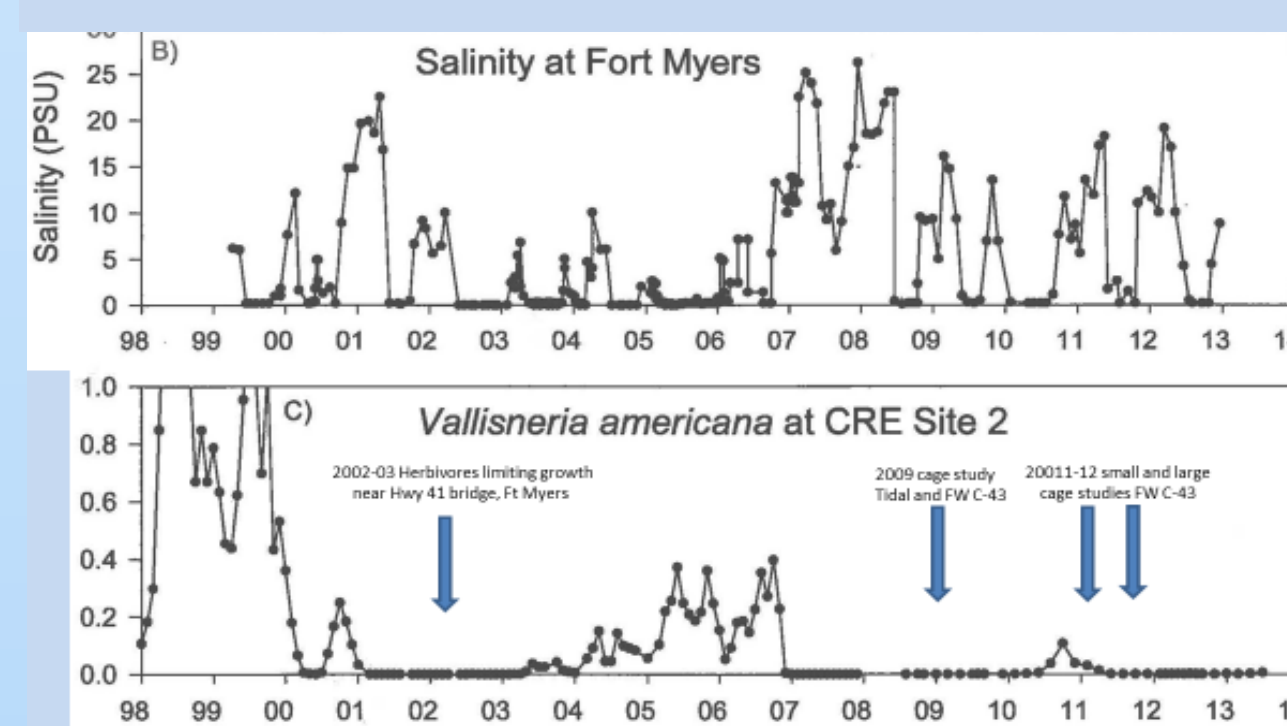
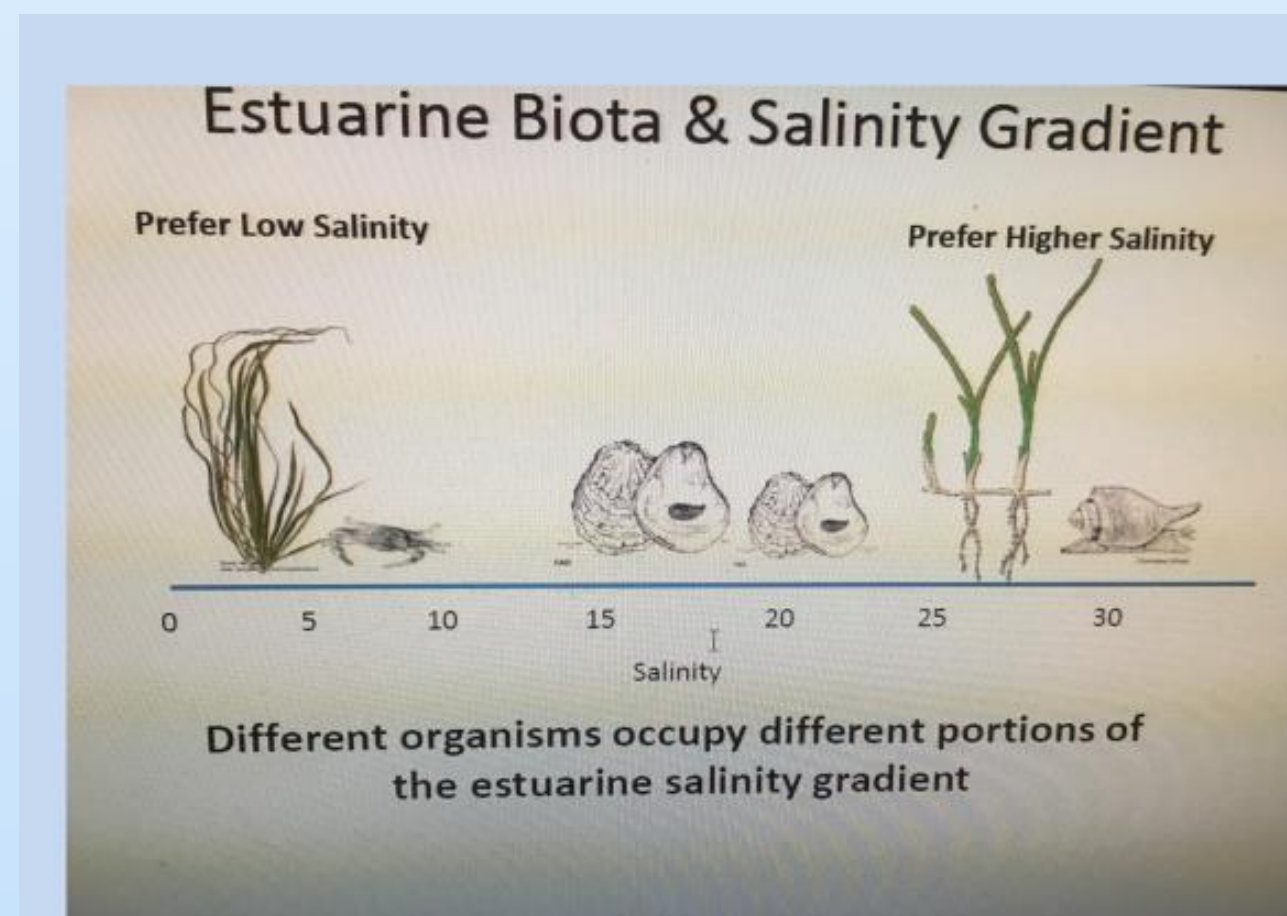
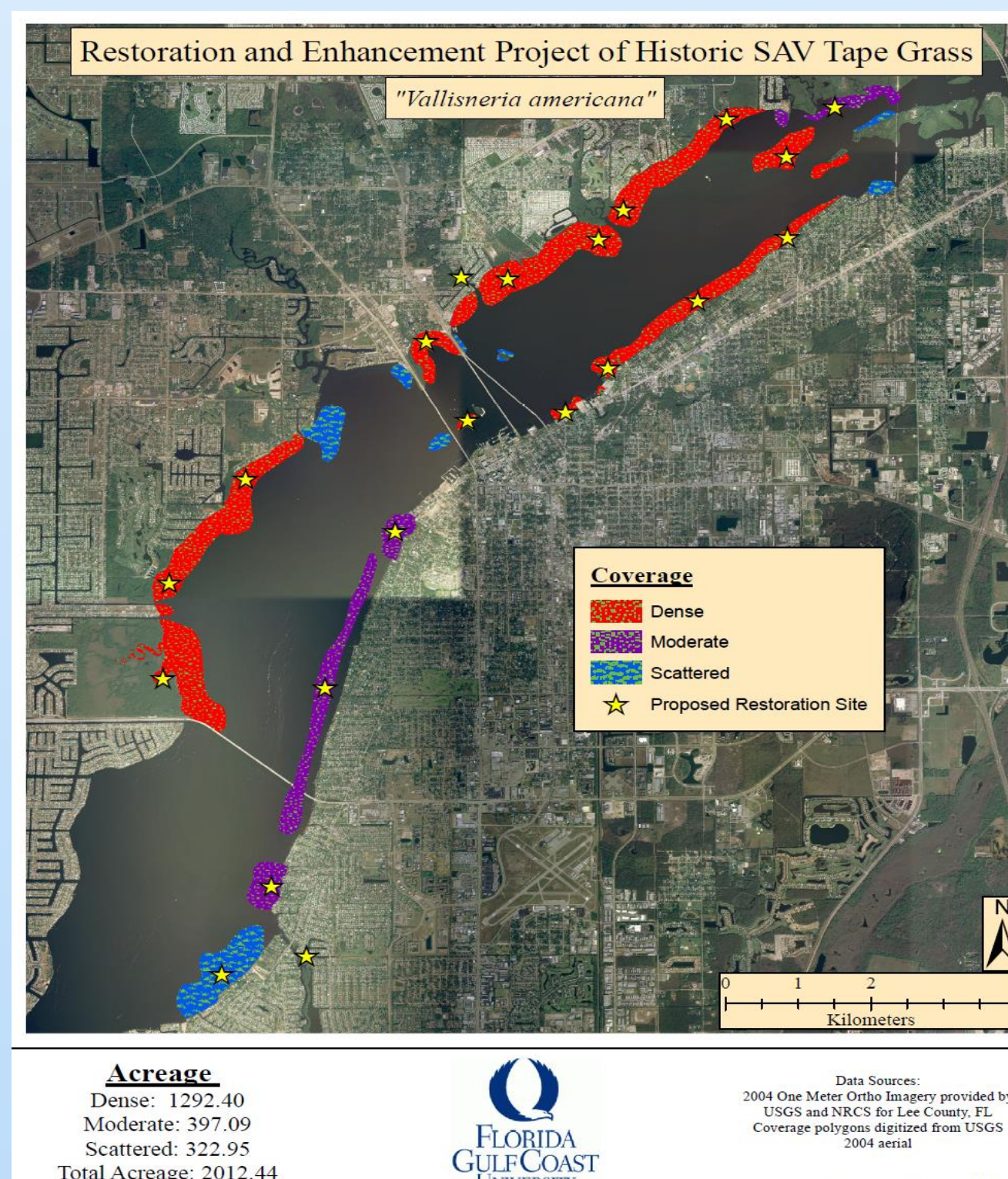
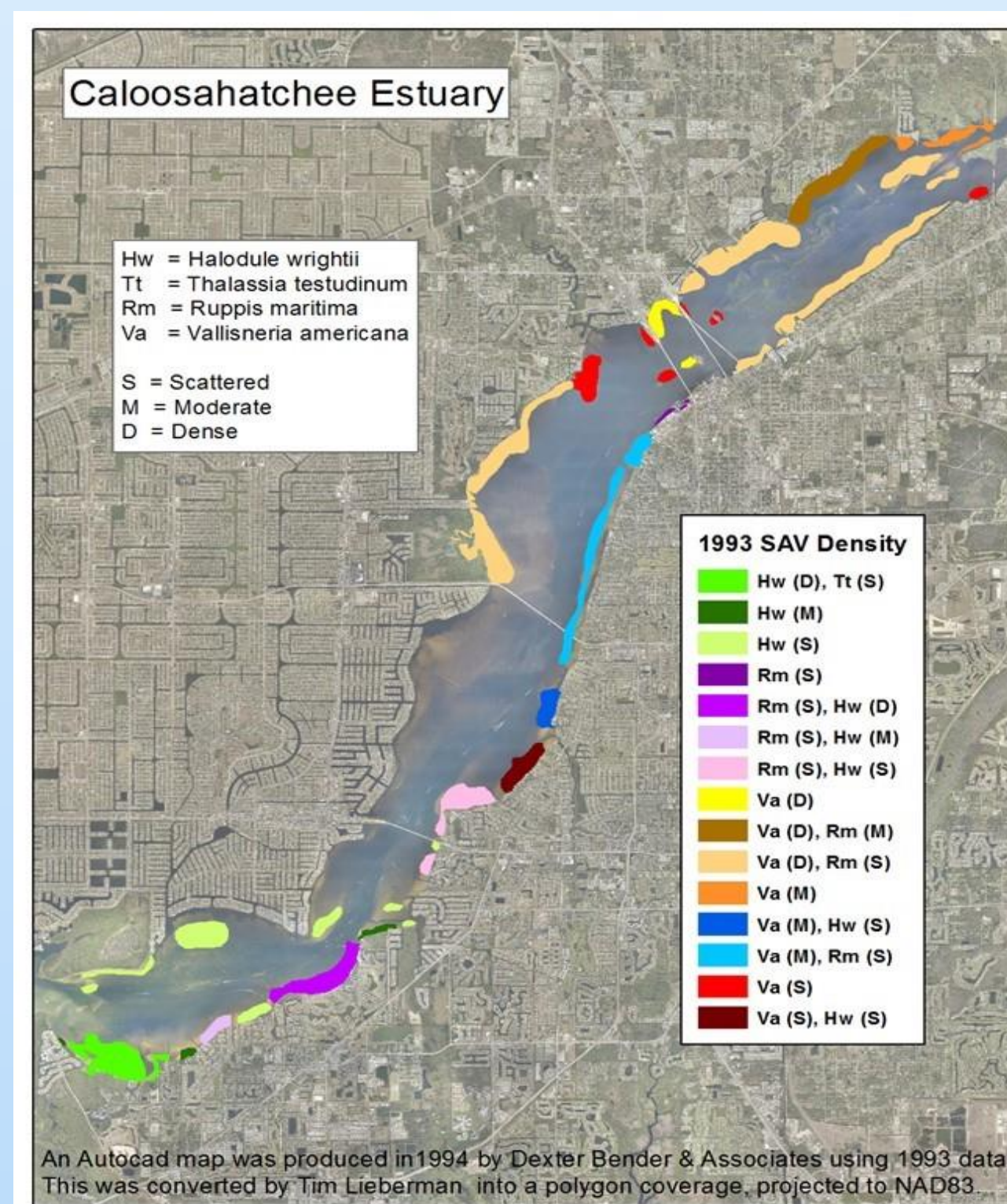
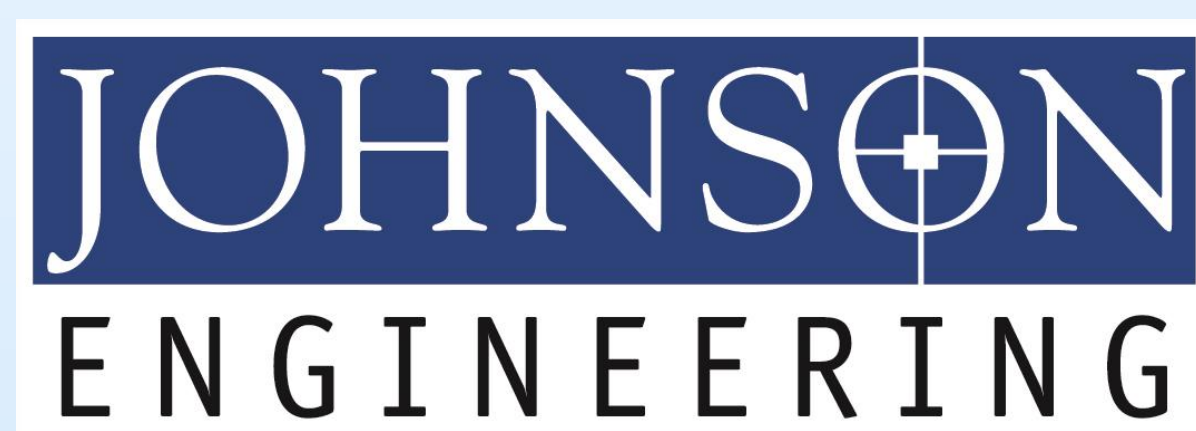


Vallisneria americana restoration in the Caloosahatchee river & estuary: building coastal resiliency through partnerships, applied research & adaptive management.

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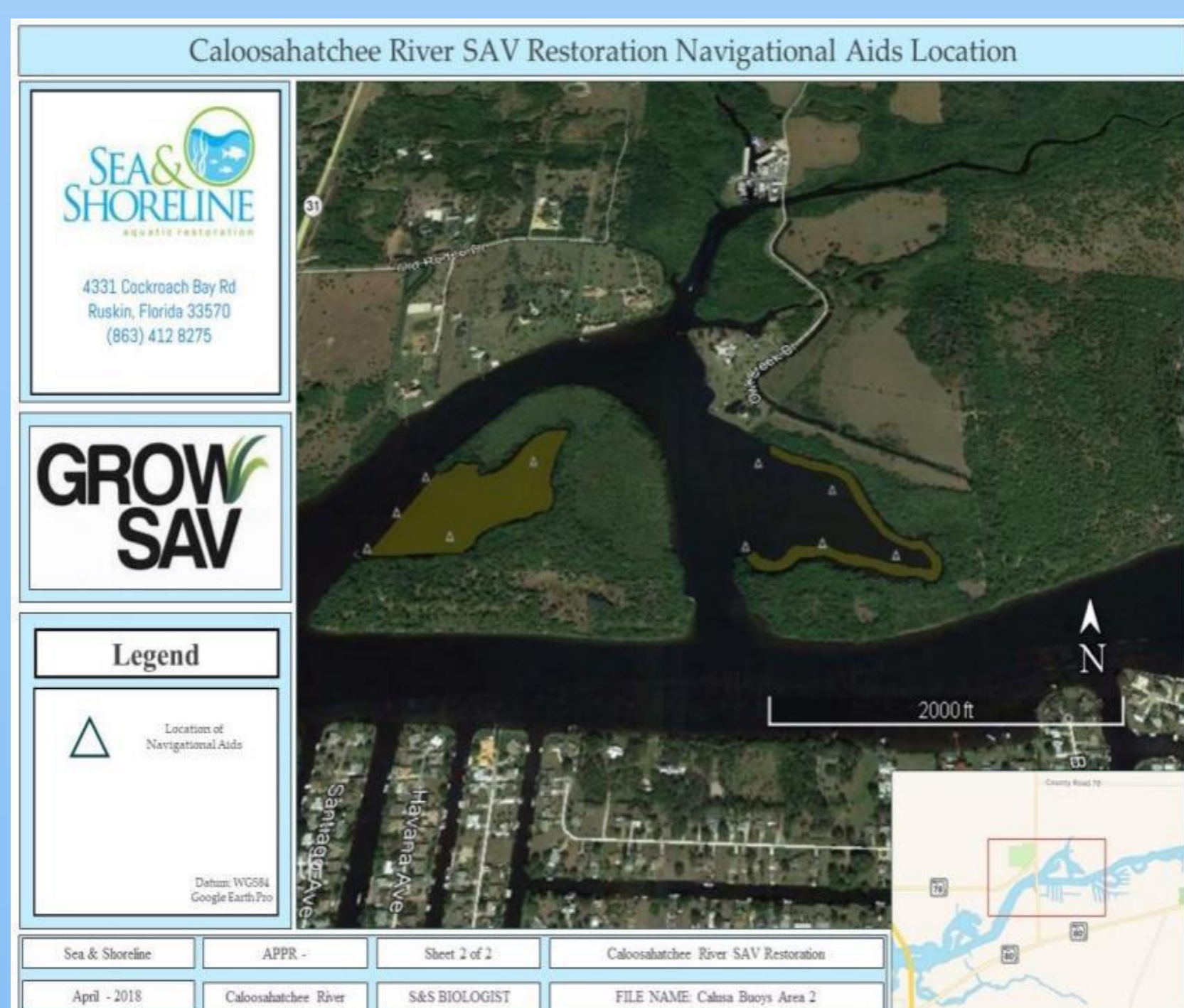
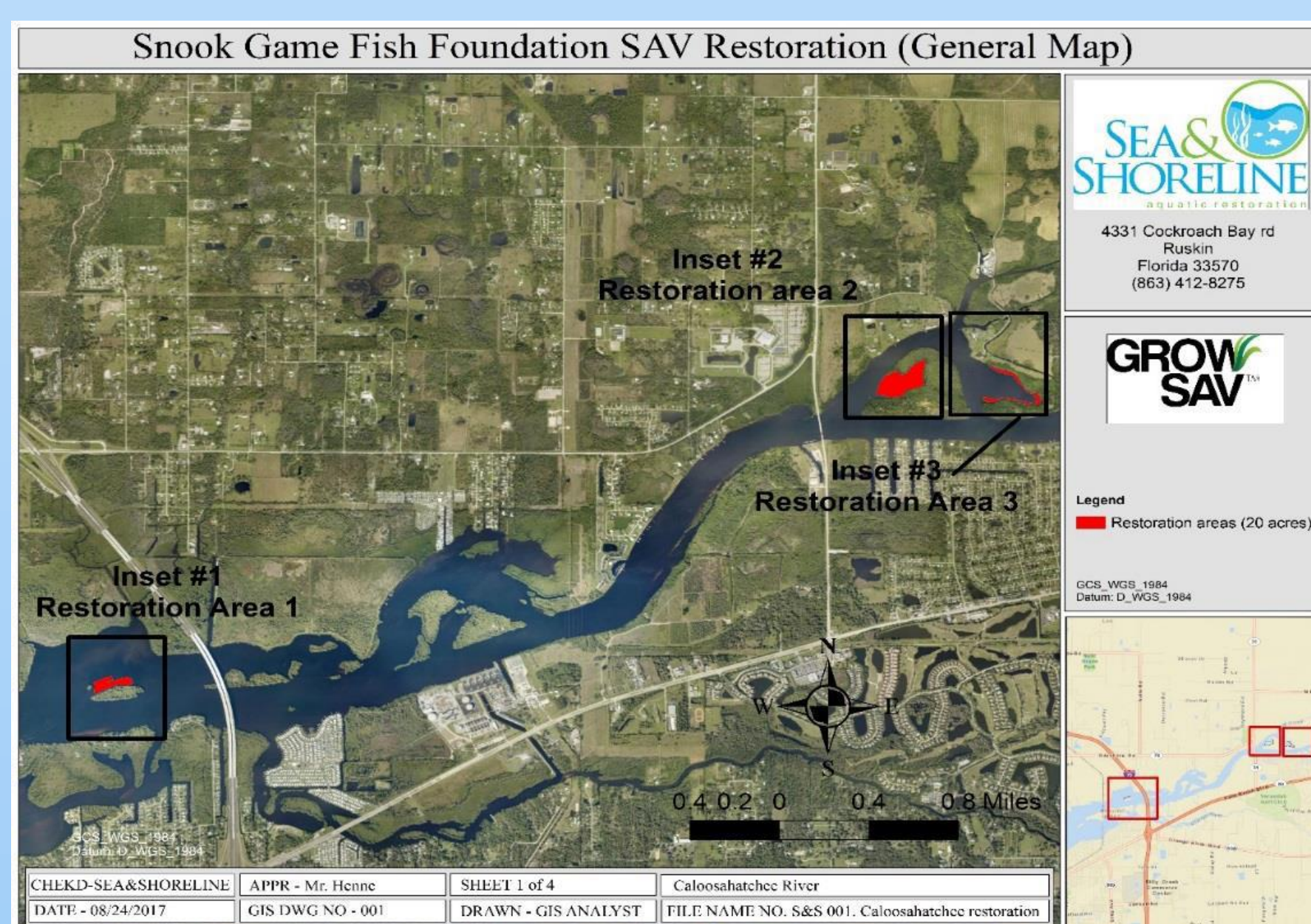


Vallisneria "Average Proportion Vegetated/m2" System Status Report 2014 (J. Douglas, Ph.D. FGCU). Vallisneria appears to be "down for the count"

(Photo credit)

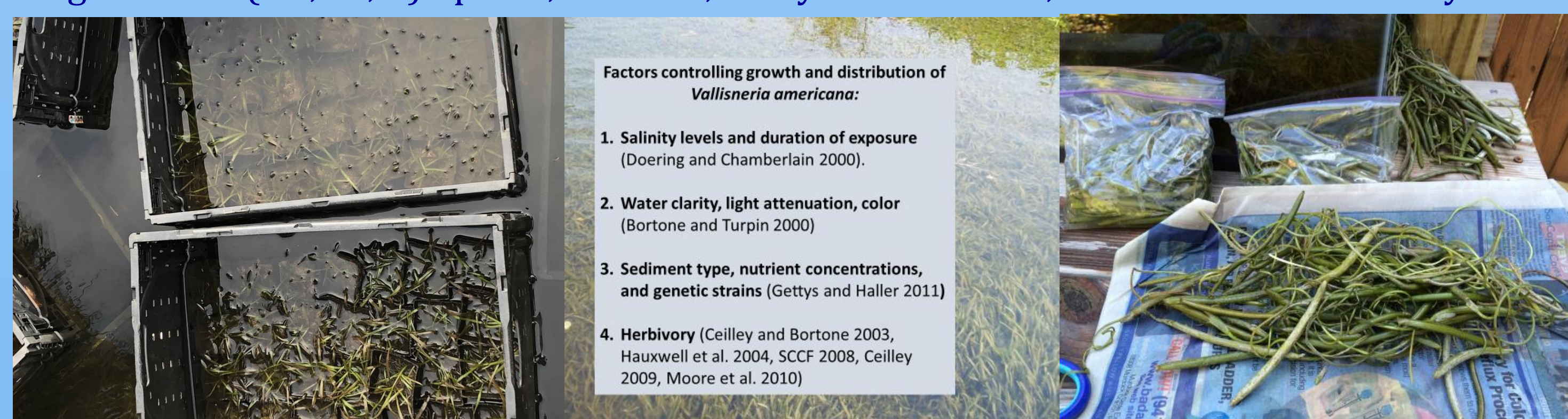


Grazers (above) must be excluded until grass beds become established.

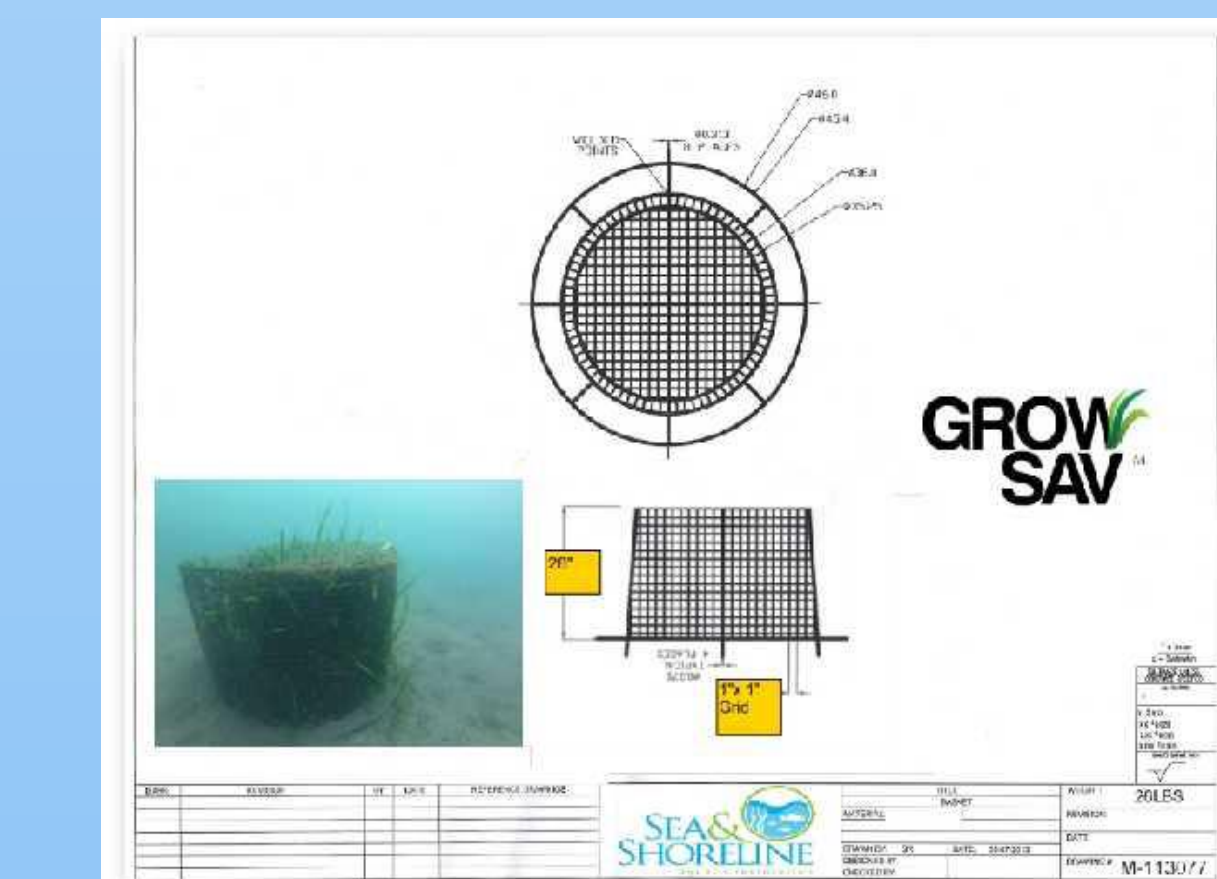


Restoration Strategy for Scaled-up 20-acre Phase II: 2018 - 2021

- Planted in Caloosahatchee River upper estuary: 500 planted exclosures at 3 locations
- Planted male and female Vallisneria plants at each location (75,000 Vallisneria & 25,000 Ruppia)
- Monitoring SAV plant growth, flowering & seed production for 3 years.
- Conducting fish and macroinvertebrate surveys semi-annually.
- Assessing nutrient (TN, TP, C) uptake, biomass, ecosystem services, and seed bank recovery.



Vallisneria americana collected immediately after exclosure cage removal on July 12 (left) and 24 hours later on July 13, 2018 (right).



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"The massive die-off of *Vallisneria americana* in the Caloosahatchee River estuary in 2000-01 will constitute 'serious harm' or a permanent, irreversible loss unless we take actions to restore it. Restoration of this critical estuarine habitat is our mission." D.W. Ceilley M.S. CSE, Restoration Ecologist

