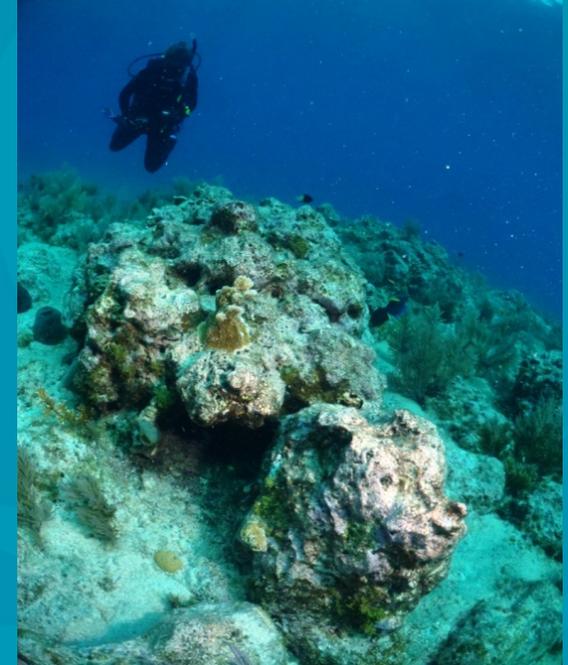


Coral Reef Ecosystem Restoration Working Group: Progress & Next Steps



Ken Nedimyer
Sanctuary Advisory Council Lead
Working Group Chair

Working Group Membership



Sanctuary Advisory Council Members

- Dave Vaughan (WG Co-Chair), Research and Monitoring
- Clinton Barras, Tourism – Lower Keys
- Alex Brylske, Education and Outreach
- Jeff Cramer, Fishing – Commercial (Fin/Shell)
- Don Kincaid, Diving – Lower Keys
- Rob Mitchell - Diving
- Martin Moe, Education and Outreach
- Bob Smith, Diving - Lower Keys



Working Group Membership



Community / Public Members

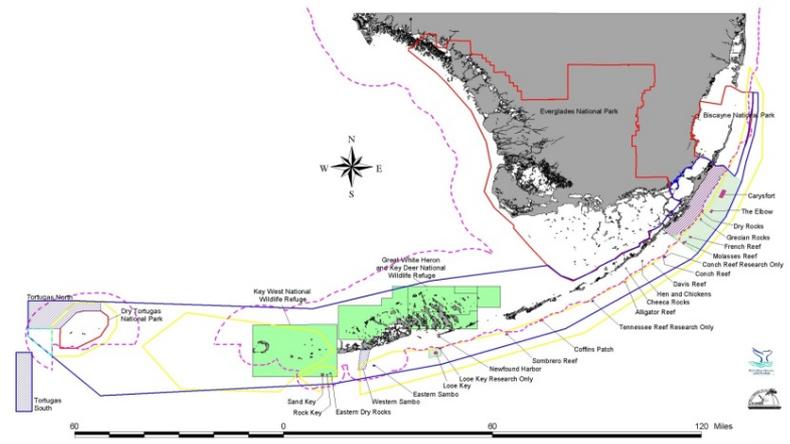
- Patti Gross, History of Diving Museum; USCG Auxillary
- Caitlin Lusic, The Nature Conservancy
- Jeff Neidlinger, A Deep Blue Dive Center
- Marius Venter, Fury Water Adventures



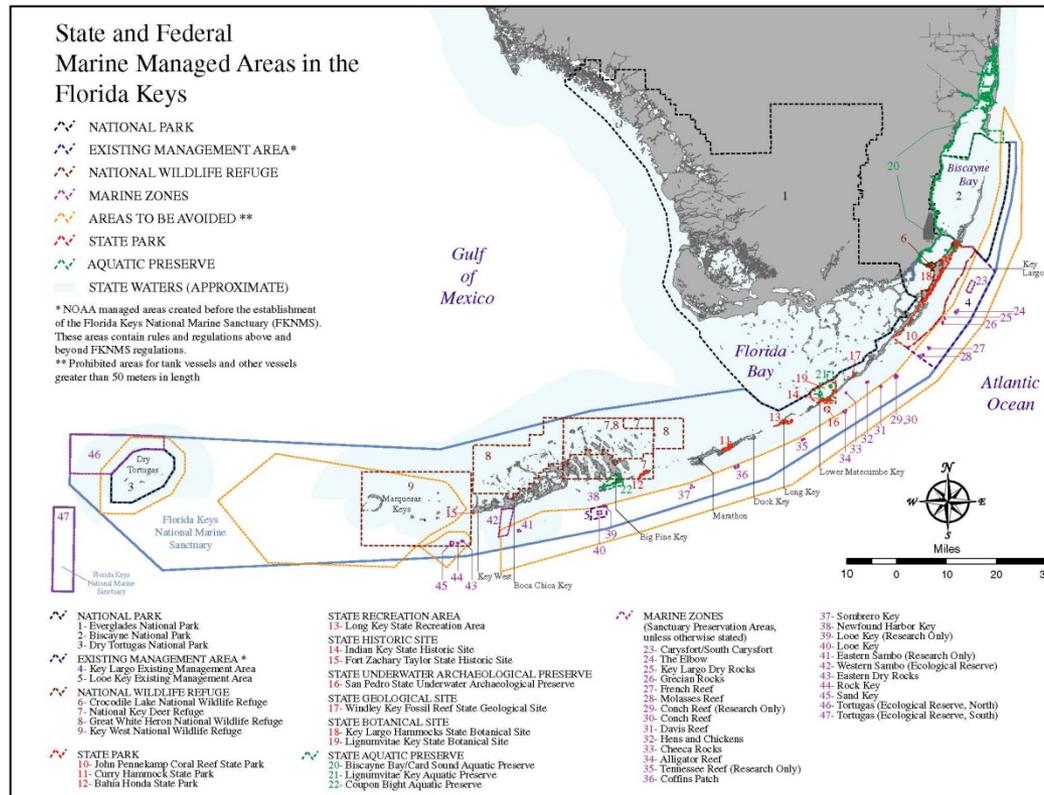
Review Objectives



- Identify specific areas and zones for active restoration of coral reef ecosystem
- Identify regulatory impediments and appropriate permitting conditions for active restoration of coral reef ecosystem species
- Identify adaptive management measures for re-opening area closed for restoration purposes (i.e. performance standards for “sunset”)



January 31, 2013 Meeting 1

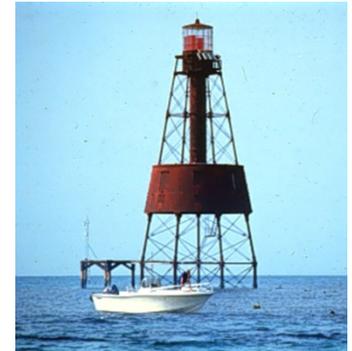


Review of state and federal marine managed areas in the Florida Keys

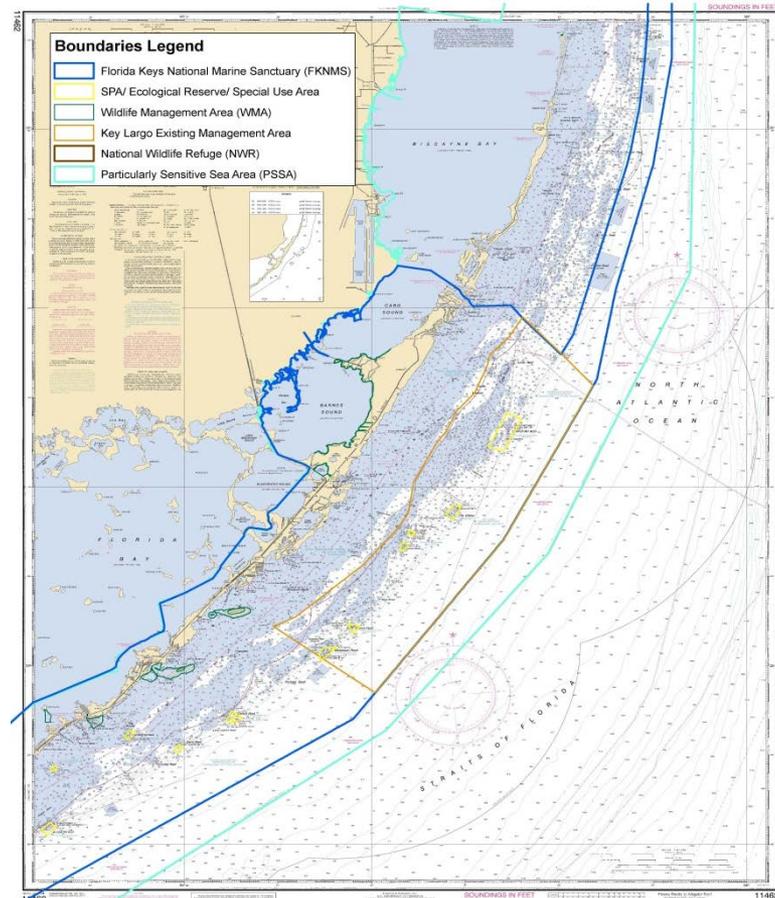
January 31, 2013 Meeting 1



- Reviewed:
 - ✓ Goals
 - ✓ Key definitions
- Identified need to:
 - ✓ Consider this a 20-year management scheme
 - ✓ Value and recognize rights and interests of stakeholders
 - ✓ Address entire coral reef ecosystem
 - ✓ Consider various zone management options
 - ✓ Consider lessons learned from other sites
 - ✓ Foster partnerships w/ user groups
 - ✓ Develop guidelines for “reef user etiquette”

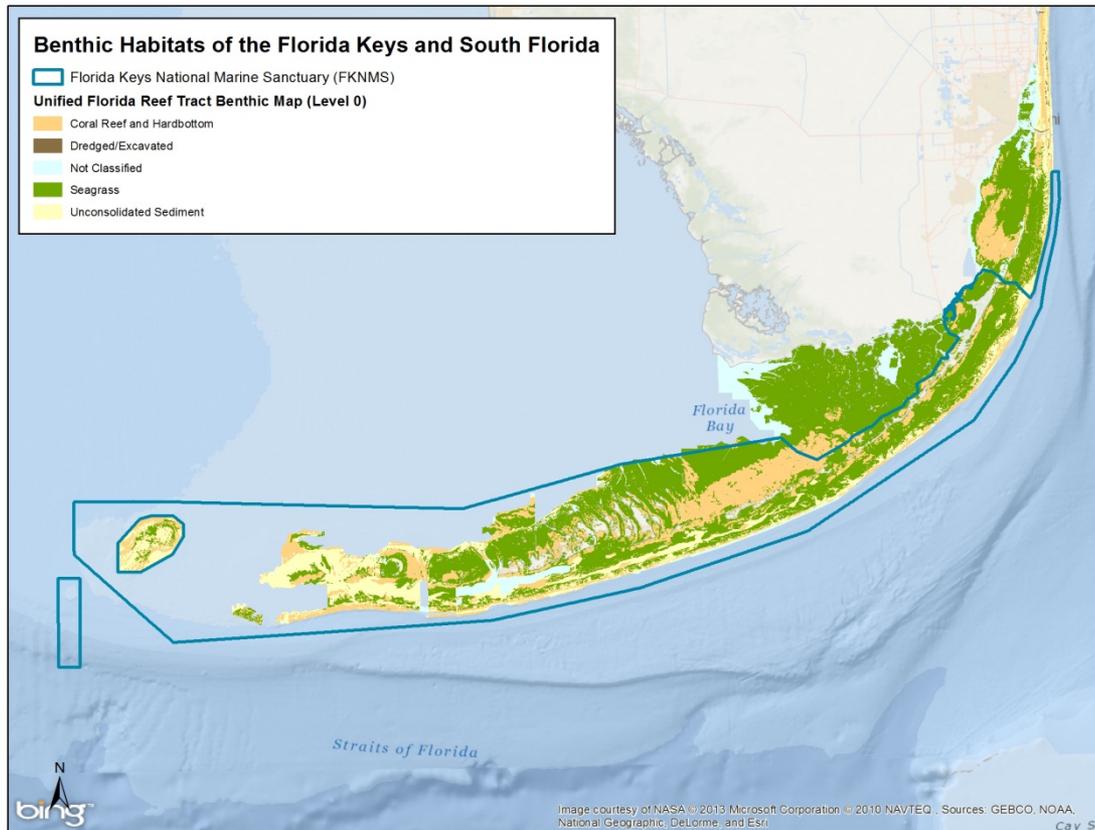


February 21, 2013 Meeting 2



Review of FKNMS existing management zones and coral reef habitats

February 21, 2013 Meeting 2



Review of FKNMS existing management zones and coral reef habitats

February 21, 2013 Meeting 2



- Identified:
 - ✓ Resources to consider for active restoration
 - ✓ Activities potentially incompatible with restoration efforts and possible management solutions
 - ✓ The value of allowing public access to sites
 - ✓ Existing challenges arising from State/Federal co-management of Sanctuary
 - ✓ Need to streamline restoration permitting process
 - ✓ Importance of engagement by local agency staff
 - ✓ Need to develop best management practices manual of criteria for permitting

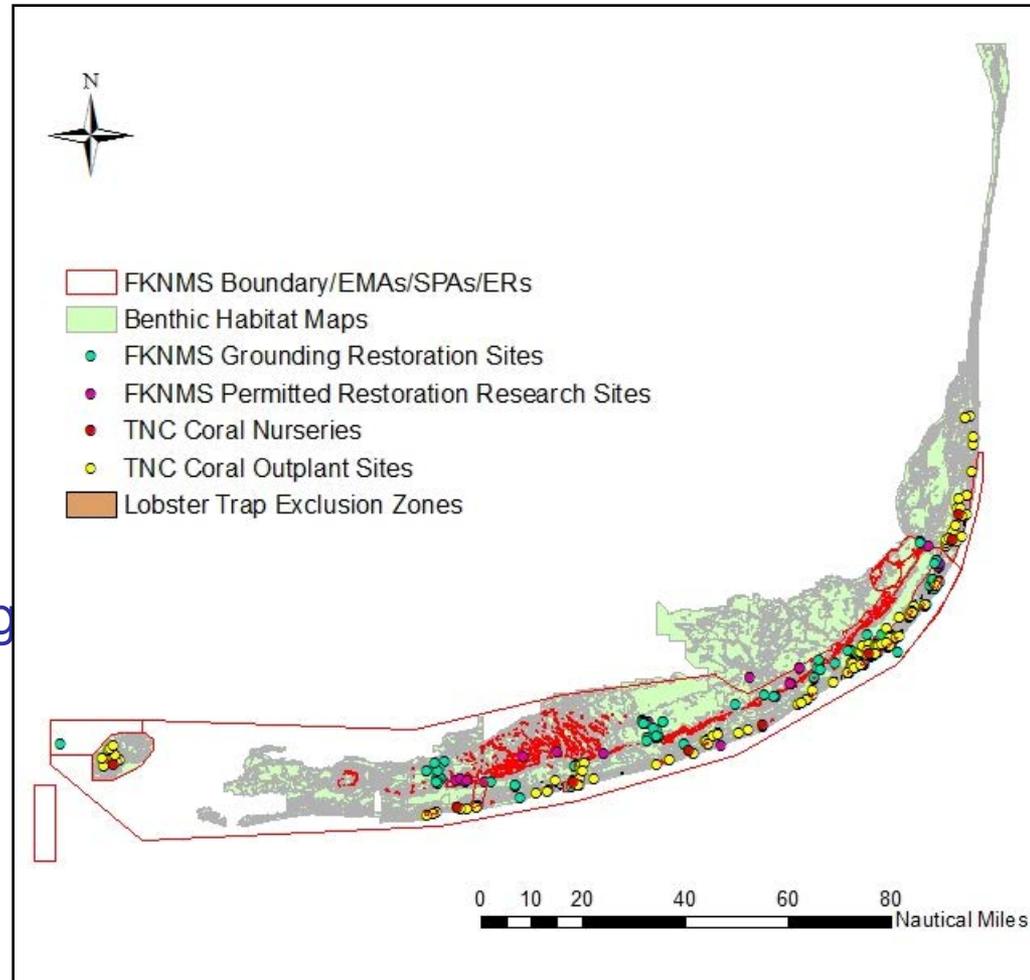


March 13, 2013 Meeting 3



Reviewed maps of FKNMS with overlaying data layers:

- Management zones
- Benthic coral reef habitats
- Vessel grounding restoration and FKNMS permitted restoration research sites
- Coral nurseries and out-planting sites
- Lobster trapping exclusion zones

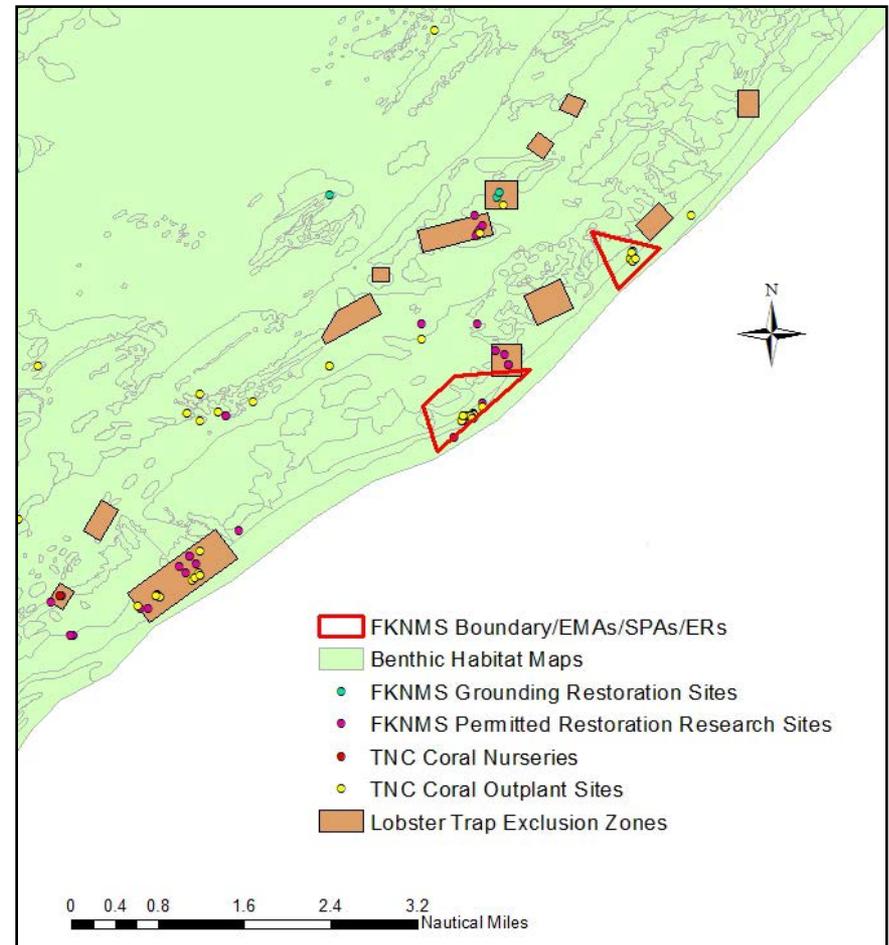


March 13, 2013 Meeting 3



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- Management zones
- Benthic coral reef habitats
- Vessel grounding restoration and FKNMS permitted restoration research sites
- Coral nurseries and outplanting sites
- Lobster trapping exclusion zones



Detail of map in the Molasses/French reef area

March 13, 2013 Meeting 3



Identified:

- Criteria to consider when identifying active restoration zones
 - ✓ Biological, ecological and physical factors
 - ✓ Socio-economic factors
- Tools for managing use/activities within restoration zones

Using charts of the five regions within FKNMS (Upper, Middle, Lower, Marquesas and Dry Tortugas), the working group employed the identified criteria to delineate specific areas for potential coral reef ecosystem restoration.



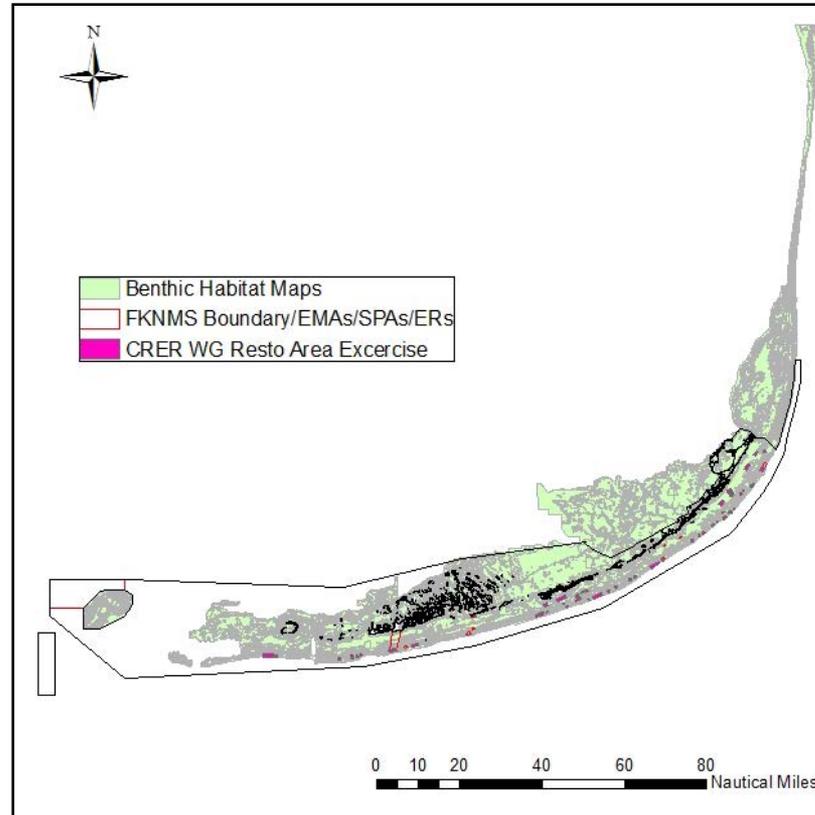
April 3, 2013 Meeting 4



- Reviewed/discussed potential restoration areas identified from last meeting – where and why
- Reviewed/edited draft restoration zone criteria table and identified:
 - ✓ Adaptive management triggers
 - ✓ Managed access strategies
 - ✓ Size/area considerations, esp. regarding biodiversity vs. species-specific restoration approaches
 - ✓ Historical use considerations
 - ✓ Coral recruitment vs non-recruiting site as selection factor
 - ✓ Considerations for monitoring/reference area site selection

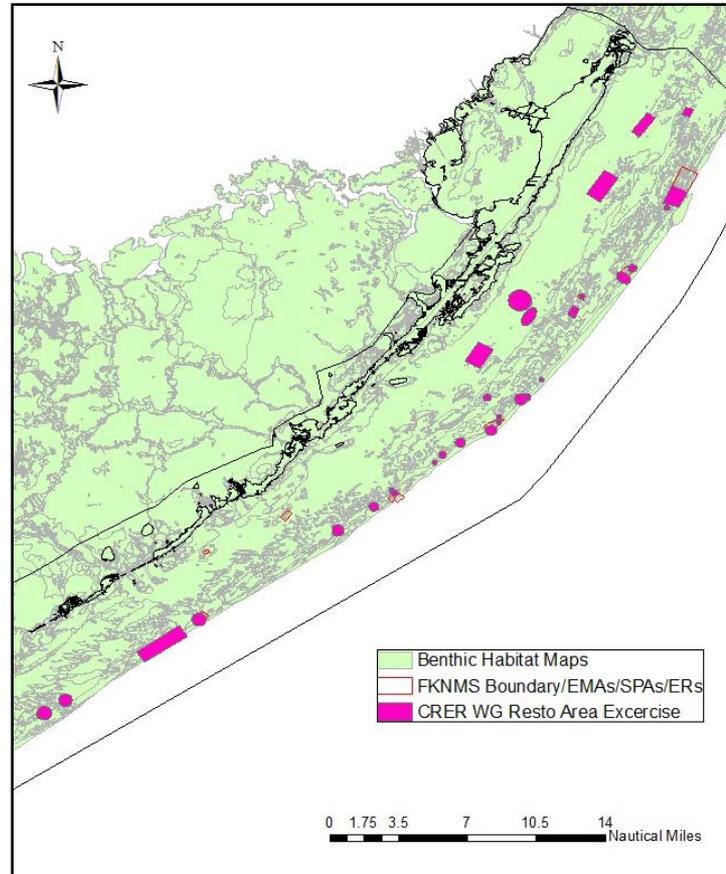


April 3, 2013 Meeting 4



Potential restoration areas transferred from NOAA charts marked up by CRER WG at March 13, 2013 meeting

April 3, 2013 Meeting 4



Detail of previous map highlighting Upper Keys areas

Decisions of Note



- Administrative decisions
 - ✓ Identified species of concern within the coral reef ecosystem
 - ✓ Identified biological/ecological factors for developing zoning recommendations
 - ✓ Identified social/economic factors for developing zoning recommendations
 - ✓ Identified activities/uses and their impacts within each region
 - ✓ Identified restoration zone management strategies
- No formal recommendations for Advisory Council at this time



Upcoming Meeting Agenda



Wednesday, May 1 – Marathon Garden Club

- Review criteria and framework for making recommendations
- Identify recommendations for active coral reef ecosystem restoration zones
- Develop a plan for next steps for WG to effectively evaluate, prioritize and finalize recommendations for the specific areas and zones for active restoration of coral reef ecosystem



Meeting Schedule & Locations



Marathon Garden Club

- Wednesday, May 1
- Wednesday, May 22
- Wednesday, June 12



Working Group Resources



Florida Keys National Marine Sanctuary Marine Zoning and Regulatory Review: floridakeys.noaa.gov

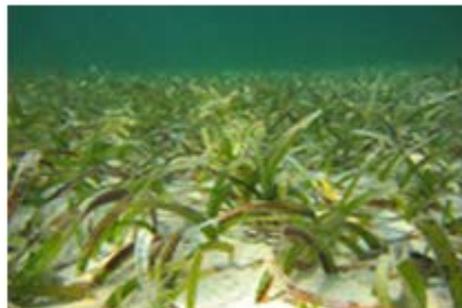


Marine Zoning & Regulatory Review

Maps, Data, and GIS Resources: http://ocean.floridamarine.org/fknms_zone_review



Coral Reef Ecosystem Restoration Working Group
Coral health in the sanctuary has declined over the past several



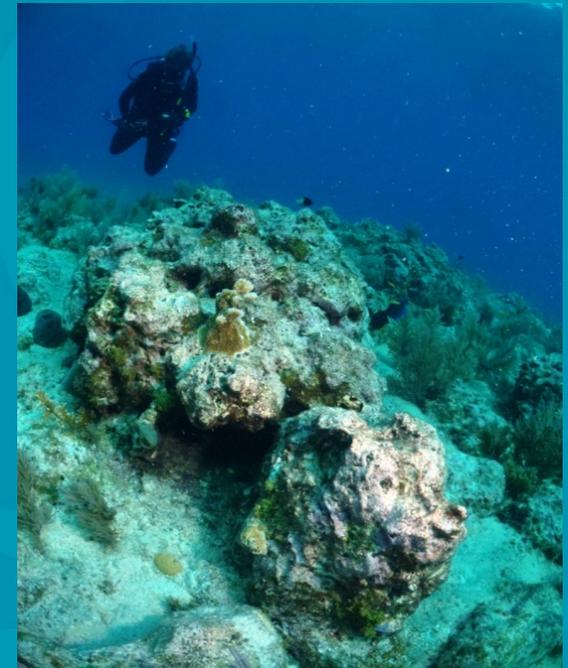
Shallow Water Wildlife and Habitat Protection Working Group
Hardbottom communities and



Ecosystem Protection: Ecological Reserves, Preservation Areas and Wildlife Protection Working Group



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