

NOAA Abandoned and Derelict Vessel Case Study



Merritt Island Mitigation Project ADV Removals

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Project Overview

Reason for project: Derelict vessel removal mitigation project resulting from the construction of a storm water management system.

Date initiated: June 12, 2015

Project duration: 6 months

Number of vessels removed: 4

Project Location

Location: Merritt Island, Florida

Site Name(s): Merritt Island Airport

General description of location: The mitigation site was 23.6 acres of wetlands that was located off-site from the airport facilities.

Average Site Depth: < 5 ft.

Habitat/Substrate Type Impacted: Sandy, muddy bottom with no seagrass present.

Jurisdictions: St. Johns Water Management District (local) and the State of Florida, under their authority over Florida's Sovereign Submerged Lands.



Project Narrative

History: Safety improvements to the Merritt Island Airport were approved by the State of Florida under the conditions that the loss of habitat was offset by mitigation projects of similar size. The Airport safety improvements required the construction of a shoreline revetment with articulated block along the north and east ends of the Merritt Island Airport (runway 11-29), and the building of a new Storm Water Management System with storm water treatment capabilities on 20+ acres of land on Merritt Island. The mitigation projects involved partially filling in a 1.01-acre area along the northwest shoreline of the island to raise the elevation from -4 ft. to between -3 and -2 ft., and the restoration and improvement of a 23.6 acre wetland area that was located off-site. As part of the off-site mitigation, a number of abandoned and derelict vessels needed to be removed in order to restore the area to a more natural state.

Why was the project initiated: The removal of derelict vessels was in response to several construction projects that were approved by the State of Florida under the conditions that a wetland mitigation project be completed by the developer to offset the loss of wetlands due to the new construction.

Who initiated the project: Titusville-Cocoa Airport Authority

Lead agency or organization: St Johns Water Management District, Florida

Other collaborators/stakeholders involved: Brevard County Boating and Waterways and the State of Florida Public Trust

Funding source(s): Funding for this project and the ADV removals was provided through Mitigation Offset, paid for by the developer/construction company.



Threats from ADV

Environmental: The ADV removed were negatively impacting sensitive lagoon habitats (i.e. mangroves) and were deteriorating, creating more marine debris in the wetlands.

Critical habitats involved: Benthic habitat and bottom dwelling species in the lagoon.

Public safety and health: Because of the dilapidated condition of these vessels they were considered public safety hazards.

Navigation: Some of the vessels removed were considered navigation hazards due to their locations close to and along navigable waterways.

Aesthetic: These vessels were an eye-sore and detracted from the aesthetic value of the surrounding wetland habitats.

Other threats: The vessels posed a potential threat to surrounding infrastructure, as they could have been dislodged and carried into existing structures under storm conditions.

Summary of Removal

Number of vessels: 4

Primary vessel type: Sailboats (2), speedboat (1) and houseboat (1)

Primary hull type: Wood (1) and fiberglass (3)

Average vessel size: 26 ft.

Acres restored via removal: Approximately 150 sq. ft.

Approximate removal costs: \$2,550

Additional debris removed: None

Vessel removal summary: All vessels were successfully removed from the wetland mitigation site by barge mounted heavy-equipment, then transported offsite where they were demolished and taken to the local county landfill.

Project Removal Actions

Start date: July 23, 2015

End date: July 24, 2015

Removal options considered: The only option considered for removing these vessels was to use a crane barge to lift the vessels from the lagoon area.

Environmental Considerations: A site inspection was done by the State to assess the condition of the vessels and potential hazards prior to their removal.

Removal Methods: The primary removal methods consisted of using barge-mounted heavy equipment to either lift the vessel using cables or with a clam shell bucket.

Authorities used to take Possession of Vessels: Derelict Vessel Law under Florida Statute § 823.11

Permits Required: Army Corps of Engineers, State Exempt via Florida Administrative Code 62-330.051.

Salvage Contractor(s): Absolute Marine from Brevard County, Florida.

Contractor Selection Process: The local county bid process was used to select the removal contractor.

Vessel Disposal Process/Issues: The removal and disposal operations went according to plan and no major issues were encountered during the process.



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Project Challenges

Environmental: Protecting the nearby mangroves and ensuring that manatee's were not negatively impacted (which required observers).

Weather/Seasonal: The vessels urgently needed to be removed prior to hurricane season to prevent further environmental damages and keep them from becoming navigational hazards.

Funding: The project was paid for by the developer, who required mitigation credits to offset the loss of wetlands that were expected during construction of the airport safety improvements and storm water management system.

Lessons learned:

To seek more mitigation-type removal projects as an additional opportunity to remove derelict and abandoned vessels from Florida state waters. Using mitigation projects to remove ADV appears to be a win, win situation for all parties involved. These projects also benefit local communities, tourists and others that visit restored mitigation sites in the future.

New tools, techniques or developments

This project highlighted the potential of using mitigation practices and requirements for removing and disposing of abandoned and derelict vessels, without spending state or county funds. Using mitigation opportunities to remove ADV allows states and counties to preserve derelict vessel removal funding for other worthwhile marine projects.

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