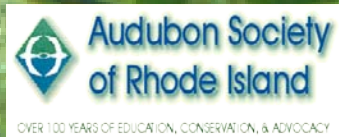


Status and Trends of Eelgrass (*Zostera marina*) in Rhode Island

Sue Tuxbury
NOAA Fisheries

Mike Bradley
URI Environmental Data Center

Kenny Raposa
Narragansett Bay National Estuarine Research Reserve

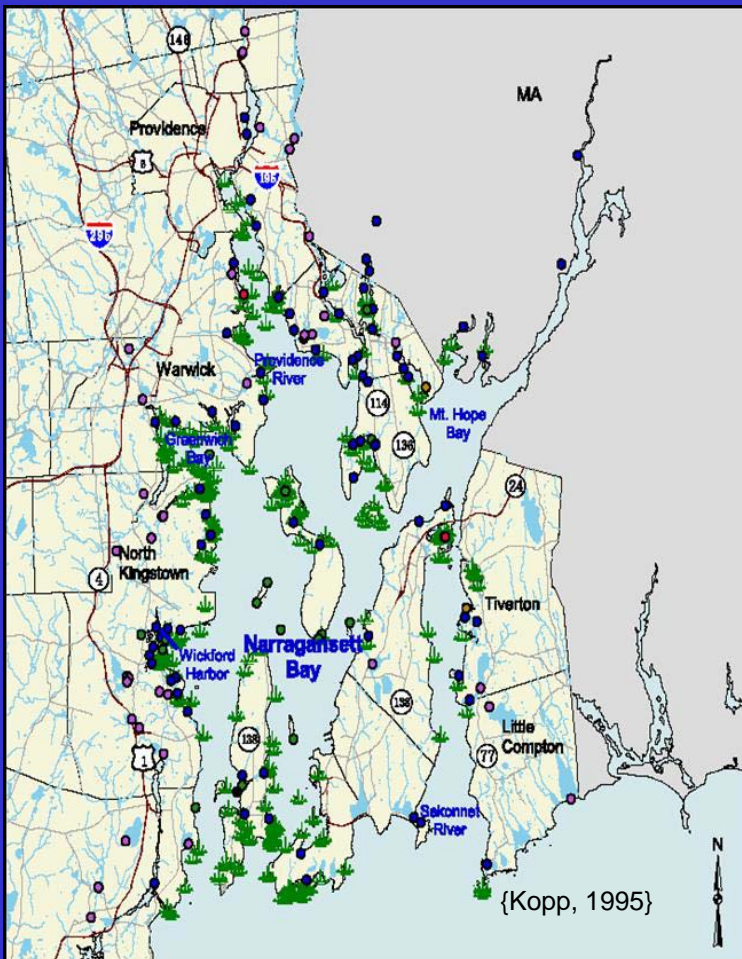


Overview

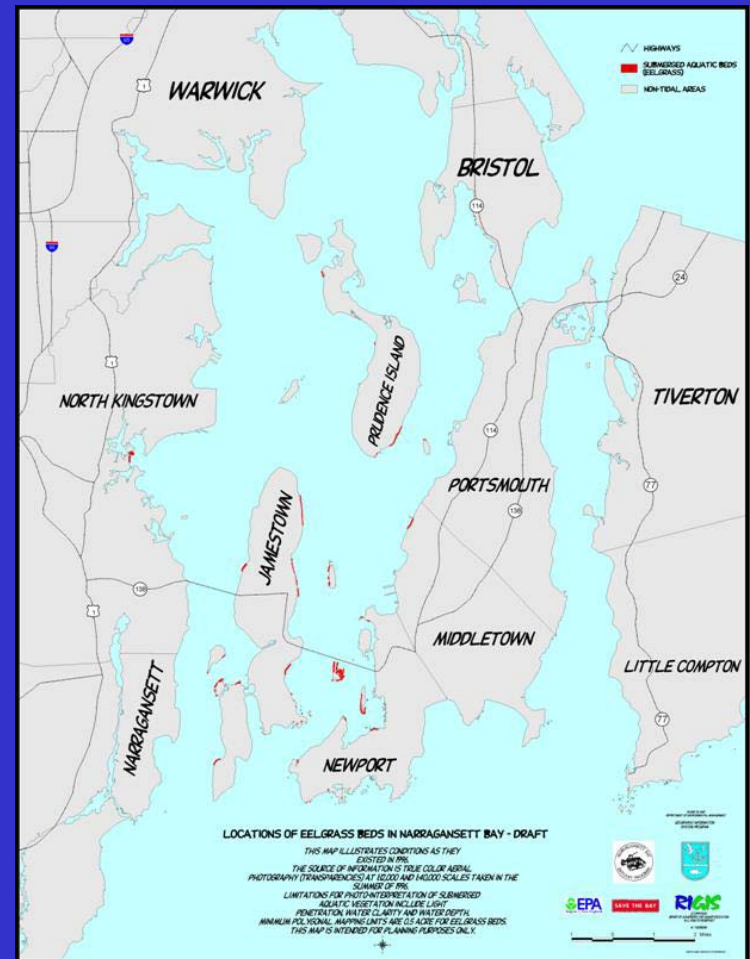
- Narragansett Bay eelgrass mapped in 1996 and 2006/2007
- Block Island eelgrass mapped in 1999 and 2006/2007
- Salt ponds mapped in 1999 and photo-interpreted based on 2006 Microsoft live maps
- Full report at <http://www.nbnerr.org>

Eelgrass Distributions in Narragansett Bay

Historical Coverage
1,000's of acres

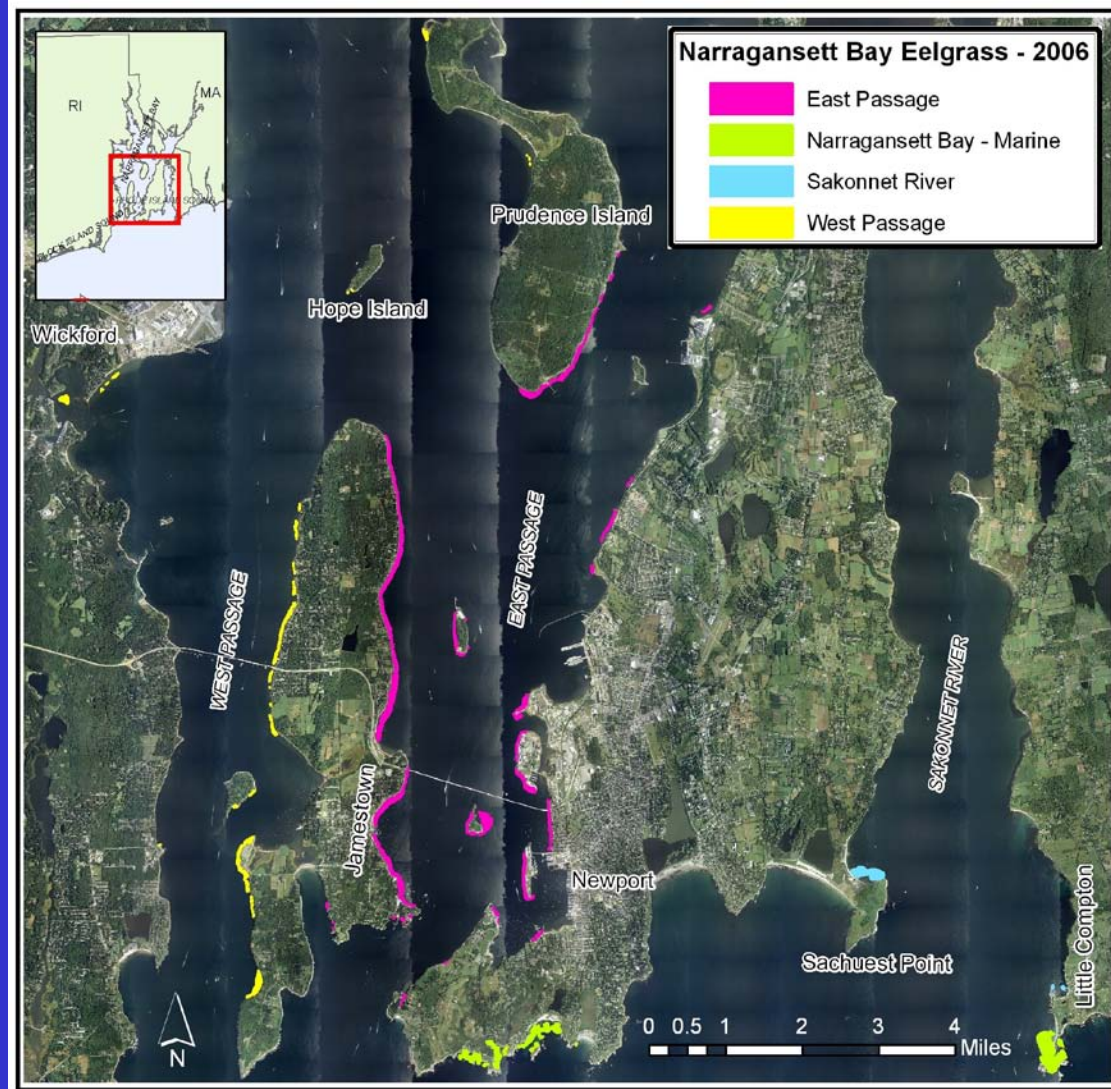


1996 Coverage
<100 acres



Narragansett Bay 2006 Eelgrass Distribution

LOCATION	ACREAGE
East Passage	208.9
West Passage	52.8
Marine	114.2
Sakonnet River	28.4
TOTAL	404.3



Why the Difference?

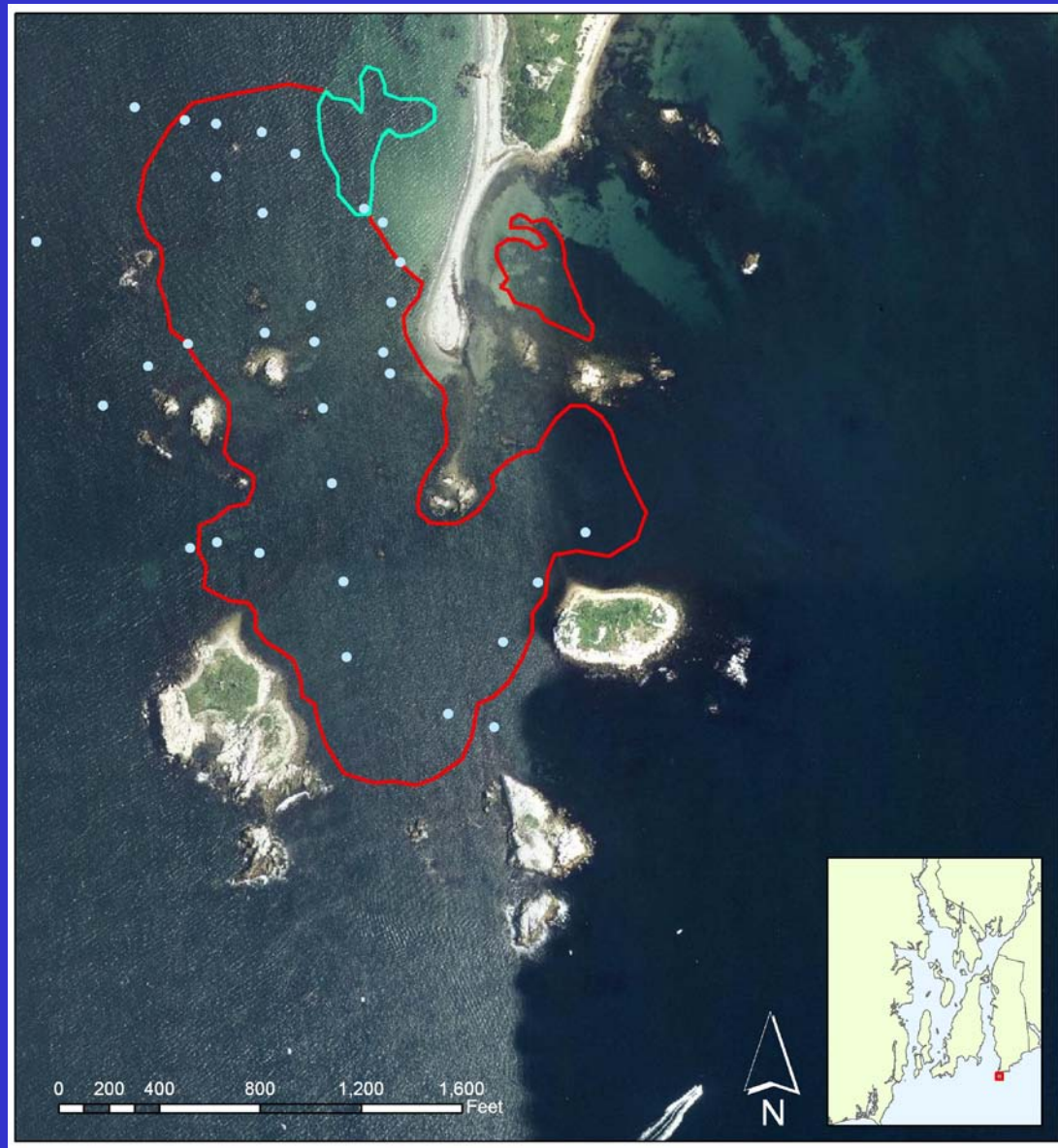
- Improved technology
- Comprehensive ground-truthing effort
Delineating deep edge vs. presence/absence
- Eelgrass expansion



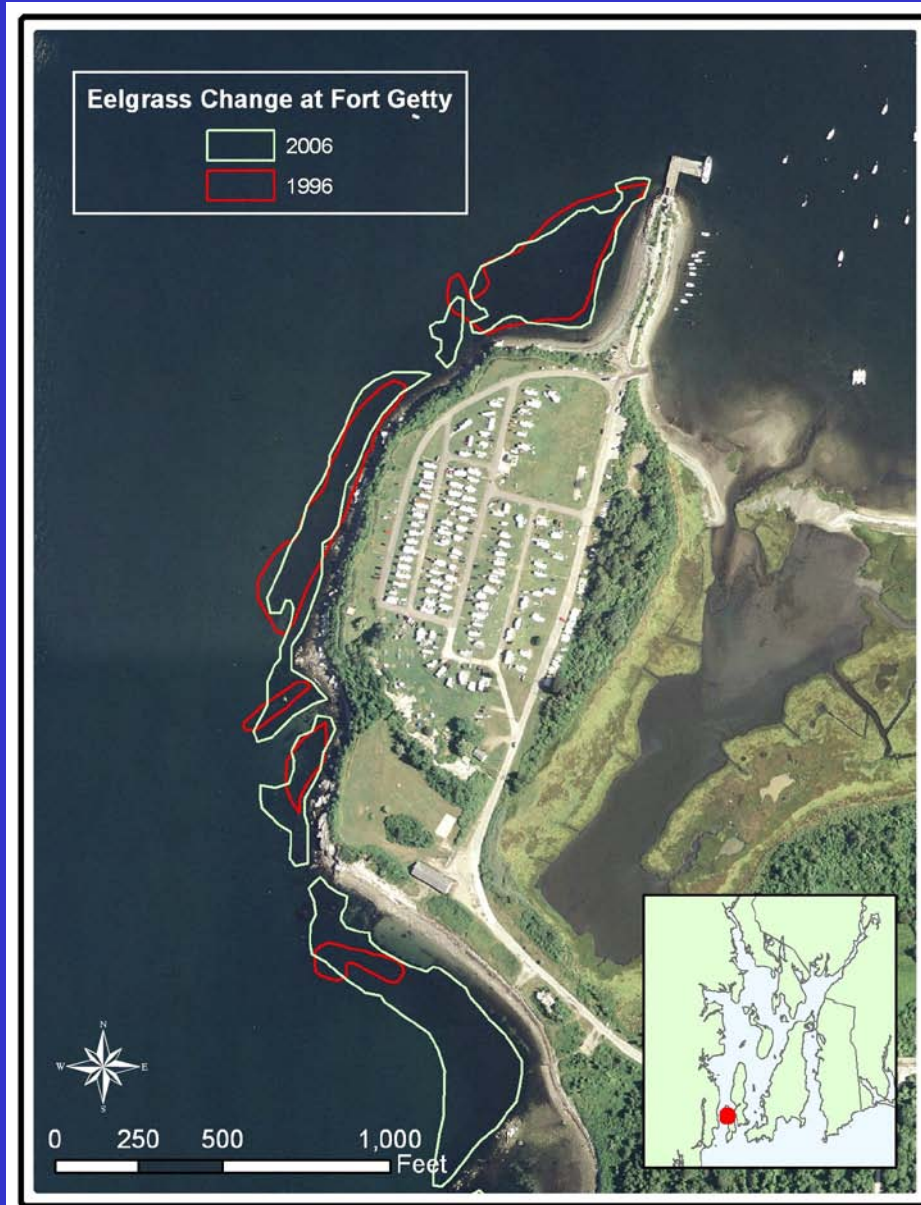
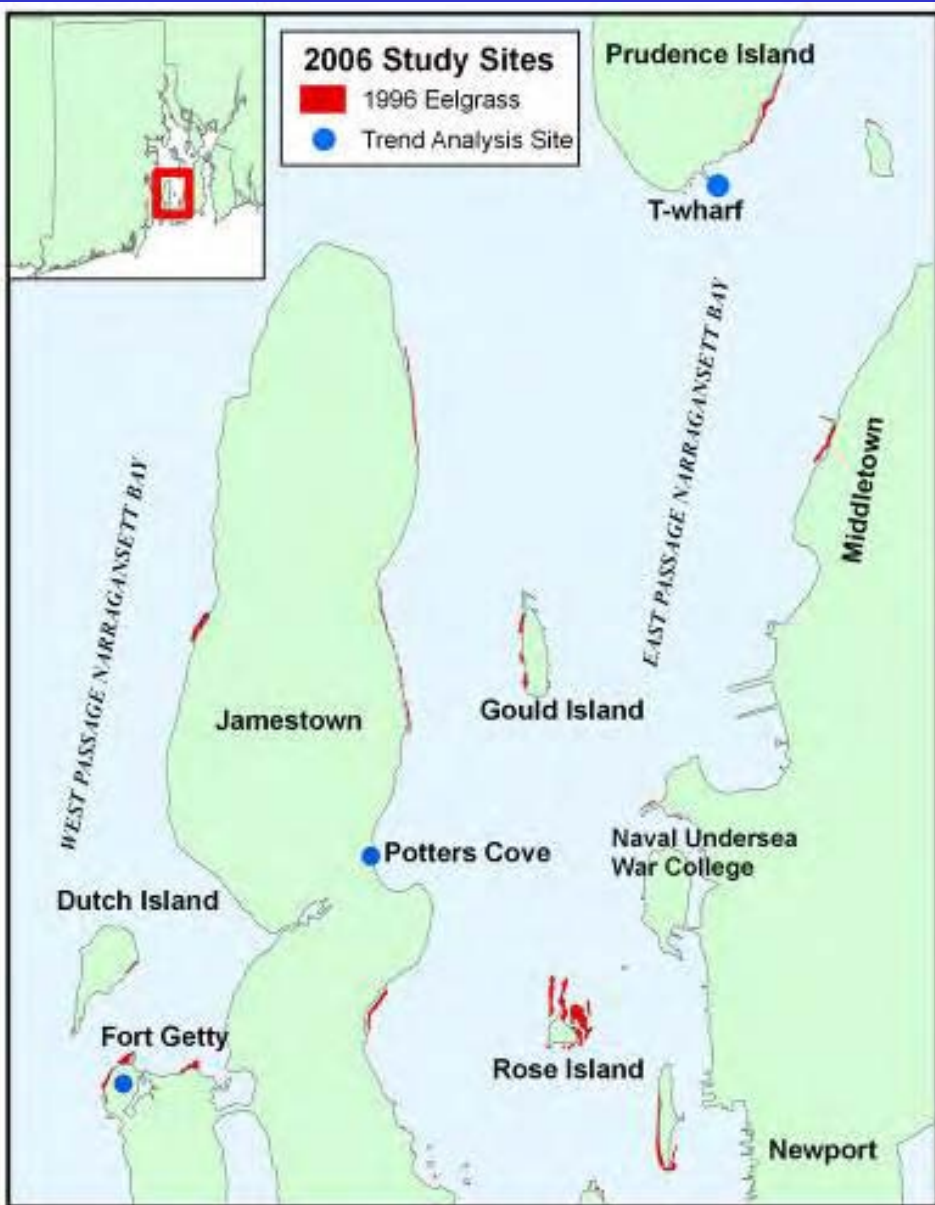
Photointerpretation Alone



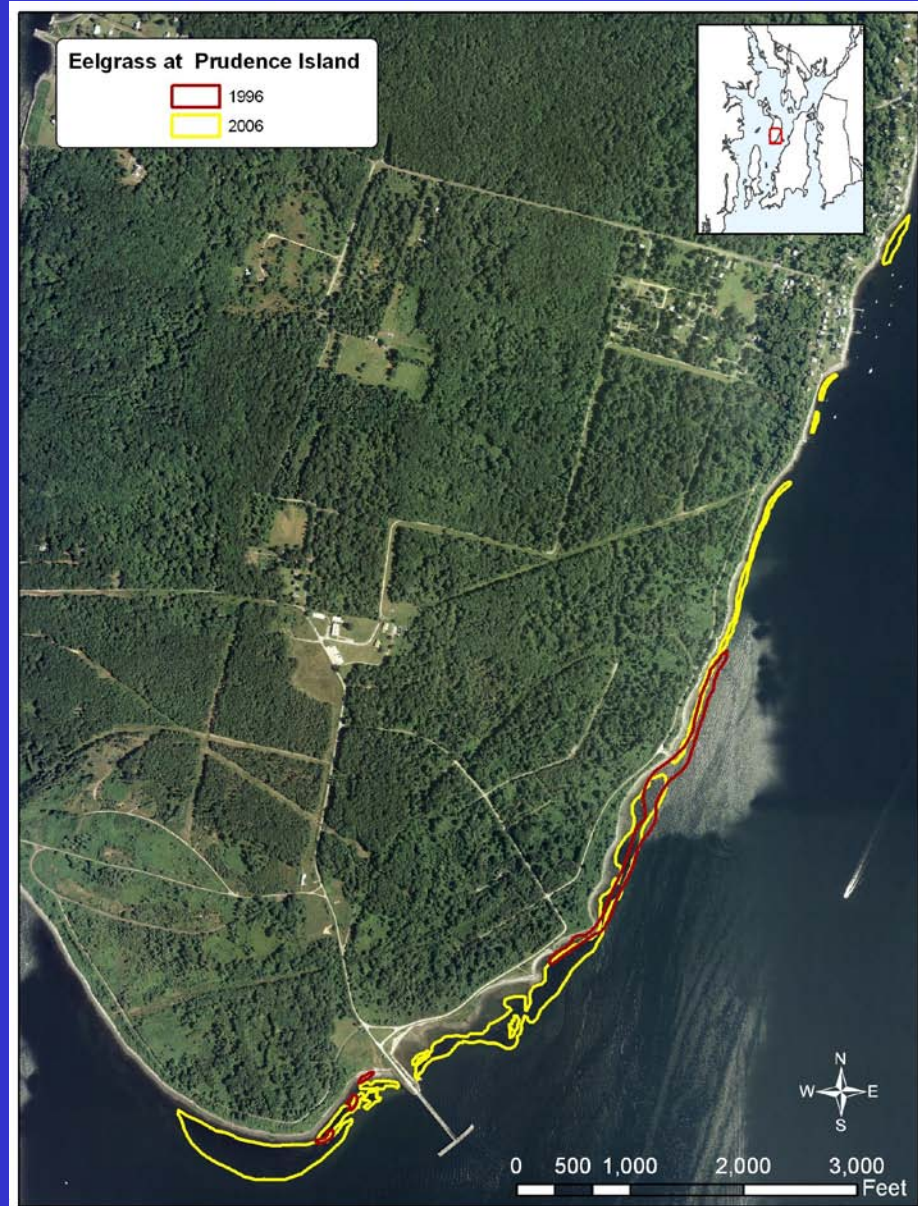
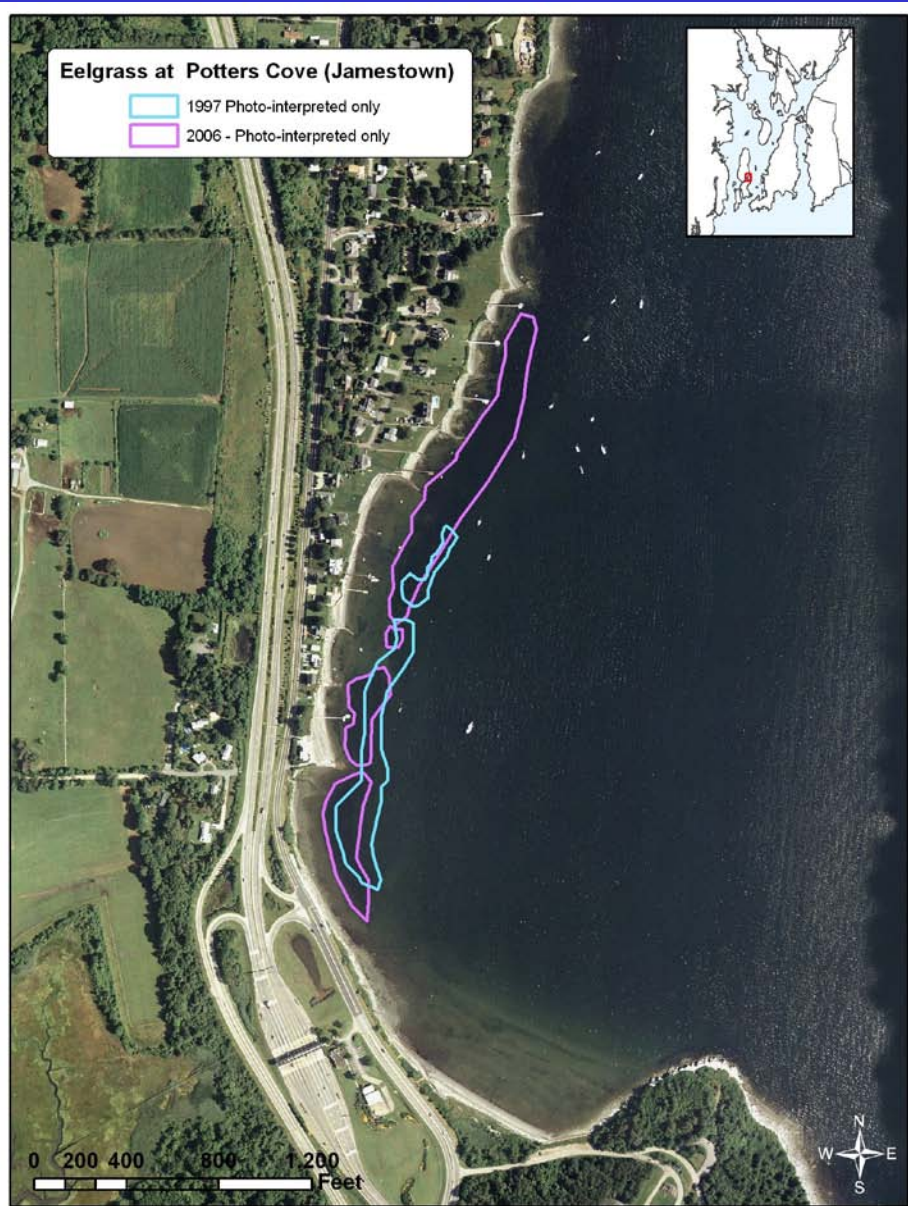
Photointerpretation + Ground-truthing



Trends Analysis



Trends Analysis



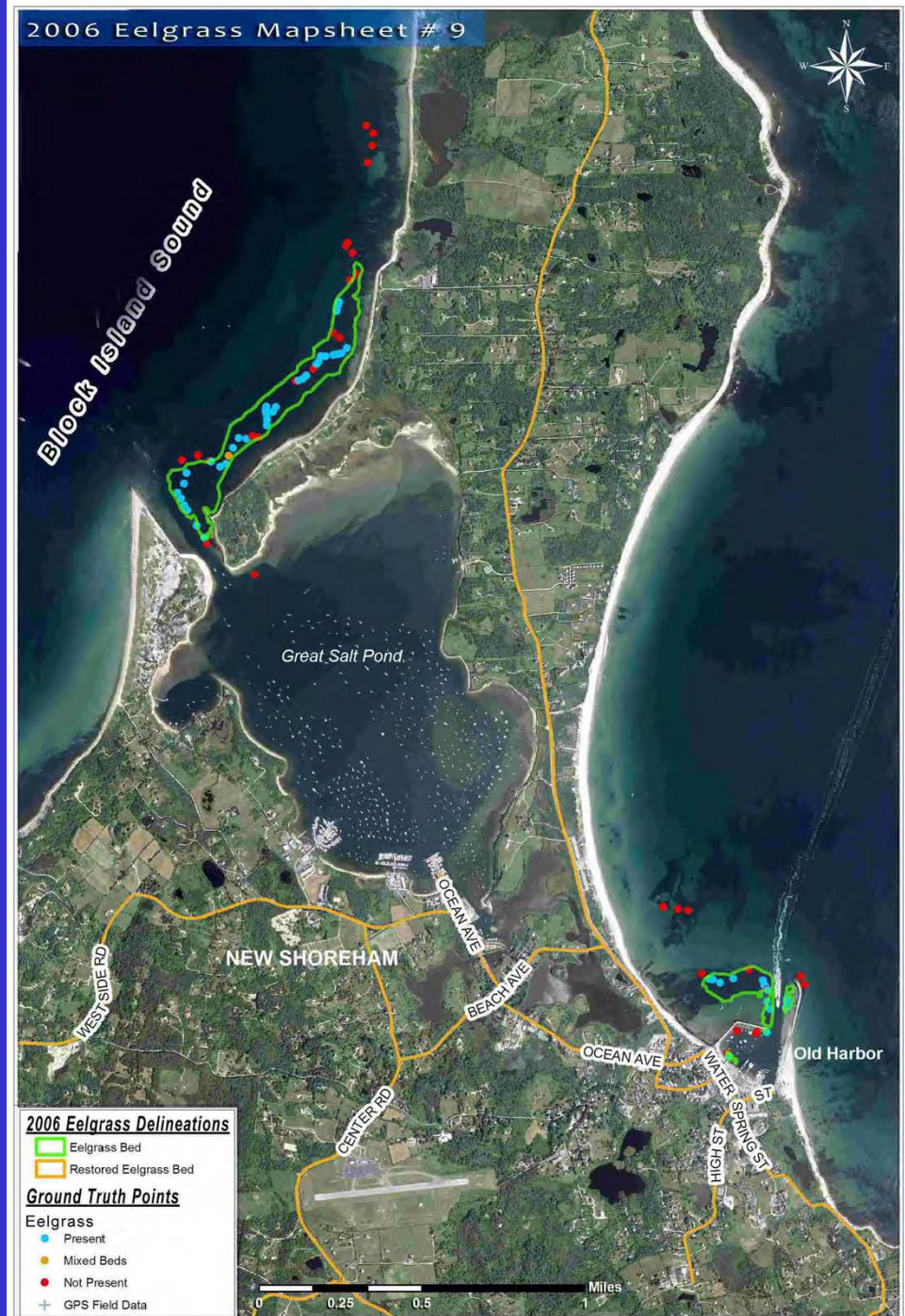
Block Island 1999 Distribution



Total = 35.4 Acres

Block Island 2006 Distribution

Total = 61.3 Acres



Salt Ponds 1999 Distribution

Quonochontaug

87.7

Ninigret

161.3

Green Hill

72.5

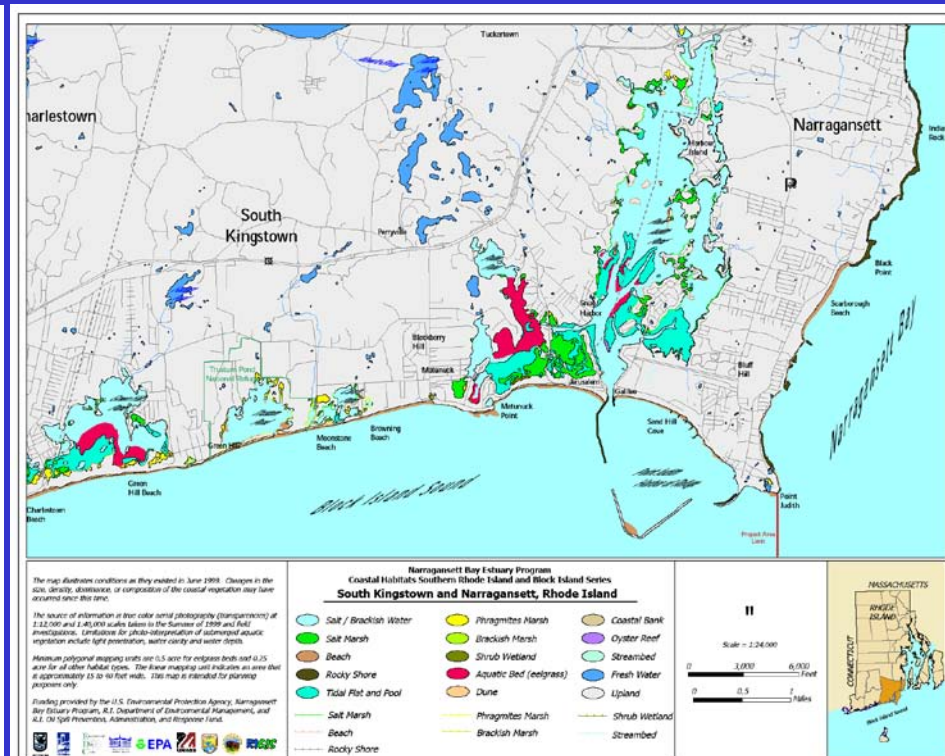
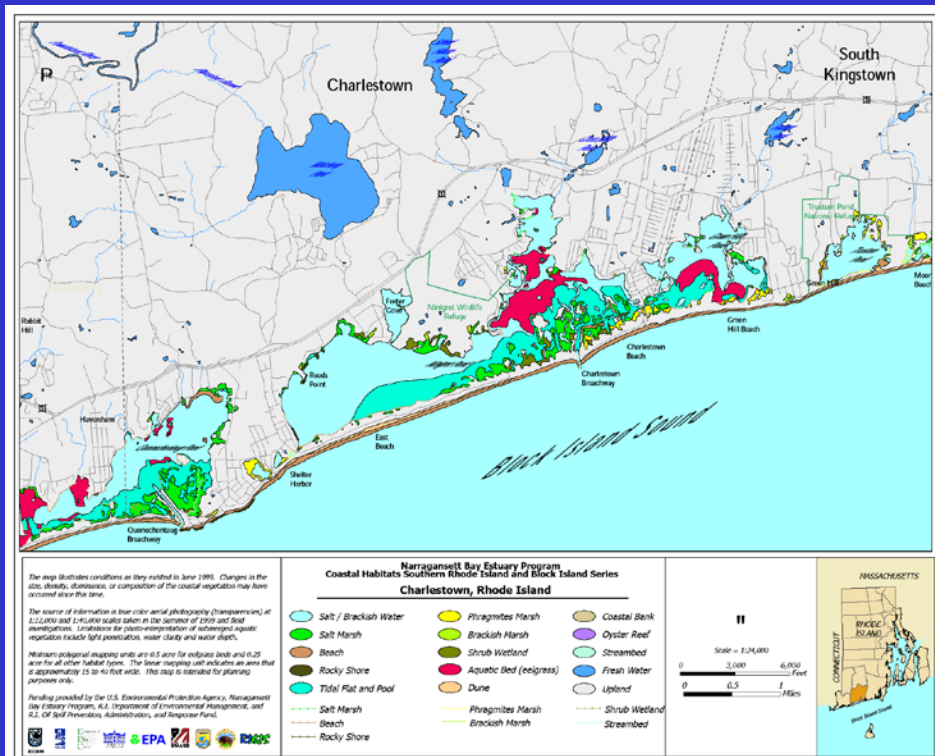
Potter's

122.3

Point Judith

29.2

Total = 473 Acres



Salt Ponds 2006 Distribution



~ 460 Acres

Photo-interpreted from Microsoft Live Maps

Future Plans

- RI Eelgrass Task Force assembled
- Finalize Long-Term Monitoring Plan
(Raposa and Bradley, unpublished)
 - Tier 1 – Remote Sensing
 - Tier 2 – Rapid Assessment
(Neckles et al., in prep)
 - Tier 3 – SeagrassNet
(Short et al. 2004)
- Acquire funding to implement long-term monitoring plan at more frequent intervals



Photo courtesy of Save The Bay

Acknowledgements

Helen Cottrell – Narragansett Bay Estuary Program

Chris Powell – RI DEM Fisheries (Retired)

Marci Cole – Save The Bay

Save The Bay Dive Volunteers –

John DeRoo

Tom Freeman

Rebecca Lantz

John Hoagland

James W. Sewall Co. – Overflights

RI Natural History Survey – Report and Atlas

Funders:



Town of New Shoreham,
Block Island

