The Corps is committed to the protection of coral reefs and the effective mitigation of any impacts. The Corps believes that there is a need to improve the understanding of mitigation so that we can fully offset unavoidable impacts to coral reefs.
Corps implementation of Executive Order 13089 for Coral Reef Protection

- Corps fully mitigates all direct and indirect impacts to resources
- Mitigation sequence of avoidance, minimization, & compensatory mitigation
- Restoration through planning and project capabilities
Corps Actions to Improve Coastal Protection

Jacksonville District is actively participating in the Southeast Florida Coral Reef Initiative Local Action Strategy

Corps representatives to:

- Land Based Sources of Pollution Workgroup
- Maritime Industry and Coastal Construction Impacts Workgroup

http://www.dep.state.fl.us/coastal/programs/coral/
Jacksonville Regulatory Division Efforts

- Avoid impacts to coral reefs to the maximum extent practicable
- Improve consistency of mitigation for marine impacts
- Improve tools for assessing marine mitigation
- Coordinate interagency workgroups

Photo from Nova Southeastern University, National Coral Reef Institute
Hosted a Coral Reef Functional Assessment Workshop to explore the feasibility of developing a methodology for assessing impacts and mitigation.

Implementing mitigation, where appropriate, for harbor improvement projects in the Pacific.
Major Threats to Coral Reefs

- Maritime Industry and Coastal Construction Impacts (FL LAS MICCI)
- Land Based Sources of Pollution and Water Quality (FL LAS LBSOP)
- Fishing Diving & Other Uses (FL LAS FDOU)
- Florida Keys Reef Tract, Florida Bay & Gulf of Mexico – *Eutrophication*
- Miami-Dade to Palm Beach – *Construction and LBSOP*
- Puerto Rico & the U.S. Virgin Islands - *LBSOP*
Dead coral heads off previously dredge-filled beaches, overgrowth of Palythoa caribbeorum, & algae growing on soft coral possibly due to eutrophication, LBSOP, and/or construction impacts.
Nearshore mitigation prone to burial by natural sand migration
Corps Implementation of Coral Protective Measures

Regulatory Division

- Taking a broad view under NEPA for impacts to corals, including deep water species and indirect impacts
- Working closely with NOAA to implement regulatory authority under Essential Fish Habitat provisions of the Magnuson Stevenson Fisheries Act
- Maximizing avoidance & protection of high ecological value marine resources
- Fully offsetting all functional losses under the 1990 MOA on Mitigation
- Fully offsetting impacts under NEPA
Mitigation for Impacts to Coral Resources

- Department of the Interior report, “Investigations of Compensatory Mitigation for Coral Reef Impacts in the U.S. Atlantic: South Florida and the Caribbean”
  - Identified inconsistencies in mitigation
  - Focused on Corps regulatory program

- The Corps agrees:
  - Mitigation had been inconsistent
  - Mitigation is now improving
  - Corps is committed to continuing to improve mitigation
Mitigation for Impacts to Coral Resources

- Jacksonville Regulatory Division works closely with the local Federal Commenting Agencies
  - Ensures that impacts to coral resources are avoided to the maximum extent practicable
  - Ensures that impacts are fully and adequately mitigated

- Puerto Rico and the U.S. Virgin Islands Regulatory Division
  - Participates in a successful inter-agency working group
  - Discusses environmental impacts proposed by regulatory projects with a focus on avoidance
A Demonstrated Need for Change

Past Unauthorized Impacts

• Sunny Isles Beach Renourishment Project
  reef sedimentation resulted from inadequate buffers and around borrow areas

• Hillsboro Inlet Dredging Project
  extensive coral damage due to cable drags

• Calypso Pipeline Geotechnical Bores
  corals were relocated pre-construction, however, coral damage occurred due to missed targets by construction equipment
This photo from Vone research shows damage to reef resources after the cable drag that occurred during the Hillsboro Inlet dredging project.
Corps Response to Past Unauthorized Impacts

- Require hopper dredges to raise drag arms when turning or relocating
- Require floating anchor and tow lines or lines with mid line suspension
- Ensure adequate buffers between borrow areas and coral areas (typically 400 feet)
- Increase physical and biological monitoring requirements
- Increase avoidance of ecologically important resources
Summary

• The Corps is fully engaged and committed to implementing Executive Order 13089 for Coral Reef Protection
• The Corps is committed to working collaboratively with all stakeholders, including local interests
• The Corps is committed to improving mitigation of unavoidable impacts that are authorized by Regulatory permits
• The Corps is committed to instituting more resource protective permit conditions and providing effective compliance and enforcement of those conditions