CORAL REEF RESTORATION AND MITIGATION

In Florida and beyond…

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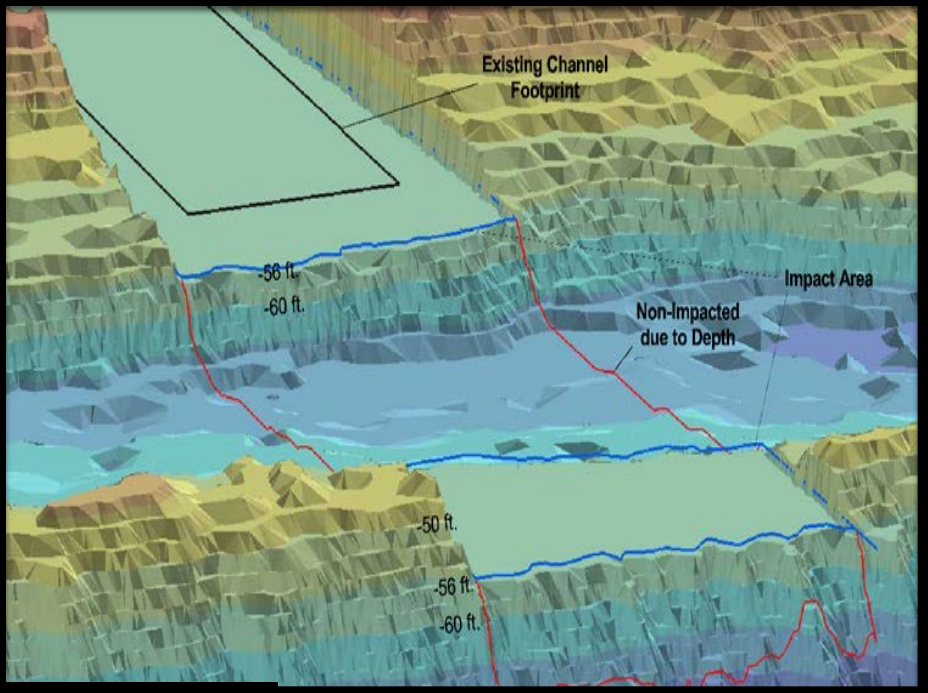
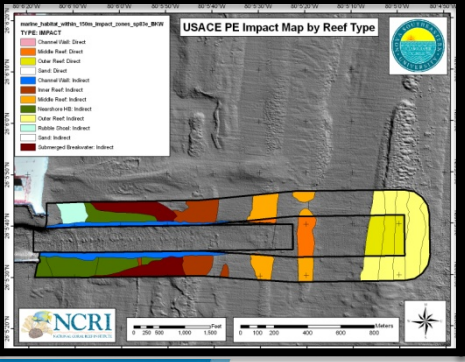
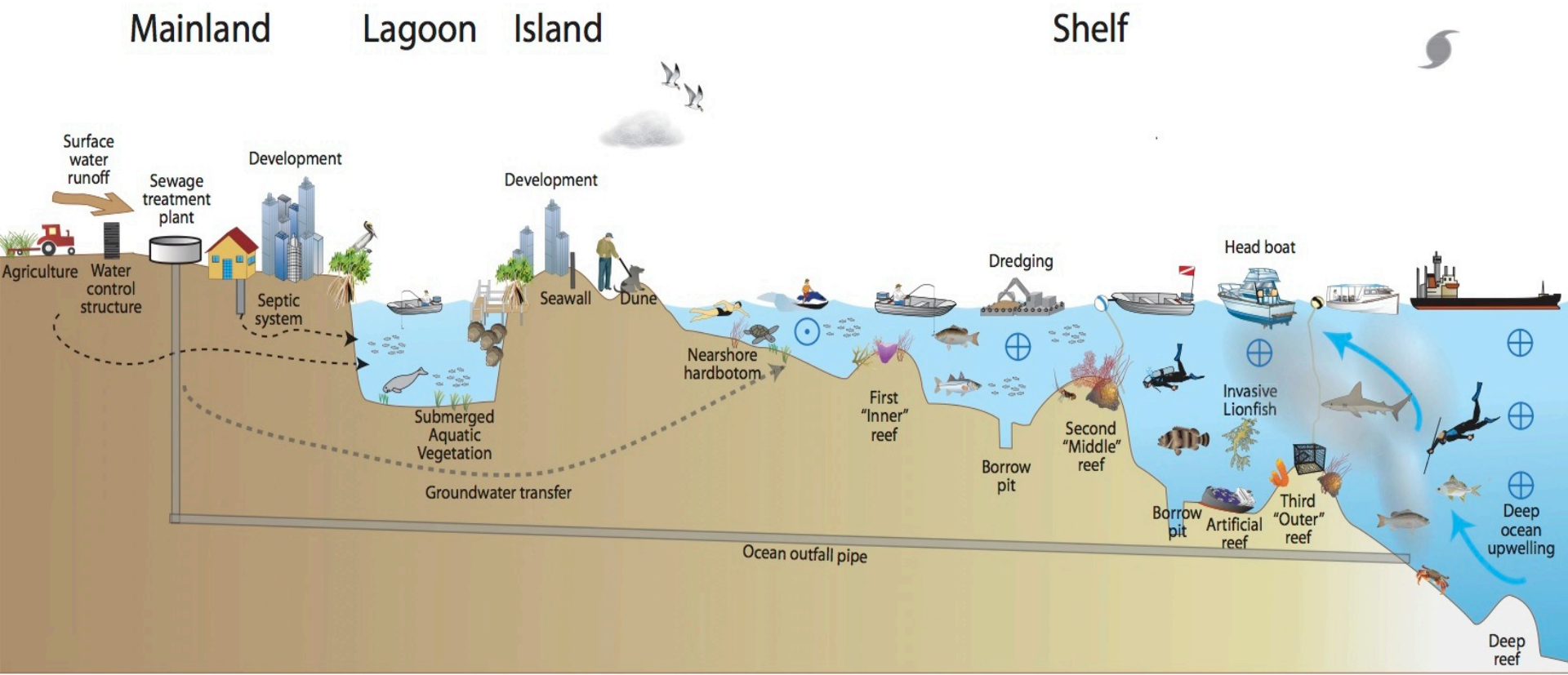
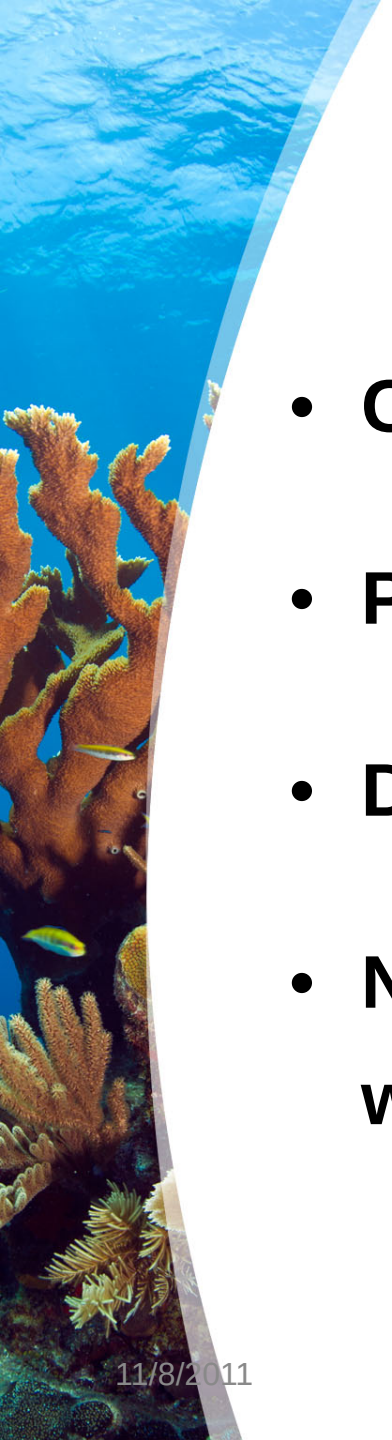

Existing Channel
Footprint
-56 ft.
-60 ft.
Impact Area
Non-Impacted
due to Depth
-50 ft.
-56 ft.
-60 ft.


American Pride

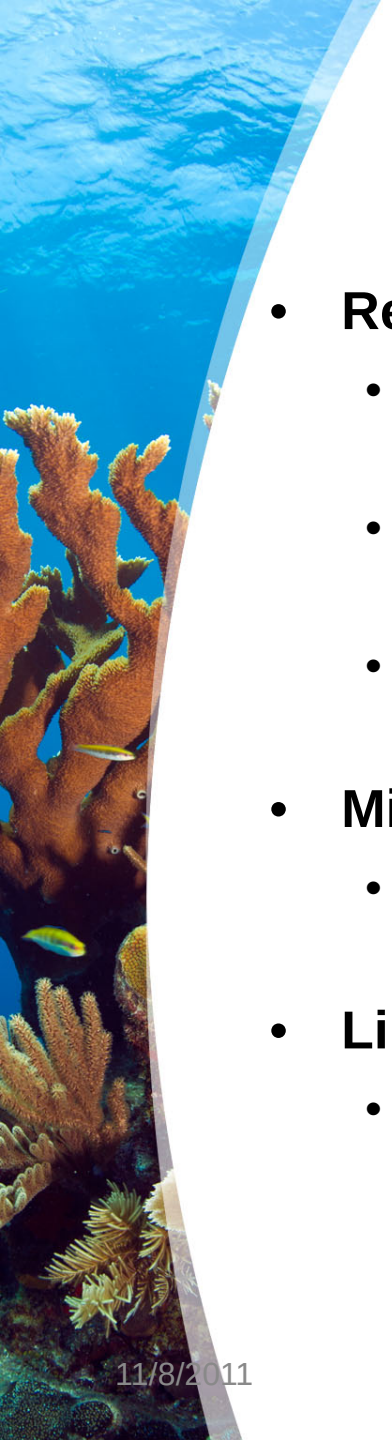

USACE PE Impact Map by Reef Type
NCRI


Mainland
Lagoon
Island
Shelf
Surface water runoff
Sewage treatment plant
Development
Development
Agriculture
Water control structure
Septic system
Seawall
Dune
Nearshore hardbotom
Dredging
Head boat
Invasive Lionfish
First "Inner" reef
Second "Middle" reef
Borrow pit
Submerged Aquatic Vegetation
Groundwater transfer
Borrow pit
Artificial reef
Third "Outer" reef
Deep ocean upwelling
Ocean outfall pipe
Deep reef



Why is Restoration Necessary…

- **Coastal Development**
- **Physical Impacts & Destruction**
- **Decreased Reef Resilience**
- **Negative Feedback Loops Associated with Small Populations**



What do we mean by Coral Reef Restoration & Mitigation…

- **Restoration**
  - **Projects that minimize or eliminate human-induced threats such as vessel groundings, land-based pollutions, etc.**
  - **Projects that create or enhance the resources or habitats that benefit reefs.**
  - **Activities that directly enhance reef resilience and recovery ability**
- **Mitigation**
  - **Projects that attempt to offset lost ecosystem services resulting from planned impacts**
- **Limitations**
  - **Successful Restoration and Mitigation are a necessary part of the global efforts to recover reefs, and may in some cases help maintain status quo, but by themselves are not sufficient to recover coral reef ecosystems.**

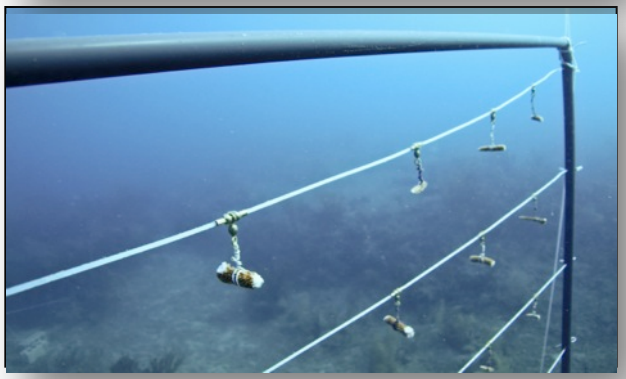
Ongoing and future efforts…

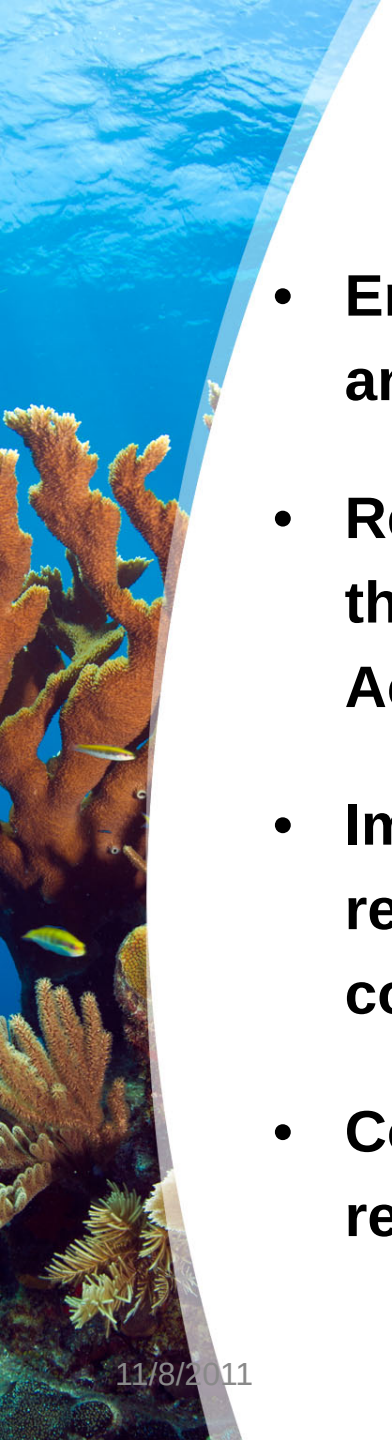
- **Implementing Watershed Restoration Efforts to Reduce LBSP**
- **Restoring Reefs after Physical Impacts**
- **Restoring Acropora Populations in Order to Support Future Natural Recovery**
- **USCTRF Resolution from the 25th meeting to establish a Coral Reef Injury Prevention and Mitigation Work Group and traction on:**

  -- Attempting to implement effective mitigation for planned impacts

  -- Integrated Resource Management

  -- Improving Restoration Science





USCRTF Member Roles

- **Ensure that all USCRTF agencies require appropriate and effective mitigation and support restoration**
- **Recognize opportunities to fill management gaps through reauthorization of Coral Reef Conservation Act**
- **Implement and enforce existing mandates and regulations with a greater emphasis on protecting coral reef from impacts**
- **Continue to promote partnerships focused on threat reduction**