

**HILTON PROPERTIES LIMITED PARTNERSHIP  
2018 CONDITIONAL USE, DISTRICT REZONING AND SPECIAL USE  
PERMIT APPLICATION  
TABLE OF CONTENTS**

<b>DESCRIPTION:</b>	<b>TAB NO.</b>
<b>CONDITIONAL USE, DISTRICT REZONING AND SPECIAL USE PERMIT APPLICATION</b>	<b>1</b>
<b><u>Attachments to Application:</u></b>	
Community Meeting Documentation:	
Summary of Meeting, Attendee Roster, Certificate of Mailing and Meeting Handout	2
Attachment No. 1 – Deed, Bk 221, Pg 685	3
Attachment No. 2 – Continuation of Item No. 1 response under Consideration of a Conditional Use Zoning District	4
Attachment No. 2-A – Mining Permit, as modified	5
Attachment No. 3 – Portion of Future Land Use Map showing Subject	6
Attachment No. 4 – Continuation of Item No. 4 response under Consideration of a Conditional Use Zoning District	7
Attachment No. 4-A – <i>The Public Necessity for Additonal Sand Mines New Hanover County</i>	8
Attachment No. 5 – Continuation of Item No. 1 response under Criteria Required for Approval of a Special Use Permit with topographical map	9
Attachment No. 5-A – Order of Closure/Dismissal	10
Attachment No. 5-B – Settlement Agreement and Withdrawal of Petition	11
Attachment No. 6 – Continuation of Item No. 2 response under Criteria Required for Approval of a Special Use Permit	12
Attachment No. 6-A – US Army Corps of Engineers Wetland Jurisdictional Determination	13
Attachment No. 7 – <i>Proposed Sand Mine – What impact does the presence of an active sand mine have on home values in the adjacent neighborhoods?</i>	14
Attachment No. 8 – Continuation of Item No. 4 response under Criteria Required for Approval of a Special Use Permit	15
Site Plan	16
(8) Hard copies of Site Plan	17
Thumb Drive containing .pdf copies of all documents	18

# NEW HANOVER COUNTY

## DEPARTMENT OF PLANNING & LAND USE

230 Government Center Drive, Suite 110

Wilmington, North Carolina

Telephone (910) 798-7165

FAX (910) 798-7053

planningdevelopment.nhcgov.com



## CONDITIONAL USE ZONING DISTRICT Application

### REVIEW PROCESS

#### Step 1: Pre-Application Conference (Optional)

In order to assist applicants through the conditional use rezoning process, applicants are highly encouraged to attend a pre-application conference prior to application submittal. Applicants are requested to review the sections of the Zoning Ordinance specific to zoning amendments, conditional use zoning districts, and special use permits prior to submission, and advised to contact Planning Staff with any questions. The following sections of the Zoning Ordinance pertain specifically to zoning amendments, conditional use zoning districts, and Special Use Permits:

- Section 55.2: *Conditional Use District*
- Section 70: *General Information, Applications, Process, Public Notice, Public Hearings, Review and Decision, and Conclusions Required for Approval*
- Section 71: *Validity, Extensions, and Changes for Approved Special Use Permits; Resubmittals of Denied Applications*
- Section 72: *Additional Restrictions Imposed on Certain Special Uses*
- Section 110: *Amending the Ordinance*
- Section 111: *Petition*
- Section 112: *Approval Process*

#### Step 2: Community Meeting

Prior to application, at least one community information meeting must be held, and a report summarizing the community information meeting is required as part of the application. The primary purpose of the community meeting is to explain the upcoming proposal and field questions from people in the surrounding area. The meeting should focus on information exchange between an applicant and the specific invitees but should be open to the general public as well.

The community meeting shall comply with the following procedures:

- **Notification**

- Mailed Notice

- The applicant must provide written notice by mail or other agreed upon measure at least ten days prior to the date of the community meeting. Notice shall be provided to each owner of record of land and any current tenants within 500 feet of and on the property for which development approvals are sought.

- E-Mailed Notice

- The applicant must provide the Department of Planning & Land Use with a completed community notice template in a digital format at least twelve days prior to the date of the community meeting. The notice will be provided to organizations entitled to notice based on a standing written request on file with the Clerk to the Planning Board ("Sunshine List").

- **Written Summary**

The written summary of the community meeting included in the application must include, at a minimum the following:

1. A list of those that were not able to be contacted and reason(s) why contact was not successful;
2. Date, time and location of the meeting;
3. Roster of the persons in attendance at the meeting;
4. Summary of issues discussed at the meeting; and
5. Description of any changes or adjustments to the application made by the petitioner as a result of the community meeting.

### **Step 3: Application Submittal**

Applications must be received by the Department of Planning & Land Use by 5:00 PM on the application deadline date. A complete application consists of the items detailed in the submittal checklist provided in this application. Staff will confirm if an application is complete within five business days of submittal. A schedule of application deadlines is available at [planningdevelopment.nhcgov.com](http://planningdevelopment.nhcgov.com) or in the Department of Planning and Land Use office.

### **Step 4: Staff Review and Recommendation**

Upon receiving a completed application, staff may distribute it to certain departments and agencies for review. County Planning staff will review the application, and prepare a staff report. Staff may propose additional conditions and requirements beyond those listed in the petition/application.

### **Step 5: Planning Board Review and Recommendation**

The New Hanover County Planning Board will consider the application at a public hearing. The Department of Planning & Land Use will notify the public of this hearing in accordance with standards of the Zoning Ordinance. This includes sending mailed notice to nearby residents, posting a sign on the subject property, and advertising the hearing in a local newspaper.

The public hearing will allow staff, the applicant, proponents and opponents to testify in regards to the request. The Planning Board will make a recommendation to the County Commissioners. A recommendation for denial ends consideration of the proposed zoning amendment unless the recommendation is appealed. A recommendation for approval is automatically forwarded to the County Commissioners for action. The Planning Board may propose additional conditions and requirements beyond those listed in the petition/application.

Conditional Use Zoning Districts shall be considered as a two-part decision. The proposed rezoning is considered first, then the companion Special Use Permit proposal. However, the Special Use Permit is not considered if the Board recommends denial of the rezoning.

### **Step 6: Board of Commissioners Review and Action**

The New Hanover County Board of Commissioners will consider the application at a public hearing. The Department of Planning & Land Use will notify the public of this hearing in accordance with standards of the Zoning Ordinance. This includes sending mailed notice to nearby residents, posting a sign on the subject property, and advertising the hearing in a local newspaper.

Prior to adopting or rejecting any zoning amendment, the Commissioners shall adopt a statement describing whether or not the amendment is consistent with the County's Policies for Growth and Development and explaining why the Commissioners consider the action taken as reasonable and in the public interest. The Commissioners may propose additional conditions or requirements beyond those contained in the petition/application.

For Conditional Use Zoning Districts, the proposed rezoning is considered first, then the companion Special Use Permit proposal. If the rezoning is denied, the Special Use Permit is not considered. If both the Conditional Use District and the companion Special Use Permit are approved, the ordinance amendment is adopted. If the Conditional Use District is approved but the Special Use Permit is denied, then the Board shall immediately rescind their approval of the rezoning.

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## CONDITIONAL USE ZONING DISTRICT Application

Applicant/Agent Information		Property Owner(s) <i>If different than Applicant/Agent</i>	
<b>Name</b> Stephen D. Coggins	<b>Owner Name</b> Hilton Properties Limited Partnership		
<b>Company</b> Rountree Losee LLP	<b>Owner Name 2</b>		
<b>Mailing Address</b> P. O. Box 1409	<b>Mailing Address</b> P. O. Box 523		
<b>City, State, Zip</b> Wilmington NC 28402	<b>City, State, Zip</b> Whiteville NC 28472		
<b>Phone</b> (910)763-3404	<b>Phone</b> (843)283-4468		
<b>Email</b> scoggins@rountreelosee.com	<b>Email</b> twoodard@sitetechsystems.com		
<b>Subject Property Information</b>			
<b>Address/Location</b> 4117 Castle Hayne Road, Castle Hayne, NC			
<b>Parcel Identification Number(s)</b> R00900-001-002-000			
<b>Total Parcel(s) Acreage</b> 63.02			
<b>Existing Zoning and Use(s)</b> RA			
<b>Future Land Use Classification</b> Commerce.			
<b>Application Tracking Information (Staff Only)</b>			
<b>Case Number</b>	<b>Date/Time received:</b>	<b>Received by:</b>	



## Proposed Zoning, Use(s), & Narrative

Proposed Conditional Use Zoning District: CUD I-2

Total Acreage of Proposed District: 63.02

Only uses allowed by right or by Special Use Permit in the corresponding General Use District are eligible for consideration within a Conditional Use Zoning District. Please list the uses that will be allowed within the proposed Conditional Use Zoning District, the purpose of the district, and a project narrative (please provide additional pages if needed).

The subject property is a 63.02-acre parcel currently zoned RA (Rural Agricultural) and located within a Wetland Resource Protection Area (the "Subject"). Access to the site is from Castle Hayne Road along the Applicant's private gated gravel road known as "Sledge Road", which parallels the parcel line share with the GE Hitachi property. Applicant proposes to operate Phase 1 of a sand mine on the western-most 28.10 acres pursuant to State Mining Permit #65-35, as modified December 15, 2015 (Attachment No. 2-A, Tab 5). Such use requires a Special Use Permit and rezoning of the Subject from RA to Conditional Use District ("CUD") Industrial 2 ("I-2"). See site Plan (Tab 16). The Subject is part of a 4,100-acre tract (currently zoned RA) adjacent to the GE Hitachi industrial facility in Castle Hayne which is zoned I-2. (The description of the "parent" 4100 acre tract is set forth in DB 2211 Page 685, a copy of which is attached as Attachment 1, Tab 3). The Subject's southern and southeast boundary serves also as the northern and northeastern boundary of the GE tract. Currently the Subject is part of a managed tract used for hunting and/or timber. GE has conducted sand mining near the Subject as part of required environmental remediation activities arising from GE's groundwater contamination. No mining will occur in a conservation area or the AE flood zone. A \$36,300 reclamation bond will be purchased by Hilton Properties Limited Partnership ("Owner) pursuant to the State Mining Permit.

## Traffic Impact

Please provide the estimated number of trips generated for the proposed use(s) based off the most recent version of the Institute of Transportation Engineers (ITE) Trip Generation Manual. A Traffic Impact Analysis (TIA) must be completed for all proposed developments that generate more than 100 peak hour trips, and the TIA must be included with this application.

ITE Land Use: N/A (less than 100 peak hour trips)

Trip Generation Variable (gross floor area, dwelling units, etc.): \_\_\_\_\_

AM Peak Hour Trips: \_\_\_\_\_ PM Peak Hour Trips: \_\_\_\_\_

## CONSIDERATION OF A CONDITIONAL USE ZONING DISTRICT

Conditional Use District Zoning is established to address situations where a particular land use would be consistent with the New Hanover County Land Use Plan and the Zoning Ordinance objective but for which none of the general zoning classifications which would allow that use are acceptable. The applicant must explain, with reference to attached plans (where applicable), how the proposed Conditional Use Zoning District meets the following criteria.

1. How would the requested change be consistent with the County's policies for growth and development? (For example, the Comprehensive Plan and applicable small area plans)

The proposed sand mine use for the Subject is consistent with (a) its "Commerce" designation shown on the Future Land Use Map and the I-2 zoning and (b) the use of the adjacent GE Hitachi industrial facility where sand mining has already taken place as part of an environmental remediation plan. According to the 2016 Plan NHC, New Hanover County (the "County") expects 66% growth by year 2040. See additional information attached Attachment No. 2 (Tab 4) and Attachment No. 8 (Tab 15).

2. How would the requested Conditional Use Zoning District be consistent with the property's classification on the Future Land Use Map?

The Subject and the adjacent GE Hitachi facility are designated on the Future Land Use Map as "Commerce". A copy of the applicable portion of the Future Land Use Map is attached as Attachment No. 3 (Tab 6). Uses allowed in the I-2 zoning district and by a heavy manufacturing Special Use Permit is consistent with the Subject's Future Land Use Map "Commerce" designation.

3. What significant neighborhood changes have occurred to make the original zoning inappropriate, or how is the land involved unsuitable for the uses permitted under the existing zoning?

Significant neighborhood changes include (1) the issuance of the State Mining Permit (the "Permit") to allow sand mining on the Subject; (2) sand mining excavation activities on the adjacent GE site in an area located about the same distance from existing residences as the Subject; and, (3) increased demand for sand in the area. The Subject's proposed use as a sand mine is not permitted in the RA zoning district. Thus, a rezoning to CUD I-2 is needed.

4. How will this change of zoning serve the public interest?

Availability of nearby readily-accessible sand is a public necessity. Operation of the sand mine in accordance with the conditions in the Permit is also in the public interest. Owner will operate the sand mine accordingly during normal business hours. The precise number of truck trips per day will depend on demand (probably averaging 60-80 trips per day and never as much as 100 truck trips per hour). See See Attachment No. 4(Tab 7)on Permit conditions mitigating impacts, which further serve the public interest.

## CRITERIA REQUIRED FOR APPROVAL OF A SPECIAL USE PERMIT

Within a Conditional Use Zoning District, no use is allowed except by Special Use Permit. In order for a Special Use Permit to be issued, the Board of Commissioners must find that the application is meeting the following findings of fact. The applicant must explain, with reference to attached plans (where applicable), how the proposed use meets these required findings (please use additional pages if necessary). The applicant has the burden of proof and must provide sufficient evidence in order for the required findings to be met. Planning staff, the Planning Board, and the Board of County Commissioners reserve the right to require additional information, if needed, to assure that the proposed Special Use Permit meets the required findings.

1. The use will not materially endanger the public health or safety if located where proposed and approved.

Considerations:

- Traffic conditions in the vicinity, including the effect of additional traffic on streets and street intersections, and sight lines at street intersections with curb cuts
- Provision of services and utilities, including sewer, water, electrical, garbage collections, fire protection
- Soil erosion and sedimentation
- Protection of public, community, or private water supplies, including possible adverse effects on surface waters or groundwater
- Anticipated air discharges, including possible adverse effects on air quality

Please see Attachment No. 5 (Tab 9) concerning this factor. In addition, an independent US Army Corps of Engineers wetland determination indicates that the proposed project does not impact jurisdictional waters or wetlands (Attachment No. 6-A, Tab 13). Further, the proposed use complies with Section 72-42 of the zoning ordinance. Also, the proposed use complies with the provisions of the Mining Act, NCGS 74-46, et. seq., with additional conditions outlined in the Permit by the NCDEQ Division of Energy, Mineral and Land Resources ("DEMLR").

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2. The use meets all required conditions and specifications of the Zoning Ordinance.

Please see Attachment No. 6 (Tab 12). In addition, the proposed use complies with the provisions of the Mining Act, NCGS 74-46, et. seq., with additional conditions outlined by the NCDEQ DEMLR.

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## CRITERIA REQUIRED FOR APPROVAL OF A SPECIAL USE PERMIT

(continued)

3. The use will not substantially injure the value of adjoining or abutting property, or that the use is a public necessity.

Considerations:

- The relationship of the proposed use and the character of development to surrounding uses and development, including possible conflicts between them and how these conflicts will be resolved (i.e. buffers, hours of operation, etc)
- Whether the proposed development is so necessary to the public health, safety, and general welfare of the community or County as a whole as to justify it regardless of its impact on the value of adjoining property

The Subject is 2.3 miles off Castle Hayne Road and is accessible only via a locked gate entrance. The

Subject is not visible or accessible to the general public or by residents who live adjacent to Sledge Road.

The anticipated traffic will be minimal. (A traffic impact study is not required due to under 100 peak hour trips.) Precautions will minimize any truck traffic noise and dust.

The studies attached hereto as Attachment No. 4A (Tab 8) and 7 (Tab 14) indicate (1) no damage to the value of residential properties adjacent to sand mines, and (2) the sand mine operation is a public necessity.

4. The location and character of the use if developed according to the plan as submitted and approved will be in harmony with the area in which it is to be located and in general conformity with the New Hanover County Comprehensive Land Use Plan.

Considerations:

- The relationship of the proposed use and the character of development to surrounding uses and development, including possible conflicts between them and how these conflicts will be resolved (i.e. buffers, hours of operation, etc)
- Consistency with the Comprehensive Plan's goals, objectives for the various planning areas, its definitions of the various land use classifications and activity centers, and its locational standards

Please see Attachment No. 8 (Tab 15).

## APPLICATION REQUIREMENTS

Staff will use the following checklist to determine the completeness of your application. Please verify all of the listed items are included and confirm by initialing under "Applicant Initial". Applications must be determined to be complete in order to process for further review.

Required Information	Applicant Initial	Staff Initial
1 Complete Conditional Use Zoning District application	SC	
2 Application fee – (\$600 for 5 acres or less, \$700 for more than 5 acres. An additional \$300 fee must be provided for applications requiring TRC review)	SC	
3 Community meeting written summary	SC	
4 Traffic impact analysis (for uses that generate more than 100 peak hour trips)	n/a	
5 Legal description (by metes and bounds) or recorded survey Map Book and Page reference of the property requested for rezoning.	SC	
6 <u>Site Plan including the following elements:</u> <ul style="list-style-type: none"> <li>• Tract boundaries and total area, location of adjoining parcels and roads</li> <li>• Proposed use of land, structures and other improvements. For residential uses, this shall include number, height and type of units and area to be occupied by each structure and/or subdivided boundaries. For non-residential uses, this shall include approximate square footage and height of each structure, an outline of the area it will occupy and the specific purpose for which it will be used.</li> <li>• Development schedule including proposed phasing.</li> <li>• Traffic and Parking Plan to include a statement of impact concerning local traffic near the tract, proposed right-of-way dedication, plans for access to and from the tract, location, width and right-of-way for internal streets and location, arrangement and access provision for parking areas. N/A</li> <li>• All existing and proposed easements, reservations, required setbacks, rights-of-way, buffering and signage</li> <li>• The one hundred (100) year floodplain line, if applicable</li> <li>• Location and sizing of trees required to be protected under Section 62 of the Zoning Ordinance N/A</li> <li>• Any additional conditions and requirements, which represent greater restrictions on development and use of the tract than the corresponding General Use District regulations or other limitations on land which may be regulated by State law or Local Ordinance.</li> <li>• Any other information that will facilitate review of the proposed change (Ref. Article VII, as applicable)</li> </ul>	SC	
7 1 hard copy of ALL documents AND 8 hard copies of the site plan. Additional hard copies may be required by staff depending on the size of the document/site plan.	SC	
8 1 PDF digital copy of ALL documents AND plans on a <del>XXXXXX</del> compact disc (CD)	SC	

Thumb Drive

## ACKNOWLEDGEMENT AND SIGNATURES

By my signature below, I understand and accept all of the conditions, limitations and obligations of the Conditional Use District zoning for which I am applying. I understand that the existing official zoning map is presumed to be correct. I understand that I have the burden of proving why this requested change is in the public interest. I certify that this application is complete and that all information presented in this application is accurate to the best of my knowledge, information, and belief.

If applicable, I also appoint the applicant/agent as listed on this application to represent me and make decisions on my behalf regarding this application during the review process. The applicant/agent is hereby authorized on my behalf to:

1. Submit an application including all required supplemental information and materials;
2. Appear at public hearings to give representation and commitments; and
3. Act on my behalf without limitations with regard to any and all things directly or indirectly connected with or arising out of this application.

HILTON PROPERTIES LIMITED PARTNERSHIP

BY:

  
Signature of Property Owner(s)

David Fort, Partner

Print Name(s)

  
Signature of Applicant/Agent

Stephen D. Coggins

Print Name

NOTE: Form must be signed by the owner(s) of record. If there are multiple property owners a signature is required for each owner of record.

**\*The land owner or their attorney must be present for the application at the public hearings.**

If an applicant requests delay of consideration from the Planning Board or Board of County Commissioners before notice has been sent to the newspaper (approximately 2-3 weeks before the hearing), the item will be calendared for the next meeting and no fee will be required. If delay is requested after notice has been sent to the newspaper, the Board will act on the request at the scheduled meeting and are under no obligation to grant the continuance. If the continuance is granted, a fee in accordance with the adopted fee schedule as published on the New Hanover County Planning website will be required.

### For Staff Only

Application Received:	Completeness Determination Required By (date):	Determination Performed on (date):	Planning Board Meeting:

Summary of 10.24.18 Community Meeting  
Hilton Properties Limited Partnership  
6500.154

1. **List of those not able to be contacted.**

There were three parties that were mailed a notice of this meeting, which notice was returned as undeliverable due to the fact that the addressees were no longer living at the address noted. Their names are Karen Leigh Bell, Betty J. Earnhardt and William and Christina Tate.

A notice of this meeting was mailed to the parties listed on the attached mailing matrix at the addresses shown on October 4, 2018 (20 days prior to the meeting date). Local media outlets also communicated the date and time of this meeting.

2. **Date, time and location of meeting.**

The community meeting was held at St. James AME Church at 3425 Castle Hayne Road, Castle Hayne, NC, 28429, on Wednesday, October 24, 2018 at 6:00 p.m.

3. **Roster of the persons in attendance.**

See roster attached.

4. **Summary of issues discussed at the meeting.**

The community meeting was held in regard to planned applications by Hilton Properties Limited Partnership (hereinafter "Hilton") for a Special Use Permit to operate a sand mine on, and rezoning of, Hilton's 63.02-acre tract from RA to CUD I-2. The tract is located at 4117 Castle Hayne Road, Castle Hayne, NC, and is identified as PID R00900-001-002-000. The tract adjoins the GE property and is located 2.3 miles from Castle Hayne Road accessed from Castle Hayne Road via private Sledge Road (owned by Hilton).

Copies of the mining permit, figures attached to environmental report and recent Port City Daily news article were handed out to attendees. A copy of the handout is attached. A copy of the attached sign-in sheet passed around at the meeting is attached hereto. The majority of attendees signed in, but not all.

The meeting started at 6:00 p.m. with Steve Coggins giving a presentation regarding the proposed location in relation to the Wooden Shoe neighborhood, the available information on contamination migration from the GE site with existing



monitoring wells, the method of mining to be used (wet mining) and its effect on contamination migration, estimated truck traffic, manner of egress and ingress to and from proposed location; life span of the operation; explanation of the SUP process and other issues pertinent to the people living in the area. He also introduced Hilton's representatives, Todd Woodard, David Fort and David Tripp.

After he finished his presentation he opened the floor to questions and comments. Following is a summary of the comments/concerns/questions expressed by attendees of the meeting:

An audience member opined that Hilton could not give a 100 percent (100%) guarantee that the existing contamination would not migrate to the proposed mining operation site; that Hilton was only in it to make a buck with no concern as to the impact of the operation on the neighboring residents as to the contamination migration, truck traffic, environment, the refurbishing of the mining site after cessation of the operation and any long-term impacts. Mr. Coggins reiterated the statistics provided by the RTI and other experts regarding the migration of the existing contamination.

An audience member who is a resident of the Wooden Shoe development expressed concern that the water table would be affected causing the drinking water wells of depths of 40 feet to 45 feet will become ineffective resulting in the owners having to drop new deeper wells at considerable personal cost. Mr. Coggins explained that the wet-mining method to be used would prevent this from happening. The gentleman also stated that the area residents had received little to no representation from elected officials in when it was decided that there would be no water/sewer hook up to their homes. He was perplexed at there wasn't an elected official in attendance at this meeting.

An audience member asked to hear from the mining expert and Dave Tripp stood and addressed the issue of wet-mining.

A woman who is a resident of the Wooden Shoe development spoke next citing concerns regarding the truck traffic and the fact that Hilton could not give a 100% guarantee this traffic would not negatively affect the area. She thought an alternative route of ingress and egress should be explored.

A gentleman noted that Sledge Road was not a paved road and that the amount of truck traffic would cause a constant state of disrepair to the gravel road. He asked how many trucks would be traveling the road per day, what days of the week would the mining operation be open and what the hours of business each day would be. Dave Tripp stated that Hilton did not know at this point exactly how many trucks would be traveling the road each day, but it could be up to 100. He also stated that the mining operation would be of benefit to the community. He



stated that in other situations he has been involved in such as this, the local community fought against the operations, but after they were up and running, they loved them.

The next audience member to speak raised the question of who monitors the monitoring wells on the property belonging to Hilton and how often. David Fort addressed this question and stated that he is notified when the monitoring wells are tested, and it is more often than once a year and RTI does the sampling. Also, that there are multiple samplings done that are summarized in a report he receives from RTI.

The next audience member asked how this sand mining operation would benefit this community and if Hilton felt bad about bringing this mining operation into the area, upsetting the neighborhood and residents. Also, how could she counteract the noise from the truck traffic. Mr. Tripp suggested that residents could put a privacy fence along their lots adjacent to Sledge Rd.

An audience member then stated that a similar operation in the Rockhill and Chair Road areas left the road in disrepair and would Hilton "fill in the hole" created by the sand mine operation. Mr. Tripp stated that the resulting "hole" would become a very large pond and that the area surrounding the resulting pond would be sloped and grassed.

Another statement of concern regarding the toxicity issue and what is being done by GE and who is doing the monitoring of the GE contamination. Mr. Coggins replied it was RTI. The question was then asked, "Who pays for it?" To which, Mr. Coggins answered GE. Then a statement was made from the audience that it was paramount to "the fox watching the hen house".

Mr. Coggins informed the audience that there were five environmental reports pertaining to the GE contamination that are public record.

An audience member then asked the representatives from Hilton if they would be willing to move to and live in the area adjacent to the proposed sand mine operation. Mr. Tripp said he was willing.

It was then opined by an attendee that with the recent Gen-X contamination, there should be continuous monitoring of the area for contamination and the sand being mined should be monitored for contamination as well, citing an incident in Kure Beach where arsenic was detected in sand removed from one area which was deposited in another area.

An attendee then asked about the life span of the operation which was answered by Mr. Tripp as unknown due to the fact that Hilton does not know what the demand will be for the sand and how much sand is actually there to be mined.

The question was asked that if Hilton owns 4,000 acres, why does Hilton want to locate the mine at the proposed site. This was answered by Mr. Coggins and Mr. Fort that the proposed site is where the sand is.

Concern was then expressed by an attendee about the resulting truck traffic on Sledge Road and that they were skeptical of the information they were being given by Hilton and why should the neighbors take the risk of having this mining operation in their community.

The question was asked if there would be required a traffic impact analysis. Mr. Coggins stated there would not, being that the estimated amount of truck traffic was below the requirement for same.

It was then suggested by someone in the audience that more monitoring wells be installed and that the frequency of sampling these wells be increased.

An audience member then asked what was GE's position on this matter? Mr. Coggins stated what he had been told that GE was neither for it or against it.

An attendee then addressed his concerns regarding sea level and the flood zone with regard to the migration of the contamination. He stated that areas that had never been known to flood had done so after Hurricane Florence. He cited Hwy 421.

A statement was made that a survey showing emerging chemicals/all chemicals should be done and made available to the residents.

An audience member stated that she enjoyed her community, the local wildlife and the peace and quiet of the area. She stated that all of those enjoyments would be ruined/disrupted by 20 trucks a day traveling Sledge Road.

A statement was made that with the political environment of the day eroding the environmental protections in place it was imperative that all interested parties against the mining operation say "No" and that they "Don't Want" this operation in their community. That there should be a study done regarding the resulting lake.

Another statement was made regarding the integrity of Hilton due to the fact that the first mining application submitted by Hilton did not mention of the contamination and why should the community believe that they are not hiding something else.

A question was asked about the budget for the refurbishment/grass over/residual waste at the cessation of the operation. Mr. Tripp answered \$36,000.

A question was asked about as to Hilton giving the community access to the resulting pond/lake for recreation.

Harper Peterson was an attendee and was called upon to comment and he told the audience that if they wanted to have their voices heard on this matter they must organize, contact their County Commissioners, attend the Planning Board meeting and the County Commissioners meeting and demand more than the usually allotted time afforded the public to be heard. The more people attending the better the chances.

Steve Coggins stated that the matter should be heard by the Planning Board in January and then by the County Commissioners for the final decision in February.

An attendee stated that he believed that the wet-mining method would change the flow of the contamination.

An attendee stated that he had experienced a situation in Greensboro where the residents near a new airport were told that the facility would have no impact on their home values, but in actuality it did, and it took him 3 ½ years to sell his house and he got less than what he paid for it from that sale.

An attendee asked what elected officials he should contact regarding his concerns and Harper Peterson answered: Woody White, Rob Zapple, Jonathan Barfield, Pat Kusek and Skip Watkins. Mr. Peterson also relayed information about the "Sunshine List" on the New Hanover County website and how you can sign up for notification of upcoming county board meetings.

A woman also supported what Harper Peterson said and explained that one of the contaminants found at the GE site was uranium that has a half-life of uranium was over a million years.

Mr. Coggins thanked the Reverend Theresa Holmes for making St. James AME available for the meeting.

On that note the meeting was adjourned at 7:40 pm.

**5. Description of any changes or adjustments to the application as a result of the community meeting.**

Applicant is exploring ways to mitigate any effects of noise and dust on Sledge Road where it borders with the rear property lines of some Wooden Shoe subdivision properties. Applicant also sent the meeting handout via email to all those on the roster sheet and solicited any comments.

Hilton Properties Limited Partnership  
 October 24, 2018 Community Meeting  
 Attendance Sheet

NAME	ADDRESS	EMAIL	PHONE
Sonia + Alan Morris	3639 Rosewood Landing Drive	al.s.morris@yahoo.com	
Kathy-Jack Hale	559 Sea Holly Dr.	KEGALE@bellsouth.net	
Stelle Jaffe	182 Santa Francis Rd	stev42@bellsouth.net	
John Gordon	214 Damber Dr	jcgatbeach@aol	
Emerson Whitted	3503 Emerson Dr.	ea753@aol.com	910.675.0549
Deloris Whitted	4601 Chair Rd.	trepeyton@aol.com	
Carole Lynn Wilson	5803 McDougald Dr. CH	CWilson23@ecr.com	
BOB FARR	6706 FALCON POINTE R	rbarr@ecr.com	
JANET R COOLEY	321 JENOA DR CH	janetcooley@gmail.com	
Bruce + Betsy Ritter	417 Cornubia, CH	britters55@aol.com	
Bob Costello	3631 Nucourt Lane CH	bobycastello@gmail.com	409.571.1102
Kayue Darrell	5008 Castle Lakes Rd CH	Kayuee@ecr.com	
Betsy Jaffe	633 JENOA DR	bj1101ast65@gmail.com	

MAIRN  
 JAMIE MARRON 42@gmail.com

NAME	ADDRESS	EMAIL	PHONE
Bernard Williams	2381 Rock Hill Rd Castle Hayne <sup>28429</sup>	BWilliams2301@aol.com	910-471-6649
Kerri Allen	5001 Clear Run Dr. Wilmington <sup>28403</sup>	Kerri.Allen@live.com	609-8469
Russell Murphy	5719 Dekker Rd C.H. <sup>28429</sup>	rmurphy7@ec.rr.com	910-471-9543
Judy Russo	3908 Sondey Rd C.H. <sup>28429</sup>	judyrusso51@hotmail.com	910-471-2668
Colleen Russo	" "		910-471-2669
Rhonda Wrisbon	1516 Rock Hill Rd Castle Hayne, NC <sup>28429</sup>	—	910-675-2298
Dona Allen Edwards	8 Little Creek Rd Castle Hayne NC		910-471-8793
Ben Smart	WEST NEWS (NBC)	bsmart@west.com	910-524-9331
Jennifer Noble	524 Sea Holly Drive <sup>Castle Hayne</sup> NC <sup>28429</sup>	jendora1@gmail.com	609-892-8941
Eug Noble	" "	gnoble@yahoo.com	910-859-3662
Carol Beasley	413 Delo + Dr Castle Hayne	cbeasley2@gmail.com	910-550-0501
Pitt Schiano	300 JENOA DR CASTLE HAYNE	CAOTRITS@small.cu	480-8954860
Kim O'Bannon	206 Camber Dr Castle Hayne	kimobannon@gmail.com	910-233-0442
LINDA PEITE EMERY	205 CORNWALL DRIVE <sup>Castle Hayne</sup>	decart105@gmail.com	



NAME	ADDRESS	EMAIL	PHONE
Walter Mollen	625 TENOA DR C.H N.C	CARTSL6@aol.com	631 455-6575
Laurel Keist	625 TENOA DR Castle Hayne NC	LALES516@aol.com	631 339-4199
Bob Rodgers	603 TENOA DR Castle Hayne NC	pr4fish@yahoo.com	910 632-3343
Jenny Hsu	607 Tanaq Dr. Castle Hayne NC	jhsu288@yahoo.com	910-346-0329
T. TENKSBURY	3622 Rosewood Landing NC	ttensks1@aol.com	910 632-3343
KEN KLEMAS	3630 Rosewood Landing Dr.	ktklenas@yahoo.com	
Carl Giers	518 SEA HILLS DR.	carlgiers@aol.com	
Alison & Simon	421 BURGESS CT	lars2690@gmail.com	315-778-1652
L. Whitfield		lutherwhitfield@yahoo.com	
L. Whitfield	2601 Chargin Rd	lwhitfield@aol.com	
BEN ANDREA			
ERIN CAREY		erin.carey@sierraclub.org	
Piiss Endo	7414 lucky Fish Ln 28411	pauline.endo@gmail.com	
JOY FINKERS	105 N DOUGLASS DR.	lwhitfield@aol.com	615-9461

NAME	ADDRESS	EMAIL	PHONE
Jeff Cook	611 Jeneva Dr. Castle Hayne <sup>28435</sup>	jeffcook12@gmail.com	
Earla Pope	149 Chadwick Ave. Wilm. NC 28401	earlapope <sup>(10pope)</sup> @bellsouth.net	(910) 763-6929
Tom Jacobs	3634 Rosewood, Castle Hayne	JTWLJ222@GMAIL	
Nancy Jacobs	3634 Rosewood landing, Castle Hayne <sup>28439</sup>	itnrj222@gmail.com	617-1739
Linda M. Swenson	5908 Dekker Rd. Castle Hayne, NC <sup>28439</sup>	Linda-Swenson@gmail	(910) 675-3356
Will Grant	409 Burocco Courty, Castle Hayne <sup>28439</sup>		919-637-3106
Buffy Constantine	208 Amber Dr. Castle Hayne	buffy.constantine@gmail.com	910-300-3807
Karen Clow	3610 Hausa Dr CH	karen@riverbluffs	
Alistair Canal	" "	living.com alliecanal@yahoo.com	
John Lennon	3571 Hausa Drive Castle Hayne, NC <sup>28439</sup>	johnlennon@riverbluffs.living.com	
Samuel Grady Jr	801 Sheffield Ct Wilmington, NC <sup>28403</sup>	gleumas410@gmail.com	(910) 520-9176
HARPER PETERSON	212 Orange St Wilm.	harp-peterson@gmail.com	910-645-1020
Roger Shew	4910 Park Wilm. NC	shew@uncw.edu	
BABY + DON KOHLER	925 Chauin Rd. Castle Hayne, NC <sup>28439</sup>	babababy@gmail.com	910-1023-5019



ERNE MARDIA

325 SEA HAWK DRIVE, CASTLE HAYNE <sup>28115</sup> NC  
ERNE@DUNE-WIRES.COM  
910-392-0519

NAME	ADDRESS	EMAIL	PHONE
Eric GARCIA	208 CROFT RD CASTLE HAYNE NC	egarcia@dunesw.com	910-619-0111
James & Donna FISK	5706 Dekker Rd Castle Hayne NC	fiskdk57@gmail.com	910-603-0133
Sonja & Kevin Croom	5822 Dekker Rd Castle Hayne NC	sonjacroom42@gmail.com	
Brian & Rhonda Smith	2800 DICK Rd Castle Hayne NC	rhondakaysmith1@aol.com	910-603-3403
Henderson, Ruffin	135 Laurel Dr Wilmington NC	hruffin@bellsouth.net	
Debra & Rudy	3327 Davis Road H.		910-605-2045
Smig Gandy	3327 Davis St Castle Hayne		910-606-636
Alvin Helton	2717 BEGG LN Castle Hayne		910-512-1707
Tan & Dan Morgan	3804 DICK Rd, Castle Hayne <sup>28115</sup> NC	dmjrn9@yahoo.com	910-471-5987
Leann McLean	2719 Bug Lane Castle Hayne NC	McLeanlay@gmail.com	910-262-7066
Tim & Judy GUILLEY	3626 ROSEWOOD LANDING DR CASTLE HAYNE NC	guileyac@gmail.com	910-623-5060
<del>Tom Robert</del>	202 Lemser Dr Castle Hayne NC	frtvmi66@gmail.com	910-703-408-1698
Dr. Lloyd Hunsuck	203 Campbell Dr, Castle Hayne NC	lhunsuck1@comcast.net	301-251-0172
Liegh & Carl Hurd	3555 HANSA DR Castle Hayne, NC	carlhurdmba@gmail.com	706-830-0277
		Danarabbin85@gmail.com	706-830-0347

PETE & MARY FRIENDMAN 3621 CHILCORA DR, CASTLE HAYNE PETER.FRIENDMAN321@gmail.com  
910-833-5656  
NC 28429

NAME	ADDRESS	EMAIL	PHONE
Joy Cotten	400 Jena Dr Castle Hayne	Joy.Cotten@gmail	2018035879
Kelly Good	505 Jena Dr Castle Hayne	healthcoach497@gmail.com	757 650-5787
Bob Switzer	400 Jena Castle Hayne	Bob@BobSWITZER.com	703-624-4041
Michael Hill	1701 Rock Hill Rd Castle Hayne		910-200-0469
Howard Williams	117 Mercer Ave		910-617-5131
Beverly Williams	117 Mercer Ave		910 444-9323
Marcella Garrett	1814 Rock Hill Rd. Castle Hayne, NC 28429		910 622 0773
Rev. Phoebe Jordan	121 Fairford Rd. Castle Hayne 28429	pyvidan1957@gmail.com	910 409-1553
Lisa Mann	462 Jena Dr Castle Hayne 28429	lisa.mann5472@gmail.com	919-740-7184
GLENN MANN	662 JENA DR CASTLE HAYNE NC	GAMANN44@gmail.com	919 906762
Michael Reed	127 McDougald Dr. Castle Hayne	MIKE@E2AUTOSERVICE@yahoo.com	910-367-2667
Marion Kreh	127 McDougald Dr, CH	katenfrue2000@yahoo.com	910-604-2499
John Rice	5820 McDougald Dr. CH	TRICE6@ec.RR.com	910-604-2819
Helen Lynett Rice	5820 McDougald Dr CH	rice@urw.edu	910 604-2499



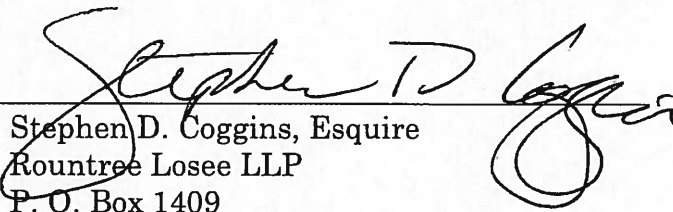
CERTIFICATE OF MAILING

This is to certify that a true and accurate copy of the attached Notice of Community Meeting was this day mailed via the USPS, first-class mail, postage prepaid to the parties listed on the attached mailing matrix at the addresses noted.

This the 4<sup>th</sup> day of October, 2018.

HILTON PROPERTIES LIMITED PARTNERSHIP

BY: \_\_\_\_\_

  
Stephen D. Coggins, Esquire  
Rountree Losee LLP  
P. O. Box 1409

Wilmington NC 28403

(910)763-3404

Fax: (910)763-0080

*Attorney for Hilton Properties Limited Partnership*

George Rountree, Jr.  
(1904-1979)  
Ryan F. Tennant  
(1973-2016)  
George Rountree, III  
Special Counsel  
also licensed in AZ  
Geoffrey A. Losee  
Stephen D. Coggins

Katie Greene  
Melissa A. Atkinson



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P.O. Box 1409  
Wilmington, NC 28402

Phone  
910.763.3404

Fax  
910.763.0080  
910.763.0320

October 4, 2018

## NOTICE OF COMMUNITY MEETING

This is a notice for a community information meeting for an upcoming request by Stephen D. Coggins, Applicant, on behalf of Hilton Properties Limited Partnership, property owner, for a Conditional Use Rezoning from RA to I-2, for a sand mining operation.

The subject property is approximately 63.02 acres and is located at 4117 Castle Hayne Road, Castle Hayne, NC, and is identified as PID R00900-001-002-000.

The purpose of the community information meeting is to explain the proposal and answer questions from meeting attendees.

The meeting will be held at the St. James AME Church at 3425 Castle Hayne Road, Castle Hayne, NC, 28429, and will begin at 6:00 p.m. on October 24, 2018. For directions or further information, please contact Stephen D. Coggins or his assistant, Julie D. Cavanaugh, at (910)763-3404 or by email at [scoggins@rountreelosee.com](mailto:scoggins@rountreelosee.com).

## MAILING MATRIX – HILTON PROPERTIES LIMITED PARTNERSHIP

Timothy L. Cotton 5701 Dekker rd. Castle Hayne NC 28429	Robbie Metcalfe 5711 Dekker Road Castle Hayne NC 28429
Marvin N. and Leah M. McLean 2719 Berg Lane Castle Hayne NC 28429	Alvin W. and Julie G. Helton 2717 Berg Lane Castle Hayne NC 28429
Finders Living Trust 105 McDougald Drive Castle Hayne NC 28429	Melvin Lee Watkins, Jr. 8955 Black Chestnut Drive Leland NC 28451
Robert L. and Angela R. Southerland 256 Meeks Creek Drive Rocky Point NC 28457	Randall Earl and Susan C. Murphy 5719 Dekker road Castle Hayne NC 28439
William Michael and Christina Tate 813 Morningside Drive Wilmington NC 28401	David E and April J. MacAlpine 2720 Berg Lane Castle Hayne NC 28429
Hilton Properties Limited Partnership P. O. Box 523 Whiteville NC 28472	James M. and Donna K. Fisk 5706 Dekker Road Castle Hayne Nc 28429
Andrew J. Watkins, III, Heirs 7112 Rippling Stone Lane Raleigh NC 27612	Robert A and Sherri Anderson 5716 Dekker Road Castle Hanye NC 28429
Karen Leigh Bell 5707 Dekker road Castle Hayne NC 28429	Kimila Simpson Wilson 3522 Emerson Drive Castel Hayne NC 28429
Paul Eric and Deanine Meadows 4717 Indian Corn Trail Castle Hayne NC 28429	James A. and Rowena L. Daughtry 4004 Castle Hayne Road Castle Hayne NC 28429
Duane V. and Teresa Sutton 2721 Berg Lane Castle Hayne NC 28429	Victor J. and Nancy Passaro 4121 Castle Hayne Road Castle Hayne NC 28429
Carolyn Meeker Kinnamon Heirs 3944 Castle Hayne Road Castle Hayne NC 28429	Betty J. Earnhardt 233 River Gate Lane Wilmington NC 28412
William L. and Cheryl A. Ridenour 5723 Dekker Road Castle Hayne NC 28429	James Eason 5811 Dekker Road Castle Hayne NC 28429
GE Hitachi Nuclear Energy ATTN: Environmental Health and Safety P. O. Box 780 Wilmington NC 28402	
Joint Conversion Company, Inc. P. O. Box 780 Mail Code A-11 Wilmington NC 28401	

**DEPARTMENT OF ENVIRONMENT  
AND NATURAL RESOURCES  
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES  
LAND QUALITY SECTION**

**P E R M I T**

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68, "The Mining Act of 1971," Mining Permit Rule 15A NCAC 5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Hilton Properties, LP

Hilton Properties Mine

New Hanover County - Permit No. 65-35

for the operation of a

Sand Mine

which shall provide that the usefulness, productivity and scenic values of all lands and waters affected by this mining operation will receive the greatest practical degree of protection and restoration.

**MINING PERMIT EXPIRATION DATE: February 5, 2024**

In accordance with the application for this mining permit, which is hereby approved by the Department of Environment and Natural Resources, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other security on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

#### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

#### Modifications

December 15, 2015: This mining permit has been modified to address concerns of groundwater contamination on the neighboring General Electric property. The modification allows excavation to take place in Phase 1 only. The area east of the typical A-AA cross-section (Phase 2) is now undisturbed buffer. The modification includes phasing of the project and a nest of monitoring wells as indicated on the mine map dated July 14, 2015. A condition has been added to require that all mine operations cease if your company received notification that 2L limits have been exceeded. The modification changes the affected acreage to 28.10 acres.

#### Expiration Date

This permit shall be effective from the date of its issuance until February 5, 2024.

**Conditions**

This permit shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

**OPERATING CONDITIONS:**

1.    A.    Any wastewater processing or mine dewatering shall be in accordance with the permitting requirements and rules promulgated by the N.C. Environmental Management Commission.  
  
      B.    Any stormwater runoff from the affected areas at the site shall be in accordance with any applicable permit requirements and regulations promulgated by the Environmental Protection Agency and enforced by the N.C. Environmental Management Commission. It shall be the permittee's responsibility to contact the Stormwater Program to secure any necessary stormwater permits or other approval documents.
2.    A.    Any mining process producing air contamination emissions shall be subject to the permitting requirements and rules promulgated by the N.C. Environmental Management Commission and enforced by the Division of Air Quality.  
  
      B.    During mining operations, water trucks or other means that may be necessary shall be utilized to prevent dust from leaving the permitted area.
3.    A.    Sufficient buffer (minimum 50 foot undisturbed) shall be maintained between any affected land and any adjoining waterway or wetland to prevent sedimentation of that waterway or wetland from erosion of the affected land and to preserve the integrity of the natural watercourse or wetland.  
  
      B.    Any mining activity affecting waters of the State, waters of the U. S., or wetlands shall be in accordance with the requirements and regulations promulgated and enforced by the N. C. Environmental Management Commission.
4.    A.    Adequate mechanical barriers including but not limited to diversions, earthen dikes, sediment check dams, sediment retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance and maintained to prevent sediment from discharging onto adjacent surface areas or into any lake, wetland or natural watercourse in proximity to the affected land.  
  
      B.    All drainage from the affected area around the mine excavation shall be diverted internal to said excavation.  
  
      C.    No dewatering activities shall occur at this site.



- D. Mining activities shall occur as indicated on the mine map last revised July 14, 2015 and the supplemental information received March 26, 2013 and September 24, 2013.
  - E. Mining shall cease immediately upon notification that regulatory limits have been exceeded at monitoring wells described in the "Supplemental Remedial Investigation Work Plan Northwest Site Area" dated June 2, 2015 and received by the Land Quality Section on July 14, 2015.
- 5. All affected area boundaries (28.10 acres) shall be permanently marked at the site on 100-foot intervals unless the line of sight allows for larger spacing intervals.
  - 6. The angle for graded slopes and fills shall be no greater than the angle, which can be retained by vegetative cover or other adequate erosion control measure, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause off-site damage because of sedimentation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
  - 7. The affected land shall be graded so as to prevent collection of pools of water that are, or likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.
  - 8. Existing vegetation or vegetated earthen berms shall be maintained between the mine and public thoroughfares whenever practical to screen the operation from the public.
  - 9. Sufficient buffer (minimum 20 foot unexcavated) shall be maintained between any excavation and any mining permit boundary to protect adjacent property.
  - 10. A. No on-site disposal of refuse or other solid waste that is generated outside of the mining permit area shall be allowed within the boundaries of the mining permit area unless authorization to conduct said disposal has first been obtained from both the Division of Waste Management and the Land Quality Section, Department of Environment and Natural Resources. The method of disposal shall be consistent with the approved reclamation plan.
  - B. Mining refuse as defined by G.S. 74-49 (14) of The Mining Act of 1971 generated on-site and directly associated with the mining activity may be disposed of in a designated refuse area. All other waste products must be disposed of in a disposal facility approved by the Division of Waste Management. No petroleum products, acids, solvents or their storage containers or any other material that may be considered hazardous shall be disposed of within the permitted area.

- C. For the purposes of this permit, the Division of Energy, Mineral and Land Resources considers the following materials to be "mining refuse" (in addition to those specifically listed under G.S. 74-49 (14) of the N.C. Mining Act of 1971):
1. on-site generated land clearing debris
  2. conveyor belts
  3. wire cables
  4. v-belts
  5. steel reinforced air hoses
  6. drill steel
- D. If mining refuse is to be permanently disposed within the mining permit boundary, the following information must be provided to and approved by the Division of Energy, Mineral and Land Resources prior to commencement of such disposal:
1. the approximate boundaries and size of the refuse disposal area;
  2. a list of refuse items to be disposed;
  3. verification that a minimum of 4 feet of cover will be provided over the refuse;
  4. verification that the refuse will be disposed at least 4 feet above the seasonally high water table; and,
  5. verification that a permanent vegetative groundcover will be established.
11. An Annual Reclamation Report shall be submitted on a form supplied by the Department by February 1 of each year until reclamation is completed and approved.
12. A. The operator shall notify the Department in writing of the desire to delete, modify or otherwise change any part of the mining, reclamation, or erosion/sediment control plan contained in the approved application for a mining permit or any approved revision to it. Approval to implement such changes must be obtained from the Department prior to on-site implementation of the revisions.
- B. No mining related activities shall occur within the area east of the typical A-AA cross-section (Phase 2), which is now undisturbed buffer, until a modification is submitted to and approved by the Department detailing said activities.
13. The security, which was posted pursuant to N.C.G.S. 74-54 in the form of a \$46,900.00 cash bond, is sufficient to cover the operation as indicated in the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.
14. A. Authorized representatives of the Division of Archives and History shall be granted access to the site to determine the presence of significant archaeological resources.

- B. Pursuant to N. C. G. S. 70 Article 3, "The Unmarked Human Burial and Human Skeletal Remains Protection Act," should the operator or any person in his employ encounter human skeletal remains, immediate notification shall be provided to the county medical examiner and the chief archaeologist, North Carolina Division of Archives and History.

## **APPROVED RECLAMATION PLAN**

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the terms of the Mining Permit.

The approved plan provides:

### **Minimum Standards As Provided By G.S. 74-53**

1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the North Carolina Agricultural Experiment Station and the North Carolina Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, provide reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

### **RECLAMATION CONDITIONS:**

1. Provided further, and subject to the Reclamation schedule, the planned reclamation shall be to restore the mine excavation to a lake area and to grade and revegetate the adjacent disturbed areas.
2. The specifications for surface gradient restoration to a surface suitable for the planned future use are as follows:
  - A. The lake area shall be excavated to maintain a minimum water depth of four feet measured from the low water table elevation.

- B. The side slopes to the lake excavation shall be graded to a 3 horizontal to 1 vertical or flatter to the water line and 2 horizontal to 1 vertical or flatter below the water line.
- C. Any areas used for wastepiles, screening, stockpiling or other processing shall be leveled and smoothed.
- D. No contaminants shall be permanently disposed of at the mine site. On-site disposal of waste shall be in accordance with Operating Condition Nos. 10A through D.
- E. The affected land shall be graded to prevent the collection of noxious or foul water.

3. Revegetation Plan:

After site preparation, all disturbed land areas shall be revegetated as per Revegetation Plan approved by Mr. Floyd R. Williams of Williams Environmental and Geological Services, PLLC on March 22, 2012.

Whenever possible, disturbed areas should be vegetated with native warm season grasses such as switch grass, Indian grass, bluestem and gamma grass.

In addition, the permittee shall consult with a professional wildlife biologist with the N.C. Wildlife Resources Commission to enhance post-project wildlife habitat at the site.

4. Reclamation Plan:

Reclamation shall be conducted simultaneously with mining to the extent feasible. In any event, reclamation shall be initiated as soon as feasible after completion or termination of mining of any mine segment under permit. Final reclamation, including revegetation, shall be completed within two years of completion or termination of mining.

Permit issued this 15th day of December, 2015.

By: James S. Boyer

Tracy E. Davis, Director  
Division of Energy, Mineral, and Land Resources  
By Authority of the Secretary  
Of the Department of Environment and Natural Resources

# APPLICATION FOR A MINING PERMIT

HILTON PROPERTIES LP  
HILTON PROPERTIES MNE  
65-35

## E. DETERMINATION OF AFFECTED ACREAGE AND BOND

The following bond calculation worksheet is to be used to establish an appropriate bond (based upon a range of \$500 to \$3,000 per affected acre) for each permitted mine site based upon the acreage approved by the Department to be affected during the life of the mining permit. Please insert the approximate acreage, for each aspect of the mining operation, that you intend to affect during the life of this mining permit (in addition, please insert the appropriate reclamation cost/acre for each category from the Schedule of Reclamation Costs provided with this application form) OR you can defer to the Department to calculate your bond for you based upon your maps and standard reclamation costs:

CATEGORY	AFFECTED ACREAGE		RECLAMATION COST/ACRE*		RECLAMATION COST
Tailings/Sediment Ponds:	_____ Ac.	X	\$ _____/Ac.	=	\$ _____
Stockpiles:	1.0 Ac.	X	\$ 1800 /Ac.	=	\$ 1,800
Wastepiles:	_____ Ac.	X	\$ _____/Ac.	=	\$ _____
Processing Area/Haul Roads:	5.40 Ac.	X	\$ 1800 /Ac.	=	\$ 9,720
Mine Excavation:	27.10 Ac.	X	\$ 500/Ac.	=	\$ 13,550
Other:	2.9 Ac.	X	\$ 1800 /Ac.	=	\$ 5,220
<b>TOTAL AFFECTED AC.:</b>	_____ Ac.				
<b>(TOTAL PERMITTED AC.:</b>	67.70 Ac.)				

### Temporary & Permanent Sedimentation & Erosion Control Measures:

Divide the **TOTAL AFFECTED AC.** above into the following two categories: a) affected acres that drain into proposed/existing excavation and/or b) affected acres that will be graded for positive drainage where measures will be needed to prevent offsite sedimentation and sedimentation to onsite watercourses and wetlands.

a) Internal Drainage \_\_\_\_\_ Ac.

b) Positive Drainage \_\_\_\_\_ Ac. X \$1,500.00 = \$ \_\_\_\_\_

**SUBTOTAL COST:** \$ 30,290

### Inflation Factor:

0.02 X SUBTOTAL COST: \$ 30,290 X Permit Life (1 to 10 years): 10

**INFLATION COST:** \$ 6,058

**TOTAL COST = SUBTOTAL COST + INFLATION COST = \$ 36,348**

**Total Reclamation Bond Cost: \$ 36,300**  
(round down to the nearest \$100.00)



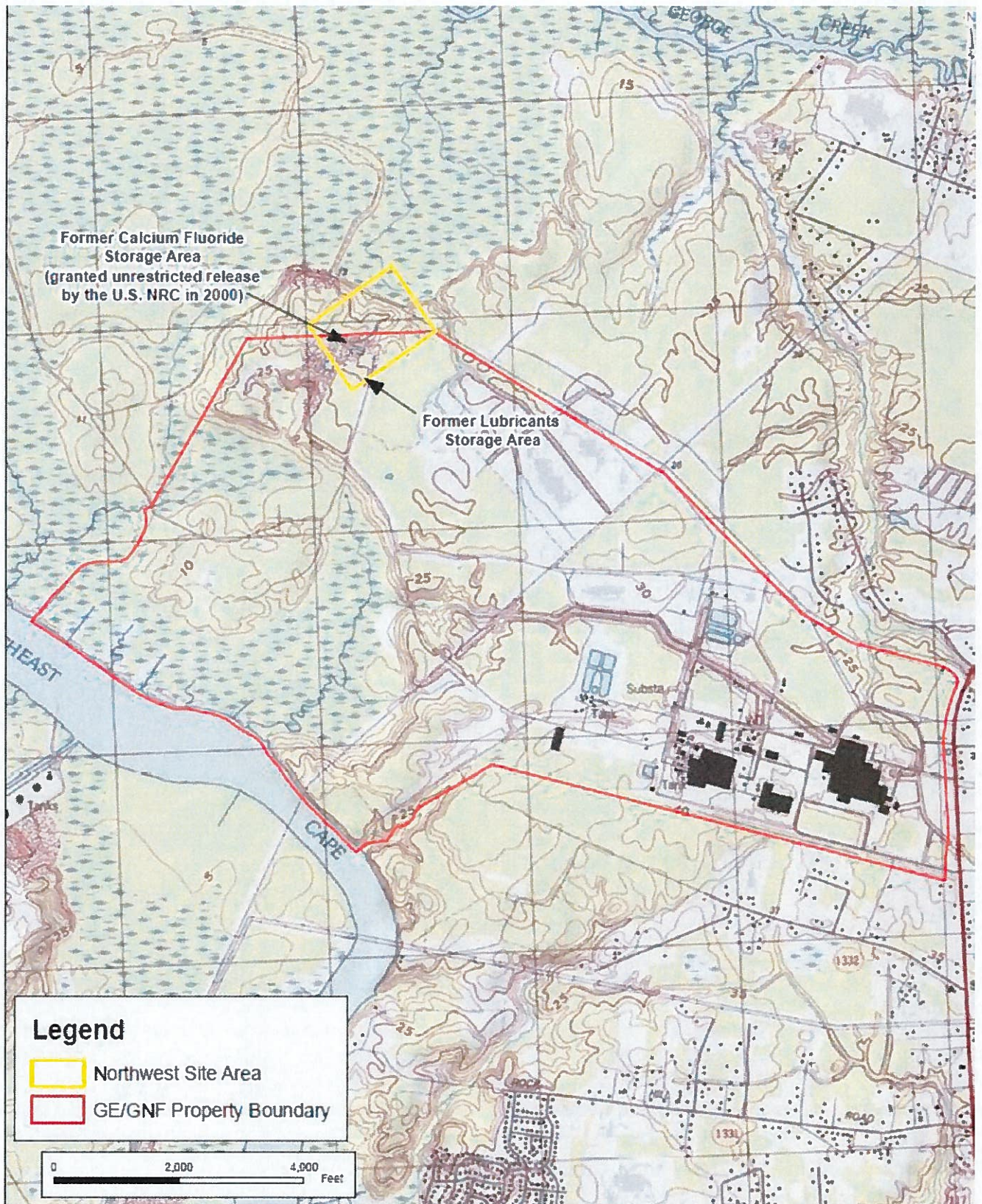


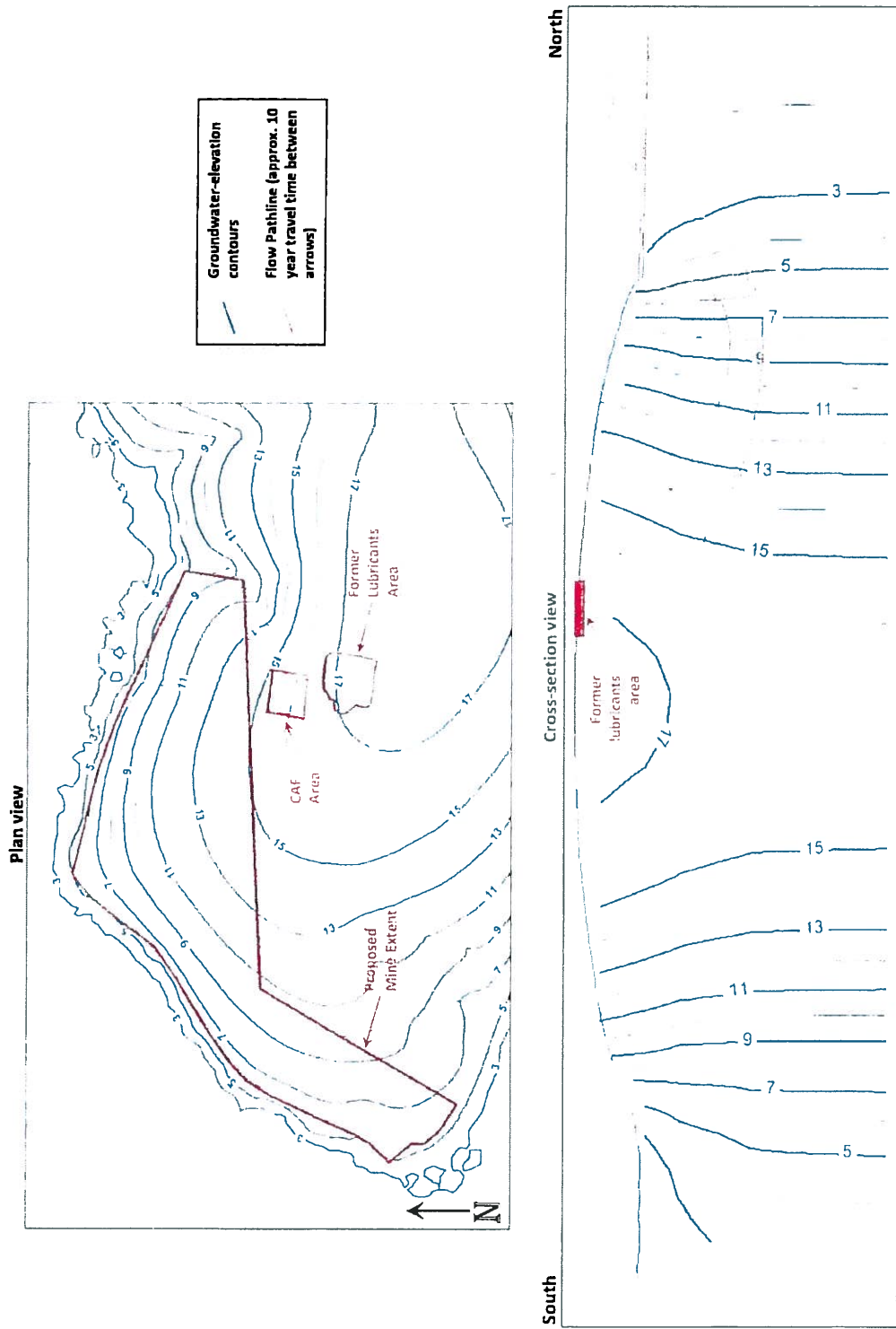




Figure 1-7. Proposed Mine Area in the Northwest Site Area (oblique view from north)



Figure 2-2a. Groundwater Elevation Contours Based on Calibrated Flow Modeling Results – Northwest Site Area



**Figure 1-2  
Current & Historical  
Extent of Impacts  
- Northwest Site Area**

**Explanation**

- Approximate extent of vinyl chloride > the NC groundwater standard of 0.03 µg/L.  
*Note: The regulatory standard is lower than can be achieved by the analytical method. Thus any vinyl chloride detection is an exceedance of the standard.*
- Approximate extent fluoride > 2 mg/L
- Approximate area where measured U-235 abundance indicates non-natural uranium (natural abundance is 0.72%, CAF2 abundance is 2.2%)
- Exceeds the Site-Specific Groundwater Monitoring Guideline Value of 0.045 mg/L for Uranium

Current extents indicated with solid lines  
represent data from 2014

Historical extents indicated with dashed lines  
represent data from 1998-1999

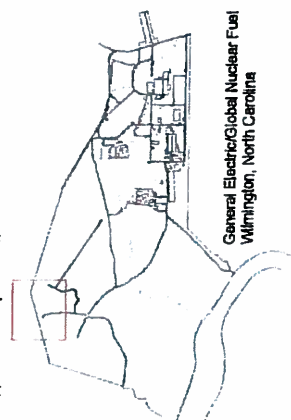
**Monitoring Locations**

- ⊕ Monitoring-well sampling location
- ⊕ Surface-water sampling location
- ⊕ Swamp pore-water sampling location

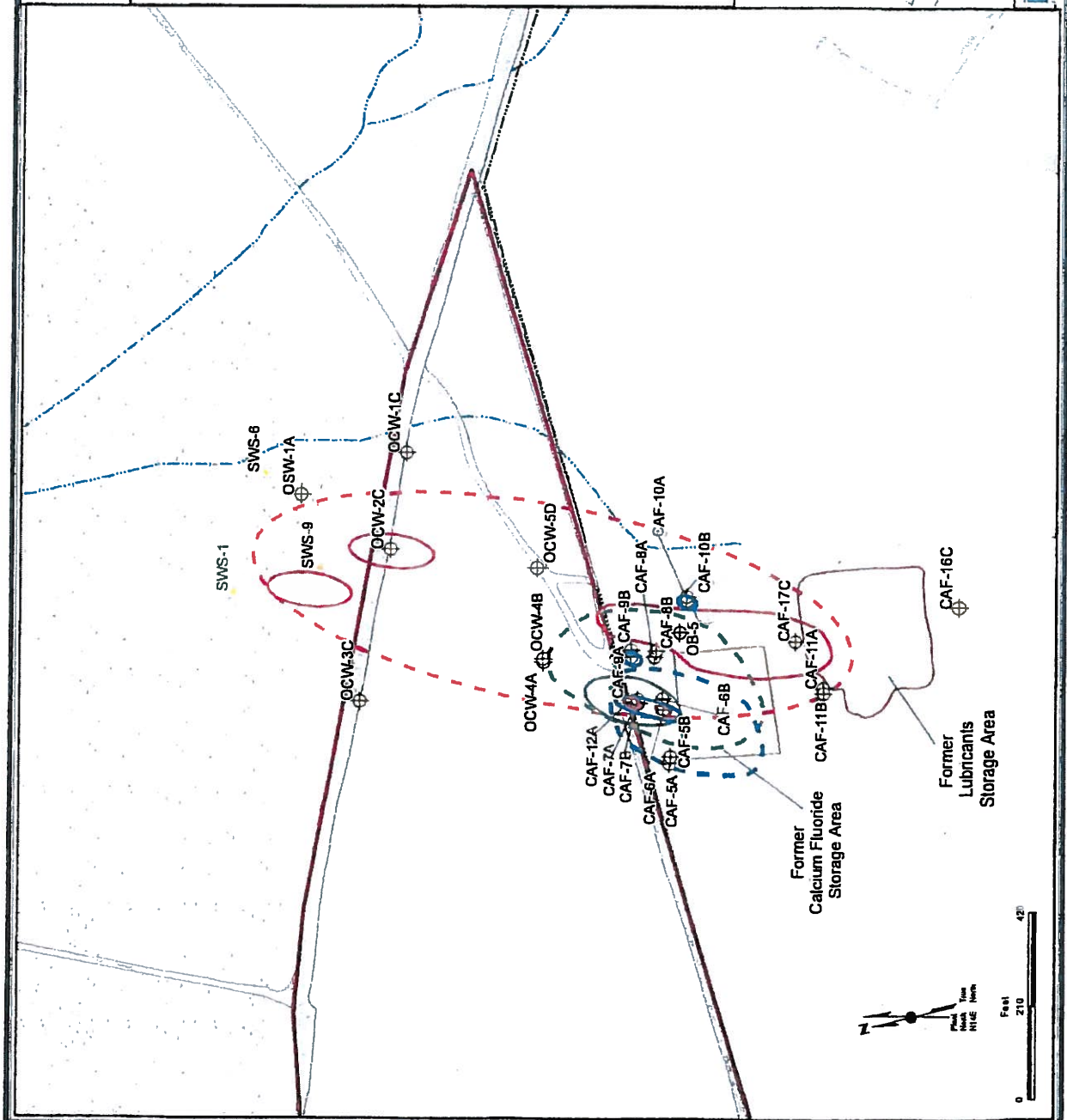
**Other Features**

- Surface water
- Road or trail
- GE/GNF property boundary
- Off site
- GE/GNF property
- Swampy area
- Proposed Mine Parcel Boundary

Approximate Map Location



General Electric/Global Nuclear Fuel  
Wilmington, North Carolina



0 210 420  
Feet

Project No.: 0600024-004  
Map No.: 0600024-015.002.004  
019\_002\_001

**Figure 1-3b**  
**Current Organics**  
**Monitoring Program**  
**-- Northwest Site Area**

**Explanation**

**Organics Program**

Monitoring Well (CAF, OCW, OB)

- Sampled Biannually (3 Locations)
- Sampled Annually (1 Location)
- ⊕ No Longer Sampled (12 Locations)

Swamp Pore Water (SWS)

- Sampled Biannually (1 Location)
- Sampled Annually (2 Locations)
- No Longer Sampled (2 Locations)

△ Surface Water (SW)

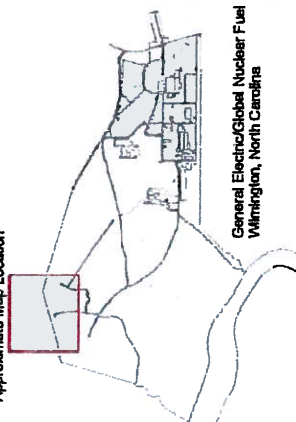
- ▲ Sampled Biannually (1 Location)
- △ No Longer Sampled (3 Locations)

In 2012, DENR approved a requested groundwater sampling plan modification based on the continued and predicted reductions in contaminant concentrations. The modified sampling plan reduced the number and frequency of samples.

**Other Features**

- Surface water
- Road or trail
- GEIGNF property boundary
- Off site
- GEIGNF property
- Swampy area

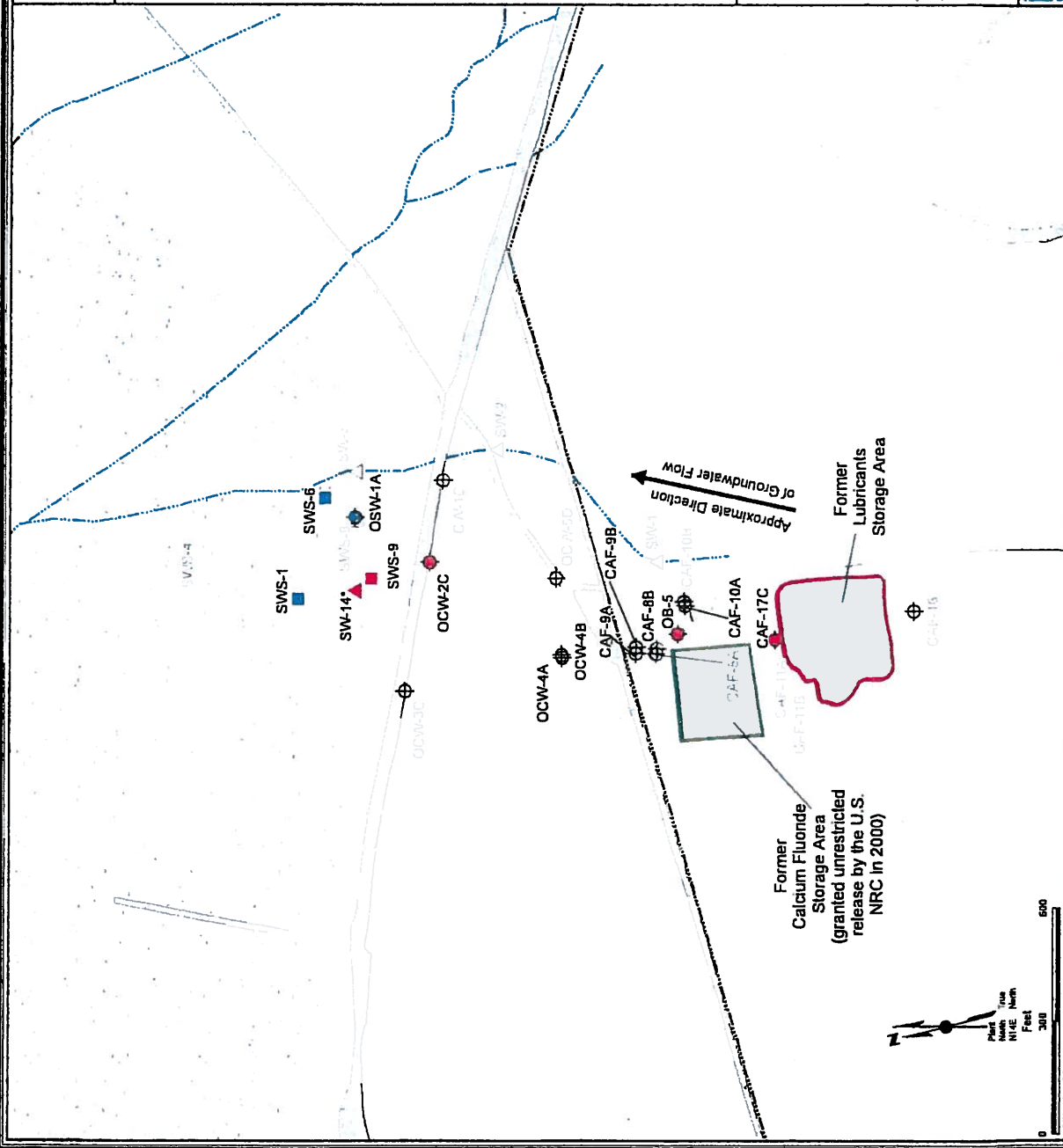
Approximate Map Location

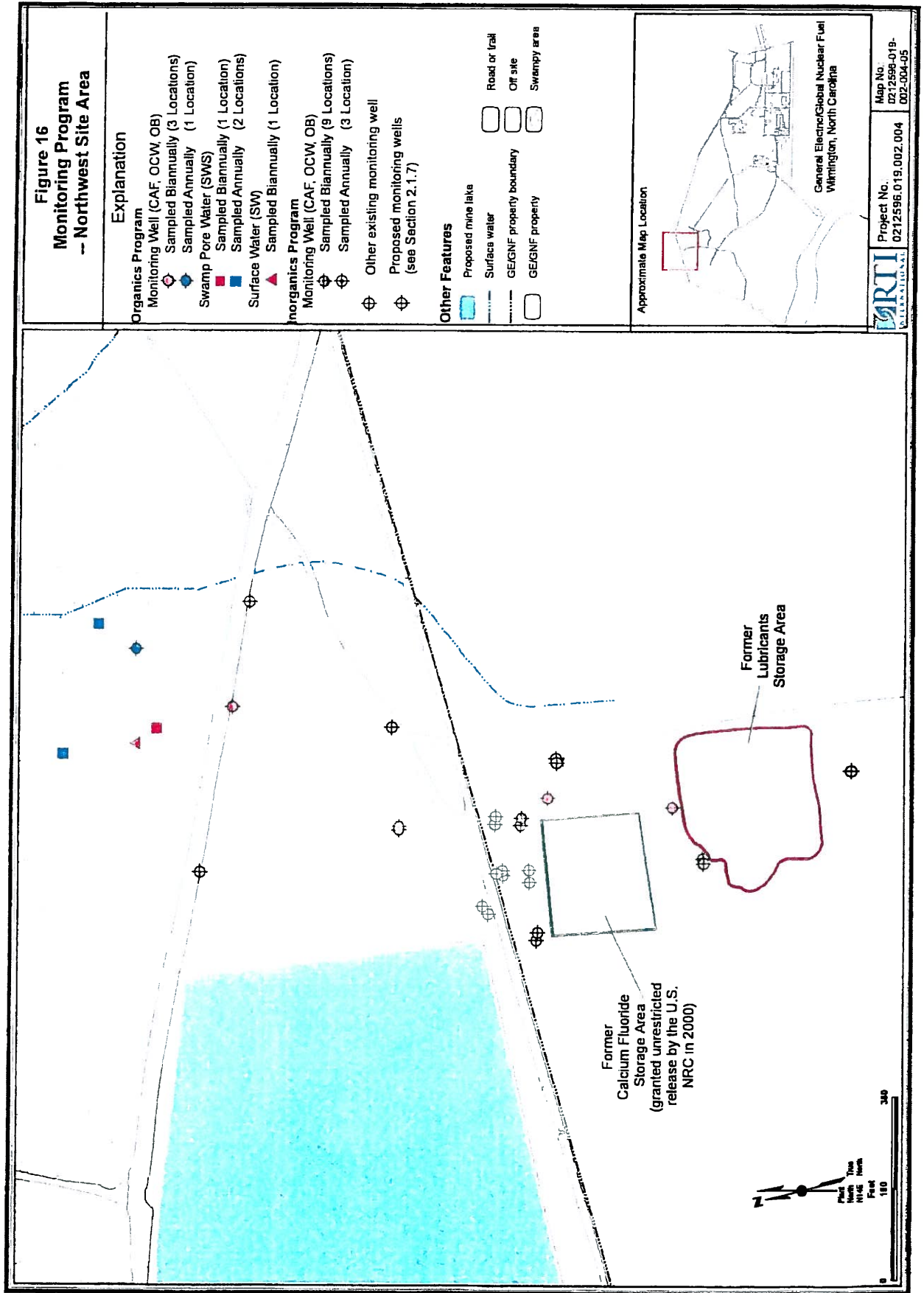


**Map No.**  
 0600024\_019\_002\_0058

**Project No.:**  
 0600024\_015\_002\_004

**Map No.**  
 0600024\_019\_002\_0058











October 24, 2018

**This time around, owners plan to be forthcoming with answers.**

## Environmental concerns

William Toole, an attorney representing Hilton Properties, acknowledged that when the operation was first proposed four years ago, owners did not adequately address contamination risks for concerned neighbors.

"They hadn't really understood the environmental contamination problem," Toole said.

In the 60s and 70s, GE Hitachi dumped hazardous waste on its own property, directly adjacent to Hilton Properties' land. Over time, the contaminants made their way into Hilton Properties' soil and groundwater.

With a nearby neighborhood, Wooden Shoe, where residents all rely on groundwater wells, a sand mining operation that would disturb the water table was an alarming proposition. Neighbors rallied against property owners, the state's environmental agency, then called the North Carolina Department of Natural Resources (DENR), and New Hanover County's Planning Board to stop the sand mine.

With a state permit in hand, property owners need their land rezoned from rural agricultural to heavy industrial to begin their proposed operation. Hilton Properties will present its plans to neighbors and community members Wednesday at 6 p.m.

"The environmental issues, I understand are probably not well understood by the public yet, but we hope that with enough time, they'll understand this has been worked out hard, and frankly, was not properly addressed the first time," Toole said.

Hilton Properties failed to discuss contaminants on the property, which include radioactive chemicals, in both their application to the state and in their rezoning application to the county.

"It just hadn't even been something that the Hilton Properties folks had thought about," Toole said. "They just didn't even make the connection."

## New plans

Compared to Hilton Properties' initial plans, Toole said the mining operation will be significantly scaled back. After becoming aware of contaminants, the state cut Hilton Properties allowable excavation area in half under a modified permit.

"It's smaller," Toole said. "Substantially further away from where the contamination is."

Toole said property owners initiated a lengthy groundwater modeling study, issued by GE and conducted by a third-party. The study, Toole said, shows contamination will not impact neighbor's well water.

Because well water is sourced from a deep aquifer, neighbors' water won't be impacted by excavation activity that disturbs the water table at the level of a more shallow aquifer, he said.

"This is private property, people get to do — within reason — stuff with their own land," Toole said.

Instead of large, corporate out-of-state interests, Toole said Hilton Properties' owners are locals who inherited the property.

"These are folks from North Carolina that ended up with some property; they're just trying to figure out how to pay the taxes like everybody else," he said.

Held at **St. James AME Church** on Wednesday, Oct. 24 at 6 p.m., Toole will help present Hilton Properties' new plans and answer questions.

"Once people see what's been done, they should be pretty comfortable that their voices were heard and had a positive impact," he said.

*Send tips and comments to Johanna Ferebee at [johanna@localvoicemedia.com](mailto:johanna@localvoicemedia.com)*

Always be informed. Click here to get the latest news and information delivered to your inbox

(2)

102

BOOK PAGE  
2211 0685

ATTACHMENT NO. 1

\*97 JUL 17 AM 9 24 PM

RECORDED AND VERIFIED  
MARY SUE OOTS  
REGISTER OF DEEDS  
NEW HANOVER CO. NC

NO REVENUE STAMPS

Excise Tax

Recording Time, Book and Page

Tax Lot No. Parcel Identifier No. R00900-001-001-000  
Verified by County on the day of , 19  
by

Mail after recording to

PREPARATION OF THIS INSTRUMENT DOES  
NOT CERTIFY TITLE UNLESS ACCOMPANIED  
BY CERTIFYING LETTER.

This instrument was prepared by C. GREG WILLIAMSON, Attorney (mnb)

Brief description for the Index

## NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 11th day of June , 19 97 , by and between

GRANTOR

GRANTEE

KATHARINE C. SLEDGE,  
Widow

HILTON PROPERTIES LIMITED PARTNERSHIP,  
A limited partnership organized under  
the laws of the State of Georgia and  
qualified to do business in the State  
of North Carolina

000024

P.O. Box 523  
Whiteville, NC 28472

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

WITNESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of , Cape Fear Township,

New Hanover County, North Carolina and more particularly described as follows:

Bounded on the West and North by the Northeast Cape Fear River, on the East by Prince George Creek and Broadwater Branch, and on the South by two subdivisions and the General Electric Property.

BEGINNING at a nail in the center of Hwy. U.S. 117 over a large culvert at the run of DeRossett Branch, now about 50 feet Southwest of McDougald Road, AND RUNS THENCE FROM SAID BEGINNING POINT with the center of said highway South 29 degrees 56 minutes West 112.84 feet to a nail in said centerline; thence North 57 degrees 56 minutes West 170.35 feet to a pipe corner in a ditch, the corner of a tract of about 1,000 acres conveyed by W. F. Sledge to General Electric in 1967; thence with the line of said G.E. tract nine calls as follows: North 58 degrees 52 minutes West 240.62 feet to a concrete monument at the end of said ditch; thence North 77 degrees 21 minutes West 1449.01 feet to a pipe in a large ditch; thence North 59 degrees 29 minutes West 913.69 feet to a pipe in a ditch; thence North 42 degrees 21 minutes 34 seconds West 3144.82 feet to a pipe in said ditch near the Southeast edge of a large power line; thence with said ditch and beyond North 59 degrees 31 minutes 50 seconds West 4312.73 feet to a concrete monument; thence South 87 degrees 30 minutes 21 seconds West 2943.48 feet to a concrete monument; thence South 29 degrees 40 minutes 02 seconds West 3025.95 feet to a concrete monument; thence South 61 degrees 35 minutes 34 seconds West 144.62 feet to a stake in the run of Jackeys Creek; thence down of the run of said creek in a Westerly direction about 1/2 mile to the Northeast Cape Fear River; thence up the East and South bank of said river in a Northerly and Easterly direction as it meanders a distance of about eight miles to the mouth of Prince George Creek; thence up said

477603

SEE ATTACHED SCHEDULE "A" FOR CONTINUANCE OF LEGAL DESCRIPTION

The property hereinabove described was acquired by Grantor by instrument recorded in .....

A map showing the above described property is recorded in Plat Book ..... page .....

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated. Title to the property hereinabove described is subject to the following exceptions:

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

(Corporate Name)

By:

ATTEST:

RECORD OF POOR QUALITY DUE TO  
CONDITION OF ORIGINAL DOCUMENT  
G.S. 161-14

Secretary (Corporate Seal)

USE BLACK INK ONLY

*Katharine C. Sledge* (SEAL)  
KATHARINE C. SLEDGE, Widow

(SEAL)

(SEAL)

(SEAL)

SEAL-STAMP

NORTH CAROLINA, COLUMBUS County.

I, a Notary Public of the County and State aforesaid, certify that KATHARINE C. SLEDGE, Widow Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 11th day of June, 1997.

My commission expires: 8-4-2001 *Michelle N. Brown* Notary Public

SEAL-STAMP

NORTH CAROLINA, County.

I, a Notary Public of the County and State aforesaid, certify that ..... Secretary of ..... a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its President, sealed with its corporate seal and attested by ..... as its Secretary. Witness my hand and official stamp or seal, this ..... day of ....., 19.....

My commission expires: ..... Notary Public

The foregoing Certificate(s) of *Michelle N. Brown* Notary Public

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

MARY SUE OOTS

REGISTER OF DEEDS FOR New Hanover COUNTY

By *Mavis Ann Stover* Deputy/Assistant- Register of Deeds

RECORD OF POOR QUALITY DUE TO  
CONDITION OF ORIGINAL DOCUMENT  
G.S. 161-14

(Notary Seal)

SCHEDULE "A" - Attached to and made a part of the General Warranty Deed from Katharine C. Sledge, Widow in favor of Hilton Properties Limited Partnership, A limited partnership organized under the laws of the State of Georgia and qualified to do business in the State of North Carolina, and dated June 11, 1997.

creek in a Southerly direction as it meanders a distance of about one and one-half miles to the mouth of Broadwater Branch; thence up said branch in a Southerly direction about one and one-half miles to a concrete corner on the West bank, a corner of the old Dellie McDougal Land, now a subdivision; thence with a well-marked line to and with a large ditch or canal South 88 degrees 20 minutes West about 1980 feet to a concrete monument on the North bank at an elbow turn in said ditch; thence with said large ditch near the center, South 0 degrees 52 minutes East 1034.2 feet to a concrete monument at the end of said ditch and at the Northeast edge of a road; thence South 45 degrees 04 minutes East 1614.2 feet to a concrete monument; thence South 59 degrees 29 minutes East 906.86 feet to a pipe corner; thence North 54 degrees 11 minutes East 244.5 feet to a pipe corner in the run of Broadwater Branch near the mouth of DeRossett Branch; thence up the run of DeRossett Branch as it meanders, a traverse line being South 68 degrees 19 minutes East 1710.25 feet to the point of beginning, containing 4100 acres, more or less, measured by Planimeter.

Also there is here conveyed to the Grantee an easement of right of way on a triangle at the highway described as follows:

BEGINNING at a nail in the center of U.S. 117, the second corner of the above described tract, AND RUNS THENCE FROM SAID BEGINNING NAIL South 26 degrees 48 minutes West 99.28 feet to a nail in said centerline; thence North 29 degrees 04 minutes West 204.89 feet to a pipe in a ditch, the corner of the G.E. tract; thence South 57 degrees 56 minutes East 170.35 feet to the point of beginning.

The easement on this small parcel is non-exclusive and is a result of the relocation of Highway U.S. 117 at a curve with an easement area to the N.C. Highway Commission a long time before 1960, probably 30 or 40 years.

For title see a Deed from W. A. Corbett or Corbett Package Co. to W. F. Sledge about 1947, a Deed from Dellie McDougald recorded in Book 856, Page 797, and Deed recorded in Book 1115, Page 826, New Hanover County Registry.

Katharine C. Sledge  
KATHARINE C. SLEDGE, Widow



## ATTACHMENT NO. 2

### **1. How would the requested change be consistent with the County's Policies for Growth and Development?**

By rezoning the subject 63.02-acre parcel from RA to I-2 and allowing mining on 28.10 acres as allowed by NCDEQ DMLR Permit No.65-35 (Attachment No. 2-A) (Tab 5), the County will increase the tax value of the land and assist in providing a local source of sand important to sustainable development during this growth period.

Additionally, the subject parcel is adjacent to an established I-2 parcel that has been used for heavy manufacturing, and therefore builds upon an existing district rather than creating a new district.

**DEPARTMENT OF ENVIRONMENT  
AND NATURAL RESOURCES  
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES  
LAND QUALITY SECTION**

**P E R M I T**

for the operation of a mining activity

In accordance with the provisions of G.S. 74-46 through 68, "The Mining Act of 1971," Mining Permit Rule 15A NCAC 5 B, and other applicable laws, rules and regulations

Permission is hereby granted to:

Hilton Properties, LP

Hilton Properties Mine

New Hanover County - Permit No. 65-35

for the operation of a

Sand Mine

which shall provide that the usefulness, productivity and scenic values of all lands and waters affected by this mining operation will receive the greatest practical degree of protection and restoration.

**MINING PERMIT EXPIRATION DATE: February 5, 2024**

In accordance with the application for this mining permit, which is hereby approved by the Department of Environment and Natural Resources, hereinafter referred to as the Department, and in conformity with the approved Reclamation Plan attached to and incorporated as part of this permit, provisions must be made for the protection of the surrounding environment and for reclamation of the land and water affected by the permitted mining operation. This permit is expressly conditioned upon compliance with all the requirements of the approved Reclamation Plan. However, completed performance of the approved Reclamation Plan is a separable obligation, secured by the bond or other security on file with the Department, and may survive the expiration, revocation or suspension of this permit.

This permit is not transferable by the permittee with the following exception: If another operator succeeds to the interest of the permittee in the permitted mining operation, by virtue of a sale, lease, assignment or otherwise, the Department may release the permittee from the duties imposed upon him by the conditions of his permit and by the Mining Act with reference to the permitted operation, and transfer the permit to the successor operator, provided that both operators have complied with the requirements of the Mining Act and that the successor operator agrees to assume the duties of the permittee with reference to reclamation of the affected land and posts a suitable bond or other security.

In the event that the Department determines that the permittee or permittee's successor is not complying with the Reclamation Plan or other terms and conditions of this permit, or is failing to achieve the purposes and requirements of the Mining Act, the Department may give the operator written notice of its intent to modify, revoke or suspend the permit, or its intent to modify the Reclamation Plan as incorporated in the permit. The operator shall have right to a hearing at a designated time and place on any proposed modification, revocation or suspension by the Department. Alternatively and in addition to the above, the Department may institute other enforcement procedures authorized by law.

### Definitions

Wherever used or referred to in this permit, unless the context clearly indicates otherwise, terms shall have the same meaning as supplied by the Mining Act, N.C.G.S. 74-49.

### Modifications

December 15, 2015: This mining permit has been modified to address concerns of groundwater contamination on the neighboring General Electric property. The modification allows excavation to take place in Phase 1 only. The area east of the typical A-AA cross-section (Phase 2) is now undisturbed buffer. The modification includes phasing of the project and a nest of monitoring wells as indicated on the mine map dated July 14, 2015. A condition has been added to require that all mine operations cease if your company received notification that 2L limits have been exceeded. The modification changes the affected acreage to 28.10 acres.

### Expiration Date

This permit shall be effective from the date of its issuance until February 5, 2024.

## Conditions

This permit shall be subject to the provisions of the Mining Act, N.C.G.S. 74-46, et. seq., and to the following conditions and limitations:

### OPERATING CONDITIONS:

1.    A.    Any wastewater processing or mine dewatering shall be in accordance with the permitting requirements and rules promulgated by the N.C. Environmental Management Commission.
- B.    Any stormwater runoff from the affected areas at the site shall be in accordance with any applicable permit requirements and regulations promulgated by the Environmental Protection Agency and enforced by the N.C. Environmental Management Commission. It shall be the permittee's responsibility to contact the Stormwater Program to secure any necessary stormwater permits or other approval documents.
2.    A.    Any mining process producing air contamination emissions shall be subject to the permitting requirements and rules promulgated by the N.C. Environmental Management Commission and enforced by the Division of Air Quality.
- B.    During mining operations, water trucks or other means that may be necessary shall be utilized to prevent dust from leaving the permitted area.
3.    A.    Sufficient buffer (minimum 50 foot undisturbed) shall be maintained between any affected land and any adjoining waterway or wetland to prevent sedimentation of that waterway or wetland from erosion of the affected land and to preserve the integrity of the natural watercourse or wetland.
- B.    Any mining activity affecting waters of the State, waters of the U. S., or wetlands shall be in accordance with the requirements and regulations promulgated and enforced by the N. C. Environmental Management Commission.
4.    A.    Adequate mechanical barriers including but not limited to diversions, earthen dikes, sediment check dams, sediment retarding structures, rip rap pits, or ditches shall be provided in the initial stages of any land disturbance and maintained to prevent sediment from discharging onto adjacent surface areas or into any lake, wetland or natural watercourse in proximity to the affected land.
- B.    All drainage from the affected area around the mine excavation shall be diverted internal to said excavation.
- C.    No dewatering activities shall occur at this site.

- D. Mining activities shall occur as indicated on the mine map last revised July 14, 2015 and the supplemental information received March 26, 2013 and September 24, 2013.
  - E. Mining shall cease immediately upon notification that regulatory limits have been exceeded at monitoring wells described in the "Supplemental Remedial Investigation Work Plan Northwest Site Area" dated June 2, 2015 and received by the Land Quality Section on July 14, 2015.
5. All affected area boundaries (28.10 acres) shall be permanently marked at the site on 100-foot intervals unless the line of sight allows for larger spacing intervals.
  6. The angle for graded slopes and fills shall be no greater than the angle, which can be retained by vegetative cover or other adequate erosion control measure, structure, or device. In any event, exposed slopes or any excavated channels, the erosion of which may cause off-site damage because of sedimentation, shall be planted or otherwise provided with ground cover, devices or structures sufficient to restrain such erosion.
  7. The affected land shall be graded so as to prevent collection of pools of water that are, or likely to become, noxious or foul. Necessary structures such as drainage ditches or conduits shall be constructed or installed when required to prevent such conditions.
  8. Existing vegetation or vegetated earthen berms shall be maintained between the mine and public thoroughfares whenever practical to screen the operation from the public.
  9. Sufficient buffer (minimum 20 foot unexcavated) shall be maintained between any excavation and any mining permit boundary to protect adjacent property.
  10.
    - A. No on-site disposal of refuse or other solid waste that is generated outside of the mining permit area shall be allowed within the boundaries of the mining permit area unless authorization to conduct said disposal has first been obtained from both the Division of Waste Management and the Land Quality Section, Department of Environment and Natural Resources. The method of disposal shall be consistent with the approved reclamation plan.
    - B. Mining refuse as defined by G.S. 74-49 (14) of The Mining Act of 1971 generated on-site and directly associated with the mining activity may be disposed of in a designated refuse area. All other waste products must be disposed of in a disposal facility approved by the Division of Waste Management. No petroleum products, acids, solvents or their storage containers or any other material that may be considered hazardous shall be disposed of within the permitted area.

- C. For the purposes of this permit, the Division of Energy, Mineral and Land Resources considers the following materials to be "mining refuse" (in addition to those specifically listed under G.S. 74-49 (14) of the N.C. Mining Act of 1971):
1. on-site generated land clearing debris
  2. conveyor belts
  3. wire cables
  4. v-belts
  5. steel reinforced air hoses
  6. drill steel
- D. If mining refuse is to be permanently disposed within the mining permit boundary, the following information must be provided to and approved by the Division of Energy, Mineral and Land Resources prior to commencement of such disposal:
1. the approximate boundaries and size of the refuse disposal area;
  2. a list of refuse items to be disposed;
  3. verification that a minimum of 4 feet of cover will be provided over the refuse;
  4. verification that the refuse will be disposed at least 4 feet above the seasonally high water table; and,
  5. verification that a permanent vegetative groundcover will be established.
11. An Annual Reclamation Report shall be submitted on a form supplied by the Department by February 1 of each year until reclamation is completed and approved.
12. A. The operator shall notify the Department in writing of the desire to delete, modify or otherwise change any part of the mining, reclamation, or erosion/sediment control plan contained in the approved application for a mining permit or any approved revision to it. Approval to implement such changes must be obtained from the Department prior to on-site implementation of the revisions.
- B. No mining related activities shall occur within the area east of the typical A-AA cross-section (Phase 2), which is now undisturbed buffer, until a modification is submitted to and approved by the Department detailing said activities.
13. The security, which was posted pursuant to N.C.G.S. 74-54 in the form of a \$46,900.00 cash bond, is sufficient to cover the operation as indicated in the approved application. This security must remain in force for this permit to be valid. The total affected land shall not exceed the bonded acreage.
14. A. Authorized representatives of the Division of Archives and History shall be granted access to the site to determine the presence of significant archaeological resources.



- B. Pursuant to N. C. G. S. 70 Article 3, "The Unmarked Human Burial and Human Skeletal Remains Protection Act," should the operator or any person in his employ encounter human skeletal remains, immediate notification shall be provided to the county medical examiner and the chief archaeologist, North Carolina Division of Archives and History.

## APPROVED RECLAMATION PLAN

The Mining Permit incorporates this Reclamation Plan, the performance of which is a condition on the continuing validity of that Mining Permit. Additionally, the Reclamation Plan is a separable obligation of the permittee, which continues beyond the terms of the Mining Permit.

The approved plan provides:

### Minimum Standards As Provided By G.S. 74-53

1. The final slopes in all excavations in soil, sand, gravel and other unconsolidated materials shall be at such an angle as to minimize the possibility of slides and be consistent with the future use of the land.
2. Provisions for safety to persons and to adjoining property must be provided in all excavations in rock.
3. All overburden and spoil shall be left in a configuration which is in accordance with accepted conservation practices and which is suitable for the proposed subsequent use of the land.
4. No small pools of water shall be allowed to collect or remain on the mined area that are, or are likely to become noxious, odious or foul.
5. The revegetation plan shall conform to accepted and recommended agronomic and reforestation practices as established by the North Carolina Agricultural Experiment Station and the North Carolina Forest Service.
6. Permittee shall conduct reclamation activities pursuant to the Reclamation Plan herein incorporated. These activities shall be conducted according to the time schedule included in the plan, which shall to the extent feasible provide reclamation simultaneous with mining operations and in any event, provide reclamation at the earliest practicable time after completion or termination of mining on any segment of the permit area and shall be completed within two years after completion or termination of mining.

### RECLAMATION CONDITIONS:

1. Provided further, and subject to the Reclamation schedule, the planned reclamation shall be to restore the mine excavation to a lake area and to grade and revegetate the adjacent disturbed areas.
2. The specifications for surface gradient restoration to a surface suitable for the planned future use are as follows:
  - A. The lake area shall be excavated to maintain a minimum water depth of four feet measured from the low water table elevation.

- B. The side slopes to the lake excavation shall be graded to a 3 horizontal to 1 vertical or flatter to the water line and 2 horizontal to 1 vertical or flatter below the water line.
- C. Any areas used for wastepiles, screening, stockpiling or other processing shall be leveled and smoothed.
- D. No contaminants shall be permanently disposed of at the mine site. On-site disposal of waste shall be in accordance with Operating Condition Nos. 10A through D.
- E. The affected land shall be graded to prevent the collection of noxious or foul water.

3. Revegetation Plan:

After site preparation, all disturbed land areas shall be revegetated as per Revegetation Plan approved by Mr. Floyd R. Williams of Williams Environmental and Geological Services, PLLC on March 22, 2012.

Whenever possible, disturbed areas should be vegetated with native warm season grasses such as switch grass, Indian grass, bluestem and gamma grass.

In addition, the permittee shall consult with a professional wildlife biologist with the N.C. Wildlife Resources Commission to enhance post-project wildlife habitat at the site.

4. Reclamation Plan:

Reclamation shall be conducted simultaneously with mining to the extent feasible. In any event, reclamation shall be initiated as soon as feasible after completion or termination of mining of any mine segment under permit. Final reclamation, including revegetation, shall be completed within two years of completion or termination of mining.

Permit issued this 15th day of December, 2015.

By: James S. Boyer

for Tracy E. Davis, Director  
 Division of Energy, Mineral, and Land Resources  
 By Authority of the Secretary  
 Of the Department of Environment and Natural Resources

# APPLICATION FOR A MINING PERMIT

## E. DETERMINATION OF AFFECTED ACREAGE AND BOND

The following bond calculation worksheet is to be used to establish an appropriate bond (based upon a range of \$500 to \$5,000 per affected acre) for each permitted mine site based upon the acreage approved by the Department to be affected during the life of the mining permit. Please insert the approximate acreage, for each aspect of the mining operation, that you intend to affect during the life of this mining permit (in addition, please insert the appropriate reclamation cost/acre for each category from the Schedule of Reclamation Costs provided with this application form) OR you can defer to the Department to calculate your bond for you based upon your maps and standard reclamation costs:

CATEGORY	AFFECTED ACREAGE		RECLAMATION COST/ACRE*		RECLAMATION COST
Tailings/Sediment Ponds:	_____ Ac.	X	\$ _____/Ac.	=	\$ _____
Stockpiles:	_____ 1.0 Ac.	X	\$ _____ 1800 /Ac.	=	\$ _____ 1,800
Wastepiles:	_____ Ac.	X	\$ _____/Ac.	=	\$ _____
Processing Area/Haul Roads:	_____ 5.40 Ac.	X	\$ _____ 1800 /Ac.	=	\$ _____ 9,720
Mine Excavation:	_____ 27.10 Ac.	X	\$ _____ 500 /Ac.	=	\$ _____ 13,550
Other:	_____ 2.9 Ac.	X	\$ _____ 1800 /Ac.	=	\$ _____ 5,220
<b>TOTAL AFFECTED AC.:</b>	_____ Ac.				
<b>(TOTAL PERMITTED AC.:</b>	_____ 67.70 Ac.)				

### Temporary & Permanent Sedimentation & Erosion Control Measures:

Divide the **TOTAL AFFECTED AC.** above into the following two categories: a) affected acres that drain into proposed/existing excavation and/or b) affected acres that will be graded for positive drainage where measures will be needed to prevent offsite sedimentation and sedimentation to onsite watercourses and wetlands.

- a) Internal Drainage \_\_\_\_\_ Ac.  
b) Positive Drainage \_\_\_\_\_ Ac. X \$1,500.00 = \$ \_\_\_\_\_

**SUBTOTAL COST:** \$ \_\_\_\_\_ 30,290

### Inflation Factor:

0.02 X SUBTOTAL COST: \$ \_\_\_\_\_ 30,290 X Permit Life (1 to 10 years): \_\_\_\_\_ 10

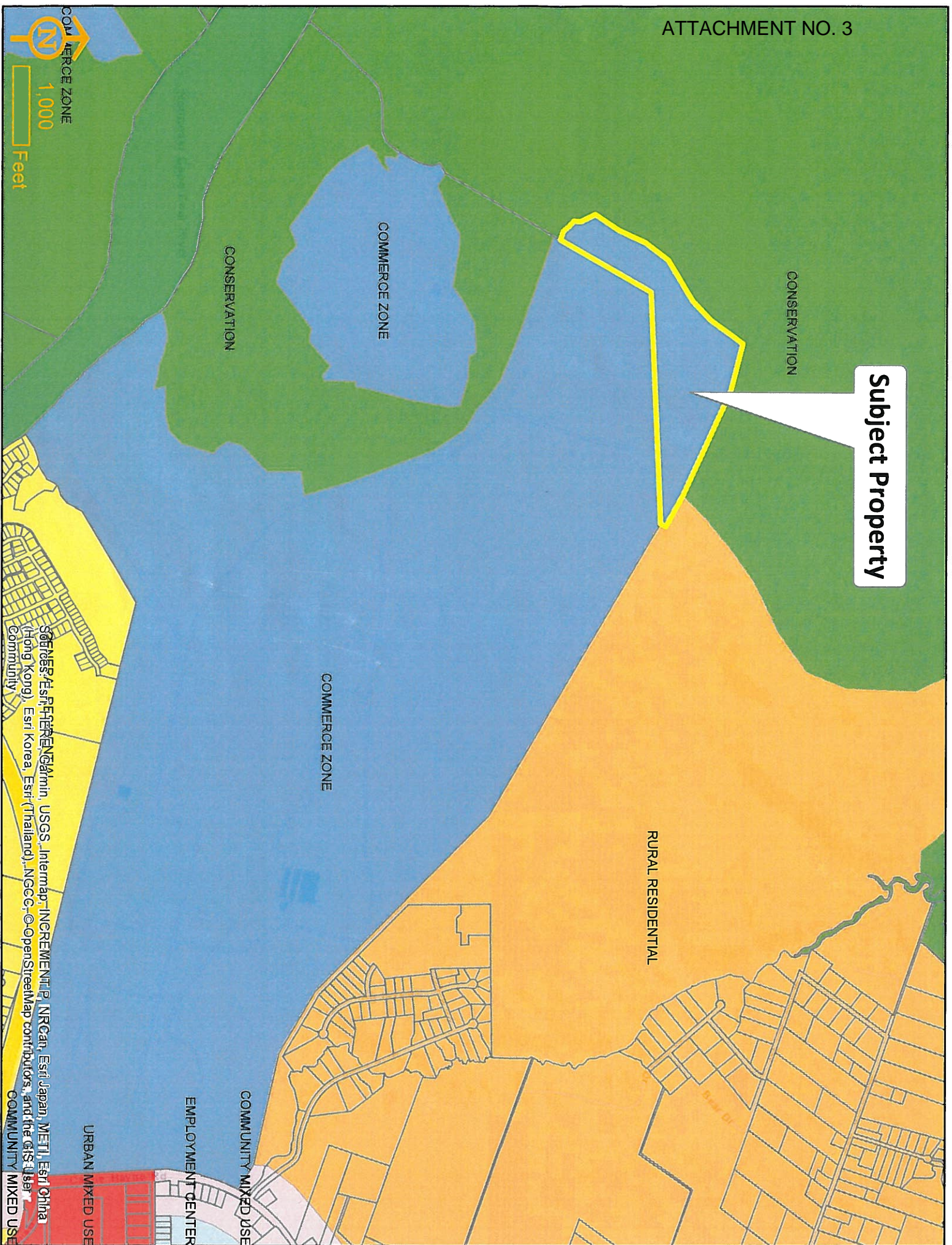
**INFLATION COST:** \$ \_\_\_\_\_ 6,058

**TOTAL COST = SUBTOTAL COST + INFLATION COST = \$ \_\_\_\_\_ 36,348**

**Total Reclamation Bond Cost:** \$ \_\_\_\_\_ 36,300  
(round down to the nearest \$100.00)



Subject Property





## ATTACHMENT NO. 4

### **4. How will this change of zoning serve the public interest?** (continued)

The change in zoning will enable sand mining through a Special Use Permit, which is public necessity. See attached study establishing the same (Attachment No. 4-A) (Tab 8).

The public interest will further be served by the special care that will be exercised during sand mine operations that protect the public safety, health and welfare.

The sand mine must be operated in accord with the State Mining Permit as modified ("Permit") (Attachment No. 2-A) (Tab 5). Various Permit conditions and restrictions will mitigate sand mine impacts.

The Permit was originally issued on February 5, 2014 and was modified on December 15, 2015 to address concerns regarding the possible effect of mining operations on groundwater contamination located at the adjacent heavy Industrial I-2 GE facility. The Permit is included with this Application (Attachment No. 2-A) (Tab 5). Sampling undertaken by GE demonstrates that (a) no groundwater contamination on the Subject originating from the GE property reaches levels of concern that are above those set forth in the North Carolina "2L level of concern standards" ("2L levels") and that (b) mining will not adversely affect groundwater contamination originating on and from the GE property.

Nonetheless, as a precaution the modified Permit requires two-step phasing of the project and regular groundwater monitoring. Excavation will now take place in Phase 1 only, which is the westernmost 28.1 acres of the Subject. The area east of Phase 1 (as shown in the maps attached to the Permit (Tab 16) and illustrating a typical A-AA cross-section dividing the property into two phases) called "Phase 2" is now and will remain an undisturbed buffer and will not be subject to excavation until (1) Phase I mining is complete, and (2) it has been determined no contaminants of groundwater exist above 2L levels in the Phase 2 area. Additionally, all mining activities are required to cease if contamination in groundwater monitoring wells that GE



installed in the Phase 2 area exceeds applicable 2L levels regulatory limits.

In accordance with the modification, GE has installed and is monitoring wells strategically placed on the Subject – OCW 6A and 6B. The wells are located between the area of the groundwater contamination migratory plume and the area designated for future Phase 2 mining activities. (See map in Tab 2 labelled “Figure 16”) Results of this monitoring are described in the Supplemental Remedial Investigation Report Northwest Site Area by RTI dated February 29, 2016 (report is erroneously dated February 29, 2015)(the “Report”), a copy of which is available upon request. Well monitoring results set forth in the Report show no contamination at or above levels of concern on the Subject, and no likelihood that any further migration of contamination onto the Subject will rise at or above levels of concern.

Once mining is complete, the mine will be reclaimed as a lake to support wildlife and provide habitat. Additionally, a reclamation bond in the amount of \$36,300 has been purchased by the Owner.

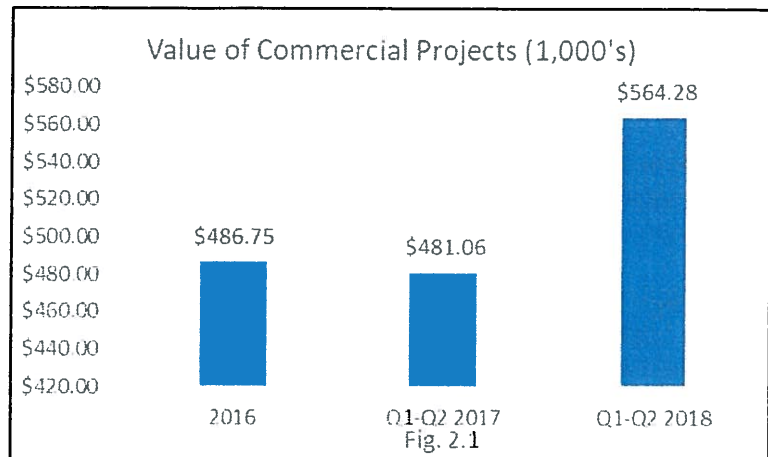
## **SiteTech Systems**

# **The Public Necessity for Additional Sand Mines New Hanover County**

September 2018

**Prepared for: Stephen Coggins, Rountree Losee LLP.**

In addition to the uses of sand in residential development, it is also heavily used in commercial activities. The commercial market of Wilmington has witnessed a slight decrease in the number of building permits, as seen in fig 1.2. Occurring, between the first six months of 2018 to the first six months of 2017. This decrease in the number of commercial permits is opposite of the general market trend. A portion of this discrepancy is related to the higher average value associated with each of the commercial permits. This suggests the market is producing a lower quantity of relatively more valuable project. Overall the Wilmington market increased value of permitted commercial projects by just over \$3.1 million. In aggregate the commercial market is still improving, even with a decreasing quantity of building permits, as the value of individual projects and overall projects are continuing their increase.



Similar to commercial and residential uses, infrastructural improvements are also a large consumer of building sand and other aggregate products. While, the NCDOT often creates their own access to fill soil by digging pits proximal to the actual road project, it is often necessary for this supply to be supplemented from other sources. In the immediate Wilmington area, there are at least 22-road improvement projects in process or under construction, with numerous smaller repair and maintenance projects occurring regularly. Some of the largest roadway projects deal with the ongoing improvement of US Hwy 421, US Hwy 17 and the construction of numerous interchanges, roadway widening and intersections to more efficiently connect the existing roadways. In addition to these road improvements, there is additional investment going into expanding utility service. Extensive improvement projects are currently underway at the Wilmington International Airport, including parking lot renovations, runway expansion and increasing the amount of acreage available to private party development. These projects are currently demanding an above average amount of building sand, with the demand only expected to increase if the market fills the planned development around the airport.

The landfill located in New Hanover County is also planning expansion to keep pace with the developing area. Expansion is scheduled to add an additional 10-acres of landfill to the active site, leaving and additional 70-acres of future expansion space. This planned expansion will increase the need for both fill dirt and the Leachate Collection Layer, which is a portion of the landfill foundation, mainly comprised of sand and fine gravel.

In addition to these projects, the Port of Wilmington is currently in the process of a large-scale renovation and improvement project. The port whose container count is up 38% for the fiscal year 2018 is expanding to accommodate the increasing activity. Renovations, improvements and expansions are currently projected to be \$200 million project. As part of this ongoing renovation project the port recently received two neo-panamax cranes, significantly boosting the capacity of the overall port. These new cranes also allow the port to begin accepting larger ships and offloading larger volumes of freight than previously available. The demand for both fill soil and aggregate products such as cement and mortar mix are expected to be substantial in this project. As the city and state continue for increases in port volume, an increase in industrial size storage facilities is expected to become increasingly prevalent in the immediate port area.

Overall these investments align with the strategic plan of the New Hanover County. The overarching county goal of 'Intelligent Growth & Economic Development' is underpinned by infrastructural investments to spur private sector growth, increases in the number of companies paying higher wages and the further development of communities. For the infrastructural improvements alone, the county expects a 100% return on

**SiteTech Systems:**

This is an original publication by SiteTech Systems. SiteTech Systems is a sixteen-year-old real estate research and analysis company which services all of North Carolina and South Carolina. SiteTech Systems has built an extensive database of almost 8.0 million parcel and property records covering 146 counties. The database contains information which includes ownership, property characteristics, sales history, financing & mortgage information, zoning, site characteristics, flood zone, foreclosure & REO indicators, and tax assessor information. Utilizing this extensive database and accessing external databases, SiteTech Systems is able to deliver an unparalleled level of market specific analysis. In all SiteTech Systems reports, emphasis is placed on commonly accepted economic measures, with the overarching goal of giving the reader the ability to quickly find the information they need, analyze trends and compare them to overall economic activity.

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**Sources:**

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**Commercial Building Permits:** The Market Edge 'Commercial Building Permit Trend Report'

**Residential Building Permits:** Housing and Urban Development Agency

**Market Specific Demographic Information and Forecasts:** ESRI, US Census & Bureau of Labor Statistics

**Sand Mine Locations:** North Carolina Department of Environmental Quality

**Port Investment:** North Carolina Port Authority

**Infrastructural Projects:** NCDOT & Wilmington Metropolitan Planning Department

**New Hanover Strategic Plan:** New Hanover County Government ([nhc.gov](http://nhc.gov))

**Economic Goals of the County's Strategic Plan:**





## ATTACHMENT NO. 5

### **SUP Condition No. 1: No material danger to health or safety**

#### ***Lack of Risk of Harm From GE Groundwater Contaminants***

Public comment has been received stating concerns that the proposed sand mining will cause groundwater contamination originating from the adjacent GE site to migrate to neighborhood private wells and pollute them.

However, contamination remediation by GE for over two decades and extensive monitoring of the groundwater both at GE and the Subject indicate no risk of groundwater contamination that would pollute neighborhood private wells. This is so for several reasons.

First, GE has over the years conducted the following five extensive environmental reports on monitoring and testing of the groundwater on the GE site and Subject:

1. March 2014 "Northwest Site Area 2013 Monitoring Report" by RTI on behalf of GE;
2. January 15, 2015 "Groundwater Modeling of Potential Impacts from the Proposed Sand Mine in the Northwest Site Area" by RTI on behalf of GE;
3. February 20, 2015 "Supplemental Remedial Investigation Report Northwest Site Area" by RTI on behalf of GE;
4. June 2, 2015 "Supplemental Remedial Investigation Work Plan Northwest Site Area" by RTI on behalf of GE;
5. May 22, 2018 "2017 Annual Water Monitoring Report of the Northwest Site Area General Electric/Global Nuclear Fuel Site" by Amec Foster Wheeler for GE

The EPA and DEQ required these reports (copies are available upon request). They have been submitted to DEQ and are public record. They thoroughly demonstrate that:

- GE groundwater migrates from the point of pollution in a north-northeasterly direction;



- groundwater that thereby has migrated onto the Subject's most easterly portion (i.e., "Phase 2"):
  - *does **not** contain contaminants rising to regulatory "2L levels of concern"; and*
  - *has contaminant levels that have significantly decreased over time, and will continue to decrease further through natural biological breakdown and dilution processes.*

Second, even if the groundwater contains contaminants above 2L levels (and they do not), then there is still no risk to public health, safety and welfare due to a number of factors that would prevent the GE pollutants from harming the public. Those factors include, but are not limited to, the following:

A. No dewatering and "wet" mining.

Neighbors have expressed concern that the planned mining to take place on the Subject will accelerate groundwater migration and draw it onto the Subject. This concern is not based in fact for several reasons.

First, no dewatering of groundwater in the water table will take place because it is prohibited by the State Mining Permit (Attachment No. 2-A) (Tab 5). Thus, there will be no removal of groundwater that leaves a vacuum into which adjacent contaminated groundwater could migrate.

Second, "wet" mining will be used, so that the existing water table on the Subject's Phase 1 will not be altered. Thus, any adjacent groundwater would not be able to migrate further.

B. Lake will prevent any contaminants flowing therein from traveling further beyond Phase 1.

The mining will excavate sand on Phase 1 of the Subject from its highest elevation point of approximately thirty-nine (39) feet above Mean Sea Level, down to about zero (0) feet, i.e., at Mean Sea Level. Applicant estimates this activity will go below the water table about four (4) to six (6) feet. A seven (7) foot deep lake will be left upon

completion of the excavation. The lake surface will be at seven (7) feet Mean Sea Level and the lake bottom will be at Mean Sea Level (0'). This lake will both capture, contain, break down and dilute any groundwater contaminants that, however unlikely, migrate into the lake.

The Applicants can close the lake and render it inaccessible by the public.

C. Swamp to the north acting as hydrologic barrier and means to further dilute any contaminant plume.

The Subject's northern boundary is adjacent to a large swamp. Surface and groundwater flows in a northerly direction toward this swamp. In the highly unlikely event that contaminated groundwater reaches the swamp, it will be impeded by the edge of the wet-swamp acting as a hydrologic barrier. If the contaminants nonetheless make their way into the swamp, it will break down further the contaminants and further dilute them.

D. Mining stops if strategically located monitoring wells indicate contaminants above 2L levels migrate too close to the mining operations.

Groundwater monitoring wells have been placed between the groundwater migrating "plume" and the planned Phase 1 mining activities (see map labelled as "Figure 16" in Tab 2). In the unlikely event the wet mining activities somehow do not prevent migration of the GE contaminants above 2L levels onto Phase 1, the strategically placed monitoring wells will so indicate. If ever that should somehow happen (however unlikely), then the mining operations are required by the Permit to cease. In that event, the mining activities cannot cause further migration of the contaminants. Further, notice of the same must be given to Susan Murphey, a Wooden Shoe resident who contested the State Mining Permit in proceedings before the Administrative Office of the Courts (Attachment 5-B) (Tab 11).

E. Frequent monitoring.

The wells are monitored at least twice each year. This assures prompt notice of any changes in migratory patterns and contaminant levels.

F. Physical impossibility of contaminants migrating to residential area.

The nearest residential area to the Phase 1 mining area of the Subject is located to the southeast as much as *1.5 miles* away. The northeasterly flow of groundwater migrating from the GE contamination site towards the swamp to the north does not and cannot migrate southeasterly approximately 1.5 miles to private residential wells.

G. Further background of State Mining Permit conditions that prevent harm to the public

The Permit was originally issued in February 5, 2014, and was modified on December 15, 2015, to address concerns regarding the possible effect of mining operations on groundwater contamination located at the neighboring heavy Industrial I-2 GE Property. The Permit is included with this Application (Attachment No. 2-A) (Tab 5). Sampling undertaken by GE demonstrates that (a) no groundwater contamination on the Subject originating from the GE property reaches levels of concern above those set forth in the above North Carolina "2L standards" and, (b) mining will not adversely affect groundwater contamination originating on and from the GE property.

Nonetheless, as a precaution, the modified Permit requires two-step phasing of the project and regular groundwater monitoring. Excavation will now take place in Phase 1 only, which is the westernmost 28.1 acres of the Subject. The area east of Phase 1 (as shown in the maps (Tab 16) attached to the Permit and illustrating a typical A-AA cross-section dividing the property into two phases) called "Phase 2" is now and will remain an undisturbed buffer and will not be subject to excavation until (1) Phase I mining is complete, and (2) it has been determined no contaminants of groundwater exist above 2L levels

standards in the Phase 2 area. Additionally, all mining activities are required to cease if contamination in groundwater monitoring wells that GE installed in the Phase 2 exceeds applicable 2L levels regulatory limits.

In accordance with the modification, GE has installed and is monitoring wells strategically placed on the Subject – OCW 6A and 6B (see map in Tab 2 labelled “Figure 16”). The wells are located between the area of the groundwater contamination migratory plume and the area designated for future Phase 2 mining activities. Results of this monitoring are described in the Supplemental Remedial Investigation Report Northwest Site Area by RTI dated February 29, 2016 (report is erroneously dated February 29, 2015) (the “Report”). Well monitoring results set forth in the Report show no contamination at or above levels of concern on the Subject, and no likelihood that any further migration of contamination onto the Subject will rise at or above levels of concern.

Once mining is complete, the mine will be reclaimed as a lake to support wildlife and provide habitat. Additionally, a reclamation bond in the amount of \$36,300 has been purchased by the Owner.

The North Carolina Department of Environmental quality (“NCDEQ”) Division of Energy, Mineral and Land Resources (“DEMLR”) issued the mining permit only after an intensive investigation into the location of the mine, and the potential impact of the mine upon public health or safety. DEMLR regulations and the Permit, as modified, impose restrictions preventing any endangerment of public health and safety. The Permit requires ongoing monitoring and reporting of groundwater contamination levels, with conditions that all operations cease should levels exceed 2L levels. Thus, public health and safety concerns regarding water contamination have been addressed.

Further, the Permit splits the Subject into two different mining phases, Phase 1 and Phase 2. Phase 1 is the westernmost 28.1 acres of Subject. Extensive monitoring by GE establishes that no groundwater contamination from the GE site has, or will, ever migrate to Phase 1.

Mining initially can take place only in Phase 1, which is an area reduced to 28.10 acres. This phasing increases buffers. While groundwater contamination has migrated onto the easternmost reaches of Phase 2, that contamination does not rise to 2L levels, and no mining will take place in Phase 2.

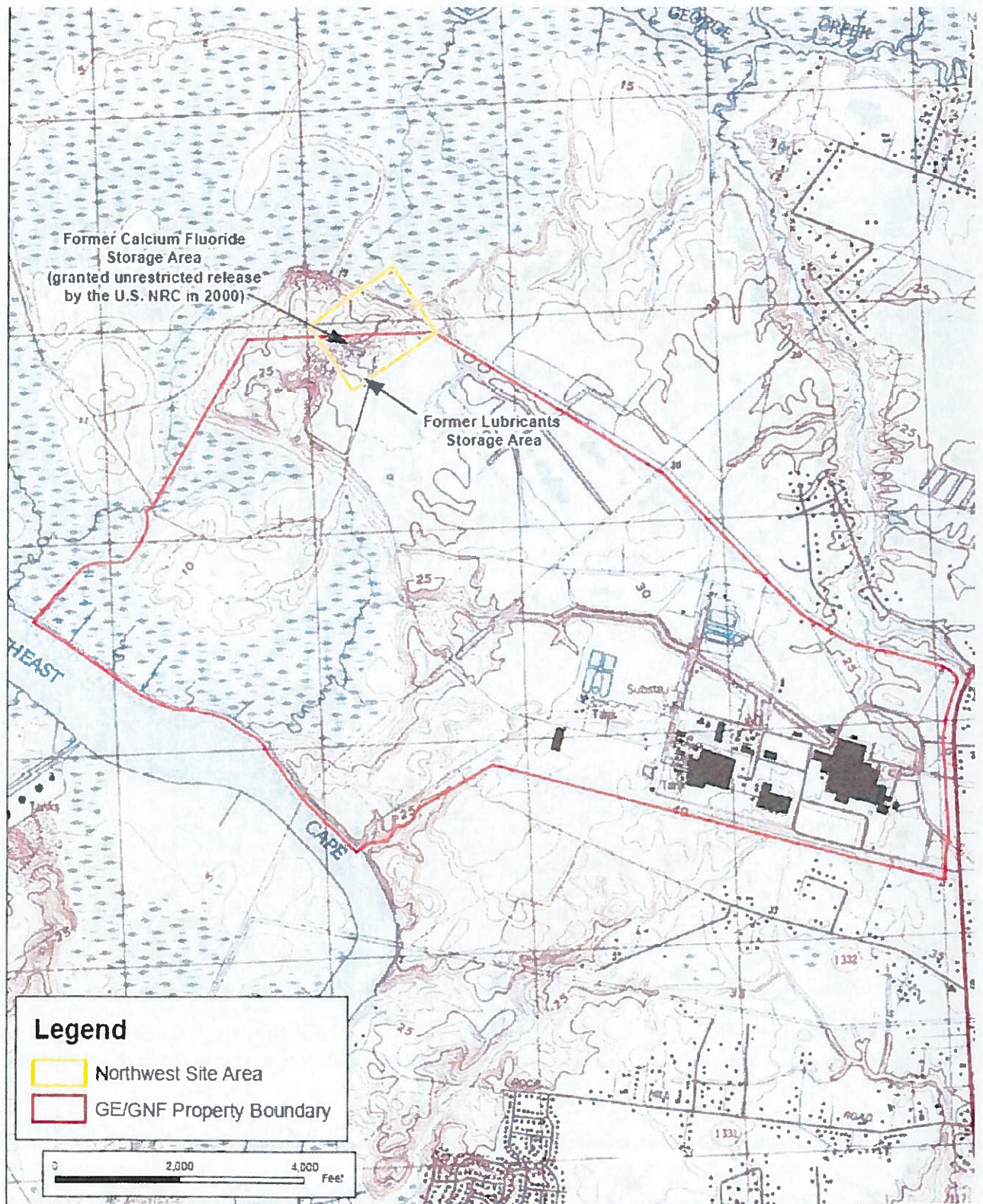
Additionally, two lawsuits brought against DEMLR and challenging the Permit have been fully and favorably resolved in furtherance of the interests of all concerned. The first, Case No. 14 HER 01663, filed in the Office of Administrative Hearings on May 24, 2014, was brought by 21 *pro se* Petitioners. Petitioners filed a Voluntary Dismissal, recorded January 6, 2016 (Attachment No. 5-A) (Tab 10). The second, Case No. 16 HER 01381, was filed by Susan Murphy. The case was settled and signed March 10, 2017, with no modification to the permit as issued. NCDEMLR agreed to inspect the mining operation biannually and to notify the Petitioner of inspection results as well as any amendments to the underlying permit. The settlement is attached hereto as Attachment No. 5-B (Tab 11).

Finally, the Subject is located deep within wooded tracts approximately 1.5 miles from the nearest residences. It is not visible and is accessible only by locked gate.

***No Risk of Mining Operations Drying Out Private Residential Wells 1.5 miles Away***

Some residential neighbors speculate that the mining could draw away groundwater from their private wells. However, no dewatering will occur in the mining operations. Instead, wet mining techniques will be employed. Thus, no “drawing out” of adjacent groundwater will occur. Further, the excavation area is at least 1.5 miles from the nearest residence. In addition, the attached topographical map indicates no elevations that encourage any northwestwardly migration of groundwater from the Wooden Shoe subdivision private wells toward the sand mine. Finally, there is no evidence of a risk to the far away private residential wells.





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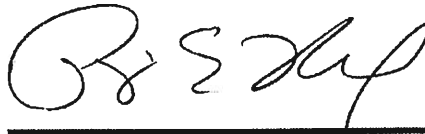
STATE OF NORTH CAROLINA  
COUNTY OF NEW HANOVER

IN THE OFFICE OF  
ADMINISTRATIVE HEARINGS  
14 EHR 01663

<p>Rick Wilson Petitioner,</p> <p>v.</p> <p>DENR LAND QUALITY, DIV OF ENERGY, MINERAL &amp; LAND RESOURCES, LAND QUALITY SECTIONRespondent. Respondent.</p>	<p><b>ORDER OF CLOSURE</b></p>
---	--------------------------------

Petitioner has filed a Voluntary Dismissal in the above-captioned matter. Therefore, no further proceedings are needed or required to resolve the contested case captioned above, and this contested case is CLOSED.

This the 6th day of January, 2016.



Philip E Berger Jr.  
Administrative Law Judge

RECEIVED  
JAN 08 2016



On this date mailed to:

Carolyn McLain  
Assistant Attorney General, NC Department of Justice  
9001 Mail Service Center  
Raleigh NC 27699  
Attorney For Respondent

Rick Wilson  
108 Hyacinth Avenue  
Castle Hayne NC 28429  
Petitioner

This the 6th day of January, 2016.



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Anita M Wright  
Paralegal  
N. C. Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh NC 27699-6700  
Phone: 919-431-3000

STATE OF NORTH CAROLINA  
COUNTY OF NEW HANOVER

IN THE OFFICE OF  
ADMINISTRATIVE HEARINGS  
16 EHR 01381

SUSAN MURPHY

Petitioner,

v.

DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES, DIVISION OF  
ENERGY, MINERAL AND LAND  
RESOURCES, LAND QUALITY SECTION

Respondent.

**SETTLEMENT AGREEMENT  
AND  
WITHDRAWAL OF PETITION**

Susan Murphy (hereinafter "Petitioner") and the Division of Energy, Mineral, and Land Resources ("DEMLR") of the North Carolina Department of Department of Environmental Quality<sup>1</sup> ("DEQ" or "Respondent") hereby enter into this Settlement Agreement ("Agreement") in order to resolve matters in controversy between them pursuant to N.C. Gen. Stat. §150B-31(b). These matters arose when Ms. Murphy contested Respondent's issuance of modified Mining Permit No. 65-35 ("the Modified Permit"), pursuant to N.C. Gen. Stat. § 74-51 of the Mining Act of 1971 ("Mining Act") to Hilton Properties, LP for the Hilton Properties Mine ("Hilton Properties") located at 4117 Castle Hayne Road in Castle Hayne, New Hanover County, Cape Fear River Basin, North Carolina.

Without any hearing of fact or law in the above-styled matter, PETITIONER AND RESPONDENT AGREE THAT:

<sup>1</sup> Effective July 1, 2015, the North Carolina Department of Environment and Natural Resources was renamed the North Carolina Department of Environmental Quality. Pursuant to Rule 25(f)(1) of the North Carolina Rules of Civil Procedure, DEQ is automatically substituted as party.

1. In order to avoid the cost and delay of further litigation, Petitioner and Respondent have entered into this Settlement Agreement and have agreed to resolve the matter without adjudicating the merits and have agreed that all parties have been correctly designated and that there is no question as to misjoinder or nonjoinder.

2. Without adjudication of these claims, Respondent agrees to notify Petitioner of:

- a. All mining modifications and/or revisions of any kind to the existing Mining Permit on the Hilton Properties mining location.
- b. All new mining permits and all revisions of any kind related to the mining permits applied for on the Hilton Properties, LP property located at 4117 Castle Hayne Road, Castle Hayne, NC 28429.
- c. All mine inspection reports and field notes for the Hilton Properties mine. Copies of the mine inspection reports and field notes will be emailed to Petitioner.
- d. All notifications issued by Respondent to Hilton Properties, LP, to cease all mine operations.

These provisions shall be in effect regardless of who owns the property currently located at 4117 Castle Hayne Road, Castle Hayne, NC 28429.

3. Notification of the above-identified mining activities can be via phone call and/or email. If by phone, Respondent shall call Petitioner at 910-471-9540. If by email, Respondent shall send the email with "Read Receipt Requested" to Petitioner at tootiecm@outlook.com. In the event that Petitioner changes either her phone number or email address, Petitioner shall provide updated information to Respondent within 10 business days of the change.

4. Respondent shall notify Petitioner of the mining activities listed in paragraph 2 (a) – (c) within 5 business days of the above-listed mining activities. Respondent shall notify Petitioner of the mining activity listed in paragraph 2 (d) within 24 hours of issuance of Respondent's notification to cease all mining activities. If phone and/or email contact is not successful, final mailing of written notification will be via USPS Certified Mail. The Certified Mail notification shall be completed 5 business days after Respondent receives documentation regarding the mining activities listed in paragraph 2 (a) – (c) and 24 hours after notification for the mining activity listed in paragraph 2 (d). The Certified Mail notification shall be sent to the following address:

Susan Murphy  
5719 Dekker Road  
Castle Hayne, NC 28429

5. In the event Petitioner sells her current residence, Petitioner shall provide Respondent with written notification (either by email to [janet.boyer@ncdenr.gov](mailto:janet.boyer@ncdenr.gov) or letter addressed to the DEMLR State Mining Specialist, 1612 Mail Service Center, Raleigh NC 27699) within 10 business days of moving. Should Petitioner sell her residence, this Settlement Agreement will terminate.

6. Respondent and Petitioner agree that Respondent will conduct biannual inspections of the subject mine.

7. The parties agree that the consideration for this settlement is the promises contained herein and that this Agreement contains the whole agreement between them.

8. This Agreement shall be binding upon the parties, their successors and assigns, upon execution by the undersigned, who represent and warrant that they are authorized to enter into this agreement on behalf of the parties hereto.

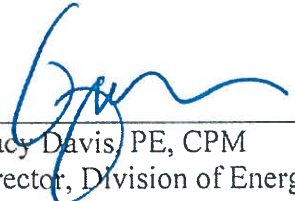
## WITHDRAWAL OF PETITION

Entry of this Agreement serves as Petitioner's Voluntary Withdrawal with Prejudice of the Petition for Contested Case Hearing 16 EHR 01381. The parties agree this matter is concluded and that no further proceedings are needed or required to resolve the contested case.

NORTH CAROLINA DEPARTMENT  
OF ENVIRONMENTAL QUALITY,  
DIVISION OF ENERGY, MINERAL  
AND LAND RESOURCES  
Respondent

SUSAN MURPHY  
Petitioner

By:

  
Tracy Davis, PE, CPM  
Director, Division of Energy, Mineral  
and Land Resources

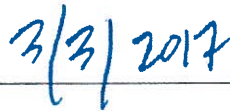
By:

  
Susan Murphy

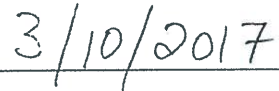
  
Printed Name & Title of Signer

\_\_\_\_\_  
Printed Name & Title of Signer

Date:



Date:



## **ATTACHMENT NO. 6**

### **SUP Condition 2 – Use meets all required conditions and specifications of the Zoning Ordinance.**

The Subject and its proposed use meets zoning requirements for High Intensity Mining Operations as outlined in section 72-42 (See pages 187 and 188 of the New Hanover County Zoning Ordinance.)

- 1.) Lot size is greater than 1 acre.
- 2.) The Permit allows removal of sand off-site.
- 3.) No dewatering will occur.
- 4.) The area is not classified as aquifer resource protection or watershed resource protection.

Additionally, the Subject and its proposed use meets requirements of Section 53 for I-2 (see pages 64 and 65 of Zoning Ordinance)

- 1.) Mining Permit has been acquired from DEMLR for sand mining.
- 2.) The area is larger than 5 acres.
- 3.) The proposed mining area is situated directly adjacent to an established I-2 district.
- 4.) The proposed mining area does not abut residential areas.
- 5.) The project is buffered by 4,020.96 acres owned by the rezoning applicant, as well as by the GE Hitachi site, and is accessible only by a locked gate.

Finally, The US Army Corps of Engineers, Wilmington District, found the proposed project does not impact jurisdictional waters or wetlands in a letter dated September 23, 2013 (Attachment No. 6-A) (Tab 13).



U.S. ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT

Action ID: SAW-2013-01614

County: New Hanover

**NO DEPARTMENT OF THE ARMY AUTHORIZATION REQUIRED**

Property Owner: David Fort  
Address: 1508 Watson Avenue  
Little River, SC 29566

Size and Location of Property (waterbody, road name/number, town, etc.): The project area is located off of Sledge Road in Wilmington, New Hanover County, North Carolina.

Description of Activity: To dig a sand mine entirely on high ground. Mining Activities will take place within the tract, 50 feet from the Survey line with the exception that no mining activities will take place within 50 feet of the stream located in the east corner of the permit area and the area east of the stream which will be an undisturbed buffer. Please see attached map which was emailed to the Corp on September 10, 2013.

Your work as proposed does not require Department of the Army authorization for the following reason(s):

- ☐ There are no jurisdictional waters or wetlands within the boundaries of the property.
- ☒ The proposed project does not impact jurisdictional waters or wetlands.
- ☐ The proposed project is exempt from Department of the Army regulation.  
Specify:

This Department of the Army determination does not relieve the permittee of the responsibility to obtain any other required Federal, State, or local approvals/permits. The permittee may need to contact appropriate State and local agencies before beginning work.

For any activity within the twenty coastal counties, before beginning work, you must contact the N.C. Division of Coastal Management in Wilmington, North Carolina at (910) 796-7215 to discuss any required State authorization.

Any changes in the above described work must be coordinated with the Corps of Engineers prior to commencement. If you have any questions regarding the Corps of Engineers regulatory program, please contact Christy Wicker at telephone number (910) 251-4637.

Regulatory Project Manager Signature \_\_\_\_\_  
Date: 9/23/2013

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the attached customer Satisfaction Survey or visit <http://www.saw.usace.army.mil/WETLANDS/index.html> to complete the survey online.



## Proposed Sand Mine

What impact does the presence of an active sand mine have on home values in the adjacent neighborhoods?

4117 Castle Hayne Road  
Castle Hayne, NC 28429

*By Special Power*

Stephen D. Coggins

*By Special Power*

Trevor Tarleton & F. Blynn Beall

Streamline Evaluation Services

2513 N. Oak Street Suite 305, Myrtle Beach, SC 29577

T: 843.808.9716 W: [www.streamlineevaluation.com](http://www.streamlineevaluation.com)

# EXECUTIVE SUMMARY

## Purpose

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Streamline Evaluation Services has been retained by Stephen D. Coggins (intended user) to perform an analysis in order to determine the impact an active sand mine will have on single-family residential property values within a close proximity to the mining operations (intended use).

## Scope of Work Performed

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The scope of the study included: locating sand mines in close proximity to residential developments, analyzing changes in home values as a reaction to active sand mining, then providing conclusions about the potential economic impact on home values from sand mining operations.

## Methodology

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Numerous sand mine locations were scrutinized to determine the best areas for comparison. Search criteria included locating active sand mines within close proximity to single-family housing developments and then selecting similar housing developments nearby that would not be impacted by the mining operations (noise, traffic, etc.). Although sand mines were located within New Hanover County, none were found from an inspection of aerial imagery which matched the criteria of being in close proximity to a single-family residential development to the point where operations could impact residents. Also, based on inspection of aerial imagery, no sand mines were located within Brunswick County west of US Highway 17 (Ocean Highway) in close proximity to residential developments considered comparable. We then searched within Horry County, SC and found mines which matched our search criteria. A comparison was then made to determine if the average sale prices within each neighborhood adjacent to each mine grew at a consistent rate with comparative neighborhoods and also in comparison to the overall market in Horry County during similar timeframes. The information was then tabled and graphed to analyze and interpret the results.

## Summary of Findings

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Three sand mines in Horry County met the criteria necessary for this report: active mining dates verifiable by aerial photos, sand mines located within close proximity to established single-family subdivisions, and mines with an ingress/egress road that borders single-family homes in a subdivision. For the purpose of this report the sand mines are identified as: Blackmoor, Forestbrook and Cottonpatch. After our analysis, it was determined that each sample subdivision grew at a similar rate to the overall market during periods of active mining and there appeared to be no significant economic impacts to home values as result of having an active sand mine in close proximity to each of the three neighborhoods analyzed.

# GENERAL ANALYSIS

## Comparable Market Selection

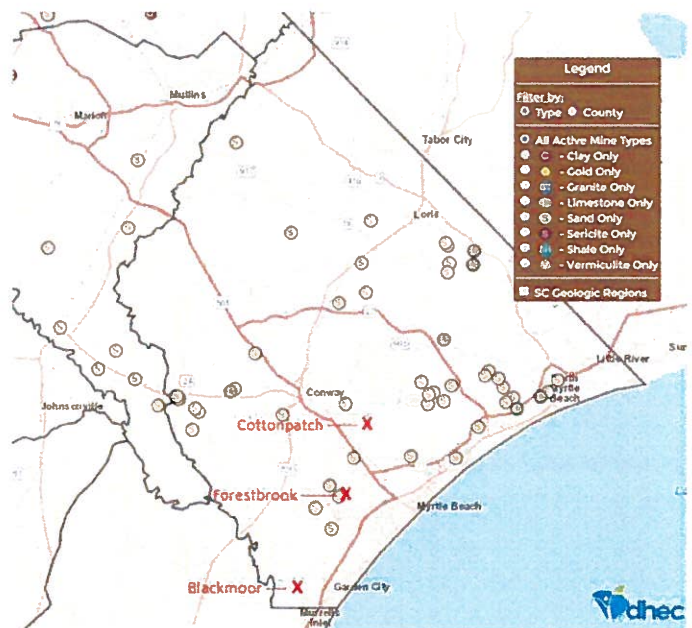
The difficulty of locating comparable sand mining information in New Hanover County resulted in a modification of search parameters to include searches of surrounding counties. Brunswick County, to the south, was first researched for sand mines in coastal markets with similar elements of comparison. After no comparable mines were identified east of US Highway 17, the search extended southward into South Carolina. Publicly available data for permitted sand mines in South Carolina was easy to navigate and a search of Horry County identified multiple sand mines in close proximity to residential development. As information was readily available, we selected the Grand Strand market area. Sand mines located in Horry County, SC were utilized for this report due to the similarity of the geography and economic conditions. Both counties are in a period of growth with demand for sand to be used for construction of roads and site work.

The Grand Strand is comprised of approximately 60 miles of coastline stretching from southern Brunswick County, North Carolina south to Georgetown County, South Carolina, with the majority of the Grand Strand located in Horry County. The sand mine which is the subject of this report is located north of the Grand Strand in the Wilmington market, which is considered to have similar elements of comparability to the Grand Strand. Both markets are ocean-fronting and both have a stable population base which benefits from both tourism and retirees relocating from other markets. Both markets have higher-education facilities and both are experiencing residential and commercial growth. Both markets have ports for shipping, although the Georgetown Port is far less active than the Wilmington Port. As such, the Grand Strand was determined to be a reasonable area for comparison.

## Comparable Mine & Subdivision Selection

Numerous mining locations are located in Horry County. The online SC Active Mines application, provided by DHEC, shows the locations of active permitted mining operations in South Carolina and aided our identification of sand mines (shown on the map at right).

While there are instances of individual residences in close proximity to mines that have sold in recent years, a sale of the property in a period before the mine was active would need to be compared to a second sale of the same property during an active period of mining. A paired-sale comparison such as this would be reliable if the residential improvements were maintained at a reasonable standard and both the original and second transaction would need to be arm's length sales. Due to the difficulty in





finding properties with such strict criteria, we focused on established single-family residential developments in close proximity to sand mines. This would ensure more sales activity each period could be analyzed and also give insight to the purchasing preferences of a larger sample size.

Although many sand mines were located, most didn't meet the parameters required to be considered for comparison (active mining dates verifiable by aerial photos, located within close proximity to an established single-family subdivision with a comparable subdivision in the immediate proximity that wasn't affected by sand mining operations, and mines with an ingress/egress road that bordered single family homes in the subdivision). **For each subdivision selected in close proximity to the sand mine, called 'sample subdivisions,' one or more nearby subdivisions were also selected for comparison, called the 'comparative subdivisions,' which were selected due to their proximity outside of an area impacted/affected by the traffic, noise and/or potential dust created from mining operations.**

Although sand mines were located within New Hanover County, none were found from an inspection of aerial imagery which matched the criteria of being in close proximity to an established single-family residential development to the point where operations could impact residents. Also, based on inspection of aerial imagery, no sand mines were located within Brunswick County west of US Highway 17 (Ocean Highway) in close proximity to residential developments considered comparable. As such, we searched within Horry County, SC. Three sand mines in Horry County met the criteria necessary to be sample subdivisions, which are discussed in more detail in this report.

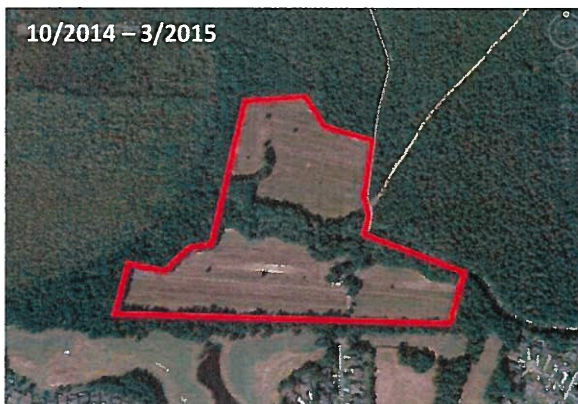
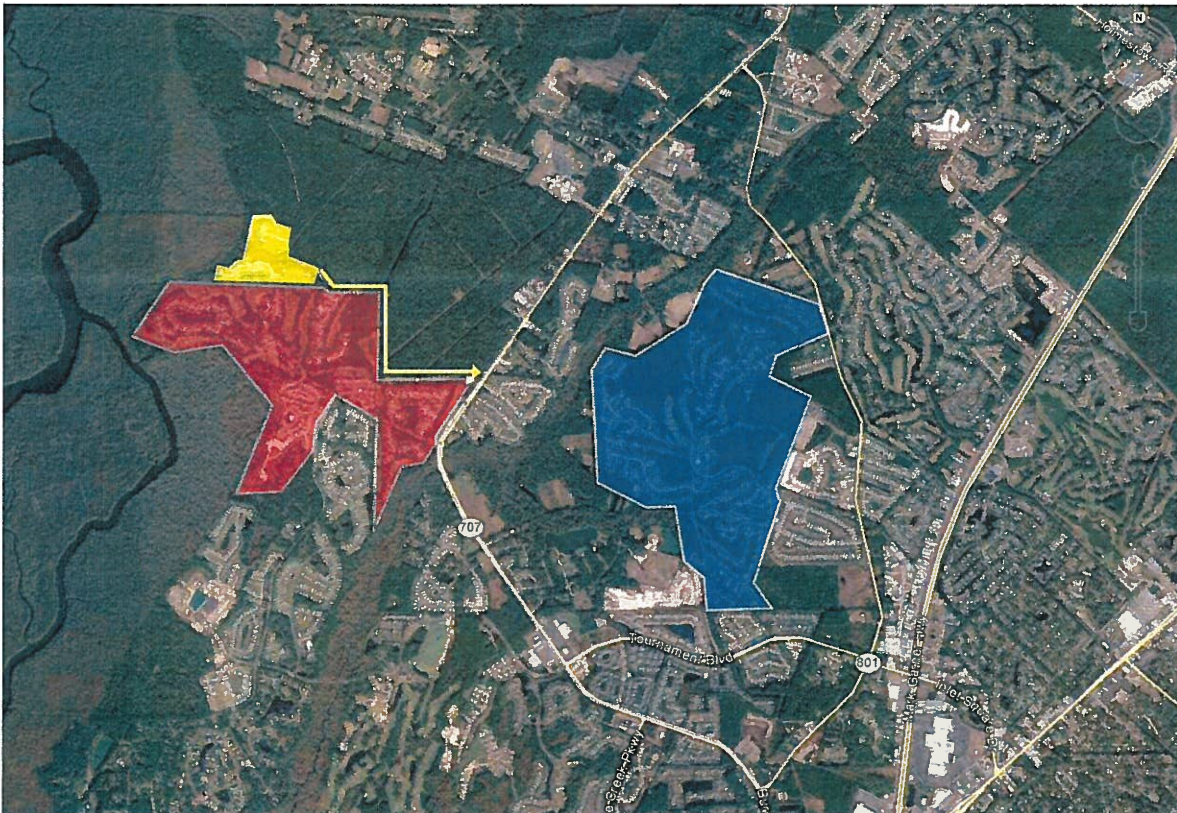
The two best methods to determine if sand mines impacted sales prices were to: (1) compare the yearly average sales price rates between the sample subdivisions and the comparative subdivisions within similar timeframes, and (2) compare the growth rates of the average sale price within the sample subdivision in comparison to average sales rates within the overall area (Horry County) during a similar timeframe. Although the price per square foot and the average sale price were both considered, the average sale price was considered to be a more reliable unit for comparison.

Information on subdivisions bordering sand mines and comparable neighborhoods not affected by sand mining were derived from search optimization programs provided by the Coastal Carolinas Association of REALTORS® Multiple Listing Service (MLS). Parameters of the searches included: yearly home sales closed from January 1, 2009, to YTD 2018 (August 24, 2018) for each sample subdivision, comparative subdivision and Horry County. Only detached single-family residences were included with a minimum of one bedroom and bathroom count, as a precaution, in case a property had been included in the wrong category. In some situations, outliers (homes that were not standard in the subdivision) were excluded. To simplify the interpretation of this report, the sample subdivisions and their comparative subdivisions were broken out into three separate identities: Blackmoor, Forestbrook and Cottonpatch. These three mines, the sample subdivisions and the comparative subdivisions are analyzed on the following pages.



## Blackmoor

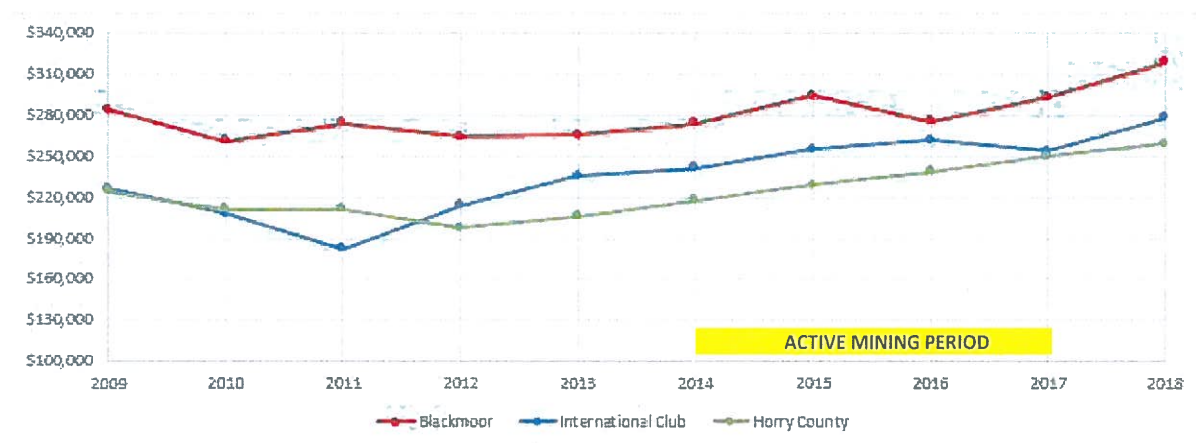
The Blackmoor Sand Mine (shown in yellow) borders the Blackmoor Golf Course community (sample subdivision shown in red). The area of the mine outlined in the graphics below measures  $48\pm$  acres. Access to the sand mine is provided via a private road (shown in yellow) that borders the Blackmoor Golf Course community and is accessed from SC Highway 707. The blue area designates the International Club of Myrtle Beach (comparative subdivision shown in blue), a golf community similar to Blackmoor. Active sand mining began between 10/2014 and 3/2015 and became inactive around 11/2017. The photos below the map show both the location of the sand mining prior to the mining operation and the most recent aerial imagery available.





The following chart and graph show the changes in average home values from 01/01/2009 through 8/23/2018. They contain information on the sample subdivision adjacent to the sand mine (Blackmoor), the comparative subdivision (International Club), and the baseline (Horry County Single-Family Homes). Active mining periods are highlighted in yellow and the 2018 sample size is highlighted in red due to it only extending from 01/01/2018 through 08/23/2018.

Year	Blackmoor			International Club			Horry County		
	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$284,144	---	9	\$226,570	---	18	\$224,554	---	2,707
2010	\$261,319	-8%	21	\$208,090	-8%	21	\$211,682	-6%	3,050
2011	\$274,309	5%	11	\$182,237	-12%	19	\$211,176	0%	3,237
2012	\$264,705	-4%	26	\$214,284	18%	30	\$197,304	-7%	3,840
2013	\$266,030	1%	13	\$235,666	10%	77	\$206,321	5%	4,649
2014	\$274,188	3%	16	\$241,798	3%	66	\$217,631	5%	5,143
2015	\$294,941	8%	17	\$255,630	6%	77	\$229,367	5%	5,955
2016	\$275,557	-7%	22	\$261,994	2%	84	\$238,959	4%	6,392
2017	\$293,389	6%	18	\$253,716	-3%	36	\$249,961	5%	6,981
2018	\$319,326	9%	9	\$278,130	10%	21	\$259,596	4%	4,722
<b>%Δ 2011 - 2018</b>	<b>116%</b>		<b>162</b>	<b>153%</b>		<b>449</b>	<b>123%</b>		<b>46,676</b>
<b>%Δ During Mining</b>	<b>107%</b>		<b>73</b>	<b>105%</b>		<b>263</b>	<b>115%</b>		<b>24,471</b>



After plotting the average sales prices within the sample subdivision, Blackmoor, and the comparative subdivision, International Club, the data appeared to trend similarly over a longer timeframe. While the average sales price of International Club dropped in 2011, by 2012 it had increased above the Horry County average. This is likely due to the price points of the product available for sale within specific sections of the overall development of International Club. By the time period of the active mining, the sample subdivision and comparative subdivision do not appear to vary greatly from the trend of the overall County sales. Although the sample average dropped in 2016 and the comparative dropped in 2017, they both recovered and resumed trending with Horry County by 2018. Based on the graph above, the growth of the average sale prices between the two subdivisions is relatively consistent with the exception of 2011 and 2016. The overall growth rate of Blackmoor slightly surpassed the growth rate of International Club during the mining periods of 2014-2017 at 107% to 105%, respectively.

## Forestbrook

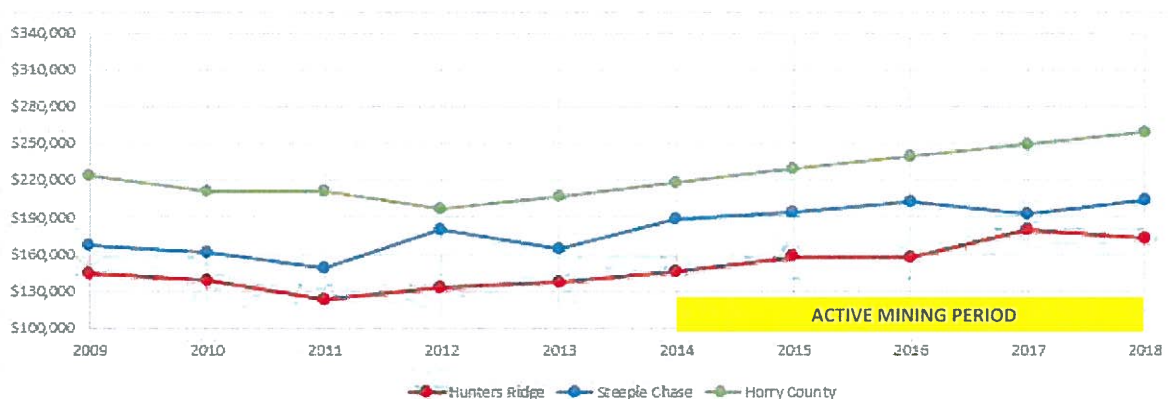
The Forestbrook Sand Mine (shown in yellow) borders Hunters Ridge community on the western side of Panther Parkway (sample subdivision shown in Red). The area of the mine outlined in the graphics below measures 80± acres. Ingress and egress utilize a private road (shown in yellow) that connects with Sun Light Drive to the west. The blue area designates the Steeple Chase Subdivision (comparative subdivision shown in blue). Aerial photographs show active sand mining began between 02/2014 and 10/2014 and was still active in the latest photo, 11/2017. Although the access road does not border the single-family development, this mine was selected due to the adjacent mining operations to the residences.





The following chart and graph show the changes in average home values from 01/01/2009 through 8/23/2018. They contain information on the sample subdivision adjacent to the sand mine (Hunters Ridge - west of Panther Parkway), the comparative subdivision (Steeple Chase), and the baseline (Horry County Single-Family Homes). As the size and style of homes east of Panther Parkway were considered superior, only homes west of Panther Parkway were included in this analysis. Active mining periods are highlighted in yellow and the 2018 sample size is highlighted in red due to it only extending from 01/01/2018 through 08/23/2018.

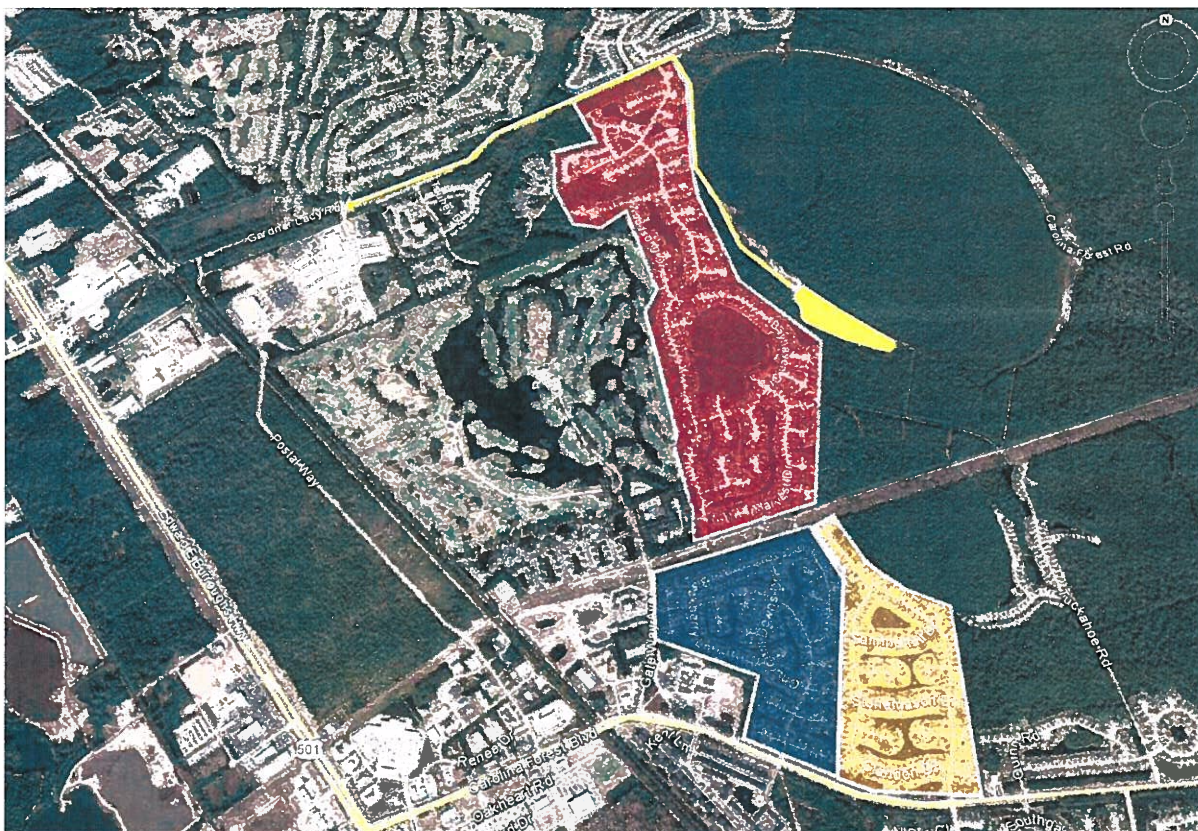
Year	Hunters Ridge W of Panther Parkway			Steeple Chase			Horry County		
	Avg. Sales Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$144,877	---	9	\$166,767	---	9	\$224,554	---	2,707
2010	\$138,991	-4%	19	\$161,057	-3%	7	\$211,682	-6%	3,050
2011	\$123,478	-11%	14	\$148,700	-8%	4	\$211,176	0%	3,237
2012	\$133,147	8%	20	\$179,600	21%	5	\$197,304	-7%	3,840
2013	\$137,239	3%	19	\$164,031	-9%	5	\$206,321	5%	4,649
2014	\$145,710	6%	21	\$188,800	15%	9	\$217,631	5%	5,143
2015	\$158,125	9%	24	\$194,257	3%	7	\$229,367	5%	5,955
2016	\$157,165	-1%	28	\$203,036	5%	11	\$238,959	4%	6,392
2017	\$179,445	14%	33	\$193,225	-5%	4	\$249,961	5%	6,981
2018	\$172,931	-4%	13	\$204,750	6%	2	\$259,596	4%	4,722
%Δ 2009 - 2018	126%		200	125%		63	116%		46,676
%Δ During Mining	119%		119	108%		33	119%		29,193



After plotting the average sales prices within the sample subdivision, Hunters Ridge west of Panther Run, and the comparative subdivision of Steeple Chase, the data appeared to trend similarly over a longer timeframe. With the exception of Steeple Chase in 2012, the average sales prices of the sample and comparative subdivisions remained lower than Horry County averages. This is due to the price points of the products available for sale within the specified subdivisions. During the first four years of the active mining, the sample subdivision does not appear to vary greatly from the trend of the overall County sales. Hunters Ridge sales average dropped slightly in 2016 when compared to the County average, but rebounded in 2017. Also, the growth of the average sale prices between 2009 and 2018 show the sample subdivision grew faster than the comparative subdivision and Horry County. The comparative subdivision's average sales were relatively consistent with the exception of two single-year fluctuations.

## Cottonpatch

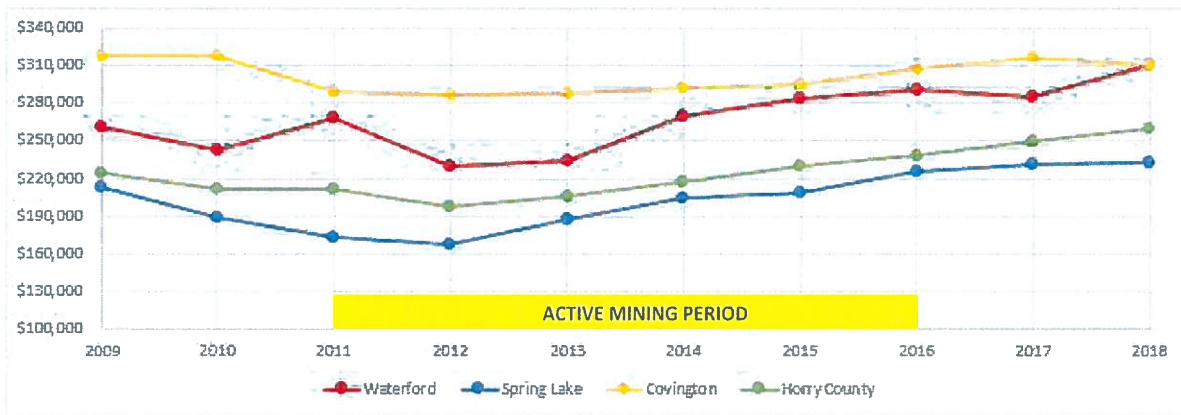
The Cottonpatch Sand Mine (shown in yellow) borders the Waterford community (sample subdivision shown in red). The area of the mine outlined in the graphics below measures 13± acres. Access is provided via a private road (shown in yellow) that connects to Gardner Lacy Road. Spring Lake subdivision (comparative subdivision shown in blue) and Covington Lake subdivision (comparative subdivision shown in gold) were selected due to their close proximity and lack of impact from mining operations. Aerial photographs show active sand mining began between 02/2014 and 10/2014 and being inactive in the latest photo, 11/2017.





The following chart and graph show the changes in average home values from 01/01/2009 through 8/23/2018. They contain information on the sample subdivision adjacent to the sand mine (Waterford), the comparable subdivisions (Spring Lake & Covington Lake) and the baseline (Horry County Single-Family Homes). Active mining periods are highlighted in yellow and the 2018 sample size is highlighted in red due to it only extending from 01/01/2018 through 08/23/2018.

Cottonpatch												
Waterford				Spring Lake			Covington Lake			Horry County		
Year	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$261,291	---	22	\$212,677	---	1	\$318,000	---	15	\$224,554	---	2,707
2010	\$243,267	-7%	18	\$188,513	-11%	1	\$318,000	0%	16	\$211,682	-6%	3,050
2011	\$267,577	10%	22	\$172,721	-8%	5	\$289,700	-9%	14	\$211,176	0%	3,237
2012	\$230,004	-14%	23	\$168,130	-3%	6	\$285,917	-1%	15	\$197,304	-7%	3,840
2013	\$233,805	2%	33	\$187,483	12%	12	\$287,895	1%	16	\$206,321	5%	4,649
2014	\$269,770	15%	24	\$204,395	9%	7	\$291,783	1%	20	\$217,631	5%	5,143
2015	\$284,490	5%	52	\$208,207	2%	12	\$295,025	1%	22	\$229,367	5%	5,955
2016	\$290,218	2%	41	\$226,303	9%	35	\$307,618	4%	26	\$238,959	4%	6,392
2017	\$285,117	-2%	41	\$231,705	2%	18	\$315,941	3%	21	\$249,961	5%	6,981
2018	\$310,719	9%	23	\$233,416	1%	6	\$310,667	-2%	12	\$259,596	4%	4,722
%Δ 2009 - 2018				133%		299	124%		103	108%		177
%Δ During Mining				116%		195	135%		77	107%		113
										123%		29,216

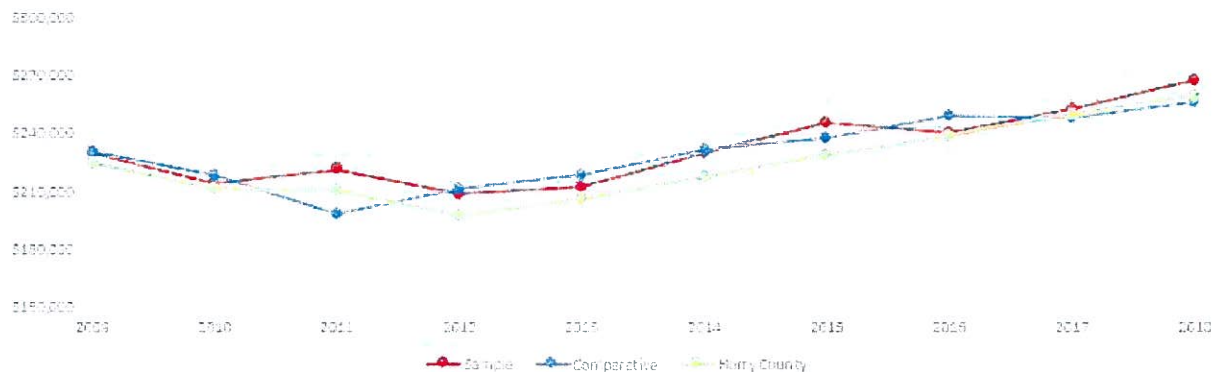


After plotting the average sales prices within the sample subdivision, Waterford, and the comparative subdivisions, Spring Lake and Covington Lake, the data appeared to trend similarly over a longer timeframe. While the average sales prices of the comparative Spring Lake subdivision remained lower than Horry County averages, they trended very well with Horry County. Sales averages in the sample subdivision (Waterford) showed substantial increases in average sales prices during the first year of mining in 2011 and in years of active mining 2014-2016. Sales averages for Waterford dropped in 2012 but increased continuously for the next four years. During the time period of the active mining, the comparative subdivisions do not appear to vary greatly from the trend of the overall County sales.

## Cumulative Averages Trend

The following chart shows three trend lines that represent each of the different criteria: sample subdivisions, comparative subdivisions, and Horry County average home prices. The sample subdivisions red line consists of the yearly home sales price averages of all three subdivisions: Blackmoor, Forestbrook and Cottonpatch. The comparative subdivisions blue line represents: The International Club, Steeple Chase, Spring Lake and Covington Lake. The green line represents Horry County and is considered the baseline for changes in average yearly sales prices.

The best method to determine if sand mines impacted sales prices was to compare the yearly average sales prices of the sample subdivisions in comparison to the comparative subdivisions and also compare them to the overall area (Horry County). The chart below shows side-by-side comparisons and trends in yearly changes for total cumulative average sales prices. During the time periods of active sand mining, the sample subdivisions trended similarly to the comparative subdivisions and Horry County home averages.



## Conclusion

Sales prices in individual neighborhoods may vary over time for a variety of factors, including but not limited to; market demand, available supply, cost of construction/materials, availability of financing, etc. Many factors were considered while analyzing each subdivision to gauge if the changes in sales prices over time were attributable primarily to the market or outside influences. The general trend of each sample and comparative neighborhood appears to closely trend with the real estate market during each respective timeframe. This inferred analysis places an emphasis on historical sales data which is quantifiable. After our analysis, it was determined that there were no significant economic impacts to home values as result of an active sand mine in close proximity to each neighborhood.

Additional data is presented in the attachments that analyzes the sample and comparative subdivisions previously discussed with the exclusion of new-construction sales. This data is contrasted to the data sets previously presented. This data also supports little-to-no impact on the average sale prices as a result of proximity to the sand mines.



## About Us

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**Streamline Evaluation Services LLC**, provides credible real estate solutions by synergizing technology and industry professionals. Streamline collects information, analyzes the data, and generates high-quality streamlined products utilizing the most recent market information available through paid and public records. This way their clients can make timely, informed and educated strategic decisions. Our reports are easy to read, accurate, compliant, and customized to each clients' requirements. Streamline Evaluation Services boasts timely turnaround of reports to meet deadlines with dedicated and accessible analysts, as well as an internal quality review process and approval before transmittal.

From automated appraisals to in-depth evaluations, analyses, assessments and studies, Streamline Evaluation Services provides full-service solutions for a wide spectrum of property types. We work with financial institutions to ensure that their internal requirements are met, while also maintaining compliance with the Uniform Standards of Professional Appraisal Practice, federal regulation 12 CFR Part 34 (Title XI of FIRREA) and standards endorsed by the Appraisal Institute and other professional organizations.

Our review process ensures that each report offers supportable opinions as to value and then offering conclusions and/or recommendations to the client. This process guarantees that the appraisal contains adequate, relevant and meaningful discussion, analysis and rationale so that it can be readily understood to lead to a credible value conclusion, and contains sufficient supporting documentation to indicate the reasonableness of the conclusion.

**Trevor Tarleton, M.B.A.** is Real Estate Research/Market Analyst at Streamline Evaluation Services LLC, where he generates detailed restricted real estate appraisals and market analysis reports through critical thinking, experience, resourcefulness and research. Tarleton earned his Master of Business Administration (MBA), and Bachelor of Science in Business Administration (BSBA) degrees from Coastal Carolina University. He also earned an Associate in Applied Science Degree in Forestry Management Technology: Wildlife Management Emphasis and Forestry Business Emphasis from Horry-Georgetown Technical College. Tarleton has a diversified background which includes multiple certifications and positions held in forestry, research and land management. Prior to working for Streamline Services, he was employed at Coastal Carolina University as a Research Associate and Graduate Assistant in the Grant Center for Real Estate and Economic Development. His many responsibilities included: networking, building relationships, performing research, analysis, and composing reports for the University, Grant Center and various other clients.

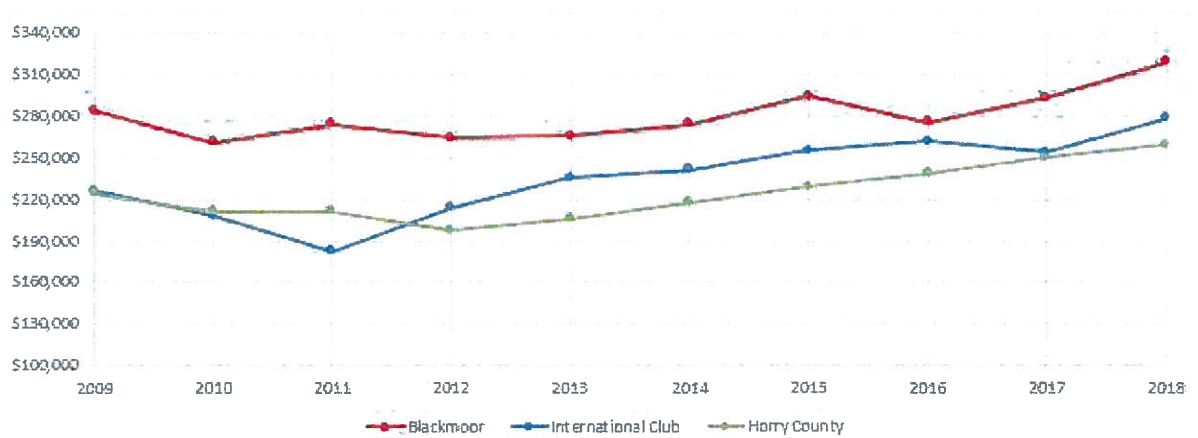
**F. Blynn Beall** is a Certified General Real Estate Appraiser who earned his education through the Appraisal Institute. Beginning a fee appraisal career in 2008, he partnered to form Streamline Evaluation Services in 2013 to focus on providing alternative valuation solutions along with feasibility and impact studies for clients. He is a graduate of Coastal Carolina University's Wall College of Business with a BA degree in Business Finance and is currently a candidate for a MAI designation through the Appraisal Institute. Blynn is a life-long resident of the Grand Strand and has experience in appraising various property types throughout the Southeast United States and is currently licensed in South Carolina, North Carolina, Georgia, Tennessee and Virginia.

## Attachments

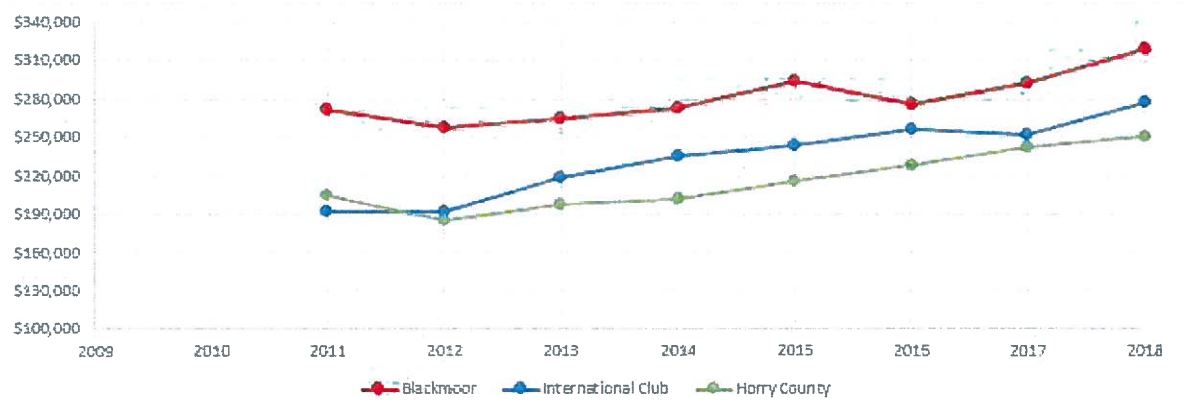
To insure the quality of the conclusions in this report, additional research was done which excluded new-construction sales and considers only resales. This is shown side-by-side with the data previously presented in the report (New Construction & Resale). The additional information is shown in the charts and graphs below and on the following pages.

Blackmoor (New Construction & Resale)									
Blackmoor				International Club			Horry County		
Year	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$284,144	---	9	\$226,570	---	18	\$224,554	---	2,707
2010	\$261,319	-8%	21	\$208,090	-8%	21	\$211,682	-6%	3,050
2011	\$274,309	5%	11	\$182,237	-12%	19	\$211,176	0%	3,237
2012	\$264,705	-4%	26	\$214,284	18%	30	\$197,304	-7%	3,840
2013	\$266,030	1%	13	\$235,666	10%	77	\$206,321	5%	4,649
2014	\$274,188	3%	16	\$241,798	3%	66	\$217,631	5%	5,143
2015	\$294,941	8%	17	\$255,630	6%	77	\$229,367	5%	5,955
2016	\$275,557	-7%	22	\$261,994	2%	84	\$238,959	4%	6,392
2017	\$293,389	6%	18	\$253,716	-3%	36	\$249,961	5%	6,981
2018	\$319,326	9%	9	\$278,130	10%	21	\$259,596	4%	4,722
%Δ 2011 - 2018	116%		162	153%		449	123%		46,676
%Δ During Mining	107%		73	105%		263	115%		24,471
%Δ # Sales: Mining / Non Mining			45%				59%	52%	

Blackmoor (Resale)									
Blackmoor				International Club			Horry County		
Year	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2011	\$272,000		5	\$192,615		13	\$ 204,797		1,413
2012	\$258,244	-5%	16	\$192,430	0%	20	\$ 184,817	-10%	2,666
2013	\$265,033	3%	12	\$218,843	14%	21	\$ 197,110	7%	3,098
2014	\$273,473	3%	15	\$235,400	8%	30	\$ 201,889	2%	3,285
2015	\$294,383	8%	18	\$244,392	4%	25	\$ 216,567	7%	3,676
2016	\$275,557	-6%	22	\$256,107	5%	29	\$ 228,093	5%	3,893
2017	\$293,389	6%	18	\$252,435	-1%	34	\$ 242,858	6%	4,290
2018	\$319,326	9%	9	\$278,130	10%	21	\$ 251,158	3%	2,927
%Δ 2011 - 2018	117%		115	144%		193	123%		25,248
%Δ During Mining	107%		73	107%		118	120%		15,144
%Δ # Sales: Mining / Non Mining			63%				61%	60%	



### Blackmoor (New Construction & Resale)



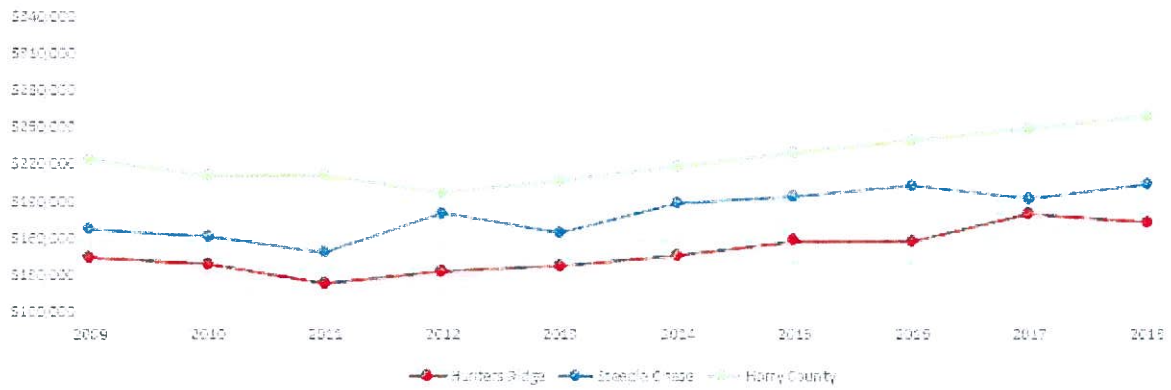
### Blackmoor (Resale)

(The search optimization programs provided by the Coastal Carolinas Association of REALTORS® Multiple Listing Service (MLS) wasn't able to separate new construction from resales until midway 2011 )

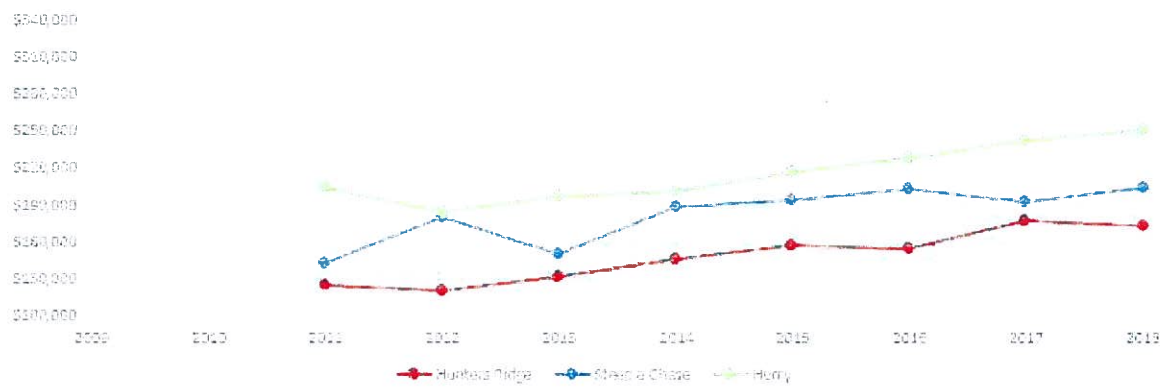
Forestbrook (New Construction & Resale)									
Year	Hunters Ridge W of Panther Parkway			Steeple Chase			Horry County		
	Avg. Sales Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$144,877	---	9	\$166,767	---	9	\$224,554	---	2,707
2010	\$138,991	-4%	19	\$161,057	-3%	7	\$211,682	-6%	3,050
2011	\$123,478	-11%	14	\$148,700	-8%	4	\$211,176	0%	3,237
2012	\$133,147	8%	20	\$179,600	21%	5	\$197,304	-7%	3,840
2013	\$137,239	3%	19	\$164,031	-9%	5	\$206,321	5%	4,649
2014	\$145,710	6%	21	\$188,800	15%	9	\$217,631	5%	5,143
2015	\$158,125	9%	24	\$194,257	3%	7	\$229,367	5%	5,955
2016	\$157,165	-1%	28	\$203,036	5%	11	\$238,959	4%	6,392
2017	\$179,445	14%	33	\$193,225	-5%	4	\$249,961	5%	6,981
2018	\$172,931	-4%	13	\$204,750	6%	2	\$259,596	4%	4,722
%Δ 2009 - 2018	126%		200	125%		63	116%		46,676
%Δ During Mining	119%		119	108%		33	119%		29,193
%Δ # Sales: Mining / Non Mining			60%				52%		
							63%		

Forestbrook (Resale)									
Year	Hunters Ridge W of Panther Parkway			Steeple Chase			Horry County		
	Avg. Sales Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2011	\$124,382		11	\$143,333		3	\$ 204,797		1,413
2012	\$121,300	-2%	14	\$179,600	25%	5	\$ 184,817	-10%	2,666
2013	\$131,736	9%	15	\$149,700	-17%	5	\$ 197,110	7%	3,098
2014	\$145,710	11%	21	\$188,800	26%	9	\$ 201,889	2%	3,285
2015	\$156,918	8%	22	\$194,257	3%	7	\$ 216,567	7%	3,676
2016	\$154,320	-2%	24	\$203,036	5%	11	\$ 228,093	5%	3,893
2017	\$176,642	14%	31	\$193,225	-5%	4	\$ 242,858	6%	4,290
2018	\$172,931	-2%	13	\$204,750	6%	2	\$ 251,158	3%	2,927
%Δ 2011 - 2018	139%		151	143%		46	123%		25,248
%Δ During Mining	121%		111	102%		33	120%		18,071
%Δ # Sales: Mining / Non Mining			74%				72%		
							72%		

(The search optimization programs provided by the Coastal Carolinas Association of REALTORS® Multiple Listing Service (MLS) wasn't able to separate new construction from resales until midway 2011.)



### Forestbrook (New Construction & Resale)



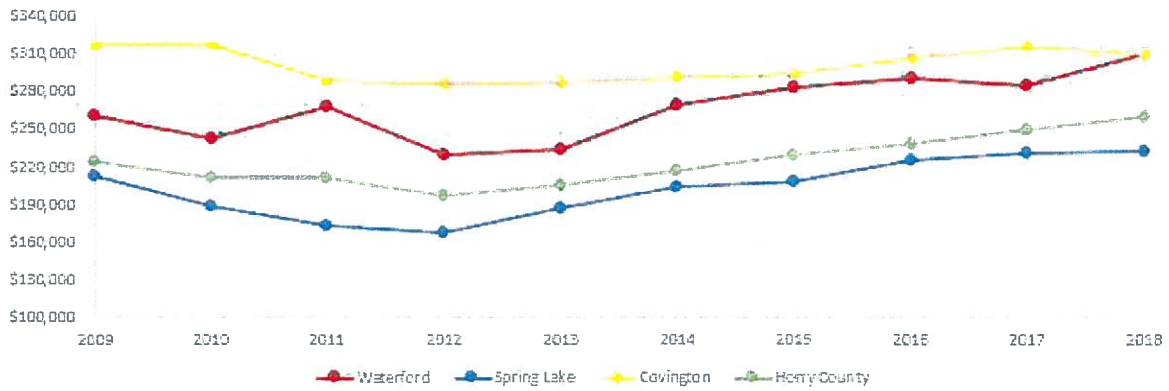
### Forestbrook (Resale)

2018 Year-to-Date Sales Volume for Hunters Ridge, Steele's Chase, and Henry County. The chart shows that Henry County has the highest sales volume, followed by Steele's Chase, and then Hunters Ridge. All three areas show a general upward trend in sales volume over the period shown.

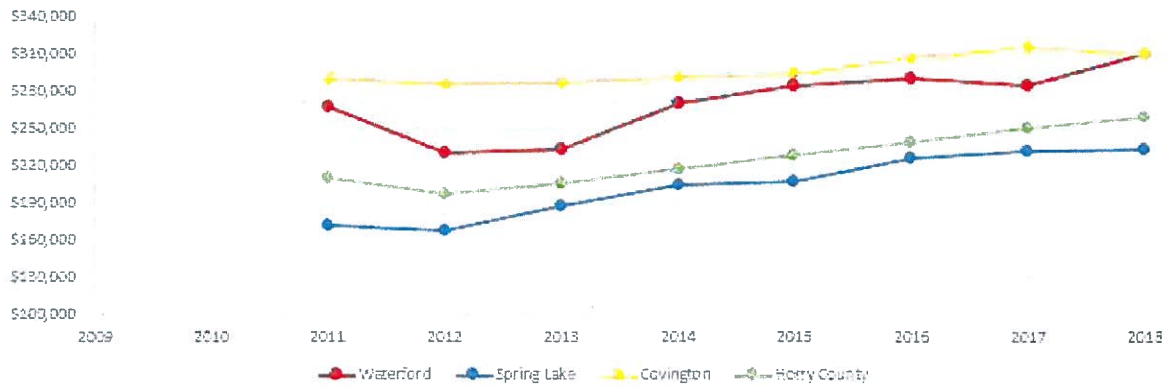


Cottonpatch (New Construction & Resale)													
Waterford				Spring Lake			Covington Lake			Horry County			
Year	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	
2009	\$261,291	---	22	\$212,677	---	1	\$318,000	---	15	\$224,554	---	2,707	
2010	\$243,267	-7%	18	\$188,513	-11%	1	\$318,000	0%	16	\$211,682	-6%	3,050	
2011	\$267,577	10%	22	\$172,721	-8%	5	\$289,700	-9%	14	\$211,176	0%	3,237	
2012	\$230,004	-14%	23	\$168,130	-3%	6	\$285,917	-1%	15	\$197,304	-7%	3,840	
2013	\$233,805	2%	33	\$187,483	12%	12	\$287,895	1%	16	\$206,321	5%	4,649	
2014	\$269,770	15%	24	\$204,395	9%	7	\$291,783	1%	20	\$217,631	5%	5,143	
2015	\$284,490	5%	52	\$208,207	2%	12	\$295,025	1%	22	\$229,367	5%	5,955	
2016	\$290,218	2%	41	\$226,303	9%	35	\$307,618	4%	26	\$238,959	4%	6,392	
2017	\$285,117	-2%	41	\$231,705	2%	18	\$315,941	3%	21	\$249,961	5%	6,981	
2018	\$310,719	9%	23	\$233,416	1%	6	\$310,667	-2%	12	\$259,596	4%	4,722	
%Δ 2009 - 2018		133%	299	124%		103	108%		177	116%		46,676	
%Δ During Mining		116%	195	135%		77	107%		113	123%		29,216	
%Δ # Sales: Mining / Non Mining			65%				75%			64%			63%



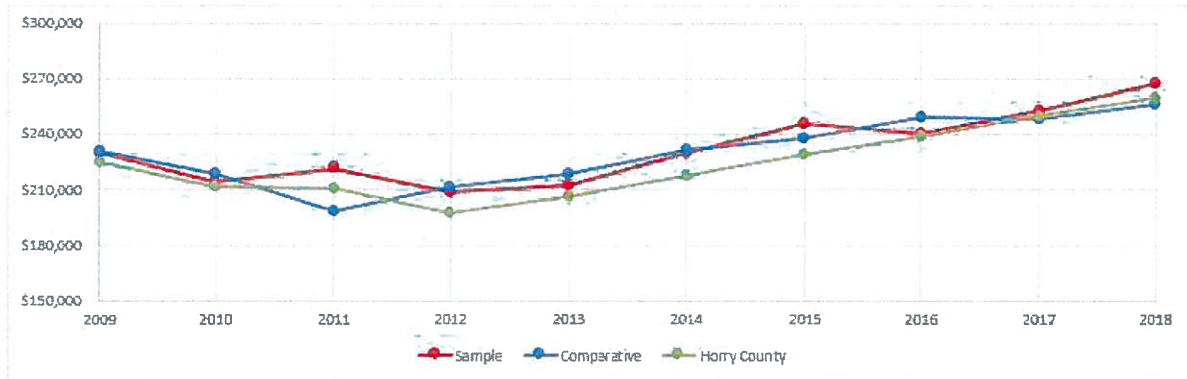


### Cottonpatch (New Construction & Resale)

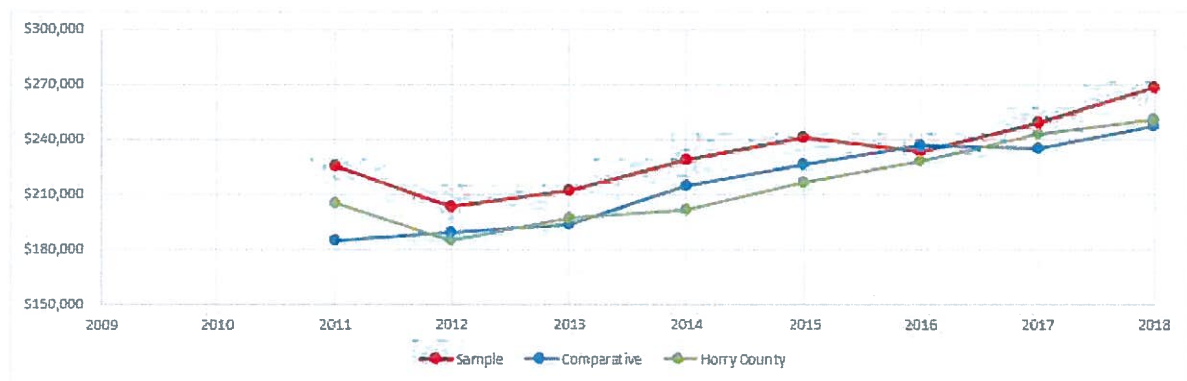


### Cottonpatch (Resale)

(The search optimization programs provided by the Coastal Carolinas Association of REALTORS' Multiple Listing Service (MLS) wasn't able to separate new construction from resales until mid-way 2011.)



**Cumulative Trend Lines (New Construction & Resale)**



**Cumulative Trend Lines (Resale)**

(The search optimization programs provided by the Coastal Carolinas Association of REALTORS® Multiple Listing Service (MLS) wasn't able to separate new construction from resales until midway 2011.)



## Addendum Report Sand Mine Study

What impact does the presence of an active sand mine have on home values in the adjacent neighborhoods?

**4117 Castle Hayne Road  
Castle Hayne, NC 28429**

*Prepared For:*

Stephen D. Coggins

*Prepared By:*

Trevor Tarleton & F. Blynn Beall

Streamline Evaluation Services

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## Addendum

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The previous analysis completed by Streamline Evaluation Services determined that active sand mining operations did not impact single-family residential property values within close proximity to the mining operations. The original analysis utilized information from Horry County, due to the lack sand mines located within New Hanover County that met the criteria of being in close proximity to a single-family residential development to the point where operations could impact residents. Also, based on inspection of aerial imagery, no sand mines were identified within Brunswick County West of US Highway 17 (Ocean Highway) in close proximity to residential developments considered comparable.

Post analysis, Streamline Evaluation Services received information from Stephen D. Coggins about a sand mine located East of US Highway 17 at the end of Villanova Loop SE in Southport NC. This addendum will include information about the Villanova Sand Mine and its impact on the Saint James Plantation subdivisions bordering and located in close proximity to the mine. It will compare and analyze the annual changes in single family homes sale prices, during pre-mining and active mining operations. The best method to determine if sand mines impacted sales prices was to: compare the yearly average sales price rates between a sample subdivision and the comparative subdivisions within similar timeframes. Although the price per square foot and the average sale price were both considered, the average sale price was considered to be a more reliable unit for comparison.

Due to the layout of the St James Plantation, a portion of the development borders and is in close enough proximity of the Villanova Sand Mine that some homes sites could have been impacted by active mining operations. These home sites, for the purpose of this addendum will be considered the sample subdivision, 'St James (A).' Home sites located in the St James subdivision which are in sections not impacted/affected by the traffic, noise and/or potential dust created from mining operations, will be considered 'St James (B).' St James (B) and the Arbor Creek Subdivisions make up the comparative subdivisions.

The data/information on subdivisions around the Villanova Sand Mine was derived from search optimization programs provided by Flexmls Systems. Parameters of the searches included: yearly home sales closed from January 1, 2009, to YTD 2018 (August 23, 2018) for each sample subdivision and comparative subdivision. Only detached single-family residences were included with a minimum of one bedroom and bathroom count, as a precaution, in case a property (primarily lots) had been included in the wrong category.

## Summary of Findings

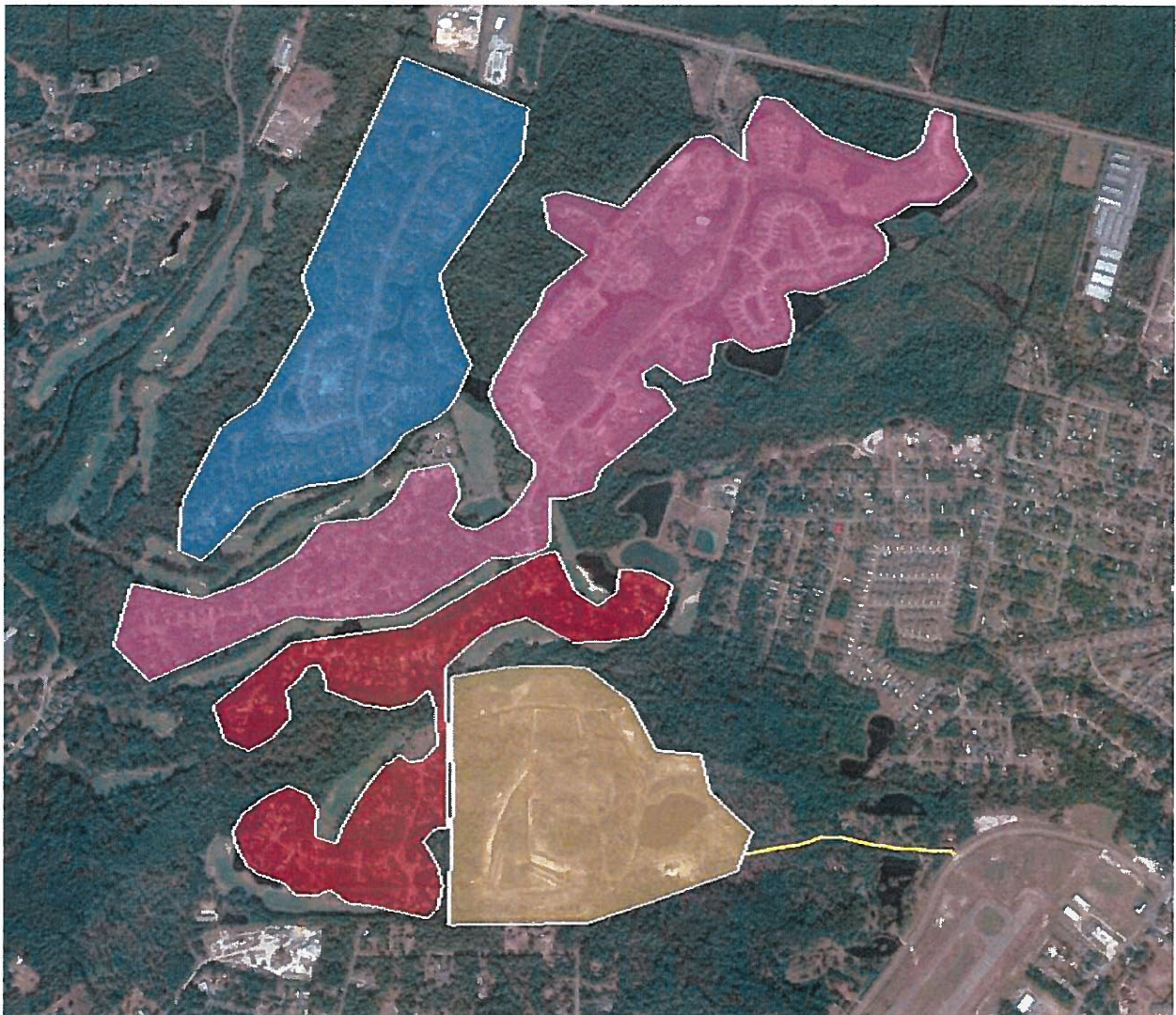
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As with our previous analysis, it was determined that the sample subdivision grew at a similar rate to the overall market during periods of active mining and there appeared to be no significant economic impacts to home values as result of having an active sand mine in close proximity to each of the neighborhoods analyzed.



## Villanova

The Villanova Sand Mine (shown in yellow in the graphic below) measures 86± acres and borders the St James Plantation Golf Course community. The sample subdivision "St James A" (shown in red) shows areas where the neighborhood was/is potentially affected by active mining operations. Ingress/egress to the sand mine is provided via Villanova Loop South East (shown in yellow). The light purple area designates the part of the St James subdivision not affected by the mine (comparative subdivision "St James B") and (shown in blue) Arbor Creek Subdivision (comparative subdivision "Arbor Creek"). They were selected due to their close proximity and lack of impact from mining operations. Research indicated that the Villanova Sand Mine became active after 2/2011 and was still active when the most recent photo was taken in 10/2016. The photos on the following page show both the location of the sand mining prior to the mining operation and the most recent aerial imagery available.





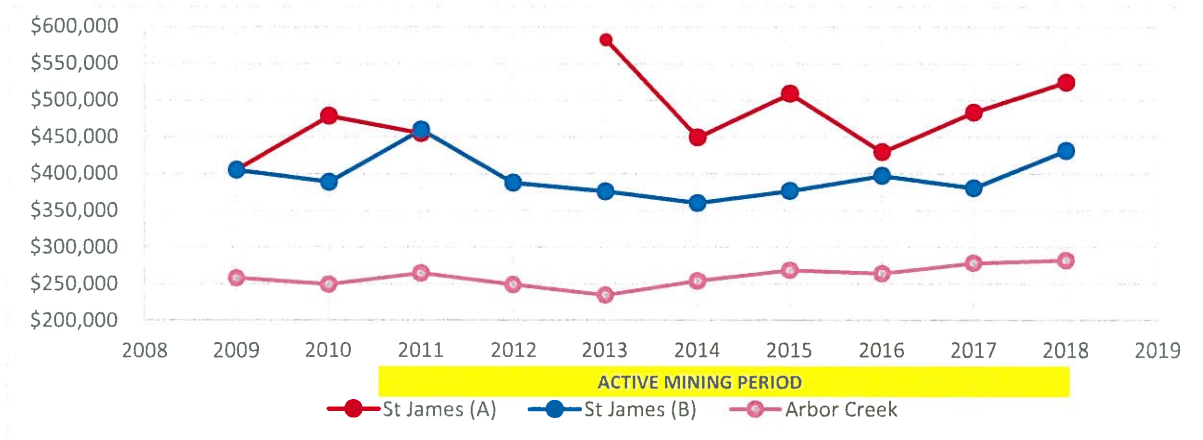
## Villanova Sand Mine Historical Imagery

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The following chart and graph show the changes in average home values from 01/01/2009 through 8/23/2018. They contain information on the sample subdivision adjacent to the sand mine, St James (A) and the comparable subdivisions (St James (B) & Arbor Creek. Active mining periods are highlighted in yellow and the 2018 sample size is highlighted in red due to it only extending from 01/01/2018 through 08/23/2018.

Villanova									
Year	St James (A)			St James (B)			Arbor Creek		
	Avg. Sales Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales	Avg. Sale Price	%Δ/Yr	Sales
2009	\$405,000	---	1	\$404,468	---	8	\$257,292	---	12
2010	<b>\$478,333</b>	18%	3	\$388,328	-4%	9	\$248,553	-3%	15
2011	\$454,625	-5%	4	<b>\$460,000</b>	18%	4	\$263,966	6%	15
2012	\$0	---	0	\$387,317	-16%	6	\$248,219	-6%	9
2013	<b>\$582,500</b>	---	3	\$375,770	-3%	8	\$233,950	-6%	18
2014	\$449,167	-23%	3	\$360,128	-4%	6	\$253,599	8%	14
2015	<b>\$508,980</b>	13%	5	\$376,357	5%	7	\$268,107	6%	18
2016	\$429,500	-16%	3	\$396,887	5%	15	\$263,621	-2%	18
2017	\$483,333	13%	6	\$380,147	-4%	15	\$277,770	5%	33
2018	\$524,500	9%	<b>3</b>	\$431,364	13%	<b>11</b>	\$281,782	1%	<b>17</b>
%Δ & # Sales 2009 - 2018		130%	31	107%	89	110%	169		
%Δ & # Sales During Mining		115%	27	94%	72	107%	142		



After plotting the average sales prices within the sample subdivision, St James (A), and the comparative subdivisions, St James (B) and Arbor Creek, the data appeared to trend similarly over a longer timeframe. While the average sales prices of the comparative St James (B) and Arbor Creek Subdivisions remained lower than St James (A), they trended well with the sample subdivision considering the sample sizes. In 2012 there were no sales in St James (A). Between 2009 and 2011 there was no mining operations, so the decline in the sample subdivisions sales rates would not be attributed to mining operations. The boldened average sales prices in the grid and peaks in the chart above are a result of atypical home sales influencing the yearly averages, which is one drawback of smaller sample sizes. Atypical homes could be: larger in size, higher quality, have a premier location, superior lot size and/or be influenced by a lake or golf course frontage. Overall, during the periods of the active mining the sample subdivision does not appear to vary greatly from the trend of the comparative subdivisions.

## Conclusion

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Sales prices in individual neighborhoods may vary over time for a variety of factors, including but not limited to; market demand, available supply, cost of construction/materials, availability of financing, etc. Many factors, including atypical home sales, were considered while analyzing each subdivision to gauge if the changes in sales prices over time were attributable primarily to the market or outside influences. The general trend of each sample and comparative neighborhood appears to closely trend with the real estate market during each respective timeframe. This inferred analysis places an emphasis on historical sales data which is quantifiable. After our analysis, it was determined that there were no significant economic impacts to home values as result of an active sand mine in close proximity to each neighborhood.



## About Us

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**Streamline Evaluation Services LLC**, provides credible real estate solutions by synergizing technology and industry professionals. Streamline collects information, analyzes the data, and generates high-quality streamlined products utilizing the most recent market information available through paid and public records. This way their clients can make timely, informed and educated strategic decisions. Our reports are easy to read, accurate, compliant, and customized to each clients' requirements. Streamline Evaluation Services boasts timely turnaround of reports to meet deadlines with dedicated and accessible analysts, as well as an internal quality review process and approval before transmittal.

From automated appraisals to in-depth evaluations, analyses, assessments and studies, Streamline Evaluation Services provides full-service solutions for a wide spectrum of property types. We work with financial institutions to ensure that their internal requirements are met, while also maintaining compliance with the Uniform Standards of Professional Appraisal Practice, federal regulation 12 CFR Part 34 (Title XI of FIRREA) and standards endorsed by the Appraisal Institute and other professional organizations.

Our review process ensures that each report offers supportable opinions as to value and then offering conclusions and/or recommendations to the client. This process guarantees that the appraisal contains adequate, relevant and meaningful discussion, analysis and rationale so that it can be readily understood to lead to a credible value conclusion, and contains sufficient supporting documentation to indicate the reasonableness of the conclusion.

**Trevor Tarleton, M.B.A.** is Real Estate Research/Market Analyst at Streamline Evaluation Services LLC, where he generates detailed restricted real estate appraisals and market analysis reports through critical thinking, experience, resourcefulness and research. Tarleton earned his Master of Business Administration (MBA), and Bachelor of Science in Business Administration (BSBA) degrees from Coastal Carolina University. He also earned an Associate in Applied Science Degree in Forestry Management Technology: Wildlife Management Emphasis and Forestry Business Emphasis from Horry-Georgetown Technical College. Tarleton has a diversified background which includes multiple certifications and positions held in forestry, research and land management. Prior to working for Streamline Services, he was employed at Coastal Carolina University as a Research Associate and Graduate Assistant in the Grant Center for Real Estate and Economic Development. His many responsibilities included: networking, building relationships, performing research, analysis, and composing reports for the University, Grant Center and various other clients.

**F. Blynn Beall** is a Certified General Real Estate Appraiser who earned his education through the Appraisal Institute. Beginning a fee appraisal career in 2008, he partnered to form Streamline Evaluation Services in 2013 to focus on providing alternative valuation solutions along with feasibility and impact studies for clients. He is a graduate of Coastal Carolina University's Wall College of Business with a BA degree in Business Finance and is currently a candidate for a MAI designation through the Appraisal Institute. Blynn is a life-long resident of the Grand Strand and has experience in appraising various property types throughout the Southeast United States and is currently licensed in South Carolina, North Carolina, Georgia, Tennessee and Virginia.

## ATTACHMENT NO. 8

### SUP Factor No. 4: Harmony with area and Conformity with NHC LUP:

#### Harmony with Area:

The proposed sand mining operation must be in harmony with the area in which it is generally located. More particularly, the location and character of the sand mining operations on the 28.1 acres ("Phase 1") -- if developed in accord with the State Mining Permit, as modified, and any NHC Special Use Permit -- will be in harmony with the area in which the operations are to be located.

The site is located deep within a large heavily-forested area that is more than 5600 acres extending from Castle Hayne Road (Highway 117/133) northeastward to the Northeast Cape Fear River (inclusive of the Applicant's "parent" 4100 acre parcel (See DB 2211, P 0685) and the 1500-plus acre tract that the Applicant's predecessor in title conveyed to GE in 1967 (See DB 806, P 458), far outside the view or hearing of any residence. The proposed Phase 1 site is more than 1.5 miles from the nearest residence.

The site is accessed from Highway 117 along an approximately 60-foot wide private paved gravel and dirt road called "Sledge Road" which is located on Applicant's land. This private gated road extends approximately *2.15 miles* from Castle Hayne Road to the Phase 1 site deep into a heavily forested area. Decades ago, sand was mined from the Subject and was shipped off-site along Sledge Road. This was prior to the development of the Wooden Shoe Subdivision. In addition, Sledge Road was used as a road for heavy logging trucks to transport forestry material. Truck hauling of forestry products continue to the present day.

A portion of Sledge Road runs approximately .43 mile (2279.31 feet) alongside the rear property of approximately nine residences in the Wooden Shoe Subdivision. Thus, commercial trucking has used Sledge Road, near those residences for decades and even prior to the development of Wooden Shoe Subdivision. (Note also, that across Sledge Road at the rear of those residences is the "I-2 zoned" GE nuclear facility, that predates the Wooden Shoe Subdivision.)



Similar other uses that (1) would result in significantly more traffic volume than the historical log hauling, and (2) are already permitted as a matter of right in the RA zone include Demolition-Landscape Landfill, Schools, Government offices and Mobile Homes<sup>1</sup>. Thus, the Applicants currently could develop the Subject for those uses notwithstanding the resulting substantially heavier traffic use on Sledge Road for access. A Special Use Permit and a rezoning would not be required to exercise those uses.

In addition, hospitals are allowed by Special Use Permit in the RA zone. Thus, the Applicants currently could also develop the Subject for a hospital, which would entail much heavier traffic, loud sirens, etc., with the activities lasting in perpetuity, in contrast to the lighter volume of traffic serving a sand mine for a finite period. (The sand mine operations would of course end once the available and permitted sand supply is shipped off-site. Applicant “guesstimates” the operations would take place for about 5 years.) and for a much longer period than what would be involved in the finite sand mining.

Heavy mining and/or excavation activities began to take place no later than 2000 on the Northwestern sector of the GE site. The activities were part of a government-mandated environmental remediation of groundwater contamination. This GE excavation area is about 2 miles from the nearest residence and is located roughly 1,500 feet from the Phase 1 area. Thus, the proposed sand mining activity will take place in an area much closer to a preexisting excavation operation than it is to a residence.

Thus, under all the circumstances, the proposed sand mining operation will be in harmony with the area in which it is generally located.

### **Conformity With NHC Land Development and Use Policies:**

#### ***2016 PLAN NHC***

The location and character of the proposed sand mining operation on the Subject must be in general conformity with the New Hanover County Comprehensive Plan. The operation indeed conforms to the Plan, because the Subject is in a “Commerce Zone” as shown on the Future Land Use Map (the “Map”)

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<sup>1</sup> These uses are compatible with the purpose of the RA district set forth in Section 51.3-1:

The RA Rural Agricultural District is established as a district in which the principal use of land is for low density single family residential purposes. The regulations of this district encourage rural farming activities and the preservation of open space and permitting development compatible with the preservation of its rural character and providing limited growth. The district is designed to promote exurban, low density residential development not requiring urban services while maintaining prime farm land and a rural life style....

adopted by the “2016 Plan NHC” (the “Plan”)(Attachment No. 3) (Tab 6).

The Plan adopted the Map to guide future development in New Hanover County (the “County”). As explained on Page 3 of the “Visualizing the Future” section of the Plan, the intent of the Map is:

...to be a general representation of the vision for New Hanover County’s future land use, developed by the citizens and community leaders that participated in the Plan NHC process. The county’s land-use regulations are expected to be amended to reflect this vision as a major implementation strategy of this plan. The goals of the Future Land Use Map place types are to identify overall areas of applicability for each. ...[P]lace type locations are interpretations of future development opportunities within the areas that help create a community. This map will serve as a tool for planners to help reach the goals set by the citizens through future development. This map will also be an important tool when developing the new zoning map and the county’s new unified development ordinance.

The Plan creates place types called “zones”. Among the adopted zones are “Commerce Zones”. Those zones are created to enable targeted industries to locate and thrive in the County. (See Plan Introduction at Page v.)

The Map identifies the Subject as being in a “Commerce Zone”. Sand mining is a form of “commerce”.

A reading of the text of the Plan indicates the logic of the Subject being in that zone. Page 3 of the Plan’s “Visualizing the Future” section indicates that the areas in the County applicable to Commerce Zones are the U.S. 421 Corridor, GE, and airport vicinity. The Subject is in that vicinity.

Page 12 in the Plan’s “Existing Conditions” section states that a majority of the contiguous undeveloped areas of land are in the northwest section of the County and the Castle Hayne area. Page 17 indicates that the second largest zoning district in the County is I-2 heavy industry and is concentrated near the Northeast Cape Fear River. The Subject is adjacent to the “I-2” zoned GE site near the Northeast Cape Fear River and is in the large undeveloped areas of land in the Castle Hayne area.

Among the goals set forth in Chapter 3 of the Plan entitled “Framing the Policy” that will be promoted within Commerce Zone types are:

- Promote environmentally-responsible growth;
- Promote fiscally-responsible growth;

- Preserve and protect water quality and supply;
- Revitalize commercial corridors and blighted areas through infill and redevelopment;
- Use public infrastructure to leverage private investments;
- Support business success;
- Support workforce development and economic prosperity for all; and,
- Conserve and enhance our unique sense of place to attract individuals, companies and organizations.

The proposed sand mine as operated under the State Mining Permit as modified will meet these goals. The sand mine will not only (a) be an enhanced use; (b) preserve and protect water quality and supply; and, (c) support business success, workforce development and economic prosperity. Because the sand transported from the Site will benefit other vital locations using the mined sand, it will also encourage environmentally and fiscally-responsible growth elsewhere and enable improvements to the County's road infrastructure needed to leverage private investments.

Page 4 of the "Building the Future" section of the Plan indicates a "Strategic Plan Focus Area of Intelligent Growth and Economic Development". The Strategic Plan Objective is to "Promote a strong diverse economy and high-quality growth." Goal 1 is "Support Business Success" with the desired outcome being a vibrant economy for the County based on business success. Implementation Guidelines for this Goal include encouraging target industries in Commerce Zones, aligning county zoning ordinances to encourage targeted business in appropriate areas, and develop performance controls to address odor, noise, lighting, and other impacts on surrounding uses. The sand mine as permitted will meet this Goal and the Guidelines and help achieve the Plan's strategy.

### ***2006 CAMA LAND USE PLAN***

The 2006 Wilmington-New Hanover County CAMA Land Use Plan classifies the subject site as Wetland Resource Protection and Conservation, and the proposal is not in conflict with the intent or policies included with that land use classifications.

Policy 4.2 of the Plan suggests delineating areas for industrial use which will maximize the efficient use of infrastructure while protecting the fragile ecosystem from harm and protecting residents from undue impacts. The geographic isolation of the Subject should minimize any noise, vibration, dust, or other negative effects of the mining operation.

Policy 3.27 of the Plan suggests prohibiting any land use or development activity that will likely result in adverse impacts to groundwater aquifers. However, this policy is not at issue because no dewatering or groundwater

extraction is proposed, and no evidence has been submitted that the proposal will have any negative effects on groundwater resources

## ***ZONING ORDINANCE***

### **1. I-2 Zoning**

The Applicant seeks a rezoning of the Subject from RA to CUD I-2. The purpose of I-2 as set forth in Section 53:3-1 of the County's Zoning Ordinance is:

...to set aside areas of the County for a full range of manufacturing, fabrication, assembly, warehousing, and distribution uses associated with heavy industrial land uses where heavy industry can find suitable sites served by rail, waterway and highway transportation. The district is also established to subsequently protect nonindustrial districts situated outside the district and minimize environmental impacts caused by the uses within the district. Outdoor operations and storage are appropriate for this district provided that the district standards are met. Certain uses within the I-2 district shall require a special use permit as specified in the Table of Permitted Uses. No I-2 District shall be less than five (5) acres in area.

Operation of the proposed sand mine in accord with State Mining Permit and conditions within a Special Use Permit will fulfill all the requirements of Section 53:3-1.

### **2. I-2 Dimensional Standards:**

The following dimensional standards set forth in Section 53.3-4 will be met by the sand mine operated in accord with the State Mining Permit conditions:

- (1) Minimum lot area-None.
- (2) Minimum front yard building setback-50 feet.
- (3) Minimum side and rear yard building setbacks for property abutting residential shall be calculated in accordance with Section 60.3.
- (4) Buffers must be established between I-2 and adjacent, non-industrial uses, in accordance with Section 62.1-4 of this ordinance.

### **3. I-2 Requirement for Review of External Effects**

The obtainment of a Special Use Permit under the procedures set forth in Section 71 will fulfill the I-2 requirement for review of external effects set forth in Section 53.4-4.1:

**53.3-.4.1: Review of external effects.** All uses in the I-2 zoning district must operate in compliance with current standards for sound, vibration, heat discharge, glare, odor, air quality and water quality, as applicable under federal, state, and local regulations. For uses that require a Special Use Permit, a non-binding narrative must accompany the application that shall include a disclosure of the projected external impacts of the project, including information about anticipated federal and/or state permits that will be required. Section 71 further describes the special use permit approval process. The County may require additional information deemed reasonable to assess the impacts and effects of a project on a community including plans, specifications, and other information deemed necessary to determine compliance with the review criteria. Federal, State and /or local environmental agencies may be consulted to advise the Planning and Inspections Department on applications for Special Use Permits.

#### **4. Special Use Permit Requirements**

The Application fulfills the Special Use Permit Requirements in applicable portions of Section 71 set forth below.

#### **Section 71: Special Use Permits Issued by the Board of County Commissioners**

##### ***71-1: General Requirements***

(1) Special Use Permits may be issued by the Board of County Commissioners for the establishment of uses listed as special uses in Article V after a public hearing and after Planning Board review and recommendation. The Planning Board may recommend conditions which assure that the proposed use will be harmonious with the area and will meet the intent of this ordinance.

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(3) Upon receiving the recommendations of the Planning Board and holding a public hearing, the Board of County Commissioners may grant or deny the Special Use Permit requested. The Special Use Permit, if granted shall include such approved plans as may be required. In granting the Special Use Permit the Commissioners shall find: (1/2/90)

- (A) that the use will not materially endanger the public health or safety if located where proposed and approved;
- (B) that the use meets all required conditions and specifications;
- (C) that the use will not substantially injure the value of adjoining or abutting property, or that the use is a public necessity; and



(D) that the location and character of the use if developed according to the plan as submitted and approved will be in harmony with the area in which it is to be located and in general conformity with the plan of development for New Hanover County.

(4) In granting the permit the Board of County Commissioners may recommend and designate such conditions in addition and in connection therewith, as will in its opinion, assure that the use in its proposed location will be harmonious with the area in which it is proposed to be located and with the spirit of this Ordinance. All such additional conditions shall be entered in the minutes of the meeting at which the permit is granted and also on the certificate of the Special Use Permit or on the plans submitted therewith. All specific conditions shall run with the land and shall be binding on the original applicants for the Special Use Permit, their heirs, successors and assigns. A Special Use Permit, issued by the Board of County Commissioners shall become null and void if construction or occupancy of the proposed use as specified on the Special Use Permit is not commenced within twenty-four (24) months of the date of issuance. If an extension is desired, a request must be submitted in writing to the New Hanover County Planning and Inspections Department prior to the expiration. Extensions may be granted in accordance with section 112-6 of the Ordinance.

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(7) ... A transportation information sheet is required for any development that will generate more than 100 trips during the peak hour; a traffic impact study may also be required.

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## **5. Additional High Intensity Mining Requirements**

The Special Use Permit requirements for High Intensity Mining operations set forth below will be met by the proposed sand mine operating in accord with the State Mining Permit:

### **Section 72-42: Mining**

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#### **High Intensity Mining Operations**

High intensity mining operations shall be permitted in accordance with the use tables in Section 50-2, subject to the following:

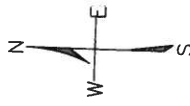
- (1) The minimum lot size shall be one acre.
- (2) Soil or other unconsolidated material (i.e. sand, marl, rock, fossil deposits, peat, fill or topsoil) may be removed for use off-site. Additional on-site processing shall be permitted (i.e. Use of conveyor systems; screening machines; crushing; or other mechanical equipment).

(3) All mining operations and their associated activities shall comply with the following standards when dewatering occurs:

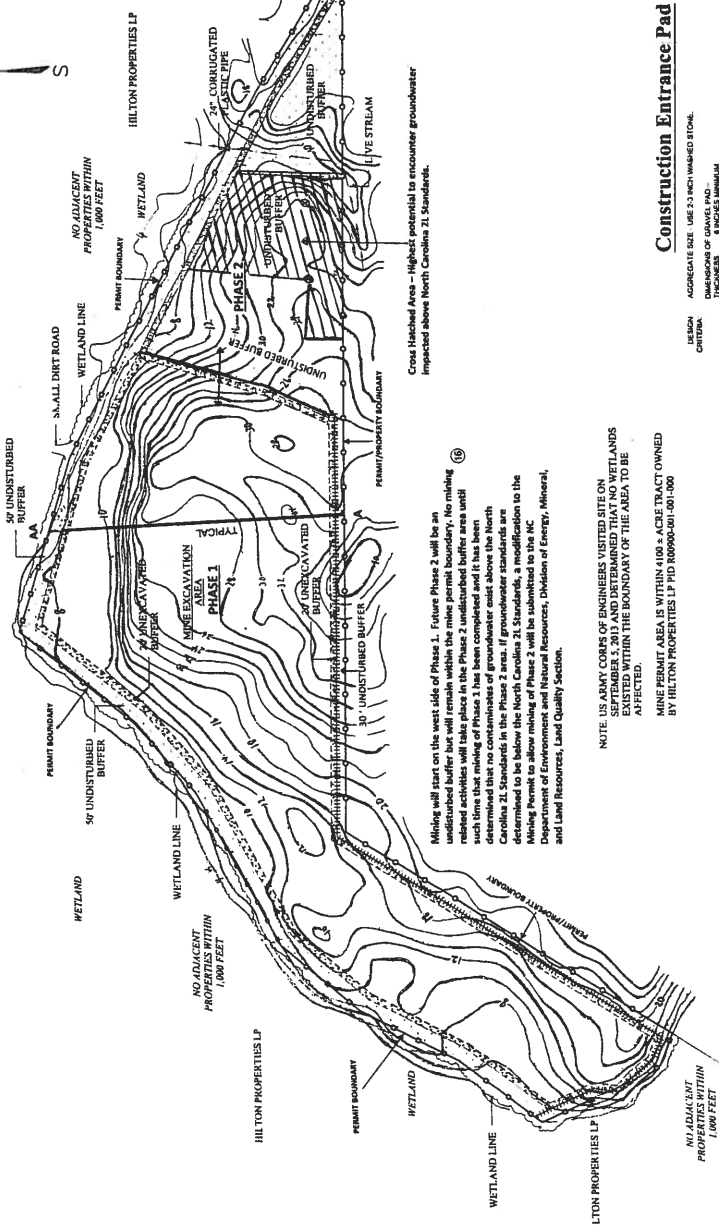
a. Must be located a minimum of 100 feet from all property lines.

(4) High Intensity Mining activities shall not be allowed in areas classified as aquifer resource protection or watershed resource protection on the CAMA Land Classification Map.

The Subject is more than an acre. No dewatering is involved, so the 100-foot buffer requirement is inapplicable. The Subject is not in the aquifer resource protection or watershed resource protection areas designated in the CAMA Land Use Classification Map or the Future Land Use Map.



HILTON PROPERTIES LP



Mining will start on the west side of Phase 1. Future Phase 2 will be an undisturbed buffer but will remain within the mine permit boundary. No mining related activities will take place in the Phase 2 undisturbed buffer area until such time that mining of Phase 1 has been completed and it has been determined that no contaminants of groundwater exist above the North Carolina ZI Standards in the Phase 2 area. If groundwater standards are determined to be below the North Carolina ZI Standards, a permit will be obtained from the Department of Environment and Natural Resources, Division of Energy, Mineral, and Land Resources, Land Quality Section.

NOTE: US ARMY CORPS OF ENGINEERS VISITED SITE ON SEPTEMBER 13, 2013 AND DETERMINED THAT THE WETLANDS EXISTED WITHIN THE BOUNDARY OF THE AREA TO BE AFFECTED.  
MINE PERMIT AREA IS WITHIN 4,000 ± ACRES TRACT OWNED BY HILTON PROPERTIES LP PFD 800900-001-001-000

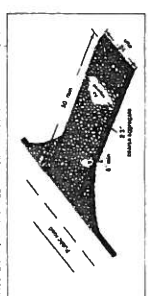
SEE SHEET 2 OF 2 FOR TYPICAL CROSS-SECTION

EXCAVATION DEPTH IN PHASE 1 WILL VARY FROM 36 TO 8'

Groundwater elevations through the mine site are shown in the Report titled "GROUNDWATER MODELING OF POTENTIAL IMPACTS FROM PROPOSED SAND MINE IN THE NORTHWEST SITE AREA 6E - WILMINGTON"

### Construction Entrance Pad

- DESIGN CRITERIA:
- 1. CLEAR THE ENTRANCE AND BUY AREA OF ALL VEGETATION, ROOTS, AND OTHER OBSTACLES MATERIAL AND PROPERTY DAMAGE IT
  - 2. PLACE 18" GRAVEL TO THE SPECIFIC GRADES AND DIMENSIONS SHOWN ON THE PLANS, AND 24" GRAVEL TO THE ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER
  - 3. PROVIDE DRAINAGE TO CARRY WATER TO A NEAREST TRAP OR OTHER SUITABLE OUTLET
  - 4. USE GEOTEXTILE FUNDING BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION
  - 5. LOCATIONS SUBJECT TO BE REPAIRED OR NON-WATER TABLE
- CONSTRUCTION SPECIFICATIONS:
- 1. CLEAR THE ENTRANCE AND BUY AREA OF ALL VEGETATION, ROOTS, AND OTHER OBSTACLES MATERIAL AND PROPERTY DAMAGE IT
  - 2. PLACE 18" GRAVEL TO THE SPECIFIC GRADES AND DIMENSIONS SHOWN ON THE PLANS, AND 24" GRAVEL TO THE ENTRANCE AND EXIT AREA, WHICHEVER IS GREATER
  - 3. PROVIDE DRAINAGE TO CARRY WATER TO A NEAREST TRAP OR OTHER SUITABLE OUTLET
  - 4. USE GEOTEXTILE FUNDING BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION
  - 5. LOCATIONS SUBJECT TO BE REPAIRED OR NON-WATER TABLE
- MAINTENANCE:
- 1. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT AND MINIMIZE EROSION FROM LEAVING THE PAD FULLY EXPOSED TO THE ELEMENTS
  - 2. REPAIR ANY DAMAGE TO THE PAD WITHIN 24 HOURS OF NOTIFICATION
  - 3. REPAIR ANY DAMAGE TO THE PAD WITHIN 24 HOURS OF NOTIFICATION



ADJACENT PROPERTIES	
PID	OWNER
1. 800174-001-001-001	Norfolk Southern, Inc.
2. 800174-001-001-002	Norfolk Southern, Inc.
3. 800174-001-001-003	Norfolk Southern, Inc.
4. 800174-001-001-004	Norfolk Southern, Inc.
5. 800174-001-001-005	Norfolk Southern, Inc.
6. 800174-001-001-006	Norfolk Southern, Inc.
7. 800174-001-001-007	Norfolk Southern, Inc.
8. 800174-001-001-008	Norfolk Southern, Inc.
9. 800174-001-001-009	Norfolk Southern, Inc.
10. 800174-001-001-010	Norfolk Southern, Inc.
11. 800174-001-001-011	Norfolk Southern, Inc.
12. 800174-001-001-012	Norfolk Southern, Inc.
13. 800174-001-001-013	Norfolk Southern, Inc.
14. 800174-001-001-014	Norfolk Southern, Inc.
15. 800174-001-001-015	Norfolk Southern, Inc.
16. 800174-001-001-016	Norfolk Southern, Inc.
17. 800174-001-001-017	Norfolk Southern, Inc.
18. 800174-001-001-018	Norfolk Southern, Inc.
19. 800174-001-001-019	Norfolk Southern, Inc.
20. 800174-001-001-020	Norfolk Southern, Inc.

PROPERTIES 1 THROUGH 15 ARE ADJOINING EXISTING GRAVEL ROAD TO HWY 133

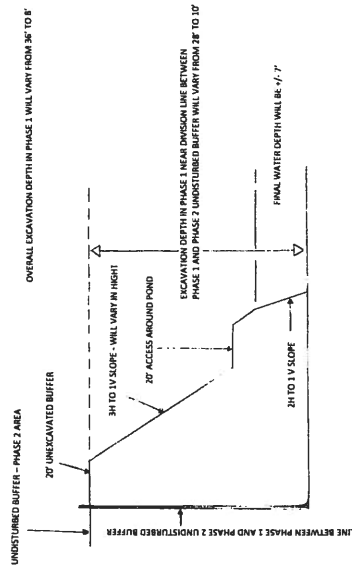
CATEGORY	AFFECTED ACREAGE
TOTALS: SEDIMENT FIELDS	0.00
WETLANDS	0.00
PROCESSING AREA / ADJ. ROADS	0.00
OTHER UNEXCAVATED BUFFERS	5.40
TOTAL PERMITTED	5.40
64.97 MORE OR LESS	

LEGEND	
PERMIT BOUNDARY	---
PERMIT PROPERTY BOUNDARY	---
WETLAND	~~~~~
WETLAND BOUNDARY	---
WETLAND LINE	---
WETLAND BOUNDARY	---

HILTON PROPERTIES, LP  
MODIFICATION OF MINING PERMIT  
HILTON PROPERTIES MINE - PERMIT NO. 65-35  
NEW JARVIS COUNTY

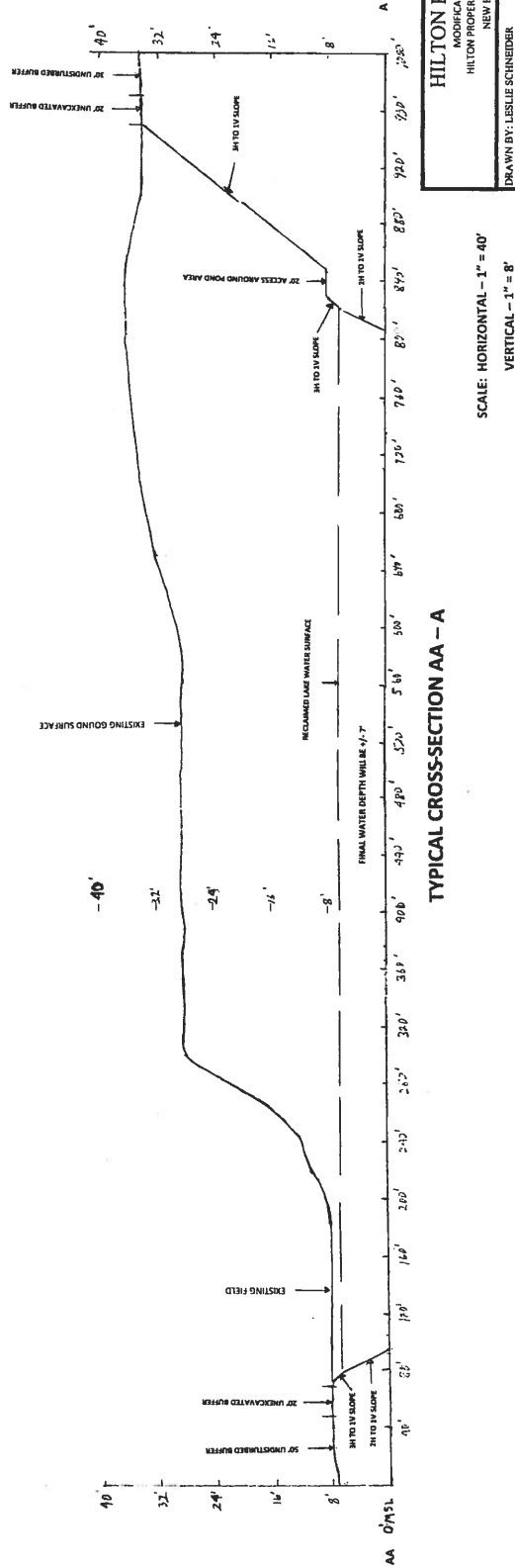
DRAWN BY: LESLIE SCHNEIDER  
DATE MAP COMPLETED: NOVEMBER 25, 2013  
SCALE: 1"=200' (UNLESS OTHERWISE NOTED)  
REVISIONS: 1-19-2015 HIL  
1-19-2015 HIL

WILLIAMS  
Environmental & Geological Services, PLLC  
2000 Westwood Drive - Suite 100  
Raleigh, NC 27601 (919) 876-6200



NOT TO SCALE  
CROSS - SECTION ADJACENT TO DIVISION LINE  
BETWEEN PHASE 1 AND UNDISTURBED BUFFER PHASE 2

NOTE: THE SOUTH SIDE (A) OF THE TYPICAL CROSS-SECTION AA - A WILL APPLY ALONG THE SOUTH SIDE OF THE PHASE 1 MINE AREA. THE HEIGHT OF THE FINAL EXCAVATED SLOPE WILL VARY ACCORDING TO THE ELEVATION OF THE EXISTING EXCAVATED SLOPE. THE EXCAVATED SLOPE WILL VARY FROM 3H TO 1V TO THE SOUTH SIDE WHERE THE 30' UNDISTURBED BUFFER AND THE 20' UNEXCAVATED BUFFER EXISTS.



SCALE: HORIZONTAL - 1" = 40'  
VERTICAL - 1" = 8'

TYPICAL CROSS-SECTION AA - A

<b>HILTON PROPERTIES, LP</b> MODIFICATION OF MINING PERMIT HILTON PROPERTIES MINE - PERMIT NO. 65-35 NEW HANOVER COUNTY	
DRAWN BY: LESLIE SCHNEIDER (AS DIRECTED BY JOHN WILLIAMS, P.E., C.E.S.) DATE MAY COMPLETED: NOVEMBER 23, 2013	<b>WILLIAMS</b> Environmental & Geological Services, PLLC 4120 Sedgebrook Drive - Unit 104 Raleigh, NC 27632 (1-800-746-8559)
REVISIONS: 1-18 2015 <i>LS</i> 1-18 2015 <i>LS</i>	SHEET 2 OF 2



Per Record Map

NUMBER	DIRECTION	DISTANCE
L1	N71°18'07"W	120.43'
L2	N40°21'20"W	97.33'
L3	N50°16'23"W	83.57'
L4	N03°39'13"E	94.11'
L5	N27°03'13"W	204.15'
L6	N34°03'13"E	362.85'
L7	N24°48'12"E	378.50'
L8	N37°22'50"E	359.22'
L9	N55°56'24"E	608.32'
L10	N46°20'27"E	508.87'
L11	N38°06'22"E	508.12'
L12	S75°35'07"E	634.56'
L13	S65°34'18"E	1431.17'
L14	S60°45'45"E	464.15'
L15	S29°14'15"W	74.45'

Hilton Properties Limited Partnership  
Balance of 4100 ± acre tract.  
Zoned RA  
PID= R00900-001-001-000

63.02 Acres  
more or less  
Zoned RA

General Electric Company  
1422 S. Highway 1  
Zoned I-2 (Industrial District)  
PID= R01700-001-001-000

- PRELIMINARY MAP -  
Not for recording,  
conveyances or sales.



Scale 1" = 200'

This document was originally issued and  
sealed by Emmett S. Raynor, PLS L-2521  
on 10.17.2012. This media shall not  
be considered a certified document.

Emmett S. Raynor, PLS L-2521  
265 East Connecticut Avenue  
Southern Pines, NC 28387  
Office (910) 295-1703

Notes: This map is not prepared for recording  
in accordance with GS 47-30.  
Area by coordinate method.  
Contours interval of two feet. LIDAR data from  
NCDOT database (New Hanover Co.) overlaid on NC Grid.  
The property shown herein does in part lie within the 'AE'  
FEMA designated flood hazard area. Base Flood Elevation = 7'.  
Subject property is currently zoned RA.



SITE

Vicinity Map - Not to Scale  
Legend:  
IPF= Iron Pipe Found  
IRF= Iron Rod Found  
ISF= Iron Stake Found  
CMF= Concrete Monument Found  
IRS= Iron Rod Set  
PP= Power/Utility Pole  
MH= Sewer Manhole  
WM= Water Meter  
F= Fire Hydrant  
S/T= Sewer Tap

Reference: Book 2211 Page 685  
New Hanover County Registry

Hilton Properties Limited Partnership  
Balance of 4100 ± acre tract.  
Zoned RA  
PID= R00900-001-001-000

DATE	APPROVED BY	PROJECT	Plot of Survey of	SHR NAME	SUR NO
10.17.12	Emmett S. Raynor, PLS L-2521	63.02 Acres	A part of the 4,100± Acre Tract		
			Cape Fear Township, New Hanover County,		
			West of Castle Hayne, North Carolina		