Stone Harbor DMMP Stone Harbor Dredged Material Management Plan Progress Report to City Council 2 September 2014 Matthew Dalon, P.E., Project Manager, Ocean and Coastal Consultants, Inc.

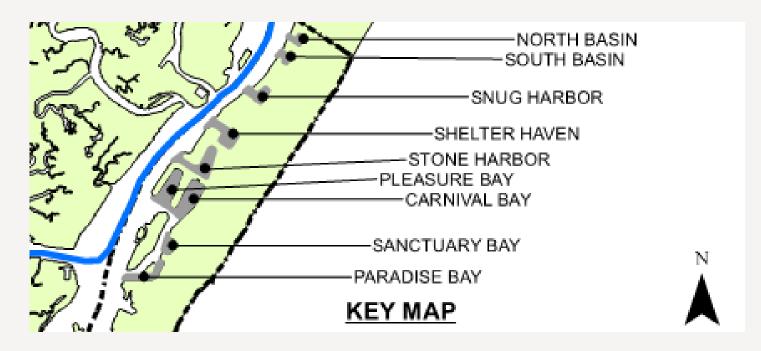
Project Summary

- > Task 1 Dredging Demand (Complete)
 - > What areas need dredging and how much over 10-years?
- Task 2 Alternatives Analysis (Complete)
 - Where can the dredged material be placed?
- > Task 3 DMMP Report (In-progress)
 - > Combination of Task 1 and 2 with recommendations for implementation of the plan
- Additional Tasks
 - > Public Meetings
 - Hydrographic Survey of Additional Areas (Pending)



Task 1 – Dredging Demand

- > Municipal Demand Stone Harbor Lagoons
- > Private Demand Residential/Commercial Slips
- > State Demand State Channels
- Federal Demand NJICW





Task 1 – Dredging Demand Input

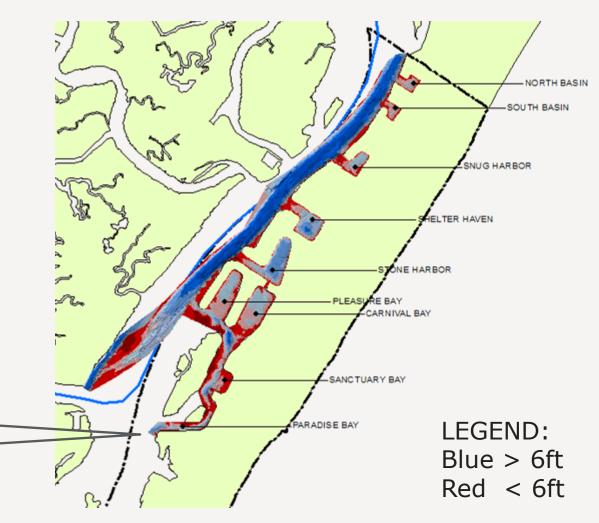
> Hydrographic Survey

Stone Harbor Lagoons (May 2014)

USACE NJICW (August 2013)

Meeting with NJDOT OMR and USACE

Note: Waterway between Sedge Island and Paradise Bay and waterway south of Free Bridge were not included in the survey





Task 1 – 10-YR Dredging Demand Results

- > Private ~ 10,000 cy
- > Stone Harbor ~150,000 cy

| DREDGE AREA | ESTIMATED 10-YR DREDGING DEMAND [cy]* |
|----------------|--|
| North Basin | 24,000 |
| South Basin | 14,500 |
| Snug Harbor | 18,000 |
| Shelter Haven | 20,000 |
| Stone Harbor | 9,000 |
| Pleasure Bay | 12,500 |
| Carnival Bay | 16,000 |
| Sanctuary Bay | 15,000 |
| Paradise Bay | 10,000 |
| Access Channel | 11,000 |
| TOTAL | 150,000 |

^{*}Assumes 1 dredge event per 10 years (~105k cy removed in 2003)

> State ~ 0 cy

| > | Federal | \sim | 175, | ,000 | СУ |
|---|---------|--------|------|------|----|
|---|---------|--------|------|------|----|

| DREDGE AREA | CURRENT DREDGING DEMAND [cy] | ESTIMATED 10-YR DREDGING DEMAND [cy]** |
|---------------------|------------------------------------|--|
| Middle Thoroughfare | 8,000 | 25,000 |
| Football Field | 80,000 | 150,000 |
| TOTAL | 88,000 | 175,000 |

^{**}Assumes 2-3 dredge events per 10 years



Task 2 – Alternatives Analysis

- Disposal
 - > Open Water
 - > Ocean
 - > Confined Aquatic Disposal (CAD)
 - > Sidecasting
 - > Reprofiling
 - > Upland Disposal
 - > CDF
 - > Landfill
 - Dredged Material Processing Facility



- > Beneficial Use
 - > Environmental Restoration
 - Wetlands, Quarry, Intertidal, Dredge Holes, Edge
 - > Environmental Remediation
 - > Upland, Open Water
 - > Flood Protection
 - > Beach and Dune Nourishment
 - General Fill
 - Landfill Cover, Landfill Closure, Misc. Construction Materials





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 Construction Materials





Task 3 – DMMP Report

- Incorporate Comments
 - > List Min Water Depth
 - > Prioritize Stone Harbor Lagoons
 - Group Lagoons for Phased Approach
 - > Evaluate Additional Waterways?
- > Provide Recommendations
- List Next Steps for Implementation
- DMMP Draft Report to Stone Harbor Sept 19th, 2014

