Coastal Management:

2012 Sand Key Nourishment Project

The State issued the nourishment project permit July 6, 2011 to the U.S. Army Corps of Engineers (Corps). The construction officially began March 20, 2012 but has been delayed 14 days. Completion is expected by November 2012. The 8.7-mile beach fill project will place 1.25 million cubic yards of sand on 8.7 miles of shoreline and extend from just south of Sand Key Park to North Redington Beach. It will be constructed moving north to south. It will not include the shoreline of Belleair Shore.

Project Information Notice: 📄

Sand Key Information Notice

Project Updates: 📄

Sand Key update

Project Schedule: 📄

Sand Key Mapped Schedule update
(The schedule is an estimate and will be updated periodically)
Project schedule by location

(This schedule is updated more often than the “Mapped Schedule.”)

Presentations: 📄

Public Meeting – Introduction: Public Mtg Intro 3-8-12
Public Meeting – Construction: Public Mtg Corps 3-8-12
Notice of Sand Key 2012 Beach Nourishment Project
Expected Duration: March to October 2012

PROJECT SUMMARY
- Project Type – Beach Fill
- Type of Dredge – Hydraulic, 24” cutterhead suction
- Estimated Sand Volume – 1,250,000 cubic yards
- Construction Cost - $31,539,350
- Construction Contractor – Norfolk Dredging Company
- Construction Notice-to-Proceed - Issued March 20, 2012
- Anticipated Completion – by October 2012

CONSTRUCTION
- Main staging area – Sand Key Park, Clearwater
- Construction mobilization - March-April 2012
- First sand placement - on northern Sand Key to begin late April or early May 2012
- Active construction area - will move from north to south from Clearwater to N. Redington Beach
- Sand Source - offshore bottom sediments from ~12 miles west of Sand Key Park
- Process:
  - Offshore bottom sand dredged & transported/transfered into a near-shore barge
  - Sand piped from near-shore barge onto beach
  - New sand spread on beach to specific design profile by bulldozers
  - Construction activity on beaches will operate 24 hours a day. Expect noise day and night and lights dusk-dawn. Safety backup alarms are exempt from noise regulations.
- The active beach construction area (±1000 feet long) will be closed to the public

Pinellas County contact: Andy Squires (e-mail: beaches@pinellascounty.org)
2012 Sand Key Nourishment Project

Project Overview

- Project Type – Beach Fill (~1,250,000 cubic yards)
- Type of Dredge – Hydraulic Cutter Suction Dredge (24” cutterhead)
- Construction Cost - $31,539,350
- Construction Administration – U.S. Army Corps of Engineers (Corps)
- Construction Contractor – Norfolk Dredging Company
- Current Status – design complete; notice-to-proceed expected March 2012
- Proposed Completion – between August & October 2012

Construction Activity

Note: - Corps issued Notice-to-Proceed to Norfolk Dredging on March 20, 2012.
  - Preliminary offshore and staging area work done March 20 – May 3.
  - Corps notified FDEP construction activity to begin May 3.
  - After some preliminary beach pumping on May 15th, effective sand placement operations on northern Sand Key began May 16th.
  - Work ceased June 22nd to June 26th due to Tropical Storm Debby.
  - Sand placement on Indian Rocks Beach began August 2nd.
  - Worked ceased August 19th to September 3rd primarily due to TS/Hurricane Isaac that passed well west of Pinellas County.
  - Due to weather and equipment repairs, pumping stopped from September 7 through 12 and September 18 through 22.
  - Sand placement on the north end of Indian Shores began October 4th.
  - Project completed November 20, 2012.

November 20, 2012 – Project completed.

October 29, 2012 – The project remains shut down near 186th Avenue. Norfolk Dredging does not expect to resume work until at least Saturday, November 3rd due to persistent windy conditions from the west predicted through the next several days.

October 26, 2012 – The project still shut down near 186th Avenue in Indian Shores. Due to persistent high winds forecast through mid next week, the project is not expected to resume until October 31 or November 1 next week. As of October 24th, 1,459,920 cubic yards of sand has been pumped to the beaches of Sand Key.

October 24, 2012 – By October 17th, 1,367,769 cubic yards of sand had been pumped to Sand Key beaches. As of October 24th, the active project is near 186th Avenue close to the southern end of Indian Shores. Work will stop and equipment will be demobilized this afternoon (October
24th) due to high winds predicted over the next few days. Based on the current weather forecast, Norfolk dredging expects to be pumping again and moving south by October 29th.

**October 8, 2012** – By October 3rd, 1,178,165 cubic yards of sand had been pumped to Sand Key with the project at Whitehurst Avenue at the very southern border of Indian Rocks Beach. Due to weather and the need for some mechanical repairs, pumping stopped early October 1st and resumed about 3 p.m. October 4th. As of October 6th the project was moving south along the northern section of Indian Shores.

**September 24, 2012** – Due to weather and mechanical issues Norfolk Dredging was not pumping sand to the beach August 20 through September 2, September 7 through 12, and September 18 through 22. Pumping resumed late September 23rd at 5th Avenue along Indian Rocks Beach. By September 17th 1,072,665 cubic yards of sand have been pumped to Sand Key from 370 scows (barges) full of sand. The Corps estimates about 350,000 cubic yards of additional sand is needed to complete the project. On August 29th, 2012 the Corps requested a permit modification from the Florida Department of Environmental Protection (FDEP) to permit the Egmont East Borrow site for use if the existing Area L Borrow site capacity is not sufficient to finish the project. Area L is located about 12 miles west of Clearwater Pass. The Egmont East Borrow site is located just north of Egmont Key on the north side of the shipping channel. The permit modification is under evaluation by FDEP. The project schedule currently shows completion between mid to late November 2012.

**September 4, 2012** – Norfolk Dredging resumed pumping sand about 5 pm on Sept. 3 at 900 Gulf Blvd. along Indian Rocks Beach. Norfolk Dredging has also modified their beach fill route to continue moving south from 900 Gulf Blvd. to 614 Gulf Blvd., and instead of stopping and moving to 42-48 Gulf Blvd. and proceeding northward (the original plan), the new plan is to keep moving south from 900 Gulf Blvd. all the way to 19930 Gulf Blvd. along Indian Shores (the south end of Segment 4). The current schedule is posted on the Sand Key Webpage under “Schedule by Location.”

**August 22, 2012** – Due to recent thunderstorms and the threat of Tropical Storm Isaac, the project was shut down at about R78 (~900 Gulf Blvd) August 19th and is not expected to resume until at least August 29th or longer if Isaac impacts the area. The Unloader (pumping vessel normally located about 1 mile offshore) and all dredging equipment have been moved to Clearwater Pass. It is possible the dredge may temporarily return to the borrow area within a couple of days to load scows (barges) with sand to serve as ballast for the storm. As of today, 971,316 cubic yards of sand have been pumped to Sand Key using 335 scow loads.

**August 13, 2012** – Sand placement at 15th Avenue on Indian Rocks Beach began August 2nd. The final grading was being completed on Belleair Beach August 3rd. A very narrow dry beach along Indian Rocks Beach resulted from Tropical Storm Debby in late June. Due to the narrow beach and public safety concerns, the contractor expects 3-4 consecutive beach access points on Indian Rocks Beach will be closed at any given time. The north portion of Indian Rocks Beach (15th Avenue to 26th Avenue) is expected to be done by about August 17th with the active project area moving northward about 300-400 feet per day. Once the beach is nourished at 26th Avenue, the pumping activity will move back to 15th Avenue and proceed south. About 1000 feet of Indian Rocks Beach will be closed off to the public around the active work area. As of August 8th, 814,000 cubic yards of sand had been pumped to the Sand Key beaches from 278 scows (barges) of material transported from the borrow area site.
**July 16, 2012** - The project is proceeding well and moving south rapidly along Belleair Beach from the Morgan Street Park shoreline area. Norfolk Dredging is expected to complete the Belleair Beach shoreline in about a week or so and then move on to Indian Rocks Beach with initial sand placement at about 15th Avenue. The project will then proceed north to the north end of Indian Rocks Beach during late July and early August. Please note that bad weather and equipment problems could alter the schedule. No word yet as to whether Federal Emergency funds will be available to replace sand lost along the Pinellas beaches from tropical storm Debby.

**June 29, 2012** – Norfolk Dredging ceased operations on June 22nd due to rough seas and the onset of rough sea conditions. On the morning of June 28th Norfolk Dredging began remobilizing for dredging and pumping to the beach and by that evening were placing sand near Dan’s Island (1660 Gulf Blvd.) and moving southward. On June 29th the Corps’ storm damage assessment team arrived at Sand Key to begin their evaluation of beach erosion in the wake of Tropical Storm Debby.

**June 1, 2012** – Due to rough weather and some equipment concerns on June 1, the dredge Charleston was moved from the borrow area to Clearwater Pass. The active project along the beach is located at about 1520 Gulf Blvd. (R-59). The dredge is expected to resume work at the borrow area by June 7th or 8th depending upon weather.

**May 18, 2012** – The initial pumping of sand to the beach at R-60.25 (1660 Gulf Blvd) began late afternoon on May 15. An electrical problem and a clogged pipe were encountered the first couple of days. Steady pumping should resume today and the active work area is expected to begin building the beach moving northward from 1660 Gulf Blvd. within the next couple of days.

**May 1, 2012** – The Corps notified FDEP as required per permit General Condition 10 that construction activity would officially commence on May 3, 2012.

**April 30, 2012** – The Corps has revised their estimate to May 12-14 for when the first sand placement will occur on northern Sand Key.

**April 13, 2012** – The Corps granted a 14-day extension to the project schedule. Norfolk Dredging Company’s dredge is late completing work on the east coast of Florida. Consequently, the dredge will be arriving to the Sand Key area later than originally planned. The Corps released a revised schedule this week showing first sand placement on northern Sand Key to occur May 7, 2012.

**March 20, 2012** – The Notice-to-Proceed was issued by the Corps to Norfolk Dredging on March 20, 2012. Norfolk Dredging has 30 days to provide a revised project schedule. Work over the next few weeks will be at the Sand Key staging area adjacent to Clearwater Pass Channel, along the pipe corridors extending from the shoreline to about a mile or so offshore at five locations along the length of Sand Key, and at the borrow area located about 12 miles west of Sand Key Park. At this time, it is anticipated that the first sand placement will begin in late April or early May (subject to change) along the northern edge of the north tower of Dan’s Island located at 1620 Gulf Blvd.

**Preconstruction Status Reports**
March 8, 2012 – A Public meeting was held at 6:30 p.m. at the Belleair Beach Community Center. A project overview and construction details including the proposed schedule was presented by County and U.S. Army Corps of Engineers staff. The notice-to-proceed was been delayed and is expected to be issued any day.

February 24, 2012 – A preconstruction conference was held February 23, 2012 with the dredging contractor, the Army Corps of Engineers, Pinellas County, and regulatory agencies. Project updates from the meeting are summarized below.

- Contract period 220 days (March to October 2012)
- Main Staging Area – Sand Key Park along Clearwater Pass
- Preliminary project schedule (subject to change):
  a. March-April 2012: Survey and Mobilization
  b. Project Components (base bid & all options to be constructed)
     i. Base Bid: Clearwater and Belleair Beach (1310 Gulf Blvd to 1900 Gulf Blvd)
     ii. Option A: Indian Rocks Beach (2718 Gulf Blvd to 312 Gulf Blvd)
     iii. Option B: Indian Shores Beach (312 Gulf Blvd to 17980 Gulf Blvd)
     iv. Option C: Redington Shores & North Redington Beaches (17980 Gulf Blvd to 16850 Gulf Blvd)
  c. Initial Sand Placement – to begin late April or early May on northern Sand Key (Base Bid Section)
  d. Estimated Project Duration and Fill Volumes (cubic yards) by Beach Component:
     i. Base Bid: 80-100 days (700,000 cy)
     ii. Option A: 30-40 days (245,000 cy)
     iii. Option B: 30-40 days (121,000 cy)
     iv. Option C: 10-15 days (60,000 cy)

February 16, 2012 – The project is on schedule and will officially begin March 1, 2012. A public meeting will be held at 6:30 p.m., March 8, 2012 at the Belleair Beach Community Center located at 444 Causeway Blvd., Belleair Beach, FL 33786. Construction related activity on the northern portions of Sand Key is expected during the first two weeks of March. Placement of new sand on the Sand Key beaches in Clearwater should begin later in March or early April.

October 17, 2011 – The project notice-to-proceed (NTP) is expected to be issued March 1, 2012. The construction contractor will start work within 30 days of NTP.

September 20, 2011 – The project Notice of Award to Norfolk Dredging Company occurred September 9, 2011 (Contract No. W912EP-11-C-0017) for a project cost of $31,539,350. The Corps expects to receive a project schedule within the next week or two. At this time, the project start date and schedule are not known. The estimated project duration is not-to-exceed 220 days and could begin as soon as November 2011 or as late as April 2012.

August 24, 2011 – The Bids for the project were opened August 12, 2011. The apparent low bidder is Norfolk Dredging which has a great deal of experience working Pinellas County beaches. The bid amount for the project in its entirety is $31,539,350 and is within available funding. Consequently it is anticipated that the Base Bid and all Options will be constructed by August 2012 (see additional information in the July 11, 2011 summary below). Project award is expected no later than September 30, 2011. Until the project is awarded and the construction
contractor submits a project schedule, the project start date will not be known. The estimated project duration is 220 days and could begin as soon as early November 2011 or as late as April 2012.

**July 11, 2011** – The Bid Solicitation was advertised today. Project start slated for April 2012; however, the Corps is considering moving the potential start date to November 2011. Project duration is 181 days after Notice to Proceed.

The project bid items include:

- **Base Bid:** Clearwater and Belleair Belleair Beach (about 1310 Gulf Blvd to 1900 Gulf Blvd)
- **Option A:** Indian Rocks Beach (about 2718 Gulf Blvd to 312 Gulf Blvd)
- **Option B:** Indian Shores Beach (about 312 Gulf Blvd to 17980 Gulf Blvd)
- **Option C:** Redington Shores & North Redington Beaches (about 17980 Gulf Blvd to 16850 Gulf Blvd)

Assuming the project award amount does not exceed available funding, the entire project (Base Bid plus all options) is expected to be completed in 2012 and will nourish the same shoreline as was completed in the previous 2005-2006 Sand Key project.

The Bid Solicitation can be viewed at: [https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=4983de2cc1084c838fb4ae654a3ae37a&_cview=0](https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=4983de2cc1084c838fb4ae654a3ae37a&_cview=0)

**July 6, 2011** – The State permit for the Sand Key nourishment project was issued today. The permit can be viewed at the following link: [http://bcs.dep.state.fl.us/env-prmt/pinellas/issued/0238664_Sand_Key/001-JC%20and%20002-BV/Final%20Orders/](http://bcs.dep.state.fl.us/env-prmt/pinellas/issued/0238664_Sand_Key/001-JC%20and%20002-BV/Final%20Orders/)

**June 23, 2011** - The Corps expects the final State permit for the project to be issued in June 2011, award to a construction contractor on Sept. 30, 2011, construction notice-to-proceed after October 2011, and project completion by August 2012.

The project fill area as currently proposed will be essentially the same as in the previous 2005-2006 project:

- e. R56 (1310 Gulf Blvd in Clearwater) to R66 (1900 Gulf Blvd in Belleair Beach),
- f. Note: Belleair Shore does not participate in nourishment; their shoreline will not receive sand,
- g. R71A (2718 Gulf Blvd in Indian Rocks Beach) to R107 (16850 Gulf Blvd in N. Redington Beach).

Assuming the project cost estimates do not exceed the available funding, the work will not be phased and will be done as one project.

**May 2011** - the Corps announced they have enough Fiscal Year 2011 funding, combined with previous year carryover funds, to provide the needed federal cost share for the entire Sand Key nourishment project from Clearwater to North Redington Beach.

**April 14, 2011** - The permit was deemed complete on April 14, 2011 by the Florida Department of Environmental Protection (FDEP). The issues on hardbottom monitoring and allowable silt content have been resolved. The permit is expected to be issued within 90 days (by mid July).
March-April 2011 - The Crops’ latest permit submittal to the State (FDEP) includes a phased approach. The shoreline reaches filled will depend upon available funding. A two-phased approach is anticipated as only about one-half the Federal funds needed for a complete project are available.

July 2010 to April 2011 - Federal funds available inadequate to nourish the entire Sand Key project area.

June 2010 - the U.S. Army Corps of Engineers (Corps) requested $13 million of emergency funds from their headquarters to expedite the Sand Key nourishment project. These emergency funds were not granted.

Spring 2010 - the County requested an additional $11.3 million in Federal Funds for FY 2011 to cover the 60% share of the anticipated total project cost of $35 million. These funds were not received.

2010 - $10,657,000 of federal funds were appropriated for the next Sand Key nourishment project.
Indian Rocks Beach
(R-71A to R-80)
Volume = 200,000 CY
Start Date: Aug. 2, 2012
End Date: Sep. 16, 2012

Indian Rocks Beach/
Indian Shores
(R-80 to R-88)
Volume = 150,000 CY
Start Date: Sep. 17, 2012
End Date: Oct. 9, 2012

Indian Shores
(R-88 to R-100)
Volume = 137,000 CY
Start Date: Oct. 10, 2012
End Date: Nov. 12, 2012

Clearwater Beach
(R-56 to R-60)
Volume = 300,000 CY
Start Date: May 16, 2012
End Date: June 16, 2012

Belleair Beach
(R-60 to R-66)
Volume = 400,000 CY
Start Date: June 17, 2012
End Date: July 31, 2012

Redington Shores/ North Redington Beach
(R-101 to R-107)
Volume = 60,000 CY
Start Date: Nov. 10, 2012
End Date: Nov. 20, 2012
ENTIRE PROJECT FILL COMPLETED NOV. 20, 2012
## APPROXIMATE SCHEDULE

### SUBJECT TO CHANGE

**Revised 11-20-12**

*Project Completion Location Nov. 20, 2012*

*Project Completed 11-20-12*

Filled Locations shown in yellow highlight

Pipe Corridor Locations shown with light blue highlight

### R Monument - Street - Address Reference

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67-71 BELLEAIR SHORE NO NOURISHMENT

| 72    | INDIAN ROCKS BEACH | 26TH AV | 3  | 2600 | END |               |                          | 15-Aug-12       |                 |
| 73    | INDIAN ROCKS BEACH | 23RD AV | 3  | 2300 | NORTH|               |                          | 12-Aug-12       |                 |
| 74    | INDIAN ROCKS BEACH | 20TH AV | 3  | 2000 | NORTH|               |                          | 10-Aug-12       |                 |
| 75    | INDIAN ROCKS BEACH | 17TH AV | 3  | 1616 | NORTH|               |                          | 6-Aug-12        |                 |
| 76    | INDIAN ROCKS BEACH | 15TH AV | 3  | NORTH / SOUTH |         |                   |                          | 2-Aug-12        |                 |
| 77    | INDIAN ROCKS BEACH | 12TH AV | 3  | SOUTH |       |                   |                          | 17-Aug-12       |                 |
| 78    | INDIAN ROCKS BEACH | 8TH AV  | 3  | SOUTH |       |                   |                          | 14-Sep-12       |                 |
| 79    | INDIAN ROCKS BEACH | 6TH AV  | 3  | 614  | SOUTH|               |                          | 16-Sep-12       |                 |
| 81    | INDIAN ROCKS BEACH | 5TH AV  | 4  | SOUTH |       |                   |                          | 24-Sep-12       |                 |
| 82    | INDIAN ROCKS BEACH | 4        | 314 | SOUTH |       |                   |                          | 26-Sep-12       |                 |
| 83    | INDIAN ROCKS BEACH | 4        | 108 | SOUTH |       |                   |                          | 28-Sep-12       |                 |
| 84    | INDIAN ROCKS BEACH | CENTRAL AV | 4  | SOUTH |       |                   |                          | 30-Sep-12       |                 |
| 84.4  | INDIAN ROCKS BEACH | CENTRAL AV | 4  | 44-48 | SOUTH |                   |                          | 2-Oct-12        |                 |
| 85    | INDIAN ROCKS BEACH | 2        | 20  | SOUTH |       |                   |                          | 4-Oct-12        |                 |
| 86    | INDIAN SHORES     | 20222   | 4  | SOUTH |       |                   |                          | 6-Oct-12        |                 |
| 87    | INDIAN SHORES     | 20040   | 4  | SOUTH |       |                   |                          | 8-Oct-12        |                 |
| 88    | INDIAN SHORES     | 19930   | 4  | SOUTH |       |                   |                          | 9-Oct-12        |                 |
| 89    | INDIAN SHORES     | 19828   | 5  | SOUTH |       |                   |                          | 10-Oct-12       |                 |
| 90    | INDIAN SHORES     | 19738   | 5  | SOUTH |       |                   |                          | 11-Oct-12       |                 |
| 91    | INDIAN SHORES     | 197TH AV | 5  | SOUTH |       |                   |                          | 12-Oct-12       |                 |
| 92    | INDIAN SHORES     | 19610   | 5  | SOUTH |       |                   |                          | 13-Oct-12       |                 |
| 93    | INDIAN SHORES     | 19506   | 5  | SOUTH |       |                   |                          | 14-Oct-12       |                 |
| 94    | INDIAN SHORES     | 19418   | 5  | SOUTH |       |                   |                          | 15-Oct-12       |                 |
| 95    | INDIAN SHORES     | 19222   | 5  | SOUTH |       |                   |                          | 17-Oct-12       |                 |
| 96    | INDIAN SHORES     | NEAR PARK BLVD BRDG | 5  | 19010 | SOUTH |                   |                          | 19-Oct-12       |                 |
| 97    | INDIAN SHORES     | 18720   | 5  | SOUTH |       |                   |                          | 21-Oct-12       |                 |
| 98    | INDIAN SHORES     | 186TH AV | 5  | SOUTH |       |                   |                          | 24-Oct-12       |                 |
| 99    | INDIAN SHORES     | SUNCOAST SEABIRD SANCT | 5  | 18328 | END |                   |                          | 4-Nov-12        |                 |
| 100   | REDINGTON SHORES  | 18214   | 5  | END |       |                   |                          | 12-Nov-12       |                 |

NO NOURISHMENT - BREAKWATER

| 101   | REDINGTON SHORES  | 180TH AVE W | 6  | 17980 | NORTH |                   |                          | 12-Nov-12       |                 |
| 102   | REDINGTON SHORES  | CORAL AV    | 6  | 17860 | NORTH |                   |                          | 11-Nov-12       |                 |
| 103   | REDINGTON SHORES  | 189TH AV    | 6  | 16800 | END |                   |                          | 20-Nov-12       |                 |

| 104   | REDINGTON SHORES  | 175TH TERR DR | 6  | 17500 | SOUTH |                   |                          | 13-Nov-12       |                 |
| 105   | N REDINGTON BCH   | 173RD AV    | 6  | 17334 | SOUTH |                   |                          | 15-Nov-12       |                 |
| 106   | N REDINGTON BCH   | 171ST AV    | 6  | 17120 | SOUTH |                   |                          | 17-Nov-12       |                 |
| 107   | N REDINGTON BCH   | 169TH AV    | 6  | 16600 | END |                   |                          | 20-Nov-12       |                 |
2012 Sand Key Beach Nourishment

Andy Squires
Coastal Manager

e-mail: beaches@pinellascounty.org
727/464-4633
Topics

• Why Nourish Our Beaches
• County Managed Beaches
• Sand Key Nourishment History
• Funding
• Project Team
• USACE Project Presentation
Why Nourish Our Beaches
Most Important Reason!

1. Storm Protection
   - Saves Lives
   - Upland Infrastructure
   - Property
STORM PROTECTION!

Clearwater, September 1985

Clearwater, June 2011
STORM PROTECTION!

Indian Shores
September 1985

Indian Shores
June 2011
STORM PROTECTION!

North Redington Beach
September 1985

North Redington Beach
Post Fill 1991

North Redington Beach
June 2011

North Redington Beach
Post Fill 1999
Economic Benefits!

2. Pinellas County Tourism (Data Research Services, Inc. Analysis for 2009)

- 74.2% of Visitors Come for the Beaches
- $2.794 B - Total Economic Impact
- Over 35,800 - Jobs Supported
- $88.4 M - State & Local Taxes Paid
Another Reason to Nourish Our Beaches…

3. Environmental Benefits

- Habitat
  - Marine Turtles
  - Shorebirds
County Managed Beaches

- Honeymoon Island
- Sand Key
- Treasure Island
  - Sunshine Beach
  - Sunset Beach
- Long Key
  - Upham Beach
  - Pass-a-Grille Beach
- Mullet Key (Ft. DeSoto Park)
Non-Federally Authorized Project

Honeymoon Island

State Funding
- Construction 100%
- Non-construction 75% (design, permitting, etc.)
Federally Authorized Projects

Sand Key
Treasure Island
Long Key

Funding
~60% Federal
~20% State
~20% County
Sand Key

Nourishment History

• 1988 (Phase 1)
• 1990 (Phase 2)
• 1992 (Phase 3)
• 1998-99 (Phase 4)
• 2005-2006

Current Nourishment Interval
5-6 Years
Sand Key Phase I - 1988

Redington Shores & N. Redington Beach
• 1.5 miles (R99-R107)
• 300,000 cubic yards of sand
• Sand Source: John’s Pass Ebb Shoal
• $2.6 million
Indian Rocks Beach
• 2.6 miles (R72-R85)
• 1,300,000 cubic yards of sand
• Sand Source: Egmont Channel Shoal
• $14.5 million
Sand Key Phase III - 1992

Indian Shores, Redington Shores & North Redington Beach
- 4.2 miles (R85-R107)
- 850,000 cubic yards of sand
- Sand Source: Egmont Channel Shoal
- $11.7 million
Sand Key Phase IV – 1998-99

Clearwater to N. Redington Beach (excluding Belleair Shore)
- 8.7 miles (R56-R66, R72-R107)
- 2.6 million cubic yards of sand
- Sand Source: Egmont Channel Shoal
- $24 million
Sand Key 2005-2006

Clearwater to N. Redington Beach (excluding Belleair Shore)

• 8.7 miles R56-R66, R71-R107
• 1.7 million cubic yards of sand
• Sand Source: Egmont Channel Shoal
• $45 million
Sand Key 2012

Clearwater to N. Redington Beach (excluding Belleair Shore)

- 8.7 miles R56-R66, R71-R107
- 1.3 million cubic yards of sand
- Sand Source: 12-14 miles offshore
- $31.5 million
Sand Key Projects 1988-2012

1988

1990

1992

1998

2006

2012
Sand Key Nourishment

Starting Location
R60
Cabana Club
1586 Gulf Blvd.
Sand Key Nourishment

Starting Location
R60
Cabana Club
1586 Gulf Blvd.
Sand Key 2012

Project Funding

• 62.8% Federal
• 37.2% Non-Federal
Coastal Management Program Funding from Tourist Development (Bed) Tax

One-half of Third Penny
~ $2 million
Annual Revenue
Sand Key 2012 Project Team

- Pinellas County
  - Local Sponsor

- U.S. Army Corps of Engineers (USACE)
  - design, permitting, construction

- Construction Contractor for USACE
  - Norfolk Dredging
QUESTIONS

Andy Squires, Coastal Manager  727- 464 - 4633  
E-mail: beaches@pinellascounty.org

Web Link to Updates: 
www.pinellascounty.org/environment/coastalMngmt/sandkey.htm
Order of Work

1. Start Shore-Bird Monitoring
   • Start Pre-Construction Vibration Surveys

2. Start Hard-Bottom Protection Dives
   • Set-up Barge Unloader and Lay Submerged Pipe-line to Beach Fill Area

3. Set-up Dredge at Borrow Site
   • Begin Dredging and Beach Building
Contractor Staging Area
Contractor Staging Area Aerial
The Anchor Positioning System (APS) would utilize two Wireless GPS transmitters located on either the anchor barge or anchor tow tug. Each transmitter would independently send their position to the dredge and tug Hypack computers simultaneously at a 2-second interval. Upon receipt, the dredge computer can apply vessel offsets and heading corrections to properly display the barges or tugs position on the dredge operators screen. When received, incoming anchor barge or anchor tow tug position data will also be stored locally on the dredge. Below is a figure (Fig. 1) of the operational layout of equipment.
Vibration Monitoring Equipment
RESEARCH 1 IS A 31 FT BY 10.6 BEAM OFFSHORE SHORE CENTER CONSOLE BOAT, WITH TWIN 250 HP YAMAHA O/B NEW IN 2009. TOP SPEED 58 MPH, FUEL 300 GAL ELECTRONICS 25 WATT ICOM VHF, 40 WATT HAILER, GARMIN 3210/ DGPS / WAAS COLOR CHARTPLOTTER WITH GDL MARINE WEATHER SATELLITE RECEIVER, PLUS GSD 22 COLOR SOUNDER / SONAR WITH A 16,000 WATT TRANSDUCER 5,000 FT MAX DEPTH. 32 MILE 4 KW RADAR, LAPTOP WITH MAPTECH SOFTWARE. ALL EQUIP IS INTERFACED. AND HAS A RDF AN AIS. THIS VESSEL MEETS ALL USCG / USACOE REGS. AND SAFETY. N.M.F.S. and State Approved Endangered Species Observers. Environmental Consulting.

SALVAGE WORK, TOWING, OFFSHORE FISHING CHARTERS.

METHODLOGY

20 Years Exp. Turbidity Monitoring (Equipment)

Hach Model 2100P Portable Turbidity Meter

Van Dorn 1L Water Sampler with 50 Meters of Calibrated Nylon Line, with a Leaded Collar. Which Provides a Rapid Descent with Minimal Drift. All Testing are performed aboard Research 1. All Turbidity Samples are performed in NTU'S and not to exceed 29 NTU'S over Background. All samples are Analyzed Within 30 Min. from the collection Time. All Turbidity Samples are taken within Compliance of this Contract. Also DO Portable Dissolved Oxygen Meter will be used. DO samples will be taken as stated in this contract.
24” CSD Dredge “Charleston”
Spider Barge (Fills Scows)
Spider Barge
Scows
Material Barges “SCOWS”
Tug Towing Scow
Barge Unloader “Vicksburg”
Questions ???