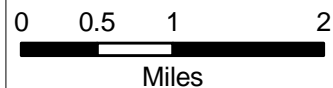
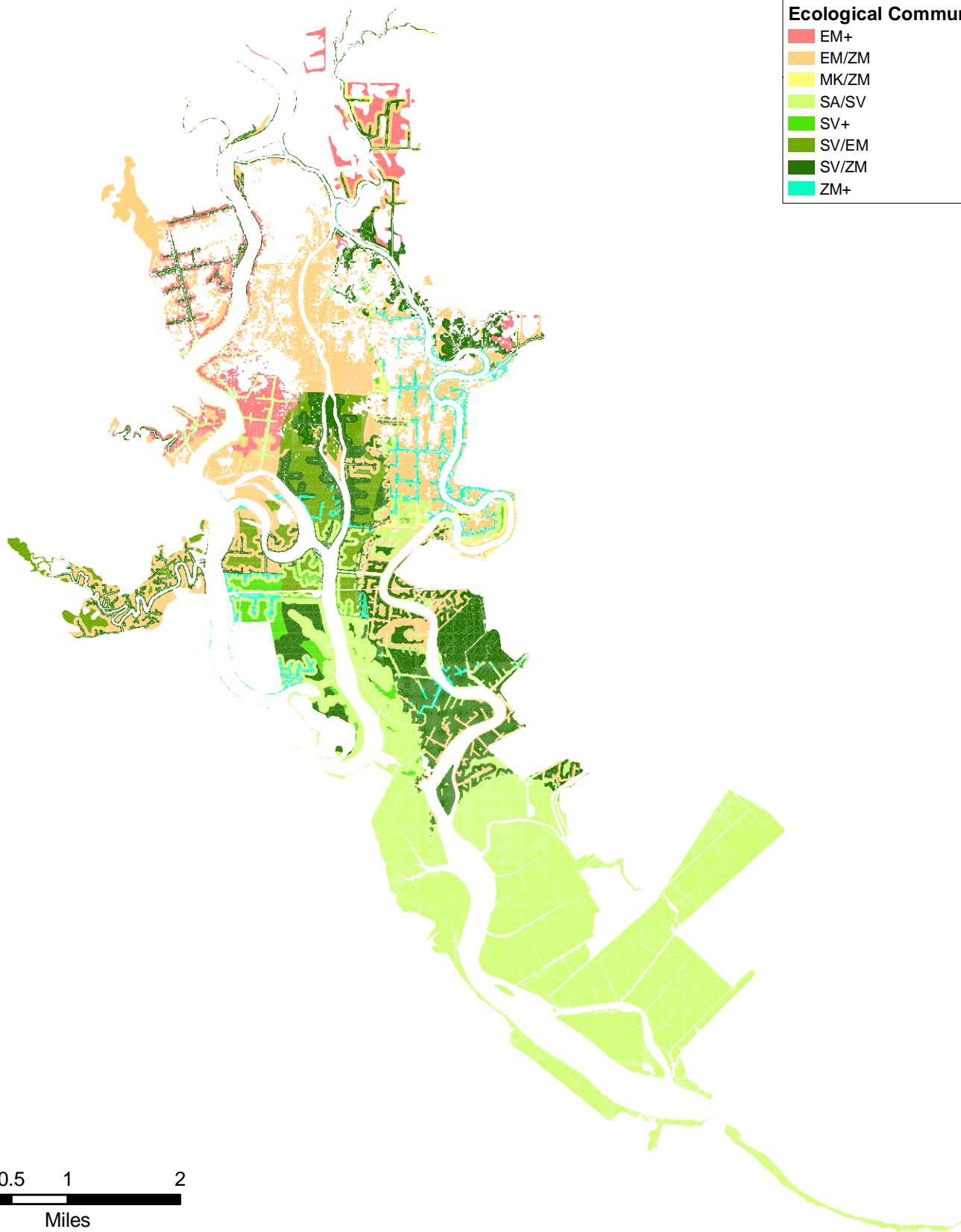


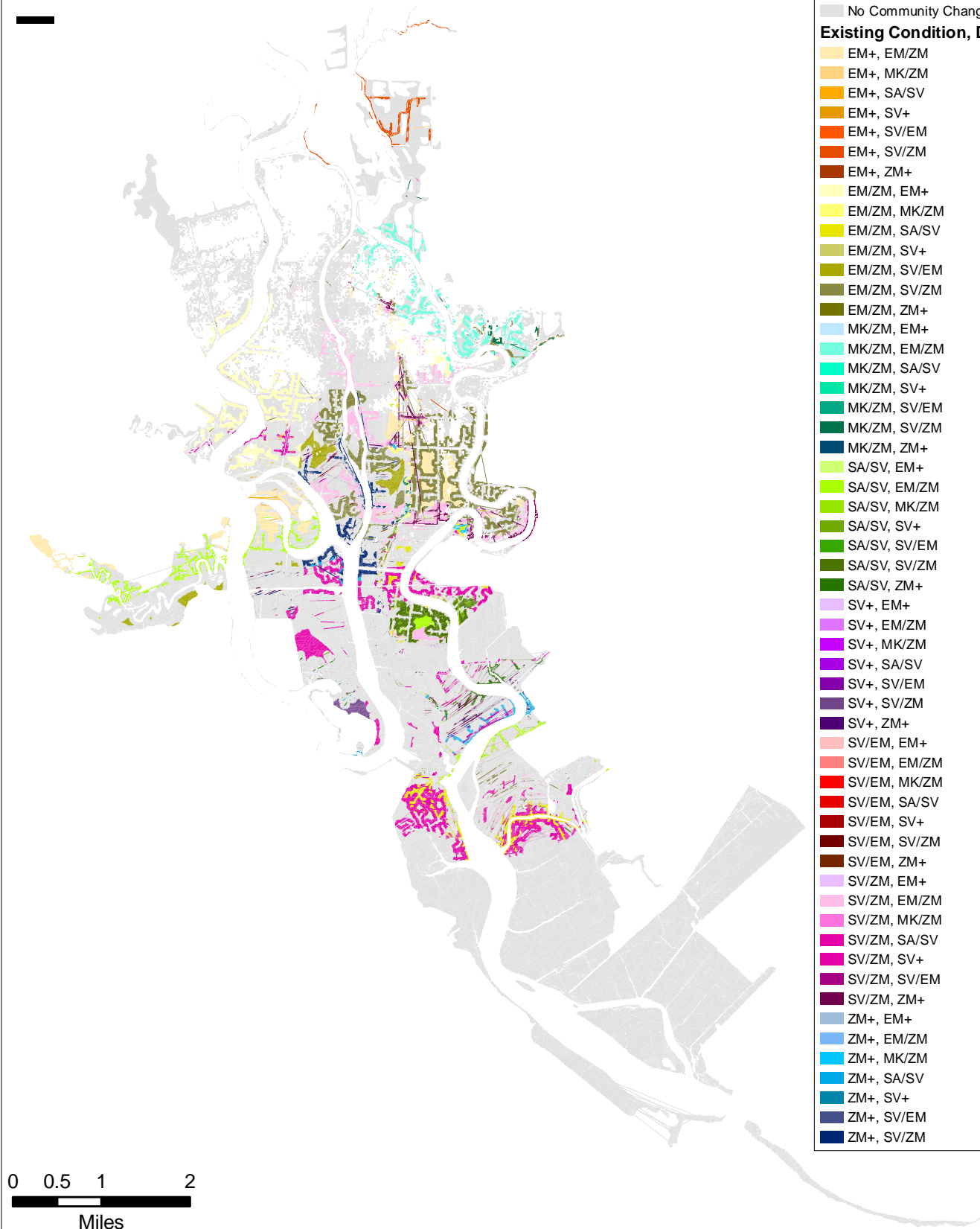
Legend  
M2M971Mar1OctEFDC6SIr25  
**Ecological Communities**

- EM+
- EM/ZM
- MK/ZM
- SA/SV
- SV+
- SV/EM
- SV/ZM
- ZM+



**Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation**

ATM Savannah Marsh Succession Model Predicted Ecological Community  
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)  
25 cm Sea Level Rise Conditions



#### Legend

#### Ecological Community Shift

No Community Change

#### 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, 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/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/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, ZM+  
 ZM+, EM+  
 ZM+, EM/ZM  
 ZM+, MK/ZM  
 ZM+, SA/SV  
 ZM+, SV+  
 ZM+, SV/EM  
 ZM+, SV/ZM



## Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

### ATM Savannah Marsh Succession Model Predicted Ecological Community Shift

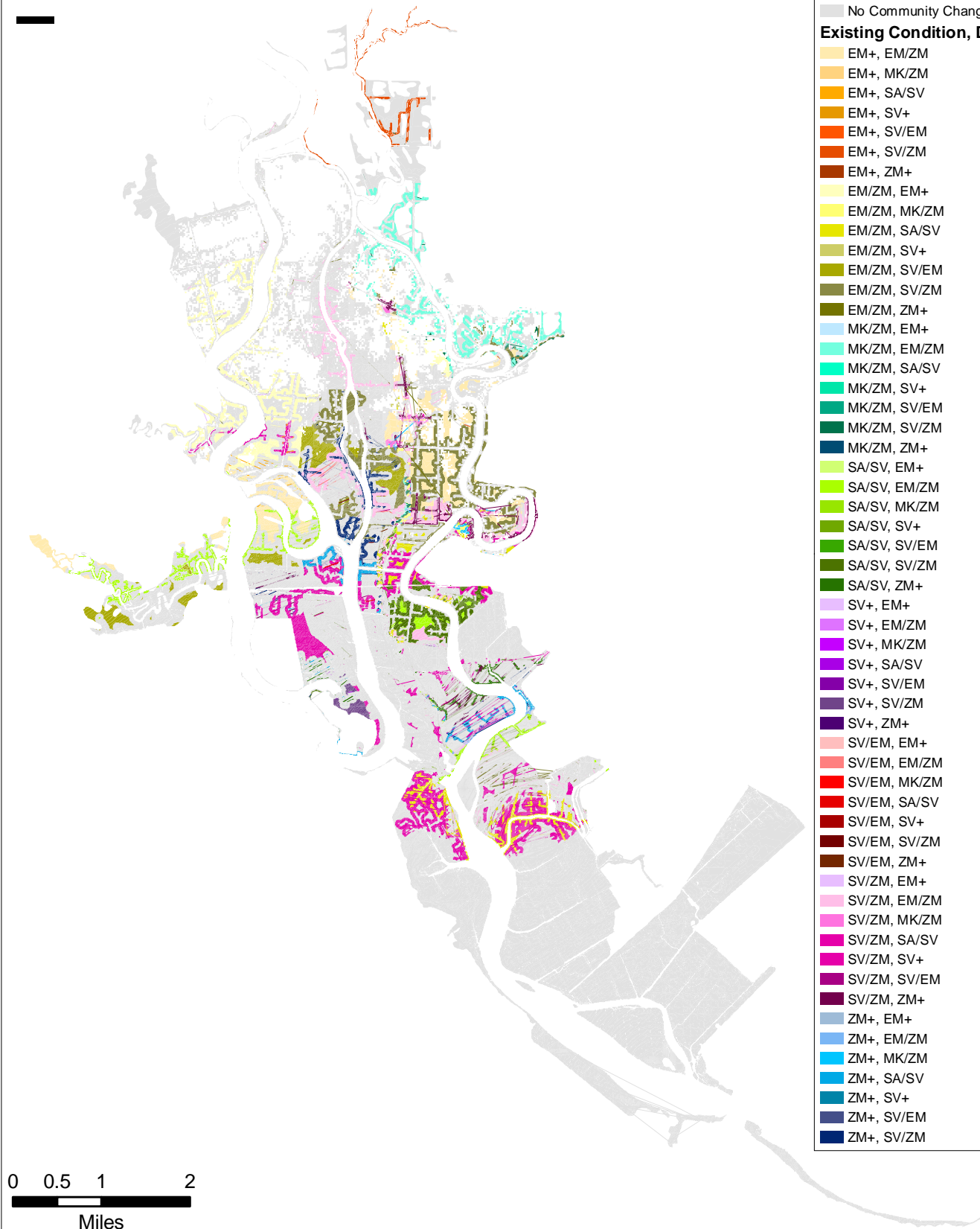
#### 44 Foot Depth (2 Foot Deepening)

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)

25 cm Sea Level Rise Conditions

March 2007



#### Legend

#### Ecological Community Shift

■ No Community Change

#### 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, 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/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/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, ZM+  
 ■ ZM+, EM+  
 ■ ZM+, EM/ZM  
 ■ ZM+, MK/ZM  
 ■ ZM+, SA/SV  
 ■ ZM+, SV+  
 ■ ZM+, SV/EM  
 ■ ZM+, SV/ZM



## Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

### ATM Savannah Marsh Succession Model Predicted Ecological Community Shift

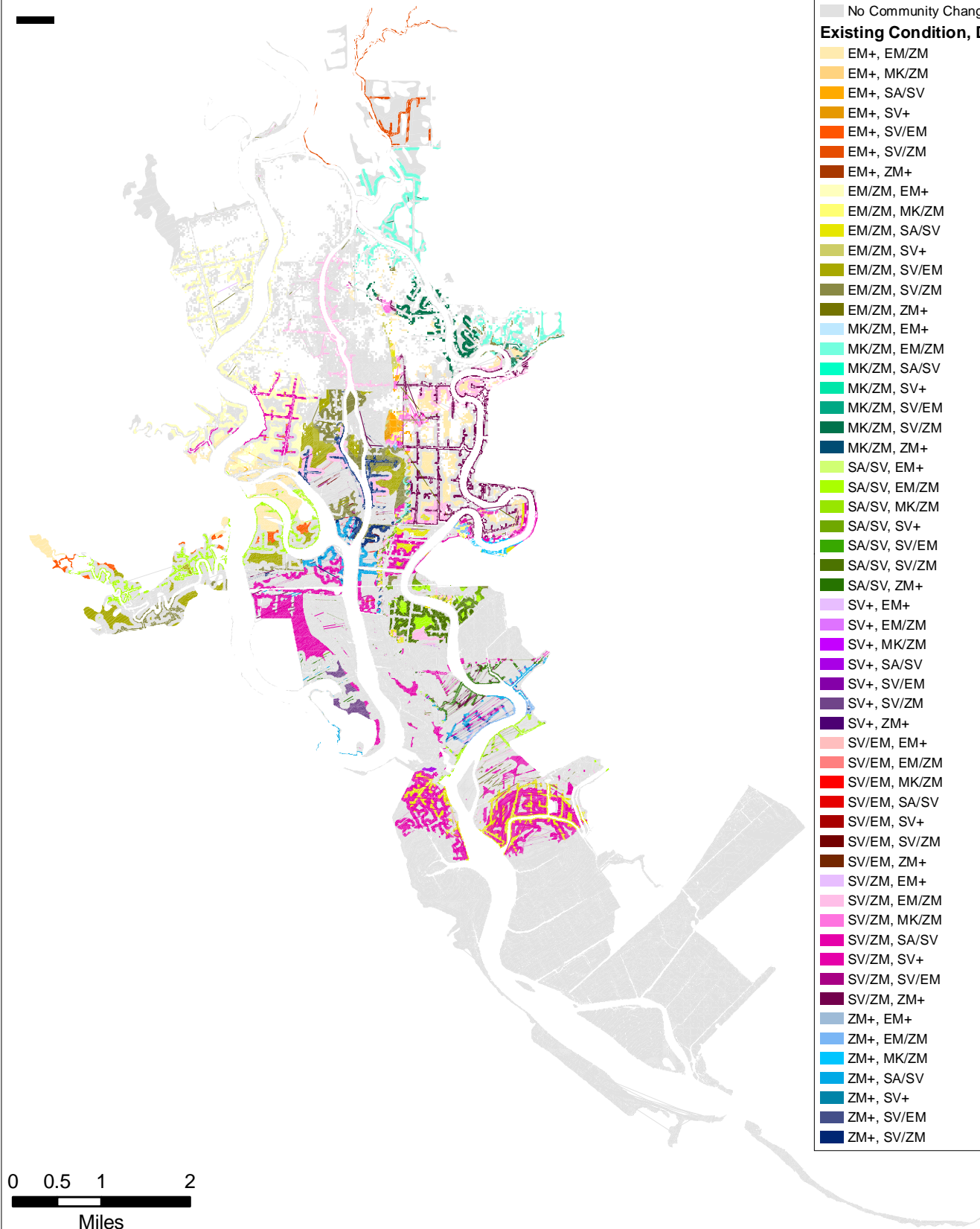
#### 45 Foot Depth (3 Foot Deepening)

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)

25 cm Sea Level Rise Conditions

March 2007



#### Legend

#### Ecological Community Shift

— No Community Change

#### 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, 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/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/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, ZM+  
 ZM+, EM+  
 ZM+, EM/ZM  
 ZM+, MK/ZM  
 ZM+, SA/SV  
 ZM+, SV+  
 ZM+, SV/EM  
 ZM+, SV/ZM



## Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

### ATM Savannah Marsh Succession Model Predicted Ecological Community Shift

#### 46 Foot Depth (4 Foot Deepening)

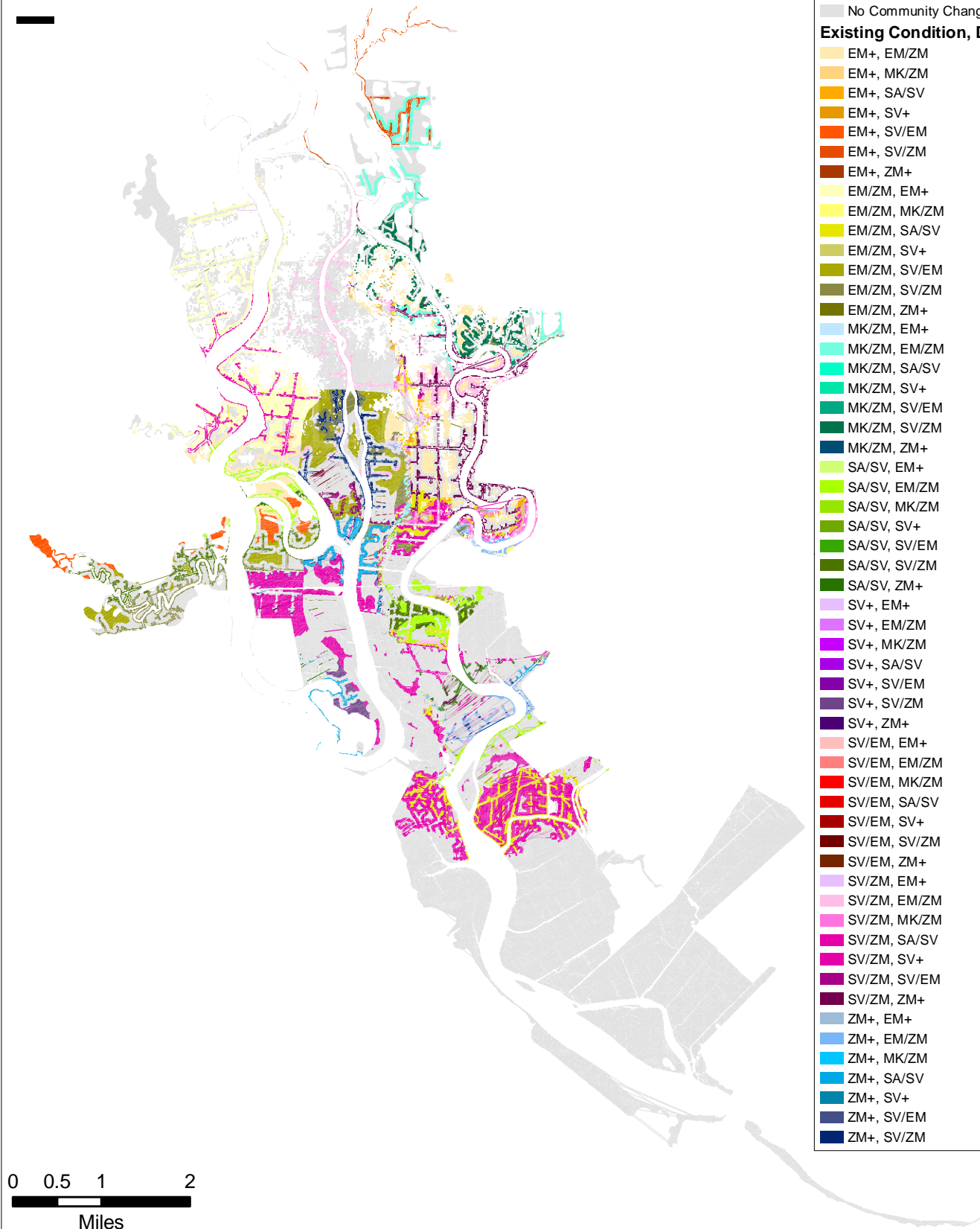
Values Based on EFDC and M2M Output using Historic Average Flow, Temperature, and Tidal Conditions

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

25 cm Sea Level Rise Conditions

March 2007





#### Legend

#### Ecological Community Shift

— No Community Change

#### 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, 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/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/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, ZM+  
 ZM+, EM+  
 ZM+, EM/ZM  
 ZM+, MK/ZM  
 ZM+, SA/SV  
 ZM+, SV+  
 ZM+, SV/EM  
 ZM+, SV/ZM



## Savannah Harbor Expansion Project - Wetland/Marsh Impact Evaluation

### 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)

25 cm Sea Level Rise Conditions

March 2007

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

Community	Existing Depth 25 cm Sea Level Rise Associated Acreages	44 ft Depth 25 cm Sea Level Rise Associated Acreages	Net Change (net negative), net positive
EM+	527	495	(32)
EM/ZM	1884	1849	(35)
MK/ZM	211	116	(96)
ZM+	227	195	(32)
SV/EM	124	184	60
SV/ZM	1973	1936	(36)
SV+	27	54	27
SA/SV	3028	3172	145
TOTAL	8001	8001	

Community	Existing Depth 25 cm Sea Level Rise Associated Acreages	45 ft Depth 25 cm Sea Level Rise Associated Acreages	Net Change (net negative), net positive
EM+	527	480	(47)
EM/ZM	1884	1792	(92)
MK/ZM	211	96	(115)
ZM+	227	186	(42)
SV/EM	124	242	118
SV/ZM	1973	1887	(85)
SV+	27	66	39
SA/SV	3028	3252	224
TOTAL	8001	8001	

Community	Existing Depth 25 cm Sea Level Rise Associated Acreages	46 ft Depth 25 cm Sea Level Rise Associated Acreages	Net Change (net negative), net positive
EM+	527	463	(64)
EM/ZM	1884	1853	(31)
MK/ZM	211	100	(111)
ZM+	227	246	19
SV/EM	124	287	163
SV/ZM	1973	1561	(412)
SV+	27	101	74
SA/SV	3028	3390	362
TOTAL	8001	8001	

Community	Existing Depth 25 cm Sea Level Rise Associated Acreages	48 ft Depth 25 cm Sea Level Rise Associated Acreages	Net Change (net negative), net positive
EM+	527	420	(107)
EM/ZM	1884	1756	(128)
MK/ZM	211	64	(148)
ZM+	227	219	(9)
SV/EM	124	387	263
SV/ZM	1973	1435	(537)
SV+	27	117	90
SA/SV	3028	3604	577
TOTAL	8001	8001	

\* Values Based on Pore Water Salinity Input from M2M 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).

25 cm Sea Level Rise Conditions.



APPENDIX D  
SENSITIVITY ANYSIS #2B  
ECOLOGICAL COMMUNITY MAPS &  
ECOLOGICAL COMMUNITY SHIFT MAPS

Legend

M2M971Mar1OctEFDC0Slr50

Ecological Communities

EM+

EM/ZM

MK/ZM

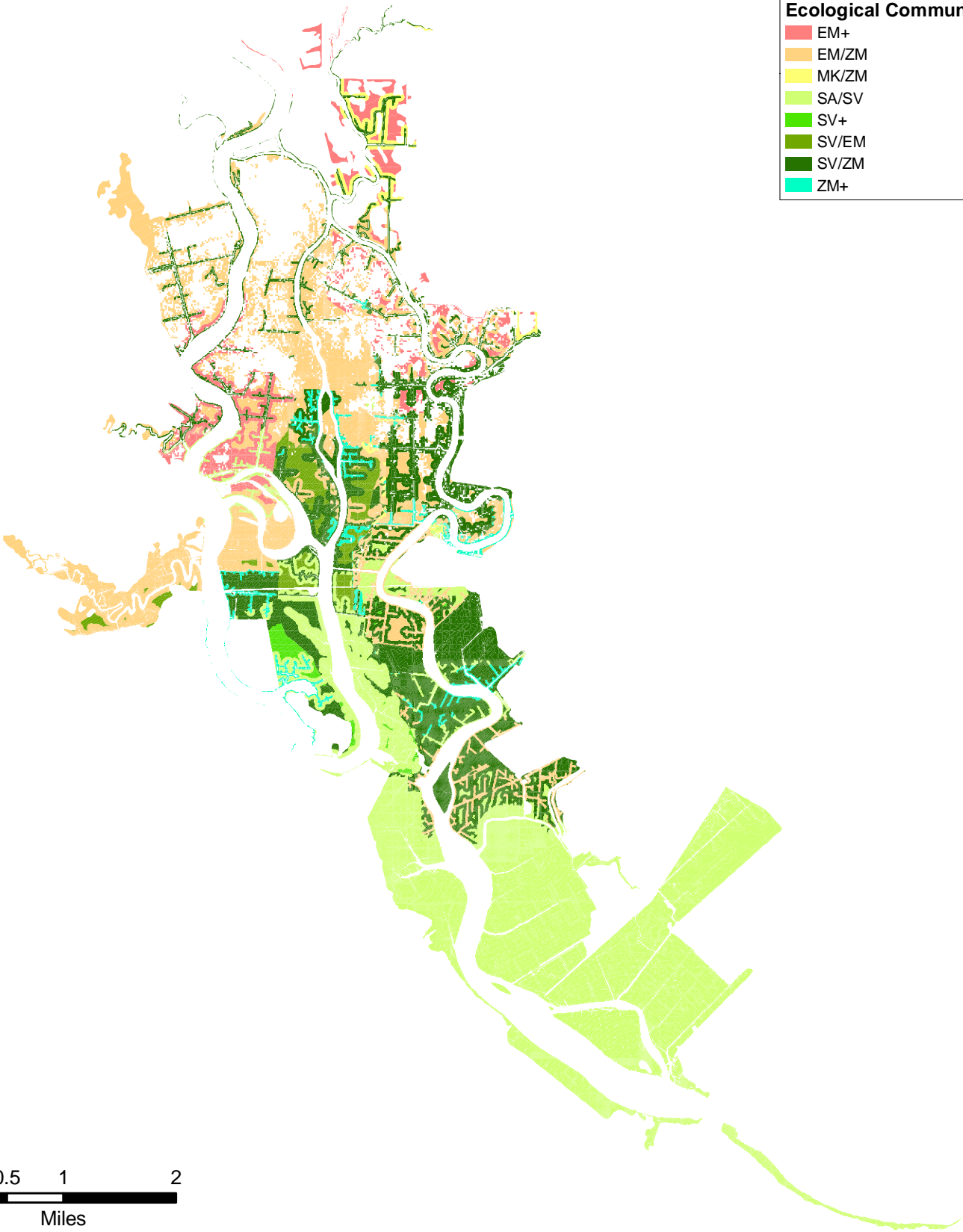
SA/SV

SV+

SV/EM

SV/ZM

ZM+



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 Average Flow, Temperature, and Tidal Conditions  
1 March through 1 October 1997 (1997 best represents average historic conditions from the available data set)  
50 cm Sea Level Rise Conditions

March 2007