SEAGRASS HABITAT RESTORATION IN TAMPA BAY USING LARGE *SYRINGODIUM FILIFORME* SOD UNITS AND A DISCUSSION OF PLANTING SITE BATHYMETRY AND SEDIMENT ELEVATION DYNAMICS

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Location of the manatee grass (*Syringodium filiforme*) donor site in eastern Old Tampa Bay (A) and the planting area near MacDill AFB in upper Middle Tampa Bay (B).
Oblique Aerial Photos of Plots 2, 3 & 4

November 2006

November 2007
Sediment elevation surface plots showing bathymetry of the planting area at the start of the project and at increments about six months following. The red markers show the corners of the six planting plots. (Plot 6 is to the right and Plot 6 is to the left). The green dotted lines show the perimeters of the planted grass for each plot.
CONCLUSIONS

• Donor area monitoring showed that no visible or measurable impacts from the harvesting activity, in terms of manatee grass coverage and sediment recovery, were evident one year following harvesting.

• A total of 48m² of manatee grass was originally planted in six 10x20m sites. In September 2008, manatee grass ground cover estimates, which included grass growing within the plot perimeters and also grass that had expanded beyond the perimeters, was 1340m² (0.33 acres). The three plots in the near-shore half of the planting area had the greatest expansion.

• Bathymetric surveys showed that substantial sediment perturbations occurred in the outermost, and generally deeper, half of the planting area over the two year study period. The shallower and more near-shore half of the planting area had smaller perturbations.

• The near-shore area is located landward of several sand-bars and may, therefore, be relatively well shielded from offshore generated waves.

• The two year study period may not have been sufficiently long to demonstrate the assumed interrelationship between sediment accumulation and well developed seagrass meadows.

• Four of the six planting plots showed large expansions in ground cover and had dense and tall manatee grass after two years of growth, however, only plot 5 appeared to have had substantial sediment accretion that may have been associated with the manatee grass.