

Seagrass Prop Scars in Cockroach Bay - Finding a Logical Solution



Problem



Option 1
Restricted Access



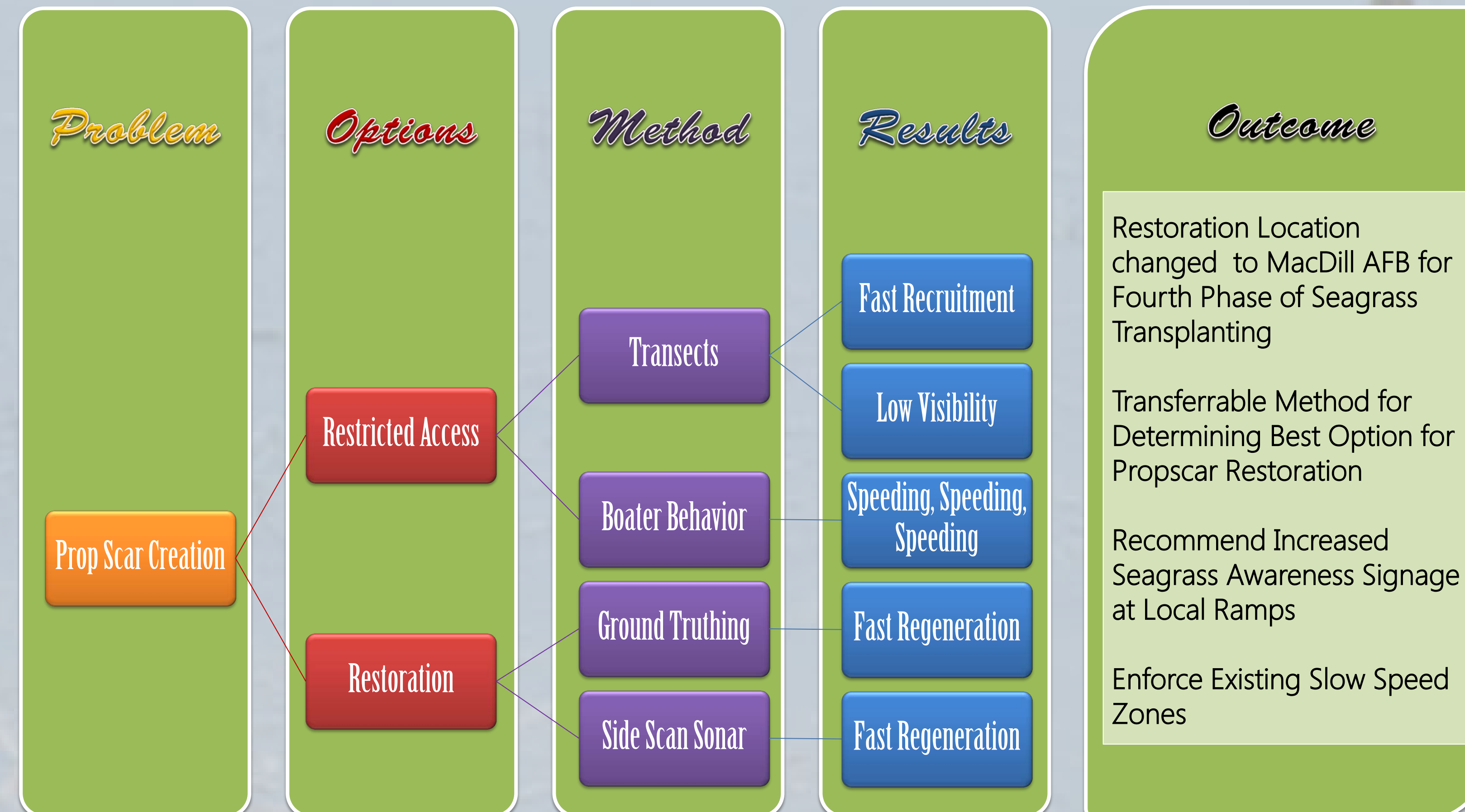
Option 2
Prop Scar Restoration

Options



Method

Project Decision Chart



Project Narrative

Cockroach Bay Aquatic Preserve (CBAP) is located in Ruskin, FL on the southern side of the mouth of the Little Manatee River (LMR). The area is a large estuary, approximately 3,600 acres, comprised primarily of mangrove forest, shallow submerged aquatic vegetation, and oyster bars. The primary users of the area are recreational and commercial fishermen and charter guides who access the area from either the LMR boat ramp or the smaller boat ramp at the end of Cockroach Bay Road. Propeller scars (prop scars) are extensive throughout the Preserve and concentrated near inlets between mangrove islands. In order to maintain the natural state of the Preserve a Pole and Troll zone (PTZ) covering Little Cockroach Bay was proposed by resource managers. All parties agree that Pole and Troll could help maintain the fishery habitat but to ensure that PTZ would be effective a pre and post implementation study was required.

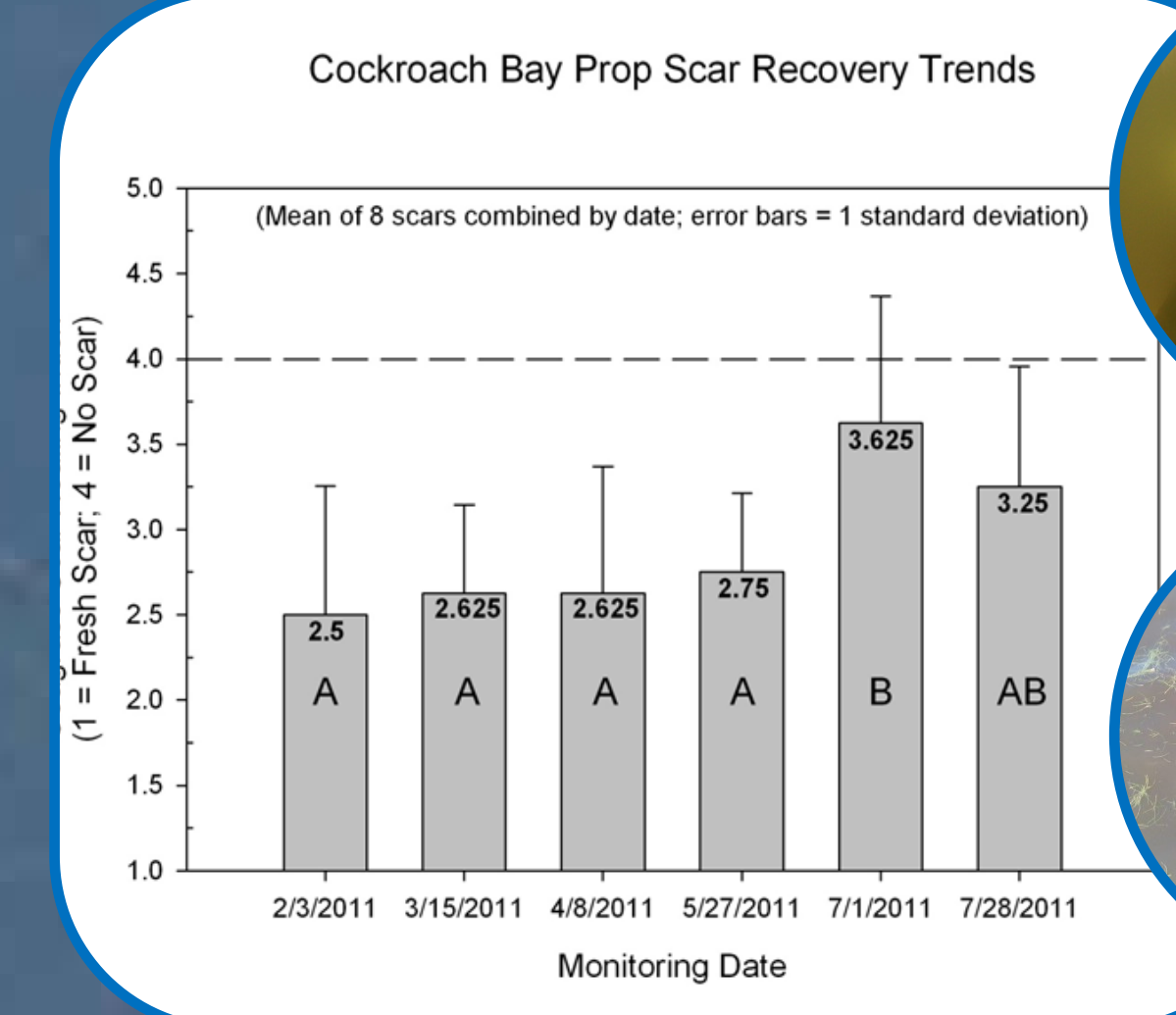
In 2009, the Environmental Protection Commission of Hillsborough County (EPC) received a grant from the Southeast Aquatic Resources Partnership (SARP) to conduct a study on prop scars in the CBAP. This was intended to serve as a pre-study analysis of the nature of the creation of prop scars in the area to support the implementation of a PTZ in Little Cockroach Bay. In conjunction with the study a 0.2 acre restoration of seagrass in the prop scars was proposed. To ensure success and cost-effectiveness the proposal also included making a determination of the best method for restoring seagrass in the prop scars.

The two prop scar monitoring methods (transects and specific site verification) indicate that prop scars become undetectable (Stage 3) at a very fast rate, often less than a year. Undetectable or Stage 3, meaning the sediment has filled the scour and seagrass has regenerated or recruited to the point where researchers can no longer find the prop scar again. These findings, along with poor visibility, led the group to ask SARP to use the funds slated for restoration at a nearby equal or greater size seagrass restoration site. Several alternative sites were considered and Tampa Bay Watch's fourth phase of seagrass, *Syringodium filiforme*, transplanting at MacDill Air Force Base (AFB) was chosen. The restoration was completed in the summer of 2012 using many community volunteers and combined funding from the Tampa Bay Environmental Fund. This project is a good example of how scientific information can lead to adaptive management and logical solutions to environmental issues.



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Results



Low visibility in Cockroach Bay and mucky sediment made locating scars difficult

Shallow draft boats and small props often create 'haircuts' rather than scars

Increase Education/Awareness with Signage like this from Pinellas County/Tampa Bay Watch

Outcomes

Enforce Existing Slow Speed Zone

Transfer Restoration to MacDill AFB. Completed summer 2012 with Tampa Bay Watch volunteers



Transferable Method