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2016 BEACH RENOURISHMENT PROJECT

Public Meeting

Tuesday, July 12, 2016, 6 p.m.

This project will address beach erosion
in the vicinity of 46 Street and 54 Street

The Ronald Shane Center
6500 Indian Creek Drive
Miami Beach, FL 3341

Questions & RSVP
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goo.gl/M1GoWB



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Miami-Dade County 2016 Renourishment Project

U.S. Army Corps of Engineers

Jacksonville District

July 12, 2016



MIAMI BEACH



US Army Corps of Engineers
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Project Purpose



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- coastal storm risk management
- beach erosion control
- hurricane surge protection



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Beach Renourishment Benefits



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- protect infrastructure
- preserve the environment for wildlife
- support the economy
- build coastal resiliency



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Overview of Federal Project



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- Main Segment: 10.5 miles in length. Initial construction of this segment began in 1975.
- Sunny Isles Segment: 2.5 miles in length. The segment was initially constructed in 1988.

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Miami-Dade County Master Plan

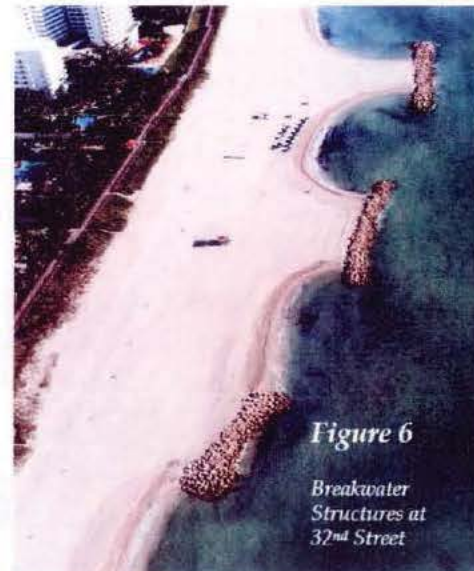


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Comprehensive summary of the current status of the beach, and identifies needs and solutions for future management of the shoreline

7 Hotspots

- 1) North end of Sunny Isles
- 2) Bal Harbour
- 3) 63rd Street
- 4) 55th Street**
- 5) 44th Street**
- 6) 32nd Street
- 7) North of Government Cut



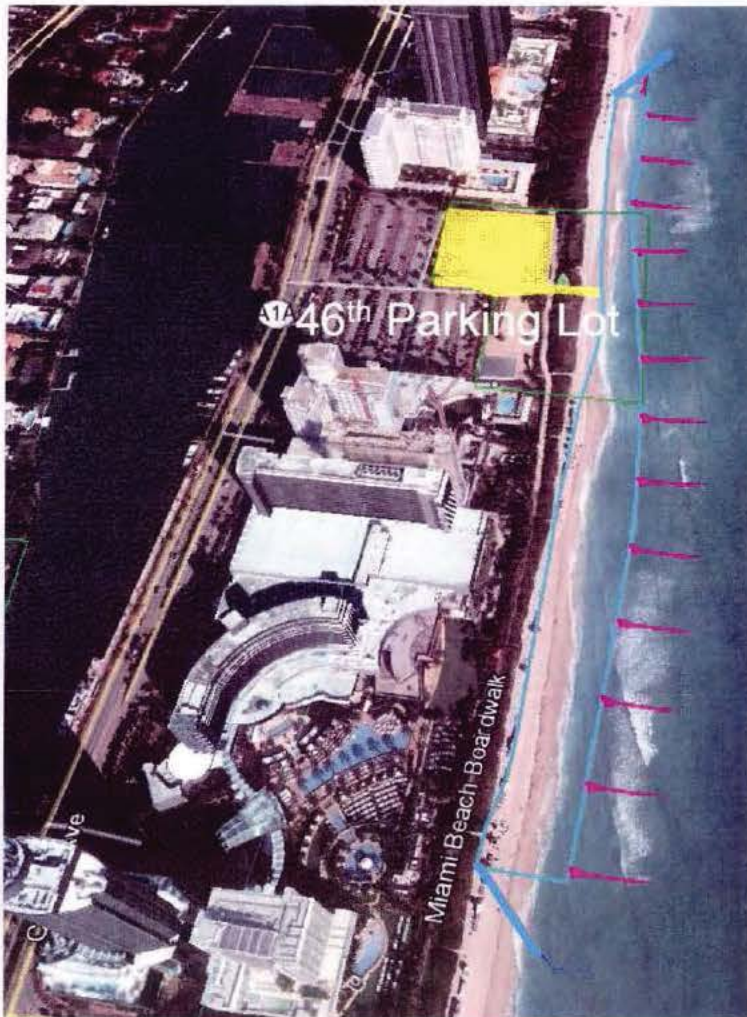
Recommendations for managing these hotspots range from no action, to structural solutions such as breakwaters and groins and beach nourishment



Miami Beach 2016 Hotspot Project



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Location A Beach Fill:

- Vicinity of 46th Street
- 4400-4700 Collins Avenue
- Beach fill limits shown in aqua

Staging and Access Area:

- 46th Street parking lot (Indian Beach Park)
- Approximate area that will be blocked off is shown in yellow

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Location A



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A critically eroded area near 46th Street in Miami Beach will be renourished with beach-quality sand from the south end of the Fontainebleu Hotel (curved building) to the area between of the twin towers of the Blue and Green Diamond Condominiums. The properties immediately to the north and south will also be part of the construction area. (Photo by Mark Bias).

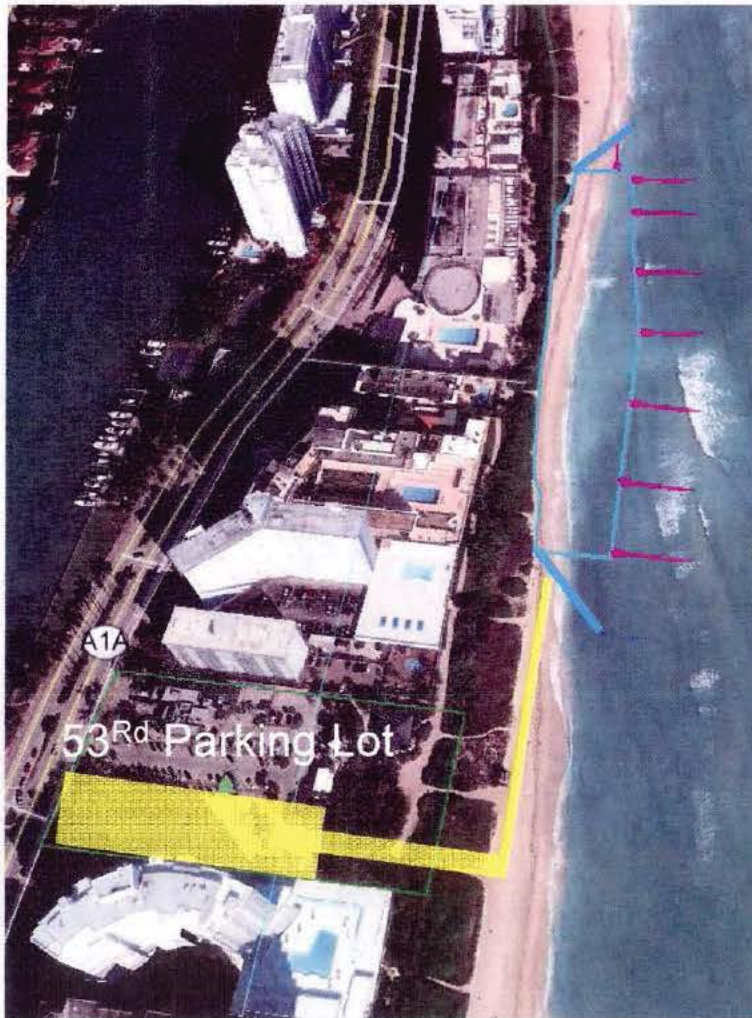
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Miami Beach 2016 Hotspot Project



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Location B Beach Fill:

- Vicinity of 54th Street
- 5300-5500 Collins Avenue
- Beach fill limits shown in aqua

Staging and Access Area

- 53rd Street Parking lot (Beach View Park)
- Approximate area that will be blocked off is shown in yellow

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Location B



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A critically eroded area in the 5400 block of Collins Avenue in Miami Beach will be renourished with beach-quality sand from the south end of the Carriage House Condominium to the north end of the Castle Beach Condominium. The properties immediately to the north and south will also be part of the construction area. (Photo by Mark Bias).

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Construction



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Expect to see and hear heavy machinery including dump trucks, bulldozers, backhoes

Some areas of the beach and the parking lots will be fenced off for your protection; please steer clear of all construction zones



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Miami Beach Hotspot Project



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Active Construction:

- ▶ Trucks in staging areas running M-S 6 a.m. through 11 p.m.
- ▶ Trucks and equipment on beach M-S 7 a.m. or sunrise, through 7 p.m. or sunset
- ▶ Location A (46th Street) required to be complete by Nov. 9, 2016
- ▶ Location B (54th Street) required to be complete by spring 2017



What is the Cost for the Project?



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- The contract was awarded to Eastman Aggregate Enterprises, LLC for a total of \$11.9m
- Project is cost shared between the federal government (56.6%) and Miami-Dade County (21.9%) and state of Florida (21.5%)



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Protection of Wildlife



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- Monitoring: daily of migratory shorebird and sea turtles (Miami-Dade County and Contractor)
- Relocation: of sea turtle nests out of construction zone
- Equipment Storage: From March 1 through September 25, staging areas for construction equipment must be located off the beach to the maximum extent possible. Nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtle nesting and hatching activities.
- Beach Fill: material placed on the beach must be similar to that which occurs naturally within the project location or vicinity in quartz to carbonate ratio, color, median grain size, and median sorting.





Additional Information



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- **Where can I get more information?**
- FAQ document, Fact Card



Corps Website

<http://www.saj.usace.army.mil/Missions/Civil-Works/Shore-Protection/Dade-County/Miami-Beach-Hotspots/>

Miami-Dade County Website

<http://www.miamidade.gov/environment/beach-renourishment.asp>

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Social Media



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U.S. Army Corps of Engineers Facebook
page: <https://www.facebook.com/JacksonvilleDistrict/>



@JaxStrong @MiamiDadeRER
@MiamiDadeCounty @MiamiBeachNews



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Future Project In Sunny Isles



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- Construction expected to take place in spring/summer of 2017
- Target areas include north end of Sunny Isles
- Also expected to be a Truck Haul project.



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Example of Completed Project



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Z Flood Project



Figure 61 - Commercially Mined Sand from Glades County on Broward County Beaches (photo from Eastman Aggregate)

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Comparing Sand



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Figure 51 - Comparison of Native Miami-Dade Beaches to Other Sand Sources (53rd Street Native; MC = M4-R105; SLC = SL10-T41; Lummus = Lummus Park; ACI = ACI mine; Ortona = Ortona mine; BH Ebb = Bal Harbor Ebb Shoal).

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Sand Quality



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Florida Administrative Code 62B-41.007(2) (the Florida Sand Rule) requires that beach fill maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system.

Such material shall be predominately of carbonate, quartz or similar material with a particle size distribution ranging between 0.062 mm and 4.76 mm, shall be similar in color and grain size distribution to the material in the existing coastal system at the disposal site and shall NOT contain:

- Greater than 5 percent, by weight, silt, clay or colloids passing the #230 sieve
- Greater than 5 percent, by weight, fine gravel retained on the #4 sieve
- Coarse gravel, cobbles or material retained on the 3/4 inch sieve in a percentage or size greater than found on the native beach
- Construction debris, toxic material or other foreign matter
- And shall not result in cementation of the beach

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Dade County Sand Specification



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The specification for Dade County Beach fill material is more limiting than the Florida Sand Rule:

- The sand supply shall be naturally created
- The sand may be processed, but manufactured sand is now allowed. Sand produced from crushed rock is considered manufactured and is not allowed
- The sand must be composed of quartz and/or calcium carbonate with no more than 5 percent sand of other mineralogical composition
- No more than 60 percent of the sand (quartz or calcium carbonate) shall be whole or broken shell
- The Average Mean Grain Size must be greater than or equal to 0.30 mm and less than 0.55 mm
- The Standard Deviation values must range from 0.50 phi to 1.75 phi (moderately well sorted to poorly sorted)
- Silt content (passing No. 230 sieve) must be less than 5 percent
- 95 percent of the material must pass the #4 sieve (4.76 mm)
- 99 percent of the material must pass the 3/8 inch sieve (9.51 mm)
- 100 percent of the material must pass the 3/4 inch sieve (19.0 mm)
- Sand color shall be similar to the existing beach. Based on the Munsell Soil Color Chart, color must be within the range:

HUE: 2.5 YR, 5 YR, 7.5 YR, 10 YR, 2.5 Y, 5 Y

CHROMA: 1, 2, or 3

VALUE: 6, 7, or 8

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Thank you!

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