ATM Savannah Marsh Succession Model Predicted Ecological Community Shift
45 Foot Depth (3 Foot Deepening)
Values Based on EFDC and M2M Output using Historic Average Flow, Temperature, and Tidal Conditions
1 March through 1 October 1997 (1997 best represents average historic conditions from the available data set)
Existing Sea Level Conditions
March 2007
Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

ATM Savannah Marsh Succession Model Predicted Ecological Community Shift
46 Foot Depth (4 Foot Deepening)
Values Based on EFDC and M2M Output using Historic Average Flow, Temperature, and Tidal Conditions
1 March through 1 October 1997 (1997 best represents average historic conditions from the available data set)
Existing Sea Level Conditions

Legend
Ecological Community Shift
No Community Shift
Existing Condition, Deepening
EM+, EM/ZM
EM+, MK/ZM
EM+, SA/SV
EM+, SV+
EM+, SV/EM
EM+, SV/ZM
EM+, ZM+
EM/ZM, EM+
EM/ZM, MK/ZM
EM/ZM, SA/SV
EM/ZM, SV+
EM/ZM, SV/EM
EM/ZM, SV/ZM
EM/ZM, ZM+
MK/ZM, EM+
MK/ZM, EM/ZM
MK/ZM, SA/SV
MK/ZM, SV+
MK/ZM, SV/EM
MK/ZM, SV/ZM
MK/ZM, ZM+
SA/SV, EM+
SA/SV, EM/ZM
SA/SV, MK/ZM
SA/SV, SA/SV
SA/SV, SV+
SA/SV, SV/EM
SA/SV, SV/ZM
SA/SV, ZM+
SV+, EM+
SV+, EM/ZM
SV+, MK/ZM
SV+, SA/SV
SV+, SV+
SV+, SV/EM
SV+, SV/ZM
SV+, ZM+
SV/EM, EM+
SV/EM, EM/ZM
SV/EM, MK/ZM
SV/EM, SA/SV
SV/EM, SV+
SV/EM, SV/EM
SV/EM, SV/ZM
SV/EM, ZM+
SV/ZM, EM+
SV/ZM, EM/ZM
SV/ZM, MK/ZM
SV/ZM, SA/SV
SV/ZM, SV+
SV/ZM, SV/EM
SV/ZM, SV/ZM
SV/ZM, ZM+
ZM+, EM+
ZM+, EM/ZM
ZM+, MK/ZM
ZM+, SA/SV
ZM+, SV+
ZM+, SV/EM
ZM+, SV/ZM

March 2007
ATM Savannah Marsh Succession Model Predicted Ecological Community Shift

48 Foot Depth (6 Foot Deepening)

Values Based on EFDC and M2M Output using Historic Average Flow, Temperature, and Tidal Conditions

1 March through 1 October 1997 (1997 best represents average historic conditions from the available data set)

Existing Sea Level Conditions

March 2007
Savannah Harbor Expansion Project  
ATM MSM Wetland/Marsh Impact Evaluation  
Predicted Vegetation Community Shifts

<table>
<thead>
<tr>
<th>Community</th>
<th>No Deepening Average Flow Associated Acreages</th>
<th>44 ft Deepening Average Flow Associated Acreages</th>
<th>Net Change (net negative), net positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM+</td>
<td>690</td>
<td>534</td>
<td>(156)</td>
</tr>
<tr>
<td>EM/ZM</td>
<td>1729</td>
<td>1880</td>
<td>151</td>
</tr>
<tr>
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<td>(208)</td>
</tr>
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<td>259</td>
<td>228</td>
<td>(30)</td>
</tr>
<tr>
<td>SV/EM</td>
<td>85</td>
<td>122</td>
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<td>SV/ZM</td>
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<td>1983</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>8001</td>
<td>8001</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Community</th>
<th>No Deepening Average Flow Associated Acreages</th>
<th>45 ft Deepening Average Flow Associated Acreages</th>
<th>Net Change (net negative), net positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM+</td>
<td>690</td>
<td>521</td>
<td>(170)</td>
</tr>
<tr>
<td>EM/ZM</td>
<td>1729</td>
<td>1946</td>
<td>218</td>
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<tr>
<td>MK/ZM</td>
<td>424</td>
<td>145</td>
<td>(279)</td>
</tr>
<tr>
<td>ZM+</td>
<td>259</td>
<td>213</td>
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</tr>
<tr>
<td>SV/EM</td>
<td>85</td>
<td>146</td>
<td>62</td>
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<tr>
<td>SV/ZM</td>
<td>1938</td>
<td>1924</td>
<td>(14)</td>
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<table>
<thead>
<tr>
<th>Community</th>
<th>No Deepening Average Flow Associated Acreages</th>
<th>46 ft Deepening Average Flow Associated Acreages</th>
<th>Net Change (net negative), net positive</th>
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</thead>
<tbody>
<tr>
<td>EM+</td>
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<td>532</td>
<td>(158)</td>
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<tr>
<td>EM/ZM</td>
<td>1729</td>
<td>1812</td>
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<td>MK/ZM</td>
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<tr>
<td>ZM+</td>
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<td>197</td>
<td>(62)</td>
</tr>
<tr>
<td>SV/EM</td>
<td>85</td>
<td>180</td>
<td>96</td>
</tr>
<tr>
<td>SV/ZM</td>
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<td>1953</td>
<td>15</td>
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<tr>
<td>SV+</td>
<td>15</td>
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<td>37</td>
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<tr>
<td>SA/SV</td>
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<table>
<thead>
<tr>
<th>Community</th>
<th>No Deepening Average Flow Associated Acreages</th>
<th>48 ft Deepening Average Flow Associated Acreages</th>
<th>Net Change (net negative), net positive</th>
</tr>
</thead>
<tbody>
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<td>EM+</td>
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<td>463</td>
<td>(227)</td>
</tr>
<tr>
<td>EM/ZM</td>
<td>1729</td>
<td>1794</td>
<td>66</td>
</tr>
<tr>
<td>MK/ZM</td>
<td>424</td>
<td>100</td>
<td>(324)</td>
</tr>
<tr>
<td>ZM+</td>
<td>259</td>
<td>249</td>
<td>(9)</td>
</tr>
<tr>
<td>SV/EM</td>
<td>85</td>
<td>303</td>
<td>219</td>
</tr>
<tr>
<td>SV/ZM</td>
<td>1938</td>
<td>1606</td>
<td>(332)</td>
</tr>
<tr>
<td>SV+</td>
<td>15</td>
<td>102</td>
<td>87</td>
</tr>
<tr>
<td>SA/SV</td>
<td>2861</td>
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<td>522</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8001</td>
<td>8001</td>
<td></td>
</tr>
</tbody>
</table>

* Values Based on EFDC and M2M Marsh Pore Water Salinity Input for Historic Average Flow, Temperature, and Tidal Conditions
1 March through 1 October 1997 (1997 best represents average historic conditions from the available data set).
Existing Sea Level Conditions.
APPENDIX B
SENSITIVITY ANALYSIS #1
ECOLOGICAL COMMUNITY MAPS &
ECOLOGICAL COMMUNITY SHIFT MAPS
Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

ATM Savannah Marsh Succession Model Predicted Ecological Community
Existing Depth
Values Based on EFDC and M2M Output using Historic Low Flow, Average Temperature, and Average Tidal Conditions
1 March through 1 October 2001 (2001 best represents low historic conditions from the available data set)
Existing Sea Level Conditions

March 2007
Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

ATM Savannah Marsh Succession Model Predicted Ecological Community
44 Foot Depth (2 Foot Deepening)
Values Based on EFDC and M2M Output using Historic Low Flow, Average Temperature, and Average Tidal Conditions
1 March through 1 October 2001 (2001 best represents low historic conditions from the available data set)
Existing Sea Level Conditions

March 2007
Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

ATM Savannah Marsh Succession Model Predicted Ecological Community
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Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

ATM Savannah Marsh Succession Model Predicted Ecological Community
48 Foot Depth (6 Foot Deepening)
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Existing Sea Level Conditions

March 2007