Recipient Site Selection & Environmental Coordination Key elements in successful coral relocation, survivorship, and resiliency during jetty reconstruction in South Florida

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Introduction

Coral transplantation is a common requirement in South Florida and the Caribbean as part of various coastal construction and dredging projects with the burden often placed on the contractor hired to conduct the work. Although the success or failure of the coral relocation efforts is ultimately the responsibility of the permit holder and project sponsor, the contractor must frequently take on the liability of the work performed.

Identifying suitable coral recipient locations to maximize coral survivorship continues to be one of the biggest challenges in coral relocation projects. Failed projects are often due to poor site selection - sedimentation (NOAA, 2015), excessive UV radiation and heat (personal knowledge), unsuitable water depths, incompatible substrate (personal knowledge), excessive currents, heavy predation (Chappell, 2021), and current or future exposure to disturbances (Jamaica Environmental Trust, 2015).

Quick Facts

- Coral transplantation common in South Florida
- Contractor often responsible
- Successful coral relocation often dependent on:
- Effective coordination with client and regulators Scientific-based site selection
- Opportunities for conservation, resiliency research, and education
- Timing, knowledge, and logistical experience are key
- Safety and EM 385-1-1

Site Selection Methodology

- Identify suitable locations for receiving the coral colonies should be conducted in phases using: – US Coral Reef Task Force (USCRFT) Handbook on Coral Impacts (2016)
 - Florida Fish and Wildlife Conservation Commission (FWC).
 - ArcGIS, overlay data layers
 - Bathymetry, habitat types, artificial reefs, and LiDAR initially
- Determine water depth, habitat areas, distance from project area, and substrate type.
- construction activities (e.g., dredging, beach nourishment, pipeline or cable installation)
- Conduct reconnaissance dives to assess sites:
 - Species present and condition of existing coral colonies
 - Potential presence of any disease, bleaching or excessive algal covers, and
- Available substrate area for reattachment of coral colonies and future growth • Gain state, federal, and county approval
- Acquire Special Activity License from the FWC, Division of Marine Fisheries Management

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• Consult local government offices about future permitted, authorized, or reasonably foreseeable marine







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"No parrotfish predation or other significant corallivory was observed, and good site selection appears to be much more important for the survival of relocated corals than predator exclusion"

- Port Everglades Jetty Reconstruction **Compliance Manager**



