2008 Isle of Palms Beach Restoration Project

- Total Volume Placed ~934,000 cy

2008 Isle of Palms Beach Restoration Project

- Pumping between May 24th and June 25th 2008
- ~934,000 cy of sand added to ~10,200 linear ft of beach
- Fill volumes ranged from 27 cy/ft to ~180 cy/ft
- Removal of ~9,400 large sand bags and ~5,400 cy of small bags
- Contractor – Weeks Marine Dredging Company
2008 Isle of Palms Beach Restoration Project
Post-Project Monitoring

Isle of Palms - Percent of Nourishment Volume Remaining In Project Reaches

- 81% of Placed Volume Remains in the Project Areas

2008 Isle of Palms Beach Restoration Project
Post-Project Monitoring

- 7 Monitoring Reaches over ~7 miles of shoreline
- Over 120 monitoring stations and 220 miles of survey lines
2008 Isle of Palms Beach Restoration Project
Post-Project Monitoring

Isle of Palms Reach Unit Volumes (cy/ft)

<table>
<thead>
<tr>
<th>Reach</th>
<th>Mar-Sept 2009 Vol Change (cy)</th>
<th>Unit Vol Change (cy/ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breach Inlet</td>
<td>31,978</td>
<td>7.28</td>
</tr>
<tr>
<td>South IOP</td>
<td>-6,870</td>
<td>-1.61</td>
</tr>
<tr>
<td>Central IOP</td>
<td>-25,608</td>
<td>-4.56</td>
</tr>
<tr>
<td>North IOP</td>
<td>-1,861</td>
<td>-0.24</td>
</tr>
<tr>
<td>Wild Dunes</td>
<td>-70,355</td>
<td>-11.73</td>
</tr>
<tr>
<td>North Wild Dunes</td>
<td>-36,296</td>
<td>-7.41</td>
</tr>
<tr>
<td>Dewees Inlet</td>
<td>-11,901</td>
<td>-2.98</td>
</tr>
</tbody>
</table>

2008 Isle of Palms Beach Restoration Project
Post-Project Monitoring – Isle of Palms Reaches

Isle of Palms
March 2009 - September 2009 Unit Volume Change

Accretion
Erosion

Breach Inlet  Dewees Inlet
2008 Isle of Palms Beach Restoration Project
Post-Project Monitoring – Dewees Inlet

Dewees Inlet Main Channel Cross Section

- A shoal bypass event containing 330,000 cy of sand occurred in 2008-2009, fully attaching to the beach around April 2009.
- The shoal attached near the Wild Dunes Property Owners Beach House, and caused significant erosion to adjacent areas.
- Erosion of the nourishment sand was initially rapid (July 2008-March 2009) but slowed in most areas (March – September 2009).
- Sand is moving away from the project area.
- 81% of the nourishment sand remains within the fill boundaries.
- The majority of the central IOP shoreline was erosional.
- Overall, IOP lost ~120,000 cy between March and September 2009.
- Significant changes are present in the positions of the outer shoals of Dewees Inlet, suggesting the main channel may be relocating. This may have major effects on the shoreline at the northeast end.