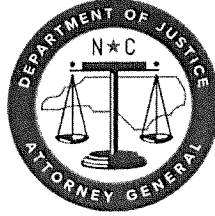


JOSH STEIN  
ATTORNEY GENERAL




REPLY TO:  
MARY L. LUCASSE  
(919) 716-6962  
[MLUCASSE@NCDOJ.GOV](mailto:MLUCASSE@NCDOJ.GOV)

## Memorandum

**TO:** Coastal Resource Commissioners

**CC:** Candice Young, President, Board of Directors, The Riggings Homeowners, Inc.  
Braxton Davis, Director of DCM

**FROM:** Mary Lucasse   
Special Deputy Attorney General and CRC Counsel

**DATE:** January 31, 2018

**RE:** **The Riggings HOA 2017 Annual Report (CRC-18-09)**

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The Commission required an Annual Update on alternative solutions to address erosion at the Riggings in the Final Agency Decision issued December 11, 2015 conditionally granting The Riggings Homeowners Inc.'s (HOA) request for a variance relating to sandbags. The Final Agency decision provides factual and procedural information about erosion and sandbags at site. The first Annual Update was provided to the Commission in 2016 and was discussed by the Commission at its February 8, 2017 meeting. Following that meeting, the Commission sent a Response to the HOA by letter dated March 7, 2017. In the 2017 Annual Update, the HOA responded to the issues raised by the Commission. The Division of Coastal Management provided written comments on the 2017 Annual Update. The purpose of requesting the HOA to provide an annual update is, in part, to allow the Commission to have ongoing discussions with the HOA and to proactively consider methods of addressing erosion at the Site (other than sandbags).

**Recommendation:** Following discussion of the 2017 annual Update and DCM's comments, determine whether the Commission would like to request additional information or suggest the HOA take additional steps to proactively consider possible ways to address erosion at the Site.

Attachment A - Commission's March 7, 2017 letter to HOA  
Attachment B - The 2017 Annual Update submitted by the HOA  
Attachment C - DCM's comments on the 2017 Annual Update



**STATE OF NORTH CAROLINA**  
**DEPARTMENT OF JUSTICE**

**JOSH STEIN**  
**ATTORNEY GENERAL**

P.O. BOX 629  
RALEIGH, NC 27602

REPLY TO: MARY L. LUCASSE  
ENVIRONMENTAL DIVISION  
TEL: (919) 716-6962  
FAX: (919) 716-6767  
mlucasse @ncdoj.gov

March 7, 2017

Riggings Homeowners, Inc.  
Paul Derek Jarrett, Registered Agent  
Premier Management Company  
2018 Eastwood Road  
Wilmington, NC 28403

*Certified Mail, Return Receipt Requested*

**Re: Commission's Response to Annual Update (2016) submitted pursuant to  
CRC-VR-15-08**

Dear The Riggings Homeowners, Inc.:

Thank you for sending Mr. Sampson as your representative to the February 8, 2017 meeting of the North Carolina Coastal Resources Commission ("Commission"). The Commission greatly appreciated your willingness to participate in a discussion regarding The Riggings Homeowners, Inc.'s ("The Riggings") December 11, 2016 Annual Update and the Division of Coastal Management ("DCM") Response dated January 25, 2017 regarding erosion impacting the Riggings which has led to the use of temporary sandbag structures on the property. The purpose of the discussion was to provide the Commission with the opportunity to proactively make suggestions and recommendations to the Riggings on methods of addressing erosion at the Site (other than the use of temporary sandbags) before the sandbags are required to be removed in 2020. During the discussion, the Commission made the following suggestions:

- The Riggings should make a written request to the U.S. Army Corp of Engineers and explore whether the segment of beach in front of The Riggings' property could be included in future beach nourishment projects;
- The Riggings should approach the NC Department of Natural and Cultural Resources ("NCDNCR"), the State agency responsible for the Natural Heritage Program Area, and New Hanover County and request information as to what limitations, if any, result from the 1982 designation of the Fort Fisher Coquina Outcrop Natural Area in the North Carolina Registry of Natural Heritage Areas and the inclusion of the Coquina Natural Area in the May 2003 Natural Area Inventory of New Hanover, County. In particular, The Riggings should inquire whether the Natural Heritage Program and New Hanover County's designation of the area would have an impact on beach nourishment at the site. If necessary, The Riggings could request relief from these designations to allow beach nourishment at the site;

**Riggings Homeowners, Inc.**  
**Paul Derek Jarrett, Registered Agent**  
**May 7, 2017**  
**Page 2 of 2**

- The Riggings should consider further study by coastal geologists or engineers to solicit suggestions for possible approaches to address erosion at the site;
- The Riggings should consider initiating a scoping meeting with DCM, NCDNCR, and other resources agencies to solicit their current concerns about beach nourishment along the Riggings beach that may cover the coquina outcroppings and to explore other options to address erosion at the site.

The Commission respectfully requests that any information learned by The Riggings in exploring the suggestions and recommendations set forth above be provided to the Commission in the 2017 Annual Update.

Since The Riggings periodically comes before the Commission in quasi-judicial proceedings the Commission avoids exchanging information about The Riggings and associated issues that might ultimately be considered outside of the official record in such proceedings. Thank you for understanding the limitations that proceedings such as a possible future request for a variance from the Commission's sandbag rules may place on direct communications with Commission members. You are always welcome to provide information to the Commission through undersigned counsel with copies of those communications provided to DCM. Please feel free to contact me by letter or email with a shown copy to DCM if you have any questions regarding this letter. Note that if you are working on technical or scheduling issues with DCM or other state agencies you are welcome to contact them directly.

Sincerely,

signed electronically  
\_\_\_\_\_  
Mary L. Lucasse  
Special Deputy Attorney General and  
Counsel for the Coastal Resources Commission

cc: Ted Sampson, US Mail and electronically at [tedsr@sampsoncontracting.com](mailto:tedsr@sampsoncontracting.com)  
Frank D. Gorham, III, electronically  
Christine A. Goebel, Esq., electronically  
Braxton Davis, electronically  
Angela Willis, electronically

◆ RIGGINGS HOMEOWNERS INC ◆  
1437 South Fort Fisher Blvd  
Kure Beach, NC 28449

Date: December 5, 2017

ANNUAL UPDATE ON ALTERNATIVE SOLUTIONS TO  
ADDRESS EROSION AT THE RIGGINGS 2017

This annual report is in response to the recommendation by the Coastal Resources Commission's (CRC) Variance order issued on December 11, 2015 seeking alternative solutions for erosion.

At the February 8th, 2017 CRC meeting, our representative reported that Chairman Gorham commented that the inclusion of the Riggings shoreline within the Area South portion of the Carolina Beach nourishment project could be an alternative to the use of sandbags for erosion protection. He questioned the significance of this shoreline having been included in the North Carolina Registry of National Heritage Areas. Christy Goebel and Braxton Davis of the North Carolina Division of Coastal Management (DCM) stated that it was not known whether this precluded beach nourishment in that area.

According to the Army Corp of Engineers, listing on this **voluntary** program of the NC Registry of National Heritage Areas, which was put in place on February 6th, 1982, is the reason for stopping nourishment short of the Coquina rock outcropping to the north of the Riggings. We contacted the North Carolina Heritage Program and asked if this does in fact prevent being nourished. Our research continues with this question.

We have been in contact with Jim Medlock the project manager for the Wilmington District of the US Army Corps of Engineers inquiring about getting on the 2018/2019 nourishment program for the Carolina Beach and Area South /Kure Beach project. We have been told it is too late to get on this coming nourishment program. The basis for this determination is described in the Carolina Beach and Vicinity-Area South Portion NC Design Memorandum Supplement and Draft Final Environmental Impact Statement dated January 1993. We have submitted a FOIA request for this Impact Statement so we can better understand what we need to do and what agencies we need to contact to get on the next nourishment program.

Mr Medlock informed us that: "to be included in the nourishment would require Federal and non-Federal funding of a new cost shared feasibility study that would reformulate the Kure Beach portion of that project including, at a minimum, reevaluation of the entire project's benefits, costs, and environmental acceptability. Upon completion of the feasibility study, a new project Federal construction authorization would be required followed by the appropriation of Federal funds, with non-Federal funds, to continue to perform periodic nourishment of the revised project. The time needed for this effort from beginning to end would not be completed quickly and would be subject to the availability of Federal and non Federal funds. Also, the cost sharing sponsor for the study can only be a public entity - town, county or state. A private entity like the Riggings Homeowners Association could not be the cost sharing sponsor".

Mr Medlock also stated: "Since the shoreline in front of the Riggings is not part of the federally authorized project, it cannot be included in a subsequent periodic nourishment contract until a cost-shared feasibility study is completed."

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Federal sponsor has been completed and a Federal construction authorization has been received". A feasibility study would need to also include the town of Kure Beach and New Hanover County.

Another question to Mr. Medlock was:

Can you clarify whether The Riggings shoreline was at one time ever included in the Area South nourishment project?

If never included, do you know why it was excluded or have documentation stating this?

If it was previously included, prior to 1993, can you tell us why it was removed? We did not receive a direct answer to our question instead a FOIA request was submitted on our behalf. Mr. Medlock stated that our question would be answered in this report that contained documents related to the Federally authorized project at Kure Beach.

We also asked if the Corps has a comprehensive monitoring program post nourishment to look at the effects of nourishment on beach, organisms, population and structures. We have not received an answer to this question.

Kure Beach Mayor (at that time) Emilee Swearingen was contacted about getting on the nourishment program starting 2018. She referred us to John Batson. We then contacted

John Batson, the Kure Beach building inspector and CAMA representative. His response was the following, "Around a year ago, we met with Ted Sampson, who requested the meeting on behalf of the Riggings to explore a nourishment idea. Bottom line, in order to include the Riggings in the project, environmental and engineering studies would have to be made, our current project would get dissolved, and a brand new project would have to be introduced to the US Congress for approval.

Given the fact that our current project is effective until 2047, I highly doubt the Town would be interested in taking this gamble, especially because we are already struggling to get the funding to take care of the project we have now".

We corresponded with three people in the North Carolina Registry of National Heritage Program several times to see if being on this voluntary program affects the beach area in front of The Riggings from being nourished. From the map they supplied it appears to extend north of the Riggings in front of the Ocean Dunes Complex, part of which is a nourished area and also has many coquina rock outcroppings. To date we have not received a direct answer to this direct question but they are continuing to look into our question for an answer. They recommended that we contact the Division of Marine Fisheries, as the custodian of the property, and signatory to the voluntary agreement. We contacted Anne Deaton from this department and she said that it does not specifically state that being on the National Heritage Program prevents nourishment. It is a collaboration of the many regulatory agencies that determine this. She referred us to Doug Huggett, the permit coordinator from the DCM for further information. We are waiting on his reply.

Stated in the Constitution of North Carolina, Article XIV Section 5 is the following:

"It shall be the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivisions to acquire and preserve park, recreational, and scenic areas, to control and limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this State its forests, wetlands, estuaries, beaches, historical sites, open lands, and places of beauty".

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This is what The Riggings is attempting to do, protect our beach and our property. Reported in THE 2001 SESSION OF THE 2001 GENERAL ASSEMBLY OF NORTH CAROLINA was the following:

"Charles B. Chestnutt of the Planning Division, Civil Works of the U.S. Army Corps of Engineers. Mr. Chestnutt indicated that the Corps does not have the same authority to study the performance of its coastal projects as it does the performance of its flood control projects. The advent of Hurricanes Bertha and Fran gave them an opportunity, however, to go in and assess the storm protection offered to the beach communities that had engineered beaches and dune systems. The Corps of Engineers went in and analyzed the wind, wave and storm surge conditions that prevailed on the North Carolina coast during the storms. In particular they looked at the stretch from Kure Beach to North Topsail Beach. Although conditions throughout the area were similar, Wrightsville Beach and Carolina Beach suffered the least erosion-based damage with the **unnourished beaches suffering the greatest amount of erosion damage**".

A report was prepared as a product of the National Shoreline Management Study (NSMS) looking at The Corp of engineers and shore protection study of 2003 and in this is stated:

"The collected data indicate that as miles of coastal area protected by Corps shore protection projects increase, coastal damages due to hurricanes per mile of coastal project and damages from hurricanes per U.S. citizen both decrease."

Protection of property and prevention of erosion by nourishment has not only protected beaches for residents but also for visitors to our great state, and has reduced costs associated with storm damage and flood damage to property. It is in the public interest to preserve and restore the beaches on the coast, and in the best interest of the town to assist with nourishment and include the area in front of the Riggings. Not only do vacationers that rent at Ocean Dunes and the Riggings Complexes use our beach but visitors to the Fort Fisher State Park use our beach. Visitors and vacationers to Kure Beach contribute to our local economy and tax base and of course use our beaches. Refer to the Beach and Inlet Management Plan (BIMP) of 2016 to see how much Kure Beach, of which the Riggings is a part, impacts and contributes to the state and local economy.

Construction of a dune, berm, and or beach, together with periodic nourishment, is the primary engineering solution to provide hurricane and storm damage reduction benefits according to the Corps Shore Protection Program..." Artificial dune and/or beach protection measures are simply replications of the comparable natural features and rely on the high wave-energy dissipation characteristics of such features as the means of protecting coastal developments". This has been the general consensus over and over in various studies and reports from numerous regulatory agencies, not just from the Corps of Engineers.

The Department of Environmental and Natural Resources (DENR) recommends strategies that will protect, conserve and restore our valuable resources.

Stated in the: Storm Reduction Project, Design Memorandum Supplement and Draft Final Environmental Impact Statement, Carolina Beach & Vicinity- Area South Portion NC (Kure Beach) report from January 1993 ( authorized by congress in 1962) "project construction will cover 3 ½ miles of shoreline between the town of Carolina Beach to the north end of Fort Fisher Historic site to the south" It was also stated that there were no known areas of controversy or unresolved issues at this time but also stated potential areas of controversy could be the project's impacts on Coquina rock outcrops at the southern terminus of the

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project. Also noted in this report are the coquina rock outcroppings with pictures which show in front of the Ocean Dunes Complex not the Riggings. This is also where the transition zone is for nourishment.

The plan recommended by this study is the National Economic Development (NED) plan. This plan would benefit our area socioeconomically. Kure beach has undergone a population growth and vacationers continue to visit. More beach available to tourists as well as residents is not only attractive and inviting but is a boost to our economic growth. If we do not have a beach we will not have tourists and our local economy will suffer.

In the Coastal Erosion Study dated February 12, 2016 by the Division of Coastal Management (DCM) under \*Benefits of Beach Nourishment Primarily\* it states: "Benefits associated with beach nourishment include storm damage reduction and enhanced recreational/tourism opportunities. A wide beach not only acts as a direct buffer to absorb wave energy during storm events, but it also provides a reservoir of sand that may be transported to an offshore bar". "Coastal engineers report that reductions in wave height and wave forces due to relatively small additional beach widths are surprisingly large. In Florida and North Carolina, several studies have documented that damage to structures after hurricanes was significantly reduced in areas that had wider beaches".

Stated in the Storm Reduction report Final Environmental Impact Statement:

"A notice of intent to prepare a Draft Environmental Impact Statement (DEIS) was published on May 15 1991, in the Federal Register inviting comments from all agencies, organizations and interested parties. A draft Environmental Impact Statement, dated October 1992, was filed with the US EPA agency on November 6, 1992. The DEIS was circulated for a 45 day public review period ending on December 21, 1992.

There are no known areas of controversy or unresolved issues at this time". See attached letter from Mr. Daniel Small.

### **SUMMARY**

Nourishment is the most environmentally acceptable means of shoreline erosion control and the preferred approach to erosion at the local, state and federal level.

The Riggings is actively pursuing a beach nourishment project. We have been unsuccessful in getting on the upcoming 2018/2019 project. We continue to research the path in this direction and contact the various regulatory agencies to find out how we can be added to the next program.

We also seek to clarify if being on the National Heritage Program does prevent us from being nourished.

Nourishment to the rock revetment at Fort Fisher would be compatible with the success of the nourishment project for Carolina and Kure Beach area if it were continued in front of the Riggings and to the rock revetment at Fort Fisher.

Stated in our previous annual letter, During and/or subsequent to the previous nourishment projects in Area South, the USACE pledged to conduct additional studies to assess the impact of the Project on Coquina outcroppings. These will be obtained and reviewed to further assess the potential of seeking nourishment of The Riggings' shoreline when they are available.

We will continue to reach out to the various state and local agencies to gather information on what is the next step in adding the area south of the transition zone to the next nourishment program.

Researching nourishment has proved to be complex and a learning experience.

Answers to our questions are not always forthcoming. At the writing of this letter we have not heard back from all sources (there are many) we contacted to gather information. Not everyone knows what the answer is so we are referred to

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**PRELIMINARY**  
**FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Carolina Beach and Vicinity - Area South Project**  
**Beach Erosion Control and Hurricane Wave Protection**  
**New Hanover County, North Carolina**

The responsible lead agency is the U.S. Army Engineer District, Wilmington

**ABSTRACT:** The Carolina Beach and Vicinity - Area South project, New Hanover County, North Carolina, was authorized as part of the Carolina Beach and Vicinity, North Carolina, project under the Authority of the Flood Control Act of 1962. The Wilmington District has investigated public concerns in the study area related to greater protection from hurricane waves and flooding so as to reduce their detrimental effects, and control of beach erosion to arrest recession of the shoreline. Alternatives investigated consisted of berms and dunes of various dimensions. The no-action alternative was also considered. The National Economic Development (NED) plan consists of a 25-foot-wide crest width artificial dune with a vegetated crest elevation of 13.5 feet above National Geodetic Vertical Datum (NGVD), (approximately sea level), and a storm berm approximately 50 feet wide at 9 feet NGVD. Project construction will cover approximately 3 1/2 miles of shoreline between the Town of Carolina Beach to the north and the Fort Fisher Historic Site to the south. The source of beachfill for project construction and maintenance is located in two offshore borrow sites located approximately 1 to 2 miles offshore in the Atlantic Ocean.

A Draft Environmental Impact Statement (DEIS) was filed with the U.S. Environmental Protection Agency on November 6, 1992, and was circulated for a 45 day public review period ending on December 21, 1992. Comments received on the DEIS are included in Attachment E of this document.

SEND YOUR COMMENTS TO THE DISTRICT ENGINEER BY THE DATE INDICATED ON THE REPORT TRANSMITTAL LETTER.

If you would like further information on this statement, please contact:

Mr. Daniel Small  
Environmental Resources Branch  
U.S. Army Engineer District, Wilmington  
P.O. Box 1890  
Wilmington, North Carolina 28402-1890

Phone: (919) 251-4730

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DCM-MHD CITY

Attach: Rigging's 2017 Annual Report



someone else. We will continue to gather information to build our file towards a positive outcome for nourishment of the Riggings.

The Riggings takes these important steps of finding and implementing an alternative solution for erosion control very seriously. We will continue our efforts in the upcoming year as we explore yet more possibilities.

Respectfully submitted,  
The Riggings Board of Directors.

**PLEASE NOTE:**

\*\*Project drawings or graphs used by the various agencies in their reports were not included in this letter since many of them were already included in our 2016 letter.

\*\*Contact The Riggings president Candice Young if you have any questions  
jimcan1@nycap.rr.com

**\*\*\*\*\*Ted Sampson and Yogi Harper are no longer The Riggings representatives and are not to receive any further information or correspondence concerning the Riggings. Please notify us of any requests to obtain information of The Riggings by them.**

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DCM- MHD CITY



ROY COOPER  
*Governor*

MICHAEL S. REGAN  
*Secretary*

WILLIAM F. LANE  
*General Counsel*

To: Coastal Resources Commission

CC: Candice Young, President of the Riggings Homeowners, Inc.  
Riggings Homeowners, Inc. c/o Registered Agent Paul Derek Jarrett

From: Christine A. Goebel, Assistant General Counsel

Date: February 1, 2018

Re: DCM Response to Riggings HOA's December 5, 2017 Annual Update (CRC-18-09)

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On December 5, 2017, the Division of Coastal Management (“DCM”) received the Second Annual Update on Alternatives Solutions to address Erosion at the Riggings 2017 report (“2017 Update”) from The Riggings Homeowners, Inc. (“HOA”) through its President, Candice Young. Like the 2016 Update, the 2017 Update was required as a condition of the December 2015 Order of the Commission granting a variance authorizing the use of sandbags by the HOA for an additional five years. Last year, in response to DCM’s receipt of the 2016 Update, DCM prepared a written response for the Commission, at their request. Following a discussion of the 2016 Update at the Commission’s January 2017 meeting, the Commission offered a suggested action plan through a March 7, 2017 letter to the HOA. The following is DCM’s response to the 2017 Update, including review, written comments, and attachments.



[Coastal Resources Commission]

[February 1, 2018]

Page 2

**DCM STAFF RESPONSE TO THE RIGGINGS' 2017 ANNUAL UPDATE  
ON ALTERNATIVE SOLUTIONS  
TO ADDRESS EROSION AT THE RIGGINGS**

In its March 7, 2017 suggested action plan, the Commission asked the HOA do the following:

- Make a written request to the Corps and explore whether the segment of beach in front of The Riggings' property could be included in future beach nourishment projects;
- Approach the NC DNCR to find out what limitations, if any, result from the 1982 designation of the Fort Fisher Coquina Outcrop Natural Area, if the designation would impact the possibility of beach nourishment at the area, and if relief from the designation is possible;
- Consider further study by coastal geologists or engineers for possible approaches to address erosion at the site;
- Consider initiating a scoping meeting with DCM, DNCR, and other resource agencies about their concerns about nourishment that may cover the coquina and to explore other options to address erosion at the site.

DCM will address the amount to which the 2017 Update met these suggestions of the Commission, other concerns DCM has with the HOA's progress, and the results of DCM's own investigative efforts.

**1. Corps Project**

As an initial concern, it was unclear to DCM if the contacts referenced in the 2017 Update were new contacts or reports of earlier contacts, and whether the quotes were based on written responses not attached, from recorded conversations, or from memory. It would be helpful to have the contacts clarified by the HOA in future updates.

While the HOA did not make a written request to the Corps to be included in the nourishment project, they were told by Mr. Medlock of the Corps that they could not be included in the current project without a new feasibility study, as the beach by the HOA was not included in the 1993 FEIS. Additionally, approval by Congress for the inclusion of this area would be required, as well as the designation of a public entity to be the cost-sharing sponsor.

[Coastal Resources Commission]

[February 1, 2018]

Page 3

HOA representatives also had a conversation with former Kure Beach Mayor Emilee Swearingen, who indicated her understanding that if the current project were proposed, the current project “would get dissolved, and a brand-new project would have to be introduced to the US Congress for approval.” Ms. Swearingen indicated this was the basis for her conclusion that the Town would not be interested in risking the current project which she understands to be approved through 2047.

Following the receipt of the 2018 Update, DCM contacted representatives of the Corps to better understand these statements. Based on this contact, DCM agrees that it is unlikely that the southern end of Kure Beach, at least in the short-term, could successfully be included in the existing federal project. This is largely because of current funding levels for such projects, the eventual need for Congressional authorization, and because the environmental concerns of federal and state resource agencies, like those raised previously about the coquina rock formations, remain. However, it may be possible for the Town to pursue a more limited feasibility study addressing only the proposed addition of a southern extension to the federal project. Such a study would not automatically end the current project or invalidate the prior authorization, project feasibility study, or environmental reviews. Still, while not impossible, the addition of the southern end of Kure Beach to the federal project is unlikely in the short-term and uncertain in the long-term.

## **2. Natural Area Designation**

The HOA corresponded with representatives of DNCR’s Natural Heritage Program (“NHP”). The NHP staff supplied a map which showed the designated area from the Riggings north to the Ocean Dunes Condo area, some of which is also within the nourishment area. This Fort Fisher Coquina Outcrops Natural Area was designated in 1982, after it was proposed for inclusion on the registry by the Division of Marine Fisheries. DMF Staff act as the volunteer custodians of the Area. DMF Staff indicated that the designation does not automatically prevent nourishment.

Following the receipt of the 2017 Update, DCM Counsel contacted NHP representatives and received a copy of the Nature Preserves Act and the associated Administrative Rules, a copy of the 1982 Agreement between DMF and NHP designating the Natural Area, and a copy of a 2000 letter from Colonel DeLony, District Engineer of the Corps to Former Congressman Mike McIntyre [already included in the Riggings Record]. A review of the Act and rules shows that it is a voluntary registry process, and while there is a process for removal from the registry [15A NCA 13H], it is granted only when a site “no longer meets the criteria for registration as set forth” in the rules. DCM believes that the habitat values and the geological uniqueness of the outcroppings first recognized in 1982 likely remain.

The 2000 letter from the Corps to Congressman McIntyre indicates that the reasons for not including the southern end of Kure Beach in the project was two-fold. The uniqueness of the

outcroppings as well as their habitat value were one reason the area was not included and this was based on the designated status of the outcroppings, as well as comments from resource agencies at the time. The other reason given for not including the outcroppings was the HOA's location at a "point...whereby any beach fill would be exposed to wave actions and longshore currents that would quickly erode unless protected. . ."

This information indicates that while listing on the Registry is voluntary, and there is a process for removal, it would not be likely to qualify for removal as the habitat and geologic value of the outcroppings has not likely changed since 1982. While removal from this program could be attempted, the site's de-designation as a Natural Heritage Area would not necessarily alleviate the environmental concerns of resource agencies, including the Corps.

### **3. Further Study by Coastal Geologists or Engineers**

It does not appear the HOA requested any further study of options at the site by coastal geologists or engineers.

### **4. Resource Agency Scoping Meetings**

While the HOA made some contacts with resource managers, it does not appear the HOA requested a scoping meeting with all relevant resource managers present.

### **5. Recommendations**

Based on a review of the 2017 Update, as well as information gathered through DCM's own efforts, DCM suggests the following as topics for discussion by the Commission or further examination by the Riggings.

- Further study of the site by coastal geologists or engineers, including their suggestions for possible approaches to take at the site including, but not limited to trucking-in sand for a site-specific nourishment designed to avoid impacts to the coquina.
- Seek a scoping meeting with relevant resource managers to solicit their current concerns about possible trucking-in sand along the beach in front of the HOA that might avoid covering the outcroppings.
- Examine of the potential for structure relocation and provide information collected on structure relocation, including current cost estimates.

February 25, 2000

Project Management Branch

Honorable Mike McIntyre  
House of Representatives  
Washington, DC 20515

Dear Mr. McIntyre:

At the request of Ms. Mary Ellen Simmons of your Wilmington, NC, office, we are pleased to provide you with more details and background information on the Carolina Beach and Vicinity – Area South Portion Hurricane Wave and Shore Protection Project at Kure Beach North Carolina and why it did not include the Riggings Condominiums.

The project, as authorized by Section 203 of the Flood Control Act of 1962, Public Law 87-874, starts at the southern town limits of Carolina Beach, North Carolina, and extends south for 18,000 feet. The last 500 feet of the southern end of the project makes a transition from the full project width back to the existing shoreline. The project ends approximately 600 feet north of the northern most building of the Riggings.

The primary reason that the project stops short of the Riggings is due to the intertidal coquina rock outcropping. The coquina outcrops are the only natural marine rock exposures on the entire North Carolina beach system and the most northern outcrops along the eastern coast of the United States. Destruction of this habitat would result in the loss of the only coquina outcrops found along the North Carolina beachfront and one of only approximately three such beach outcrops found along the Atlantic coast of North America. The rock outcropping has been declared a natural heritage area by the North Carolina Natural Heritage Program and burying them was not an acceptable alternative. While it is true that the outcropping has been covered by sand, this happened as a natural occurrence rather than through a purposeful act of man.

A second reason for the project not extending past the Riggings is that they are located on a "point" whereby any beach fill would be exposed to wave actions and longshore currents that would quickly erode unless protected by some type of jetty, sea wall, or groin which is unacceptable to the State of North Carolina. The State has a ban on construction of hardened structures in surf zones. The seawall constructed at Fort Fisher was done so under an exception granted by the State due to the Fort Fisher National Historic Site being endangered by the eroding beachfront.

-2-

However, based on an earlier request by you during a visit with me on January 12, 2000, we performed a quick analysis of the engineering and economic feasibility of extending the project to include protection of the Riggings. We also met with the environmental agencies on February 9, 2000, to discuss extending the project and their earlier concerns with covering the coquina rock outcropping. The environmental agencies are still opposed to intentionally covering the rock outcropping as they were during the initial evaluation of the project. Our engineering and economic analysis resulted in a project with a first cost of approximately \$9,000,000 and a benefit to cost ratio of 0.77 to 1. Based on this information, our recommendation to you in my letter of February 10, 2000, was that shore protection for the Riggings not be pursued.

Again, we are please to provide you with additional information regarding this matter. If I can be of any further assistance, please let me know.

Sincerely,

James W. DeLony  
Colonel, U.S. Army  
District Engineer

Copy Furnished:  
Honorable Mike McIntyre  
152 North Front Street, Room 208  
Wilmington, North Carolina 28401

BCF:  
CECW  
CESAD-PM  
CESAW-DX/Burch  
CESAW-PM-C/McIntosh  
CESAW-TS-EC/Jarrett  
CESAW-DP/Tickner  
CESAW-PM-P/Aiken

NORTH CAROLINA  
REGISTRY OF NATURAL HERITAGE AREAS

Letter of Intent and Agreement to Register and Protect a Natural Area in  
the Management of the Department of Natural Resources and Community Development

Whereas the State of North Carolina is the owner of an area known as Fort Fisher Coquina Outcrop Natural Area, managed by the Department of Natural Resources and Community Development, Division of Marine Fisheries and consisting of 27 acres, further described on the attached maps, and/or survey descriptions which are a part of this agreement, and located in New Hanover County.

And Whereas this area possesses the following natural values, justifying its recognition by the State as an outstanding part of the natural heritage of North Carolina:

The Fort Fisher coquina outcrops are the only natural marine rock exposures on the entire North Carolina Beach system. The coquina rock is composed of shell fragments, marine and estuarine fossils, and other sediments cemented together by calcite. This mixture indicates that the rock was formed in a depositional environment in late Pleistocene time and was composed of rivermouth, inlet, or estuarine deposits. The potholes, cracks, and abrasions bowls of the coquina exposed during low tide offer prime habitat for various species of marine algae, sessile animals, and other forms of marine life. The tidepools serve as an exceptional educational resource for observation of nearshore marine plant and animal life. Numerous fishes and invertebrate fauna are found on the submerged zone of the coquina outcrops.

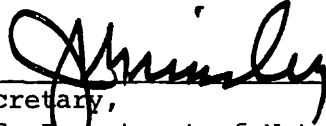
It is therefore agreed between the parties whose names are affixed below that Fort Fisher Coquina Outcrop Natural Area shall be entered on the official North Carolina Registry of Natural Heritage Areas on the 6<sup>th</sup> day of February, 1982.

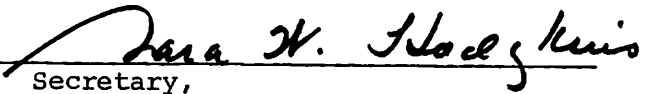
It is understood that this agreement involves no change of administrative authority, but simply expresses the sincere intentions of the Department to refrain from making or permitting changes that negatively affect the natural values for which this area was registered within the boundaries outlined on the attached maps and/or survey descriptions. Specifically, the Department agrees to:

Maintain the property in its natural condition for educational, scientific, recreational, and aesthetic purposes, without alteration or disturbance of habitats, plants or animal populations, except as may be necessary and appropriate for management and use of the area for the foregoing purposes.



The Fort Fisher Coquina Outcrop Natural Area is hereby registered as a North Carolina Natural Heritage Area.

By:   
Secretary,  
N.C. Department of Natural Resources  
and Community Development  
Post Office Box 27687  
Raleigh, North Carolina 27611

  
Secretary,  
N.C. Department of Cultural Resources  
109 East Jones Street  
Raleigh, North Carolina 27611

Date: 2/6/82

Date: 1/4/82

STATEMENT OF RECOMMENDATION

Designation of a Natural Heritage Area

It has been shown and documented that the area known as Fort Fisher Coquina Outcrop, in New Hanover County, North Carolina, which is further described in attached statements and attached map and/or survey description, has a natural value of statewide significance and is recommended to the North Carolina Natural Heritage Registry.

Charles E. Roe  
Coordinator, Natural Heritage Program

January 27, 1982  
Date

James D. Matten  
Chairman, Natural Areas Advisory  
Committee

Jan. 29, 1982  
Date

James Stevens  
Director, Division of Parks and  
Recreation

Feb. 3, 1982  
Date

Jay Langfeld  
Assistant Secretary, Department of  
Natural Resources and Community  
Development

Feb. 5, 1982  
Date

Secretary, North Carolina Department of Natural Resources and Community Development approves this area for registration.

W. M. Miller  
Secretary, Department of Natural  
Resources and Community  
Development

Feb. 6, 1982  
Date