Florida Keys National Marine Sanctuary Advisory Council
Marine Zoning and Regulatory Review

DRAFT

Working Group Recommendations:

Coral Reef Ecosystem Restoration Working Group

and

Shallow Water Wildlife and Habitat Protection Working Group

For Florida Keys National Marine Sanctuary Advisory Council Consideration at Sanctuary Advisory Council Meeting June 17, 2014

Florida Keys National Marine Sanctuary
Marine Zoning and Regulatory Review

Florida Keys National Wildlife Refuges Complex
Backcountry Management Plan Update
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Introduction and Background

The Sanctuary Advisory Council (Council), working with public and community experts, is leading the process to help guide and develop recommendations for changes to the Florida Keys National Marine Sanctuary (FKNMS) regulations and marine zoning plan. Based on the direction from the FKNMS management plan (2007), the Council’s guidance in adopted goals and objectives (see below), and public comments, nine specific priority issues were identified to be addressed by the Council as part of this process:

1. Shallow Water Wildlife and Habitat Protection
2. Coral Reef Ecosystem Restoration
3. Ecosystem Protection: Ecological Reserves / Preservation Areas and Wildlife Protection
4. Permit Procedures and Adaptive Management
5. Artificial Reefs
6. Study Areas and Boundary Modifications
7. Personal Watercraft Tours/ Fishing Conflicts
8. Water Quality
9. Fishery Management Coordination

The Council created working groups to focus on addressing three of the identified priorities: Coral Reef Ecosystem Restoration, Shallow Water Wildlife and Habitat Protection, and Ecosystem Protection: Ecological Reserves/Preservation Areas and Wildlife Protection. Working groups allow the Council to gather information from community experts, user groups, and scientists. The Council’s three working groups have completed several months of meetings since their work began in January 2013. Working group draft recommendations were developed using relevant scientific and resource information, as well as input from the public, during meetings that were held throughout the Florida Keys.

This document reflects draft recommendations from the Coral Reef Ecosystem Restoration and Shallow Water Wildlife and Habitat Protection Working Groups and is intended to help the Council identify those issues that should be included in the economic and environmental analysis. This document includes three main sections:

1) Summaries of each working group’s draft recommendations for Council consideration.
2) Maps and site descriptions for each of the areas modified and/or identified for potential zoning by two Council working groups (Coral Reef Ecosystem Restoration and Shallow Water Wildlife and Habitat Protection).
   **This document does not include analysis or recommendations from the third working group – Ecosystem Protection: Ecological Reserves / Preservation Areas and Wildlife Protection. That working group is still meeting and will provide recommendations to the Council at a later date (summer 2014, estimated).**
3) Appendices providing additional background, discussion to date, and information on each working group’s draft recommendations for Council consideration.

This document includes 100 draft recommendations for Council review. The Council will identify those draft recommendations for which further information is needed prior to making a final recommendation to the sanctuary superintendent for potential changes to the FKNMS marine zones and regulations.

The review of the marine zone boundaries and regulations of FKNMS is a very involved, open, and
public process culminating in the implementation of any regulatory modifications, additions, or eliminations in 2017. The process will take time – not months, but years. It will involve proactively reaching out to members of the community to gather input, weighing collected information against the best available science, and developing recommendations that will allow the sanctuary to meet the goals and objectives of the review. From there the Council will develop recommendations for NOAA and the U.S. Fish and Wildlife Service to consider, and staff will assess the environmental and economic impacts of any modifications or additions to sanctuary regulations. Finally, any changes to marine zone regulations or boundaries will be adopted and implemented.
Goals and Objectives for Marine Zoning and Regulatory Review
Approved on December 13, 2011 by Florida Keys National Marine Sanctuary Advisory Council.

The Council approved the following goals and objectives for the review of FKNMS zones and regulations in December 2011. These goals and objectives were highlighted in the public scoping notice in order to better inform public comments during the initial scoping period. These goals and objectives also provide guidance for the Council and working groups during development of recommendations for regulations, modifications to the zoning plan and other resource protection strategies.

A. To improve the diversity of natural biological communities in the Florida Keys to protect, and, where appropriate restore and enhance natural habitats, populations and ecological processes overall and in each of these sub regions Tortugas, Marquesas, Lower, Middle, and Upper Keys.
   1. Reduce stresses from human activities by establishing areas that restrict access to sensitive wildlife populations and habitats.
   2. Protect large, contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life and protect and preserve all habitats and species.
   3. Improve/maintain the condition of the biologically structured habitats including
      a. Coral Reef
         i. Inshore Patch Reef
         ii. Mid-Channel Patch Reef
         iii. Offshore Patch Reef
         iv. Reef Margin/Fore Reef
         v. Deep Reef
      b. Seagrass Bed
      c. Hardbottom
      d. Coastal Mangrove
   4. Increase abundance and condition of selected key species including corals, queen conch, long spined sea urchin, apex predatory fish, birds and sea turtles.

B. To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities.
   1. Minimize conflicts among uses compatible with the National Marine Sanctuary.
   2. Prevent heavy concentrations of uses that degrade Sanctuary resources.
   3. Provide undisturbed monitoring sites for research and control sites to help determine the effects of human activities.
   4. Achieve a vibrant ecologically sustainable ecosystem and economy.
      a. Apply the best available science and balanced, conservation based management.
Principles for Marine Zoning and Regulatory Review
Approved on December 13, 2011 by Florida Keys National Marine Sanctuary Advisory Council.

1. The Florida Keys National Marine Sanctuary regulation/zoning review should be conducted with the recognition that there are bordering and overlapping marine management regimes in place, and that these regimes must be considered when contemplating changes to the Florida Keys National Marine Sanctuary regulation/marine zoning structure.

2. All areas of the Florida Keys National Marine Sanctuary should be classified as part of a specific zone, therefore the current “unzoned” area should be classified as a recognized zone type such as “general use area” or “multiple use area”.

3. Each habitat type should be represented in a non-extractive marine zone in each of the biogeographically distinct sub regions of the Florida Keys National Marine Sanctuary to achieve replication. The subregions identified were the Tortugas, Marquesas, and Lower, Middle, and Upper Keys.

4. Information on resilient reef areas that can serve as refugia should be taken into account in zoning changes.

5. Temporal zoning should be considered as a tool for protecting spawning aggregations and nesting seasons.

6. The size of individual non-extractive zoned areas, the cumulative total area included in non-extractive zones, and their spatial relationship with one another matter greatly in achieving the resource protection purposes of the Florida Keys National Marine Sanctuary.
Coral Reef Ecosystem Restoration Working Group Recommendations

Ecosystem restoration, particularly coral reef ecosystem restoration, is a priority to incorporate into the management activities of the sanctuary.

The Coral Reef Ecosystem Restoration working group consisted of 13 community members, nine of which were Council members, representing a range of issues and constituencies.

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken Nedimyer</td>
<td>SAC; Conservation &amp; Environment; Working Group Chair</td>
</tr>
<tr>
<td>David Vaughan</td>
<td>SAC; Research &amp; Monitoring; Working Group Co-Chair</td>
</tr>
<tr>
<td>Clinton Barras</td>
<td>SAC; Tourism – Lower Keys</td>
</tr>
<tr>
<td>Alex Brylske</td>
<td>SAC; Education &amp; Outreach</td>
</tr>
<tr>
<td>Jeff Cramer</td>
<td>SAC; Fishing – Commercial – Shell/Scale</td>
</tr>
<tr>
<td>Don Kincaid</td>
<td>SAC; Diving – Lower Keys</td>
</tr>
<tr>
<td>Rob Mitchell</td>
<td>SAC; Diving – Upper Keys</td>
</tr>
<tr>
<td>Martin Moe</td>
<td>SAC; Education &amp; Outreach</td>
</tr>
<tr>
<td>Bob Smith</td>
<td>SAC; Diving – Lower Keys</td>
</tr>
<tr>
<td>Patti Gross</td>
<td>History of Diving Museum; USCG Auxiliary</td>
</tr>
<tr>
<td>Caitlin Lustic</td>
<td>The Nature Conservancy</td>
</tr>
<tr>
<td>Jeff Neidlinger</td>
<td>A Deep Blue Dive Center</td>
</tr>
<tr>
<td>Marius Venter</td>
<td>Fury Water Adventures</td>
</tr>
</tbody>
</table>

Coral Reef Ecosystem Restoration Working Group Objectives:
Approved on December 11, 2012 by Florida Keys National Marine Sanctuary Advisory Council.

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

The working group met over a series of seven meetings from late January to June, 2013:

January 31: Clarified role and authority of working group; determined entire Florida Keys coral reef ecosystem would be considered in developing recommendations for active coral reef ecosystem restoration.

February 21: Identified habitats and resources to consider for active restoration; and activities that may impact the success of restoration action.

March 13: Identified criteria to use for developing options and recommendations; identified areas on charts to consider for active restoration.

April 3: Further refined selection criteria and areas to consider for recommendation as restoration areas.

May 1: Reviewed individual maps for proposed coral reef ecosystem restoration and proposed additional new areas for restoration; discussed resources, purposes and intent of the sites identified,
and activities that need to be managed due to potential impact to restoration success.

**May 22:** Developed recommendations regarding streamlining the permitting process, options for managing restoration zones, mechanisms to mark area/zone, adaptive management of zones, and restoration research zones; and reviewed and prioritized active coral reef ecosystem restoration areas.

**June 12:** Finalized area selections and draft recommendations regarding coral reef ecosystem restoration within FKNMS.

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### For More Information

Full working group meeting notes, presentations, products and draft recommendations can be found on the sanctuary website: http://floridakeys.noaa.gov/review/coralrestoration.html

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### Summary of Working Group Recommendations for Sanctuary Advisory Council Consideration

**For Coral Reef Ecosystem Restoration zone recommendations: see FKNMS Index Map for more information. Note: areas marked on the Index Map are point locations only. To see the complete Coral Reef Ecosystem Restoration Working Group outcomes and recommendations see Appendix I.**

The Coral Reef Ecosystem Restoration Working Group recommends that the entire reef tract be eligible for restoration activities, however 36 priority sites were identified.

Recommendation CR 1-36: Evaluate the 36 priority sites for economic and environmental benefit/impact.

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<table>
<thead>
<tr>
<th>ID</th>
<th>Coral Reef Site Name</th>
<th>Region</th>
<th>Map Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR-1</td>
<td>Turtle Reef, Pennekamp (East Ocean Reef)</td>
<td>Upper</td>
<td>1</td>
</tr>
<tr>
<td>CR-2</td>
<td>Carysfort Reef, North</td>
<td>Upper</td>
<td>2</td>
</tr>
<tr>
<td>CR-3</td>
<td>Elbow Reef, North Elpis</td>
<td>Upper</td>
<td>4</td>
</tr>
<tr>
<td>CR-4</td>
<td>Key Largo Dry Rocks</td>
<td>Upper</td>
<td>5</td>
</tr>
<tr>
<td>CR-5</td>
<td>French Reef</td>
<td>Upper</td>
<td>5</td>
</tr>
<tr>
<td>CR-6</td>
<td>Molasses Reef North/Wellwood</td>
<td>Upper</td>
<td>5</td>
</tr>
<tr>
<td>CR-7</td>
<td>Molasses Reef</td>
<td>Upper</td>
<td>5</td>
</tr>
<tr>
<td>CR-8</td>
<td>Snapper Ledge</td>
<td>Upper</td>
<td>9</td>
</tr>
<tr>
<td>CR-9</td>
<td>Davis Reef</td>
<td>Upper</td>
<td>11</td>
</tr>
<tr>
<td>CR-10</td>
<td>Hen and Chickens</td>
<td>Upper</td>
<td>11</td>
</tr>
<tr>
<td>CR-11</td>
<td>Cheeca Rocks</td>
<td>Upper</td>
<td>11</td>
</tr>
<tr>
<td>CR-12</td>
<td>South of Lower Matecumbe</td>
<td>Middle</td>
<td>14</td>
</tr>
<tr>
<td>CR-13</td>
<td>Caloosa Rocks</td>
<td>Middle</td>
<td>14</td>
</tr>
<tr>
<td>CR-14</td>
<td>Tennessee Reef</td>
<td>Middle</td>
<td>16</td>
</tr>
<tr>
<td>CR-15</td>
<td>South of Little Duck Key</td>
<td>Middle</td>
<td>20</td>
</tr>
<tr>
<td>CR-16</td>
<td>Coffins Patch</td>
<td>Middle</td>
<td>20</td>
</tr>
<tr>
<td>CR-17</td>
<td>South of Key Colony Beach/Marker 48</td>
<td>Middle</td>
<td>23</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>CR-18</td>
<td>Delta Shoal</td>
<td>Middle</td>
<td>23</td>
</tr>
<tr>
<td>CR-19</td>
<td>Sombrero Key</td>
<td>Middle</td>
<td>23</td>
</tr>
<tr>
<td>CR-20</td>
<td>Newfound Harbor SPA</td>
<td>Lower</td>
<td>33</td>
</tr>
<tr>
<td>CR-21</td>
<td>Looe Key Reef SPA - R/V Columbus Iselin Restoration</td>
<td>Lower</td>
<td>33</td>
</tr>
<tr>
<td>CR-22</td>
<td>American Shoal Reef</td>
<td>Lower</td>
<td>36</td>
</tr>
<tr>
<td>CR-23</td>
<td>Pelican Shoal</td>
<td>Lower</td>
<td>36</td>
</tr>
<tr>
<td>CR-24</td>
<td>Hawk Channel Patch Reefs 1</td>
<td>Lower</td>
<td>38</td>
</tr>
<tr>
<td>CR-25</td>
<td>Boca Chica Patch Reefs</td>
<td>Lower</td>
<td>38</td>
</tr>
<tr>
<td>CR-26</td>
<td>Key West Patch Reefs</td>
<td>Lower</td>
<td>38</td>
</tr>
<tr>
<td>CR-27</td>
<td>Western Sambo 1 -- (larger general Ecological Reserve)</td>
<td>Lower</td>
<td>39</td>
</tr>
<tr>
<td>CR-28</td>
<td>Western Sambo 2 -- (west end- Jackie L, Connected Restoration)</td>
<td>Lower</td>
<td>39</td>
</tr>
<tr>
<td>CR-29</td>
<td>Eastern Dry Rocks 1 (general SPA area)</td>
<td>Lower</td>
<td>42</td>
</tr>
<tr>
<td>CR-30</td>
<td>Rock Key 1 (general SPA)</td>
<td>Lower</td>
<td>42</td>
</tr>
<tr>
<td>CR-31</td>
<td>Sand Key 1 (general SPA)</td>
<td>Lower</td>
<td>44</td>
</tr>
<tr>
<td>CR-32</td>
<td>Cottrell Key</td>
<td>Lower</td>
<td>43</td>
</tr>
<tr>
<td>CR-33</td>
<td>Man Key Patch Reefs</td>
<td>Marquesas</td>
<td>43</td>
</tr>
<tr>
<td>CR-34</td>
<td>Western Dry Rocks</td>
<td>Marquesas</td>
<td>44</td>
</tr>
<tr>
<td>CR-35</td>
<td>Boca Grande Patch Reef</td>
<td>Marquesas</td>
<td>45</td>
</tr>
<tr>
<td>CR-36</td>
<td>East of Dry Tortugas National Park - Pulaski Shoals</td>
<td>Dry Tortugas</td>
<td>50</td>
</tr>
</tbody>
</table>

**Recommendation CR 37:** For each of the 36 sites, analyze the following for economic/use impact and ecosystem protection effects:

<table>
<thead>
<tr>
<th>ID</th>
<th>Economic/Use Impacts and Ecosystem Protection Efforts for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 37.1</td>
<td>Impacts to existing use of the area and to various user groups.</td>
</tr>
<tr>
<td>CR 37.2</td>
<td>Impact of restricting all activities while restoration is in progress and for a set duration of following the restoration activities to allow the site to stabilize.</td>
</tr>
<tr>
<td>CR 37.3</td>
<td>Impact of restricting only those activities that could impact the success of restoration activities (i.e. activities that may impact the benthic community).</td>
</tr>
<tr>
<td>CR 37.4</td>
<td>Impact of restricting all access (i.e. potentially closed) to allow for undisturbed sites for research.</td>
</tr>
<tr>
<td>CR 37.5</td>
<td>Impact of controlling access to sites; limiting what organizations can access sites (i.e. restoration activity sponsoring agency access allowed).</td>
</tr>
<tr>
<td>CR 37.6</td>
<td>Impact of limiting or removing access to mooring buoys.</td>
</tr>
</tbody>
</table>
Recommendation CR 38: Analyze the following for enforceability and regulatory feasibility:

<table>
<thead>
<tr>
<th>ID</th>
<th>Analysis of Enforceability and Regulatory Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 38</td>
<td>Link regulations for restoration zones to the type of marker buoy used rather than the specific location. (The markers and hence restoration zones can be moved without revising regulations.)</td>
</tr>
</tbody>
</table>

Recommendation CR 39: Analyze the feasibility of developing a central cross-agency on-line permitting system:

<table>
<thead>
<tr>
<th>ID</th>
<th>Analysis of Cross-Agency On-Line Permitting System</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 39</td>
<td>Analyze and determine the feasibility of developing a central cross-agency on-line permitting system. (May be restricted by Office of Management &amp; Budget rule related to collection of Personal Identifiable Information.)</td>
</tr>
</tbody>
</table>

Recommendation CR 40: Analyze and determine the feasibility of streamlining the permit process. Options to consider include:

<table>
<thead>
<tr>
<th>ID</th>
<th>Analysis to Determine Feasibility of Streamlining Permit Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 40.1</td>
<td>Allow for simple modifications including the permit period and ease of permit renewals.</td>
</tr>
<tr>
<td>CR 40.2</td>
<td>Streamline permitting process if locations are predetermined.</td>
</tr>
<tr>
<td>CR 40.3</td>
<td>Establish “qualified” practitioner permitting requirements to allow faster permit processing.</td>
</tr>
<tr>
<td>CR 40.4</td>
<td>Options to permit projects more quickly particularly when funding is time sensitive.</td>
</tr>
</tbody>
</table>

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Shallow Water Wildlife and Habitat Protection Working Group
Recommendations
Addressing impacts to shallow water habitats and resources is a priority resource protection issue to address. One means of doing this is through establishing marine zones and regulations designed to protect shallow water resources.

The Shallow Water Wildlife and Habitat Protection working group consisted of 18 community members, eight of which were Council members, representing a range of issues and constituencies.

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack Curlett</td>
<td>SAC; Recreational Fishing; Working Group Chair</td>
</tr>
<tr>
<td>Justin Bruland</td>
<td>SAC; Commercial Fishing</td>
</tr>
<tr>
<td>Bruce Frerer</td>
<td>SAC; Recreational Fishing</td>
</tr>
<tr>
<td>Pete Frezza</td>
<td>SAC; South Florida Ecosystem Restoration</td>
</tr>
<tr>
<td>Richard Grathwohl</td>
<td>SAC; Fishing Charter Flats Guide</td>
</tr>
<tr>
<td>David Makepeace</td>
<td>SAC; Citizen at Large – Upper Keys</td>
</tr>
<tr>
<td>Bruce Popham</td>
<td>SAC; Boating Industry</td>
</tr>
<tr>
<td>Jessica Pulfer</td>
<td>SAC; Conservation and Environment</td>
</tr>
<tr>
<td>Aaron Adams</td>
<td>Bonefish and Tarpon Trust</td>
</tr>
<tr>
<td>Carla Bellenger</td>
<td>Key West Eco Tours, Inc.</td>
</tr>
<tr>
<td>Mike Bresette</td>
<td>InWater Research Group, Inc.</td>
</tr>
<tr>
<td>Tad Burke</td>
<td>Florida Keys Fishing Guides Association</td>
</tr>
<tr>
<td>Charlie Causey</td>
<td>Florida Keys Environmental Fund</td>
</tr>
<tr>
<td>John Coffin</td>
<td>Coffin Marine Services Inc.</td>
</tr>
<tr>
<td>Roy Herndon</td>
<td>Marine Life Collectors</td>
</tr>
<tr>
<td>Meaghan Johnson</td>
<td>The Nature Conservancy</td>
</tr>
<tr>
<td>Bill Keogh</td>
<td>Big Pine Kayak</td>
</tr>
<tr>
<td>John O’Hearn</td>
<td>Lower Keys Guides Association</td>
</tr>
</tbody>
</table>

Shallow Water Wildlife and Habitat Protection Working Group Objectives:
Approved on December 11, 2012 by Florida Keys National Marine Sanctuary Advisory Council.

1. Evaluate existing Wildlife Management Areas for effectiveness in protecting wildlife and their habitats under current as well as emerging public uses and environmental conditions; recommend status quo, modification, and/or new areas.
2. Develop recommendations considering existing regulations and zoning – mainly use of vessel restrictions on access, anchoring, speed, and channel marking – to further protect seagrass and critical shallow water habitats in FKNMS.
3. Address concentrated uses that diminish and destroy seagrass and shallow water habitats.
4. Identify where high impact activities known to occur should be allowed and encouraged for public and private uses.
5. Identify seagrass and shallow water habitat areas for exclusion to allow for research control areas.
6. Evaluate mangrove habitat protection for bird nesting.
7. Reduce damage to natural resources from improper vessel salvage methods.
The working group met over a series of seven meetings from late January to June, 2013:

**January 30:** Clarified Role and Authority of Working Group.
**February 20:** Identified habitats and resources at risk and impacts and uses that affect those resources.
**March 12:** Identified criteria to use for developing options and recommendations.
**April 2:** Identified data layers needed to facilitate development of habitat protection recommendations.
**April 30:** Assessed Wildlife Management Areas and associated access restrictions and identified potential modifications, new or status quo recommendations.
**May 21:** Developed a recommendation on management options for dealing with natural resource impacts from improper vessel salvage methods.
**June 11:** Developed site specific recommendations on management options for existing Wildlife Management Areas, new areas and refined regulations.

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**For More Information**
Full working group meeting notes, presentations, products and draft recommendations can be found on the sanctuary website: http://floridakeys.noaa.gov/review/shallowwater.html

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**Summary of Working Group Recommendations for Sanctuary Advisory Council Review**

**For Shallow Water Wildlife and Habitat Protection zone recommendations:** see FKNMS Index Map for more information. To see the complete Shallow Water Wildlife and Habitat Protection Working Group outcomes and recommendations see Appendix II.

Potential Regulatory Recommendations:

Recommendation SW 1-53: Evaluate the 27 existing Wildlife Management Areas (WMAs) with recommended modifications and the 24 proposed new zones for shallow water wildlife and habitat protection for economic and environmental benefit/impact:

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Zone Modification</th>
<th>Region</th>
<th>Map Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-1</td>
<td>Crocodile Lake</td>
<td>Existing WMA, status quo</td>
<td>Upper</td>
<td>3,4,7</td>
</tr>
<tr>
<td>SW-2</td>
<td>Eastern Lake Surprise</td>
<td>Existing WMA, no modifications</td>
<td>Upper</td>
<td>4,7</td>
</tr>
<tr>
<td>SW-3</td>
<td>Whitemore Bight – El Radabob – Rattlesnake Key</td>
<td>potential new zone</td>
<td>Upper</td>
<td>4,7,8</td>
</tr>
<tr>
<td>SW-4</td>
<td>Barnes Sound – Shallow Bays</td>
<td>potential new zone</td>
<td>Upper</td>
<td>6</td>
</tr>
<tr>
<td>SW-5</td>
<td>Rodriguez Key</td>
<td>Existing WMA, modifications</td>
<td>Upper</td>
<td>8</td>
</tr>
<tr>
<td>SW-6</td>
<td>Dove Key</td>
<td>Existing WMA, modifications</td>
<td>Upper</td>
<td>8</td>
</tr>
<tr>
<td>SW-7</td>
<td>Tavernier Key</td>
<td>Existing WMA, modifications</td>
<td>Upper</td>
<td>8,9,10,11</td>
</tr>
<tr>
<td>SW-8</td>
<td>Pigeon Key</td>
<td>potential new zone</td>
<td>Upper</td>
<td>10</td>
</tr>
<tr>
<td>SW-9</td>
<td>Snake Creek</td>
<td>Existing WMA, modifications</td>
<td>Middle</td>
<td>11</td>
</tr>
<tr>
<td>SW-10</td>
<td>Cotton Key</td>
<td>Existing WMA, modifications</td>
<td>Middle</td>
<td>11</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>SW-11</td>
<td>Ashbey – Horseshoe Key</td>
<td>potential new zone</td>
<td>Middle</td>
<td>13</td>
</tr>
<tr>
<td>SW-12</td>
<td>Gulfside Banks</td>
<td>potential new zone</td>
<td>Middle</td>
<td>16,19,22</td>
</tr>
<tr>
<td>SW-13</td>
<td>Moser Channel Banks</td>
<td>potential new zone</td>
<td>Middle</td>
<td>22,23,25,26</td>
</tr>
<tr>
<td>SW-14</td>
<td>Marathon Oceanside Shoreline</td>
<td>potential new zone</td>
<td>Middle</td>
<td>23</td>
</tr>
<tr>
<td>SW-15</td>
<td>Tarpon Migration Lane</td>
<td>potential new zone</td>
<td>Lower</td>
<td>26,29,30,32,3,35,36,38,41</td>
</tr>
<tr>
<td>SW-16</td>
<td>Horseshoe Key</td>
<td>Existing WMA, no modifications</td>
<td>Lower</td>
<td>28</td>
</tr>
<tr>
<td>SW-17</td>
<td>Little Pine Mangrove Key</td>
<td>potential new zone</td>
<td>Lower</td>
<td>28</td>
</tr>
<tr>
<td>SW-18</td>
<td>Content Keys and Upper Harbor Key- Flats</td>
<td>potential new zone</td>
<td>Lower</td>
<td>31,34</td>
</tr>
<tr>
<td>SW-19</td>
<td>Upper Harbor Key</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>31</td>
</tr>
<tr>
<td>SW-20</td>
<td>East Content Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>31</td>
</tr>
<tr>
<td>SW-21</td>
<td>West Content Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>31,34</td>
</tr>
<tr>
<td>SW-22</td>
<td>Little Crane Key</td>
<td>Existing WMA, remove zone</td>
<td>Lower</td>
<td>34</td>
</tr>
<tr>
<td>SW-23</td>
<td>Island near Torch Key</td>
<td>potential new zone</td>
<td>Lower</td>
<td>32</td>
</tr>
<tr>
<td>SW-24</td>
<td>Key Lois and Loggerhead Basin</td>
<td>potential new zone</td>
<td>Lower</td>
<td>32,33,35,36</td>
</tr>
<tr>
<td>SW-25</td>
<td>Crane Key</td>
<td>potential new zone</td>
<td>Lower</td>
<td>34</td>
</tr>
<tr>
<td>SW-26</td>
<td>Sawyer Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>34</td>
</tr>
<tr>
<td>SW-27</td>
<td>Marvin Key and the Barracuda Keys</td>
<td>potential new zone</td>
<td>Lower</td>
<td>35,37</td>
</tr>
<tr>
<td>SW-28</td>
<td>Tidal Flat South of Marvin Key</td>
<td>Existing WMA, no modifications</td>
<td>Lower</td>
<td>37</td>
</tr>
<tr>
<td>SW-29</td>
<td>Snipe Keys</td>
<td>Existing WMA, no modifications</td>
<td>Lower</td>
<td>37</td>
</tr>
<tr>
<td>SW-30</td>
<td>Mud Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>37</td>
</tr>
<tr>
<td>SW-31</td>
<td>East Harbor Key</td>
<td>Existing WMA, status quo</td>
<td>Lower</td>
<td>37</td>
</tr>
<tr>
<td>SW-32</td>
<td>Lower Harbor Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>37</td>
</tr>
<tr>
<td>SW-33</td>
<td>Cayo Agua Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>37,40</td>
</tr>
<tr>
<td>SW-34</td>
<td>Western Sambos – shoreline</td>
<td>Existing ER, modifications</td>
<td>Lower</td>
<td>38</td>
</tr>
<tr>
<td>SW-35</td>
<td>Pelican Shoal</td>
<td>Existing WMA, remove zone</td>
<td>Lower</td>
<td>38</td>
</tr>
<tr>
<td>SW-36</td>
<td>Bay Keys</td>
<td>Existing WMA, modifications</td>
<td>Lower</td>
<td>40</td>
</tr>
<tr>
<td>SW-37</td>
<td>Sea Plane Basin</td>
<td>Considered, not recommended</td>
<td>Lower</td>
<td>41</td>
</tr>
<tr>
<td>SW-38</td>
<td>Demolition Key</td>
<td>potential new zone</td>
<td>Lower</td>
<td>41</td>
</tr>
<tr>
<td>SW-39</td>
<td>Pearl Basin</td>
<td>potential new zone</td>
<td>Lower</td>
<td>41</td>
</tr>
<tr>
<td>SW-40</td>
<td>Mule Key</td>
<td>potential new zone</td>
<td>Marquesas</td>
<td>41</td>
</tr>
<tr>
<td>SW-41</td>
<td>Cottrell Key</td>
<td>Existing WMA, modifications</td>
<td>Marquesas</td>
<td>43</td>
</tr>
<tr>
<td>SW-42</td>
<td>Lakes Area (La Vina Bank)</td>
<td>potential new zone</td>
<td>Marquesas</td>
<td>43,45</td>
</tr>
<tr>
<td>SW-43</td>
<td>Little Mullet Key</td>
<td>Existing WMA, status quo</td>
<td>Marquesas</td>
<td>43</td>
</tr>
<tr>
<td>SW-44</td>
<td>Big Mullet Key</td>
<td>Existing WMA, modifications</td>
<td>Marquesas</td>
<td>43</td>
</tr>
<tr>
<td>ID</td>
<td>Criteria for Identifying Additional Modifications and/or New Areas for Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW 54</td>
<td>Based on the resources of concern and using the criteria identified by the working group, if additional modifications and/or new areas should be analyzed, identify those areas and include them in the analysis (i.e. areas of severe seagrass scarring not noted by the working group).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommendation SW 55: Analyze the following for economic/use impact and ecosystem protection effects:

<table>
<thead>
<tr>
<th>ID</th>
<th>Criteria for Identifying Additional Modifications and/or New Areas for Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 55.1</td>
<td>Impact to existing users including small-scale users.</td>
</tr>
<tr>
<td>SW 55.2</td>
<td>Associated wildlife protection impact from non-extraction, identify zones for non-extraction based on this analysis (determine what constitutes non-extraction).</td>
</tr>
<tr>
<td>SW 55.3</td>
<td>Use of various types of access and access restrictions (i.e. motor, idle speed no wake, pole/troll/paddle, no motor, closed, buffer zones, etc.).</td>
</tr>
<tr>
<td>SW 55.4</td>
<td>Adequate access/transit channels between (and, if needed within) zones</td>
</tr>
<tr>
<td>SW 55.5</td>
<td>Determine appropriate size of zone to meet resource protection goals (i.e. larger contiguous zones).</td>
</tr>
<tr>
<td>SW 55.6</td>
<td>Determine if additional regulations related to anchoring and mooring buoy use are needed and prudent.</td>
</tr>
<tr>
<td>SW 55.7</td>
<td>Benefit or impact from additional zone marking and range of marking options (i.e. gated, intelligent).</td>
</tr>
</tbody>
</table>
Recommendation SW 56: Analyze the above items for enforceability and regulatory feasibility.

<table>
<thead>
<tr>
<th>ID</th>
<th>Analysis of Enforceability and Regulatory Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 56</td>
<td>Analyze all recommendations to determine enforceability and regulatory feasibility.</td>
</tr>
</tbody>
</table>

Recommendation SW 57: Analyze temporal management options for potential economic/use impact, ecosystem protection effect and regulatory feasibility and enforceability.

<table>
<thead>
<tr>
<th>ID</th>
<th>Analysis of Temporal Management Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 57</td>
<td>Analyze temporal management options for potential economic/use impact, ecosystem protection effect and regulatory feasibility and enforceability.</td>
</tr>
</tbody>
</table>

Non-Regulatory Recommendations:

<table>
<thead>
<tr>
<th>ID</th>
<th>Non-Regulatory Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW 58</td>
<td>Establish a standing Sanctuary Advisory Council Wildlife and Habitat Protection working group.</td>
</tr>
<tr>
<td>SW 59</td>
<td>Establish a Sanctuary Advisory Council Towing and Salvage working group to focus on this issue and ensure continued dialog and coordination among the towing and salvage community and the Florida Keys National Marine Sanctuary.</td>
</tr>
<tr>
<td>SW 60</td>
<td>Evaluate and determine the feasibility of using the successful and established programs at Biscayne National Park as guidance to implement a towing and salvage permit program in Florida Keys National Marine Sanctuary.</td>
</tr>
</tbody>
</table>

Legend
- Map Index
- Florida Keys Region Boundaries
- Proposed Study Area
- Existing FKNMS Boundary
- Study Area Suggestions Presented to FKNMS SAC
- Additional Areas Suggested by FKNMS SAC

Map Region Index
- Upper Keys - 1 to 11
- Middle Keys - 12 to 27
- Lower Keys - 28 to 41
- Marquesas - 42 to 49
- Tortugas - 50 to 53
Upper Keys Region Index Map
Map 2 - Carysfort Reef

CR Recommendation - 2 Carysfort Reef, North Restoration Site

Coral Reef Ecosystem Restoration
Working Group Recommendations

- FKNMS Boundary
- Existing Marine Zones
- Areas Closed to Lobster Trapping
  (National Marine Fisheries Service)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings
  (2000-2012)

NOTE: This map contains draft working group recommendations to be considered by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 3 - Ocean Reef

- FKNMS Boundary
- Existing Marine Zones
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)

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Map 3 - Ocean Reef

- FKNMS Boundary
- Existing Marine Zones

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Map 4 - The Elbow

Shallow Water
Working Group Recommendations
Coral Reef Ecosystem Restoration
Working Group Recommendations
Existing Marine Zones

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Map 5 - French Reef

CR Recommendation - 4
Key Largo Dry Rocks
Restoration Site

CR Recommendation - 5
French Reef
Restoration Site

CR Recommendation - 6
Molasses Reef North - M/V Wellwood Restoration
Restoration Site

CR Recommendation - 7
Molasses Reef
Restoration Site

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Map 7 - Blackwater Sound

SW Recommendation - 1 Crocodile Lake
No Change
Maintain existing No Entry Zone (100 feet) along shoreline between March 1 and October 1.

SW Recommendation - 2 Eastern Lake Surprise
No Change
Maintain existing idle Speed/No Wake Zone east of Highway U.S. 1.

SW Recommendation - 3 Whitemore Bight, El Radabob, Rattlesnake Key
Near Zone
1. Research Only No Entry Zone (South Sound Creek to Point Willie) and No Motor Zone (Point Willie to northeast point of Rattlesnake Key).
2. No Motor Zone (from South Sound Creek to northeast point of Rattlesnake Key).
3. No Motor Zone (from Point Willie to northeast point of Rattlesnake Key).

Shallow Water
Working Group Recommendations
FKNMS Boundary
Existing Marine Zones
Bird Nests (Various Species)
FKNMS Vessel Groundings (2000-2012)

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Map 7 - Blackwater Sound

SW Recommendation - 1 Crocodile Lake
No Change
Maintain existing No Entry Zone (100 feet) along shoreline between March 1 and October 1.

SW Recommendation - 2 Eastern Lake Surprise
No Change
Maintain existing idle Speed/No Wake Zone east of Highway U.S. 1.

SW Recommendation - 3 Whitemore Bight, El Radaab, Rattlesnake Key
New Zone
1. Research Only No Entry Zone (South Sound Creek to Point Willie) and No Motor Zone (Point Willie to northeast point of Rattlesnake Key).
2. No Motor Zone (from South Sound Creek to northeast point of Rattlesnake Key).
3. No Motor Zone (from Point Willie to northeast point of Rattlesnake Key).

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Map 8 - Rodriguez Key

SW Recommendation - 3 Whitemore Bight, El Radabob, Rattlesnake Key
New Zone
1. Research Only No Entry Zone (South Sound Creek to Point Willie) and No Motor Zone (Point Willie to northeast point of Rattlesnake Key).
2. No Motor Zone (from South Sound Creek to northeast point of Rattlesnake Key).
3. No Motor Zone (from Point Willie to northeast point of Rattlesnake Key).

SW Recommendation - 5 Rodriguez Key
Zone Modification
1. Maintain existing restrictions and establish No Anchor Zone within existing area.
2. Keep Dove Key and Rodriguez Key as separate areas. No Entry Zone 100 yards around island. No Motor Zone on tidal flats.
3. Connect Dove Key and Rodriguez Key areas. No Motor Zone and Restricted Entry/No Anchor Zone on tidal flats.

SW Recommendation - 7 Tavernier Key
Zone Modification
No Motor Zone and Restricted Entry/No Anchor Zone on tidal flats.

Shallow Water
Working Group Recommendations
Coral Reef Ecosystem Restoration
Working Group Recommendations
FKNMS Boundary
Existing Marine Zones
Areas Closed to Lobster Trapping (National Marine Fisheries Service)
Coral Formation Protection Zones (State Parks)
Florida Reef Resiliency Program
Resilient Reefs

Bird Nests (Various Species)
FKNMS Permitted Restoration Sites
FKNMS Vessel Groundings (2000-2012)

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Map 8 - Rodriguez Key

SW Recommendation - 3 Whitmore Bight, El Radabob, Rattlesnake Key
New Zone
1. Research Only No Entry Zone (South Sound Creek to Point Willis) and No Motor Zone (Point Willis to northeast point of Rattlesnake Key).
2. No Motor Zone (from South Sound Creek to northeast point of Rattlesnake Key).
3. No Motor Zone (from Point Willis to northeast point of Rattlesnake Key).

SW Recommendation - 6 Dove Key
Zone Modification
1. No Entry Zone 100 yards around island.
2. No Motor Zone on tidal flats.
3. Keep Dove Key and Rodriguez Key as separate areas. No Entry Zone 100 yards around island. No Motor Zone on tidal flats.
4. Connect Dove Key and Rodriguez Key areas. No Motor Zone and Limited Entry/No Anchor Zone on tidal flats.

SW Recommendation - 5 Rodriguez Key
Zone Modification
1. Maintain existing restrictions and establish No Anchor Zone within existing area.
2. Keep Dove Key and Rodriguez Key as separate areas.
3. Connect Dove Key and Rodriguez Key areas.

SW Recommendation - 7 Tavernier Key
Zone Modification
No Motor Zone and Restricted Entry/No Anchor Zone on tidal flats.

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Map 9 - Conch Reef

Coral Reef Ecosystem Restoration
Working Group Recommendations

- FKNMS Boundary
- Existing Marine Zones
- Areas Closed to Lobster Trapping
  (National Marine Fisheries Service)
- Florida Reef Resiliency Program
  Resilient Reefs
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings
  (2000-2012)

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Map 10 - Tavernier

- SW Recommendation - 7 Tavernier Key
  Zone Modification
  No Motor Zone and Restricted Entry
  No Anchor Zone on tidal flats.

- SW Recommendation - 8 Pigeon Key
  New Zone
  No Entry Zone 100 yards around island

Legend:
- Shallow Water
- Working Group Recommendations
- FKNMS Boundary
- Existing Marine Zones
- Bird Nests (Various Species)
- FKNMS Vessel Groundings (2000-2012)

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Middle Keys Region Index Map
Map 13 - Upper Matecumbe

SW Recommendation - 11 Ashbay, Horseshoe Key
New Zone
No Entry Zone 100 yards around island

- Shallow Water
- Working Group Recommendations
- FKNMS Boundary
- Existing Marine Zones
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Goundings (2000-2012)
- Sea Turtle Nesting Beaches Florida

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Map 14 - Lower Matecumbe

CR Recommendation - 13
Caloosa Rocks
Restoration Site

CR Recommendation - 12
South of Lower Matecumbe
Restoration Site

Legend:
- Coral Reef Ecosystem Restoration
- Sea Turtle Nesting Beaches Florida
- Working Group Recommendations
- FKNMS Boundary
- Existing Marine Zones
- Areas Closed to Lobster Trapping
(National Marine Fisheries Service)
- Florida Reef Resiliency Program
- Resilient Reefs
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)

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NOTE X

The 12 nautical mile territorial sea was established by Presidential Proclamation 5928, December 27, 1988, and is also the outer limit of the U.S. contiguous zone for the application of domestic law. The 3 nautical mile line, previously identified as the outer limit of the territorial sea, is retained because the proclamation states that it does not alter existing State or Federal law. The 3 nautical mile natural resource boundary off Texas, the Gulf coast of Florida, and Puerto Rico, and the 3 nautical mile line elsewhere remain the inner boundary of the Federal fishing jurisdiction and the limit of states' jurisdiction under the Submerged Lands Act (P.L. 83-317, 76 Stat. 26, March 22, 1963). These maritime limits are subject to modification, as represented on future charts. The lines shown on the most recent chart edition take precedence.

INTRACOASTAL WATERWAY

See charts 11419 and 11683 for detailed information. The controlling depths are published periodically in the U.S. Coast Guard Local Notice to Mariners.

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Map 16 - Long Key

SW Recommendation - 12 Gulfside Banks
New Zone
1. Idle Speed/No Wake on all flats.
2. No Entry/Research Area for monitoring bank habitats; consider small targeted areas and consult with user groups when determining these areas.

CR Recommendation - 14 Tennessee Reef
Restoration Site

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Map 16 - Long Key

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**SW Recommendation - 12 Gulfside Banks**

New Zone:
1. Idle Speed/No Wake on all flats.
2. No Entry/Research Area for monitoring bank habitats. Consider small targeted areas and consult with user groups when determining these areas.

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**CR Recommendation - 14 Tennessee Reef**

Restoration Site

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Legend:
- Shallow Water
- Working Group Recommendations
- Coral Reef Ecosystem Restoration
- Working Group Recommendations
- FKNMS Boundary
- Existing Marine Zones

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Map 18 - Sprigger Bank
Map 19 - Grassy Key

SW Recommendation - 12 Gulfside Banks
(All banks in this area)

SW Recommendation - 12 Gulfside Banks

New Zone
1. Idle Speed/No Wake on all flats.
2. No Entry/Research Area for monitoring bank habitats; consider small targeted areas and consult with user groups when determining these areas.

Shallow Water
Working Group Recommendations
FKNMS Boundary
Florida Reef Resiliency Program
Resilient Reefs
Bird Nests (Various Species)
FKNMS Vessel Groundings (2000-2012)

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Map 19 - Grassy Key

SW Recommendation - 12 Gulfside Banks

New Zone
1. Idle Speed/No Wake on all flats.
2. No Entry/Research Area for monitoring bank habitats; consider small targeted areas and consult with user groups when determining these areas.

SW Recommendation - 12 Gulfside Banks

(All banks in this area)

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Map 22 - Bamboo Banks

- **SW Recommendation - 12 Gulfside Banks**
  - All banks in this area

- **SW Recommendation - 13 Moser Channel Bank**
  - New Zone
  - Idle Speed/No Wake on all flats

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Map 22 - Bamboo Banks

- **SW Recommendation - 12 Gulfside Banks**
  - All banks in this area

- **SW Recommendation - 13 Moser Channel Bank**
  - New Zone
  - Idle Speed/No Wake on all flats

- **Shallow Water Working Group Recommendations**

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Map 23 - Marathon

SW Recommendation - 13 Moser Channel Bank
New Zone
Idle Speed/No Wake Zone on all flats.

SW Recommendation - 14 Marathon Oceanside Shoreline
New Zone
1. Idle Speed/No Wake Zone on flats from Vaca Cut to Sombrero Beach and ocean facing shoreline of Boot Key; access channel is open to normal operation.
2. Idle Speed/No Wake Zone on flats from Vaca Cut west to the first channel (8th Street, Marathon Shores).

CR Recommendation - 18 Sombrero Key Restoration Site

CR Recommendation - 17 South of Key Colony Beach, Marker 48 Restoration Site

Legend:
- Shallow Water
- Working Group Recommendations
- Coral Reef Ecosystem Restoration
- Existing Marine Zones
- Florida Reef Resiliency Program
- Resilient Reefs
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)
- Sea Turtle Nesting Beaches Florida

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Map 25 - East Bahia Honda Key

- Shallow Water
- Working Group Recommendations
- FKNMS Boundary

SW Recommendation - 13 Moser Channel Bank
- New Zone
- Idle Speed
- No Wake Zone on all flats
- (All banks in this area)

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Map 26 - Seven Mile Bridge

- **SW Recommendation - 13 Moser Channel Bank**
  - New Zone
  - Idle Speed/No Wake Zone on all flats (All banks in this area)

- **SW Recommendation - 15 Tarpon Migration Lane**
  - New Zone
  - 1. Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Ohio Key
  - 2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

- Shallow Water
- Working Group Recommendations
- Florida Reef Resiliency Program
- Resilient Reefs
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)
- Sea Turtle Nesting Beaches Florida

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Map 26 - Seven Mile Bridge

Shallow Water
Working Group Recommendations

NOTE: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 28 - Horseshoe Keys

- **SW Recommendation - 16 Horseshoe Keys**
  - No Change
  - Maintain existing 100 yard No Entry Zone around main island.

- **SW Recommendation - 17 Little Pine Mangrove Key**
  - New Zone
  - 100 yard temporary No Entry Zone around islands.

**Legend**

- Shallow Water
- Working Group Recommendations
- FKNMS Boundary
- Existing Marine Zones
- Bird Nests (Various Species)
- FKNMS Vessel Groundings (2000-2012)

**Note**

This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
**Map 30 - Big Pine Shoal**

**SW Recommendation - Tarpon Migration Lane**

**New Zone**
1. Idle Speed/No Wake Zone (April-June) along ocean side shorelines from east end of Key West to west end of Ohio Key
2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

Legend:
- Shallow Water
- Working Group Recommendations
- FKNMS Boundary
- Areas Closed to Lobster Trapping (National Marine Fisheries Service)
- Florida Reef Resiliency Program
- Resilient Reefs
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)

**NOTE:** This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 30 - Big Pine Shoal

SW Recommendation - Tarpon Migration Lane
New Zone
1. Idle Speed No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Ohio Key
2. Idle Speed No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

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Map 32 - Summerland Key

- SW Recommendation - 23 Island near Torch Key
  New Zone
  100 yard No Entry Zone around island.

- SW Recommendation - 24 Key Lois, Loggerhead Basin
  New Zone
  Idle Speed/No Wake Zone

- SW Recommendation - 16 Tarpon Migration Lane
  New Zone
  1. Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of
     Key West to west end of Ohio Key.
  2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

Legend:

- ☐ Shallow Water
- ☐ Working Group Recommendations
- ☐ Bird Nests (Various Species)
- ☐ FKNMS Vessel Groundings (2000-2012)

NOTE: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 32 - Summerland Key

- **SW Recommendation - 22 Island near Torch Key**
  - **New Zone**
  - 100 yard No Entry Zone around island.

- **SW Recommendation - 24 Key Lois, Loggerhead Basin**
  - **New Zone**
  - 100 yard No Wake Zone

- **SW Recommendation - 15 Tarpon Migration Lane**
  - **New Zone**
  - 1. Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Ohio Key
  - 2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

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Shallow Water

Working Group Recommendations

**NOTE**: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 35 - Sugarloaf Key

**SW Recommendation - 27 Marvin Key and the Barracuda Keys**
New Zone
No Motor Zone with Idle Speed/No Wake Zone in channels.

**SW Recommendation - 24 Key Lois, Loggerhead Basin**
New Zone
Idle Speed/No Wake Zone

**SW Recommendation - 15 Tarpon Migration Lane**
New Zone
1. Idle Speed/No Wake Zone (April-June) along oceandside shorelines from east end of Key West to west end of Ohio Key
2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

- Shallow Water
- Working Group Recommendations
- Bird Nests (Various Species)
- FKNMS Vessel Groundings (2000-2012)

NOTE: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 35 - Sugarloaf Key

SW Recommendation - 27 Marvin Key and the Barracuda Keys
- New Zone
- No Motor Zone with Idle Speed
- No Wake Zone in channels

SW Recommendation - 24 Key Lois, Loggerhead Basin
- New Zone
- Idle Speed
- No Wake Zone

SW Recommendation - 15 Tarpon Migration Lane
- New Zone
1. Idle Speed/No Wake Zone (April-June) along ocean side shorelines from east end of Key West to west end of Ohio Key
2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

Shallow Water
Working Group Recommendations

NOTE: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 36 - Saddlebunch Keys

CR Recommendation - 23
Pelican Shoal Restoration Site

SW Recommendation - 15
Tarpon Migration Lane
New Zone
1. Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Ohio Key.
2. Idle Speed/No Wake Zone (April-June) from East Baha Honda to 7-Mile Bridge and Boca Chica

SW Recommendation - 24
Key Loes, Loggerhead Basin
New Zone
Idle Speed/No Wake Zone

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Map 36 - Saddlebunch Keys

SW Recommendation - 24 Key Lois, Loggerhead Basin
New Zone
Idle Speed/No Wake Zone

SW Recommendation - 15 Tarpon Migration Lane

CR Recommendation - 23 Pelican Shoal
Restoration Site

Shallow Water
Working Group Recommendations

Coral Reef Ecosystem Restoration
Working Group Recommendations

NOTE: This map contains draft working group recommendations for consideration by the Sanctuary Advisory Council. This does not constitute a proposal or recommendation from NOAA, the U.S. Fish and Wildlife Service, or the Florida Fish and Wildlife Conservation Commission.
Map 37 - Snipe Keys

SW Recommendation - 27 Marvin Key and the Barraucuda Keys
New Zone
No Motor Zone with Idle Speed/No Wake Zone in channels.

SW Recommendation - 28 Tidal Flat South of Marvin Key
No Change
Maintain No Entry Zone on tidal flat.

SW Recommendation - 29 Snipe Keys
No Change
Maintain Idle Speed/No Wake Zone in main tidal creek. No Motor Zone in all other tidal creeks.

SW Recommendation - 30 Mud Keys Zone Modification
Idle Speed/No Wake Zones in two main tidal creeks. Two smaller creeks on west side are closed. Establish 100 yard temporary No Entry Zones around islands.

SW Recommendation - 31 East Harbor Key
No Change
Maintain 100 yard No Entry Zone around northermost island.

SW Recommendation - 32 Lower Harbor Keys Zone Modification
Idle Speed/No Wake Zone in selected tidal creeks and establish temporary No Entry Zones 100 yards around island.

SW Recommendation - 33 Cayo Agua Keys Zone Modification
Idle Speed/No Wake Zone in all navigable tidal creeks and establish temporary No Entry Zone 100 yards around islands.

Shallow Water
Working Group Recommendations
Existing Marine Zones
Bird Nests (Various Species)
FKNMS Vessel Groundings (2000-2012)

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Map 37 - Snipe Keys

- SW Recommendation - 27 Marvin Key and the Barraouda Keys
  New Zone
  No Motor Zone with Idle Speed/No Wake Zone in channels.

- SW Recommendation - 28 Tidal Flat South of Marvin Key
  No Change
  Maintain No Entry Zone on tidal flat.

- SW Recommendation - 29 Snipe Keys
  No Change
  Maintain Idle Speed/No Wake Zone in main tidal creek. No Motor Zone in all other tidal creeks.

- SW Recommendation - 30 Mud Keys
  Zone Modification
  Idle Speed/No Wake Zones in two main tidal creeks. Two smaller creeks on west side are closed. Establish 100 yard temporal No Entry Zones around islands.

- SW Recommendation - 31 East Harbor Key
  No Change
  Maintain 100 yard No Entry Zone around northernmost island.

- SW Recommendation - 32 Lower Harbor Keys
  Zone Modification
  Idle Speed/No Wake Zone in selected tidal creeks and establish temporal No Entry Zones 100 yards around island.

- SW Recommendation - 33 Cayo Agua Keys
  Zone Modification
  Idle Speed/No Wake Zone in all navigable tidal creeks and establish temporal No Entry Zone 100 yards around islands.

Shallow Water
- Working Group Recommendations
- Existing Marine Zones

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Map 38 - Boca Chica Key

**SW Recommendation - 15 Tarpon Migration Lane**
New Zone
1. Idle Speed/No Wake Zone (April-June) along oceasideshorelines from east end of Key West to west end of Chico Key.
2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica.

**CR Recommendation - 28 Boca Chica Patch Reefs Restoration Site**

**CR Recommendation - 24 Hawk Channel Patch Reefs Restoration Site**

**CR Recommendation - 35 Pelican Shoal Zone Modification island gone, eliminate zone.**

Shallow Water
Working Group Recommendations
Coral Reef Ecosystem Restoration
Working Group Recommendations
Existing Marine Zones

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Map 39 - Western Sambo

CR Recommendation - 27 Western Sambo 1, General ER
Restoration Site

CR Recommendation - 28 Western Sambo 2, West end - Jacqueline L. and Connected Restoration
Restoration Site
Map 40 - Bay Keys

SW Recommendation - 33 Cayo Agua Keys
Zone Modification: Idle Speed/No Wake Zone in all navigable tidal creeks and establish temporal No Entry Zone 100 yards around islands.

SW Recommendation - 36 Bay Keys
Zone Modification: Temporal No Entry 100 yards around islands.

Shallow Water
Working Group Recommendations
FKNMS Boundary
Existing Marine Zones

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**Map 41 - Key West**

**SW Recommendation - 37 Seaplane Basin**
New Zone
Considered by working group but recommendation was not to establish a zone.

**SW Recommendation - 38 Demolition Key**
New Zone
Temporal 100 yard No Entry Zone around Island

**SW Recommendation - 39 Pearl Basin**
New Zone
Idle Speed/No Wake Zone

**SW Recommendation - 40 Mule Key**
New Zone
Install markers at all entrances to the Lakes displaying controlling depth for the area.

**SW Recommendation - 15 Tarpon Migration Lane**
New Zone
1. Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Boca Chica
2. Idle Speed/No Wake Zone (April-June) from East Bahia Honda to 7-Mile Bridge and Boca Chica

- Shallow Water
- Working Group Recommendations
- Coral Reef Ecosystem Restoration Working Group Recommendations
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- FKNMS Vessel Groundings (2000-2012)
- Sea Turtle Nesting Beaches Florida

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Map 42 - Eastern Dry Rocks

CR Recommendation - 29
Eastern Dry Rocks 1,
General SPA Area
Restoration Site

CR Recommendation - 30
Rock Key 1,
General SPA
Restoration Site

Coral Reef Ecosystem Restoration
Working Group Recommendations

FKNMS Boundary
Existing Marine Zones
Florida Reef Resiliency Program
Resilient Reefs
Bird Nests (Various Species)
FKNMS Permitted Restoration Sites
FKNMS Vessel Groundings (2000-2012)

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Marquesas Region Index Map
**Map 43 - Cottrell Key**

- **SW Recommendation - 43**: Cottrell Key
  - Zone Modification
  - Temporal 100 yard No Entry Zone around island

- **CR Recommendation - 32**: Cottrell Key Restoration Site

- **SW Recommendation - 44**: Big Mullet Key
  - Zone Modification
  - Temporal No Entry Zone 100 yards around island

- **SW Recommendation - 47**: West Barracouta Key
  - New Zone
  - Two square mile Non-Exclusive, No Anchor Zone

- **SW Recommendation - 48**: Woman Key
  - Zone Modification
  - No Entry Zone on southern one-half of beach. Temporal No Entry Zone 100 yards out from beaches.
  - No Entry Zone for entire beach during turtle nesting seasons or when species of concern are present. All surrounding flats: Temporal No Entry Zone 100 yards out from beaches.
  - No Entry Zone on southern one-half of beach. Restricted Entry No Anchor Zone or No Motor Zone 100 yards out from beaches.

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**Legend**
- Shallow Water
- Working Group Recommendations
- Coral Reef Ecosystem Restoration
- Working Group Recommendations
- Existing Marine Zones

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Map 47 - Marquesas Keys

- **SW Recommendation - 52 Marquesas Keys**
  - Zone Modification
  - Idle Speed No Wake Zone for all flats and tidal creeks.
  - Temporal No Entry Zone 100 yards around Island.

- **SW Recommendation - 53 Marquesas Keys Turtle Zone**
  - New Zone
  - Establish a 12 square mile Research Only No Entry Zone to be evaluated in 10 years.

- **Shallow Water**
- **Working Group Recommendations**
- **Existing Marine Zones**
- **Bird Nests (Various Species)**
- **FKNMS Permitted Restoration Sites**

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Map 47 - Marquesas Keys

SW Recommendation - 52 Marquesas Keys
Zone Modification
Idle Speed No Wake Zone for all flats and tiki creeks
Temporal No Entry Zone 100 yards around Island

SW Recommendation - 52 Marquesas Keys
Marquesas Keys Turtle Zone
New Zone
Establish a 12 square mile
Research Only No Entry Zone
to be evaluated at 10 years

SW Recommendation - 52 Marquesas Keys

SW Recommendation - 52 Marquesas Keys

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Map 49 - New Grounds Shoal

Sw Recommendation - 63
Marquesas Keys Turtle Zone
New Zone
Establish a 12 square mile
Research Only/No Entry Zone
to be evaluated at 10 years
Map 50 - Tortugas NE

Coral Reef Ecosystem Restoration Working Group Recommendations
FKNMS Boundary
Existing Marine Zones
Florida Reef Resiliency Program
Resilient Reefs
Bird Nests (Various Species)
FKNMS Permitted Restoration Sites
Sea Turtle Nesting Beaches Florida

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Map 51 - Tortugas SE

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- FKNMS Boundary
- Bird Nests (Various Species)
- FKNMS Permitted Restoration Sites
- Sea Turtle Nesting Beaches Florida
APPENDIX I

Florida Keys National Marine Sanctuary Marine Zoning and Regulatory Review
Coral Reef Ecosystem Restoration Working Group

Recommendations for Sanctuary Advisory Council Consideration
Approved on June 12, 2013 by Coral Reef Ecosystem Restoration Working Group.

For the purposes of this recommendation, active coral reef ecosystem restoration aims to recreate, initiate, accelerate, or augment the recovery of an ecosystem that has been degraded by a range of environmental and human-induced threats and events (including but not limited to storm events, disease outbreaks, boat groundings, overfishing, phase shifts, loss of keystone herbivores, etc.). Ecological restoration is a dynamic process and should allow for the use of innovative restoration techniques. Restoration activities may include the active ecological recovery or enhancement of keystone or foundation species that create or maintain habitat or ecosystem services upon which other marine species, and people, depend. Restoration may also include the removal of species that are harmful to the ecosystem as a means of restoring balance. Ecosystem-scale restoration includes other natural communities including but not limited to: seagrass communities, mangrove communities, and hard bottom communities.

Coral Reef Ecosystem Restoration Objectives:

1. Identify specific areas and zones for active restoration of coral reef ecosystems.
2. Identify regulatory impediments and appropriate permitting conditions for active restoration of coral reef ecosystem species.
3. Identify adaptive management measures and criteria for opening areas closed for restoration purposes

Objective 1: Identify specific areas and zones for active restoration of coral reef ecosystems.

When selecting specific areas for restoration activities those zones and sites should be determined based on the criteria developed by this working group.

Coral Reef Ecosystem Restoration Zones identified by this working group are high priority areas in which to conduct restoration activities. The working group recommends that the entire reef tract within the Florida Keys National Marine Sanctuary (FKNMS) be restored and be eligible for restoration activities. However, the working group selected a suite of 105 zones for restoration and further prioritized those sites for a total of 34 priority zones. The priority zones identified are general areas within which more specific sites will be selected for actual restoration activities. When restoration activities take place:

- The actual restoration site(s) could be a much smaller area within the identified zone.
- The specific location and size of the site will be determined by the particular restoration goals and objectives for that site.
- The site will not have any additional managed access restrictions in place unless and until active restoration is underway (if site is within a current managed area (SPA, lobster Exclusion Zone, etc., those access restrictions will still apply). Any additional restrictions in place during active restoration would be lifted once the restoration goals and objectives are met.
- During site selection and permitting, managed access options selected should consider use and impact to various user groups.
I: Coral Reef Ecosystem Restoration Zone Types
Active coral reef ecosystem restoration zones will include a range of restoration activities including:

- Active (as opposed to passive) restoration:
  - Aims to recreate, initiate, accelerate, or augment the recovery of an ecosystem that has been degraded (environmental and/or human induced changes have altered ecosystem structure and function). Ecological restoration is a dynamic process and should allow for the use of innovative restoration techniques. It may also involve the removal of opportunistic species that have colonized essential habitat for the target species.

- Manipulative research and restoration:
  - Strategic science and manipulative experiments to advance the science of restoration

II: Management and Access Options
Active coral reef ecosystem restoration zones will allow for a range of access options and potential access restrictions. These will be dictated by the overall goals and objectives of the restoration activities, and will manage the impacts to the efforts to conduct/maintain restoration efforts. During site selection and permitting, managed access options selected will consider use and impact to various user groups. If any site is considering restricting access or closing access, zones and sites should be determined based on the criteria developed by this working group.

Access options could include:
1. Open demonstration site / incentive site
2. Managed access (restricted access)
3. Closed for research

1. Demonstration Site / Incentive Site
   - Demonstration sites could be more broadly open to public access.
   - Incentive access to promote ownership of and engagement in ensuring success of restoration efforts.
     - Innovative partnerships: partner organizations, businesses, etc. provide funding to support restoration activities through a range of mechanisms including donations, user fees, outplant site maintenance assistance including free rides to the sites for practitioners and/or training a mate on the boat to assist in maintenance activities, etc.
       - User fees
       - Mooring ball sponsorship programs
       - Identify demonstration sites within restoration areas to promote visitation (enhance an interest in reef restoration)
       - Develop reef etiquette program and guidelines
       - Dive proficiency testing or minimal certification levels
       - Dive Master guided tours from Blue Star operators

2. Managed Access (restricted access) Options:
   - Restrict access for all activities while restoration is in progress and for a set duration of time following the restoration activities to allow the site to stabilize.
   - Restrict activities that could impact the success of restoration activities (i.e. activities that may impact the benthic community).

3. Closed for Research and Restoration
   - Restrict access (i.e. potentially closed) to allow for undisturbed monitoring sites for research and control sites to help determine the effects of human activities. (SAC Goal B.3)
     - Closed to visitation and other activities to allow for scientific research, enhance restoration activities, provide control and comparative sites, and foster natural
biodiversity for maintaining undisturbed historical ecological, biological and genetic refuges.

III: Marking and Mooring at Coral Reef Ecosystem Zones
Active coral reef ecosystem restoration zones will be marked and have access buoys based on the types of managed or incentive access of the zone.

- **Marker Buoys**
  - Link regulations for restoration zones to the type of marker buoy used rather than specific locations such that the marker buoys and restoration zones can easily be moved as restoration activities are shifted over time and space. The markers and hence restoration zones can be moved without revising regulations.

- **Mooring Buoys**
  - Determine mooring buoys numbers based on restoration type and access options.
    - No mooring buoys in areas that are closed to visitation and only allow anchoring for research or restoration practitioners
    - Limited number of mooring buoys for incentive funding entities to utilize; which could include mooring buoy sponsorship labeling
    - Install subsurface buoys in lieu of anchoring for research and restoration practitioners and for use by incentive access users

IV: Criteria for Site Selection
Restoration Zones will be selected using the criteria outlined below.

Other considerations when selecting restoration zones:

- Potentially be sited in existing zones with established access restriction, marker buoys, and mooring buoys
- Consider including existing federal trap exclusion zones and existing special management zones in John Pennekamp Coral Reef State Park

<table>
<thead>
<tr>
<th>Category</th>
<th>Marine Zoning Goals &amp; Objectives</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood of Success</td>
<td>Apply the best available science and balanced, conservation based management</td>
<td>Try to choose areas that have the necessary biological and physical characteristics needed to support the natural biological diversity of a coral reef ecosystem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Try to choose areas that, when restored, will support the natural ecological processes of a coral reef ecosystem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Try to choose areas that are accessible to ensure restoration/research activities and potential promotion of public engagement.</td>
</tr>
<tr>
<td>Biodiversity &amp; Habitat</td>
<td>To improve the diversity of natural biological communities in the Florida Keys to protect, and, where appropriate restore and enhance natural habitats, populations and ecological processes overall in each of these sub regions Tortugas, Marquesas, Lower, Middle, and Upper Keys.</td>
<td>Try to choose areas that contain a range of natural biological diversity and habitats necessary to sustain that biodiversity and support ecological processes in coral reef ecosystems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select areas in each of the sub-regions relevant to coral reef ecosystems (Tortugas, Marquesas, Lower, Middle, and Upper Keys).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select areas that improve/maintain the condition of biologically structured coral reef ecosystems across the range of coral reef ecosystem habitat types (in-shore patch reefs, mid-channel patch reefs, off-shore patch reef, and reef margin/fore reef).</td>
</tr>
<tr>
<td><strong>Sustainability / Connectivity</strong></td>
<td>Protect large, contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life and protect and preserve all habitats and species.</td>
<td>Try to choose areas that contribute to protecting large contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life.</td>
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<tr>
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</tr>
<tr>
<td><strong>Sufficient Size</strong></td>
<td><strong>Identify areas of sufficient size to achieve the goals of active coral reef ecosystem restoration.</strong></td>
<td>Try to choose areas that contribute to protecting large contiguous, diverse and interconnected coral reef ecosystem habitats.</td>
</tr>
<tr>
<td></td>
<td>Try to choose areas that provide the area necessary to realize significant coral reef ecosystem restoration, include a range of coral reef ecosystem habitat types, and allow for a range of research/restoration activities to be conducted.</td>
<td></td>
</tr>
<tr>
<td><strong>Allowable uses/compatible uses</strong></td>
<td>Minimize conflicts among uses compatible with the National Marine Sanctuary. Prevent heavy concentrations of uses that degrade Sanctuary resources.</td>
<td>Try to choose areas and craft regulations with the primary objective of coral reef ecosystem restoration and that minimize adverse impacts from human uses and promote achieving the above criteria.</td>
</tr>
<tr>
<td></td>
<td>Try to choose areas and craft regulations that minimize user conflict and prevent use related impacts to coral reef ecosystem restoration efforts or that further degrade Sanctuary resources.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Try to choose areas that are accessible to ensure restoration/research activities and potential promotion of public engagement.</td>
<td></td>
</tr>
<tr>
<td><strong>Reference Area/Monitoring Sites</strong></td>
<td>Provide undisturbed monitoring sites for research and control sites to help determine the effects of human activities.</td>
<td>Try to choose areas that would serve as undisturbed monitoring sites for research, and control sites to help determine the effects of human activities.</td>
</tr>
<tr>
<td></td>
<td>Try to choose areas that contribute to protecting large contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life.</td>
<td></td>
</tr>
<tr>
<td><strong>Enforcement/compliance</strong></td>
<td><strong>Try to choose areas and craft regulations that would facilitate enforcement and encourage compliance.</strong></td>
<td>Try to choose areas and craft regulations that would facilitate enforcement and encourage compliance.</td>
</tr>
<tr>
<td></td>
<td>Try to choose areas and craft regulations that would promote public engagement, education, and support of the goals of coral reef ecosystem restoration zones.</td>
<td></td>
</tr>
</tbody>
</table>

**Objective 2: Identify regulatory impediments and appropriate permitting conditions for active restoration of coral reef ecosystem species**

- Develop an On-line Permitting System (May be restricted by Office of Management and Budget rule related to collection of Personal Identifiable Information)
  - All agencies that are involved can review
  - Central reporting
- Information exchange
- Project status
- Simple process to extend, renew, or adapt permit

- Create and utilize an interdisciplinary advisory committee
  - To guide the permit process.
  - Create a more collaborative process for developing restoration work and reviewing prior to submitting for permitting
  - Develop restoration criteria that can be used for all groups
  - Develop best management practices
  - Identify the range of potential activities and species that will be affected; both direct and indirect to inform the FKNMS Environmental Impact Statement
  - Permitting should allow for innovative/adaptive restoration techniques
  - During site selection and permitting, managed access options selected should consider use and impact to various user groups.
  - Permitting agencies should review permit for impact to various uses and user groups.

- Streamline permit process
  - Allow for simple modifications
  - Potential ease of permitting if locations are predetermined
  - Establish “qualified” practitioner permitting requirements
  - Consider extending the length of permit period. Consider streamlining permit renewals
  - Consider more rapid ability to permit projects particularly when funding is time sensitive

- Consider use of the FKNMS permit through which “qualified” practitioners could operate (general Programmatic Environmental Impact Statement exists)
- Permitting should allow for innovative/adaptive restoration techniques

**Objective 3: Identify adaptive management measures and criteria for opening areas closed for restoration purposes**

Adaptive management is used as a systematic process for improving environmental management policies and practices and emphasizes the need to change with the environment and to learn from doing. Adaptive management will be applied to managing active coral reef ecosystem restoration zones within the FKNMS to change the status of existing zones and to add new zones as needed based on clear goals, objectives, and adaptive management triggers.

**I: Restoration / Research Goals & Objectives**

Coral reef ecosystem restoration zones, when established, will have clear goals and objectives. These goals and objectives are intended to provide guidance for managing the zones and changing the management and access restrictions as appropriate. Goals and objectives will be specific to each zone and/or site.

**II: Adaptive Management Triggers and Criteria**

The following could provide a change in management of current active coral reef ecosystem restoration zones or provide the trigger to designate a new zone for active coral reef ecosystem restoration.

- New technology is developed that allows more species to be considered within the restoration scheme and/or new types of restoration activities to be conducted
- Change in the listing status of a species under the Endangered Species Act
- Changes in condition of an existing restoration zone or other area of FKNMS. Types of changes could include:
  - vessel grounding/anchoring
  - algae outbreak
  - invasive species
  - cold weather
  - storms
  - disease
o bleaching
o other human impacts (e.g., oil spills)

- Some measurable goals and/or objectives that were set as part of the restoration plan has been met
- Restoration effort fails to the point that the site is determined unsuitable for further restoration efforts.

III: Adaptive Management Response
Once the particular adaptive management triggers or criteria are met, a range of adaptive management responses could be implemented including:

- Change the access options based on shifting needs of restoration efforts (see Management and Access Options for details)
  - Restrict activities that could impact success of restoration activities
  - Restrict access during times of restoration effort
  - Restrict access (i.e. potentially closed) to allow for undisturbed monitoring sites for research and control sites to help determine the effects of human activities. (SAC Goal B.3)
  - Lift restrictions
- Monitor restoration zones to help increase understanding of the contribution of various stresses to the restored natural resources.
<table>
<thead>
<tr>
<th>REGION</th>
<th>LOCATION</th>
<th>Habitat Type - Goals &amp; Objectives</th>
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<th>Working Group Comments / Site Selection Criteria</th>
<th>Site Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Keys</td>
<td>Turtle Reef, Pennekamp</td>
<td>Mid-Channel patch reef - State Waters</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids: staghorn, elkhorn</td>
<td>• FSP/John Pennekamp State Park Existing Management Area/Lobster Trapping, Exclusion Zone</td>
<td>East of Ocean Reef (circular, aka Turtle Rock)</td>
<td>A mid-channel patch reef managed as part of the FSP John Pennekamp Coral Reef State Park. The site is a linear complex of aggregated coral patch reefs, located approx. 3.1 nm southeast of Ocean Reef Club within State waters. Accessible from Ocean Reef and Card Sound via Angelfish Creek. It is visited primarily by Ocean Reef residents and charter operators conducting baitfishing activity on the backreef. The proposed site partially overlaps the no lobstering zone, so consumptive activities are limited.</td>
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<tr>
<td></td>
<td>(East Ocean Reef)</td>
<td></td>
<td></td>
<td></td>
<td>• No FKNMS Existing Management Area/SPA (FKNMS mooring buoys present)</td>
<td>• State Waters: 3 mooring buoys in Pennekamp, (5 installed/ maintained by FKNMS)</td>
<td>• Minimal use - low violation</td>
</tr>
<tr>
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<td>Carysfort Reef</td>
<td>North Reef Margin/Tore Reef</td>
<td>Spur and Groove Reef, Aggregate Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids present: staghorn, elkhorn; degraded, vessel grounding - restoration monitoring data available as of 2008; Acroporid research data available</td>
<td>• Existing Management Area: SPA is the largest (1.5 nm2)</td>
<td>• Low use - Low visitation</td>
<td>• Permitted/Coral Restoration Foundation - outplant sites</td>
</tr>
<tr>
<td></td>
<td>Elbow Reef, North Elpis</td>
<td>Reef Margin/Tore Reef</td>
<td>Spur and Groove Reef, Aggregate Reef, Pavement, Unconsolidated Sediment</td>
<td>Acroporids: staghorn, elkhorn</td>
<td>• Existing Management Area: SPA is very small (0.05 nm2)</td>
<td>• Low use - High visitation; rough weather - high windy day use</td>
<td>• Permitted/Coral Restoration Foundation - existing outplanting sites</td>
</tr>
<tr>
<td></td>
<td>Key Largo Dry Rocks</td>
<td>Reef Margin/Tore Reef</td>
<td>Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids present: staghorn, elkhorn</td>
<td>• Existing Management Area: SPA is small (0.1 nm2)</td>
<td>• Historical presence of Acroporids: elkhorn, staghorn</td>
<td>• Existing Management Area: NOAA NMFS Lobster Trapping Exclusion Zone (portion outside SPA)</td>
</tr>
<tr>
<td></td>
<td>French Reef</td>
<td>Reef Margin/Tore Reef</td>
<td>Spur and Groove Reef, Aggregate Reef, Pavement, Reef Bubbly, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids research data available</td>
<td>• Existing Management Area: SPA is small (0.1 nm2)</td>
<td>• Historical presence of Acroporids: elkhorn, staghorn</td>
<td>• Permitted/Coral Restoration Foundation - existing outplanting sites</td>
</tr>
<tr>
<td></td>
<td>Molasses Reef</td>
<td>Reef Margin/Tore Reef</td>
<td>Patch Reef, Reef Bubbly, Seagrass, Unconsolidated Sediment</td>
<td>economic data available</td>
<td>• Existing Management Area: SPA is small (0.1 nm2)</td>
<td>• Low use, low visitation</td>
<td>• Permitted/Coral Restoration Foundation - existing outplanting sites</td>
</tr>
<tr>
<td></td>
<td>North Molasses Reef</td>
<td>Reef Margin/Tore Reef</td>
<td>Spur and Groove Reef, Aggregate Reef, Pavement, Unconsolidated Sediment</td>
<td>Acroporids present: staghorn, elkhorn; degraded, vessel grounding monitoring data available</td>
<td>• Existing Management Area: SPA is small (0.1 nm2)</td>
<td>• Permitted/Coral Restoration Foundation - existing outplanting sites</td>
<td>• Closer proximity to existing coral nursery</td>
</tr>
</tbody>
</table>
REGION | LOCATION | Habitat Type - Goals & Objectives | Habitat Description | Resources Present/Condition | Existing Access Restrictions | Working Group Comments / Site Selection Criteria | Site Information
---|---|---|---|---|---|---|---
Upper Keys | Snapper Lodge | Reef Margin/Fore Reef | Spur and Groove, Aggregate Reef, Pavement, Unconsolidated Sediment | Acroporids present; staghorn, elkhorn; active restoration; good condition | ● No FKNMS Existing Management Area/SPA (2 mooring buoys present, installed/maintained by FKNMS) | ● Heavy use - by divers, charter operators | This patchy spur and groove reef is a popular site with the dive operators. Located 5.4 nm off Tavernier, just southwest of Key Rocks. CRF began its Snapper Lodge elkhorn nursery in 2009, and has proven successful producing hundreds of elkhorn colonies a year. Known for it's large population of Snapper often seen at the northeast tip of the patch. In addition to charter dive and fishing operators, the site is used by recreational divers and fishermen.

Upper Keys | Men and Chickens | Mid-Channel patch reef | Individual or Aggregated Patch Reef, Pavement, Seagrass | Mountain star, boulder corals; degraded - cold spells; Acroporids: Elkhorn | ● Heavy use - Heavy irrigation | Cold spell 2010 mortality - degraded (also 1970) | A unique mid-channel patch reef complex with mounds of star corals showing signs of damage/decline. The SPA is 2.0 nm off Plantation Key, in the middle of Hawks Channel. It is easily accessible, with mooring buoys, and a high-use, low-conflict zone. Commercial and recreational snorklers and divers are the primary users.

Upper Keys | Davis Reef | Reef Margin/Fore Reef | Aggregate Reef, Pavement, Reef Rubble, Seagrass, Unconsolidated Sediment | Individual or Aggregated Patch Reef, Scattered Coral/Rock in Unconsolidated Sediment, Seagrass | ● Existing Management Area: SPA is small (0.2 nm2) | ● Historic presence of Acroporids | The SPA is the only zone in the Middle Keys designated to protect inshore patch reefs. Located 0.5 nm off Upper Matecumbe Key (Islamorada). An easily accessible site, heavily used, especially by visitors to Cheeca Lodge. Primary uses include diving, snorkeling and education. No major consumptive users, a few tropical fish collectors displaced.

Middle Keys | Cheeca Rocks | Isomhere Patch Reef | Aggregate Reef, Individual or Aggregated Patch Reef, Scattered Coral/Rock in Unconsolidated Sediment, Seagrass | Individual or Aggregated Patch Reef | ● No FKNMS Existing Management Area/SPA | ● No FKNMS Existing Management Area/SPA | A linear reef margin complex located 4.4 nm south of Upper Matecumbe Key, 3.8 nm southeast of Lower Matecumbe and approx. 1.5 nm southwest of Alligator Reef Light. Habitat consists of aggregate patch reefs, with transitional, intermediate reef characteristics of a very flat drowned spur and groove reef that tapers off to deep reef. This reef type is typical of the Middle Keys, marking the geological transition from the shallower reefs of the Upper Keys. Consumptive activities allowed, except within lobster trapping exclusion zones.

Middle Keys | South of Lower Matecumbe | Reef Margin/Fore Reef | Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment | Acroporids: staghorn | ● No FKNMS Existing Management Area/SPA | ● No FKNMS Existing Management Area/SPA | An inshore patch reef consisting of a complex of large mounds of star coral. The site is located 0.7 nm southeast of the southern tip of Lower Matecumbe Key, along the inside edge of Hawks Channel and encompasses a portion of the seagrass community nearby. Consumptive activities are allowed, heavily used by recreational fishermen and charter fishing operators out of Islamorada.

Middle Keys | Caloosa Rocks | Isomhere Patch Reef | Individual or Aggregated Patch Reef, Pavement, Seagrass | Individual or Aggregated Patch Reef | ● No FKNMS Existing Management Area/SPA | ● No FKNMS Existing Management Area/SPA | A deep, drowned spur and groove reef, extending seaward to the 300-foot depth contour encompassing unique deepwater, slow-growth corals and sponges. A "Research Only" zone located 4 nm south of Long Key. A low-use, inaccessible site with no mooring buoys, not a prime dive spot. Located in the path of Florida Bay waters and also an area with good water quality. Fishing and lobster trapping inshore.

Middle Keys | Tennessee Reef | Reef Margin/Fore Reef | Aggregate Reef, Pavement | Acroporids: staghorn | ● Existing Management Area: Research Only designated special-use zone (0.2 nm2) | ● No mooring buoys present | A linear reef margin complex along the southwest end of the proposed zone that fringes an intermediate to deep, drowned spur and groove reef system exhibiting transitional reef features. Three additional reef margin features to the northeast along the reef tract are included, also exhibiting the same drowned spur and groove system. The site is located just seaward of the Adeline Baker shipwreck, and 4 nm south-southeast of Duck Key. Consumptive activities are allowed.

Middle Keys | South of Little Duck Key | Reef Margin/Fore Reef | Spur and Groove, Aggregate Reef, Pavement, Seagrass, Unconsolidated Sediment | Spur and Groove, Aggregate Reef, Pavement, Seagrass, Unconsolidated Sediment | ● No FKNMS Existing Management Area/SPA | ● Large rectangle, multiple reefs | A linear reef margin complex along the southwest end of the proposed zone that fringes an intermediate to deep, drowned spur and groove reef system exhibiting transitional reef features. Three additional reef margin features to the northeast along the reef tract are included, also exhibiting the same drowned spur and groove system. The site is located just seaward of the Adeline Baker shipwreck, and 4 nm south-southeast of Duck Key. Consumptive activities are allowed.
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<td>Middle Keys</td>
<td>Collins Patch</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Reef Rubble, Seagrass, Unconsolidated Sediment</td>
<td>Offshore Patch Reef</td>
<td>Pillar coral present</td>
<td>Existing Management Area: SPA (0.4 nm²)</td>
<td>Permitted/TNC - FWRI Restoration Site - existing outplanting sites</td>
<td>Characteristic of an offshore patch reef, the reef includes rare pillar coral, other unique corals and a rubble field on the back reef. The SPA is located 4 nm south of Grassy Key or southeast of Key Colony Beach. It's easily accessible, low-use and visited by divers, and formerly recreational fishermen, treasure hunters and tropical fish collectors.</td>
</tr>
<tr>
<td>South of Key Colony Beach/Marker 48 Reef</td>
<td>Mid-Channel Patch Reef</td>
<td>Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>Mid-Channel Patch Reef</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>Permitted/TNC - FWRI Restoration Site - existing outplanting sites</td>
<td>A mid-channel patch reef system of individual and clusters of aggregated coral heads with distinct holes surrounded by a deme seagrass community. The site is located approx. 1.4 nm south of the tip of Key Colony Beach and encompasses &quot;Marker 48&quot; along the edge of Hawk Channel. The reef is adjacent to red daymarker 48, and is easily accessible to residents of Key Colony beach, and Marathon via Vaca Cut. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>Middle Keys</td>
<td>Delta Shoal</td>
<td>Reef Margin/Fore Reef</td>
<td>Reef Margin/Fore Reef</td>
<td>No mooring buoys present</td>
<td>Existing Management Area: SPA is small (0.2 nm²)</td>
<td>FNMS Vessel Grounding site: Coralith</td>
<td>A spur and groove fore reef with a prominent rubble berm, that drops off as an intermediate, drowned spur and groove reef to the 30-foot depth contour. The site is located approx. 3.3 nm south of Boot Key (Marathon), and 1 nm northwest of the historic Sombrero Lighthouse. Used heavily by recreational, charter and commercial fishermen and divers, consumptive activities are allowed.</td>
</tr>
<tr>
<td>Middle Keys</td>
<td>Sombrero Key</td>
<td>Reef Margin/Fore Reef</td>
<td>Reef Margin/Fore Reef</td>
<td>No mooring buoys present</td>
<td>Existing Management Area: SPA is small (0.1 nm²), proposed sites are within, and outside</td>
<td>FNMS Vessel Grounding site: Coralith</td>
<td>A spur and groove reef with stands of elkhorn, reef crest and rubble field. The SPA is located 3.5 nm southeast of Boot Key (Marathon), and includes the historic Sombrero Lighthouse. Diving and snorkeling occurs in this high-use area. Catch-and-release trotting allowed, recreational fishing off the back and sides of the reef, commercial fishing seaward. The SPA serves to reduce diver and recreational fishing user conflicts.</td>
</tr>
<tr>
<td>Newfound Harbor</td>
<td>S/V Bateau Duche Voyage - Bela Zely Restorations</td>
<td>Individual or Aggregated Patch Reef, Pavement</td>
<td>Inshore Patch Reef</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>Permitted/TNC - FWRI Restoration Site - existing outplanting sites</td>
<td>This SPA is the only inshore patch reef complex protected in the Lower Keys, and contains a series of nearshore patch reefs located less than 0.5 nm from the entrance of Newfound Harbor. It is centered on two patch reefs along the shoreline of the western Newfound Harbor Keys; adjacent to flashing red channel marker 50, with the seaward extent along the 18-foot depth contour. Good accessibility, low user numbers, but a high-use area for environmental education, and formerly bait fishing, and spearfishing.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Looe Key Reef SPA</td>
<td>A spur and groove reef, A spur and groove reef, Spur and Groove, Aggregated Patch Reef, Reef Rubble, Seagrass, Unconsolidated Sediment</td>
<td>R/V Columbus Iselin Reef, R/V Columbus Iselin Reef,</td>
<td>Acropora present: staghorn, elkhorn; degraded - vessel groundings, cold spell</td>
<td>Existing Management Area: SPA is small (0.1 nm²), proposed sites are within, and outside</td>
<td>FNMS Vessel Grounding site: vessel groundings of vessel in 18' depth, 38 mooring buoys</td>
<td>A classic shallow spur and groove reef, the SPA expands protection to include transitional, intermediate reefs seaward to the 45- foot depth contour line, and a large seagrass community bordered by rubble fields and boulder landward. It's located 5.5 nm south of Ramrod key, 8.8 nm northwest of Bahia Honda Key, is easily accessible and well-marked by flashing red reef light/marker 24.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>American Shoal Reef</td>
<td>Acropora present: staghorn</td>
<td>Reef Margin/Fore Reef</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>No FNMS Existing Management Area/SPA</td>
<td>Permitted/Mote Marine Lab Restoration Site - existing outplanting sites</td>
<td>A faint spur and groove reef, representing an extensive transitional, intermediate reef, including a large back reef rubble zone and large northwest rubble horn. Historic American Shoal Lighthouse nearby, the reef is located 5.5 nm south of Sugarloaf Keys, and 6.6 nm west of Looe Key. Consumptive activities other than lobster trapping (within zoned portion) are allowed.</td>
</tr>
<tr>
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<td>Lower Keys</td>
<td>Pelican Shoal</td>
<td>Reef Margin/Fore Reef</td>
<td>Spur and Groove, Aggregate Reef, Pavement, Reef Bubbly, Land, Seagrass, Unconsolidated Sediment</td>
<td>- FKNMS Wildlife Management Area, no FKNMS SPA present</td>
<td>- Historic presence of Acroporids: extensive, acres</td>
<td>- Potential upstream recruitment for the rest of the Middle, Upper Keys</td>
<td>A faint, drowned spur and groove reef adjacent to the Wildlife Management Area, designated over the small rubble island important for nesting birds. Located 4.4 nm southeast of Boca Chica Key. 4.8 nm south of Sable Island. No access restriction extends 50 meters offshore (April 1-August 31). Consumptive activities are allowed (observe no access rules).</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Boca Chica Patch Reefs</td>
<td>Inshore Patch Reef</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>- No FKNMS Existing Management Area/SPA</td>
<td>- No mooring buoys present</td>
<td>- Large polygon north of Middle Sambos, Eastern Sambos, and Pelican Shoal; also south of Boca Chica Patch Reefs.</td>
<td>An extensive complex of inshore patch reefs that includes individual and large aggregated clusters of star and brain boulder corals. Located along the Boca Chica beach shoreline, the patch reefs are approx. 0.5 nm offshore, with the southwest end of the patch just northeast of flashing red channel marker 56 marking the edge of Hawks Channel. The site is utilized mostly by nearby residents of Boca Chica Key, Tamarac Park, and De Soto Key for snorkeling, kayaking, and fishing and spearfishing. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Hawk Channel Patch Reefs 1</td>
<td>East of W. Sambos Bl</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>- No FKNMS Existing Management Area/SPA</td>
<td>- No mooring buoys present</td>
<td>- Large polygon south of Boca Chica Key; 2.3 nm south of Tamarac Park/Sugar Key and the southern tip of Sable Island Keys, and just west of West Woman Woman Island, in the middle of Hawks Channel. The complex includes healthy boulder corals, rarely visited due to poor visibility. Commercial lobster fishermen use the area extensively. Consumptive activities are allowed.</td>
<td></td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Hawk Channel Patch Reefs 2</td>
<td>East of W. Sambos Bl</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>- No FKNMS Existing Management Area/SPA</td>
<td>- No mooring buoys present</td>
<td>- Large polygon south of Boca Chica Key; 2.3 nm south of Tamarac Park/Sugar Key and the southern tip of Sable Island Keys, and just west of West Woman Woman Island, in the middle of Hawks Channel. The complex includes healthy boulder corals, rarely visited due to poor visibility. Commercial lobster fishermen use the area extensively. Consumptive activities are allowed.</td>
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</tr>
<tr>
<td>Lower Keys</td>
<td>Western Sambo 1</td>
<td>East of W. Sambos Bl</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>- Existing Management Area: Ecological Reserve (9 nm2)</td>
<td>- Ecological Reserve - no FKNMS SPA present</td>
<td>- Existing Management Area: Ecological Reserve (9 nm2)</td>
<td>A well developed spur and groove reef, part of an FKNMS Ecological Reserve that includes the greatest habitat diversity in the Lower Keys. The fore reef proposed zone is located 4.3 nm south of Boca Chica Key at the southern tip of the ER, west of Eastern and Middle Sambos Reefs, in a region of the Keys that has (historically) some of the best water quality along the reef tract. Protection displaced lobster fishermen, commercial and recreational fishermen, tropical marine life collectors and spearfishing. Consumptive activities are allowed only in the portions of this proposed zone that lie outside, or south and west of the ER.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Western Sambo 2</td>
<td>East of W. Sambos Bl</td>
<td>Aggregate Reef, Individual or Aggregated Patch Reef, Pavement, Seagrass, Unconsolidated Sediment</td>
<td>- Existing Management Area: Ecological Reserve (9 nm2)</td>
<td>- Ecological Reserve - no FKNMS SPA present</td>
<td>- Existing Management Area: Ecological Reserve (9 nm2)</td>
<td>A well developed spur and groove reef, part of an FKNMS Ecological Reserve that includes the greatest habitat diversity in the Lower Keys. The fore reef proposed zone is located 4.3 nm south of Boca Chica Key at the southern tip of the ER, west of Eastern and Middle Sambos Reefs, in a region of the Keys that has (historically) some of the best water quality along the reef tract. Protection displaced lobster fishermen, commercial and recreational fishermen, tropical marine life collectors and spearfishing. Consumptive activities are allowed only in the portions of this proposed zone that lie outside, or south and west of the ER.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Key West Patch Reefs</td>
<td>Inshore Patch Reef</td>
<td>Artificial, Aggregate Reef, Pavement, Land, Seagrass, Unconsolidated Sediment</td>
<td>- No FKNMS Existing Management Area/SPA</td>
<td>- No mooring buoys present</td>
<td>- no FKNMS SPA present</td>
<td>A large complex of inshore patch reefs, encompassing an extensive area along the shoreline of Key West extending from Boca Chica Channel to the Trumbo Point Navy Base seaward to the edge of Hawks Channel. Patch reefs are located from 0.3 to 0.7 nm offshore. Consumptive activities are allowed.</td>
</tr>
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<tr>
<td>Lower Keys</td>
<td>Eastern Dry Rocks 1 (general SPA)</td>
<td>Reef Margins/Fore reef</td>
<td>Spur and Groove, Aggregate Reef, Reef Bub, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids present:</td>
<td>Existing Management Area: SPA is small (0.1 nm²)</td>
<td>Permitted/FKCC-Coral Restoration Foundation - existing outplanting sites</td>
<td>A spur and groove bank reef, the SPA is located between the 4-foot-deep reef flat area and 30-foot-depth contour, 5.2 nm southwest of Key West. The reef is easily accessible from Key West, and of high economic value to the charter fishing, sportfishing, diving and lobster fishing communities. High user conflicts are reduced by SPA designation.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Rock Key 1 (general SPA)</td>
<td>Reef Margin/Fore reef</td>
<td>Spur and Groove, Aggregate Reef, Reef Bub, Seagrass, Unconsolidated Sediment</td>
<td>Acroporids present:</td>
<td>Existing Management Area: SPA is small (0.1 nm²)</td>
<td>Permitted/FKCC-Coral Restoration Foundation - existing outplanting sites</td>
<td>A spur and groove bank reef, the SPA is located between the reef crest and 30-foot-depth contour, 5.8 nm southwest of Key West. The reef is easily accessible from Key West, and of high economic value to the charter fishing, sportfishing, diving and lobster fishing communities. High user conflicts are reduced by SPA designation.</td>
</tr>
<tr>
<td>Lower Keys</td>
<td>Sand Key 1 (general SPA)</td>
<td>Reef Margin/Fore reef</td>
<td>Spur and Groove, Aggregate Reef, Individual or Aggregated Patch Reef, Reef Bub,</td>
<td>Acroporids present:</td>
<td>Existing Management Area: SPA is small (0.5 nm²)</td>
<td>Permitted/FKCC-Coral Restoration Foundation - existing outplanting sites</td>
<td>A spur and groove bank reef, the SPA is located between the reef crest and 30-foot-depth contour, 5.8 nm southwest of Key West. The reef is easily accessible from Key West, and of high economic value to the charter fishing, sportfishing, diving and lobster fishing communities. High user conflicts are reduced by SPA designation.</td>
</tr>
<tr>
<td>Marquises</td>
<td>Cottrell Key</td>
<td>Backcountry/Handbottom</td>
<td>Aggregate Reef, Pavement, Mangrove, Seagrass, Unconsolidated Sediment</td>
<td>Boulder/brain corals, Acroporids present:</td>
<td>Existing Management Area nearby, no FKNMS SPA present</td>
<td>Blackwater event mortality - degraded</td>
<td>A handbottom area consisting of aggregate coral reef, ledges, pavement, mangroves, and seagrass communities. Located 7.2 nm northwest of Key West, 0.3 nm northwest of Cottrell Key, which is a Wildlife Management Area with a 300-foot no motor zone. The site is used primarily by charter dive operators on bad weather days.</td>
</tr>
<tr>
<td>Marquises</td>
<td>Western Dry Rocks</td>
<td>Reef Margin/Fore reef</td>
<td>Spur and Groove, Aggregate Reef, Individual or Aggregated Patch Reef, Reef Bub,</td>
<td>Acroporids: Elkhorn, Staghorn:</td>
<td>No Existing Management Areas present/SPA</td>
<td>Least visited of all outside reefs (in the Key West Area)</td>
<td>A classic spur and groove reef that is relatively small, with a well-developed rubble horn and several mooring buoys. West of Sand Key (2.6 nm), it is located 4.8 miles south of Man Key and 8.6 nm southwest of Key West. The reef is accessible from Key West, but is visited by charter operators when visibility is better than nearby reefs. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>Marquises</td>
<td>Man Key Patch Reef</td>
<td>Inshore Patch Reef</td>
<td>Individual or Aggregated Patch Reef</td>
<td>No FKNMS Existing Management Area/SPA</td>
<td>No FKNMS Existing Management Area/SPA</td>
<td>Nice coral heads</td>
<td>An aggregate of inshore patch reefs, located nearshore approximately 0.3 nm seaward of Man Key, and 6 nm west of Key West. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>Marquises</td>
<td>Boca Grande Patch Reef</td>
<td>Inshore Patch Reef</td>
<td>Individual or Aggregated Patch Reef</td>
<td>No FKNMS Existing Management Area/SPA</td>
<td>No FKNMS Existing Management Area/SPA</td>
<td>Nice coral heads</td>
<td>An aggregate of inshore patch reefs, located nearshore approximately 0.4 nm seaward of Boca Grande Key, and roughly 10.5 nm west of Key West. Traditionally used by spearfishermen and snorkelers. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>Dry Tortugas</td>
<td>East of DTPF</td>
<td>Coral Reef skiffs/hardbottom</td>
<td>Aggregate Reef, Unconsolidated Sediment</td>
<td>Acroporids: staghorn</td>
<td>No Existing FKNMS Management Areas/SPA</td>
<td>Low use, low violation</td>
<td>Placeholder for work outside Dry Tortugas NP, (no reef specified). Pulaski Shoal is an intermediate to deep reef slope located off the northwest corner of DTPF. It is listed due to existing data available from FKNMS monitoring programs, it being the site of the CJS Mosco Veronis' large vessel grounding November 1988 and known historic presence of Acroporids. Consumptive activities are allowed.</td>
</tr>
<tr>
<td>REGION</td>
<td>LOCATION</td>
<td>Habitat Type - Goals &amp; Objectives</td>
<td>Habitat Description</td>
<td>Resources Present/Condition</td>
<td>Existing Access Restrictions</td>
<td>Working Group Comments / Site Selection Criteria</td>
<td>Site Information</td>
</tr>
<tr>
<td>--------</td>
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</tr>
</tbody>
</table>
| Dry Tortugas National Park | Dry Tortugas | Individual or Aggregated Patch Reef | Acroporid: staghorn; existing data available, photo-documentation | ● NPS Existing Management Area: presently doing restoration | ● Historic presence of Acroporids: staghorn; anywhere less than 60 feet used to be entirely staghorn, photo-documentation available  
● Logistically very challenging site to work  
● FKNMS Monitoring program stations: multiple CREMP, CDC stations within the park; long-term monitoring data available | (no site specified) |

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APPENDIX II

Florida Keys National Marine Sanctuary
Marine Zoning and Regulatory Review
Shallow Water Wildlife and Habitat Protection Working Group

Recommendations for Sanctuary Advisory Council Consideration

Shallow Water Wildlife and Habitat Protection Objectives:
1. Evaluate existing Wildlife Management Areas for effectiveness in protecting wildlife and their habitats under current as well as emerging public uses and environmental conditions; recommend status quo, modification, and/or new areas.
2. Develop recommendations considering existing regulations and zoning – mainly use of vessel restrictions on access, anchoring, speed, and channel marking – to further protect seagrass and critical shallow water habitats in Florida Keys National Marine Sanctuary (FKNMS).
3. Address concentrated uses that diminish and destroy seagrass and shallow water habitats.
4. Identify where high impact activities known to occur should be allowed and encouraged for public and private uses.
5. Identify seagrass and shallow water habitat areas for exclusion to allow for research control areas.
6. Evaluate mangrove habitat protection for bird nesting.
7. Reduce damage to natural resources from improper vessel salvage methods.

Recommendations for long-term management of zones designed to protect shallow water wildlife and associated habitat include:
1. Establish a standing Sanctuary Advisory Council Wildlife and Habitat Protection working group.
   a. Determine qualitative and where appropriate quantitative metrics to evaluate effectiveness of zones
   b. Provide strategic guidance for adaptive management of zones
2. Incorporate adaptive management mechanisms for shallow water wildlife and habitat protection zones to allow for effective and adequate resource protection (bird nesting and roosting, turtle foraging and nesting, ephemeral habitat used by species of concern, etc.)
3. Recommendations for zoning and management measures to protect shallow water wildlife and associated habitats should be proactive and not limited by bureaucracy, funding, or enforcement limitations.

Recommendations for Objectives 1-6
In considering zones for shallow water wildlife and habitat protection, the working group
1. identified resources of concern,
2. determined current or potential impacts to those resources,
3. identified uses compatible with protecting those resources, and
4. Identified access restrictions intended to minimize impacts to those resources.

The working group used the following specific criteria to evaluate existing Wildlife Management Areas and make recommendations for potential modifications to the current zones and identify potential new areas:
| Category               | Marine Zoning Goals & Objectives                                                                                                                                                                                                 | Shallow Water WG Objectives                                                                                      | Criteria                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biodiversity & Habitat| To improve the diversity of natural biological communities in the Florida Keys to protect, and, where appropriate restore and enhance natural habitats, populations and ecological processes overall and in each of these sub-regions Tortugas, Marquesas, Lower, Middle, and Upper Keys.  
Improve/maintain the condition of the biologically structured habitats.  
Increase abundance and condition of selected key species.                                                                                                                                                                                                                                           | Evaluate existing Wildlife Management Areas for effectiveness in protecting wildlife and their habitats under current as well as emerging public uses and environmental conditions.  
Evaluate mangrove habitat protection for bird nesting.                                                                                                                                                                                                                                             | Try to choose areas that would contain a range of shallow water natural biological diversity, ecological processes, and habitats necessary to sustain that biodiversity.  
Select areas in each of the sub-regions relevant to shallow water habitats Tortugas, Marquesas, Lower, Middle, and Upper Keys.                                                                                                                                                                                                                                           |
| Sustainability / Connectivity | Protect large, contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life and protect and preserve all habitats and species.  
Increase abundance and condition of selected key species.                                                                                                                                                                                                                                             | Evaluate existing Wildlife Management Areas for effectiveness in protecting wildlife and their habitats under current as well as emerging public uses and environmental conditions.  
Evaluate mangrove habitat protection for bird nesting.                                                                                                                                                                                                                                             | Try to choose areas that protect large contiguous, diverse and interconnected habitats that provide natural spawning, nursery, and permanent residence areas for the replenishment and genetic protection of marine life.                                                                                                                                                                                                                   |
| Allowable uses/compatible uses | To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities.  
Minimize conflicts among uses compatible with the National Marine Sanctuary.  
Prevent heavy concentrations of uses that degrade Sanctuary resources.                                                                                                                                                                                                                   | Address concentrated uses that diminish and destroy seagrass and shallow water habitats.  
Identify where high impact activities known to occur should be allowed and encouraged for public and private uses.  
Evaluate existing Wildlife Management Areas for effectiveness in protecting wildlife and their habitats under current as well as emerging public uses and environmental conditions.  
Reduce damage to natural resources from improper vessel salvage methods.                                                                                                                                                                                                                         | Try to choose areas and craft regulations with the primary objective of resource protection that minimize adverse impacts from human uses and promote achieving the above criteria.  
Try to choose areas and craft regulations that minimize user conflict and prevent heavy concentrations of uses that degrade Sanctuary resources.                                                                                                                                                                                                 |
| Socio-Economic Impacts | To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities.  
Achieve a vibrant ecologically sustainable ecosystem and economy.                                                                                                                                                                                                                                      | Address concentrated uses that diminish and destroy seagrass and shallow water habitats.  
Identify where high impact activities known to occur should be allowed and encouraged for public and private uses.  
Reduce damage to natural resources from improper vessel salvage methods.                                                                                                                                                                                                                         | Try to choose areas and craft recommendations that would serve to minimize adverse socio-economic impacts on established users of resources in the areas and achieve a vibrant ecologically sustainable ecosystem and economy.                                                                                                                                                               |
| Reference Area / Monitoring | *Not specifically identified by working group  
Provide undisturbed monitoring sites for research and control sites to help determine the effects of human activities.                                                                                                                                                                           | Identify seagrass and shallow water habitat areas for exclusion to allow for research control areas.  
Develop recommendations considering existing regulations and zoning – mainly use of vessel restrictions on access, anchoring, speed, and channel marking – to further protect seagrass and critical shallow water habitats. | Try to choose areas that would serve as undisturbed monitoring sites for research and control sites to help determine the effects of human activities.  
Research control or monitoring sites should be designed with a specific research question to be addressed and have specific criteria to determine success and length of closure.                                                                                                                                                 |
| Enforcement/compliance | Reduce stresses from human activities by establishing areas that restrict access to sensitive wildlife populations and habitats.                                                                                                                                                                         |                                                                                                                                                                           | Try to choose areas and craft regulations that would facilitate enforcement and encourage compliance.                                                                                                                                                                                                                                                          |
The following zones, associated access restrictions, and management options are recommended:

1. When considering zoning areas for shallow water wildlife and habitat consider impacts of uses including trap fishing, debris, sponge harvesting, among other uses, including ecotourism operations.
   - Conduct analysis for economic impact to existing users, balance of use and small-scale user impacts
   - Based on analysis identify zones for non-extraction (clearly define for purposes of a range of uses, including catch and release)

2. Zone Types and Access Restrictions
   - Identify zones, manage and enforce by the types of access and access restrictions compatible with the goals of natural resource protection.
     [the below terms represent “purpose and intent” of access restrictions; final access restriction and definition will be consistent with State regulations]
     - Motor (distinct from navigation/access channel)
     - Motor with idle (clarify speed)
     - Pole/troll/paddle
     - Pole/troll/paddle/no motor on boat
     - Closed
   - Where possible and appropriate:
     - Use buffer zones and idle speed zones to enhance shallow water wildlife protection,
     - Ensure adequate access/transit channels between (and, if needed within) zones
     - Make larger contiguous zones (for example: Rodriguez and Dove Keys)
     - Identify and designate zones that include and protect a range of resources (for example: shallow seagrass, beach, nesting habitat, etc.)
     - Utilize non-extraction zones for shallow water wildlife protection
   - Create consistent and fair access restrictions; when one type of use is restricted, restrict all uses
     - Strive to differentiate kinds of use and any potential impact to resources from that use
     - When proposing access restrictions consider allowing uses that are compatible with shallow water resource protection goals
   - Identify and designate zones closed for research and purposes and associated reference sites:
     - Consider other comparable open sites
     - Identify and designate specific zones as reference areas
     - Monitor and assess on a regular basis (5-years) to inform adaptive management of zones
     - Identify areas of severe seagrass scarring and use this data to determine if there should be additional zoning, better channel marking, etc. in these areas to reduce these impacts;
       Updated scarring maps should be created to address this issue
     - Restoration or Restoration/Research Only areas should be considered to allow for manipulative experiments
     - When establishing research only zones, consult with user groups
   - Consider a balance of areas restricted or closed for certain high use/high impact activities (for example: if sand bar sites are closed, prioritize sites for closure and provide comparable open sites).
   - Encourage that National Wildlife Refuge take a proactive approach in managing human activity that could negatively impact near-shore and shallow water resources of concern (for example: bird nesting and roosting, turtle foraging and nesting, ephemeral habitat...
used by species of concern, aquatic resources including fish and coral, etc.).

3. Marking, Mooring, and Use of Zones
   • Ensure adequate marking of zones
   • Allow only one vessel per mooring buoy as a management tool for access restriction
   • No anchoring where mooring buoys are provided within zones for shallow water wildlife and habitat; allow for anchoring where there are safe areas to anchor and will not impact shallow water resources (recognized need to balance use and the potential unintended movement to and anchoring in other areas if anchoring is not allowed in these zones, consider potential impact to these additional areas)
   • Identify what constitutes an anchor (i.e. use of push poles/power poles)
   • Address managed mooring fields
   • No overnight platforms, unattended vessels and equipment within zones for shallow water wildlife and habitat.
   • Consider channel marking for established travel lanes where sea grass damage is prevalent and boat travel is unavoidable (gate style)
   • Consider creation of "intelligent" markers. Use a color coded system to indicate depth, and perhaps even alter restrictions (ex. If a certain color is visible then idle only, another color it is closed, another open access)

4. Adaptive Management
   • Incorporate adaptive management mechanisms to allow for effective and adequate resource protection (for example: bird nesting and roosting, turtle foraging and nesting, ephemeral habitat used by species of concern, aquatic resources including fish and coral, etc.)
     o Use temporal zoning as appropriate; however consider permanent zoning based on resource protection goals
     o Include buffer zones of appropriate size around key resources
     o Consider associating zone and zone restrictions with a specific type of buoy rather than lines on a map (allows buoys and zones to be moved as needed for specific resource protection goals)
   • Incorporate adaptive management mechanisms that are proactive in addressing shifting and new high use and high impact activities that have a negative impact on shallow water wildlife and habitats.
     o Social gathering places or “Party Zones” should be identified and limited to their existing footprints. New emerging islands/sandbars (e.g. Wilma Key) should be immediately closed to human use. Please see tables in Appendix A for detailed recommendations for each zone.

The working group recommends that the following existing Wildlife Management Area no longer be zoned:
Little Crane Key
Pelican Shoal

The working group recommends that the following existing Wildlife Management Areas remain with no changes to size, location, or access restrictions:
Crocodile Lake
Eastern Lake Surprise
Horseshoe Key (Lower Keys)
Tidal Flat South of Marvin Key
Snipe Keys
East Harbor Key
Little Mullet Key

The working group recommends that the following existing Wildlife Management Areas be modified:
Rodriguez Key
Dove Key
Tavernier Key
Snake Creek
Cotton Key
Upper Harbor Key
East Content Keys
West Content Keys
Sawyer Keys
Mud Keys
Lower Harbor Keys
Cayo Agua Keys
Western Sambo (Ecological Reserve)
Bay Keys
Cottrell Key
Big Mullet Key
Woman Key
Boca Grande Key
Marquesas Keys

The working group recommends that the new zones be established:
Whitmore Bight/El Radabob Key/Rattle Snake Key
Barnes Sound-Shallow bays in northwest corner of Barnes Sound
Pigeon Key-Florida Bay
Ashbey/Horseshoe Key (Middle Keys)
Gulfside Banks
Moser Channel Banks
Marathon Oceanside Shoreline from Vaca Cut to Sombrero Beach and ocean facing shoreline of Boot Key
Tarpon Wildlife Migration Lane
Little Pine Mangrove Key
Content Keys and Upper Harbor Key
Island near Torch Key
Key Lois (Loggerhead Basin)
Crane Key
Marvin Key and the Barracuda Keys
Demolition Key
Pearl Basin
Mule Key
Lakes Area (La Vina Bank)
Archer Key
East Barracouta Key Flats
West Barracouta Key Flats
Boca Grande Key to Woman Key Shallow Bank
Wilma Key
Marquesas Key

**Objective 7: Reduce damage to natural resources from improper vessel salvage methods.**
The working group recognizes that the overarching consideration when conducting salvage operations is to remove the vessel, ensure safety of operations, and minimize natural resource injury.

**Recommendations:**
Use the successful and established programs at Biscayne Bay National Park as guidance to implement a towing and salvage permit program in FKNMS.

Specific recommendations include:
- Establish a Sanctuary Advisory Council Towing and Salvage working group to focus on this issue and ensure continued dialog and coordination among the towing and salvage community and FKNMS.
- Clearly define terms (use existing/standard definitions)
  - Towing
  - Salvage
  - Derelict vessel and wreck removal
  - Include clarification of what constitutes “illegal” towing and salvage operations
- Define dynamic versus static situations to clarify requirements and response approach for salvage operations and derelict vessel removal
- Include standard operating procedures (use C-Port guidance and Biscayne National Park, United States Coast Guard (USCG), etc.)
  - Qualifications / licensing
  - Notification
  - Recovery plan
  - Standard range of equipment
- Enhance and promote partnerships among towing and salvage community as well as other managing partners (C-Port, Biscayne National Park, USCG)
  - Change culture
  - Develop best management practices/solutions
  - Create incentives for compliance, self-enforcement and education
  - Promote training
- Promote innovation of techniques
- Allow for adaptive management
  - Create mechanisms for feedback loops that allow improvements/changes based on lessons learned from towing/salvage
<table>
<thead>
<tr>
<th>Area</th>
<th>Purpose</th>
<th>Existing Access Restrictions/Regulation</th>
<th>Recommendation</th>
<th>Description of Modification</th>
<th>Zone Type (Consistent with State of Florida Language)</th>
<th>Objectives</th>
<th>Consensus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crocodile Lake</td>
<td>Decrease disturbance of a number of threatened or endangered species including American Crocodile and West Indian Manatee.</td>
<td>No-access buffer zone (100 feet) along shoreline between March 1 and October 1.</td>
<td>Status Quo</td>
<td>Recommendation 1: Maintain existing restrictions.</td>
<td>No Entry Zone (100 feet) along shoreline between March 1 and October 1.</td>
<td>1, 2</td>
<td>Recommendation 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No-access buffer zone (100 feet) along shoreline between March 1 and October 1.</td>
<td>Recommendations 2: Eliminate No Access Zone and establish 300' Idle Speed/No Wake Zone Along Shoreline.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone along shoreline.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone along shoreline.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Eastern Lake Surprise</td>
<td>Decrease disturbance of American Crocodile and West Indian Manatee.</td>
<td>Idle speed only/no-wake zone east of highway U.S. 1.</td>
<td>Status Quo</td>
<td>Maintain existing restrictions.</td>
<td>Idle Speed/No Wake Zone east of highway U.S. 1.</td>
<td>1, 2</td>
<td>Consensus</td>
</tr>
<tr>
<td>Rodriguez Key</td>
<td>Decrease disturbance of a variety of birds, bonefish, and other desirable fish species.</td>
<td>No-motor zone on tidal flats.</td>
<td>Modify</td>
<td>Recommendation 1: Maintain existing restrictions and establish No Anchor Zone within existing area.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendations 2: Keep Dove Key and Rodriguez Key as separate areas.</td>
<td>Recommendation 3: Connect Dove Key and Rodriguez Key areas.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendations 4: Close area at either Rodriguez or Tavernier Key. No tenable</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 4, 6</td>
<td>Consider 1, 2, and 3</td>
</tr>
<tr>
<td>Dove Key</td>
<td>Decrease disturbance of a variety of birds, bonefish, and other desirable fish species.</td>
<td>No-motor zone on tidal flats.</td>
<td>Modify</td>
<td>Recommendation 1: Maintain existing restrictions and establish a No Anchor Zone within the existing area.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
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<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendations 2: Keep Dove Key and Rodriguez Key as separate areas.</td>
<td>Recommendation 3: Connect Dove Key and Rodriguez Key areas.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Tavernier Key</td>
<td>Decrease disturbance of a variety of birds, bonefish, and other desirable fish species.</td>
<td>No-motor zone on tidal flats.</td>
<td>Modify</td>
<td>Recommendation 1: Maintain existing restrictions and establish a No Anchor Zone within the existing area.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
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<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendations 2: Keep Dove Key and Rodriguez Key as separate areas.</td>
<td>Recommendation 3: Connect Dove Key and Rodriguez Key areas.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendations 4: Close area at either Rodriguez or Tavernier Key. No tenable</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No-motor zone on tidal flats.</td>
<td>Recommendation 1: Maintain existing restrictions, expand zone to Whale Harbor Channel.</td>
<td>No Motor Zone.</td>
<td>No Motor Zone and establish Restricted Entry/No Anchor Zone on tidal flats.</td>
<td>1, 2, 3, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Snake Creek</td>
<td>Decrease the disturbance of a variety of bird using the area for nesting/roosting/feeding and protect shallow water habitat used by bonefish, permit, tarpon, and other desirable fish species.</td>
<td>No-motor zone on tidal flat.</td>
<td>Modify</td>
<td>Recommendation 1: Maintain existing restrictions, expand zone to Whale Harbor Channel.</td>
<td>No Motor Zone.</td>
<td>1, 2, 4, 6</td>
<td>Recommendation 1, 2</td>
</tr>
<tr>
<td>Cotton Key</td>
<td>Decrease disturbance of nesting/roosting pelicans, cormorants, 4 species of herons, frigate birds, bonefish, and other desirable fish species.</td>
<td>No-motor zone on tidal flat.</td>
<td>Modify</td>
<td>Maintain existing No Motor Zone, extend to include bayside Whale Harbor Flats, islands, and deep channels, and establish Idle Speed/No Wake Zone in channels.</td>
<td>No Motor Zone with Idle Speed/No Wake Zone within existing channels.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Horseshoe Key</td>
<td>Decrease disturbance of nesting White Crown Pigeon, Heron, Willet, and Osprey.</td>
<td>No-access buffer zone (300 feet) around main island (main island closed by Department of the Interior).</td>
<td>Status Quo</td>
<td>Maintain existing No Access Zone.</td>
<td>No Entry Zone 100 yards around island.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Upper Harbor Key</td>
<td>Decrease disturbance of Ospreys, Frigate Birds, Double-Crested Cormorants, and wading birds.</td>
<td>No-access buffer zone (300 feet) around entire key.</td>
<td>Modify</td>
<td>Establish temporary No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporary No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>East Content Keys</td>
<td>Decrease disturbance of Herons and White Ibises.</td>
<td>Idle speed only/no-wake zones in tidal creeks between southwestermost keys.</td>
<td>Modify</td>
<td>Maintain existing Idle Speed/No Wake Zone and expand to include creek and inland water complex on northern part of East Content Key.</td>
<td>Idle Speed/No Wake Zone.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>West Content Keys</td>
<td>Decrease disturbance of nesting Ospreys and wading birds.</td>
<td>Idle speed only/no-wake zones in selected tidal creeks; no-access buffer zone in one cove.</td>
<td>Modify</td>
<td>Maintain existing Idle Speed/No Wake Zone and establish temporary No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Idle Speed/No Wake Zone in selected tidal creeks and establish temporary No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Little Crane Keys</td>
<td>Decrease disturbance of nesting Ospreys and nesting Great Egrets and Double-Crested Cormorants.</td>
<td>No-access buffer zone (300 feet) around entire key.</td>
<td>Modify</td>
<td>Confirm that island is gone and eliminate zone.</td>
<td>Eliminate zone.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Sawyer Keys</td>
<td>Decrease disturbance of nesting Ospreys, 11 species of wading birds, and staging area for migrant shorebirds.</td>
<td>Tidal creeks on south side closed.</td>
<td>Modify</td>
<td>Establish temporary No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporary No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
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<tr>
<td>Tidal flat south of Marvin Key</td>
<td>Decrease disturbance of resting shorebirds.</td>
<td>No-access buffer zone on tidal flat.</td>
<td>Status Quo</td>
<td>Maintain existing restrictions.</td>
<td>No Entry Zone.</td>
<td>1, 2, 3, 4</td>
<td>Consensus</td>
</tr>
<tr>
<td>Snipe Keys</td>
<td>Decrease disturbance of Little Blue Herons, Terns, and various shorebirds.</td>
<td>(i) Idle speed only/no-wake zone in main tidal creek; (ii) no-motor zone in all other tidal creeks.</td>
<td>Status Quo</td>
<td>Maintain existing Idle Speed/No Wake Zone and No Motor Zone.</td>
<td>Idle Speed/No Wake in main tidal creek and No Motor Zone in all other creeks.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Mud Keys</td>
<td>Decrease disturbance of nesting and roosting Ospreys, roosting Frigate Birds, and Great White Heron rookery.</td>
<td>(i) Idle speed only/no-wake zones in the two main tidal creeks; (ii) two smaller creeks on west side closed.</td>
<td>Modify</td>
<td>Maintain existing Idle Speed/No Wake Zone and closed areas in creeks and establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Idle Speed/No Wake Zone in two main tidal creeks; No Entry Zones in western tidal creeks; and establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>East Harbor Key</td>
<td>One of the only Bald Eagle nesting islands.</td>
<td>No-access buffer zone (300 feet) around northernmost island.</td>
<td>Status Quo</td>
<td>Maintain existing No Access Zone.</td>
<td>No Entry Zone 100 yards around island.</td>
<td>1, 2, 3, 4</td>
<td>Consensus</td>
</tr>
<tr>
<td>Lower Harbor Keys</td>
<td>Decrease disturbance of nesting and roosting Great White Herons, Double-Crested Cormorants, Osprey, and other wading birds.</td>
<td>Idle speed only/no-wake zones in selected tidal creeks.</td>
<td>Modify</td>
<td>Maintain existing Idle Speed/No Wake Zone in creeks and establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Idle Speed/No Wake Zone in selected tidal creeks and establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Cayo Agua Keys</td>
<td>Decrease disturbance of nesting/roosting Great White Herons and Ospreys.</td>
<td>Idle speed only/no-wake zones in all navigable tidal creeks.</td>
<td>Modify</td>
<td>Maintain existing Idle Speed/No Wake Zone and establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Idle Speed/No Wake Zone and establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Western Sambo</td>
<td>The Western Sambo Ecological Reserve contains the greatest habitat diversity in the Lower Keys. Significant coral features include spur-and-groove formations, bank reefs, and nearshore patch reefs. Western Sambo has one of the last remaining stands of living elkhorn coral in the Lower Keys, a species once abundant throughout the Keys.</td>
<td>Prohibited activities include: discharging any matter except cooling water or engine exhaust; fishing by any means; removing, harvesting, or possessing marine life; touching/standing on coral; anchoring on coral or attached organisms; anchoring on living or dead coral or any attached organism, anchoring when a mooring buoy is available.</td>
<td>Modify</td>
<td>Recommendation 1: Maintain existing restrictions and zoning.</td>
<td>Ecological Reserve</td>
<td>1, 2, 4</td>
<td></td>
</tr>
</tbody>
</table>

**Recommendation 1:** Maintain existing restrictions and zoning.

**Recommendation 2:** Northern quadrant (<10') should be Idle Speed/No Wake Zone. Idle Speed/No Wake Zone in norther quadrant where waters are <10'.

**Recommendation 1, 2**
<table>
<thead>
<tr>
<th>Area</th>
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<tbody>
<tr>
<td>Pelican Shoal</td>
<td>Decrease disturbance of bird nesting site.</td>
<td>No-access buffer zone out to 50 meters from shore between April 1 and August 31 (shoal closed by the Florida Game and Freshwater Fish Commission).</td>
<td>Modify</td>
<td>Island is gone, eliminate zone.</td>
<td>Eliminate zone</td>
<td>1</td>
<td>Consensus</td>
</tr>
<tr>
<td>Bay Keys</td>
<td>Decrease disturbance of nesting/roosting Great White, Tri-Color, and Little Blue Herons.</td>
<td>No-motor zone (300 feet) around one key; idle speed only/no-wake zones in tidal creeks.</td>
<td>Modify</td>
<td>Establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Cottrell Key</td>
<td>Decrease disturbance of wading birds and mangrove terrapins. This is the only island in the lower keys where brown pelicans nest.</td>
<td>No-motor zone (300 feet) around entire key.</td>
<td>Modify</td>
<td>Establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present; consider specific area that is needed for bird nesting - potentially only portion of the island.</td>
<td>Establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Little Mullet Key</td>
<td>Decrease disturbance of nesting/roosting birds.</td>
<td>No-access buffer zone (300 feet) around entire key.</td>
<td>Status Quo</td>
<td>Maintain existing zoning and restrictions.</td>
<td>Maintain existing zoning and restrictions.</td>
<td>1, 2, 6</td>
<td>Status Quo</td>
</tr>
<tr>
<td>Big Mullet Key</td>
<td>Decrease disturbance of nesting Great White Herons, variety of other wading birds, and mangrove terrapins.</td>
<td>No-motor zone (300 feet) around entire key.</td>
<td>Modify</td>
<td>Establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporal No Entry Zone 100 yards around islands.</td>
<td>1, 2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Woman Key</td>
<td>Decrease disturbance of nesting/roosting birds and nesting turtles.</td>
<td>One-half of beach and sand spit on southeast side closed (beach and sand spit above mean high water closed by Department of the Interior).</td>
<td>Modify</td>
<td>Recommendation 1: Maintain established closed zones and</td>
<td>No Entry Zone and establish temporal No Entry Zone 100 yards out from beaches.</td>
<td>1, 2, 3, 4</td>
<td>Recommendation 1, 2, 3, 4</td>
</tr>
<tr>
<td>Boca Grande Key</td>
<td>Decrease disturbance of nesting/roosting birds.</td>
<td>South one-half of beach closed (beach above mean high water closed by Department of the Interior).</td>
<td>Modify</td>
<td>Recommendation 1: Maintain established closed zones and</td>
<td>No Entry Zone (beach) and establish Restricted Entry/No Anchor Zone or No Motor Zone 100 yards out from beach.</td>
<td>1, 2, 3, 4</td>
<td>Recommendation 1, 2, 3, 4</td>
</tr>
<tr>
<td>Marquesas Keys</td>
<td>Decrease disturbance of nesting, feeding, and roosting sea turtles and birds.</td>
<td>(i) No-motor zones (300 feet) around three smallest keys on western side of chain; (ii) no-access buffer zone (300 feet) around one island at western side of chain; (iii) idle speed only/no-wake zone in southwest tidal creek.</td>
<td>Modify</td>
<td>Designate all flats and tidal creeks as Pole/Troll/Idle Zone (Idle Speed/No Wake Zone) on surrounding flats.</td>
<td>No Entry Zone (beach), and establish Restricted Entry/No Anchor Zone or No Motor Zone 100 yards out from beach.</td>
<td>1, 2, 3</td>
<td>Consensus</td>
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</tr>
<tr>
<td>Whitmore Bight/El Radabob Key/Rattlesnake Key</td>
<td>Decrease disturbance to important hardbottom habitat for juvenile lobster, reef fish and sport fish.</td>
<td>New</td>
<td><strong>Recommendation 1:</strong> Establish a potential Closed/Research Only Area from South Sound Creek to Point Willie and Pole/Troll Zone from Point Willie to northeast point of Rattlesnake Key. Will need to determine a viable comparison site that could be adjacent to or another area.</td>
<td>No Entry Zone (South Sound Creek to Point Willie) and No Motor Zone (Point Willie to northeast point of Rattlesnake Key).</td>
<td>2, 3</td>
<td></td>
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</tr>
<tr>
<td>Barnes Sound - Shallow Bays in the NW corner of Barnes Sound</td>
<td>Decrease impacts and disturbance to nesting wading birds and shallow water gamefish. Decrease damage to seagrass and macroalgae community.</td>
<td>New</td>
<td>Establish Pole/Troll Zone.</td>
<td>No Motor Zone.</td>
<td>2, 3</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Pigeon Key - Florida Bay</td>
<td>Decrease disturbance to nesting wading birds, including roseate spoonbills, mangrove terapins, mangrove salt march snakes, roosting frigate birds. Extremely important wading bird nesting. Close proximity to Intracoastal Waterway.</td>
<td>New</td>
<td>Establish No Access Zone.</td>
<td>No Entry Zone 100 yards around island.</td>
<td>2, 6</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Ashby/Horseshoe Key (ensure the name for this area is clear, use name currently on NOAA charts)</td>
<td>Frigate roosting area in Lignumvitae Preserve</td>
<td>New</td>
<td>Establish No Access Zone.</td>
<td>No Entry Zone 100 yards around island.</td>
<td>2, 6</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Gulfside Banks</td>
<td>Fisheries scientists, John Burke and other scientists have studied them in recent years and recommended more protection for a number of reasons: they have been likened to coral reefs in that they support many of the same fish in different life stages (as they grow large and move from the bay to the reef), channels associated with them are important too, they are well defined for experienced boaters, but in high water can be harder to see and have suffered boating impacts; They can be impacted by fishing gear during storms, etc.</td>
<td>New</td>
<td><strong>Recommendation 1:</strong> Establish zones for each bank. <strong>Idle Speed/No Wake Zone on flats.</strong></td>
<td>2, 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moser Channel Banks</td>
<td>Due to their location, the lack of navigational features in, and the poorly draw charts of the area, the banks are hard to locate and are susceptible to boat groundnings. Banks also support diverse assemblages of corals, sponges, macro-algae, and seagrasses.</td>
<td>New</td>
<td><strong>Recommendation 1:</strong> Establish Idle Speed/No Wake Zones for each bank; include buffer zones around each bank. <strong>Idle Speed/No Wake Zone on flats.</strong></td>
<td>2, 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marathon Oceanside Shoreline, From Vaca Cut to Sombrero Beach and ocean facing shoreline of Boot Key</td>
<td></td>
<td>New</td>
<td><strong>Recommendation 1:</strong> Establish Idle Speed/No Wake Zone and leave access channels for homeowners. <strong>Idle Speed/No Wake Zone on flats and access channels open to normal operation.</strong></td>
<td>2, 3</td>
<td></td>
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DRAFT PRE-DECISIONAL FOR SANTUARY ADVISORY COUNCIL CONSIDERATION DRAFT

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<td>Tarpon Wildlife Migration Lane</td>
<td>Protect the oceanside migratory travel lanes used by Tarpon (Megalops atlanticus). The water they frequent (&lt;10ft) is heavily used by boaters. This traffic greatly effects this species and generates daily conflict between fisherman and other users</td>
<td>New</td>
<td>Recommendation 1: Establish an Idle Speed/No Wake Zone (April-June) along oceanside shorelines from east end of Key West to west end of Ohio Key. Consider impacts to and from users.</td>
<td>Idle Speed/No Wake Zone (April-June)</td>
<td>2, 4</td>
<td>Recommendation 1, 2; Consensus for protection, consider size</td>
<td></td>
</tr>
<tr>
<td>Little Pine Mangrove Key</td>
<td>Frigatebird roost, nesting reddish egrets, tri-colored and great white herons. Follow up with USFWS regarding exact island.</td>
<td>New</td>
<td>Establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporal No Entry Zone 100 yards around islands.</td>
<td>2, 6</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Content Keys and Upper Harbor Key</td>
<td>This should be a year round, catch and release, pole/troll zone, except for Content Pass which should be marked and remain open use to allow transit between the basin and the Gulf. Many non fishing boaters ignore the channel and &quot;run&quot; the grass flats in order to reach shallow sandy areas or the Gulf. This zone would end this practice, limiting conflict between flats fisherman and boaters while protecting shallow grass meadows.</td>
<td>New</td>
<td>Establish Pole/Troll/Idle Zone with Content Pass to remain open to normal operation.</td>
<td>Idle Speed/No Wake Zone with Content Pass to open to normal operation.</td>
<td>2, 4</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Island near Torch Key</td>
<td>Huge frigatebird roost, and there is also great white heron activity there. New</td>
<td>New</td>
<td>Establish No Access Zone.</td>
<td>No Entry Zone 100 yards around island.</td>
<td>2, 6</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Key Lois (Loggerhead Basin)</td>
<td>This basin area is highly used by migratory tarpon and flats fisherman from Feb thru the end of June. It is also located near highly populated areas and a heavily trafficked channel (How Channel). This zone would limit conflict between boaters &quot;cutting corners&quot; thru the basin and flats fisherman targeting tarpon there. Northern boundary should be set to allow transit east/west from Kemp Channel.</td>
<td>New</td>
<td>Establish Pole/Troll/Idle Zone.</td>
<td>Idle Speed/No Wake Zone.</td>
<td>2, 4</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Crane Key</td>
<td>Public Scoping comment</td>
<td>New</td>
<td>Establish No Access Zone.</td>
<td>No Entry Zone 100 yards around island. Establish temporal no access zone; when it is determined that a species of concern uses this area</td>
<td>Consensus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marvin Key and the Barracuda Keys</td>
<td>Like the Content/Upper Harbor zone, this zone will protect shallow fishing areas and relieve conflict between fishermen and other boaters who transit the area to reach &quot;party areas&quot;.</td>
<td>New</td>
<td>Establish No Motor Zone (pole/troll). Navigable channels to be Idle Speed Only/No Wake.</td>
<td>No Motor Zone with Idle Speed/No Wake Zone in channels.</td>
<td>2, 4</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Seaplane Basin</td>
<td>Like Loggerhead Basin, this area will seasonally hold large numbers of tarpon and flats fisherman, but is located near a high traffic area. The zone would prevent conflict between flats fisherman and other boaters, but boundaries should take into account transit/access channels.</td>
<td>New</td>
<td>Establish Pole/Troll/Idle Zone (Idle Speed/No Wake Zone).</td>
<td>Idle Speed/No Wake Zone from February to June.</td>
<td>2, 4</td>
<td>Eliminate zone</td>
<td></td>
</tr>
<tr>
<td>Demolition Key</td>
<td>Island that includes great white heron nests and frigatebirds.</td>
<td>New</td>
<td>Establish No Access Zone during bird nesting/roosting seasons or when species of concern are present.</td>
<td>Establish temporal No Entry Zone 100 yards around islands.</td>
<td>2, 6</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Pearl Basin</td>
<td>This zone (from Caldo to Pearl Banks between NW Channel and Man O’ War Harbor) would relieve conflict between fishermen and boats transiting the basin headed to the NW Channel.</td>
<td>New</td>
<td>Establish Pole/Troll/Idle Zone (Idle Speed/No Wake Zone).</td>
<td>Idle Speed/No Wake Zone.</td>
<td>2, 4</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Mule Key</td>
<td>Reduce seagrass damage from prop scarring</td>
<td>New</td>
<td>Install markers at all entrances to the Lakes displaying controlling depth for area. Caution Zone.</td>
<td></td>
<td>2, 4</td>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Lakes area (LaVina Bank)</td>
<td>This zone will protect grass flats/fishing areas from damage by unknowledgeable boaters in what is a poorly marked and poorly mapped area.</td>
<td>New</td>
<td>Pole/Troll/Idle Zone (Idle Speed/No Wake Zone) with the Little Mullet channel open to normal operation.</td>
<td>Idle Speed/No Wake Zone with Little Mullet channel open to normal operation.</td>
<td>2, 4</td>
<td>Consensus</td>
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</tr>
<tr>
<td>Archer Key</td>
<td>Reduce disturbance to nesting and roosting birds and protect sea grass habitat, soft corals, and sponges.</td>
<td></td>
<td>New</td>
<td>Recommendation 1: Establish temporal No Access Zone during bird nesting/roosting seasons or when species of concern are present. Establish temporal No Entry Zone 100 yards around island.</td>
<td>2, 6</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td>Recommendation 2: Install additional mooring buoys and require use of mooring buoys (No Anchoring) and only one vessel per buoy. Establish temporal No Entry Zone 100 yards around island and No Anchor Zone.</td>
<td>2, 3</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Recommendation 3: No overnight anchoring of platforms; no un-attended vessels in shallow water wildlife zones. Establish temporal No Entry Zone 100 yards around island and No Overnight Anchor Zone.</td>
<td>Recommendation 1, 2, 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Barracouta Key Flats</td>
<td>Reduce disturbance to sea turtles and protect important hard bottom habitat</td>
<td></td>
<td>New</td>
<td>0.4 square mile Non-extraction Zone southeast of Barracouta Key Establish Non-extractive, No Anchor Zone.</td>
<td>2, 3</td>
<td></td>
<td>Consensus</td>
</tr>
<tr>
<td>West Barracouta Key Flats</td>
<td>Reduce disturbance to sea turtles and protect important hard bottom habitat</td>
<td></td>
<td>New</td>
<td>2 square mile (reduce by about a mile and a half) Non-extraction Zone southwest of Barracouta Key Establish Non-extractive, No Anchor Zone.</td>
<td>2, 3</td>
<td></td>
<td>Consensus</td>
</tr>
<tr>
<td>Boca Grande Key to Woman Key Shallow Bank</td>
<td>Sach zoning would help to protect grass flat from grounding and limit user conflict in a high traffic area</td>
<td></td>
<td>New</td>
<td>Pole/Troll/Idle Zone (Idle Speed/No Wake Zone) during bird nesting/roosting season or when species of concern are present. Establish temporal Idle Speed/No Wake Zone.</td>
<td>2, 4</td>
<td></td>
<td>Consensus</td>
</tr>
<tr>
<td>Wilma Key</td>
<td>Decrease disturbance of nesting/roosting birds</td>
<td>No Access Zone</td>
<td>New</td>
<td>No Access Zone; Verify with USFWS that this zone is needed because same habitats could be protected by the Boca Grande/Woman Key Bank proposed area.</td>
<td>No Entry Zone.</td>
<td>2, 6</td>
<td>Consensus</td>
</tr>
<tr>
<td>Marquesas Keys</td>
<td>Reduce disturbance to endangered green sea turtles on an internationally important foraging ground from boat strikes and fishery interactions. Also, allows for important research on green turtles and their importance to the seagrass ecosystem.</td>
<td></td>
<td>New</td>
<td>Research Only Zone, 12 square mile area 1 mile due west of the Marquesas Keys evaluated at 10 years.</td>
<td>No Entry Zone.</td>
<td>2, 5</td>
<td>Consensus</td>
</tr>
</tbody>
</table>