

**VIA FEDEX**

**U.S. Army Corps of Engineers**

Regulatory Branch  
100 Penn Square East  
Wanamaker Building  
Philadelphia, PA 19107  
(215) 656-6725

ADDRESS Ocean and Coastal  
Consultants, Inc.  
35 Corporate Drive,  
Ste 1200  
Trumbull, CT 06611  
TEL 203.268.5007  
FAX 203.268.8821  
WWW ocean-coastal.com  
DATE 2/24/2015  
PAGE 1/1  
REF MADN  
PROJECT NO 214078

Attention: Frank Cianfrani – Chief, Regulatory Branch

**Stone Harbor Maintenance Dredging  
USACE Philadelphia District, Individual Permit Application**

Mr Cianfrani:

On behalf of the Borough of Stone Harbor, Ocean and Coastal Consultants, Inc. (OCC|COWI) is pleased to submit the enclosed individual permit application package for review. The applicant seeks to permit periodic maintenance dredging activities within the waterways of Stone Harbor in Cape May County. All dredged material will be placed upland in New Jersey. OCC|COWI is concurrently applying for a NJDEP permit application. A copy of that application package is enclosed for your reference and records.

Please feel free to contact the undersigned via phone at (856) 821-4131 or email at [madn@cowi.com](mailto:madn@cowi.com).

Very truly yours,

Matthew Dalon  
Project Manager

Enclosure: Permit Application Package (hard copy and CD)  
NJDEP Individual Permit Application (CD)

Copy: Jill Gougher – Stone Harbor (CD)  
NJDEP ODST (CD)

FEBRUARY 2015  
BOROUGH OF STONE HARBOR

# STONE HARBOR MAINTENANCE DREDGING

USACE INDIVIDUAL PERMIT APPLICATION

**COWI**



ADDRESS COWI Marine North America  
35 Corporate Drive  
Suite 1200  
Trumbull, CT 06611

TEL 203-268-5007

FAX 203-268-8821

WWW [cowi-na.com](http://cowi-na.com)

FEBRUARY 2015  
BOROUGH OF STONE HARBOR

# STONE HARBOR MAINTENANCE DREDGING

USACE INDIVIDUAL PERMIT APPLICATION

PROJECT NO. 214078  
DOCUMENT NO.  
VERSION 1.0  
DATE OF ISSUE 25 February 2015  
PREPARED LETO  
CHECKED MADN  
APPROVED MADN

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1      ENG Form

02/24/2015

**U.S. ARMY CORPS OF ENGINEERS  
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**  
33 CFR 325. The proponent agency is CECW-CO-R.

OMB APPROVAL NO. 0710-0003  
EXPIRES: 28 FEBRUARY 2013

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

**PRIVACY ACT STATEMENT**

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

**(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)**

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
--------------------	----------------------	------------------	------------------------------

**(ITEMS BELOW TO BE FILLED BY APPLICANT)**

5. APPLICANT'S NAME First - Middle - Last - Company - The Borough of Stone Harbor E-mail Address - gougherj@shnj.org			8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Matthew Middle - Last - Dalon Company - Ocean and Coastal Consultants COWI E-mail Address - madn@cowi.com		
6. APPLICANT'S ADDRESS: Address- 9508 Second Ave City - Stone Harbor State - NJ Zip - 08247 Country - USA			9. AGENT'S ADDRESS: Address- 20 E Clementon Rd, Suite 201N City - Gibbsboro State - NJ Zip - 08026 Country - USA		
7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence      b. Business      c. Fax 609.368.6811			10. AGENTS PHONE NOs. w/AREA CODE a. Residence      b. Business      c. Fax 856.821.4131		

**STATEMENT OF AUTHORIZATION**

11. I hereby authorize, Matthew Dalon to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

  
 SIGNATURE OF APPLICANT      2/18/15  
 DATE

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

12. PROJECT NAME OR TITLE (see instructions) Stone Harbor Maintenance Dredging Project	
13. NAME OF WATERBODY, IF KNOWN (if applicable) Great Channel	14. PROJECT STREET ADDRESS (if applicable) Address Bayfront between 80th and 119th Street City - Stone Harbor State- NJ Zip- 08247
15. LOCATION OF PROJECT Latitude: +N 39 03'21.5" Longitude: +W -74 45'53.4"	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Borough of Stone Harbor Section - Township - Range -	

17. DIRECTIONS TO THE SITE

From the Garden State Park way you will take exit 4B and merge onto 47 East towards Stone Harbor. In 2.6 miles turn right onto Park Blvd. Continue on this route for 0.5 miles and your destination will be dead ahead.

18. Nature of Activity (Description of project, include all features)

The Applicant, Borough of Stone Harbor, is seeking a permit to authorize maintenance dredging of the back-bay lagoons of the Borough of Stone Harbor. The dredge areas extend approximately 2 miles along the west side of Stone Harbor that include the North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay & Access Channel, Sanctuary Bay & Access Channel, Paradise Bay, Stone Harbor Hole & Access Channel. See enclosed project description for additional details.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of this project is to restore the channels to a depth of six (6) feet below Mean Low Water (MLW) plus two (2) feet of allowable over-depth (OD) to allow for the continued safe recreational use of the back-bay waters, and provide access to the Atlantic Ocean from the lagoons. There are no additional, proposed, related activities to be developed as the result of the proposed project. Permits will enable the Borough to conduct periodic maintenance dredging at the Stone Harbor Lagoons over the duration of the permit.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
-------------------------------	-------------------------------	-------------------------------

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres  
or  
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

02/24/2015

24. Is Any Portion of the Work Already Complete?  Yes  No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

 2/18/15  
SIGNATURE OF APPLICANT DATE

\_\_\_\_\_  
SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

## 2 Project Description

The Applicant, Borough of Stone Harbor, is seeking an Individual Permit to authorize routine maintenance dredging within the Borough of Stone Harbor. These areas were previously dredged in 2003 under USACE Permit No. CENAP-OP-R-199901066-24.

Proposed dredge areas include the North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay, Sanctuary Bay, Paradise Bay, Stone Harbor Hole, and access channel along the lagoons, and slips along the waterways. The permit depth for all waters is six (6) feet below Mean Low Lower Water (MLLW) plus two (2) feet of allowable overdepth. The location, area, and proposed depths for each dredge area are identified in the enclosed permit drawing set.

The current dredging demand based on a recent hydrographic survey is 179,000 cubic yards. Following an initial dredging event, Stone Harbor may seek to conduct periodic maintenance dredging events throughout the duration of the permit. The following table is a summary of the estimated initial dredging volume, future dredging volume, and the total requested (projected) permit volume. The intent of providing this information is to project a reasonable approximation of total dredging volume that could be anticipated during the permit authorization period.

Table 1 - Stone Harbor Dredging Permit Volume Summary

Dredge Area	Initial Dredging Volume [cy]	Anticipated Future Dredging Volume [cy]	Total Permit Volume [cy]
North Basin	26,400	32,500	58,900
South Basin	16,000	18,750	34,750
Snug Harbor	19,800	23,750	43,550
Shelter Haven	22,000	25,000	47,000
Stone Harbor	9,900	12,500	22,400
Pleasure Bay	13,800	15,000	28,800
Carnival Bay	17,600	21,250	38,850
Sanctuary Bay	16,500	20,000	36,500
Paradise Bay	11,000	12,500	23,500
Stone Harbor Hole	15,000	18,750	33,750
Access Channel	11,000	12,500	23,500
<b>TOTAL</b>	<b>179,000</b>	<b>212,500</b>	<b>391,500</b>

Proposed dredging methodologies includes a combination of hydraulic and mechanical dredging. Hydraulic dredging will be used to dredge the open water areas and where practicable the slip areas. Where hydraulic dredging is not practicable around the slip areas, the dredged material will be mechanically relocated to adjacent dredge areas that have access for hydraulic dredging.

All dredged material will be hydraulically transported to the Stone Harbor Marina, located adjacent to the North Basin, for dewatering. A submerged pipeline and booster pump, if needed, will be used to transport the hydraulically dredged material. The pipeline will be located along the east side of the great channel. The approximate distance between the dredge areas and the dewatering area is 2 miles.

The dewatering area consist of a paved parking lot and gravel parking lot. The dredged material will be mechanically dewatered either via geotextile tubes or a belt filter press. The material will be dewatered so that the dredged material is suitable for road transportation and that the effluent water meets water quality standards. Existing stormwater drains will be utilized to return the effluent water to the surface waters. To prevent sediment discharges to the surrounding waters, these drains will be protected

by soil erosion and sediment control features to be approved by the Cape May County Soil Conservation District.

After dewatering, the dredge material will then be transported and placed at an upland location approved to receive amended dredged material. Two facilities have been identified for dredged material placement. The Cape Mining and Recycling facility located in Lower Township, NJ will accept dredged material that meets the Residential Soil Cleanup Criteria. The Kinsley Landfill located in Sewell, NJ will accept dredged material that does not meet the Residential Soil Cleanup Criteria. The pending sediment testing results and letters of material acceptance from upland placement facilities will be provided to NJDEP prior to dredging activities.

Prior to subsequent maintenance dredging events, the dredged material will be characterized under procedures of the approved Sampling and Analysis Plan. Testing results and letters of material acceptance from upland placement facilities will be provided to NJDEP prior to dredging activities.

Dredging will require the removal of accumulated bottom sediments which may contain some debris typically encountered during dredging. The debris will be separated from the sediment and appropriately disposed of at approved facilities by the dredging contractor.

### 3 Site Photographs

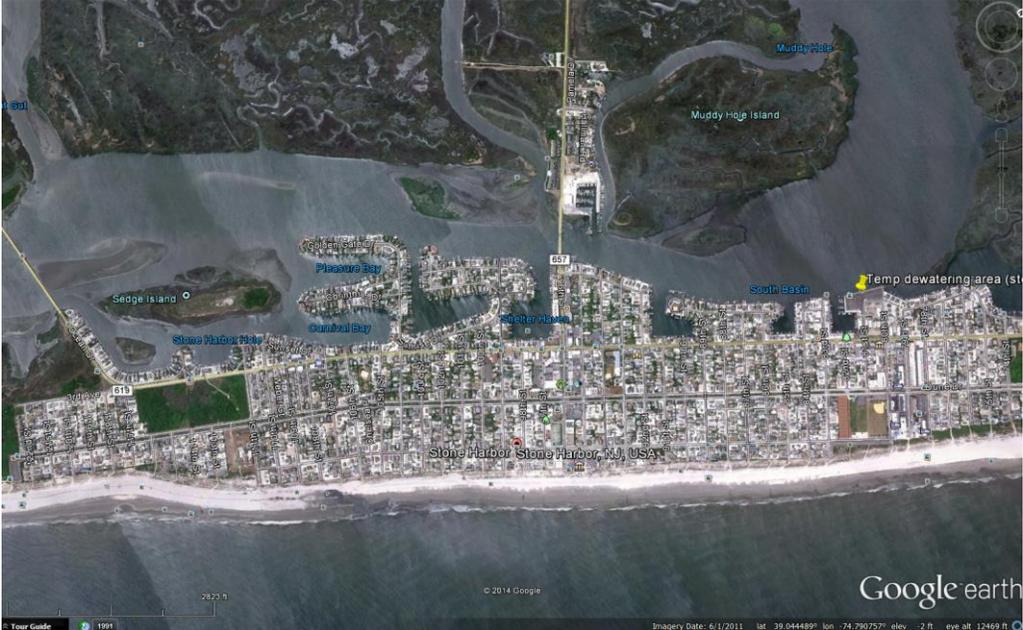


Figure 1: Aerial Photo of Stone Harbor (Photo Courtesy Google Earth).



Figure 2: Aerial Photo of The North and South Basins. Note temporary dewatering area located adjacent to North Basin (Photo Courtesy Google Earth).



Figure 3: Aerial Photo of Snug Harbor (Photo Courtesy Google Earth).



Figure 4: Aerial Photo Shelter Haven and Stone Harbor (Photo Courtesy Google Earth).



Figure 5: Aerial Photo of Carnival Bay and Pleasure Bay (Photo Courtesy Google Earth).



Figure 6: Aerial Photo of Stone Harbor Hole and Paradise Bay (Photo Courtesy Google Earth).

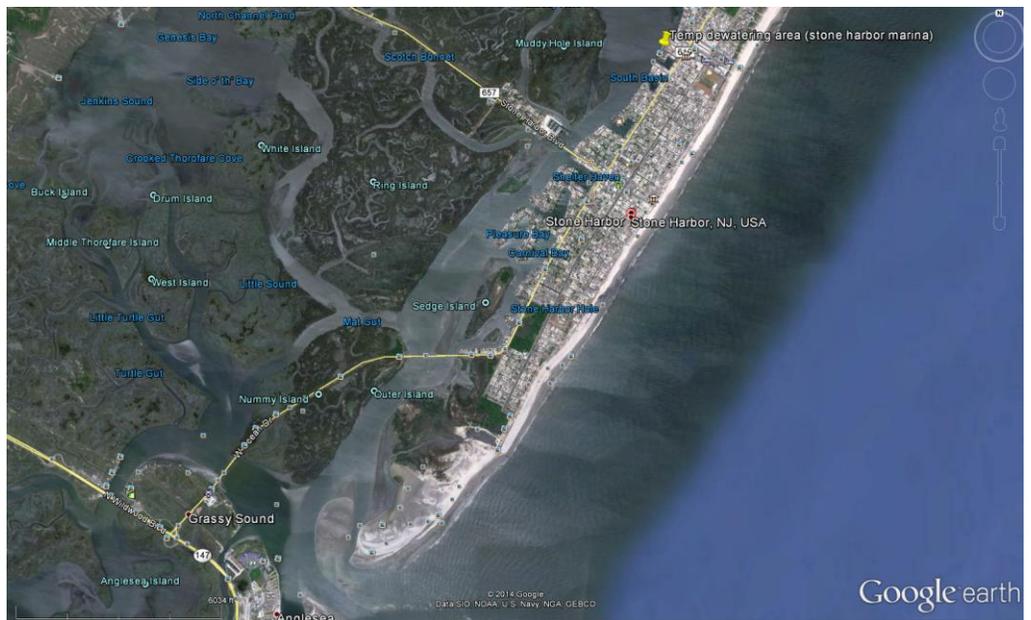
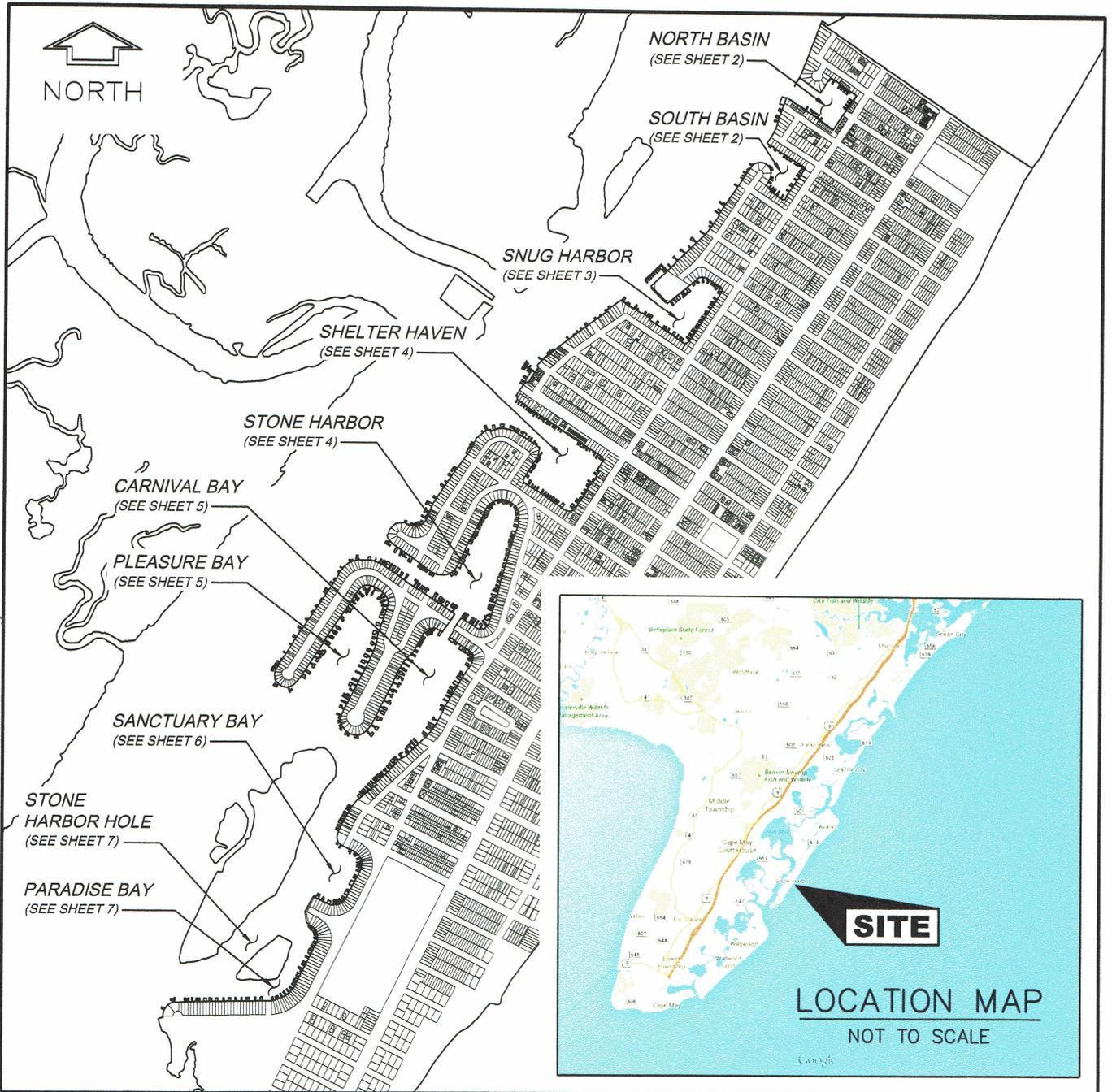


Figure 7: Aerial Photo of Stone Harbor and entrance to Atlantic Ocean (Photo Courtesy Google Earth).

# 4 Permit Drawings



### VICINITY MAP

0 2000 4000 FT.



SCALE 1"=2000'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

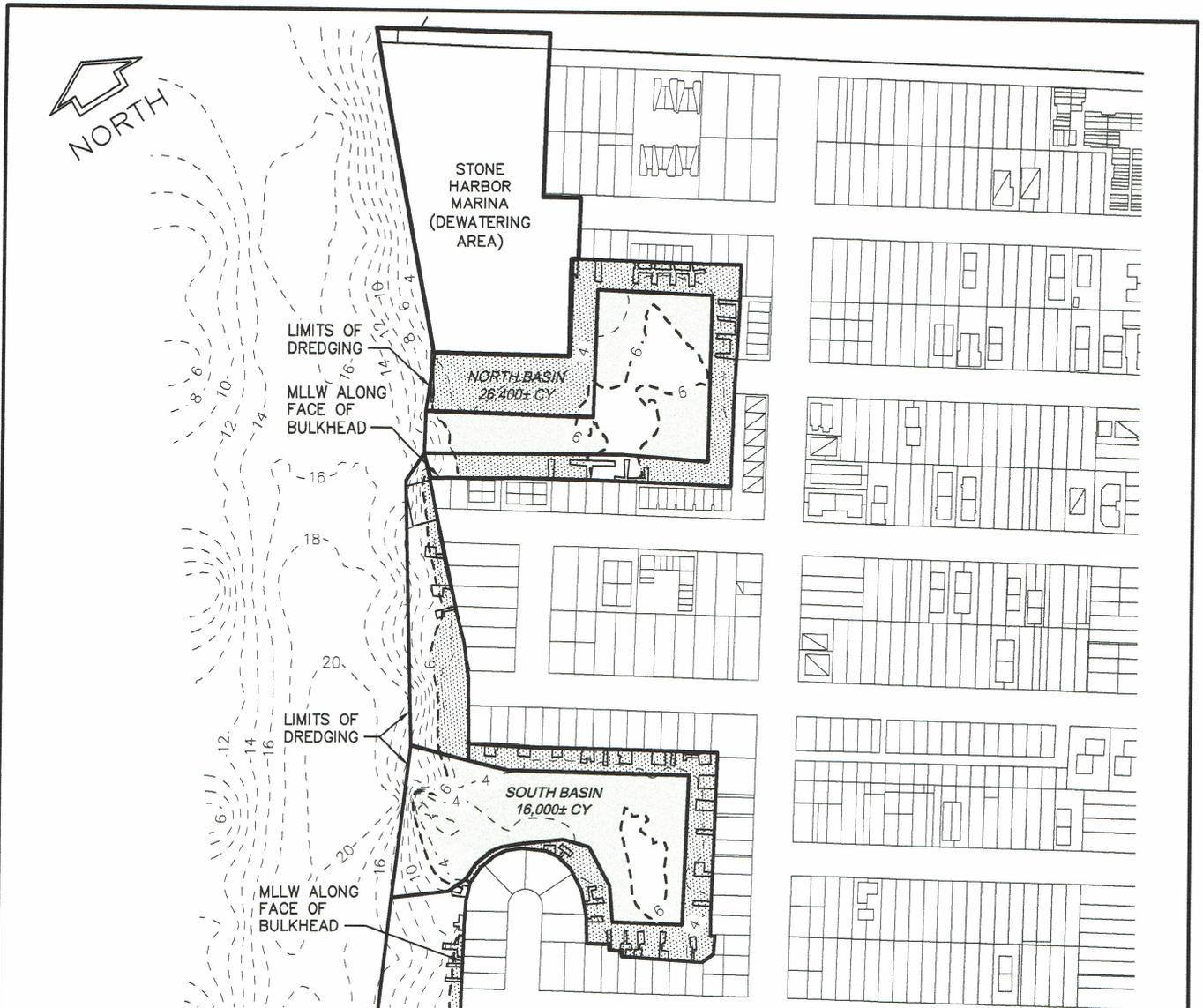
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 1 OF 9



**LEGEND:**

-  STONE HARBOR DREDGE AREA  
(DREDGE TO 6 FT MLLW PLUS 2 FT OD)
-  SLIP DREDGE AREA  
(DREDGE TO 6 FT MLLW PLUS 2 FT OD)

**GENERAL NOTES:**

1. HYDROGRAPHIC SURVEY OF STONE HARBOR LAGOONS COLLECTED BY RICHARD STOCKTON COLLEGE OF NEW JERSEY COASTAL RESEARCH ON 8 MAY 2014 AND CAN ONLY REPRESENT THE CONDITIONS AT THE TIME OF THE HYDROGRAPHIC SURVEY.
2. ALL SIDE SLOPES SHALL BE 1:3 UNLESS ADJACENT TO BULKHEAD.

## NORTH BASIN & SOUTH BASIN

0 300 600 FT.



SCALE 1"=300'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

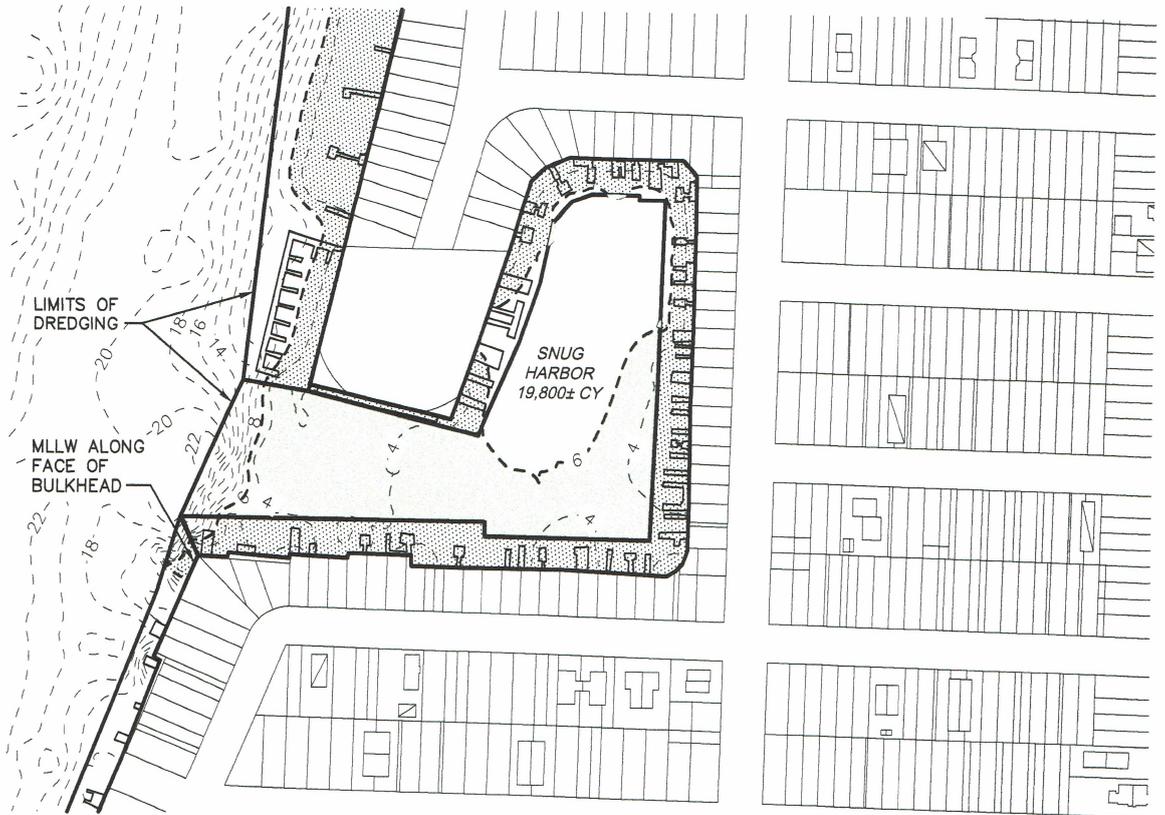
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 2 OF 9



**LEGEND:**

-  STONE HARBOR DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)
-  SLIP DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)

**GENERAL NOTES:**

1. HYDROGRAPHIC SURVEY OF STONE HARBOR LAGOONS COLLECTED BY RICHARD STOCKTON COLLEGE OF NEW JERSEY COASTAL RESEARCH ON 8 MAY 2014 AND CAN ONLY REPRESENT THE CONDITIONS AT THE TIME OF THE HYDROGRAPHIC SURVEY.
2. ALL SIDE SLOPES SHALL BE 1:3 UNLESS ADJACENT TO BULKHEAD.

## SNUG HARBOR

0 300 600 FT.



SCALE 1"=300'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

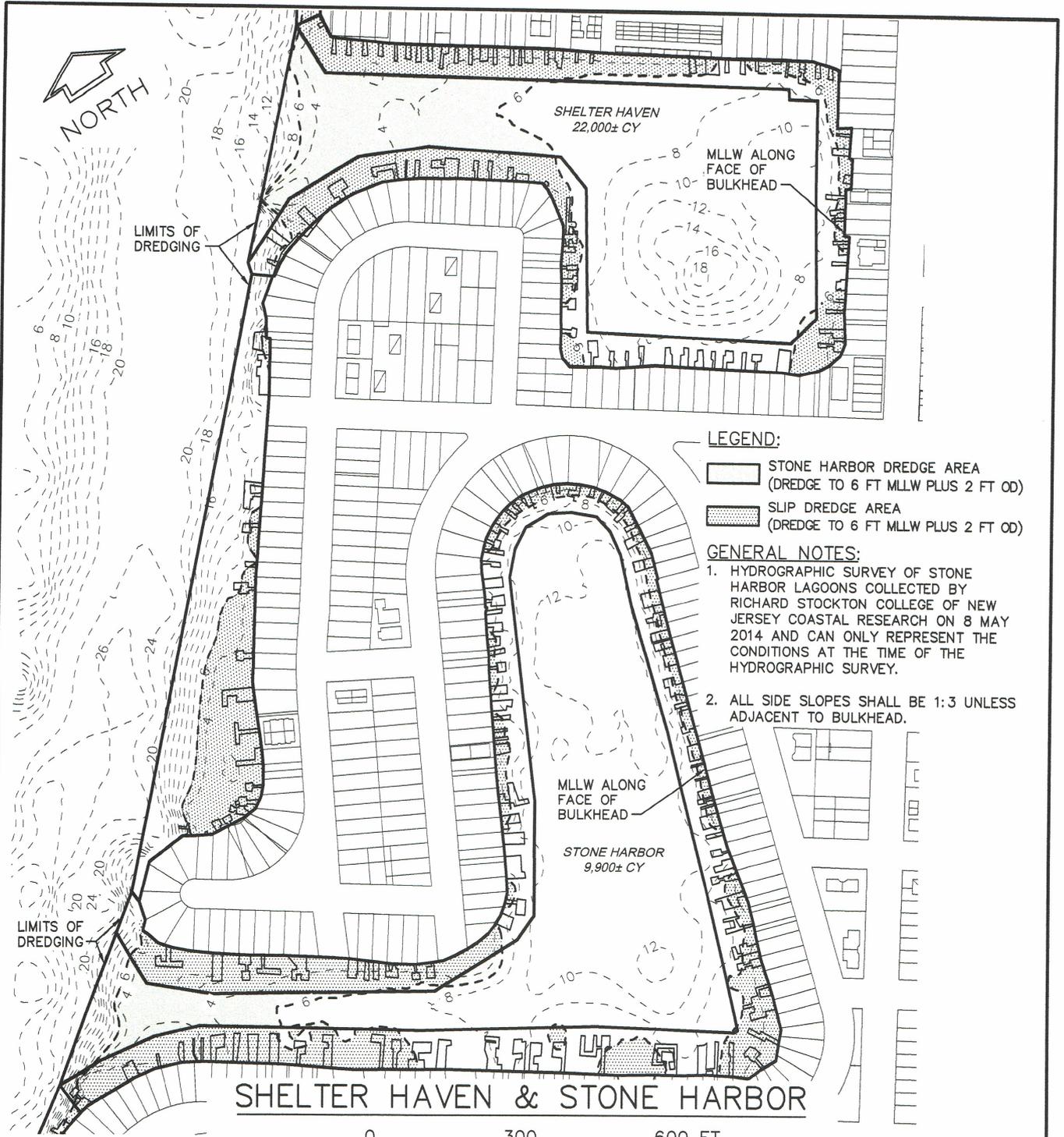
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 3 OF 9



FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

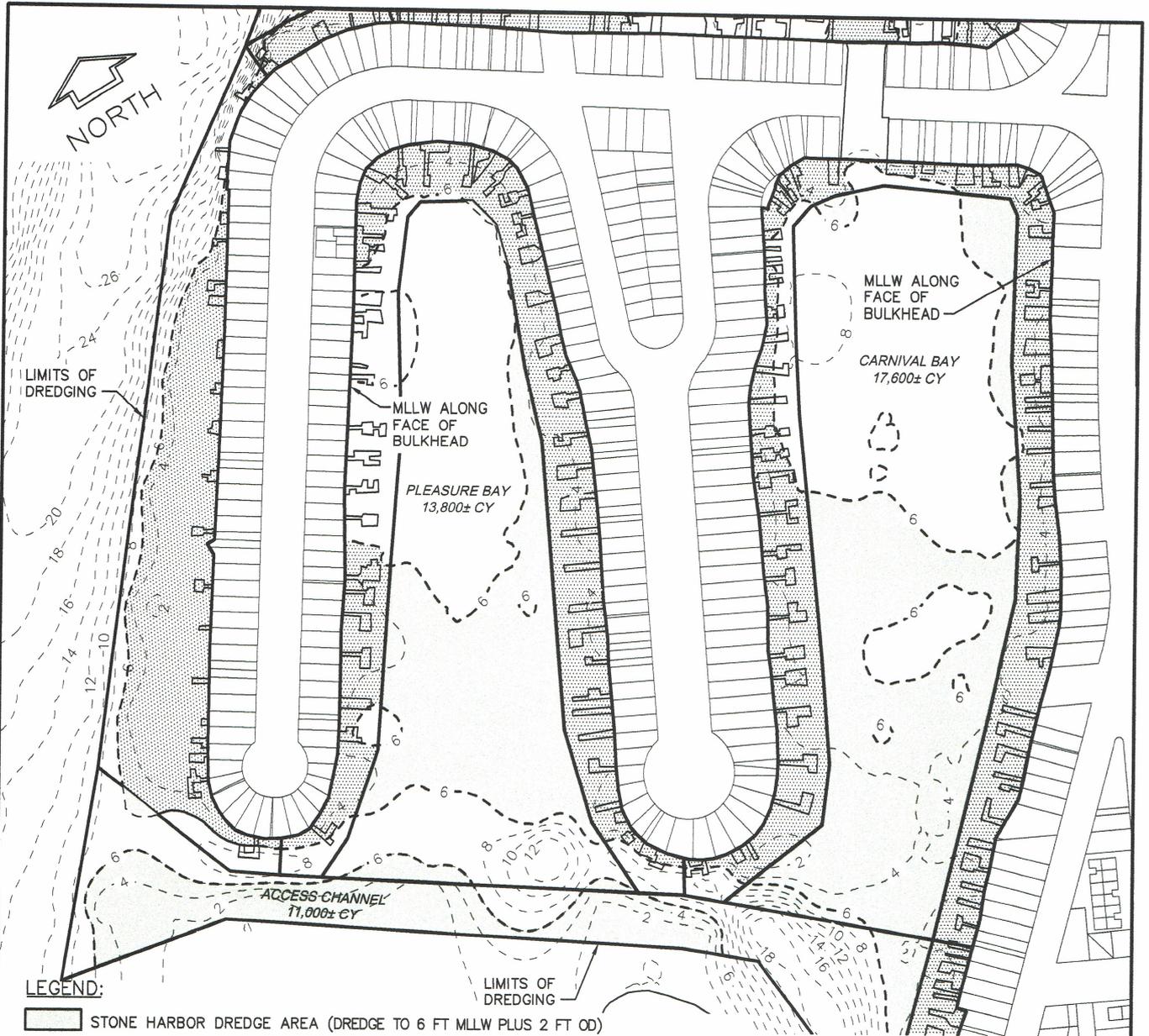
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 4 OF 9



**LEGEND:**

-  STONE HARBOR DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)
-  SLIP DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)

**GENERAL NOTES:**

1. HYDROGRAPHIC SURVEY OF STONE HARBOR LAGOONS COLLECTED BY RICHARD STOCKTON COLLEGE OF NEW JERSEY COASTAL RESEARCH ON 8 MAY 2014 AND CAN ONLY REPRESENT THE CONDITIONS AT THE TIME OF THE HYDROGRAPHIC SURVEY.
2. ALL SIDE SLOPES SHALL BE 1:3 UNLESS ADJACENT TO BULKHEAD.

## PLEASURE BAY, CARNIVAL BAY, & ACCESS CHANNEL

0 300 600 FT.



SCALE 1"=300'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

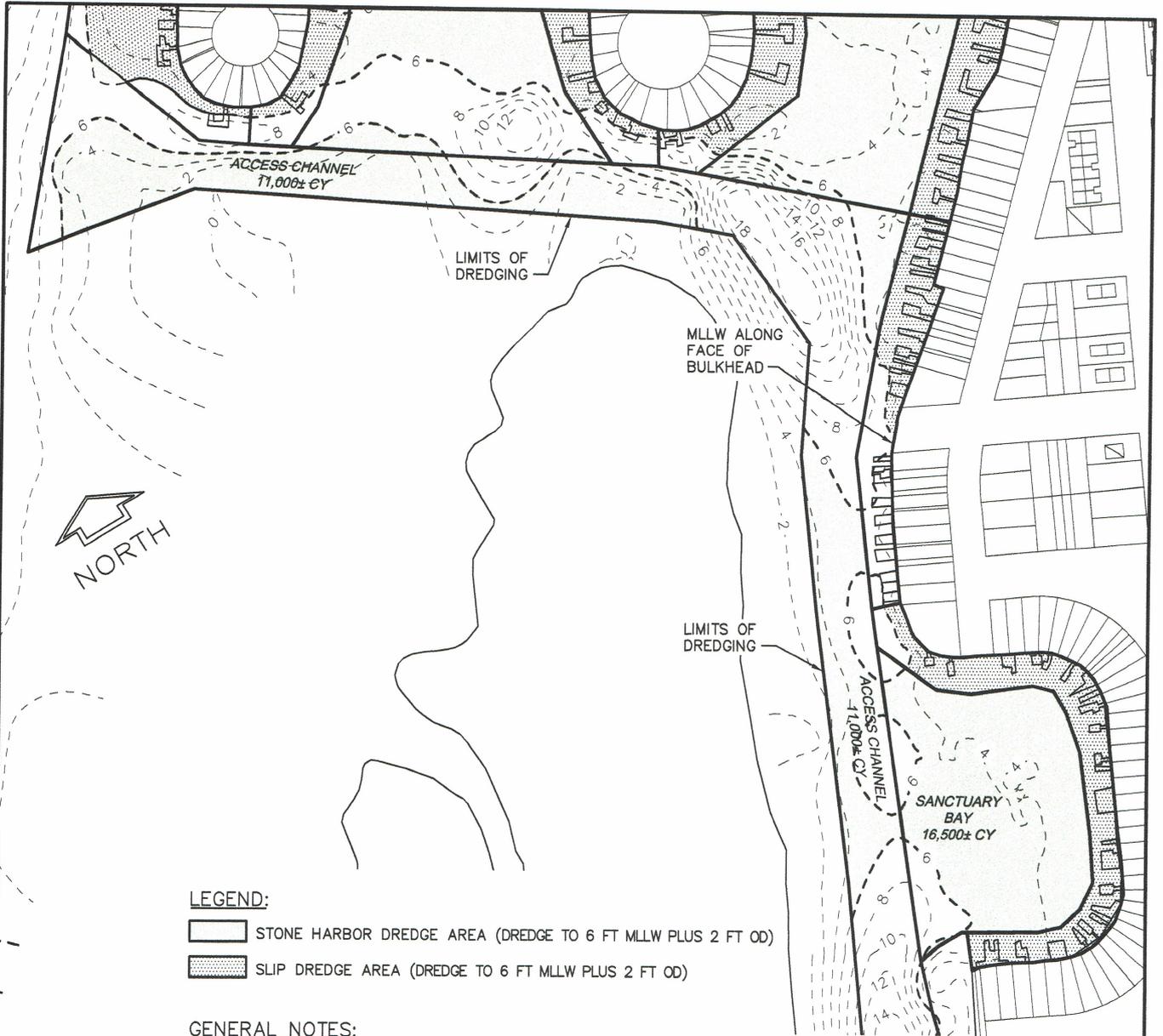
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 5 OF 9



**LEGEND:**

-  STONE HARBOR DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)
-  SLIP DREDGE AREA (DREDGE TO 6 FT MLLW PLUS 2 FT OD)

**GENERAL NOTES:**

1. HYDROGRAPHIC SURVEY OF STONE HARBOR LAGOONS COLLECTED BY RICHARD STOCKTON COLLEGE OF NEW JERSEY COASTAL RESEARCH ON 8 MAY 2014 AND CAN ONLY REPRESENT THE CONDITIONS AT THE TIME OF THE HYDROGRAPHIC SURVEY.
2. ALL SIDE SLOPES SHALL BE 1:3 UNLESS ADJACENT TO BULKHEAD.

## SANCTUARY BAY & ACCESS CHANNEL

0 300 600 FT.



SCALE 1"=300'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

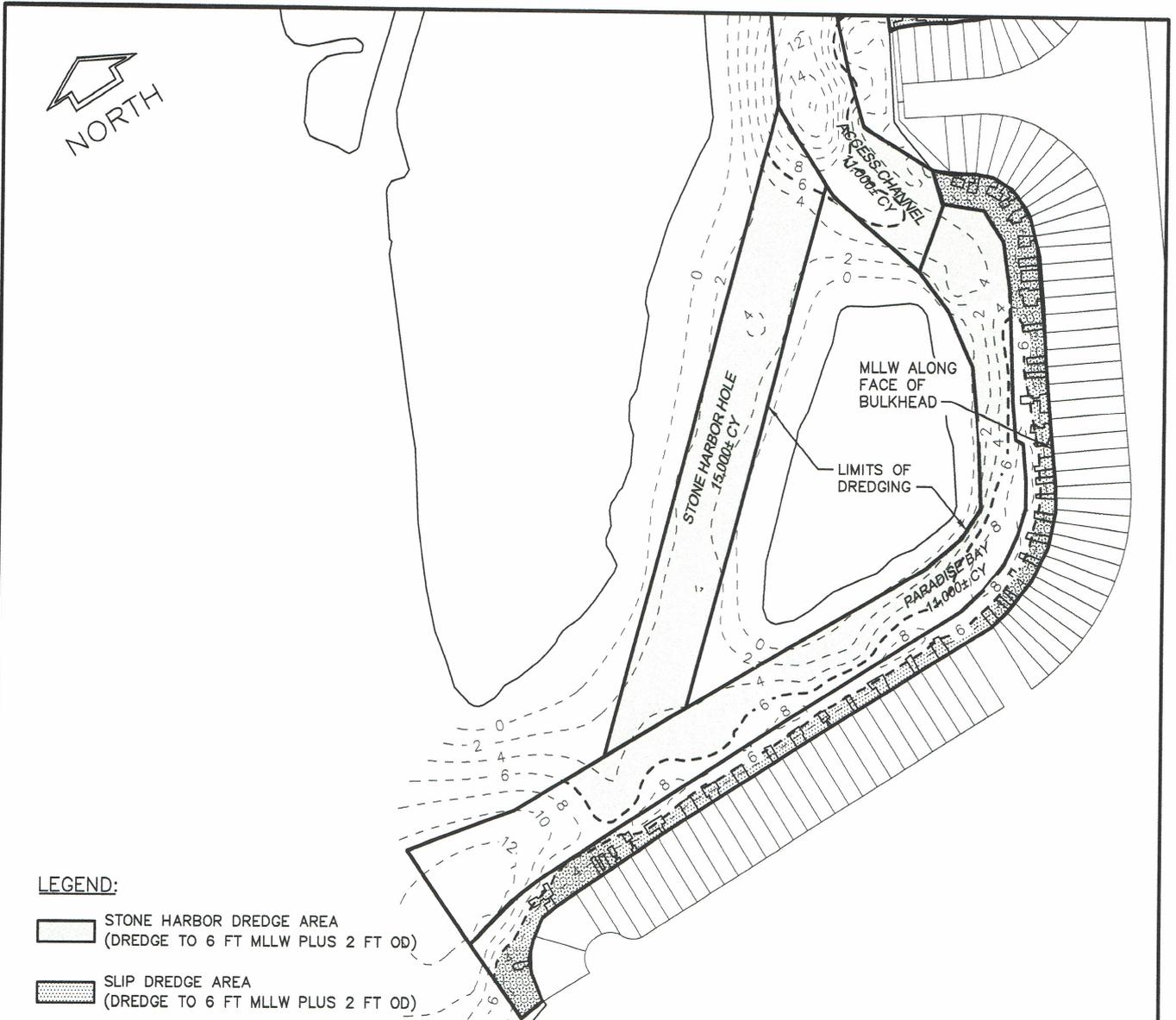
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 6 OF 9



**LEGEND:**

-  STONE HARBOR DREDGE AREA  
(DREDGE TO 6 FT MLLW PLUS 2 FT OD)
-  SLIP DREDGE AREA  
(DREDGE TO 6 FT MLLW PLUS 2 FT OD)

**GENERAL NOTES:**

1. HYDROGRAPHIC SURVEY OF STONE HARBOR LAGOONS COLLECTED BY RICHARD STOCKTON COLLEGE OF NEW JERSEY COASTAL RESEARCH ON 8 MAY 2014 AND CAN ONLY REPRESENT THE CONDITIONS AT THE TIME OF THE HYDROGRAPHIC SURVEY.
2. ALL SIDE SLOPES SHALL BE 1:3 UNLESS ADJACENT TO BULKHEAD.

## PARADISE BAY, STONE HARBOR HOLE, & ACCESS CHANNEL

0 300 600 FT.



SCALE 1"=300'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

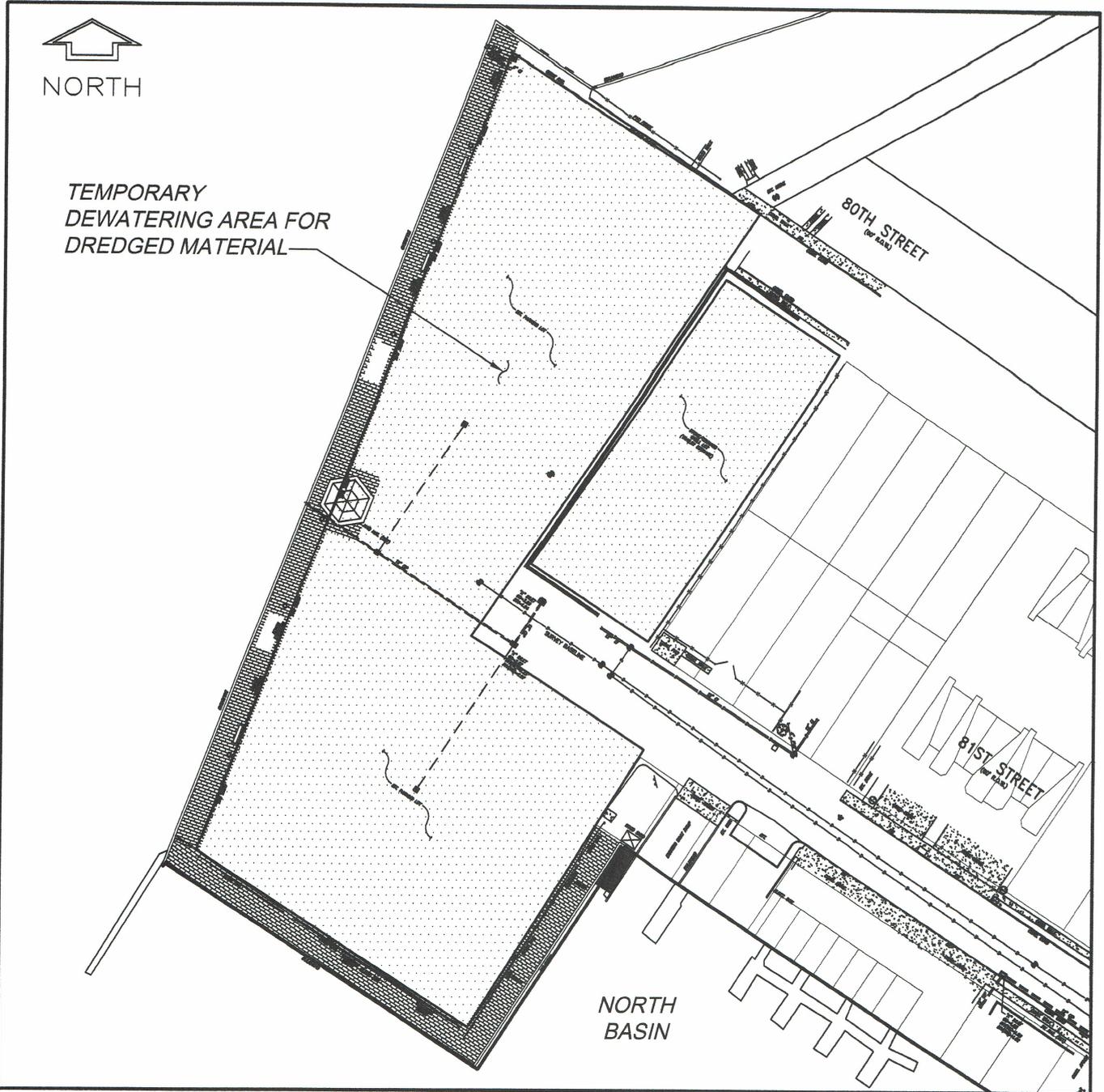
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 7 OF 9



## TEMPORARY DEWATERING AREA

0 100 200 FT.



SCALE 1"=100'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

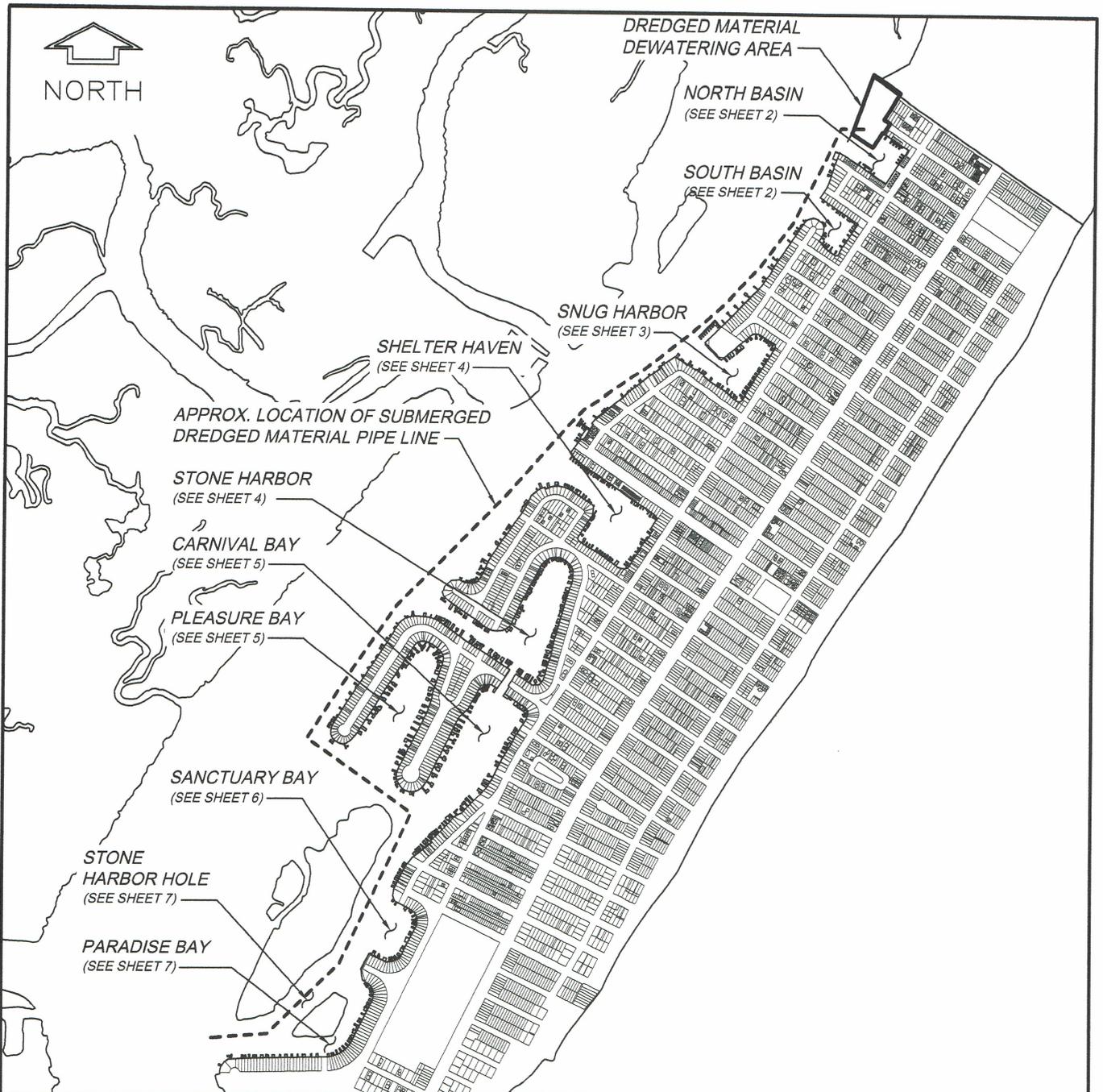
ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY  
APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 8 OF 9



## SUBMERGED PIPELINE LOCATION

0 2000 4000 FT.



SCALE 1"=2000'-0"

FOR PERMIT USE ONLY  
NOT FOR CONSTRUCTION

PURPOSE: MAINTENANCE DREDGING

DATUM: M.L.L.W.

ADJACENT PROPERTY OWNERS:  
SEE APPLICATION

AGENT: OCEAN AND COASTAL CONSULTANTS, INC.

PROPOSED MAINTENANCE DREDGING  
AT STONE HARBOR LAGOONS  
ALONG THE GREAT CHANNEL WATERWAY  
COUNTY OF CAPE MAY  
STATE OF NEW JERSEY

APPLICATION BY: STONE HARBOR

DATE: 1/29/15

SHEET 9 OF 9

## 5 Environmental Questionnaire

ENVIRONMENTAL QUESTIONNAIRE  
FOR CORPS OF ENGINEERS PERMIT APPLICATIONS  
Philadelphia District, Corps of Engineers  
Philadelphia, Pennsylvania 19107  
CENAP-OP-R

INTRODUCTION AND INSTRUCTIONS

The District Engineer is required by law to assess the initial, cumulative, and long-term effects of any proposed permit on all aspects of the environment.

To speed the analysis of the probable impact of the proposed work, each applicant is required to submit appropriate environmental data as part of a permit application. We ask that you provide a thorough description of your proposed project and answer each question as it applies to the work and the results of that work. Complete and accurate answers will prevent unnecessary delays in processing your permit application

Parts I and II will be filled out by all applicants. Part I is self-explanatory. In Part II, the Environmental Impact Checklist, you should indicate the impacts of your project on all aspects of the environment that are listed. Use the space under "Qualifying Remarks" to indicate the specific impacts that your project will have. This may include types of plants or animals affected, specific adverse, beneficial, or mitigative effects, changes to existing conditions, etc. Although space for answers has been provided, you may wish to supply additional information on attached pages. If you do not anticipate an impact on a certain item, simply place a check in the "No" column.

Part III will be filled out by all applicants applying for a permit to perform dredging.

Part IV will be filled out by all applicants applying for a permit to perform filling operations. This includes activities such as filling behind bulkheads.

Refer any questions you may have concerning this supplemental form to the Regulatory Branch at (215) 656-6728.

## PART I

### I. PROJECT DESCRIPTION:

- A. General Site Location: Accurately locate the project site with respect to State, county, or other subdivision, and in relation to streams and rivers.

*This project site is located along the inland waterways of Stone Harbor, Cape May County, New Jersey.*

- B. Specific Site Locations: Completely locate the project site with respect to cove, creek, property owner, plot number, etc.

*There are ten (10) separate proposed dredging locations in this project and are all along the west bank of the Stone Harbor. These locations are as follows: North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay & Access Channel, Sanctuary Bay & Access Channel, Paradise Bay, Stone Harbor Hole & Access Channel. The areas include the slips along and between these waterbodies.*

*See permit drawings for additional details.*

- C. Description of Proposed Action: Carefully describe the action proposed, including the method of construction, equipment, and materials to be used. Details in your description are important. Attach additional sheets if necessary.

*The proposed action consists of maintenance dredging the above-mentioned locations. Dredging will be conducted primarily via a hydraulic dredge. In areas that cannot be accessed by the hydraulic dredge, mechanical methods will be used to relocate accumulated sediments from to the inner areas of the lagoons, from which hydraulic methods can be employed to remove sediment. All dredged material will be hydraulically pumped to the Stone Harbor Marine for dewatering via geotubes. The effluent water will return to adjacent waterbodies. The dewatered dredged material will be truck and placed upland in New Jersey.*

*See enclosed project description for additional details.*

- D. Purpose of Proposed Action: Define the purpose of the proposed structure or work. For example, the purpose of bulk heading may be to stabilize an eroding bank; whereas, the purpose for a pier may be for the mooring of a private boat, for access to a public or private facility, for a marina, or for another purpose.

*The Purpose of this dredging project is to reestablish the original navigable depths of six (6) feet below Mean Low Water (MLW) plus two (2) feet of allowable over depth (OD). Dredging*

*will allow for the continued safe recreational use of the back-bay waters, and provide access to the Atlantic Ocean from the lagoons.*

- E. Submit color photographs of the site, with explanations of the views shown (prints only). Photographs help us to better understand your project. The more photographs you provide, the easier it is to understand and process your application.

*See enclosed site photographs*

**PART II – ENVIRONMENTAL IMPACT CHECKLIST**

ENVIRONMENTAL IMPACT	YES	NO	QUALIFYING REMARKS
<b>A. Physical</b>			
1. Topography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The project involves maintenance dredging, and will restore the previous dredged condition.</i>
2. Geological Elements and Leaching	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Air	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Transportation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Handling of Hazardous Materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Spoil Disposal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Dredged material to be placed upland at an NJDEP approved facility.</i>
7. Sewage and Solid Wastes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>8. Water Resources</b>			
a. Water Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The proposed activities are limited in scope and will not have a significant adverse impact to water quality. It is anticipated that the Department will issue guidelines for conduct of the proposed activity that will further minimize any adverse effects on water quality</i>
b. Hydrography, Circulation, Littoral Drift.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The project involves maintenance dredging, and will restore the previous dredged condition.</i>
c. Ground Water	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

<b>B. Biological</b>			
<b>1. Vegetation</b>			
a. Terrestrial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Aquatic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The proposed activities are limited to maintenance activities and will not have a significant adverse impact to aquatic vegetation.</i>
<b>2. Fish and Wildlife</b>			
a. Mammals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Birds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c. Amphibians	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Reptiles	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e. Fish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The proposed activities are limited to maintenance activities and will not have a significant adverse impact to the natural functioning of marine fish.</i>
f. Shellfish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The proposed activities are limited to maintenance.</i>
g. Invertebrates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Temporary impact on non-mobile invertebrate species during dredging.</i>
<b>3. Rare or Endangered Species</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

ENVIRONMENTAL IMPACT	YES	NO	QUALIFYING REMARKS
C. Cultural			
1. Land Use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Population Density and Trends	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Regional Development	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Historic Places	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Archaeological Sites	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Utilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
8. Transportation Systems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>The project will improve navigability within the project area for the marine transportation network.</i>
9. Recreation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Construction activities are planned during the fall "off-season"</i>
10. Public Health	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

D. Other Factors			
1. Secondary Effects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Controversiality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. Is significant dredging involved?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>There are ten (10) separate proposed dredging locations in Stone Harbor. Dredging operations will reestablish the original six (6) feet below Mean Low Water (MLW) plus two (2) feet of allowable over depth (OD)</i>
4. Is significant filling involved?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

### Part III

#### **Considerations of a Dredging Proposal:**

- A. Describe characteristics and locations of the proposed dredged material disposal site. Provide photographs.

*The locations of the proposed dredged material disposal sites include the the Cape Atlantic Recycling Facility and Kinsley landfill. Both sites are located in New Jersey and are permitted to receive dredged material.*

- B. Is there a comprehensive plan for disposal sites that takes into account the accumulative effect over time and the decreasing amount of suitable sites for disposal?

*Yes, the Borough of Stone Harbor acknowledges the accumulative effect and has develop a dredged material management plan (DMMP).*

- C. Describe the present land use of the disposal site.

The Cape Atlantic Recycling Facility is an active aggregate quarry. They are permitted to receive, blend, and distribute dredged material.

The Kinsley Landfill is a site remediation project. The dredged material may be used for site grading and fill.

- D. Describe characteristics of the material to be disposed, including:

1. Physical source of material (i.e. sand, silt, clay, etc.) Give percentages of the various fractions if available.

*The NJDEP approved a Sampling and Analysis Plan (SAP) to characterize the dredged material. The results are pending. We will provide a summary of the results will be provided when available.*

2. Chemical composition of material: Many areas, especially marinas, highly industrialized areas, etc., have sediments with high concentrations of pollutants (chemicals, organic material, etc.). These materials may be re-suspended or reintroduced into the water and result in serious environmental damage. If your proposed dredging is in an area such as described above, a chemical analysis of the material to be dredged should be provided.

*The NJDEP approved a Sampling and Analysis Plan (SAP) to characterize the dredged material. The results are pending. We will provide a summary of the results will be provided when available.*

3. Dewatering properties of the material to be disposed.

*The dewatering properties of the dredged material are undetermined at present. Though means and methods of dewatering are ultimately to be determined by the contractor. The contractor will be responsible for determining means and methods for geotextile tube dewatering.*

4. Compactability of material and settling rates of material to be disposed.

*The compactability of the material and settling rates of the material are undetermined at present. Compactability will be evaluated by the contractor prior to construction.*

5. Dredging and disposal schedule to ensure that operations do not degrade water quality during times of anadromous fish migration.

*Dredging operations will comply with anadromous fish migration seasonal restrictions.*

E. When the project involves land disposal, discuss the following:

1. Method of disposal to be utilized, i.e., pipeline discharge, barge, hopper (underway or stationary).

*Dewatered dredged material will be truck to upland facilities.*

2. Describe method of dredged material containment (i.e. embankment, behind bulkhead, etc.)

*The dredged material will be contained in geotextile tubes during dewatering. The dewatering site will employ Soil Erosion and Sediment Control practices to contain the dredged material at the dewatering site to prevent discharge of sediments into waterways.*

3. What type of leachates will be produced from the spoil material and what is planned for protection of the groundwater?

*The proposed project will not impact groundwater. All dewatering will occur on a paved surface, discharging to surface water.*

4. Methods to insure that spoil water does not adversely affect water quality, both during construction and after completion of the project.

*Contractor to use best management practices to comply with water quality standards on discharged water.*

5. Provisions for monitoring during discharge: water quality, sediment transport, and precautions to prevent “short-circuiting” dumping.

*Upland dewatering site will comply with State and Federal regulatory monitoring requirements.*

F. Consider and discuss the following for water disposal:

1. Describe methods to be used for water disposal, including volumes and site selection.

*Effluent water will be returned to surrounding surface water following dewatering, once it meets applicable water quality standards.*

2. Describe the existing water characteristics at the site, including chemical analysis for water quality.

*Once the chemical analysis results are received, they will be provided.*

G. Discuss the frequency and amount of maintenance dredging which will be required; discuss the resulting impacts.

*We estimate that the initial maintenance dredging event may remove 179,000 cubic yards of dredged material. Stone Harbor will perform periodic conditional surveys to determine future dredging needs. We estimate that an additional 212,500 cubic yards may be removed during subsequent dredging event throughout the duration of the permit. A total 10-year dredging permit volume is estimated at 391,500 cubic yards.*

*Resulting impacts from these dredging activities include a reduction in upland placement capacity. Stone Harbor has developed a dredged material management plan to identify and pursue alternative placement options.*

H. Alternatives.

1. Discuss all alternatives to the project, including the “no action” alternative.

*No action alternative will eventually require the closure of these harbors do to the unnavigable depths. This alternative is not recommended as it inhibits residential and touristic access to local waters, and would be detrimental to the local economy.*

2. Discuss alternative types and methods of dredging and disposal, such as pipeline discharge, barging, or hopper method.

*Dredging method alternatives are limited, due to lack of available equipment in the area. Mechanical or Hydraulic methods are the only two viable options considered to dredge Stone Harbor. As stated previously, dredged material will be removed from the site and ultimately disposed of at an approved facility.*

3. Discuss alternatives to dredging.

*There are no viable alternatives to dredging, for the removal of sediments to restore safe depths for boating. A no action alternative will eventually require the closure of these*

*harbors do to the unnavigable depths. This alternative is not recommended as it inhibits residential and touristic access to local waters, and would be detrimental to the local economy.*

4. Discuss alternative areas of sites for spoil disposal.

*Local CDF is at capacity and can no longer receive material. No other feasible options were identified.*

5. Discuss impact of port docking patterns upon the demand for dredging. Can alternative patterns reduce the amount of dredging required to support port operations?

*The proposed harbors have no port docking locations in the proposed dredging locations. These harbors also only have a single entrance and exit path, leaving no alternative path.*

6. Support alternative means of construction that would prevent or minimize water quality degradation using EPA standards for guidance.

*Best management practices will be used for mechanical and or hydraulic dredging activities. No alternative methods are available to perform the proposed work.*

7. State in detail impacts resulting in alternative locations for the proposed project.

*This project is dredging these locations: North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay & Access Channel, Sanctuary Bay & Access Channel, Paradise Bay, and Stone Harbor Hole & Access Channel. There are no alternative locations for this proposed project.*

## Part IV

### CONSIDERATIONS OF A FILLING PROPOSAL:

*Section is Not Applicable*

- A. Describe in detail the existing characteristics of the area proposed for filling (i.e. aquatic area, marsh, mudflat, swamp, etc.). In your description, be sure to include the types of vegetation present and the types of animals that use the area. Provide photographs.
- B. Give the following information in regard to the project size:
1. Total area to be filled.
  2. Size of underwater area to be filled.
  3. Area of intertidal zone to be filled.
  4. Area of wetlands to be filled.
  5. Proposed height of fill.
  6. Volume of material that will be used in filling.
- C. Describe in detail the material to be used as fill including as follows:
1. Type of fill to be used (sand, stone, rubble, etc.). If the material is a composite (i.e., rubble), list the types of materials it will contain.
  2. Give the specific location of the source of this material.
  3. What types of leachates will be produced from the fill material and what is planned for protection of surface and groundwater?
- D. Carefully describe the method of fill, including the following:
1. Method of fill placement, including equipment used in deposition and grading.
  2. Method of stabilization of banks from erosion, sloughing, wave action, boat wakes, etc.

3. Method of stabilization of the surface of the fill.
4. Length of time needed for completion of the project. State if filling will be continuous, intermittent, etc.
5. Method of controlling turbidity when filling an underwater area.

E. Purpose of the Project:

1. What is the intended use of the filled area?
2. What structures, if any, will be constructed on the fill?
3. What benefits would you gain from the proposed fill?

F. Alternatives

1. Discuss the “no action” alternative and how this would affect your present and future plans for the development of the area.
2. Discuss alternative locations for the proposed fill.
3. Discuss the use of elevated structures (i.e. causeways, elevated platforms, etc.) in place of the proposed fill.
4. Discuss any other alternatives you have considered prior to formulating the presently submitted proposal.

NAP FORM 1653 8 OCT 81

6 EFH

**NOAA FISHERIES  
NORTHEAST REGIONAL OFFICE  
EFH ASSESSMENT WORKSHEET FOR  
FEDERAL AGENCIES  
(modified 08/04)**

**Introduction:**

The Magnuson-Stevens Fishery Conservation and Management Act mandates that federal agencies conduct an EFH consultation with NOAA Fisheries regarding any of their actions authorized, funded, or undertaken that may adversely affect essential fish habitat (EFH). An adverse effect means any impact that reduces the quality and/or quantity of EFH. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

This worksheet has been designed to assist Federal agencies in determining whether an EFH consultation is necessary, and developing the needed information should a consultation be required. This worksheet will lead you through a series of questions that will provide an initial screening to determine if an EFH consultation is necessary, and help you assemble the needed information for determining the extent of the consultation required. The information provided in this worksheet may also be used to develop the required EFH Assessment.

Consultation through NOAA Fisheries regarding other NOAA-trust resources may also be necessary if a proposed action results in adverse impacts. Part 6 of the worksheet is designed to help assess the effects of the action on other NOAA-trust resources. This helps maintain efficiency in our interagency coordination process. In addition, consultation with NOAA Fisheries may be required if a proposed action impacts marine mammals or threatened and endangered species for which NOAA Fisheries are responsible. Staff from our Northeast Regional Office, Protected Resources Division should be contacted regarding potential impacts to marine mammals or threatened and endangered species.

**Instructions for Use:**

An EFH Assessment must be submitted by a Federal agency to NOAA Fisheries as part of the EFH consultation. An EFH Assessment must include the following information:

- 1) A description of the proposed action.
- 2) An analysis of the potential adverse effects of the action on EFH, and the managed species.
- 3) The Federal agency's conclusions regarding the effects of the action on EFH.
- 4) Proposed mitigation if applicable.

In some cases, this worksheet can be used as an EFH Assessment. If the Federal agency determines that the action will not cause substantial impacts to EFH, then this worksheet may suffice for an EFH Assessment. If the action may cause substantial adverse effects on EFH, then a more thorough discussion of the action and its impacts in a separate EFH Assessment will be

necessary. The completed worksheet should be forwarded to NOAA Fisheries Northeast Regional Office, Habitat Conservation Division (HCD) for review.

The information contained on the HCD website (<http://www.nero.noaa.gov/hcd/>) was used in completing this worksheet. The HCD web site contains information regarding: the EFH consultation process; Guide to EFH Designations which provides a geographic species list; Guide to EFH Species Descriptions which provides the legal description of EFH as well as important ecological information for each species and life stage; and other EFH reference documents including examples of EFH Assessments and EFH Consultations.

## I. PROJECT BACKGROUND AND PURPOSE

**PROJECT PURPOSE:** The Applicant, Borough of Stone Harbor, is seeking a USACE Individual Permit to authorize maintenance dredging of the back-bay lagoons of the Borough of Stone Harbor. Dredging will allow for the continued safe recreational use of the back-bay waters, and provide access to the Atlantic Ocean from the lagoons.

**SITE DESCRIPTION:** Back-bay lagoons proposed for dredging are located along the west side of the Borough of Stone Harbor in Cape May County, New Jersey. Dredge areas include the North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay & Access Channel, Sanctuary Bay & Access Channel, Paradise Bay, Stone Harbor Hole & Access Channel.

## II. EXISTING CONDITIONS & NEED FOR ACTION

All 10 of the community's back-bay lagoons and their associated access channels have previously been authorized by New Jersey and the USACE and dredged.

Proposed maintenance dredge areas include municipal, residential, and commercially owned properties. The berths, access channels, and harbor areas proposed to be maintenance dredged are used primarily for recreational boating. Many residents, and local boaters who use public and commercially owned marinas in the area have complained of navigation safety due to insufficient depths for boating in areas due to shoaling. Maintenance of the lagoons and access channels is critical for maintaining local recreational and tourist navigability and associated economy.

### PROPOSED PLAN

#### **Maintenance Dredging**

The Applicant, Borough of Stone Harbor, is seeking an Individual Permit to authorize routine maintenance dredging within the Borough of Stone Harbor. These areas were previously dredged in 2003 under USACE Permit No. CENAP-OP-R-199901066-24.

Proposed dredge areas include the North Basin, South Basin, Snug Harbor, Shelter Haven, Stone Harbor, Pleasure Bay, Carnival Bay, Sanctuary Bay, Paradise Bay, Stone Harbor Hole, and access channel along the lagoons, and slips along the waterways. The permit depth for all waters is six (6) feet below Mean Low Lower Water (MLLW) plus two (2) feet of allowable overdepth. The location, area, and proposed depths for each dredge area are identified in the enclosed permit drawing set.

The current dredging demand based on a recent hydrographic survey is 179,000 cubic yards. Following an initial dredging event, Stone Harbor may seek to conduct periodic maintenance dredging events throughout the duration of the permit. The following table is a summary of the estimated initial dredging volume, future dredging volume, and the total requested (projected) permit volume. The intent of providing this information is to project a reasonable approximation of total dredging volume that could be anticipated during the permit authorization period.

Table 1 - Stone Harbor Dredging Permit Volume Summary

Dredge Area	Initial Dredging Volume [cy]	Anticipated Future Dredging Volume [cy]	Total Permit Volume [cy]
North Basin	26,400	32,500	58,900
South Basin	16,000	18,750	34,750
Snug Harbor	19,800	23,750	43,550
Shelter Haven	22,000	25,000	47,000
Stone Harbor	9,900	12,500	22,400
Pleasure Bay	13,800	15,000	28,800
Carnival Bay	17,600	21,250	38,850
Sanctuary Bay	16,500	20,000	36,500
Paradise Bay	11,000	12,500	23,500
Stone Harbor Hole	15,000	18,750	33,750
Access Channel	11,000	12,500	23,500
<b>TOTAL</b>	<b>179,000</b>	<b>212,500</b>	<b>391,500</b>

Proposed dredging methodologies includes a combination of hydraulic and mechanical dredging. Hydraulic dredging will be used to dredge the open water areas and where practicable the slip areas. Where hydraulic dredging is not practicable around the slip areas, the dredged material will be mechanically relocated to adjacent dredge areas that have access for hydraulic dredging.

All dredged material will be hydraulically transported to the Stone Harbor Marina, located adjacent to the North Basin, for dewatering. A submerged pipeline and booster pump, if needed, will be used to transport the hydraulically dredged material. The pipeline will be

located along the east side of the great channel. The approximate distance between the dredge areas and the dewatering area is 2 miles.

The dewatering area consist of a paved parking lot and gravel parking lot. The dredged material will be mechanically dewatered either via geotextile tubes or a belt filter press. The material will be dewatered so that the dredged material is suitable for road transportation and that the effluent water meets water quality standards. Existing stormwater drains will be utilized to return the effluent water to the surface waters. To prevent sediment discharges to the surrounding waters, these drains will be protected by soil erosion and sediment control features to be approved by the Cape May County Soil Conservation District.

After dewatering, the dredge material will then be transported and placed at an upland location approved to receive amended dredged material. Two facilities have been identified for dredged material placement. The Cape Mining and Recycling facility located in Lower Township, NJ will accept dredged material that meets the Residential Soil Cleanup Criteria. The Kinsley Landfill located in Sewell, NJ will accept dredged material that does not meet the Residential Soil Cleanup Criteria. The pending sediment testing results and letters of material acceptance from upland placement facilities will be provided to NJDEP prior to dredging activities.

Prior to subsequent maintenance dredging events, the dredged material will be characterized under procedures of the approved Sampling and Analysis Plan. Testing results and letters of material acceptance from upland placement facilities will be provided to NJDEP prior to dredging activities.

Dredging will require the removal of accumulated bottom sediments which may contain some debris typically encountered during dredging. The debris will be separated from the sediment and appropriately disposed of at approved facilities by the dredging contractor.

### III EFH FOR SITE

#### A. General Conditions – Borough of Stone Harbor

Stone Harbor is located along the southern New Jersey ocean shoreline. It is a barrier beach with extensive wetlands landward of the Island. A Federally Maintained Navigation Project known as the New Jersey (Atlantic) Intercoastal Waterway provides shallow draft navigation landward of the barrier island. The upland area is non-industrialized and used primarily as residential and recreational real estate.

#### B. Physical Effects of the Proposed Improvements

As noted above, the proposed work will alter the existing conditions in only minor short and temporary periods of time.(1) There is little evidence that the area will experience serious, long-term, adverse environmental impacts associated with the proposed dredging based on prior dredging events and the available literature.

Few lifestages of fish species are expected to utilize the berth and channel areas. Those that are not motile enough to avoid the proposed dredging may be crushed and/or abraded, caught within the dredged material and relocated to the barge or buried. Usually, juvenile and adult lifestages of aquatic species are sufficiently motile to avoid the work area. One such species might be the winter flounder. The Stone Harbor area is preferred essential fish habitat (EFH) suitable for successful winter flounder spawning, hatching and early lifestage development. Additionally, because of the nature of the project site there are prey organisms in the construction area. The winter flounder EFH functions and values provided by the work area should not be forfeit as the result of the proposed dredging due to the limited extent of the work although there will be minimal adverse effects on the wellbeing of aquatic resources in the project area . The work is planned to avoid periods when aquatic resource activity is significant. We assume that the permits will be conditioned to identify the optimal dredging periods.

#### C. Occurrence of Aquatic Species

In accordance with Section 305(b)(2) of the Magnuson-Stevens Sustainable Fisheries Act we have reviewed and assessed the proposed project area for its designated EFH along with the potential to adversely affect that EFH of twenty-six (26) species' lifestages of fish managed under the Magnuson-

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1 Clarke, D. G., and Wilber, D. H. (2000). "Assessment of potential impacts of dredging operations due to sediment resuspension," *DOER Technical Notes Collection* (ERDC TN-DOER-E9), U.S. Army Engineer Research and Development Center, Vicksburg, MS. [www.wes.army.mil/el/dots/doer](http://www.wes.army.mil/el/dots/doer)

Stevens Fishery Conservation and Management Act (Sustainable Fisheries Act Amendments) and designated as occurring within the ten-minute square that includes the Stone Harbor area (See below). Information gathered from the Guide to Essential Fish Habitat Designations in the Northeastern United States (NOAA/NMFS, 1999) and the associated EFH Source Documents were reviewed. They indicate that the following species and their life stages may occur at these sites: However, several of the listed species do not appear to rely on areas such as those identified at Stone Harbor. They have been left on the list to indicate that all species with EFH designated within the ten-minute square that includes Stone Harbor were considered in this review.

**IV Summary of Essential Fish Habitat (EFH) Designation**

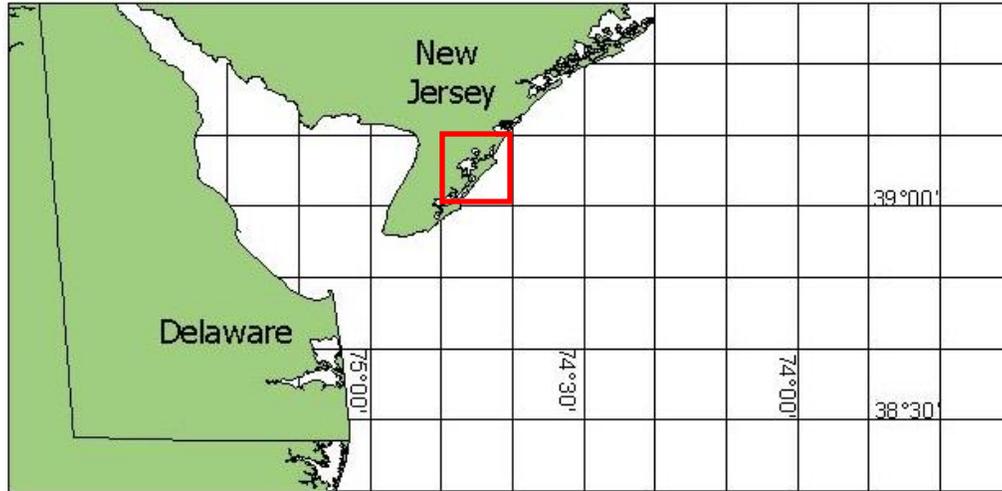


Figure 1. Red box is 10-minute square that includes Stone Harbor

**10' x 10' Square Coordinates:**

Boundary	North	East	South	West
Coordinate	39° 10.0' N	74° 40.0' W	39° 00.0' N	74° 50.0' W

**Square Description (i.e. habitat, landmarks, coastline markers):** The waters within the Atlantic Ocean within the square within the New Jersey Inland Bay estuary affecting from Sea Isle City, N.J. on the northeast corner, southwest to N. Wildwood, N.J., just south of Hereford Inlet . These waters affect the following within this square as well: Ludlam Thorofare, Townsend Sound, Mill Thorofare, Middle Thorofare, Mill Creek, Stites Sound, North Channel, Swainton, N.J., Townsends Inlet, South Channel, Ingram Thorofare, Graven Thorofare, Long Reach, Great Sound, Gull I., Gull I. Thorofare, Crease Thorofare, Scotch Bonnet, Nichols Channel, Avalon, N.J., Seven Mile Beach, Stone Harbor, N.J., Great Channel, Nummy I., Grassy Sound Channel, Old Turtle Thorofare, Grassy Sound, Beach Creek, Hereford Inlet, Dung Thorofare, Drum Thorofare, Jenkins Sound, Mayville, N.J., Shelled Ledge, Jenkins Channel, and N. Wildwood N.J

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod ( <i>Gadus morhua</i> )				X
haddock ( <i>Melanogrammus aeglefinus</i> )				
pollock ( <i>Pollachius virens</i> )				
whiting ( <i>Merluccius bilinearis</i> )	X	X	X	

offshore hake ( <i>Merluccius albidus</i> )				
red hake ( <i>Urophycis chuss</i> )	X	X	X	
white hake ( <i>Urophycis tenuis</i> )				
witch flounder ( <i>Glyptocephalus cynoglossus</i> )				
winter flounder ( <i>Pseudopleuronectes americanus</i> )	X	X	X	X
yellowtail flounder ( <i>Limanda ferruginea</i> )				
windowpane flounder ( <i>Scophthalmus aquosus</i> )	X	X	X	X
American plaice ( <i>Hippoglossoides platessoides</i> )				
ocean pout ( <i>Macrozoarces americanus</i> )				
Atlantic sea scallop ( <i>Placopecten magellanicus</i> )				
Atlantic sea herring ( <i>Clupea harengus</i> )				X
monkfish ( <i>Lophius americanus</i> )	X	X		
bluefish ( <i>Pomatomus saltatrix</i> )			X	X
long finned squid ( <i>Loligo pealeii</i> )	n/a	n/a		
short finned squid ( <i>Illex illecebrosus</i> )	n/a	n/a		
Atlantic butterfish ( <i>Peprilus triacanthus</i> )			X	
Atlantic mackerel ( <i>Scomber scombrus</i> )				
summer flounder ( <i>Paralichthys dentatus</i> )		X	X	X
scup ( <i>Stenotomus chrysops</i> )	n/a	n/a	X	X
black sea bass ( <i>Centropristis striata</i> )	n/a		X	X
surf clam ( <i>Spisula solidissima</i> )	n/a	n/a		
ocean quahog ( <i>Artica islandica</i> )	n/a	n/a		
spiny dogfish ( <i>Squalus acanthias</i> )	n/a	n/a		
tilefish ( <i>Lopholatilus chamaeleonticeps</i> )				
king mackerel ( <i>Scomberomorus cavalla</i> )	X	X	X	X

Spanish mackerel ( <i>Scomberomorus maculatus</i> )	X	X	X	X
cobia ( <i>Rachycentron canadum</i> )	X	X	X	X
sand tiger shark ( <i>Carcharias taurus</i> )		X		X
Atlantic angel shark ( <i>Squatina dumerili</i> )		X	X	X
Atl. sharpnose shark ( <i>Rhizopriondon terraenovae</i> )				X
dusky shark ( <i>Carcharhinus obscurus</i> )		X		
sandbar shark ( <i>Carcharhinus plumbeus</i> )		X	X	X
tiger shark ( <i>Galeocerdo cuvieri</i> )		X		

The following spreadsheet reviews the EFH requirements for the twenty-six species listed as potentially using habitat functions and values within the area that includes the project site. We have determined that the proposed activities at Stone Harbor represent minimal long term, adverse threat or impact to EFH habitat for the listed, managed species or their prey items that may use the project area. Recovery of any EFH disturbed during the proposed maintenance dredging is anticipated to take less than eighteen (18) months based on studies of dredging induced habitat impacts and recovery. Completing the project will not alter the long-term water quality as it retains existing conditions in the waterway and does not add additional sources of pollution. However the activities increase berthing and operational safety by upgrading the berthing and associated navigational infrastructure within the Stone Harbor waterway.

**V EFH ASSESSMENT WORKSHET FOR FEDERAL AGENCIES**

**PROJECT NAME:** Borough of Stone Harbor – Maintenance Dredging Project

**DATE:** December, 2014

**PROJECT NO.:** \_\_\_\_\_

**LOCATION:** Stone Harbor Back Bay Lagoons, NJ

**PREPARER:** Michael Ludwig, Ocean & Coastal Consultants, Inc.

Step 1. Use the Habitat Conservation Division EFH webpage, Guide to Essential Fish Habitat Designations in the Northeastern United States to generate the list of designated EFH for federally-managed species for the geographic area of interest (< <http://www.greateratlantic.fisheries.noaa.gov/hcd/> >). Use the species list as part of the initial screening process to determine if EFH for those species occurs in the vicinity of the proposed action. Attach that list to the worksheet because it will be used in later steps. Make a preliminary determination on the need to conduct an EFH Consultation.

<b>1. INITIAL CONSIDERATIONS</b>		
<b>EFH Designations</b>	<b>Yes</b>	<b>No</b>
Is the action located in or adjacent to EFH designated for eggs?	X	
Is the action located in or adjacent to EFH designated for larvae?	X	
Is the action located in or adjacent to EFH designated for juveniles?	X	
Is the action located in or adjacent to EFH designated for adults?	X	
Is the action located in or adjacent to EFH designated for spawning adults?	X	
<b>If you answered no to all questions above, then EFH consultation is not required -go to Section 5. If you answered yes to any of the above questions proceed to Section 2 and complete remainder of the worksheet.</b>		

Step 2. In order to assess impacts, it is critical to know the habitat characteristics of the site before the activity is undertaken. Use existing information, to the extent possible, in answering these questions. Please note that, there may be circumstances in which new information must be collected to appropriately characterize the site and assess impacts.

<b>2. SITE CHARACTERISTICS</b>	
<b>Site Characteristics</b>	<b>Description</b>
<b>Is the site intertidal, sub-tidal, or water column?</b>	The project areas are all subtidal
<b>What are the sediment characteristics?</b>	The area has sediment ranging from silty sand to sandy silt depending on the exposure to waves and currents sweeping the individual areas. Specific sediment information will be provided as the result of implementing a Sampling and Analysis Plan for the various elements of the project.
<b>Is Habitat Area of Particular Concern (HAPC) designated at or near the site? If so what type, size, characteristics?</b>	There are no HAPC designations at or around the project sites.
<b>Is there submerged aquatic vegetation (SAV) at or adjacent to project site? If so describe the spatial extent.</b>	There are no SAV species occupying the substrate.
<b>What is typical salinity and temperature regime/range?</b>	The salinity ranges from less than 3 Practical Salinity Units (PSUs) to almost 32 PSUs. The temperature ranges from minus 3 <sup>0</sup> Celsius to approximately 24 <sup>0</sup> Celsius
<b>What is the normal frequency of site disturbance, both natural and man-made?</b>	The site is constantly disturbed by the ebb and flood velocities along with vessel traffic in the adjacent Federal Navigation Channel and access channels. Additional disturbances are caused by vessels moving throughout the New Jersey Intercoastal Waterway.
<b>What is the area of proposed impact (work footprint &amp; far afield)?</b>	Work will occur within an area of approximately sixty-six (66) acres in eleven (11) waterways. The far field area for each site is limited by the circulation patterns in the waterways and the dispersion capabilities of the ebb and flood currents of the area. Because of the site conditions it is unlikely that an area will be an identifiable as a "far field" zone. Impacts will be localized and temporary in nature.

**Step 3.** This section is used to describe the anticipated impacts from the proposed action on the physical/chemical/biological environment at the project site and areas adjacent to the site that may be affected.

<b>3. DESCRIPTION OF IMPACTS</b>			
<b>Impacts</b>	<b>Y</b>	<b>N</b>	<b>Description</b>
<b>Nature and duration of activity(s)</b>			The project includes maintenance dredging of back bay lagoons of Stone Harbor. The project is expected to be completed over the course of several years.
<b>Will benthic community be disturbed?</b>	<b>X</b>		There will some localized disturbance of the benthic community but recolonization from adjacent areas will be relatively quick due to the minor changes in water depths. The existing navigable areas were created by dredging and have been maintained by regular maintenance dredging.
<b>Will SAV be impacted?</b>		<b>X</b>	There is no SAV at or adjacent to the project site.
<b>Will sediments be altered and/or sedimentation rates change?</b>		<b>X</b>	The area has been previously dredged. Sediment accumulation patterns will not be altered allowing the sediment character and deposition rate to remain constant.
<b>Will turbidity increase?</b>		<b>X</b>	There will be a temporary, localized, and minor increase in suspended sediment associated with dredging each area.
<b>Will water depth change?</b>	<b>X</b>		Water depth will be increased by approximately three (3) to four (4) feet to elevation -6' MLLW, with a two foot (2') overdredge allowance.
<b>Will contaminants be released into sediments or water column?</b>		<b>X</b>	Sampling and testing will likely confirm that no significant contaminants existing in the sediments to be dredged. The sediment will be pumped by hydraulic dredge through a floating and submerged pipe and placed within a confined dewatering area on the upland.
<b>Will tidal flow, currents or wave patterns be altered?</b>		<b>X</b>	No, the proposed changes within the project areas are minor in dimensions and potential impact. Alteration of wave patterns is unlikely to occur on the surface area of the lagoons and access channels.
<b>Will ambient salinity or temperature regime change?</b>		<b>X</b>	No alteration in ambient salinity or the water temperature regime will occur as the result of undertaking the proposed activities.
<b>Will water quality be altered?</b>		<b>X</b>	Water quality will not be altered.

**Step 4.** This section is used to evaluate the consequences of the proposed action on the functions and values of EFH as well as the vulnerability of the EFH species and their life stages. Identify which species from the EFH species list (generated in Step 1) will be adversely impacted from the action. Assessment of EFH impacts should be based upon the site characteristics identified in Step 2 and the nature of the impacts described within.

<b>4. EFH ASSESSMENT</b>			
<b>Functions and Values</b>	<b>Y</b>	<b>N</b>	<b>Describe habitat type, species and life stages to be adversely impacted</b>
<b>Will functions and values of EFH be impacted for:</b>			
<b>Spawning</b>		<b>X</b>	The project areas are subject to wind waves that cause regular resuspension of sediment. Anthropogenic activities in and along the waterways exacerbate that resuspension. These forces will continue to act to significantly reduce or virtually eliminate the possibility for successful spawning. Spawning products that might be released are likely to be swept from the area or buried by naturally re-deposited sediment. The proposed project will not alter this situation.
<b>Nursery</b>	<b>X</b>		Although some of the species with designated juvenile EFH in the project areas are likely to use the Stone Harbor Waterways each project will be prosecuted independently of the others allowing juvenile resources the ability to relocate from any temporary, adverse conditions. These species are unlikely to reside in degraded habitat resulting from the maintenance dredging. The proposed project is not likely to alter this situation by causing long-term degradation of the area's EFH.
<b>Forage</b>		<b>X</b>	Forage for managed species occurs within the waterways. However, as noted above, finding locations where the metabolic "cost" of foraging is positive can occur rapidly. As previously reported, the proposed dredging in the waterways should have only minor, localized and short-term effects on EFH.
<b>Shelter</b>		<b>X</b>	There is extensive shelter for fishery species throughout the area. The proposed activities at the project sites will restore the availability of shelter slightly but the change will be imperceptible due to the extensive availability of similar habitat throughout the area.
<b>Will impacts be temporary or permanent?</b>			All the impacts identified above are temporary, minor in nature, localized in extent, and of short duration. The impact of the proposed modifications of the lagoons will not adversely impact the EFH for the listed species and their associated community members.
<b>Will compensatory mitigation be used?</b>		<b>X</b>	The proposed activities at Stone Harbor are minor and short duration in nature. No mitigation is proposed.

**Step 5.** This section provides the Federal agency=s determination on the degree of impact to EFH from the proposed action. The EFH determination also dictates the type of EFH consultation that will be required with NOAA Fisheries.

<b>5. DETERMINATION OF IMPACT</b>		
	/	<b>Federal Agency=s EFH Determination</b>
<b>Overall degree of adverse effects on EFH (not including compensatory mitigation) will be:</b>  <b>(check the appropriate statement)</b>		<b>There is no adverse effect on EFH</b>  EFH Consultation is not required
	X X	<b>The adverse effect on EFH is not substantial.</b>  This is a request for an abbreviated EFH consultation. This worksheet is being submitted to NMFS to satisfy the EFH Assessment requirement.
		<b>The adverse effect on EFH is substantial.</b>  This is a request for an expanded EFH consultation. A detailed written EFH assessment will be submitted to NMFS expanding upon the impacts revealed in this worksheet.

**Step 6. Consultation with NOAA Fisheries may also be required if the proposed action results in adverse impacts to other NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats. Some examples of other NOAA-trust resources are listed below. Inquiries regarding potential impacts to marine mammals or threatened/endangered species should be directed to NOAA Fisheries' Protected Resources Division.**

<b>6. OTHER NOAA-TRUST RESOURCES IMPACT ASSESSMENT</b>	
<b>Species known to occur at site (list others that may apply)</b>	<b>Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat).</b>
alewife	Most of the fish species are pelagic and transitory through the area.
blueback herring	The benthic species may be either resident where conditions allow or like their pelagic counterparts passing through the area. The metabolic "cost" of residing in the area is modest and prey is unlimited so
rainbow smelt	
American eel	Species residing in the waterway will not be adversely impacted.
Atlantic menhaden	
American shad	
Northern Quahog	
American lobster	
blue mussels	
soft-shell clams	
Sandy shrimp	
Protected Resources	See the attached Section VI: MMPA/ESA Assessment & Discussion

## VI Endangered Species Biological Assessment

The Lower New Jersey Intercoastal Waterway is a seasonally heavily trafficked recreational and commercial waterway leading to terminals in the Delaware River watershed and the Port of New York and New Jersey. As noted elsewhere in this submission the project areas have been previously dredged creating highly modified waterways that affords little habitat to aquatic species due to the vessel traffic and water depths (less than six (6) feet at MLLW).

Protected species including Harbor seals, sea turtles and both Atlantic and Shortnose sturgeon may transit the waterways in the vicinity of the navigation channels and berths. However, each of these species would be unlikely to find suitable habitat within the specific reach of the Stone Harbor waterways. As described below the vessel traffic, along with the hydrodynamic and geological conditions present in the project areas are not those identified as supporting protected species<sup>2</sup>.

The waterfront in the project area has been highly developed in keeping with a commitment to residential and recreational use. These waterfront modifications were created between the late 1940s and early 1970s. The available literature regarding endangered species such as sea turtles, marine mammals, and sturgeon use of coastal areas indicates that they respond to water temperature and tend to avoid areas where significant human activity occurs<sup>3,4, 5</sup>. The high level of vessel traffic and associated noise, including the water sport activities of residents and general constant human activity along the developed shoreline, confined space within the waterway, and little suitable habitat are likely to discourage the use of the project areas within this reach of the intercoastal waterway. The site is unlikely to be habitat sought by any of the listed protected species. A similar Biological Opinion of the area was issued by NMFS regarding the prior maintenance dredging that occurred in the early 2002 to 2003 period.

There is no evidence that any species listed under the Marine Mammal Protection Act or Endangered Species Act, including Harbor seals, sea turtles, and the two species of sturgeon utilize the project areas. Conversely, there is ample evidence that the frequency of watercraft movements through the area (vessels berthing in the area or passing through while transiting the NJ Intercoastal Waterway north or south represent conditions that the protected species avoid and are restrictive of occupation by those listed species. Based on those conditions, it is concluded that there is clear evidence that the proposed actions do not jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. However,

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2 Website review of NOAA Fisheries descriptions: < <http://www.nmfs.noaa.gov/pr/species/esa/> >

3 SJ Morreale, AB Meylan, SS Sadove, EA Standora. 1992. **Annual occurrence and winter mortality of marine turtles in New York waters.** Journal of Herpetology, 1992 – JSTOR.

4 Vincent J. Burke, Edward A. Standora and Stephen J. Morreale. 1993. **Diet of Juvenile Kemp's Ridley and Loggerhead Sea Turtles from Long Island, New York.** *Copeia*. Vol. 1993, No. 4 (Dec. 28, 1993), pp.1176-1180

5 TYACK, P. L. 2008. **IMPLICATIONS FOR MARINE MAMMALS OF LARGE-SCALE CHANGES IN THE MARINE ACOUSTIC ENVIRONMENT.** USA Journal of Mammalogy, 89(3):549–558.

as an additional precaution against adversely impacting any listed species that might occur in the project area, the dredging will be undertaken in the period determined by the State of New Jersey and USACE. Those periods are likely to focus on when listed species are known to have a minimal presence or they are seeking use of more preferred habitat locations. Should the project change or the basis for this conclusion change, consultation under Section seven of the Endangered Species Act of 1973 will be re-initiated.

# 7 CZM Form

**COPY**

02/24/2015



REPLY TO  
ATTENTION OF

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

October 18, 1995

CENAP-OP-R-Coastal Zone Management (New Jersey and Pennsylvania)

PUBLIC NOTICE

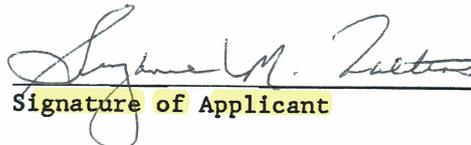
SUBJECT: "Consistency Certification" with Approved State Coastal Zone Management Program

Federal regulations require that applicants for Department of the Army permits to perform work which falls under the jurisdiction of a State with a Coastal Zone Management (CZM) Program approved by the Secretary of Commerce, MUST PROVIDE CONSISTENCY CERTIFICATION. The certification statement must accompany the application for a Department of the Army permit.

On September 29, 1978 and September 29, 1980, respectively, CZM Programs were approved for the State of New Jersey and the Commonwealth of Pennsylvania by the Department of Commerce. Therefore, all applications for Department of the Army permits for work in their designated Coastal Zones must contain a consistency statement.

The statement should be as follows:

"The proposed activity complies with and will be conducted in a manner that is consistent with the approved State Coastal Zone Management Program."

  
Signature of Applicant

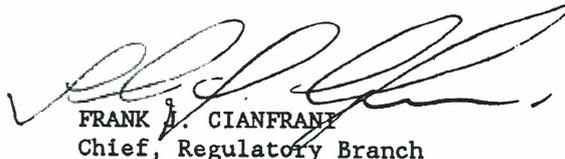
Additional information concerning the approved Coastal Zone Management Programs can be obtained by contacting:

State of New Jersey

New Jersey Department of  
Environmental Protection  
Land Use Regulation Program  
CN 401  
Trenton, New Jersey 08625-0401  
Telephone Number - (609) 292-0060

Commonwealth of Pennsylvania

Pennsylvania Department of  
Environmental Protection  
Division of Coastal Programs  
P.O. Box 8555  
Harrisburg, Pennsylvania 17105-8555  
Telephone Number - (717) 787-2529

  
FRANK J. CIANFRANI  
Chief, Regulatory Branch