



INDIAN RIVER COUNTY SECTOR 3 BEACH RESTORATION PROJECT

Project Currently Under Construction

Project Background

The Sector 3 project will place approximately 586,000 cubic yards of beach compatible sand along this 6.6 mile stretch of beach. The County has selected Ranger Construction Industries of Fort Pierce to construct the project at a cost of \$10.5 million dollars. The source of the sand is from two upland sand mines located within Indian River County (See **Figure 1**). The Sebastian Inlet District is funding approximately \$4.6 million dollars of the construction cost, and the County is applying to the Florida Department of Environmental Protection for cost sharing on the balance of the construction costs. The DEP has cost shared with the County for the engineering design and permitting costs of the project on a 50/50 basis. Local funding for the Sector 3 project comes from the Beach Preservation Fund, which is derived from a combination of Tourist Tax and Local Option Sales Tax revenue.

The project will be constructed in three separate phases. Phase 1 of the project was completed May 6, 2010 and placed 267,182 cubic yards of sand over 3.8 miles of beach from the Orchid Island Golf and Beach Club south into John's Island. Phase 2 of the project, was completed April 30, 2011 and placed 207,491 cubic yards of sand over 1.6 miles of beach from Windsor south to Orchid Island Golf and Beach Club. Phase 2b construction resumed on January 9, 2012 and will place the balance of the material onto 1.2 miles of beach from the Seaview Development south to Windsor by March 2012.

The primary beach access for Phase 2b will be Treasure Shores Beach Park and will be closed throughout construction. The northern side of Golden Sands Beach Park will serve as temporary beach access and is expected to remain open to the public throughout construction.

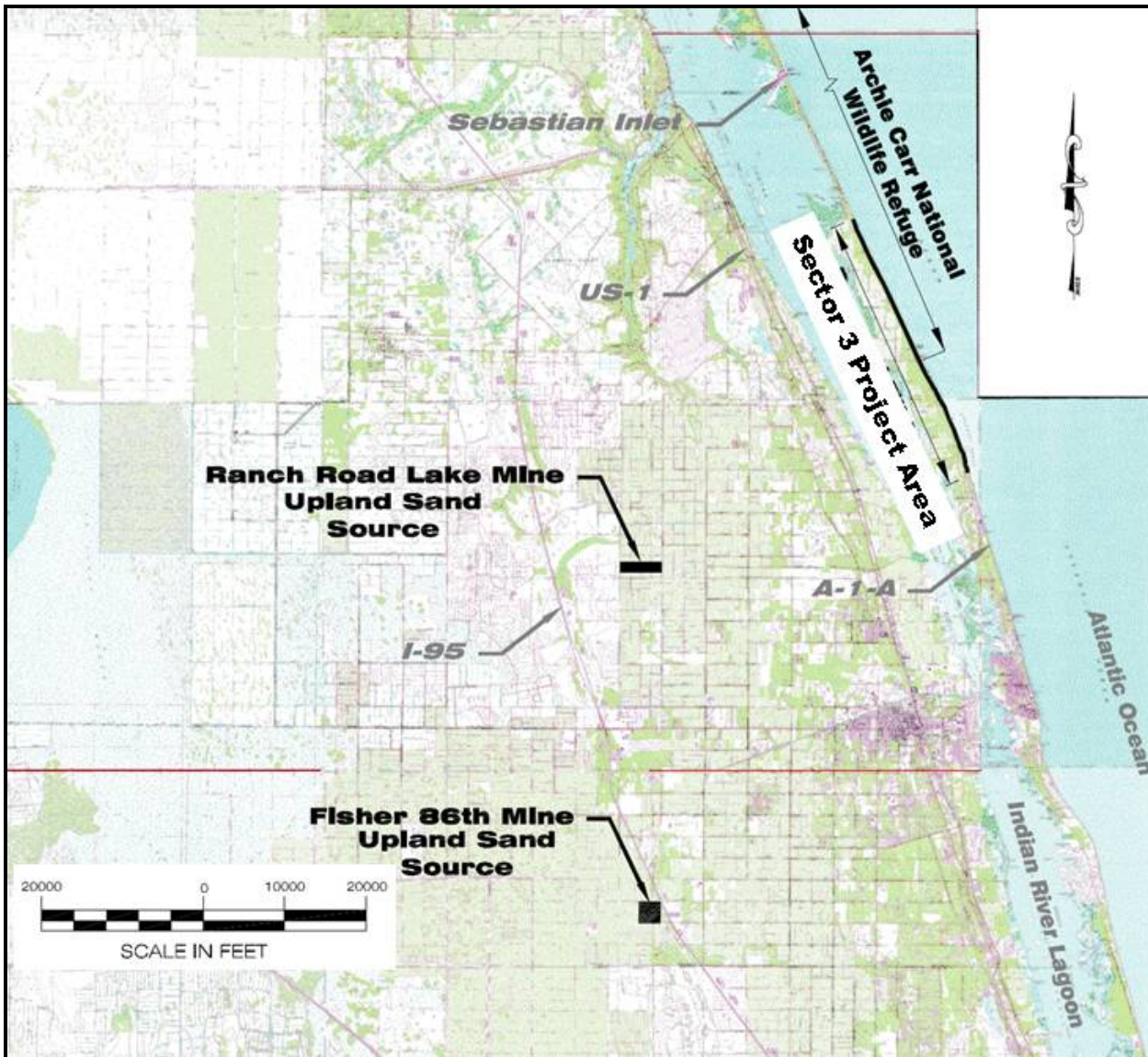


FIGURE 1 - Sector 3 project location map and location of upland sand mines

BENEFITS FROM THIS PROJECT

The Sector 3 project will benefit the people of Indian River County in a number of ways.

Storm Protection

A wider beach will provide better protection from hurricanes and other large storms for both public and private property. The beach restoration project will help reduce that possibility.

Recreation

The project will provide a much wider beach for recreational users. Since the project area includes five County beach parks and accesses, this is an important benefit. All beaches in Florida are public, and the entire area of the newly constructed beach will be available to everyone.

Environmental Benefits

Environmental benefits from beach restoration in Sector 3 include; increased dry beach width for turtle nesting activities, as well as the addition of potential habitat for use by the threatened southeastern beach mouse and a variety of shore birds. The nourishment project and associated dune enhancement design will increase the habitat for these endangered, threatened, and protected species and will provide habitat for a variety of other non-threatened plant and animal species.

PROTECTING THE ENVIRONMENT

Anytime you move so much sand around through fragile coastal environments, there will be some environmental impacts. Our goal in this project has been, through careful design and planning, to minimize the impacts the project will have and to compensate for the unavoidable impacts by appropriate mitigation.

Recent Project Updates

February 14, 2012

As of February 13, 2012, approximately 58,000 cubic yards or 52.7% of the 110,000 cubic yard estimated to complete Phase 2b of the Project have been delivered and placed on the beach.

Approximately 4,000 feet of the construction template fronting the beaches from the Seaview Development south have been completed. The total Phase 2b shoreline is approximately 6,500 feet in length. As of February 13, 2012, 61.5% of the total Phase 2b project area has been fully constructed leaving approximately 2,500 linear feet of the project area (beach north and south of Treasure Shores Park) left to construct. Based on the progress to date, the Contractor estimates that construction will be completed by the second week of March 2012.



Project under Construction

Location: Approximately 700 feet north of Treasure Shores Beach Park - Photo taken 2-13-12

January 25, 2012

As of January 24, 2012, approximately 35,000 cubic yards or 31.8% of the 110,000 cubic yards estimated to complete Phase 2b of the Project have been delivered and placed on the beach.

Approximately 3,000 feet of the construction template fronting the beaches from the Seaview Development south have been completed. The total Phase 2b shoreline is approximately 6,500 feet in length. As of January 24, 2012, 46.2% of the total Phase 2b project area has been fully constructed leaving approximately 3,500 linear feet of the project area (beach north and south of Treasure Shores Park) left to construct.

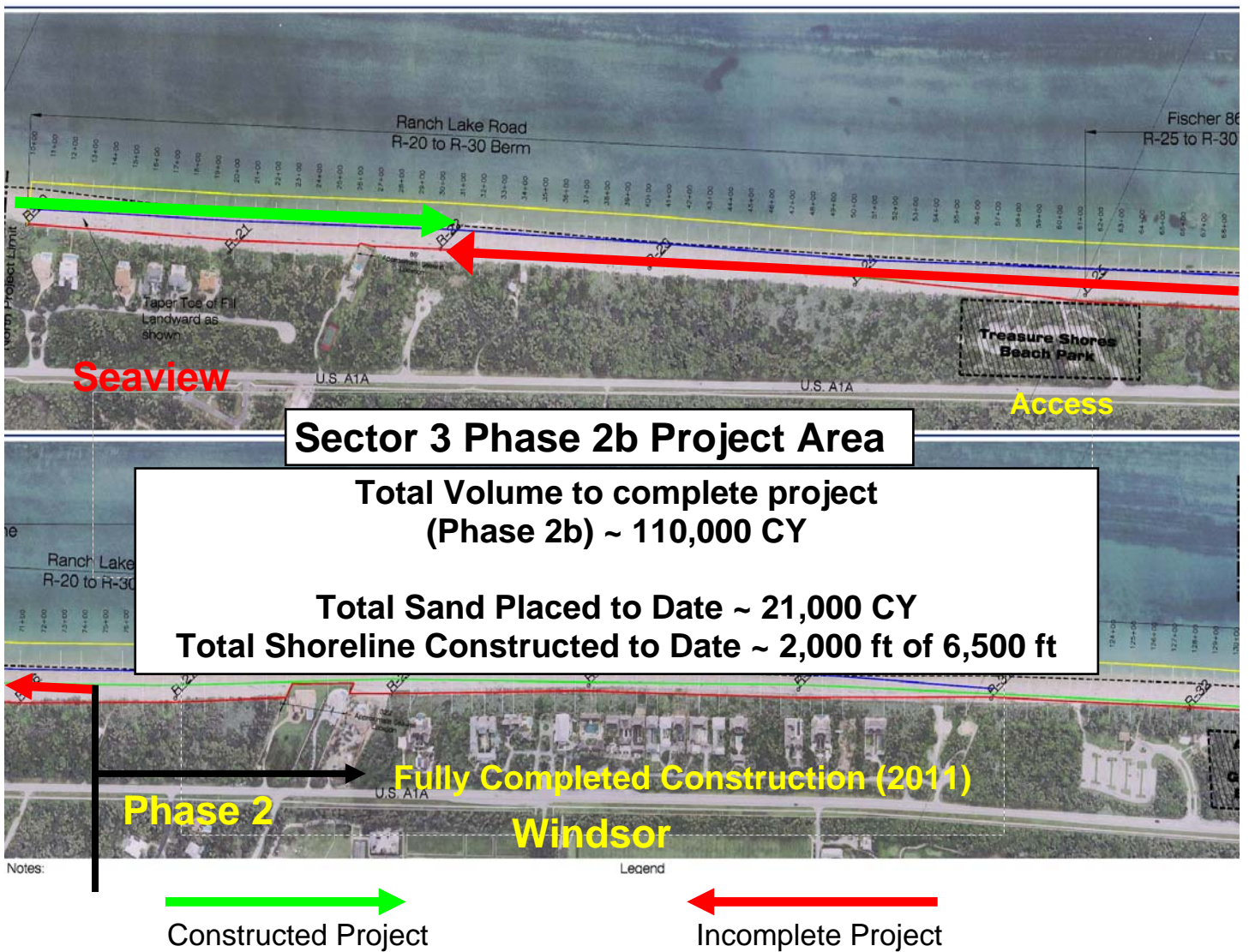
January 18, 2012

As of January 17, 2012, approximately 21,000 cubic yards or 19.1% of the 110,000 cubic yards estimated to complete Phase 2b of the Project have been delivered and placed on the beach.

Approximately 2,000 feet of the construction template fronting the beaches of the Seaview Development have been completed. The total Phase 2b project shoreline is approximately 6,500 feet in length. As of January 17th, 30.8% of the total Phase 2b project area has been fully constructed leaving approximately 4,500 linear feet of the project area (beaches north and south of Treasure Shores Park) left to construct.



Completed Project
Location: Southern Seaview Development - Photo Taken 1-13-12



January 11, 2012

Phase 2b resumed construction on January 9, 2012, and will place approximately 110,000 cubic yards of upland (truck hauled) sand on 1.2 miles of beach from the Seaview Development south to Windsor. As of January 11, 2012, approximately 9,000 cubic yards or 8.2% of the 110,000 cubic yards estimated to complete the Project have been delivered and placed on the beach.

November 28, 2011

Phase 2b, expected to begin January 2012, will place the balance of the material (110,000 cubic yards) onto 1.2 miles of beach from the Seaview Development south to Windsor.

The primary beach access for Phase 2b will be Treasure Shores Beach Park and will be closed throughout construction. The northern side of Golden Sands Beach Park will serve as temporary beach access and is expected to be closed on limited bases.

May 3, 2011

Phase 1

The Phase 1 construction area is a 4.3 mile section of beach beginning at Golden Sands Park and extending south to northern John's Island. The majority of Phase 1 was completed in December, 2010. The remaining sections of Phase 1 were completed on April 14, 2011.

Phase 2

The Phase 2 construction area is a 2.3 mile section of beach beginning at the Seaview Development and extending south to Golden Sands Beach Park. Based on a January, 2011 beach profile survey, the total volume of sand needed to fully complete the Project (Phase 1 remainder + Phase 2 is 280,206 CY. Construction began on February 28, 2011. Beach access for Phase 2 was divided between Treasure Shores Park and Golden Sands Park.

Construction Update

Please Note:

Golden Sands Beach Park reopened on April 30, 2011.

Treasure Shores Beach Park is expected to reopen before May 4, 2011.

Due to sea turtle nesting season, all sand hauling and beach construction was suspended on April 30, 2011. As of April 30th, approximately 180,000 cubic yards or 64.2% of the 280,206 cubic yards estimated to complete the Project have been delivered and placed on the beach.

Approximately 7,500 feet of the construction template fronting beaches of Windsor, Sanderling, and Orchid have been completed and surveyed. The total Phase 2 project shoreline including the remaining sections of Phase 1 is approximately 14,000 feet in length. As of April 30th, 53.6% of the total Phase 2 project area has been fully constructed leaving approximately 6,500 linear feet of the project area (Seaview Development south to Treasure Shores Park) left incomplete this construction season.



Construction Schedule

During the week of May 2nd, the Contractor will continue to restore the beach accesses used for construction and plant all the newly constructed dunes with a mixture of dune grasses.

Ranger Request for a contract/project time extension

As stated above, Ranger was unable to complete Phase 2 of the project as designed. On March 29th, Ranger requested a time extension to continue construction next November, 2011, to complete those remaining sections of Phase 2 not completed by April 30, 2011. The current construction contract with Ranger expired on May 1, 2011. If the Board were to agree to grant such an extension, staff would need to prepare a contract amendment detailing the proposed changes that would allow Ranger to finish the incomplete sections of Phase 2 beginning in November/December, 2011.

For the purposes of discussion, any additional construction past April 30, 2011 would be considered Phase 2 remainder.

Below is an initial staff assessment of a contract extension.

To facilitate construction of Phase 2 remainder beginning in Nov, 2011, the County must:

1. Obtain an additional Notice-to-Proceed from FDEP.
2. Obtain an additional Special Use Permit from Archie Carr National Wildlife Refuge.
3. **Perform additional Construction phase services (County staff and the County's engineering consultant, Coastal Tech).**
4. Perform an additional year of post-construction physical monitoring.

April 12, 2011

Approximately 4,500 feet of dune have been constructed of which 4,000 feet of the construction template fronting beaches of Windsor, Sanderling, and Orchid have been completed and surveyed. The remaining 500 feet have not been fully constructed (dune plus berm) to date. The total Phase 2 project shoreline including the remaining sections of Phase 1 is approximately 14,000 feet in length. As of April 9th, 28.6% of the total project area has been fully constructed and 32.1% of the total remaining project area shoreline has newly placed material.



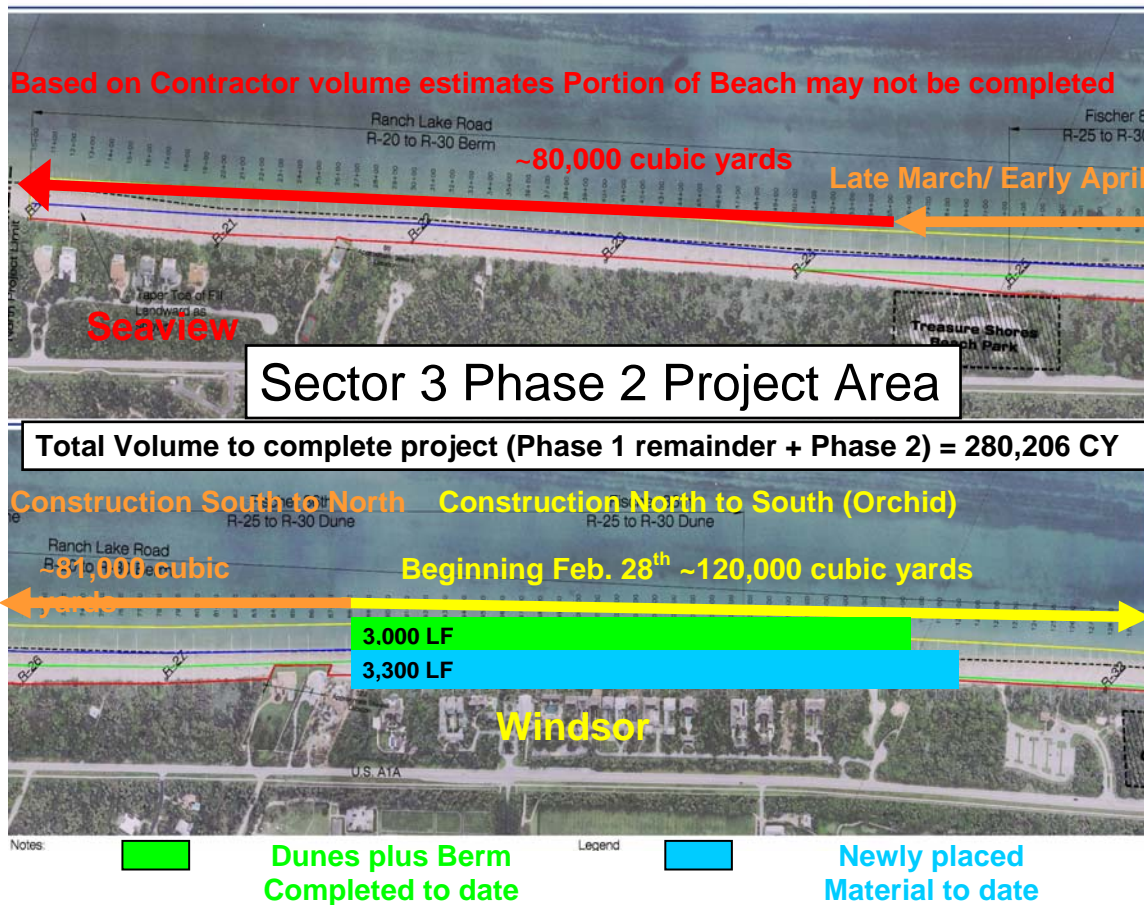
Location – Sanderling area looking north – Photo Taken April 8, 2011

April 2, 2011

The contractor is currently using Golden Sands Beach Park for access and is delivering sand to the Windsor area and northern Orchid. As of April 2, 2011, approximately 105,600 cubic yards or 37.7% of the 280,206 cubic yards estimated to complete the Project have been delivered.

Approximately 3,300 feet of dune have been constructed of which 3,000 feet of the construction template fronting beaches of Windsor have been completed and surveyed. The remaining 300 feet have not been fully constructed (dune plus berm) to date. The total Phase 2 project shoreline including the remaining sections of Phase 1 is approximately 14,000 feet in length. As of April 2nd, 21.4% of the total project area has been fully constructed and 23.6% of the total remaining project area shoreline has newly placed material.

The Contractor estimates that only 201,000 cubic yards of the 280,206 cubic yards of material will be available prior to May 1st. If sand production does not increase at the mine, Ranger will be unable to complete Phase 2 as designed, resulting in the northern 5,000 linear feet of the project (Seaview Development south to Treasure Shores Park) left incomplete this construction season.



March 18, 2011

The contractor is currently using Golden Sands Beach Park for access and is delivering sand to the north Windsor area. As of March 18th, approximately 67,500 cubic yards or 24% of the 281,000 cubic yards estimated to complete Phase 2 have been delivered.

Approximately 2,000 feet of dune have been constructed of which 1,600 feet of the construction template fronting the northern beaches of Windsor have been completed and surveyed. The remaining 400 feet have not been fully constructed (dune plus berm) to date. The total Phase 2 project shoreline including the remaining sections of Phase 1 is approximately 14,000 feet in length. As of March 18th, 11.5% of the total project area has been fully constructed and 14.3% of the total Phase 1 project area shoreline has newly placed material.

As of March 18th, there are 30 construction days, not including weekends, remaining to complete Phase 2 prior to May 1, 2011.

March 11, 2011

The contractor is currently accessing the beach through Golden Sand Beach Park (closed during construction) and placing sand in the vicinity of northern Windsor. As of March 11th, approximately 38,400 cubic yards or 13.5% of the 281,000 cubic yards estimated to complete the Phase 2 project have been delivered.

To minimize material losses from the high surf and strong northeast winds experienced the first and second week of construction (Feb 28th – March 11th) the contractor constructed a majority of upper dune portion of the construction template. To date, approximately 2,000 linear feet of dune have been constructed of which 600 linear feet of the construction template fronting the northern portion of Windsor beaches have been completed.



Location – north Windsor area looking south – Photo Taken March 9, 2011

[GET YOUR QUESTIONS ANSWERED HERE!](#)

Submit your question to James Gray at jgray@ircgov.com Your question will receive a personal answer from County Coastal Engineering staff by return email. Some questions and answers may be added to the “frequently asked questions” section above. In the event your question is selected, your name, email, and other personal information will not be used.

[PROJECT UPDATE ARCHIVE](#)

March 1, 2011

The Sector 3 Beach Restoration Project resumed construction on Monday, February 28, 2011. This work represents Phase 2 of the project which suspended work last May due to sea turtle nesting season.

Material is currently being placed along beaches in the north Windsor area. Over the next several weeks, construction will continue south toward Orchid.

Golden Sands Beach Park will be closed between February 28th and April 30th to provide beach access and construction staging grounds for the contractor.



Location – north Windsor area looking north – Photo Taken February 28, 2011

February 7, 2011

The Sector 3 Beach Restoration Project extends 6.6 miles from the Seaview Development south into John's Island. This is a truck haul project in which upland sand mines are producing beach compatible sand for transport to the beach. To date approximately 4.3 miles of the project has been fully constructed from Orchid south to John's Island - placing approximately 300,000 total cubic yards. Construction on the remaining 2.3 miles (Phase 2 - Seaview south to Orchid) is scheduled to begin **February 28, 2011** through April 30, 2011.

Currently, Staff is conducting monitoring to determine the project performance of the previously constructed 4.3 miles of beach.

January 25, 2011

The Sector 3 Beach Restoration Project extends 6.6 miles from the Seaview Development south into John's Island. This is a truck haul project in which upland sand mines are producing beach compatible sand for transport to the beach. To date approximately 4.3 miles of the project has been fully constructed from Orchid south to John's Island - placing approximately 300,000 total cubic yards. The remaining 2.3 miles (Phase 2 - Seaview south to Orchid) is scheduled to begin February 7th, 2011 through the Treasure Shores Beach Access and will require approximately 250,000 cubic yards to complete. Treasures Shores and Golden Sands Beach Parks have been identified as construction access points for Phase 2 construction.

The contractor, Ranger Construction Industries, is currently stockpiling material at the mine in an effort to reduce project delays following startup. Ranger has reported that approximately 85,000 cubic yards of sand is

currently stockpiled between the Ranch Road Lake (75,000 cubic yards) and Fischer 86th (10,000 cubic yards) mines.



Completed Project Looking South – Location Orchid Island Golf and Beach Club
Photo Taken January 12, 2011

October 25, 2010

Project Construction Summary

- Beach and dune restoration project consisting of 570,752 cubic yards of sand
- Phase 1 (south) . . . February 9, 2010 thru May 7, 2010 = 267,182 cubic yards
- . . . December 1, 2010 thru December 22, 2010 = 36,688 cubic yards
- Phase 2 (north) . . . February 1, 2011 thru April 30, 2011 = 266,882 cubic yards
- 6½ miles of coast between Treasures Shores Park and Town of Indian River Shores
- Sand provided by upland (inland) sand mines and delivered via truck
- Ranger Construction Industries of Fort Pierce selected by County to perform work
- \$10,319,233 project construction cost shared by County and Sebastian Inlet District

Phase 1 Project Summary

On May 7, 2010, Ranger completed placement and grading of 267,182 cubic yards of beach compatible upland sand constructing a continuous project from mid-Orchid south to northern John's Island. The remaining sections of Phase 1 beaches not completed to date, which includes Golden Sands Park, Sanderling, and sections of Orchid, are expected to begin December 1st and, based on a September 2010 beach profile survey, require 36,688 cubic yards of sand. Indian River County must receive a Notice-to-Proceed from FDEP (Florida Department of Environmental Protection) to complete Phase I. The FDEP Notice-To-Proceed is expected by November 10, 2010.

Phase 2 Project Summary

The Phase 2 construction area is a 2.2 mile section of beach beginning at the Seaview Development and extending south to Golden Sands Park. Based on a September, 2010 beach profile survey the total volume of

sand needed to fully construct Phase 2 is 266,882 cubic yards. Construction access will be through Treasure Shores Park and Golden Sands Park.

Before the County can proceed with Phase 2 construction, the upland sand sources used to construct Phase 1 must be deemed suitable relative to the Sector 3 Sea Turtle Test Plan. Indian River County has been conducting sea turtle monitoring all summer and will complete the analysis by October 29, 2010. The County will then submit the data and analysis to all permitting agencies for a 15-day review. By November 15, 2010, the permitting agencies will provide opinions regarding the suitability of the upland sand sources for use in Phase 2. All agencies must agree that the conditions of the Sector 3 Sea Turtle Test Plan have been met before the County proceeds with Phase 2.

The County must also receive a Water Quality Variance and modified permit due to the expected increase in construction generated turbidity. The County submitted the Variance and permit modification request to FDEP on October 1, 2010.

Staff and Coastal Tech anticipate receiving a Phase 2 construction notice-to-proceed by November 24, 2010.

Schedule of Key Events Leading To Commencement of Phase 2 Construction

- October 1, 2010** – Submittal of Water Quality Variance and Permit Mod Request - Completed
- October 14, 2010** – Telephone Conference to Discuss Preliminary Sea Turtle Test Plan Data and Report - Completed
- October 19, 2010** – Submit Phase 1 and Phase 2 Construction Plans to FDEP
 - Request Partial NTP for the remaining Phase 1 Project Area
 - Request NTP for Phase 2 following agency concurrence relative to Sea Turtle Test Plan - Completed
- October 29, 2010** – Submit Sea Turtle Test Plan results to agencies
- November 5, 2010** – Modified Water Quality Variance is published in Florida Administrative Weekly (FAW) – 14-Day Public Comment Period Begins
- November 10, 2010** – anticipated FDEP issuance of Partial NTP to complete Phase 1
- November 15, 2010** – Obtain Agency Concurrence on Sea Turtle Test Plan and submit to FDEP
- November 19, 2010** – 14-Day Modified Water Quality Variance Public Comment Period ends
- November 24, 2010** – FDEP issues; Modified Permit, Water Quality Variance, and Phase 2 NTP
- November 29, 2010** – Phase 1 and Phase 2 Pre Construction Meeting
- December 1, 2010** – Phase 1 and Phase 2 Construction authorized to commence

Anticipated Sector 3 County Beach Park Closure Schedule

Phase I – Anticipated Schedule (Golden Sands Park Closure – 3 weeks)

December 1, 2010 – December 22, 2010

Ranger intends on using Golden Sands Park December 1 – 22, 2010 to complete the remaining Phase 1 beaches – Ranger estimates hauling 5,000 cubic yards/day.

36,688 CY / 5,000 CY/Day = 8 Days

Mob/DeMob = 4 Days

Startup/ Weather Delays = 2 Days

Total – 14 Days (3 Weeks)

Phase II – Anticipated Schedule (Treasure Shores Park Closure – 10 weeks; Golden Sands Park Closure – 4 weeks)

February 1, 2011 – April 30, 2011

Ranger intends on using Treasure Shores Park (February 1, 2011 – late March 2011 – 10 weeks) and Golden Sands Park (late March 2011 – April 30, 2011 – 4 weeks) to complete Phase II – Ranger estimates hauling 5,000 cubic yards/day.

266,882 CY / 5,000 CY/Day = 54 Days

Mob/Site Restoration/DeMob = 10 Days

Startup/ Weather Delays = 5 Days

Total – 69 Days (14 Weeks)

May 12, 2010

Phase 1 Project Summary

On Friday, May 7th, Ranger completed placement and grading of beach compatible upland sand to construct a continuous project from mid-Orchid south to northern John's Island. The remaining sections of Phase 1 beaches not completed to date, which includes Golden Sands, Sanderling, and sections of Orchid will be completed during Phase 2 which is expected to begin November 1st.

Project Characteristics

- Sand hauling began on February 9th and finished on May 6th
- Approximately 301,500 or 95% of the contracted 317,289 cubic yards have been delivered
- 3.8 or 86% of the 4.4 miles of beaches have been fully constructed (dune plus berm)
- All newly constructed dunes will be planted beginning May 17th

Project Benefits

- Offsets the historical losses and sediment deficit attributable to the Sebastian Inlet
- Restored approximately 9.4 acres of recreational beach and critical habitat for sea turtles and shorebirds (measured from pre-fill MHWL to post-fill MHWL)
- Provides additional storm protection for property and infrastructure

Sector 3 County Beach Park Closure Update

Golden Sands Park, Wabasso Beach Park and Turtle Trail Beach Park have been re-opened. Seagrape Trail Beach Park is expected to re-open this week. Wabasso Beach Park will be closed on May 11th for parking lot repairs.

May 3, 2010

Project Extension

On April 30th Indian River County received a 7-day construction extension, through May 7th, to further construct Phase 1 of the project. The County had originally requested a 28-day extension to ensure Phase 1 completion, however to avoid the potential for "take" of sea turtles the US Fish and Wildlife Service (FWS) limited the request to 7 days. Specifically, the FWS evaluated sea turtle nesting data for the project area from 2007 through 2009. Based on this information, the FWS determined that there is a notable increase in sea turtle nesting within the project area beginning in early May. The FDEP and USACE must follow the FWS determination as there is no avenue for these agencies to grant an extension of time greater than that identified by FWS.

Construction Summary

The contractor is currently accessing the beach through Sea Grape Trail and placing sand in the vicinity of Grand Harbor beaches. As of May 2nd, approximately 279,500 or 88% of the 317,289 cubic yards for Phase 1 have been delivered. Note; these totals represent delivered volumes and not volumes that have been placed and graded in the construction template. Volumes placed and graded in the construction template are verified through an As-Built Survey.

Approximately 15,500 feet of dune have been constructed of which 14,000 feet of the construction template fronting sections of Orchid, Summerplace, Wabasso Beach Park, Vero Disney Resort, Sea Oaks, Carlton, and northern John's Island have been completed and surveyed. The remaining 1,500 feet of the active construction which, includes sections of Golden Sands Park, Sanderling, Orchid, Grand Harbor have not been fully constructed (dune plus berm) to date. The total Phase 1 shoreline is approximately 23,200 feet in length.

As

of May 2nd, 60% of the total Phase 1 project area has been fully constructed and 67% of the total Phase 1 project area shoreline has newly placed material.

Overall the remaining Phase 1 beaches not completed to date, which includes Golden Sands, Sanderling, and sections of Orchid, Baytree and Marbrisa, are approximately 7,700 feet long and require approximately 85,000 cubic yards of material. Unfortunately, the Contractor estimates they will only be able to produce and place an additional 32,000 cubic yards prior to May 7th. For this reason, Staff directed the Contractor to construct the Grand Harbor, Baytree and Marbrisa beach segment prior to May 7th as this segment only requires an additional, volume as of May 2nd, 26,000 cubic yards to complete. By May 7th, Staff expects the Contractor to have fully constructed a continuous, 86% Phase 1 complete project from mid Orchid south to northern John's Island. The remaining sections will be completed during Phase 2 which begins in November.