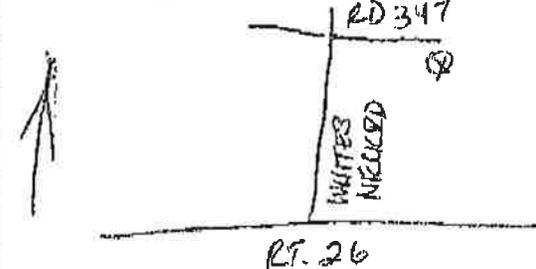
LOCATION MAP - ROAD MAP

County:  New Castle  Kent  Sussex  
Subdivision: \_\_\_\_\_  
Lot #: \_\_\_\_\_ ADC Map Grid: 34H9  
Tax Map/Parcel #: 1-34-B-18  
Name of Nearest Town: DARSBORO  
Distance to Nearest Town: 8 MI

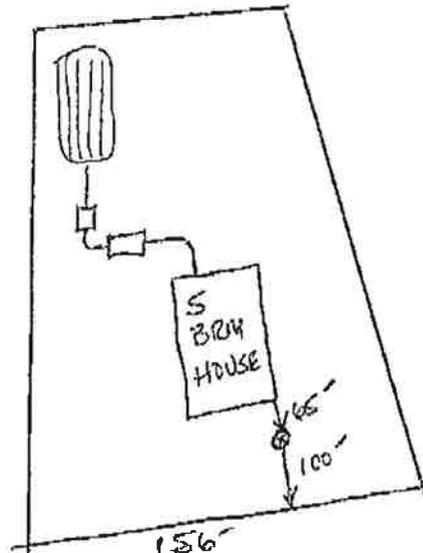
DIRECTION OF WELL FROM TOWN (CIRCLE DIRECTION)



Draw a sketch below showing location of well in relation to at least two county or state roads, give distance from well site to nearest road junction and SHOW NORTH ARROW.



Site Plan - Include lot size and dimensions, distances from well to house, property lines, nearest road, and all nearby septic systems (include suitable plot plan if available).



PERMIT #: 210404

[Close Window](#)[Print Details](#)**Sussex County, Delaware****Treasury Division**

P.O. Box 429, Georgetown, DE 19947-0429

**302-855-7760****Tax Summary**

<b>Owners Name(s):</b>		<b>District - Map - Parcel - Unit</b>	
MCCAFFERY ELLEN P		1-34-8.00 18.00 Unit PARKC	
<b>Billing Address:</b>		<b>Additional Owners:</b>	
MCCAFFERY ELLEN P			
PK 7 BOX 180A DAGEBROOK DE 19939			
<b>Property Description:</b>		<b>Deed Book Information:</b>	
DM'S HIDEAWAY IN WILDERNESS BRT 47		Deed Book : 2150 Deed Page : 233	
<b>School District:</b>			
Indian River School District			
<b>Property Appraised Value Information:</b>			
Land Appraised Value:	\$61,100.00		
Improvement(s) Appraised Value:	\$43,500.00		
<b>Total Appraised Value:</b>	<b>\$104,600.00</b>		
<b>Other Property Information:</b>			
Land Use: Tract			
Zone:			
Tax District: Middle Fire District			

Please note that the information provided here is based upon the annual tax billing for the selected property and does not include any quarterly or special billings.

The Assessed value of the property reflects 50% of the 1974 Appraised Value and this is what your taxes are calculated on. The Assessed value may not include recent improvements to the property due to the fact that the information here is based ONLY on the annual billing. The Assessed Value Displayed may include applicable State and/or County Exemptions.

**Total Assessed Value: \$52,300.00****County Tax Information:**

County Tax:	\$210.09	County Cap Tax:	\$3.00
County Discount:	(\$48.33)		

**Total County Taxes: \$164.76****School Tax Information:**

School District: Indian River school District

School Tax: \$1,392.51

School Cap Tax: \$2.00

School District: Sussex Tech

School Tax: \$110.92

**Total of School Taxes: \$1,324.43**

# Divisions of Air and Waste & Hazardous Substances Freedom of Information Act (FOIA) Request Form

## How do I submit a FOIA request?

FOIA requests may be electronically submitted using the submittal form at the bottom of this page. They can also be mailed or faxed by identifying the specific file or record you wish to inspect as explicitly as possible, and send your request, in letter form to: Department of Natural Resources and Environmental Control (DNREC), Divisions of Air & Waste & Hazardous Substances, Attn: FOIA Request Processor, 89 Kings Highway, Dover, DE 19901 or fax to 302-739-1894. An example request would begin as follows, with the appropriate Branch(es) indicated: "Pursuant to the Freedom of Information Act, I am requesting access to the files from the Hazardous Waste Branch concerning the ABC Facility, located at 123 Main Street, Dover, DE 19901." If for any reason during the processing of your request, you find that the information you requested is no longer needed, please contact the FOIA Request Processor at (302)739-9400 so that your request can be withdrawn.

## What information must my FOIA request include?

Requests shall adequately describe the record(s) sought. Please include information such as facility names, addresses, permit numbers and if possible, any information that would assist in the determination of which branches to distribute the request to. Any requests that require the Division to perform research or to assemble information that has not been compiled will be returned to the requester. The Environmental Navigator found on the Department's website ([www.dnrec.state.de.us](http://www.dnrec.state.de.us)) may be helpful in refining a request before it is submitted to the Department.

*Please note: The Division does not have the capability to research requests described by tax parcel numbers or site maps.*

---

## FOIA Request Web Submittal Form

Date:	<input type="text" value="12/21/12"/>
Name of Requester:	<input type="text" value="Tracy Hayden"/>
Requester's Company Name:	<input type="text" value="Geo-Technology Associates, Inc."/>
Requester's Address :	<input type="text" value="14280 Park Center Drive, Suite A"/>
City:	<input type="text" value="Laurel"/>
State:	<input type="text" value="MD"/>
Zip Code:	<input type="text" value="20707"/>
Telephone Number:	<input type="text" value="4438783686"/>
E-Mail Address:	<input type="text" value="thayden@gtaeng.com"/>

### Facility/Site Information

**Site or Facility Name:**

**Name of Facility Owner:**

**Specific Street Address:**

**City:**

**Zip Code:**

### Media(s) of interest: Check all apply.

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Division of Air Quality   | <input checked="" type="checkbox"/> Environmental Response             |
| <input checked="" type="checkbox"/> Solid and Hazardous Waste | <input checked="" type="checkbox"/> Site Investigation and Restoration |
| <input checked="" type="checkbox"/> Enforcement               | <input checked="" type="checkbox"/> Tank Management                    |

Please include any additional information in regard to your request in the space below.

I am performing a Phase I Environmental Site Assessment of property located east of Whites Neck Road and north of Bucks Road in the Ocean View area of Sussex County, DE. Tax records indicate that the site's property address is "E/RT 347 2655' N/RT 349" and is identified as District 134, TaxMap 8, Parcel 17.02 (owned under the name Bay Forest, LLC). Previous owners include Ethelyn Mitchell and Alice Simpler. I am requesting any information your department would have regarding this site. Please note my company's project reference number #120712 in your reply, thank you!

**DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISIONS OF AIR & WASTE & HAZARDOUS SUBSTANCES  
FOIA REQUEST PROCESSOR  
89 KINGS HIGHWAY, DOVER, DE 19901 – (302)739-9400  
INTERNET ADDRESS: [www.dnrec.state.de.us](http://www.dnrec.state.de.us)**

All of the following documents are available for downloading and are in the Adobe Acrobat's Portable Document Format ( PDF). You will need a copy of Adobe Acrobat Reader to view and print these documents. You can download a free copy of the Adobe Acrobat Reader by clicking on the image to the right.



- [Department of Natural Resources and Environmental Control  
Freedom of Information Act Policy](#)
- [Delaware's Freedom of Information Act](#)

# Divisions of Air and Waste & Hazardous Substances Freedom of Information Act (FOIA) Request Form

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---

## FOIA Request Web Submittal Form

Date:	<input type="text" value="12/21/12"/>
Name of Requester:	<input type="text" value="Tracy Hayden"/>
Requester's Company Name:	<input type="text" value="Geo-Technology Associates, Inc."/>
Requester's Address :	<input type="text" value="14280 Park Center Drive, Suite A"/>
City:	<input type="text" value="Laurel"/>
State:	<input type="text" value="MD"/>
Zip Code:	<input type="text" value="20707"/>
Telephone Number:	<input type="text" value="4438783686"/>
E-Mail Address:	<input type="text" value="thayden@gtaeng.com"/>

**Facility/Site Information**

**Site or Facility Name:**

**Name of Facility Owner:**

**Specific Street Address:**

**City:**

**Zip Code:**

**Media(s) of interest: Check all apply.**

- Division of Air Quality
- Solid and Hazardous Waste
- Enforcement
- Environmental Response
- Site Investigation and Restoration
- Tank Management

Please include any additional information in regard to your request in the space below.

I am performing a Phase I Environmental Site Assessment of property known as Jim's Hideaway campground located along Hideaway Lane (east of Whites Neck Road, off of Bucks Road) in the Ocean View area of Sussex County, DE. Tax records indicate that the site is identified as District 134, Tax Map 8, Parcels 17 and 18 (owned under the name Eileen P. McCaffery). I am requesting any information your department would have regarding this site. Please note my company's project reference number #120712 in your reply, thank you!

**DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISIONS OF AIR & WASTE & HAZARDOUS SUBSTANCES  
FOIA REQUEST PROCESSOR  
89 KINGS HIGHWAY, DOVER, DE 19901 – (302)739-9400  
INTERNET ADDRESS: [www.dnrec.state.de.us](http://www.dnrec.state.de.us)**

All of the following documents are available for downloading and are in the Adobe Acrobat's Portable Document Format ( PDF). You will need a copy of Adobe Acrobat Reader to view and print these documents. You can download a free copy of the Adobe Acrobat Reader by clicking on the image to the right.



- [Department of Natural Resources and Environmental Control  
Freedom of Information Act Policy](#)
- [Delaware's Freedom of Information Act](#)

## Plocek, Kevin

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:24 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request Info

---

**From:** [Luella.Allen@state.de.us](mailto:Luella.Allen@state.de.us) [Luella.Allen@state.de.us]  
**Sent:** Monday, December 24, 2012 12:03 PM  
**To:** Hayden, Tracy  
**Subject:** FOIA Request Info

DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
INTERNET ADDRESS: [www.awm.delaware.gov](http://www.awm.delaware.gov)

### FREEDOM OF INFORMATION ACT RESPONSE FORM

Date: From:  
Tank Management Branch  
391 Lukens Drive  
New Castle, DE 19720  
302-395-2500  
[Luella.Allen@state.de.us](mailto:Luella.Allen@state.de.us)

To:  
Tracy Hayden  
Geo-Technology Associates  
14280 Park Center Drive Suite A  
Laurel, MD 20707

Facility/Site(s): Bay Forest property & Jims Hideaway campground

Request Disposition:  
No records have been found in this branch pursuant to the above referenced request.

Comments:

Should you have any questions, please do not hesitate to call the contact person for the branch.

PLEASE NOTE THE FOLLOWING:

Your request may have been distributed to other Branches applicable. Those Branches will respond individually to your request.

The Division of Air & Waste Management (DAWM) files records according to site/facility/ owner name, whichever may be applicable. The DAWM can not search files based upon tax parcel number or street address.

## Plocek, Kevin

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:24 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request Info

---

**From:** [vanessa.hamm@state.de.us](mailto:vanessa.hamm@state.de.us) [vanessa.hamm@state.de.us]  
**Sent:** Thursday, December 27, 2012 12:13 PM  
**To:** Hayden, Tracy  
**Subject:** FOIA Request Info

DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
INTERNET ADDRESS: [www.awm.delaware.gov](http://www.awm.delaware.gov)

### FREEDOM OF INFORMATION ACT RESPONSE FORM

Date: From:  
Site Investigation and Restoration Branch  
391 Lukens Drive  
New Castle , DE 19720  
302-395-2600  
[vanessa.hamm@state.de.us](mailto:vanessa.hamm@state.de.us)

To:  
Tracy Hayden  
Geo-Technology Associates  
14280 Park Center Drive Suite A  
Laurel, MD 20707

Facility/Site(s): Bay Forest property & Jims Hideaway campground

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**Plocek, Kevin**

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:24 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request Info

**From:** [donna.donovan@state.de.us](mailto:donna.donovan@state.de.us) [donna.donovan@state.de.us]  
**Sent:** Thursday, December 27, 2012 8:43 AM  
**To:** Hayden, Tracy  
**Subject:** FOIA Request Info

DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
INTERNET ADDRESS: [www.awm.delaware.gov](http://www.awm.delaware.gov)

FREEDOM OF INFORMATION ACT RESPONSE FORM

Date: From:  
Emergency Prevention and Response  
89 Kings Highway  
Dover, DE 19901  
302-739-9404  
[donna.donovan@state.de.us](mailto:donna.donovan@state.de.us)

To:  
Tracy Hayden  
Geo-Technology Associates  
14280 Park Center Drive Suite A  
Laurel, MD 20707

Facility/Site(s): Bay Forest property & Jims Hideaway campground

Request Disposition:  
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## Plocek, Kevin

---

**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:24 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA Request Info

---

**From:** [Nicole.D.Hill@state.de.us](mailto:Nicole.D.Hill@state.de.us) [[Nicole.D.Hill@state.de.us](mailto:Nicole.D.Hill@state.de.us)]  
**Sent:** Wednesday, January 02, 2013 10:37 AM  
**To:** Hayden, Tracy  
**Subject:** FOIA Request Info

DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
INTERNET ADDRESS: [www.awm.delaware.gov](http://www.awm.delaware.gov)

### FREEDOM OF INFORMATION ACT RESPONSE FORM

Date: From:  
Air Quality Management  
Blue Hen Corporate Center 655 S. Bay Road, Suite 5 N  
Dover, DE 19901  
302-739-9402  
[Nicole.D.Hill@state.de.us](mailto:Nicole.D.Hill@state.de.us)

To:  
Tracy Hayden  
Geo-Technology Associates  
14280 Park Center Drive Suite A  
Laurel, MD 20707

Facility/Site(s): Bay Forest property & Jims Hideaway campground

Request Disposition:  
No records have been found in this branch pursuant to the above referenced request.

Comments:

Should you have any questions, please do not hesitate to call the contact person for the branch.

PLEASE NOTE THE FOLLOWING:

Your request may have been distributed to other Branches applicable. Those Branches will respond individually to your request.

The Division of Air & Waste Management (DAWM) files records according to site/facility/ owner name, whichever may be applicable. The DAWM can not search files based upon tax parcel number or street address.

## Plocek, Kevin

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**From:** Hayden, Tracy  
**Sent:** Tuesday, January 08, 2013 3:22 PM  
**To:** Plocek, Kevin  
**Subject:** FW: FOIA request for Sussex County tax map numbers 1-34-8.00-17 & 18, Jim's Hideaway & Eileen McCaffrey

---

**From:** Cassidy James W. (DNREC) [James.Cassidy@state.de.us]  
**Sent:** Monday, January 07, 2013 3:34 PM  
**To:** Hayden, Tracy  
**Cc:** Schepens Dave J. (DNREC); Owens Jennifer D. (DNREC)  
**Subject:** FOIA request for Sussex County tax map numbers 1-34-8.00-17 & 18, Jim's Hideaway & Eileen McCaffrey

Tracy,

I have searched the records and data bases used by the Groundwater Discharge Section (GWDS) and have found the following permit records.

Permit 206621 issued to Eileen McCaffrey, permitted on 3/17/05 for 1 single family (4 bedroom) dwelling. System was installed 10/03/2005. There is no record of the systems current operating condition. This permit is available in the Georgetown GWDS Office for review, or via fax or email.

Permits 3043-73S was issued in 1973 for 5 systems in Jim's Hideaway. No inspection information is known about this permit at this time. The permit is available for review in the Dover GWDS office. It is on micro-film making it very difficult to obtain copies and even more difficult to forward them electronically.

Permit 3105-72 was issued in 1972 for 2 systems to be located at a bath house. These permits were issued under the name James Buck. No inspection information is known about this permit at this time. The permit is available for review in the Dover GWDS office. It is on micro-film making it very difficult to obtain copies and even more difficult to forward them electronically.

This is all I could find under the information given. If you have further questions or wish to view the permits that are on micro-film please feel free to contact me at 856-4561 or via email.

Respectfully,

Jim Cassidy  
Environmental Program Manager I  
GWDS

**Plocek, Kevin**

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**From:** Hayden, Tracy  
**Sent:** Wednesday, January 09, 2013 12:03 PM  
**To:** Plocek, Kevin  
**Subject:** Fwd: FOIA Request Info

another one came in this morning

Sent from my iPhone

Begin forwarded message:

**From:** <[donna.alderucci@state.de.us](mailto:donna.alderucci@state.de.us)>  
**Date:** January 9, 2013, 9:51:52 AM EST  
**To:** <[thayden@gtang.com](mailto:thayden@gtang.com)>  
**Subject:** FOIA Request Info

DELAWARE DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL  
CONTROL  
DIVISION OF AIR & WASTE MANAGEMENT  
INTERNET ADDRESS: [www.awm.delaware.gov](http://www.awm.delaware.gov)

FREEDOM OF INFORMATION ACT RESPONSE FORM

Date: From:  
Environmental Crimes Unit  
89 Kings Highway  
Dover, DE 19901  
302-739-9401  
[donna.alderucci@state.de.us](mailto:donna.alderucci@state.de.us)

To:  
Tracy Hayden  
Geo-Technology Associates  
14280 Park Center Drive Suite A  
Laurel, MD 20707

Facility/Site(s): Bay Forest property & Jims Hideaway campground

Request Disposition:  
No records have been found in this branch pursuant to the above referenced request.

Comments:

Should you have any questions, please do not hesitate to call the contact person for the branch.

**PLEASE NOTE THE FOLLOWING:**

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**GEO-TECHNOLOGY ASSOCIATES, INC.**  
GEOTECHNICAL AND  
ENVIRONMENTAL CONSULTANTS



## CONVERSATION RECORD

**INDIVIDUAL:** Mr. Rick Moore

**DATE:** December 27, 2012

**FIRM:** Operations Dept, DEC

**JOB NO.:** GTA 120712

**PHONE NO.:** (855) 332-9090

**REFERENCE:** Request for Information

### NOTES:

Mr. Moore needed specific address locations to research their database of PCB-containing electrical transformers, and the names of the unimproved roadways located throughout the campground were not recognized in the Delaware Electric Cooperative (DEC) database. Mr. Moore stated that he would send a DEC lineman out to the subject property to gather the information necessary to determine if the six pole-mounted transformers located within the campground were in their database. Mr. Moore stated that he would contact my cell phone with his reply.

**SIGNED:** Tracy C. Hayden

**CC:** \_\_\_\_\_

- 3445-A BOX HILL CORPORATE CENTER DRIVE, ABINGDON, MD 21009
- 14280 PARK CENTER DRIVE, SUITE A, LAUREL, MD 20707
- 45064-A UNDERWOOD LANE, STERLING, VA 20166
- 5115-C PEGASUS COURT, FREDERICK, MD 21701
- 18 BOULDEN CIRCLE, SUITE 36, WILMINGTON, DE 19720

- (410) 515-9446 ■ FAX: (410) 515-4895
- (410) 792-9446 ■ FAX: (410) 792-7395
- (703) 478-0055 ■ FAX: (703) 478-0137
- (301) 682-5226 ■ FAX: (301) 682-9254
- (302) 326-2100 ■ FAX: (302) 236-2399

# PHASE I ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

To: Mr. Tom Natelli, Jr. (Natelli Communities)

From: Tracy Hayden

Date: December 21, 2012



At your request, Geo-Technology Associates, Inc. (GTA) has started a Phase I Environmental Site Assessment (ESA) of the **Bay Forest, Sections 3 & 4** site, in Sussex County, Delaware. As you probably know, we use the Phase I ESA to evaluate the likelihood that the site may have been impacted with petroleum or hazardous substances (i.e., we identify Recognized Environmental Conditions [RECs]).

Based on the current ASTM Standard (E1527-05), we need to ask you (as our client and the "User" of the report) several questions about the property. Obviously, you've asked us to develop a professional opinion about the site's environmental condition. But in order to prepare an ASTM-compliant Phase I ESA, we also need to use any relevant knowledge that you may have.

Please review the questions below and provide your responses (to the best of your knowledge), explaining any "yes" answers at the bottom of the page. Please either return the completed form, or call me to discuss with verbal responses.

1. Do you know of any environmental cleanup liens against the site (filed under federal, tribal, state, or local law)?	Yes <input checked="" type="radio"/> No
2. Are you aware of any "activity and use limitations" (AULs), such as engineering controls, land use restrictions, institutional controls, that are in place at the site? (e.g., deed notice, capped soil, groundwater use restrictions, residential prohibition, etc.)	Yes <input checked="" type="radio"/> No
3. Do you have any specialized knowledge or experience related to the environmental condition of the site or nearby properties? (e.g., familiarity with a particular business activity or land use on or near the site)	Yes <input checked="" type="radio"/> No
4. Do you have reason to believe that the purchase price of the site has been lowered because contamination is known or believed to be present?	Yes <input checked="" type="radio"/> No
5. Are you aware of information about the site that would help identify conditions indicative of releases or threatened releases? (e.g., past uses, above or below ground storage tanks, chemical storage, spills, cleanups, etc.)	Yes <input checked="" type="radio"/> No
6. Do you know of any obvious indicators that point to the presence or likely presence of contamination at the site?	Yes <input checked="" type="radio"/> No

Please explain any "yes" answers: *Sections 3 + 4 of Bay Forest have been farmed for many years. There is a 27 acre property which adjoins Bay Forest, that is currently used as a campground.*

Name THOMAS NATELLI

Company NATELLI COMMUNITIES

Signature T. A. Natelli

Date 1/3/2013

# **APPENDIX D**

**INFOMAP ENVIRONMENTAL FIRSTSEARCH™**

**REPORT**

**InfoMap**  
Technologies Incorporated

## **Environmental FirstSearch™ Report**

Target Property: 120712

**WHITES NECK ROAD**  
**OCEAN VIEW DE 19970**

Job Number: 120712

**PREPARED FOR:**

Geo-Technology Associates, Inc.  
14280 Park Center Drive  
Laurel, MD 20707

12-15-12



*Tel: (610) 430-7530*

*Fax: (610) 430-7535*

**Environmental FirstSearch  
Search Summary Report**

**Target Site:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**FirstSearch Summary**

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	09-20-12	1.25	0	0	0	0	0	0	0
NPL Delisted	Y	09-20-12	0.75	0	0	0	0	0	0	0
CERCLIS	Y	10-01-12	0.75	0	0	0	0	0	0	0
NFRAP	Y	10-01-12	0.75	0	0	0	0	0	0	0
RCRA COR ACT	Y	09-11-12	1.25	0	0	0	0	0	0	0
RCRA TSD	Y	09-11-12	0.75	0	0	0	0	0	0	0
RCRA GEN	Y	09-11-12	0.33	0	0	0	0	-	0	0
Federal Brownfield	Y	10-14-12	0.75	0	0	0	0	0	0	0
ERNS	Y	10-04-12	0.15	0	0	0	-	-	0	0
Tribal Lands	Y	12-15-08	1.25	0	0	0	0	0	2	2
State/Tribal Sites	Y	09-15-12	1.25	0	0	0	0	0	2	2
State Spills 90	Y	NA	0.15	0	0	0	-	-	0	0
State/Tribal SWL	Y	06-15-10	0.75	0	0	0	0	0	0	0
State/Tribal LUST	Y	09-15-12	0.75	0	0	0	0	0	10	10
State/Tribal UST/AST	Y	09-15-12	0.33	0	0	0	0	-	0	0
State/Tribal EC	Y	NA	0.75	0	0	0	0	0	0	0
State/Tribal IC	Y	NA	0.33	0	0	0	0	-	0	0
State/Tribal VCP	Y	01-30-12	0.75	0	0	0	0	0	0	0
State/Tribal Brownfields	Y	01-18-12	0.75	0	0	0	0	0	0	0
Federal IC/EC	Y	12-13-12	0.75	0	0	0	0	0	0	0
- TOTALS -				0	0	0	0	0	14	14

**Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to InfoMap Technologies, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in InfoMap Technologies's databases. All EPA sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent NPL and state landfill the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

**Waiver of Liability**

Although InfoMap Technologies uses its best efforts to research the actual location of each site, InfoMap Technologies does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of InfoMap Technologies's services proceeding are signifying an understanding of InfoMap Technologies's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

**Environmental FirstSearch  
Site Information Report**

**Request Date:** 12-15-12  
**Requestor Name:** kevin plocek  
**Standard:** AAI

**Search Type:** COORD  
**Job Number:** 120712  
**Filtered Report**

**Target Site:** WHITES NECK ROAD  
 OCEAN VIEW DE 19970

*Demographics*

<b>Sites:</b> 14	<b>Non-Geocoded:</b> 14	<b>Population:</b> NA
<b>Radon:</b> NA		

*Site Location*

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
<b>Longitude:</b>	-75.122799	-75:7:22	<b>Easting:</b> 489302.128
<b>Latitude:</b>	38.568932	38:34:8	<b>Northing:</b> 4268742.418
<b>Elevation:</b>	12		<b>Zone:</b> 18

*Comment*

<b>Comment:</b>
-----------------

*Additional Requests/Services*

<b>Adjacent ZIP Codes:</b> 1 Mile(s)	<b>Services:</b>																																		
<table border="1"> <thead> <tr> <th>ZIP Code</th> <th>City Name</th> <th>ST</th> <th>Dist/Dir</th> <th>Sel</th> </tr> </thead> <tbody> <tr> <td>19939</td> <td>DAGSBORO</td> <td>DE</td> <td>0.06 NW</td> <td>Y</td> </tr> </tbody> </table>	ZIP Code	City Name	ST	Dist/Dir	Sel	19939	DAGSBORO	DE	0.06 NW	Y	<table border="1"> <thead> <tr> <th></th> <th>Requested?</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Fire Insurance Maps</td> <td>No</td> <td></td> </tr> <tr> <td>Aerial Photographs</td> <td>No</td> <td></td> </tr> <tr> <td>Historical Topos</td> <td>No</td> <td></td> </tr> <tr> <td>City Directories</td> <td>No</td> <td></td> </tr> <tr> <td>Title Search/Env Liens</td> <td>No</td> <td></td> </tr> <tr> <td>Municipal Reports</td> <td>No</td> <td></td> </tr> <tr> <td>Online Topos</td> <td>No</td> <td></td> </tr> </tbody> </table>		Requested?	Date	Fire Insurance Maps	No		Aerial Photographs	No		Historical Topos	No		City Directories	No		Title Search/Env Liens	No		Municipal Reports	No		Online Topos	No	
ZIP Code	City Name	ST	Dist/Dir	Sel																															
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Online Topos	No																																		

## Environmental FirstSearch Sites Summary Report

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

**TOTAL:** 14      **GEOCODED:** 0      **NON GEOCODED:** 14      **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID	ElevDiff
1	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTA BIA-19939	UNKNOWN DE 19939	NON GC		N/A
1	TRIBALLAND	BUREAU OF INDIAN AFFAIRS CONTA BIA-19970	UNKNOWN DE 19970	NON GC		N/A
4	LUST	MURRAY MOTORS S9209224/INACTIVE	RT. 26 DAGSBORO DE 19939	NON GC		N/A
4	LUST	FORMER BANKS PROPERTY 5-001043	OLD MILL RD and IRONS LANE DAGSBORO DE 19939	NON GC		N/A
4	LUST	ARAGONA RESIDENCE S9108185/INACTIVE	RT. 113 DAGSBORO DE 19939	NON GC		N/A
4	LUST	SHOPPES OF MILLVILLE 9-000155	35265 ATLANTIC AVE OCEAN VIEW DE 19970	NON GC		N/A
4	LUST	MURRAY S ENTERPRISES, INC. S9306116/INACTIVE	CEDAR NECK ROAD OCEAN VIEW DE 19970	NON GC		N/A
4	LUST	KELLAM CITGO S9611191/INACTIVE	26 +OLD SCHOOLHOUSE ROAD OCEAN VIEW DE 19970	NON GC		N/A
4	LUST	HOLTS LANDING STATE PARK S9805074/INACTIVE	RT. 24 MILLVILLE DE 19970	NON GC		N/A
7	LUST	HOCKERS GandE INC 5-000182	UNKNOWN OCEAN VIEW DE 19970	NON GC		N/A
7	LUST	BAYSHORE CAMPGROUND AND PARK S9404086/INACTIVE	CEDAR NECK ROAD OCEAN VIEW DE 19970	NON GC		N/A
7	LUST	ASSAWOMEN WILDLIFE AREA S9504092/INACTIVE	COUNTY 364 ROAD DE 19970	NON GC		N/A
7	STATE	JUSTICE PROPERTY OLD MILL RD DE-1521	OLD MILL RD OCEAN VIEW DE 19970	NON GC		N/A
7	STATE	INDIAN RIVER INLET CYLINDER DE-264	INDIAN RIVER INLET OCEAN VIEW DE 19970	NON GC		N/A

## Environmental FirstSearch Site Detail Report

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

### TRIBALLAND

**SEARCH ID:** 14      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b>	BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION	<b>REV:</b>	01/15/08
<b>ADDRESS:</b>	UNKNOWN DE 19939 SUSSEX	<b>ID1:</b>	BIA-19939
<b>CONTACT:</b>		<b>ID2:</b>	
<b>SOURCE:</b>	BIA	<b>STATUS:</b>	
		<b>PHONE:</b>	

#### BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION

<b>OFFICE:</b>	Eastern Regional Office
<b>CONTACT:</b>	FRANKLIN KEEL,REGIONAL DIRECTOR
<b>ADDRESS:</b>	545 MARRIOTT DR, SUITE 700 Nashville TN 37214
<b>PHONE:</b>	Phone: 615-564-6700
<b>FAX:</b>	Fax: 615-564-6701

The Native American Consultation Database (NACD) is a tool for identifying consultation contacts for Indian tribes, Alaska Native villages and corporations, and Native Hawaiian organizations. The database is not a comprehensive source of information, but it does provide a starting point for the consultation process by identifying tribal leaders and NAGPRA contacts. This database can be accessed online at the following web address <http://home.nps.gov/nacd/>

### TRIBALLAND

**SEARCH ID:** 13      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b>	BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION	<b>REV:</b>	01/15/08
<b>ADDRESS:</b>	UNKNOWN DE 19970 SUSSEX	<b>ID1:</b>	BIA-19970
<b>CONTACT:</b>		<b>ID2:</b>	
<b>SOURCE:</b>	BIA	<b>STATUS:</b>	
		<b>PHONE:</b>	

#### BUREAU OF INDIAN AFFAIRS CONTACT INFORMATION

<b>OFFICE:</b>	Eastern Regional Office
<b>CONTACT:</b>	FRANKLIN KEEL,REGIONAL DIRECTOR
<b>ADDRESS:</b>	545 MARRIOTT DR, SUITE 700 Nashville TN 37214
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<b>FAX:</b>	Fax: 615-564-6701

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**Environmental FirstSearch  
Site Detail Report**

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
12	NON GC		
<b>NAME:</b>	MURRAY MOTORS	<b>REV:</b>	09/15/12
<b>ADDRESS:</b>	RT. 26 DAGSBORO DE 19939	<b>ID1:</b>	S9209224
		<b>ID2:</b>	5-000646
		<b>STATUS:</b>	INACTIVE
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b>	DNREC		
<b>SUBSTANCE RELEASED:</b>	GASOLINE		
<b>DATE CLOSED:</b>	9/22/1992		

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
11	NON GC		
<b>NAME:</b>	FORMER BANKS PROPERTY	<b>REV:</b>	01/15/12
<b>ADDRESS:</b>	OLD MILL RD and IRONS LANE DAGSBORO DE 19939	<b>ID1:</b>	5-001043
		<b>ID2:</b>	5-001043
		<b>STATUS:</b>	
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b>	DNREC		
<b>SUBSTANCE RELEASED:</b>			
<b>DATE CLOSED:</b>			
<p>The DNREC no longer provides details for their LUST list. If there is leak data above, it is from a previous list and NOT current, To get the most current tank data use the DNREC Environmental Navigator at <a href="http://www.nav.dnrec.delaware.gov/DEN3/">http://www.nav.dnrec.delaware.gov/DEN3/</a></p>			

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
10	NON GC		
<b>NAME:</b>	ARAGONA RESIDENCE	<b>REV:</b>	09/15/12
<b>ADDRESS:</b>	RT. 113 DAGSBORO DE 19939	<b>ID1:</b>	S9108185
		<b>ID2:</b>	5-000684
		<b>STATUS:</b>	INACTIVE
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b>	DNREC		

## Environmental FirstSearch Site Detail Report

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
10	NON GC		
<b>NAME:</b> ARAGONA RESIDENCE		<b>REV:</b> 09/15/12	
<b>ADDRESS:</b> RT. 113		<b>ID1:</b> S9108185	
DAGSBORO DE 19939		<b>ID2:</b> 5-000684	
<b>CONTACT:</b>		<b>STATUS:</b> INACTIVE	
<b>SOURCE:</b> DNREC		<b>PHONE:</b>	
<b>SUBSTANCE RELEASED:</b>		GASOLINE	
<b>DATE CLOSED:</b>		8/2/2005	

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
9	NON GC		
<b>NAME:</b> SHOPPES OF MILLVILLE		<b>REV:</b> 01/15/12	
<b>ADDRESS:</b> 35265 ATLANTIC AVE		<b>ID1:</b> 9-000155	
MILLVILLE DE 19970		<b>ID2:</b> 9-000155	
SUSSEX		<b>STATUS:</b>	
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b> DNREC			
<b>SUBSTANCE RELEASED:</b>			
<b>DATE CLOSED:</b>			
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LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
8	NON GC		
<b>NAME:</b> MURRAY S ENTERPRISES, INC.		<b>REV:</b> 09/15/12	
<b>ADDRESS:</b> CEDAR NECK ROAD		<b>ID1:</b> S9306116	
OCEAN VIEW DE 19970		<b>ID2:</b> 5-000452	
<b>CONTACT:</b>		<b>STATUS:</b> INACTIVE	
<b>SOURCE:</b> DNREC		<b>PHONE:</b>	

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
<b>NAME:</b> MURRAY S ENTERPRISES, INC. <b>ADDRESS:</b> CEDAR NECK ROAD OCEAN VIEW DE 19970	NON GC		
<b>CONTACT:</b> <b>SOURCE:</b> DNREC		<b>REV:</b> 09/15/12 <b>ID1:</b> S9306116 <b>ID2:</b> 5-000452 <b>STATUS:</b> INACTIVE <b>PHONE:</b>	
<b>SUBSTANCE RELEASED:</b>	GASOLINE		
<b>DATE CLOSED:</b>	9/23/1993		

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
<b>NAME:</b> KELLAM CITGO <b>ADDRESS:</b> 26 +OLD SCHOOLHOUSE ROAD OCEAN VIEW DE 19970	NON GC		
<b>CONTACT:</b> <b>SOURCE:</b> DNREC		<b>REV:</b> 09/15/12 <b>ID1:</b> S9611191 <b>ID2:</b> 5-000366 <b>STATUS:</b> INACTIVE <b>PHONE:</b>	
<b>SUBSTANCE RELEASED:</b>	GASOLINE		
<b>DATE CLOSED:</b>			

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
<b>NAME:</b> HOLTS LANDING STATE PARK <b>ADDRESS:</b> RT. 24 MILLVILLE DE 19970	NON GC		
<b>CONTACT:</b> <b>SOURCE:</b> DNREC		<b>REV:</b> 09/15/12 <b>ID1:</b> S9805074 <b>ID2:</b> 5-000850 <b>STATUS:</b> INACTIVE <b>PHONE:</b>	
<b>SUBSTANCE RELEASED:</b>	GASOLINE		
<b>DATE CLOSED:</b>	9/4/1998		

## Environmental FirstSearch Site Detail Report

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

### LUST

**SEARCH ID:** 5      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b> HOCKERS GandE INC	<b>REV:</b> 01/15/12
<b>ADDRESS:</b> UNKNOWN	<b>ID1:</b> 5-000182
OCEAN VIEW DE 19970	<b>ID2:</b> 5-000182
SUSSEX	<b>STATUS:</b>
<b>CONTACT:</b>	<b>PHONE:</b>
<b>SOURCE:</b> DNREC	

**SUBSTANCE RELEASED:**

**DATE CLOSED:**

The DNREC no longer provides details for their LUST list. If there is leak data above, it is from a previous list and NOT current, To get the most current tank data use the DNREC Environmental Navigator at <http://www.nav.dnrec.delaware.gov/DEN3/>

### LUST

**SEARCH ID:** 4      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b> BAYSHORE CAMPGROUND AND PARK	<b>REV:</b> 09/15/12
<b>ADDRESS:</b> CEDAR NECK ROAD	<b>ID1:</b> S9404086
OCEAN VIEW DE 19970	<b>ID2:</b> 5-000029
<b>CONTACT:</b>	<b>STATUS:</b> INACTIVE
<b>SOURCE:</b> DNREC	<b>PHONE:</b>

**SUBSTANCE RELEASED:** GASOLINE

**DATE CLOSED:** 8/23/1994

### LUST

**SEARCH ID:** 3      **DIST/DIR:** NON GC      **ELEVATION:**      **MAP ID:**

<b>NAME:</b> ASSA WOMEN WILDLIFE AREA	<b>REV:</b> 09/15/12
<b>ADDRESS:</b> COUNTY 364 ROAD	<b>ID1:</b> S9504092
FRANKFORD DE 19945	<b>ID2:</b> 5-000628
<b>CONTACT:</b>	<b>STATUS:</b> INACTIVE
<b>SOURCE:</b> DNREC	<b>PHONE:</b>

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

LUST			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
3	NON GC		
<b>NAME:</b>	ASSAWOMEN WILDLIFE AREA	<b>REV:</b>	09/15/12
<b>ADDRESS:</b>	COUNTY 364 ROAD FRANKFORD DE 19945	<b>ID1:</b>	S9504092
		<b>ID2:</b>	5-000628
		<b>STATUS:</b>	INACTIVE
<b>CONTACT:</b>		<b>PHONE:</b>	
<b>SOURCE:</b>	DNREC		
<b>SUBSTANCE RELEASED:</b>	DIESEL		
<b>DATE CLOSED:</b>	5/16/1995		

STATE			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
2	NON GC		
<b>NAME:</b>	JUSTICE PROPERTY OLD MILL RD	<b>REV:</b>	09/15/12
<b>ADDRESS:</b>	OLD MILL RD MILLVILLE DE 19970	<b>ID1:</b>	DE-1521
		<b>ID2:</b>	DE-1521
<b>CONTACT:</b>		<b>STATUS:</b>	
<b>SOURCE:</b>	DNREC	<b>PHONE:</b>	
<b><u>DNREC SIRB DATA</u></b>			
<b>PROGRAM:</b>	HSCA		
<b>FACILITY DESCRIPTION:</b>	Landfill-Municipal/Industrial MORE DEATILS PLEASE VISIT THE DEALAWARE ENVIRONMENTAL NAVIGATOR AT <a href="http://www.nav.dnrec.delaware.gov/DEN3/Default.aspx">http://www.nav.dnrec.delaware.gov/DEN3/Default.aspx</a>		

STATE			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
1	NON GC		
<b>NAME:</b>	INDIAN RIVER INLET CYLINDER	<b>REV:</b>	09/15/12
<b>ADDRESS:</b>	INDIAN RIVER INLET OCEAN VIEW DE	<b>ID1:</b>	DE-264
		<b>ID2:</b>	DE-0264
<b>CONTACT:</b>		<b>STATUS:</b>	
<b>SOURCE:</b>	DNREC	<b>PHONE:</b>	

**Environmental FirstSearch  
Site Detail Report**

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

STATE			
SEARCH ID:	DIST/DIR:	ELEVATION:	MAP ID:
<b>NAME:</b> INDIAN RIVER INLET CYLINDER <b>ADDRESS:</b> INDIAN RIVER INLET OCEAN VIEW DE  <b>CONTACT:</b> <b>SOURCE:</b> DNREC	NON GC	<b>REV:</b> 09/15/12 <b>ID1:</b> DE-264 <b>ID2:</b> DE-0264 <b>STATUS:</b> <b>PHONE:</b>	
<b><u>DNREC SIRB DATA</u></b>			
<b>PROGRAM:</b> HSCA			
<b>FACILITY DESCRIPTION:</b> Other MORE DEATILS PLEASE VISIT THE DEALAWARE ENVIRONMENTAL NAVIGATOR AT <a href="http://www.nav.dnrec.delaware.gov/DEN3/Default.aspx">http://www.nav.dnrec.delaware.gov/DEN3/Default.aspx</a>			

## Environmental FirstSearch Descriptions

**NPL: EPA NATIONAL PRIORITY LIST** - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

**NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset** - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

**CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)**- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

**NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES** - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

**RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

**RCRA TSD: EPA** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

**RCRA GEN: EPA/MA DEP/CT DEP** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN - Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

CONNECTICUT HAZARDOUS WASTE MANIFEST - Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records.

MASSACHUSETTES HAZARDOUS WASTE GENERATOR - database of generators that are regulated under the MA DEP.

VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.

SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.

LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

**ERNS: EPA/NRC** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**Tribal Lands: DOI/BIA** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

**State/Tribal Sites: DNREC** STATE SITE INVESTIGATION & RESTORATION(SIRB) DATABASE - Recognizing that the Federal Superfund Program will not address the threat to human health and the environment from all the contaminated sites in the state, the Delaware Legislature enacted the Hazardous Substance Cleanup Act (HSCA) in 1990 to enable the Department of Natural Resources and Environmental Control to cleanup sites not addressed under the Federal Program.

**State/Tribal SWL: DNREC** DATABASE OF ACTIVE SOLID WASTE MANAGEMENT FACILITIES - Permitted landfill database

**State/Tribal LUST: DNREC** DATABASE OF LEAKING STORAGE TANKS - Database of leaking

storage tanks

**State/Tribal UST/AST:** *DNREC* DATABASE OF REGISTERED STORAGE TANKS - Database of registered storage tanks

**State/Tribal VCP:** *DNREC* DELAWARE VOLUNTARY CLEANUP PROGRAM - Sites enrolled in Delaware's Voluntary Cleanup Program.

**State/Tribal Brownfields:** *DENR/EPA* BROWNFIELD DATABASE - Delaware Department of Natural Resources and Environmental Control's listing of Certified Brownfields  
Brownfields Management System (BMS) is an analytical database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

## Environmental FirstSearch Database Sources

**NPL: EPA** Environmental Protection Agency

*Updated quarterly*

**NPL DELISTED: EPA** Environmental Protection Agency

*Updated quarterly*

**CERCLIS: EPA** Environmental Protection Agency

*Updated quarterly*

**NFRAP: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA COR ACT: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN: EPA/MA DEP/CT DEP** Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

*Updated quarterly*

**ERNS: EPA/NRC** Environmental Protection Agency

*Updated annually*

**Tribal Lands: DOI/BIA** United States Department of the Interior

*Updated annually*

**State/Tribal Sites: DNREC** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**State/Tribal SWL: DNREC** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**State/Tribal LUST: DNREC** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**State/Tribal UST/AST: DNREC** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**State/Tribal VCP: DNREC** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**State/Tribal Brownfields: DENR/EPA** Delaware Department of Natural resources & Environmental Control Division of Air and Waste Management

*Updated semi-annually*

**RADON: NTIS** Environmental Protection Agency, National Technical Information Services

*Updated periodically*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**Target Property:** WHITES NECK ROAD  
OCEAN VIEW DE 19970

**JOB:** 120712

<b>Street Name</b>	<b>Dist/Dir</b>	<b>Street Name</b>	<b>Dist/Dir</b>
Jim s Hideway	0.03 NW		
Road 347	0.07 NW		
Whites Neck Rd	0.07 NW		

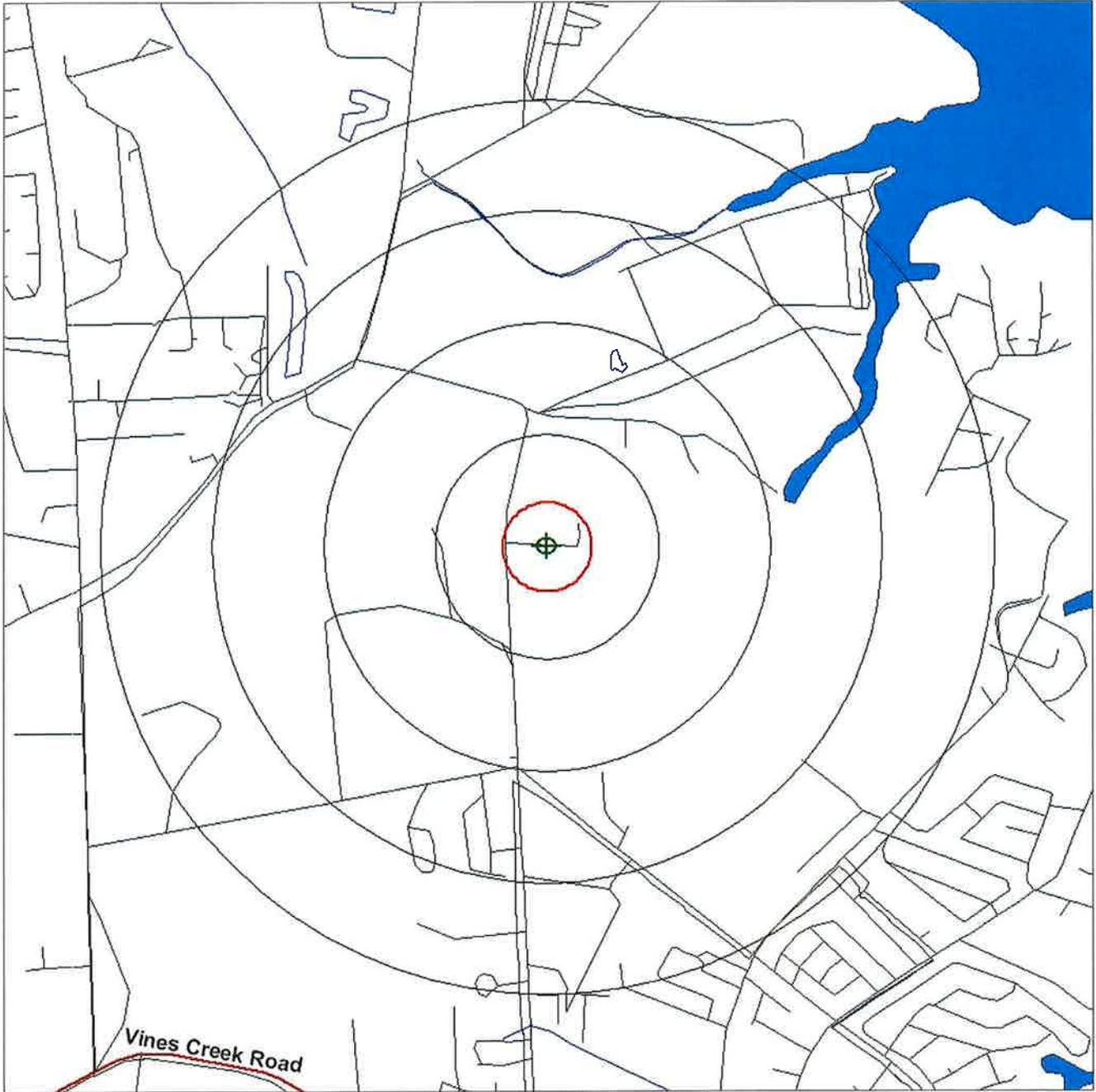


# Environmental FirstSearch

1 Mile Radius  
ASTM Map: NPL, RCRACOR, STATE Sites



## WHITES NECK ROAD, OCEAN VIEW DE 19970



Source: 2005 U.S. Census TIGER Files

- Target Site (Latitude: 38.568932 Longitude: -75.122799) ..... 
  - Identified Site, Multiple Sites, Receptor .....   
  - NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste ..... 
  - Triballand ..... 
  - Railroads ..... 
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



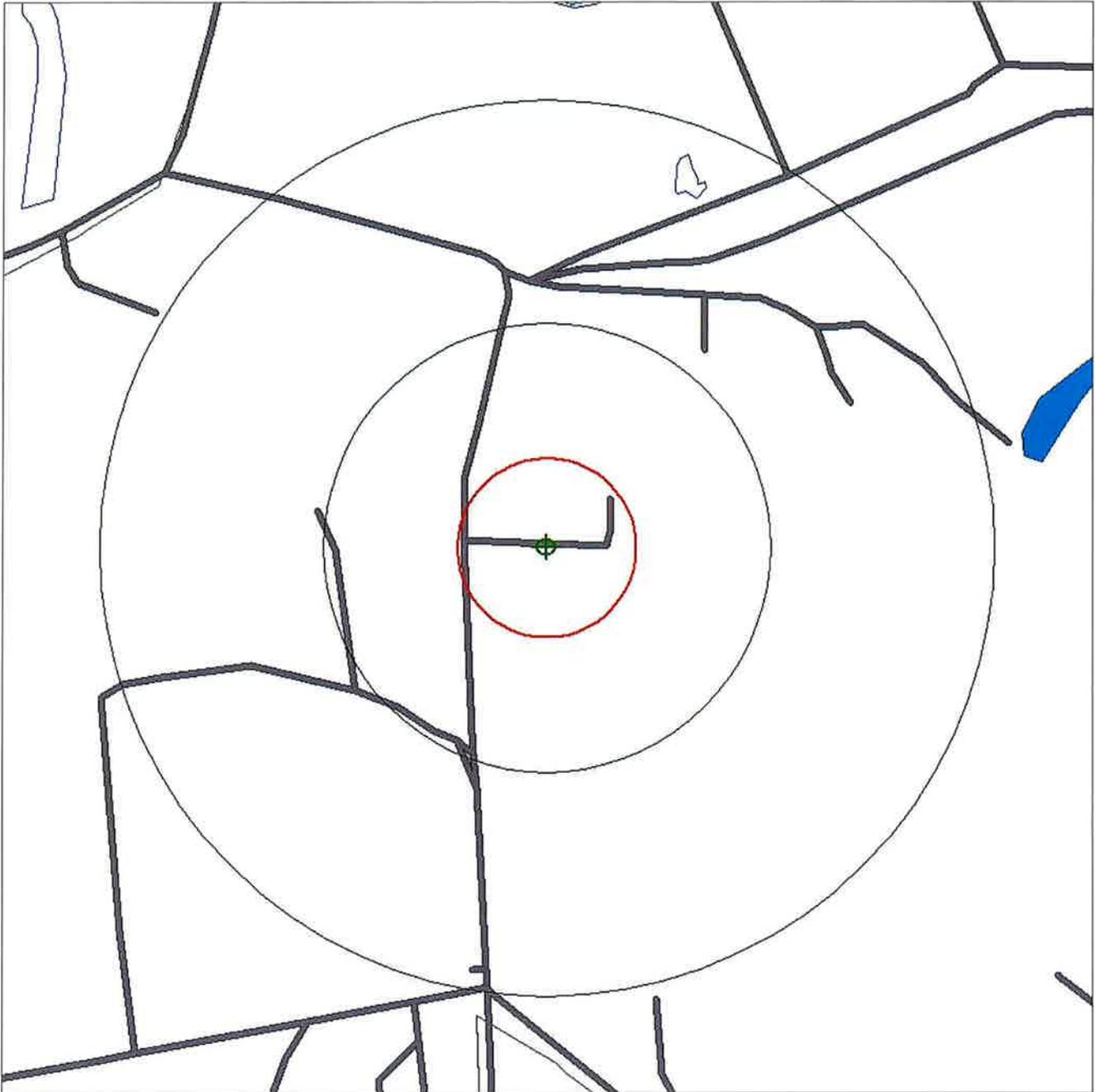
# Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, LUST, SWL



## WHITES NECK ROAD, OCEAN VIEW DE 19970



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 38.568932 Longitude: -75.122799) .....

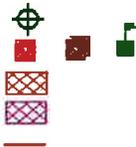
Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....

Triballand .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





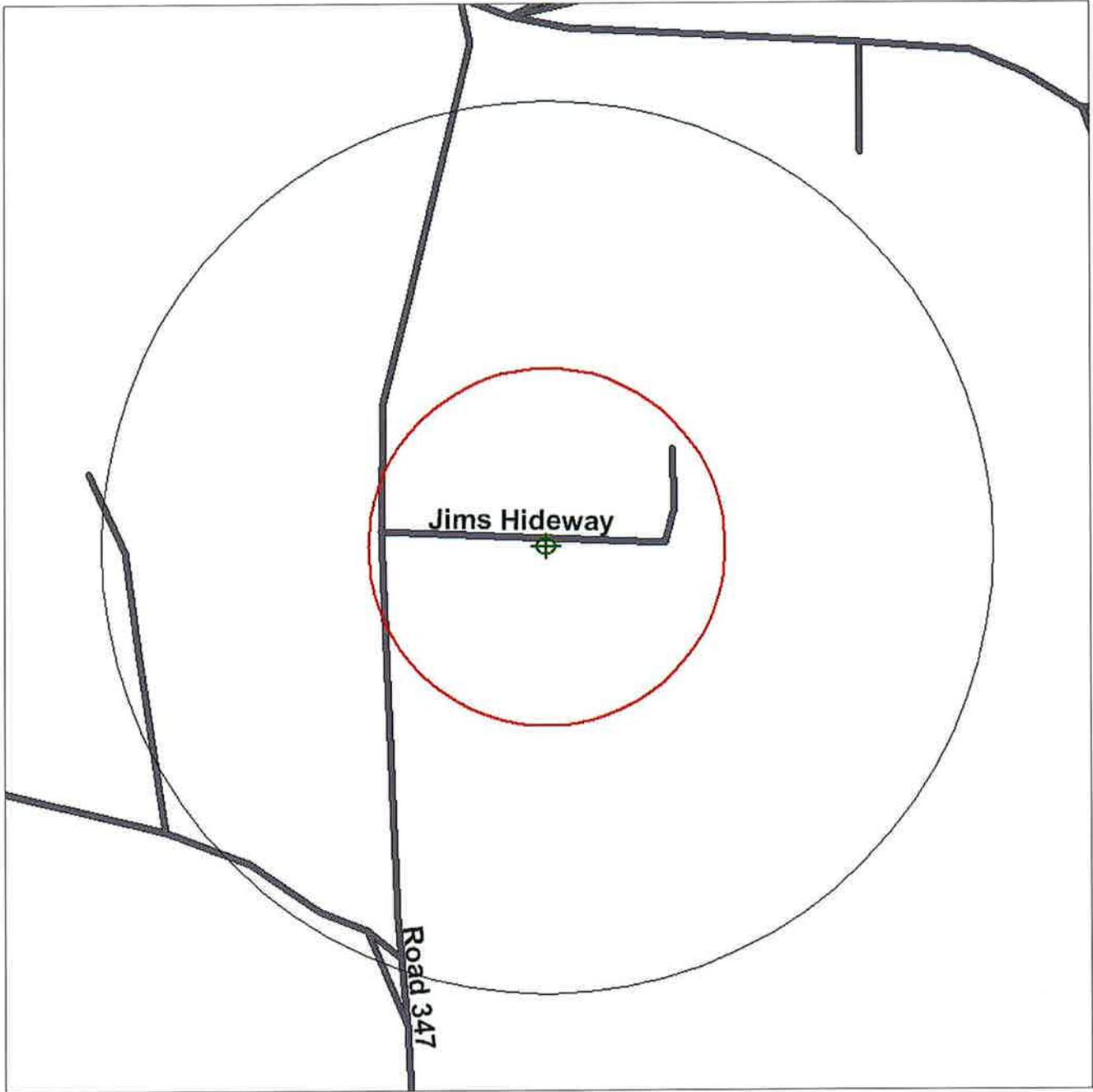
# Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS



## WHITES NECK ROAD, OCEAN VIEW DE 19970



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 38.568932 Longitude: -75.122799) .....



Identified Site, Multiple Sites, Receptor .....



NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste



Triballand.....



Railroads .....



Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

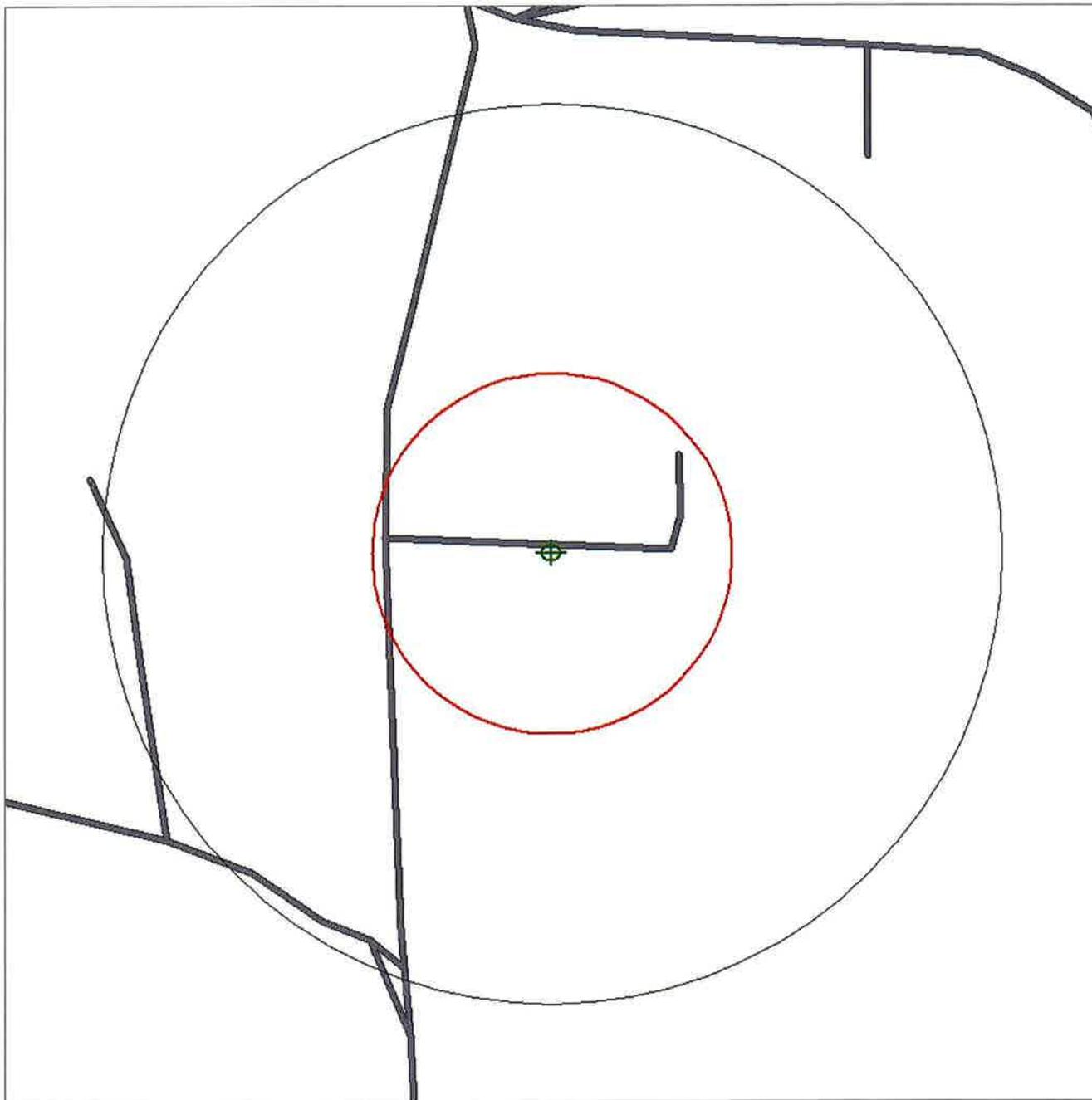


# Environmental FirstSearch

.25 Mile Radius  
Non-ASTM Map: No Sites Found



## WHITES NECK ROAD, OCEAN VIEW DE 19970



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 38.568932 Longitude: -75.122799) .....

Identified Site, Multiple Sites, Receptor .....

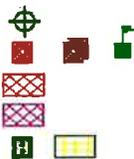
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand .....

National Historic Sites and Landmark Sites .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office  
177 Admiral Cochrane Drive  
Annapolis, Maryland 21401  
<http://www.fws.gov/chesapeakebay>

March 6, 2012

Environmental Resources, Inc.  
38173 DuPont Boulevard  
P.O. Box 169  
Shelbyville, DE 19975

*RE:* Record Review for Threatened and Endangered Species  
Bay Forest Residential Planned Community  
Parcels 15.00, 15.01, 17.03, 19.00, 19.03 and 28.00, Tax Map 1-34-28.00  
±211 acres at Whites Neck Road (CR 347) and Old Mill Road (CR 349)  
Sussex County, Delaware

Dear Edward M. Launay ;

This responds to your letter, received January 26, 2012, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Except for occasional transient individuals, no proposed or federally listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Edna Stetzar, of the Delaware Natural Heritage and Endangered Species Program, at (302) 653-2883 ext. 126. You may also obtain information on how to make such a request by visiting the Program website at [www.dnrec.state.de.us/nhp](http://www.dnrec.state.de.us/nhp).

Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (Service) removed (delist) the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. As a result, starting on



August 8, 2007, if your project may cause “disturbance” to the bald eagle, please consult the “National Bald Eagle Management Guidelines” dated May 2007. If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at:

<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>.

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.

An additional concern of the Service is wetlands protection. The Service’s wetlands policy has the interim goal of no overall net loss of Delaware Bay’s remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin’s wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands proposed, the U.S. Army Corps of Engineers, Philadelphia District should be contacted for permit requirements. They can be reached at (215) 656-6728.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interest in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,

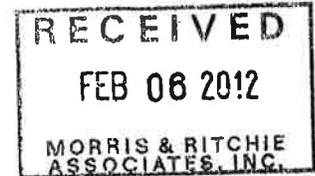
A handwritten signature in blue ink that reads "G. LaRouche". The signature is written in a cursive, flowing style.

Genevieve LaRouche  
Supervisor

January 26, 2012

ERI #0528-0001

Field Supervisor  
Division of Ecological Services  
U.S. Fish & Wildlife Service  
177 Admiral Cochrane Drive  
Annapolis, MD 21401



12347.06

Re: Record Review for Threatened and Endangered Species  
Bay Forest Residential Planned Community  
Parcels 15.00, 15.01, 17.03, 19.00, 19.03 and 28.00, Tax Map 1-34-28.00  
±211 acres at Whites Neck Road (CR 347) and Old Mill Road (CR 349)  
Sussex County, Delaware

Dear Field Supervisor:

Environmental Resources, Inc. (ERI), is writing you on behalf of Bay Forest Club, LLC regarding the Bay Forest Residential Planned Community located on ±211 acres of land fronting along Whites Neck Road (CR 347) and Old Mill Road (CR 349) in Sussex County, Delaware. The community is currently under construction. Nearly half the project is complete. Development of the project has been under way since 2005.

ERI would like to request that you review your records with regard to any threatened or endangered species, critical habitat or essential fish habitat on or in the vicinity of Bay Forest. The purpose of this request is to remain updated and advised regarding the Service's records as to development of this community proceeds forward. Enclosed is an 8½" X 11" USGS Topographic Map illustrating the location of the community by shading and crosshatching.

Thank you in advance for your attention to this matter. If you have any questions in regard to the project, please feel free to contact me at (302) 436-9637.

Sincerely,

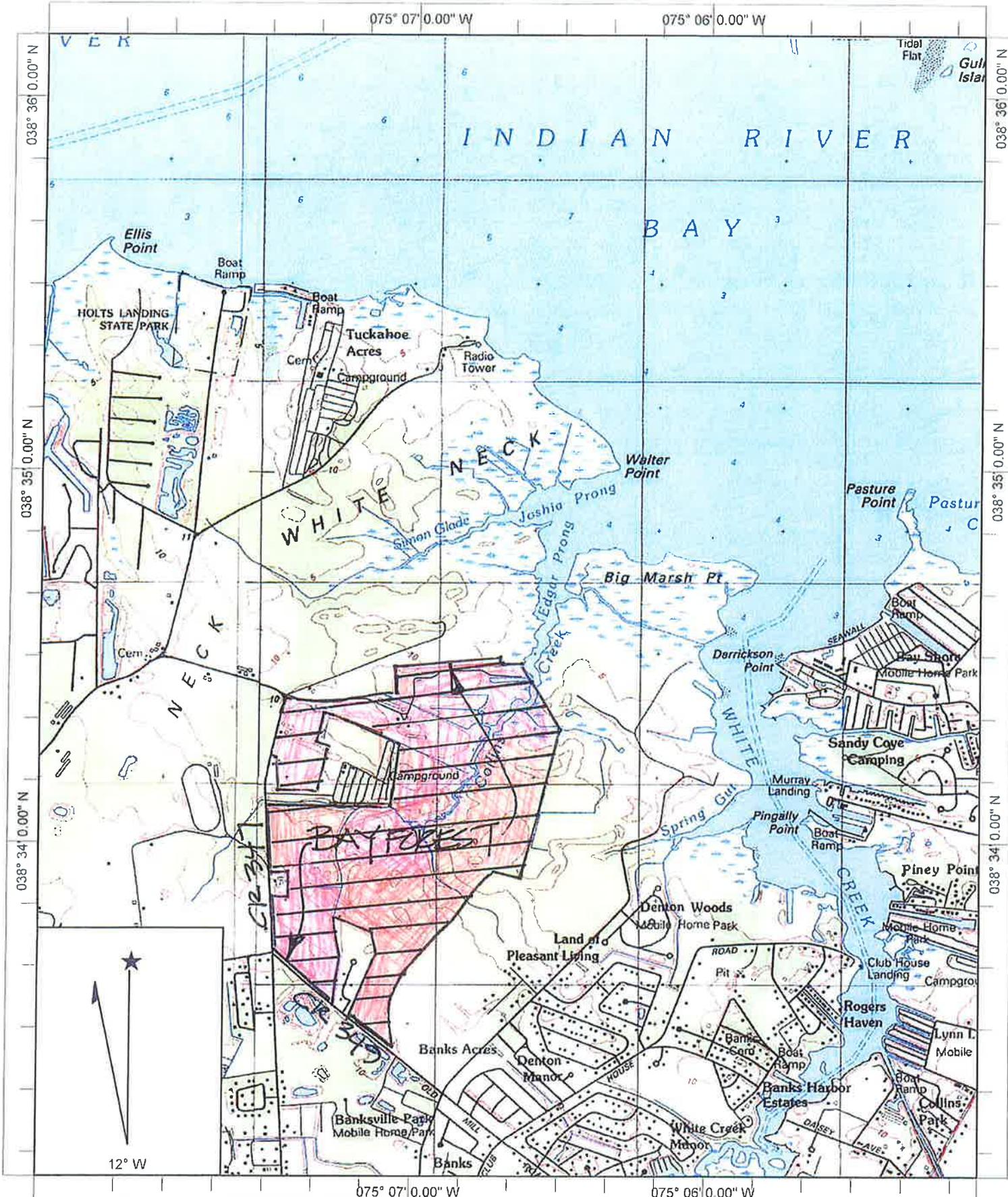
ENVIRONMENTAL RESOURCES, INC.

Edward M. Launay  
Principal

EML/lew  
Z:\Projects 500 to 599\0528-0001 Bay Forest\USFWS.528-1.wpd

Encl.

cc: ✓Mr. Ken Usab, Morris & Ritchie Associates, Inc.  
Mr. Thomas Natelli, Bay Forest Club, LLC



Name: BETHANY BEACH  
 Date: 1/16/2012  
 Scale: 1 inch equals 2000 feet

Location: 038° 34' 38.0" N 075° 06' 40.2" W  
 Caption: LOCATION MAP  
 BAY FOREST COMMUNITY  
 SUSSEX COUNTY DE



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office  
177 Admiral Cochrane Drive  
Annapolis, Maryland 21401  
<http://www.fws.gov/chesapeakebay>

March 6, 2012

Environmental Resources, Inc.  
38173 DuPont Boulevard  
P.O. Box 169  
Shelbyville, DE 19975

Exhibit 5

*RE*: Record Review for Threatened and Endangered Species  
Bay Forest Residential Planned Community  
Parcels 15.00, 15.01, 17.03, 19.00, 19.03 and 28.00, Tax Map 1-34-28.00  
±211 acres at Whites Neck Road (CR 347) and Old Mill Road (CR 349)  
Sussex County, Delaware

Dear Edward M. Launay ;

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**TAKE PRIDE<sup>®</sup>  
IN AMERICA** 

August 8, 2007, if your project may cause “disturbance” to the bald eagle, please consult the “National Bald Eagle Management Guidelines” dated May 2007. If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at:

<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>.

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.

An additional concern of the Service is wetlands protection. The Service’s wetlands policy has the interim goal of no overall net loss of Delaware Bay’s remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin’s wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands proposed, the U.S. Army Corps of Engineers, Philadelphia District should be contacted for permit requirements. They can be reached at (215) 656-6728.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interest in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,

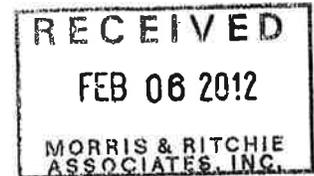
A handwritten signature in blue ink that reads "G. LaRouche". The signature is written in a cursive, flowing style.

Genevieve LaRouche  
Supervisor

January 26, 2012

ERI #0528-0001

Field Supervisor  
Division of Ecological Services  
U.S. Fish & Wildlife Service  
177 Admiral Cochrane Drive  
Annapolis, MD 21401



12347.06

Re: Record Review for Threatened and Endangered Species  
Bay Forest Residential Planned Community  
Parcels 15.00, 15.01, 17.03, 19.00, 19.03 and 28.00, Tax Map 1-34-28.00  
±211 acres at Whites Neck Road (CR 347) and Old Mill Road (CR 349)  
Sussex County, Delaware

Dear Field Supervisor:

Environmental Resources, Inc. (ERI), is writing you on behalf of Bay Forest Club, LLC regarding the Bay Forest Residential Planned Community located on ±211 acres of land fronting along Whites Neck Road (CR 347) and Old Mill Road (CR 349) in Sussex County, Delaware. The community is currently under construction. Nearly half the project is complete. Development of the project has been under way since 2005.

ERI would like to request that you review your records with regard to any threatened or endangered species, critical habitat or essential fish habitat on or in the vicinity of Bay Forest. The purpose of this request is to remain updated and advised regarding the Service's records as to development of this community proceeds forward. Enclosed is an 8½" X 11" USGS Topographic Map illustrating the location of the community by shading and crosshatching.

Thank you in advance for your attention to this matter. If you have any questions in regard to the project, please feel free to contact me at (302) 436-9637.

Sincerely,

ENVIRONMENTAL RESOURCES, INC.

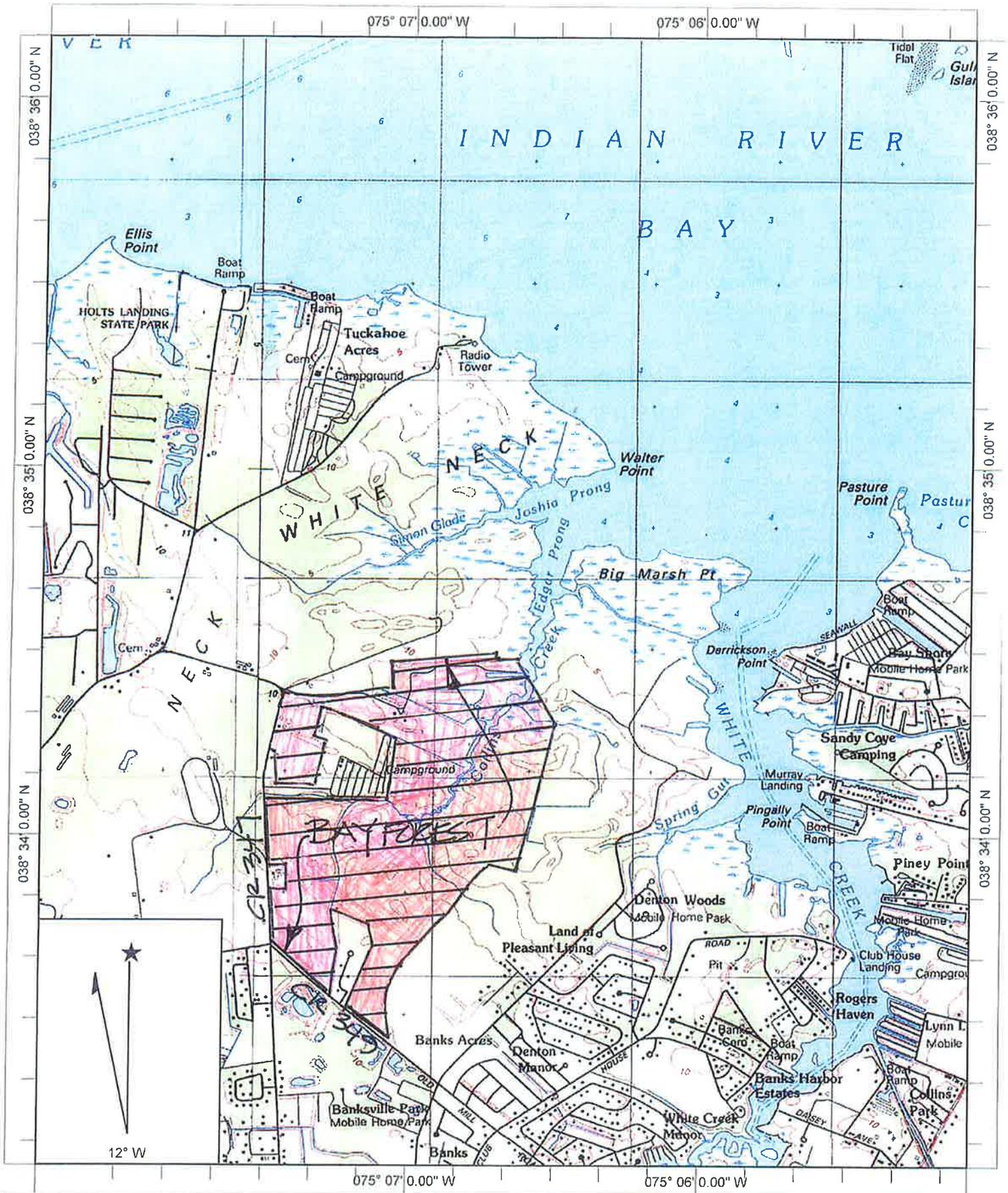
Edward M. Launay  
Principal

EML/lew  
Z:\Projects 500 to 599\0528-0001 Bay Forest\USFWS.528-1.wpd

Encl.

cc: ✓Mr. Ken Usab, Morris & Ritchie Associates, Inc.  
Mr. Thomas Natelli, Bay Forest Club, LLC

**Environmental Sciences • Resource Management & Planning • Wetland Ecology**



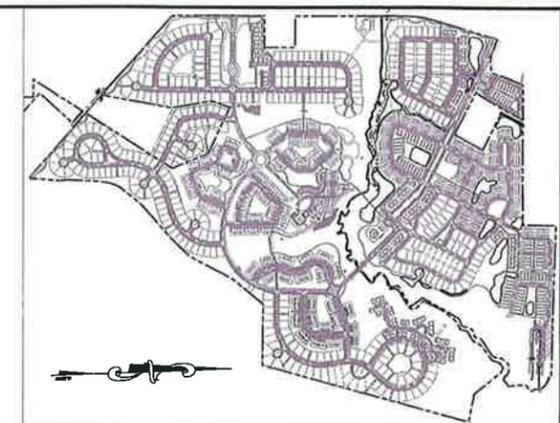
Name: BETHANY BEACH  
 Date: 1/16/2012  
 Scale: 1 inch equals 2000 feet

Location: 038° 34' 38.0" N 075° 06' 40.2" W  
 Caption: LOCATION MAP  
 BAY FOREST COMMUNITY  
 SUSSEX COUNTY DE





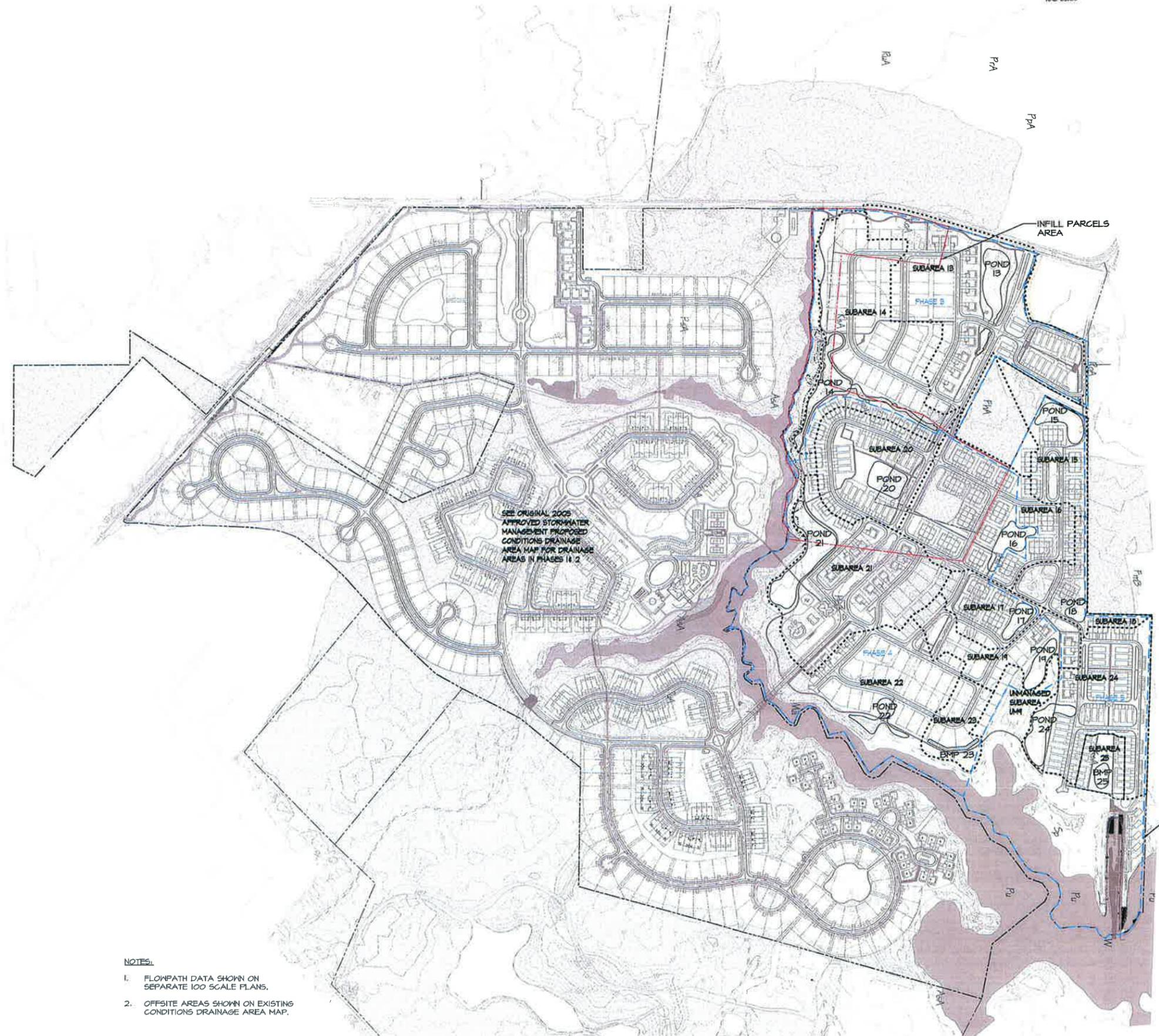
DELAWARE COORDINATE SYSTEM  
NAD 83/06



**MRA**  
**MORRIS & RITCHIE ASSOCIATES, INC.**  
 ENGINEERS, PLANNERS,  
 SURVEYORS, AND  
 LANDSCAPE ARCHITECTS  
 2133 STERLING AVENUE  
 SUITE 7  
 GEORGETOWN, DE 19847  
 302-855-8734  
 302-855-9187 FAX  
 www.mra.com  
 OWNER/DEVELOPER  
 BAY FOREST, LLC  
 506 MAIN STREET  
 3RD FLOOR  
 GAITHERSBURG, MARYLAND  
 20878

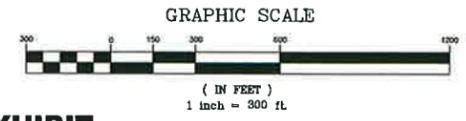
**PROPOSED DRAINAGE AREA  
OVERVIEW MAP**  
 SCALE: 1" = 1000'

DESIGNATION	AREA (AC.)
SUBAREA 13	14.50
SUBAREA 14	17.04
SUBAREA 15	3.61
SUBAREA 16	14.51
SUBAREA 17	4.08
SUBAREA 18	3.84
SUBAREA 19	5.91
SUBAREA 20	8.83
SUBAREA 21	14.81
SUBAREA 22	9.66
SUBAREA 23	3.18
SUBAREA 24	11.80
SUBAREA 25	2.16



LIMITS OF PHASES 3, 4, & 5

- LEGEND**
- - - - - EXISTING 5' CONTOUR
  - - - - - EXISTING 1' CONTOUR
  - - - - - PROPOSED WATERSHED BOUNDARY
  - - - - - EXISTING TREE LINE
  - - - - - PROPOSED TREE LINE
  - - - - - SOILS BOUNDARY
  - - - - - FLOODPLAIN



- NOTES:**
1. FLOWPATH DATA SHOWN ON SEPARATE 100 SCALE PLANS.
  2. OFFSITE AREAS SHOWN ON EXISTING CONDITIONS DRAINAGE AREA MAP.

**PHASES 3, 4, & 5  
PROPOSED CONDITIONS NUTRIENT REDUCTION EXHIBIT**  
 SCALE: 1" = 300'

**BAY FOREST CLUB**  
 PHASES 3, 4, & 5  
 SUSSEX COUNTY, DELAWARE



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NO.	REVISION	DATE
12347.07	CLB/GMM	05/02/13

SHEET TITLE  
**POST DEVELOPED STORMWATER MANAGEMENT PLAN**

SHEET NUMBER

**SWM-2**