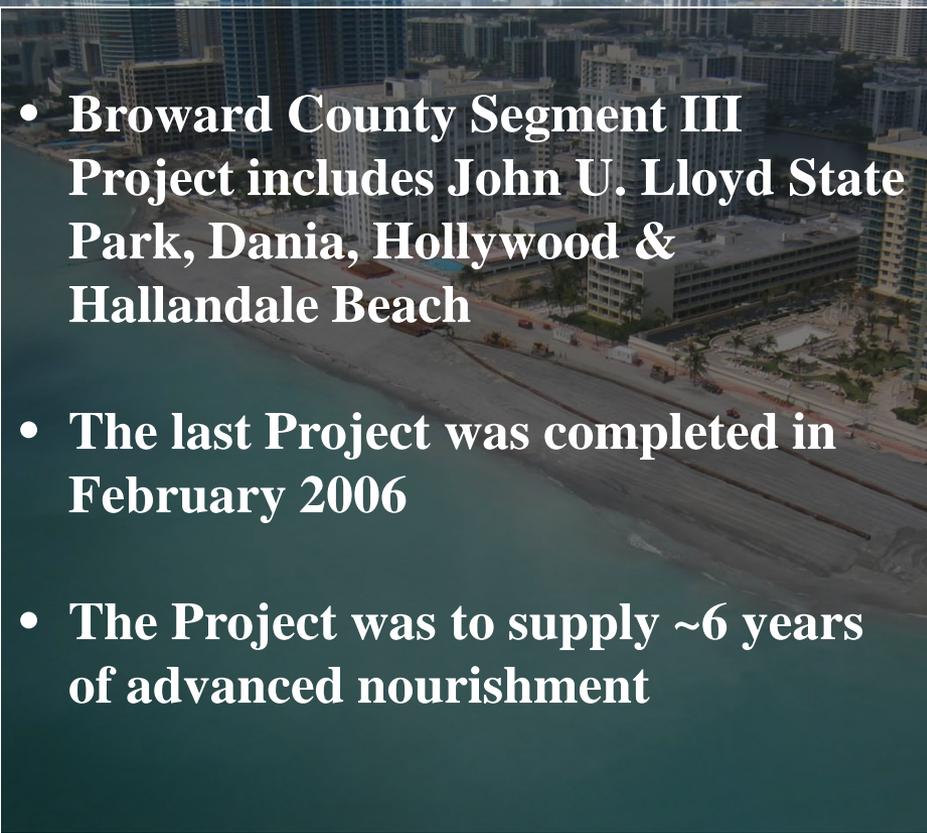




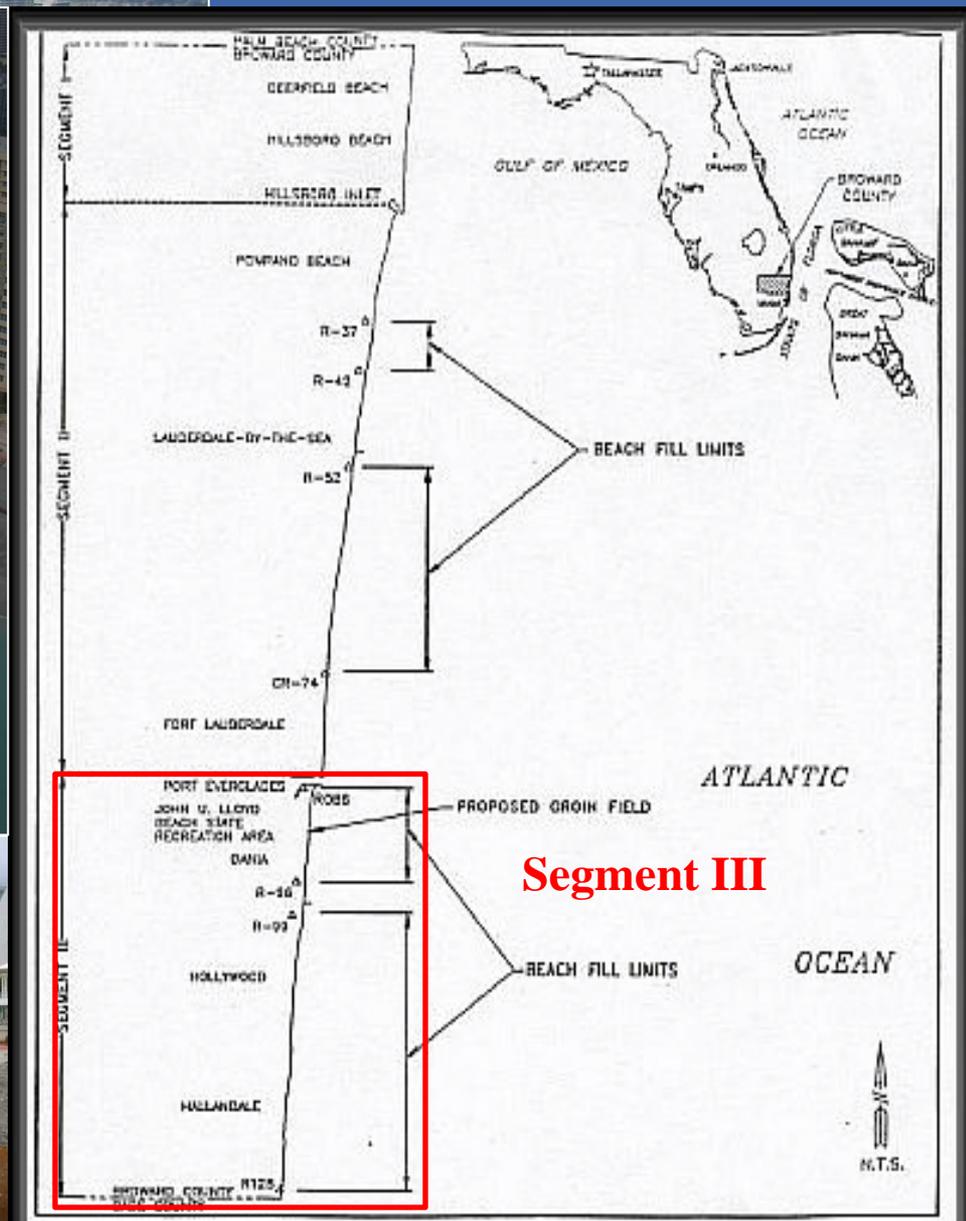
JCP from the Applicants Perspective – Case Study Hollywood Beach



Penny Cutt
Regional Manager, Coastal Systems International

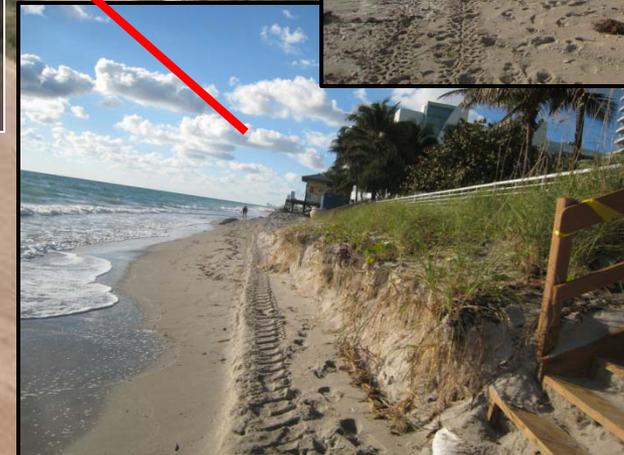
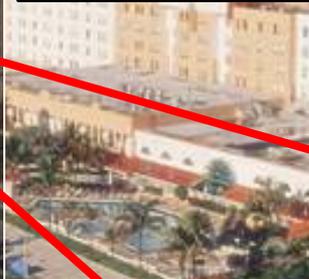


- Broward County Segment III Project includes John U. Lloyd State Park, Dania, Hollywood & Hallandale Beach
- The last Project was completed in February 2006
- The Project was to supply ~6 years of advanced nourishment

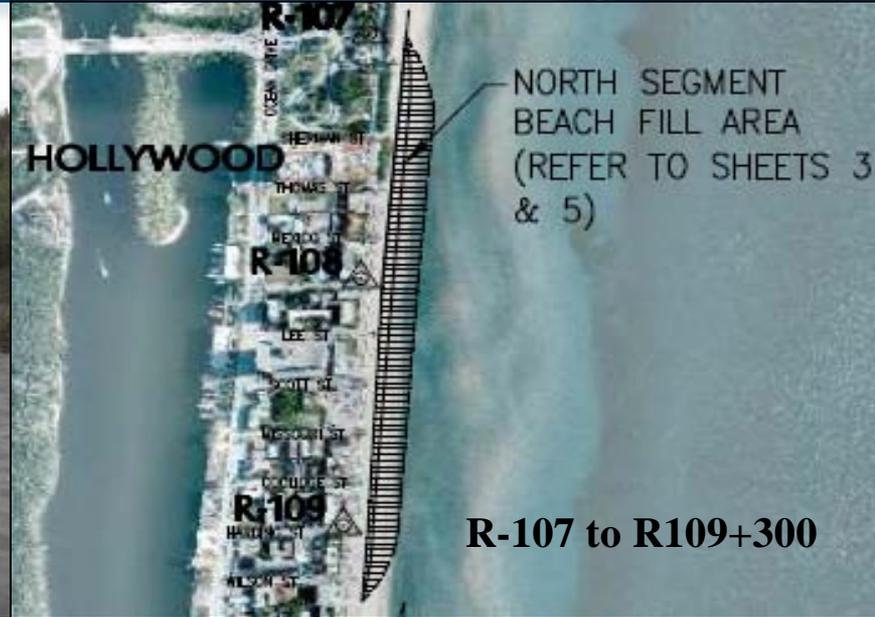


Segment III

- Broward historically managed Hollywood Beach
- Chronic hot spots emerged
- Regional Project Approach
 - Enhance beach stability
 - Save money / share costs



- North Area = 5,800 cy sand
- Incorporated a dune restoration component to increase protective buffer



- South Area = 53,300 cy sand
- Main hotspot erosion area
- Hardbottom very close to shore



- **Biological Monitoring cost share agreement between Hollywood and Hallandale Beach= 50/50**
- **Biological Monitoring Plan originally estimated at \$148,000**



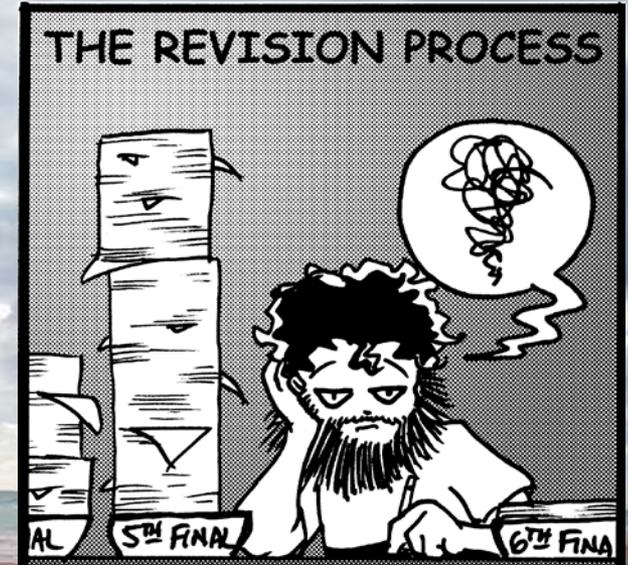
Anticipated BMP

- Assumed quarterly physical monitoring surveys for year 1 (Broward County)
- Assumed 3 years of weekly escarpment surveys (Corps)
- Assumed weekly shorebird surveys for 1 year (DEP-FWC)

Approved BMP

- Physical monitoring required biannually during year 1
- Included emergent epifauna mapping (Broward County)
- 2 years of weekly escarpment surveys - SPBO

- Revised BMP = \$324,250
- Agencies required changes to the BMP
- Hallandale Beach did not construct
- Hollywood BMP costs increased to **\$ 460,000**



Hollywood Beach

- Hollywood shoreline is **64%** of the combined Project shoreline length
- Numerous** *Acropora* corals
- Monitoring must be conducted 1,000' to north & 1,000' south of each fill placement section– Hollywood has **2 sections** of fill placement = **more** monitoring
- Agencies required 4 more Transects for a total of **13 transects** + video on all transects
- One** artificial reef in Project area
- Mapping of Epifaunal Edge - **14,000** feet of shoreline

Hallandale Beach

- Hallandale shoreline is **36%** of the combined Project shoreline length
- Few** *Acropora* corals
- Hallandale has **1 section** of fill placement = **less** monitoring
- Agencies required 2 more transects for total of **6 transects** + video on all transects
- Three** artificial reefs in Project area
- Mapping of Epifaunal Edge - **5,000** feet of shoreline

- **Cost of Current BMP w/ Additional Agency Requirements for Hollywood \$461,885**
- **~\$107,160 more than if Hallandale Beach were constructing concurrently and the BMP costs were split 50/50**
- **Cost of Additional Agency Requirements for Hollywood Beach ~\$175,578**
- **Cost of BMP with Additional Agency Requirements for Hollywood and Hallandale Beach ~\$709,450 (if split 50/50 then \$354,725 each)**

- **Hollywood Project within footprint of the Broward County Segment III Project**
- **Segment III Project resulted in unanticipated/unpermitted impacts**
- **Regulatory Agencies requiring more stringent biological monitoring**
- **Loss of cost sharing with Hallandale Beach**
- **Hollywood Project area longer than Hallandale Beach (63% of combined project)**
- **Nearshore Hardbottom closer to ETOF in Hollywood**
- **More Acropora cervicornis in Hollywood**

All led to HIGHER costs!!!

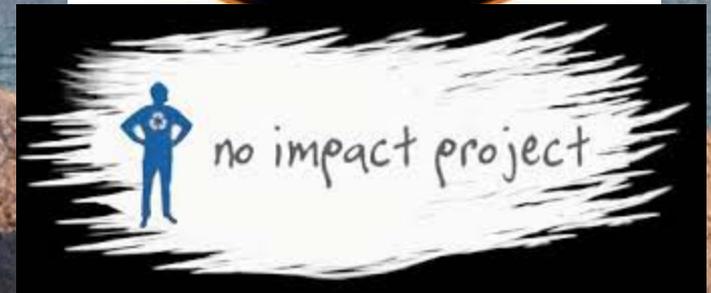


**MORE
MORE
MORE**



Environmental Permitting Approach

- Environmental Permits – *3 agencies*
 - U.S. Army Corps of Engineers
 - Florida DEP
 - Broward County EPGMD
- Truck Haul vs. original Segment III template
- Avoidance of hardbottom impacts
- Programmatic Biological Opinion – Statewide
- 10-Year Maintenance Permits Flexibility



Actual Project Schedule

- Permit Applications – 8/09
- Engineering Design – 2/11
- Construction Bids – 8/11
- Final Permit (Corps) – 11/11
- Trucks Rolling – 12/11
- Project Completion – 2/12
(before marine turtle nesting season)
- Total Duration ~ 2.5 years



