Savannah Harbor
Navigation Project
Management To Benefit Birds

Presented by:
Steve Calver, Biologist
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Savannah Harbor is a major port

Savannah Harbor Navigation Project is responsible for maintaining the channel

21 miles of inner harbor channel

11 miles of bar channel

7 active CDFs of 4800 acres
Known for attracting birds
290 species documented
Rare species
Large numbers of shorebirds
Large numbers of waterfowl
LARGE NUMBERS OF SHOREBIRDS

Shorebird Totals

[Bar graph showing weekly totals of shorebird counts, with weeks 19, 21, and 31 having the highest counts.]
LARGE NUMBERS OF WATERFOWL

Waterfowl High Counts Per Week

Weeks

Total of High Counts
Several state-listed species have nested in the areas recently

- Threatened
- Special Concern/Candidates
THREATENED - LEAST TERN
THREATENED - WILSON’S PLOVER
THREATENED - GROUND DOVE
SPECIAL CONCERN/CANDIDATES
GULL-BILLED TERN
SPECIAL CONCERN/CANDIDATES
BLACK SKIMMER
SPECIAL CONCERN/CANDIDATES
LITTLE BLUE HERON
SPECIAL CONCERN/CANDIDATES
GLOSSY IBIS
STATE LISTED SPECIES

Savannah District

◆ Also of Special Concern/Candidates
  ◆ Bobwhite
  ◆ Painted Bunting
**BACKGROUND**

- In summary, it is clearly evident that dredged sediments can function beneficially as wildlife habitat.
- Many waterbirds suffer from declining habitat.
Beach nesting birds are at particular risk.
Compliance with the intent of the Migratory Bird Treaty Act - to protect migratory birds and their nests, eggs, and young
PROBLEM
Our O&M activities must comply with Federal laws, but it is difficult to justify spending O&M funds to benefit wildlife.
EO 13186 directs federal agencies to promote conservation of birds, implementing guidance for federal civil works projects not yet established.
NORMAL OPERATIONS
Dredged material is pumped into an upland confined disposal facility.
As soon as disposal operations are completed, the site is dried as quickly as possible to allow consolidation of sediments.
During this process, the area attracts many birds until it dries
SANDY AREAS
During dredged material disposal, sandy sediments often fall out near the head section and produce good sources of borrow material.

Sandy substrate often attract beach nesting birds.

If borrowing is planned during the nesting season, we may place stakes and flagging to reduce attraction to nesting birds.
These areas are monitored during the Least Tern nesting season (1 Apr – 31 Aug) and no borrowing occurs if nesters are present.
MOWING
Our dikes require mowing to allow safe travel and permit easy inspection.
Our dikes also present attractive nesting habitat for Willets
Mowing of dikes during the willet nesting season (1 April to 30 July) is restricted to road surfaces only in order to minimize impacts to Willet eggs, nests, and young.
We have developed a program to conduct our O&M dredged material disposal operations in a way that benefits birds at a relatively small cost.

This program includes our past restrictions to ensure compliance with the Migratory Bird Treaty Act and adds requirements based on a wetland mitigation plan.
This program was included in a Long Term Management Strategy (LTMS) for the navigation project.

The LTMS was finished in 1996 and identified a need for additional dredged material disposal capacity.
An undiked area previously used for disposal operations was selected for use.

The area contained over 300 acres of wetlands.
MITIGATION PLAN

- No practicable mitigation sites could be located
- The primary functions of the wetlands to be impacted were identified
- We decided to address the primary wetland functions and values of the proposed area with separate mitigation actions
Two primary functions were identified: fisheries habitat and wildlife habitat (especially bird feeding and nesting habitat).

Separate actions were developed to address fisheries impacts.

Bird feeding habitat value would be replaced by conducting disposal operations through a rotation plan that created extra feeding habitat for birds.

Bird nesting habitat value would be replaced by building bird nesting islands.
A rotation plan was developed where areas are paired and one area is used for 3 years for dredged material disposal while the other one dries.

During the use time, water levels would be managed to maximize wildlife habitat benefit while ensuring minimal impacts to the disposal operation.
BENEFITS OF ROTATION PLAN
SHOREBIRD FEEDING AND RESTING HABITAT
Least Sandpiper

Week

High Count

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51
IMPROVED BIRD NESTING HABITAT

Provides for more successful nesting
SHOREBIRDS
WADERS
Bird nesting islands were built that provided undisturbed and predator free “beach” nesting habitat.

Two 1-acre nesting islands were built inside each approximately 1 square mile area.

One 4-acre offshore bird island built.
<table>
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<th>Wilson's Plover High *3</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>State Total *2</th>
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<tr>
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<td>24</td>
<td>33</td>
<td>13</td>
<td>7</td>
<td>16</td>
<td>16</td>
<td>39</td>
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<td>Least Tern nesting pairs</td>
<td>46</td>
<td>223</td>
<td>288</td>
<td>176</td>
<td>124</td>
<td>140</td>
<td>181</td>
<td>867 roof 500 beach 163 artificial (2003)</td>
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<td>Gull-billed Tern nests</td>
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<td>22</td>
<td>164</td>
<td>204</td>
<td>2</td>
<td>106</td>
<td>77</td>
<td>284 (2004)</td>
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<td>Black Skimmer nests or incubating</td>
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<td>70</td>
<td>141*4</td>
<td>0</td>
<td>63</td>
<td>11</td>
<td>991 (2004)</td>
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</tbody>
</table>

*1 Threatened or Species of Special Concern  
*2 From Tom Murphy, 10 Jan 05  
*3 High count for year, may include young  
*4 Apparently incubating adults
The End