

Stone Harbor Maintenance Dredging Project

Public Meeting Information Session

21 August 2015

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Agenda

- > USACE Permit Process

- > Current Maintenance Dredging Project
 - > Dredged Material Analysis
 - > Dredged Material Volume
 - > Dredging Process
 - > Stone Harbor Marina Logistics
 - > Project Schedule
 - > Concerns

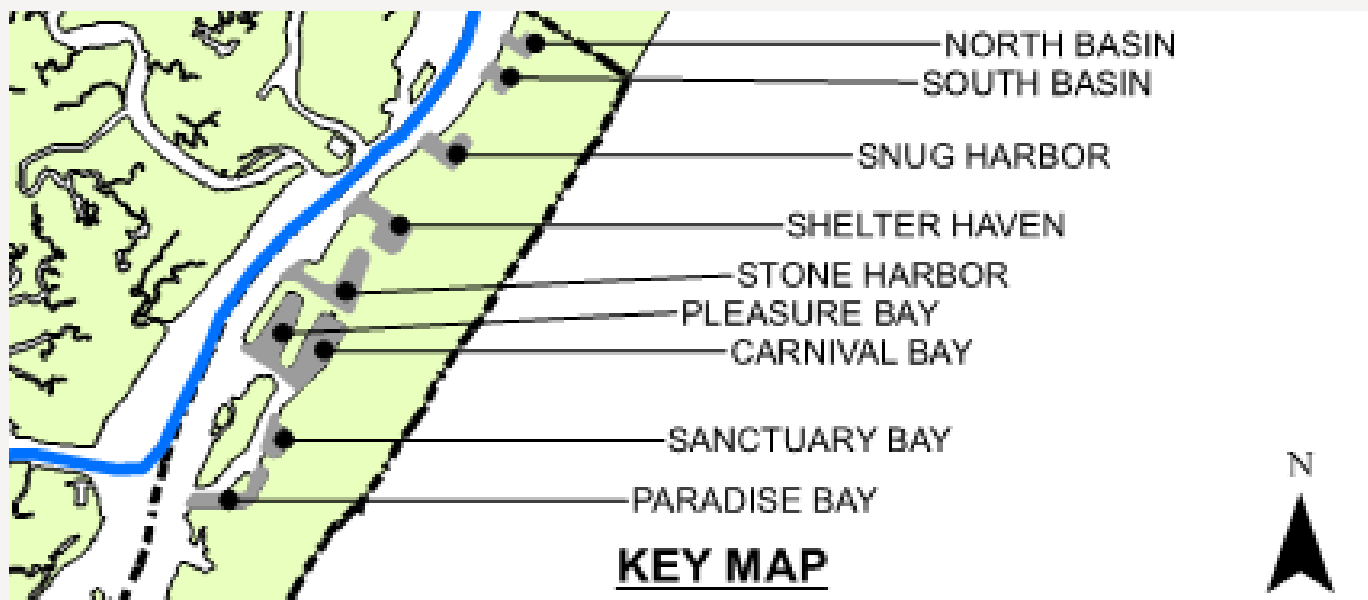
- > Future Maintenance Dredging Projects

USACE Permit Process

- ✓ *Individual Permit Application Form* submitted
- ✓ After receipt of a complete application, the USACE issues public notice
- ✓ 30 day Public Notice comment period
- ✓ The Corps provides the applicant an opportunity to respond to comments received in response to the public notice.
- USACE reviews comments, evaluates the permit application based on regulations, and completes required documentation
- USACE makes a decision: issue, issue with conditions, or deny.

Current Maintenance Dredging Project

- > Restore Water Depth to Provide Safe Navigation
- > Maintenance Dredging Project
 - > Hydraulic Dredging
 - > Dewatering at Stone Harbor Marina Parking Lot
 - > Dredged Material Disposal at Approved Upland Facility



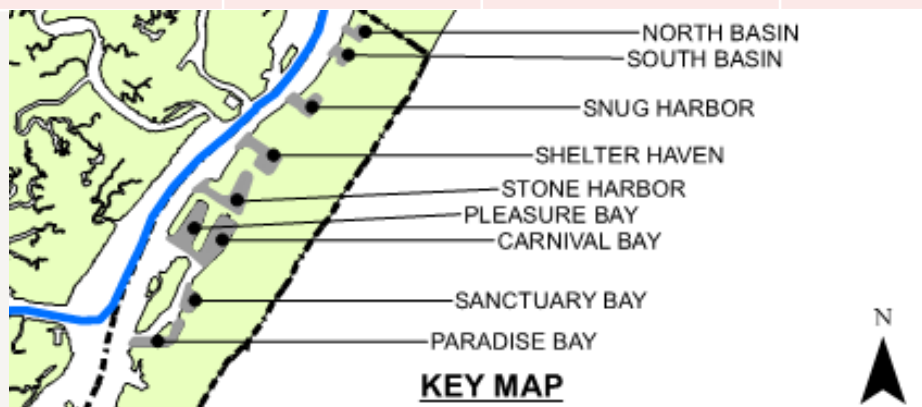
Dredged Material Analysis

- > Sediment Sampling and Analysis Plan
 - > NJDEP Approved
 - > Phase 1 – Sediment Analysis
 - > 2-4 Samples per basin
 - > Physical and chemical analysis of sediments
 - > Phase 2 - Effluent Water Analysis
 - > 2-4 samples per basin
 - > Hanging bag test to generate effluent
 - > Chemical analysis of effluent



Dredged Material Analysis – Phase 1 Results

Location	% Sand	% Moisture	% TOC by weight	Meets NJAC 7:26D Residential Direct Contact Soil Remediation Standards
North Basin	2 - 75	33 - 65	1 - 4	NO
South Basin	14 - 59	40 - 59	1 - 3	YES
Snug Harbor	2 - 30	51 - 64	3 - 4	YES
Shelter Haven	11 - 83	28 - 59	1 - 3	YES
Stone Harbor	25 - 84	27 - 53	1 - 3	YES
Pleasure Bay	2	64 - 65	3	YES
Carnival Bay	3 - 13	59 - 63	3 - 4	YES
Sanctuary Bay	6 - 82	29 - 64	3 - 4	YES
Paradise Bay	32 - 82	30 - 60	1 - 2	YES
Access Channel	82 - 96	20 - 29	0 - 1	YES
Stone Harbor Hole	91 - 96	21 - 22	0 - 1	YES
Great Channel (Slips)	74 - 86	24 - 35	0 - 1	YES



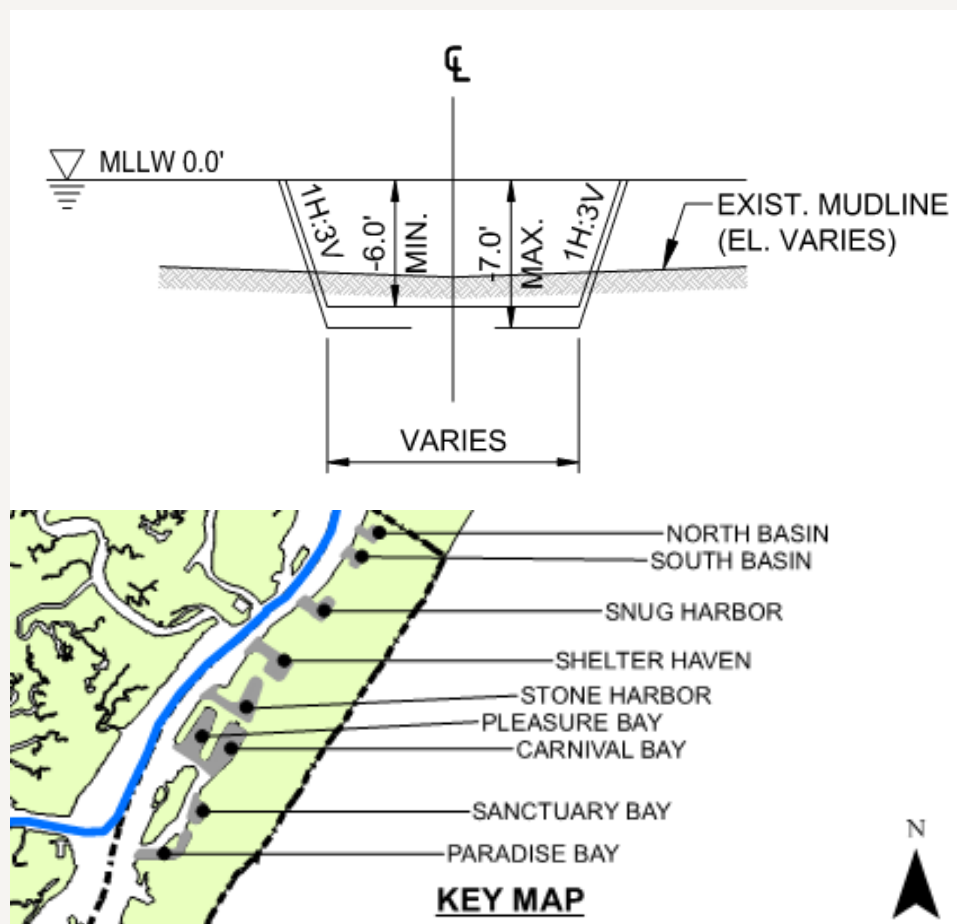
Dredged Material Analysis - North Basin

- > Dredged Material from the North Basin Exceeded the Residential Standards for Benzo(a)pyrene a.k.a. BaP.
 - > The residential and nonresidential criteria for Benzo(a)pyrene is 0.2 mg/kg.
 - > Reported levels within Composite A (S-01 and S-01a) and Composite A-2 (S-03) were 0.25 mg/kg and 0.35 mg/kg respectively.
- > Source
 - > Sources of this compound include creosote timber that was used to for older bulkhead and pilings as well as other natural and industrial processes associated with incomplete combustions.
- > Exposure
 - > BaP partitions strongly to soil, but will break down when exposed to UV in sunlight
 - > BaP has very low solubility in water
 - > BaP does not leach to groundwater

Dredged Material Volume

- > Permit Volume vs. Bid Volume vs. Actual Volume
- > Bid Volume Summary Table

DREDGE AREA	BID VOLUME (CY)
North Basin	8,500
South Basin	5,500
Snug Harbor	9,500
Shelter Haven	8,000
Stone Harbor	4,500
Pleasure Bay	13,500
Carnival Bay	23,000
Sanctuary Bay	13,000
Paradise Bay	11,000
Stone Harbor Hole	4,000
Access Channel	24,500
TOTAL	125,000



Dredging Process

DREDGE



DEWATER



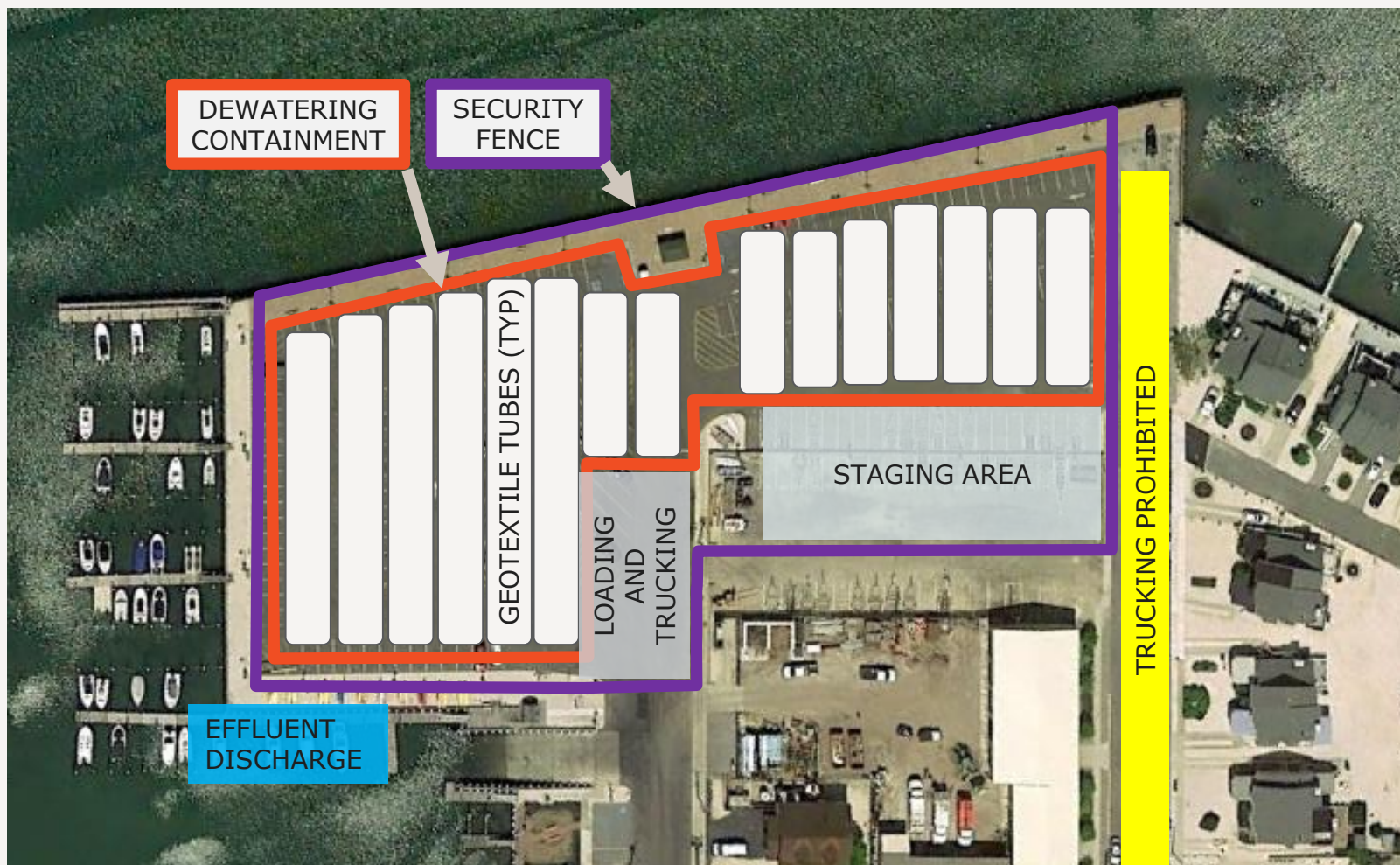
TRANSPORT



CONSOLIDATE



Stone Harbor Marina Logistics



Project Schedule

- > Phase 1 – 2015
 - > Water Quality Testing Program: October
 - > Dredging: Late October – December
 - > Dewatering and Off-Site Transportation: November – March
- > Phase 2 – 2016
 - > Dredging: September – December
 - > Dewatering and Off-Site Transportation: October – March
- > Phase 3 – 2017
 - > Dredging: September – December
 - > Dewatering and Off-Site Transportation: October – March
- > Contractor will Demobilize by March 31 of Each Year
- > Work Hours
 - > Contractor may dredge 7 days/week, 24 hours/day (but not likely)
 - > Stone Harbor can restrict noisy operations during nights and weekends

Concerns

- > Containment
- > Material Stockpile
- > Aeolian Transportation
- > Odor
- > Flooding and Storms Events

Future Maintenance Dredging

- > Permit Duration
 - > NJDEP – 5 year permit
 - > USACE – 10 year permit

- > Stone Harbor Dredged Material Management Plan
 - > Identify and Monitor the Demand for Dredging
 - > Continue to Pursue Alternative Placement Options

STONE HARBOR MAINTENANCE DREDGING

