

BOATING IMPACTS MANAGEMENT PLAN

FINAL REPORT

**Monroe County Growth Management Division
Marine Resources Department**

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Introduction	1
. Management of Live-aboard Vessels	4
1) Recommended Criteria for Live-aboard Mooring Areas	13
2) Identified Potential Locations of Live-aboard Mooring Areas	14
. Management of Derelict Vessels	21
1) Recommended Procedures to Locate and Inventory Derelict Vessels	25
2) Recommend Procedures for Derelict Vessel Removal	26
. Develop Criteria for Marina Siting	28
. Mooring Buoy Siting	40
1) Coordinate Mooring Buoy Siting with the National Marine Sanctuary	42
. Submerged Land Protection for Shallow Water Areas	44
1) Recommended Strategies for Reducing Seagrass Prop Scarring	46
2) Recommended Strategies for Minimizing Vessel Groundings	47
. Channel Marking	48
1) Develop County Approved Criteria for Channel Marking	52
. User Partitioning	55
1) Identification of User Group Partitioning	55
2) Investigation of User Group Conflicts	63
. Environmental Education for Boaters	65
1) Inventory of Existing Boater Environmental Education Programs	65
2) Recommended Methods to Improve Boater Education	69
. Establishment of a Citizens Advisory Council for Boating Management	71
. Intergovernmental Coordination Mechanism	72
References	75

Appendices

Page

A.	Map of Live-aboard Mooring Areas and Pump Out Facilities	A-1
	Land Use Zoning Chapter of Monroe County Code	A-2
B.	Derelict Vessel Workshop Minutes and Summary	B-1
C.	Marina Siting	C-1
D.	Diagrams of 3 Mooring Buoy and Anchor Systems	D-1
E.	Photographs of Selected Dredging of Shallow Water Resources (Reprinted with permission of the photographer)	E-1
F.	Comprehensive Summary of Channel Marking Public Workshops	F-1
G.	FKNMS Zoning Workshop Summaries	G-1
	Sections of an FKNMS Management Plan Working Document Proposing Zoning Management Alternatives	G-17
H.	Sections of an FKNMS Management Plan Working Document Proposing Environmental Education Management Alternatives	H-1
I.	Agenda Summary requesting that the BOCC approve the MPAC to Serve as the Citizens Advisory Council for Boating Management	I-1
	MPAC Administrative Procedures By-Laws	I-2

I. INTRODUCTION

While the present commercial and recreational marine industries of the Florida Keys rely on access and freedom to harvest Keys marine resources, the future popularity and economic success of the Keys depends on wise management and protection of these resources and ecosystems. In addition to local interest for wise management of Keys resources, there is also national interest. Because of the unique value of this region to the country, in November 1990, Congress encompassed all of the Florida Keys and 2800 square nautical miles of surrounding waters in the designated Florida Keys National Marine Sanctuary.

NOAA, with the cooperation of all other agencies sharing jurisdictional authority in the Keys including Monroe County, has been working diligently to develop a management plan for the new National Marine Sanctuary. A draft management plan is scheduled for completion in May, 1993 and will then undergo 9 months of public review. Incorporated into the draft management plan are numerous management strategies, some of which pertain to the elements of this Boating Impacts Management Plan.

Monroe County Marine Resources has worked especially close with NOAA to coordinate strategy development for managing the issues to be addressed further in both the Sanctuary management plan and Boating Impacts Management Plan. Effort has been made in the proposed Boating Impacts Management Plan to present the concepts or strategies that will be proposed in the Sanctuary plan and then, where appropriate, to develop more specific action plans necessary for implementing selected strategies. For example, strategies to be proposed in the Sanctuary plan for managing derelict vessels call for developing a plan for removing and disposing of derelict vessels throughout the Sanctuary. Marine Resources has investigated the situation and held public workshops to produce proposed procedural actions for removing and disposing of these vessels.

This Boating Impacts Management Plan recommends specific siting criteria, procedures, and strategies; proposes investigations, locations, and intergovernmental coordination mechanisms; and establishes a citizens advisory council to review and assist in implementing these recommendations. The eight issues comprising the scope of the plan are: live-aboard management, derelict vessel management, marina siting, mooring buoy siting, submerged land protection for shallow water areas, channel marking, user partitioning, and environmental education for boaters.

The section of this document on managing live-aboard vessels recommends siting criteria for live-aboard mooring areas and identifies potential locations for those areas. Discussion of the nature of and service needs of live-aboard boaters, the potential impacts of live-aboard boaters and their vessels, and

descriptions of the characteristic features of each proposed mooring areas are also included. Proposed mooring sites are prioritized. Additionally, other management alternatives are briefly discussed.

The section on managing derelict vessels proposes procedures for locating, inventorying, and removing these vessels. A history of the Florida and Monroe County programs is provided with changes being implemented during the present funding cycle. Some ideas for discouraging the incessant pile up of new derelict vessels in Florida waters are also provided.

The marina siting element consolidates all existing regulations enforced by the agencies currently involved in permitting new marinas. This consolidation is examined for overlaps and gaps. From this perspective, recommendations are made for improving the regulation of marina siting/permitting.

Marine Resources has coordinated with NOAA, DNR, DCA, The Nature Conservancy, and Looe Key National Marine Sanctuary in proposing mooring buoy siting criteria. Although the criteria have been roughly proposed, implementation of a comprehensive mooring buoy siting plan should wait for the results of the boater use survey scheduled for completion in the fall of 1993.

In the section on submerged land protection for shallow water areas, strategies are recommended for reducing seagrass prop scarring and for minimizing vessel groundings. The primary strategy for reducing both of these impacts relies on a comprehensive channel marking system discussed in the following section.

In the section on channel marking, criteria are proposed for marking channels throughout the sanctuary. Three different marking situations are described with appropriate criteria proposed for each. Although not a part of this contract, a major dilemma in marking Keys channels is in the selection or development of a marker system. Some of the unique qualities of the Keys are not properly denoted or accounted for by standard marking systems, though workshop participants agreed that a comprehensive channel marking plan is the most appropriate way to address several concerns relating to protecting the resource and minimizing boating hazards.

The user group section identifies user group conflicts and investigates the concept of user group partitioning. In the course of preparing the draft Sanctuary management plan, FKNMS planning staff held 5 public workshops to identify user conflicts and discuss zoning concepts that might reduce these. Data gathered at these workshops is presented in this section.

The section on environmental education for boaters inventories existing boater environmental education programs and recommends methods for improving boater education. These

methods were developed as strategies by DNR and NOAA educational specialists as part of the draft Sanctuary management plan..

The extent to which each issue is developed in this document depends upon many other simultaneous and overlapping projects which directly relate to the issues at hand and which could help guide management actions. Outstanding investigations of propeller scarring damage to the Keys will be fundamental to further development and implementation of a comprehensive channel marking plan. Boater use surveys will be invaluable for siting locations and numbers of mooring buoys. Revisions and expansions of this plan should be completed after these and other new pieces of pertinent information become available.

Before implementing any of the actions or strategies proposed in this plan, all more recent data should be presented to the Citizens Advisory Council for Boating Management (MPAC) and to appropriate agency personnel for their input. While it falls within the purview of agency personnel to continue sharing study results and coordinating management actions, the MPAC has also voiced tremendous interest in remaining involved in the process of resolving these issues.

Action to begin to resolve the conflicts associated with these issues is past due. Thoughtful implementation of the proposed actions presented in this document should contribute to sensible management of the resources and the people that use them. These actions will also help to protect the unique resources of the Keys for future generations. Although these plan elements were developed with specific reference and application to the Keys, many of the issues are common to other areas of the state and most of the management concepts may readily apply to other similar situations.

LIVE-ABOARD MANAGEMENT AREAS

A. MANAGEMENT OF LIVE-ABOARD VESSELS

Living aboard has been a long-standing historic use of the Florida Keys nearshore waters and harbors, though minor compared to the traditional commercial, recreational, and sport activities. The live-aboard boating population is made up of a wide range of people with different interests and different needs. They reside on various types and sizes of boats and floating structures including houseboats, large motor yachts, nearly every class of sailing vessel, and occasionally, grounded derelict vessels. Some prefer mooring at marinas; many prefer anchoring in protective harbors; others prefer anchoring out in the open waters which provide more space and privacy.

The living aboard population includes retirees who have chosen the Keys as their home base but travel by boat to other ports seasonally or sporadically. It includes working class individuals who prefer the lifestyle of living aboard or have sought this alternative to the comparatively high cost of living landside. The population includes many visiting recreational users, either transient or seasonal, who may return to the Keys on an annual or semiannual basis. There are immigrants who use their vessels not only as residences, but also as commercial fishing/sponging vessels. Those that draw the most attention, however, are the derelicts and mavericks who make up roughly 3.2% of the live-aboard population (Antonini, p.49).

Increasing popularity and access to the Keys has led to phenomenal growth over the last decade. Land based growth has contributed to elevated use of the marine resources for commercial, recreational, and sport activities. Lagging growth management actions coupled with increasing demand have caused recent sharp increases in property values. Reactions to these changes include increased use of water dependent residences. As Keys popularity continues with visitors, use of boats for transient and seasonal residences also increases. As resident and visiting populations both increase and compete for the same nearshore resources, conflicts occur between riparian landowners and live-aboard boaters. The increasing frequency of conflicts has led to new interests in managing live-aboard practices.

In 1988-1989, Monroe County Growth Management staff worked with Florida Sea Grant in sponsoring a study "Boat Live-aboards in the Florida Keys: A New Factor in Waterfront Development" by Gustavo Antonini. The study documented, through a combination of field and mail surveys, vessel abundance and distribution, live-aboard resident population, vessel attributes, demography, income and expenditure, seasonality, migration paths, attitudes, and opinions. Live-aboard boaters, marina managers, shoreline residents, government agencies, and civic organizations were canvassed by the surveys.

Because live-aboards require additional, and in some cases, more specialized, shoreside infrastructural services, Monroe

County planners needed an accurate count of the live-aboard populations and a better understanding of their infrastructural needs. The Antonini study indicated that the live-aboard population doubled between 1985 and 1989. Of the 1388 vessels identified during the study, 274 were anchored out. From aeriels flown in January through March (peak season) of 1992, there were 723 vessels anchored in concentrated live-aboard areas and others scattered throughout the Keys. Although derelict vessels cannot always be differentiated from live-aboards in these 1":300' scale aerial photographs, the estimated 200 derelict vessels in the Florida Keys cannot begin to account for the apparent redoubling of anchor outs since Antonini's study in 1989.

At the time of the Antonini study, only 5% of Monroe County's population were live-aboard types. Although this is a small fraction of the population, where their needs vary from the standard needs of shoreside residents, gaps in service availability is likely. Among the shoreside services used by live-aboards are the following:

- restrooms and showers
- laundry
- telephone
- mail
- ice
- food (snack bars, restaurants, grocery stores)
- parking
- dinghy dockage
- pump out facilities
- utilities
- medical, dental, and eye care
- fire protection
- police protection
- schools
- libraries
- solid waste pick-up and recycling centers
- public transportation
- public parks and beaches
- County roads, sidewalks, bike paths, and boat ramps

Where deficiencies in these services exist, such as pump out facilities, dinghy docks, additional solid waste and recycling stations, the resulting concern becomes finding funding to provide these services or increased levels of service. Many land residents oppose using ad valorem taxes to provide services to live-aboard residents who are excluded from the tax base.

Another growing concern in the Keys is nearshore water quality. Evidence from a 1989-1990 Department of Environmental Regulation water quality monitoring study done in Boot Key Harbor supported the hypothesis that live-aboard boaters contributed to local elevated levels of fecal coliform bacteria, exceeding standard limits for Class III Waters. While Monroe

County realizes from other studies, that neighboring on-site disposal systems (OSDS), cesspools, and stormwater runoff are also to blame for nearshore water quality degradation, the draft 2010 Comprehensive Plan includes policies adopted by the Board of County Commissioners to begin minimizing each of these pollutant sources.

Objectives and policies that address the collection and treatment of sanitary wastewater include:

- * Correct existing sanitary wastewater facility deficiencies by 1995 (Objective 901.2).
- * Develop and adopt a wastewater treatment inspection compliance program with remedial actions for OSDS (Policy 901.2.1).
- * Identify and replace all unpermitted cesspools (Policy 901.2.3).
- * Prepare a Sanitary Wastewater Master Plan (Objective 901.4).
- * Amend the Florida Administrative Code to require enforcement of adopted standards set forth in the Sanitary Wastewater Master Plan (Policy 901.4.9).

Policies adopted for managing stormwater include:

- * Ensure that adequate stormwater management facilities are available concurrent with the impacts of such development (Objective 1001.1).
- * All projects shall be designed so that the discharge will meet Florida State Water Quality Standards as set forth in Chapter 17-25, Florida Administrative Code (Policy 1001.1.1(a)).
- * Adopt a Stormwater Management Ordinance which establishes level of service standards for the quality and quantity of stormwater discharges (Policy 1001.1.3).
- * Establish as a priority, the correction of existing drainage problems effecting nearshore waters or Outstanding Florida Waters (OFW) (Policy 1001.2.2).
- * Complete a Stormwater Master Plan to ensure attainment of adopted LOS (Objective 1001.3).
- * Implement the Stormwater Management Master Plan (Objective 1001.4).

Concurrent with these actions, it is then appropriate to also be concerned with minimizing additional anthropogenic pollution contributed by vessels moored or anchored in nearshore

waters or OFW. Monroe County has adopted 8 policies in the 2010 Comprehensive Plan that pertain specifically to reducing pollutant discharges from moored and anchored vessels. Additional policies pertain to more general management of these vessels. Examples of pollutant discharge reduction policies follow:

- * Develop and implement permitting, inspection, and enforcement procedures designed to reduce pollutant discharges into ground and surface waters from OSDs, secondary sewage treatment plants, moored/anchored vessels in near-shore waters, marinas, and stormwater runoff (Policy 102.5.1).

- * Adopt revisions to the Monroe County Code pertaining to live-aboard vessels which:
 - (a) adopt existing federal regulations for required marine sanitation;
 - (b) define the term "live-aboard vessel" in terms of type and duration of vessel use;
 - (c) prohibit live-aboard vessels in residential districts;
 - (d) require nonconforming live-aboard vessels in use as of October 1, 1992 to comply with all applicable regulations on or before September 30, 1993;
 - (e) require that new marinas at which a live-aboard vessel is proposed to be docked provide a pump out station;
 - (f) require all marinas, regardless of size, to provide signage conspicuously posted at dockage sites which educate the live-aboard public about the importance of pumping out and which give clear directions to the nearest pump out stations;
 - (g) prohibit construction of docks which permit commercial docking of boats with on-board toilets unless the dock facility is equipped with a sewage pump out;
 - (h) prohibit construction of docks which permit docking of a live-aboard vessel unless such vessel has an operable holding tank (Policy 202.4.1).

- * Complete a live-aboard study to include:
 - (a) recommend criteria for siting live-aboard mooring areas;
 - (b) identify potential locations of live-aboard mooring areas;

- (c) identify live-aboard sanitation requirements;
 - (d) identify maximum vessel allowances in live-aboard mooring areas;
 - (e) identify methods for registration and fee collection;
 - (f) propose definitions for live-aboard status;
 - (g) identify pollutant loadings from live-aboards; and
 - (h) identify needs for public pump out facilities (Policy 202.4.2).
- * Adopt additional Monroe County Code revisions pertaining to live-aboards based upon recommendations of the live-aboard study (Policy 202.4.4).
 - * Adopt a plan for providing pump out facilities in locations where the demand for such facilities shall not be provided by the private sector or by other public agencies at state and federal recreation sites (Policy 202.4.5).

Reports from the live-aboard vessel management public workshops held by DNR noted that there was much opposition to adoption of any new rules pertaining to live-aboards. The majority of opinions expressed emphasized belief that (1) Federal Admiralty Law superseded the rights of the state to manage live-aboards, (2) enforcement of existing regulations was inadequate, and (3) additional bureaucracy was unnecessary. Recommendations included the sentiment that DNR clearly identify and focus on the specific problems and not write unfair blanket restrictions.

In response to public input at the workshops, the Department of Natural Resources completed an evaluation of the extent that federal law might prevent the state from regulating the anchoring of vessels. Legal council has since concluded that neither the state nor local governments are generally precluded by federal law from regulating the anchoring of vessels.

There are existing federal regulations on marine sanitation requirements that should be enforced by federal law enforcement officers. In the Keys, this enforcement is left to the Coast Guard; but the Coast Guard does not have adequate resources to enforce the federal Marine Sanitation Device requirements. In order to use state or local enforcement officers to enforce rules that exist on the federal level, it will be necessary to adopt the federal regulations as respective state or local code. Monroe County recommends this and has adopted the 2010 Comprehensive Plan Policy 202.4.1(a) above. Chapter 403.413, Florida Statutes, is the Florida Litter Law prohibiting the dumping of raw human waste upon the public or private lands or

waters of the state. The state still needs to adopt MSD treatment standards for state waters.

The other defense given by boaters at the state's workshop was that additional bureaucracy was not needed. Other opinions differ. Dr. Antonini surveyed shore residents, marina managers, and government and civic organizations to learn their perception of the most important waterfront issues related to increased boating activities in the Florida Keys. Ranking the survey results showed a consensus that sewage, garbage, and floating debris, in descending order, are the three most important issues (Antonini p76).

The surveys also sought the same respondents' perceptions of which user groups were responsible for the problems identified. The survey results demonstrated concurrence between shore residents and government/civic organizations that anchor out live-aboards were most responsible for the sewage, garbage, and floating debris identified as problems in the issue survey (Antonini p83). The anchor out population has more than doubled since Dr. Antonini's survey.

Floating debris was also perceived to be largely contributed to by recreational boaters. Dumping litter in canals or coastal waters of the state is prohibited under F.S. 403.413. In addition to enforcement measures, anti-litter education is an important prevention tactic. A local service organization has initiated a "Don't teach your trash to swim" program throughout the Keys.

County planners recognize that sewage and garbage are issues included in the list of live-aboard population service needs inadequately provided for by the private sector or by present infrastructure. In order to provide these services, the County must either (a) identify private sector means for filling the gaps or (b) identify/collect public funds to be used to expand infrastructure to accommodate for live-aboard service needs. Private means already identified and codified in the 2010 Comprehensive Plan are to require all new construction of marinas, commercial docks, or live-aboard docks to provide pump out facilities. The Plan also proposes collecting registration or user fees from live-aboard boaters as a source of revenue specifically appropriated to provide needed infrastructural upgrades and services to live-aboard boaters.

In order to collect registration or user fees, it has been proposed to the Monroe County Board of Commissioners by the Monroe County Marine and Port Advisory Committee (MPAC) that the County establish mooring areas in which mooring buoys and necessary services would be provided to live-aboards routinely and a user fee would be collected. MPAC also recommended that this be done through a franchise that would provide all the services and collect the fees.

The MPAC also suggested that mooring fields could be associated with existing parks where some of the service needs for boaters are already available and where conflicts with riparian land owners would be avoided. In these areas, the government agency operating the park could provide or franchise out any additional services needed and collect fees directly without involving private marinas as middlemen in the process. This idea would minimize user conflicts and simplify management demands associated with multiple contracts and service agreements.

Establishing mooring fields in association with existing parks may work in other areas of the state, but not in the Keys. There is only one park in the Keys that encompasses or abuts navigable water and a protected harbor. Within John Pennekamp Coral Reef State Park, a small mooring field (less than 20 moorings) has been established and a pump out facility has been installed. However, carrying capacity studies and water quality monitoring demonstrate that significant expansion of this mooring area would defeat the resource protection and management objectives stated in the park's primary directives.

Antonini's surveys of live-aboards in 1989-1990 concluded that only 8.6% of the vessels used pump out facilities. This leaves 91.4% that do not. Legally, these vessels are required to have MSDs, latched holding tanks, or port-a-potties. Of these three options, only MSDs treat and/or macerate human wastes so that they may be legally discharged into surface waters.

A 1989-1990 DER water quality monitoring study done in Boot Key Harbor showed the highest concentrations of coliform bacteria in the open harbor amidst anchor out live-aboards. Monitoring stations adjacent to some residential areas and marinas along the harbor's edge also showed elevated levels. These elevations were presumed to be the result of seepage from septic tanks, illegal cesspits, and from stormwater runoff. But live-aboard dumping was the best available explanation for the highest coliform bacteria concentrations being recorded in the open harbor amidst anchor out live-aboards.

An alternate explanation for the low use of pump outs is the lack of facilities available in the Keys. To date there are only nine (9) pump out facilities and some of these are private or remote. In a phone survey of dock-masters done by County staff in October 1992, this assumption was invalidated. Even at pump out facilities that are located in or adjacent to areas of concentrated anchor outs in Boot Key Harbor, there is infrequent use of the facilities. Each dock-master confirmed that there was adequate water depth leading to the pump out for vessels requiring 6' draft, some could accommodate even deeper draft vessels.

The fees for using the pump out facilities vary from \$15, to \$5, to free if the vessel is staying at the marina and paying a slip fee. When the dock-master of a marina operating on Florida Bay directly north of Boot Key Harbor was asked if the pump out could be used by vessels not paying a docking fee, the response was yes. When asked what the fee would then be, he responded that he did not know because no one had ever asked before. So even when pump out facilities are available and affordable, they are still not used.

The Marine and Port Advisory Committee's idea of establishing mooring areas and franchising out their management, included the concept of the franchise running a floating pump out facility that would service every vessel in the mooring area on a regular schedule. The cost of this service would be covered by the mooring fee. With the franchise visiting each anchor-out vessel, they would become aware of any vessel that did not have an operable holding tank or MSD. The proper authorities could then be notified immediately and with the necessary regulations in place, corrective action could be pursued on a timely basis.

Before mooring fields are accepted as the management strategy for 1) protecting Keys resources, 2) providing public facilities to live-aboard boaters, and 3) minimizing user conflicts; other management alternatives should be considered. Protecting Keys resources might be accomplished more easily and less expensively by enforcing current regulations for MSDs, state litter laws, and physical damage to natural features. Federal MSD regulations should be adopted by state and local authorities so that local enforcement officers would be empowered to enforce the existing regulations. Florida Marine Patrol should be allocated increased resources for enforcing State litter laws. State regulations on damage to natural resources should be revised so that they are readily enforceable.

Providing public facilities might also be accomplished without establishing designated mooring fields. Agency agreements with nearby marinas could provide public restrooms, showers, dingy dockage, and pump out facilities. Renewal requirements for leases entered between the DNR State Lands and over 75 Keys' marinas could demand that these marinas provide the necessary public facilities. Agreements with DOT might provide parking. The County could provide an extra dumpster and recycling bins near the anchorage. None of these actions requires the establishment of designated mooring fields.

User conflicts can be minimized through education and mutual efforts of good will. Cleaning up the water, taking care of the seagrass, disposing of trash and debris properly, and being considerate of neighbors will go a long way towards resolving the conflicts. The County, in cooperation with the state, is making large strides in removing unsightly and hazardous derelict vessels. Removal of these eyesores will

allow riparian owners to better evaluate the true nature of live-aboard vessels and their residents. Establishing standard buffer zones for different types of land use will provide both land owners and boaters with elbow room which will diminish noise and space conflicts.

Although these actions are not inexpensive or immediate, they may be less expensive or less time consuming than establishing and managing mooring fields. Looe Key management has promoted education and educational enforcement. With limited management and enforcement resources, education can make a significant difference. Bolstering enforcement of current regulations, working to increase provision of live-aboard service needs through upgrading existing facilities, and implementing educational programs; will curtail or eliminate many of the existing concerns and conflicts. Once these actions are taken and the results are monitored, any continuing concerns requiring further action could be identified and addressed appropriately.

Monitoring the effects of any actions taken will be important in evaluating the success of those actions and in determining courses of action for the future. If monitoring and other available information show that further management actions are necessary to protect water quality, then holding tanks on small, maneuverable vessels could be used to mandatorily pump out live-aboards for a reasonable fee. The convenience of this service to boaters may well be worth the fee.

If mooring fields are the preferred management alternative, then the County should consider what criteria are appropriate for siting mooring areas. These criteria should take into consideration all the anchor out live-aboard issues and service needs previously identified. Due to the unique nature of the Florida Keys, an additional issue that must be considered by federal, state, and local managers is resource protection. Likewise, growth in Monroe County is currently limited by hurricane evacuation time. Cars used by live-aboard residents for evacuation should also be considered in the mooring field criteria although no study has been done to establish how many live-aboard residents would evacuate by car.

A plan should be developed for managing growth of water based residential uses. Monroe County has adopted a building allocation system to guide land based growth based on the carrying capacities of service infrastructures and the sensitivity of Keys resources. Water based residential uses should be managed likewise. The risk of not managing water based residential use could be loss or degradation of the very resources singled out for protection by the rigorous permit allocation on shore. The MPAC advocated placing a cap on the number of live-aboards serviced in the Keys. If future studies advised downsizing the number of resident live-aboards, then attrition methods could be implemented.

As legitimate mooring fields are established, unpermitted private moorings should be persistently and systematically removed. These moorings constitute illegal depositions of fill. They may also pose a hazard to navigation, and they may discourage proper use of established mooring fields.

Recommended Criteria for Live-aboard Mooring Area

- 1) Live-aboard mooring areas should only be established where adequate pump out facilities and wastewater treatment are currently available or could be provided before such establishment was complete. Necessary facilities could be provided on shore or on a floating vessel.
 - 1a) All vessels in the mooring area must meet applicable federal, state, and local MSD requirements. After verification, vessels could be issued a dated sticker to indicate their compliance.
- 2) Live-aboard mooring areas should only be established where other live-aboard service needs are provided including: public restrooms and showers, dinghy dockage, parking, solid waste pick-up, and recycle bins.
- 3) Live-aboard mooring areas should only be established in water bodies of sufficient depth. A minimum amount of clearance from the bottom at mean low water should be established for all mooring vessels.
- 4) From each and every mooring buoy there should be navigable access to a Coast Guard approved marked channel or to navigable open water.
- 5) Live-aboard mooring areas should only be established where minimal damage to benthic flora and fauna will result. Previously dredged or spoil areas are preferred. Other habitats may be considered as research data yields information on the effects of mooring in those habitats.
- 6) Live-aboard mooring areas should only be established in water bodies that meet acceptable tidal amplitude, turnover, or flushing rates through natural or artificial means. Acceptable rates are yet to be determined though ocean side sites are preferred to Bay side.
- 7) Live-aboard mooring buoy arrays should be established in non-residential areas or at minimum acceptable distances from residential areas. Minimum acceptable distances are yet to be determined and could vary depending on the type of residential use.
- 8) Live-aboard mooring areas could be established near residential areas where all three of the following cases

are true (1) a non-residential area is not available, and (2) there were at least 5 resident live-aboards in the anchorage area on January 1, 1993, and (3) relocating currently existing live-aboard boaters to an appropriate non-residential area would cause unnecessary hardship to the live-aboard boaters in question. These areas should be phased out through attrition of resident live-aboards.

- 9) Live-aboard mooring areas should only be established where their evacuation in case of a hurricane would not cause exceedances to the traffic allowances as determined in the hurricane evacuation traffic study.
- 10) Temporary mooring would be allowed outside of designated mooring areas for safety during inclement weather.

Identify Potential Locations of Live-aboard Mooring Areas

Potential locations for live-aboard mooring areas should be selected based on the criteria given above and on consideration of some boaters' dependence on general proximity to private sector jobs and services. Management objectives for establishing mooring areas for live-aboards include minimizing water quality degradation, user conflicts, and damage to shallow water habitats. Successful implementation of mooring areas will require consideration of factors that prompted boaters to choose the areas where live-aboard concentrations exist now.

Staff observed an apparent correlation between the location of major grocery stores and the proximity of anchor out live-aboards. Although live-aboards may not purposely congregate around grocery stores, there may be common factors that attracted both the live-aboards and the grocery stores to the same vicinity. One way to assure that recommended locations do provide the private sector services of interest to live-aboards is to look at areas already populated by these vessels. The visible void of both grocery stores and anchor out concentrations throughout the lower and middle keys excepting Key West, Big Pine Key, and Marathon, should be noted while proposing designated mooring areas.

A rough count of anchored vessels incidentally photographed in the 1992 REDI Aerial Map Atlas of Monroe County, Florida indicates that there were approximately 750 vessels anchored off the Keys during the 1992 spring season. Over one third of these were anchored off of Key West. Boot Key harbored almost another third. The remaining vessels were scattered throughout the Keys in smaller areas of concentration, although a preponderance were off the upper keys.

The 1992 REDI aerial photographs used for this count and for each of the identified live-aboard areas discussed below, were taken in the spring season as the Keys approached peak

concentrations of live-aboards in the Keys. It is not possible to discern from the photographs whether the vessels are in storage between recreational uses or are currently used as a residence. It is possible to discern anchored or moored vessels from those that are underway or adrift. Some may be derelict vessels though this state is also commonly discernable from the aeriels.

Live-aboard management in Key West has followed a separate course from the rest of Monroe County and is not addressed thoroughly in this document. Briefly, the City of Key West is currently involved in establishing a mooring field with a pump out barge north of Key West off of Fleming Key. The city is also installing docking slips in Garrison Bight at the Key West Municipal Marine for moving Houseboat Row from its historic South Roosevelt Boulevard location. For more information on live-aboards and live-aboard management in Key West, contact Chuck Hamlin at the Key West Port and Transit Authority.

If designated mooring areas are selected based on the recommended criteria, then the first of these is concerned with the availability of adequate pump out facilities. There are only eight pump out facilities in the Keys outside of Key West. There are only three concentrations of live-aboards near these existing pump-out facilities: Coco Plum, Boot Key Harbor, and Cow Key Channel. Of these, only Boot Key offers a large enough expanse of sufficiently deep and safe water for establishing a mooring field, but much of Boot Key Harbor is surrounded by residential land use. Implementing recommended buffers between the residential use areas and the mooring area will constrict the dimensions of the harbor currently used for anchoring out.

Since no existing locations meet all the recommended criteria, the next step is to examine the Keys for appropriate areas where provision of necessary live-aboard public services could be arranged. One way to identify areas that provide the private sector jobs and services of interest to live-aboards is to look at the areas where an abundance of boaters have previously chosen to moor. Below, each current and popular anchor out location is evaluated for its potential to meet each of the recommended criteria.

Assuming that the services enumerated in criteria one and two could be provided to any location that meets the other criteria, then the questions remaining are whether the current anchor out locations meet the natural features recommendations in criteria three through six and the man-made features criteria addressed in seven or eight. Criteria nine is not an issue at this moment since US 1 road widening has been completed in the most critical areas.

Starting in the lower keys between Stock Island and Boca Chica, there are two anchor out concentrations. On the southwestern side of Boca Chica Channel, 47 anchored vessels

were counted in the Spring 1992 REDI aerial. The area consists of relatively shallow water over an area of seagrass. It is accessed by both deep water and a public boat ramp. The channel is flushed regularly by tidal action. The anchorage is adjacent to urban residential-mobile home, recreational vehicle, and mixed land use. A small anchorage here might be acceptable if established outside buffers from residential land use areas and in the deepest available waters.

On the southeastern side of Boca Chica Channel, adjacent to military facilities were an additional 24 vessels anchored in a deep, dredged basin accessible from open water by a deeply dredged Coast Guard marked channel. These vessels are privately owned by military officers associated with the Boca Chica Naval Base. If an agreement could be worked out with the military to provide recommended service facilities, this location would be ideal for live-aboard mooring use.

In Pine Channel, south of US 1, 23 vessels were counted (in the REDI aerials) anchored in four to nine foot depth water over seagrass and hardbottom algal communities. The area is accessed by a marked channel to open water on the ocean side and flushed by significant tidal action. It is lined on both sides with residential land use but the deeper areas outside substantial residential buffer zones might be considered for establishing a mooring field. By shifting the mooring area slightly south into Newfound Harbor Channel, user conflicts could be minimized further. An agreement with an adjacent marina would probably be necessary for providing the area with the necessary live-aboard services.

East of Big Pine Key in Bogie Channel, 13 vessels (mostly commercial) were counted anchored over very shallow seagrass beds. Recent propeller damage to these seagrass beds is likely the result of this inappropriate use. The area is between native area zoning on No Name Key and residential use on Big Pine Key. Both islands contain critical habitat of the endangered Key Deer that are known to swim across this channel. Although there is significant tidal flushing, there is no marked access channel to open water on either the Bay or ocean side. This area should not be considered.

As mentioned earlier, Boot Key Harbor meets a majority of the recommended criteria and harbored 234 vessels on the day of the REDI photograph. There is marked navigable access to the harbor through Sister's Creek and also from the east end of the Seven Mile Bridge. Average depth exceeds 7 feet mlw and the predominant benthic habitat is seagrass. The harbor's physical nature is very similar to the successfully managed Destin Harbor. Numerous plans for managing vessels within the Boot Key Harbor have already been developed. A Boot Key Harbor Task Force established in 1983 by the Board of County Commissioners prompted one unsuccessful attempt to franchise harbor management to the private sector. Subsequent attempts have not been made.

By dedicating buffers between residential land use areas and the mooring field, user conflicts could be reduced. By providing acceptable levels of service to the live-aboard population, additional conflicts could be reduced. Using artificial means to increase flushing and turnover rates would enhance water quality especially in the east end of the harbor. With planning and management, Boot Key Harbor could be maintained as a viable mooring area for Marathon based live-aboards.

Counting vessels on both sides of Coco Plum Drive, yielded 29 anchored vessels. Both areas are small, relatively shallow, and insufficiently flushed to harbor an established mooring field of any size. Since there is already a pump out facility nearby, and there are marked channels accessing either side, this area could continue to host anchored vessels used for recreation, but not residential use.

Criteria number six raises the issue of flushing and turnover rates in proposed mooring areas. Geological differences separate the upper keys from the middle and lower keys in this respect. The upper keys stand between the shallow Florida Bay and the Atlantic Ocean. The lower and middle keys separate the Gulf of Mexico from the Atlantic. The extension of the Florida shelf under Florida Bay and the many seagrass flats, mud banks, and mangrove islands that impede sheet flow across Florida Bay, collectively reduce the 1 to 2 foot tidal amplitudes experienced in the lower keys to 1 to 3 inches in the upper keys. The result is that turnover rates for water bodies on the Bay side of the upper keys are low and are not preferred for establishing mooring areas except at tidal passes between the upper keys which do experience considerable flow rates.

In the upper keys, in a small, narrow channel north of US 1 between Wilson and Windley Keys, 23 anchored vessels were counted. The channel depth varies from three to seven feet mlw and the benthic community is seagrass. There is navigable water on the Bay side to the Intracoastal Waterway and a marked channel south of US 1 leading out to open water. Although this site is in a channel, the channel appears to have been predominantly blocked years ago by fill so that it is not flushed regularly by tidal action. The channel is surrounded by native area zoning on most sides but an Area of Critical County Concern (ACCC) around the south end. Intensity of land use and sub-minimal levels of service prompted the ACCC rating. Until these issues are resolved, no additional stress should be placed on this area. One small marina is located adjacent to the channel, but cannot be directly accessed by the vessels because of shallow flats separating the two. Without rezoning some of the surrounding area and dredging in some areas to create navigable access to the marina and enhance tidal flushing, it would be impossible to properly service live-aboards here.

On the north shore of Tavernier, Community Harbor was observed sheltering 27 anchored vessels. Community Harbor is a

shallow bay over seagrass and algal benthic communities. A narrow channel approximately 4 feet deep at mlw provides access for boats and extremely scant flushing action from changing tides. The harbor is surrounded by native area and mixed use zoning. If artificial circulation and live-aboard services were provided to this area, it might potentially be made appropriate for shallow draft vessels only.

Rock Harbor is located oceanside of Key Largo just inshore of Rodriguez Key. This area was observed harboring 17 anchored vessels. Water depth varies from 5 to 8 feet mlw over a mixed benthic habitat of seagrass and hardbottom communities. The area lies immediately adjacent to open ocean water and should be well flushed, but it also lies along the border of John Pennekamp Coral Reef State Park. The nearest land uses are sub urban commercial and urban residential-mobile home. With suitable buffers established around the residential land use, appropriate coordination with or exclusion from John Pennekamp Park, and other agreements entered to provide the area with necessary live-aboard services, this area might serve to harbor a significant number of vessels.

Almost directly across Key Largo from Rock Harbor, is Sunset Cove where 33 vessels were anchored. The water depth varies from 3 to 5 feet mlw. Nearby, the Intracoastal Waterway runs through Buttonwood Sound, providing boaters with a marked course along the bay side of the upper keys. Sunset Cove's benthic community is spotted with large seagrass patches. The tidal amplitude is only a few inches providing for little flushing of the cove. Additionally, the State of Florida refused to permit a proposed live-aboard marina in Sunset Cove because of the perceived impacts to water quality and seagrass beds. This ruling was upheld by the Florida Division of Administrative Hearings in 1990. The adjacent land zoning is improved subdivision and sub urban commercial. Considering the shallow depths, the lack of flushing, and the nearby residential use, this area is not very suitable for establishing a live-aboard mooring field.

Tarpon Basin lies bayside of Key Largo between Buttonwood and Blackwater Sounds. Its average depth of 5 feet mlw over seagrass harbored 20 anchored vessels in the spring 1992 REDI aerials. Tarpon Basin is accessed by the Intracoastal Waterway which enters and leaves the basin through 2 narrow channels through which all tidal action has to pass. Turnover rates in the basin are therefore estimated to be very low. The northern portion on Tarpon Basin is within Everglades National Park. The only development is along the southwest shore. Roughly half of this area is zoned urban residential-mobile home while the other half is sub urban commercial. Establishing a live-aboard mooring field in Tarpon Basin would require establishing buffers from the residential use areas and providing required pump out with additional back up systems for emergency situations.

Largo Sound also harbors a small number of live-aboards. This mooring area has been established by John Pennekamp Coral Reef State Park and a pump out facility is provided. As mentioned earlier, however, expansion of this mooring area would conflict with the resource protection and management objectives of the park.

Point Laura is located just south of the Monroe-Dade County line on the north side of US 1. An estimated 50 - 60 vessels are currently anchored in Manatee Bay waters that range from 4 to 5 feet in depth at mlw. Some of these vessels are occupied by Hurricane Andrew victims who have sought refuge here in their boats or on borrowed vessels. There is a Coast Guard marked channel into Barnes Sound. There is almost no tidal variation so turnover rates are probably slow. Manatee Bay is surrounded by native area zoning except for a small area of residential and sub urban commercial. User conflicts should be minimal if a buffer was established around the residential area. Agreements to provide necessary facilities could be pursued with an existing marina. An emergency pump out facility would also be advisable given the slow turnover rates in the bay.

On the south side of 905A, Card Sound Road, just before mainland Florida, there are numerous houseboats, vessels, shacks, and shanties in the mangrove fringe right of way or in a small dredged cut adjacent to the road. There are no marked channels to navigable water and the turnover rates are very slow. The only way to service this area would be to have a small vessel, equipped with a holding tank, pump out the live-aboards and then ferry the holding tank across Barnes or Card Sound to a sewer hookup. The services enumerated in criteria two would be even more difficult to provide. This is not a recommended area.

Three of the eight pump out facilities referenced earlier are considerably distant from any concentration of anchor out live-aboards. The facilities at Hawks Cay, Ocean Reef Club, and Faro Blanco Marine Resort service vessels moored at slips in their private marinas. Faro Blanco is surrounded by destination resort and mixed use zoning. Hawks Cay is located in an area that is almost exclusively residential. The Ocean Reef waterfront is zoned residential or native area. None are suitable for establishing anchor out mooring fields.

In summary, there are no areas of the Florida Keys that are currently suitable and adequately serviced for harboring a live-aboard mooring field. There are a few locations that only require minimal modifications to become appropriate for servicing live-aboards. With this in mind, the most suitable locations for establishing live-aboard mooring areas in the Florida Keys are:

Boca Chica Channel,

Pine Channel
Boot Key Harbor, and
Rock Harbor.

These areas are not properly serviced now, but they do provide the best natural and developed features for meeting potential live-aboard management objectives.

There are five additional current use locations that have considerable limitations in their potential for harboring established mooring fields. They would require intense management efforts to ensure the continued health of the resources and to minimize user conflicts. These locations are:

Coco Plum,
Community Harbor,
Sunset Cove,
Tarpon Basin, and
Point Laura.

These locations already host live-aboards but their suitability for this use is contentious. Pending DNR and Coast Guard legal counsel, these areas might be better managed as designated mooring fields or through alternative management actions, than left at present status quo.

Locations that are inappropriate for establishing or expanding mooring fields are:

Bogie Channel,
Largo Sound, and
Card Sound Road.

In Appendix A there is a map showing the names and distribution of anchor out live-aboard concentrations and the nine existing pump out facilities in the Florida Keys. Appendix A also includes the Land Use Zoning section of the Monroe County Code.

DERELICT VESSELS

B. MANAGEMENT OF DERELICT VESSELS

Derelict vessels are not new to the Keys. The reef tract is littered with the remains of unfortunate Spanish fleets that grounded upon the reef crest during stormy weather or on a moonless night. These centuries old ships carried trade goods and booty and their remains supported an entire salvage industry that still exists today. They are considered historical resources and are protected in some areas of the Keys because of their educational and historic value to the American public.

Most of today's derelicts, however, are discarded hulls of recreational or commercial vessels already stripped of all valuable fittings or accoutrements. They have been abandoned and defaced by the owner and left for public funds to remove and dispose of properly. Florida Marine Patrol started reporting derelict vessels in 1982. The State initiated a derelict vessel removal funding program in 1985 but the County did not receive its first grant award until 1989. By that time, FMP had reported 203 derelict vessels that had remained in place for up to seven years and many officers had lost enthusiasm for reporting more vessels.

Since 1989 Monroe County's derelict removal program has become very active removing 104 vessels with \$185,796 in grant awards. During that time, County Extension Service staff running the program have worked closely with DNR in Tallahassee, local FMP officers, and the contractors to improve the program. Through surveys, written and verbal comments, and the derelict vessel workshop, both Extension Services and Marine Resources have sought comments on how to make the program more efficient and more manageable.

Monroe County's 2010 Comprehensive Plan calls for development of a management plan for derelict vessels. Policy 203.5.2 states that:

"Monroe County shall develop a management plan for derelict vessels, including:

- a) identification of procedures for locating and inventorying derelict vessels; and
- b) identification of procedures for removal of derelict vessel.

Monroe County shall immediately commence implementation of the derelict vessel removal plan."

Now that the County is active and vessels are finally disappearing from Keys waters with regularity, FMP officers are regaining interest in reporting new derelicts. Extension Services is also working with the FMP to get old derelict vessel reports updated. Derelict vessels move, disintegrate, and

sometimes disappear. Occasionally, they are shored up by homeless people and used as shelter. The result of all these events is that over the years the vessels are unrecognizable based on the original reports. It is important to the removal process that the contractors have updated reports so they can readily identify the vessels in question.

Derelict vessels (DVs) are declared as such by the Florida Marine Patrol. Boats that have not been reported by the FMP cannot be removed using derelict vessel grant funds. Furthermore, DVs that have not been specifically approved by the granting agency cannot be substituted for vessels that disappear after receipt of the grant award. For these reasons, it was recommended during the derelict vessel workshop, that all DV reports be updated annually. Additionally, Monroe County sends all its available DV reports to DNR with the grant application so that there are extra approved vessels to substitute if some cannot be located or identified.

Some derelict vessels disappear while others are distorted beyond recognition. Written comments from contractors requested better maps of the DV locations and suggested including loran coordinates. Marine Patrol officers are submitting better maps now and have tentatively agreed to update DV reports annually. Updating the reports with new photographs and repainting the DV numbers on the vessels should ease the contractors' task of locating and identifying the DVs.

When the program first began, it was important to remove vessels in all areas of the Keys so that FMP officers, political figures, boaters, and shoreline residents would finally see action. This distribution of DV removal is not as economically efficient as concentrating on a limited number of geographic areas where DVs are relatively concentrated. Recent removal phases have focused on totally cleaning up one harbor at a time. It is hoped that this approach will return some areas to their pristine appearance and thereby discourage future abandonment of vessels in the vicinity.

Several attendees of the DV workshop stressed the importance of prioritizing the removal of vessels posing navigational hazards. Several salvors voiced concern that there were occasionally floating derelict vessels that could ground on sensitive habitat and should be approved for emergency removal. There is no current means for using DV grant funding for these emergency situations. Extension Service staff have worked with DNR staff to implement a process that allows timely verbal approval from Tallahassee to permit the use of Boating Improvement Funds for these emergency situations. The process has been used successfully twice to date.

Without using Boating Improvement Funds to remove these vessels immediately, floating derelict vessels will drift until they potentially ground on a reef or a shallow seagrass flat

causing unnecessary damage to marine resources. In the case of a reef grounding, the resources are damaged, there is expensive damage assessment done, and then there is the cost of removing the vessel carefully so as to minimize further damage caused by the removal process. If it grounds on a seagrass flat, the vessel can be reported by FMP and the County can apply during the following fiscal year to DNR for grant funding. Meanwhile, the derelict eyesore continues to settle more deeply into the mud. In either case, it would have been better and cheaper to remove the vessel while it was still floating. Some provision for this situation should be made so that derelict vessel grant funds are available to local governments for these unpredictable situations.

Gustavo Antonini completed a study in 1989 entitled "A Method for Siting and Prioritizing the Removal of Derelict Vessels in Florida Coastal Waters: Test Applications in the Florida Keys." The study suggested several ranking scales for prioritizing vessels for removal. One of these was based on the vessel's potential threat to the environment, public health and safety, navigation, or water quality. Another was based on the difficulty or cost of removal. The reasoning behind the two schemes was that vessels posing significant threats should be given high priority and vessels that would be easy to remove would be relatively cost effective. Vessels that are non-threatening and difficult to remove would logically be the lowest priority.

The study used both ranking systems to prioritize all the reported DVs. The resulting matrix showed that only 8 of the 59 high priority vessels were easy to remove. Compare that to 30 of the 59 high threat vessels that were ranked very difficult to remove (Antonini p38). Clearly many difficult vessels must also be removed. This system had two other disadvantages: the high priority, low cost boats were distributed throughout the Keys which increased removal contract costs, and the system did not consider the advantages of completely cleaning out all the derelict vessels from a single harbor.

The study also proposed using some of the DVs as fishing habitats or artificial reefs. In the past, this has been done with several large steel hulls. Currently, there is only one permitted artificial reef site in the Keys. New artificial reef proposals would be reviewed on a case by case basis by Florida Keys National Marine Sanctuary staff. They would be approved on the basis of their merit to provide an additional resource to the sanctuary, not as a means to avoid tipping fees at the landfill.

As mentioned earlier, Monroe County sends in reports of every FMP recorded DV with its grant application. Tallahassee responds with a grant award that allows the County to chip away at the backlog of vessels reported since 1982. Monroe County staff then choose a number of vessels primarily by location,

also considering potential threats and ease of removal, and include these vessels in the bid specification package. The package is distributed to all interested contractors. Staff awards the contract to the lowest competent and capable bidder. In order for the lowest bid price to come in under the grant award, County staff have to be conservative while assembling the bid package.

During fiscal year 1992, the recession and other local factors made the bidding more competitive than usual. The bids came in very low and left almost half of the grant award unencumbered. Extension Service staff immediately went to work assembling a second bid package including vessels estimated to use the remaining grant funds. This process was repeated until the four separate contracts were executed, committing \$92,439 of the total \$93,550 awarded.

The bid process is a very time intensive and demanding process for County staff. In the next grant cycle, Monroe County will try to avoid multiple bid phases by having the contractors bid a cost per linear foot based on a given list of vessels. The contract will be awarded based on competency and the lowest bid per foot. County staff will determine the number and specific identification of vessels such that their removal cost, based on the contracted bid per foot, will approximately equal the amount of the grant award.

In the contract Monroe County enters with contractors for the removal of DVs, the contractor assumes liability for damage done to the natural resources while removing a derelict vessel. Some consideration has been given to the County stipulating in the contract specific equipment that should or should not be used in certain habitats. These requirements could be used to help ensure that only competent contractors are awarded the bid. They could also stifle creative thinking and means for improvement. Requiring the use of specific equipment could cause unnecessary expense to the contractor which in turn would drive up removal costs to the County and State. County staff have compromised by meeting with the contractors before the work is begun to review their proposed removal procedures. This is intended to minimize the risk to natural resources without stifling creativity.

Although the derelict vessel program focuses on removal, options should also be considered to provide boat owners with alternatives to paying exorbitant fees for proper disposal of a vessel at a landfill, or illegally abandoning the vessel where public funds will be required to remove them. If derelict vessel grant funds could be used to pay tipping fees at the landfill during an "amnesty day" project, maybe future derelicts could be avoided. If derelict vessel grant funds could be used for education, maybe more boaters would dispose of their boats properly. If derelict vessel grant funds could be used to manage overhead and acquire capital equipment necessary for

chipping fiberglass boats and incorporating the chips into asphalt used on County roads, maybe we could avoid the eyesores, navigational hazards, health and safety concerns, damage to natural resources, tipping fees, and the resultant overflowing landfills caused by future derelict vessels. These alternatives are not currently acceptable uses of derelict vessel grant funds. The scope of use for DV removal funds should be reconsidered by DNR.

Identify Procedures to Locate and Inventory Derelict Vessels

This is a relatively new and evolving program. Monroe County Extension Service staff have worked closely with DNR staff and contractors to simplify the paperwork and enhance the program. Procedures should be subject to change upon the supposition of a better idea or a change in the program goals.

Locating and Reporting Derelict Vessels

- 1) If a boater comes across a floating derelict vessel that may endanger a federally protected coral reef, then the nearest Sanctuary personnel should be notified immediately.
 - 1a) Sanctuary personnel should secure the vessel, notify FMP so that they can gather pertinent information and log a DV report, and notify a on-call contractor to remove and dispose of the vessel.
- 2) If a floating derelict vessel endangers a nearshore patch reef or seagrass bed, or if a derelict vessel, floating or grounded, is spilling fuel, oil, or any other contaminant that is harmful to the environment, then Florida Marine Patrol should be notified immediately.
 - 2a) Florida Marine Patrol will report to the site immediately and determine whether the derelict vessel poses any immediate threat and whether it should be classified as an emergency situation.
 - 2ai) If the derelict vessel is not classified as an emergency, then Florida Marine Patrol will assign the DV a number and paint that number on the vessel, fill out a DV report form, take photographs, and submit a copy of the report and the photographs to the County for removal through the DV grant program.
 - 2aii) If the derelict vessel is classified as an emergency, then Florida Marine Patrol will notify County staff immediately. County staff will notify DNR Boating Improvement Fund trustees in Tallahassee and receive verbal permission to use Boating Improvement Funds to

remove the DV immediately. Once approval to use BIFs is obtained, the County requests faxed bids for immediate DV removal from at least three contractors and the lowest bidder is given a verbal award. Hard copies are handled immediately afterwards.

- 3) Any other derelict vessel should be reported as soon as possible to the Florida Marine Patrol.
 - 3a) Marine Patrol will proceed as explained in 2ai above.
- 4) Any vessel discovered by Marine Patrol during a routine patrol will be reported in the same manner as scenario 2ai or 2aai, which ever is appropriate.

Inventory of Derelict Vessels

- 1) Florida Marine Patrol keeps an inventory of all the derelict vessels reported and removed.
- 2) Monroe County maintains a database of all the DVs reported by FMP, DV report updates, and the date DVs are removed by Monroe County.

Identify Procedures for Derelict Vessel Removal

- 1) Florida Marine Patrol must fill out a report on the derelict vessel, file one copy in the local FMP office, send a copy to DNR in Tallahassee, and send a copy to Monroe County.
- 2) Monroe County staff prepare the Derelict Vessel Grant Application. All valid DV reports are submitted to DNR in the application package.
- 3) Monroe County staff prepare a resolution and agenda packet for presenting the grant application to the Board of County Commissioners for their approval.
- 4) Monroe County staff submit the grant application and executed resolution to DNR.
- 5) Upon notice that Monroe County has received a grant award, staff prepares and presents the bid package to the Board of County Commissioners for their approval to advertise a call for bids.
- 6) When the project agreement is received from DNR, staff agendas this item for Board approval and execution. After the agreement is executed by Monroe County, it is sent to the Department of Natural Resources for final signatures and execution.

- 7) Staff distributes bid packages to all interested contractors. Closed bids are accepted and the lowest bidder is awarded the contract.
- 8) Staff agendas the contract with the salvage company before the Board of County Commissioners for their approval to execute.
- 9) Staff meets with the contractor and reviews their proposed procedures for removing the derelict vessels.
- 10) The contractor must document the removal of each vessel with photographs of the removal process.
- 11) Florida Marine Patrol must verify verbally and by letter to County staff that the DV has been removed.
- 12) The contractor must verify the disposal of each vessel at an appropriate landfill with additional photos, a written description of the dismantling, truck loading, and dumping process, and the signature of a landfill or disposal site employee.
 - 12a) In special circumstances, e.g. when boats are dismantled beyond recognition, DNR requires additional verifications from the marina manager where the vessel was dismantled, and the truck driver who delivered the vessel debris to the landfill.
- 13) After the contractor has removed the derelict vessels, and their removal has been verified by FMP and the landfill operator, staff processes the contractor's invoices for payment. Partial payments can be issued for vessels already removed and verified.
- 14) After the County issues payment to the contractor for completed and verified work, a reimbursement request, not exceeding the amount of the grant award, is prepared and submitted to DNR.

The minutes and a summary of the Derelict Vessel Workshop held by Monroe County staff are incorporated as Appendix B.

MARINA SITING CRITERIA

MOORING BUOY COORDINATION

D. MOORING BUOY SITING

Anchoring in coral reef habitat frequently results in damage to the fragile reef structure. The cumulative impact of many visitors anchoring at a popular site may decrease the reef's health and vitality. Mooring buoys can be installed in these popular areas with relatively little damage to the reef. The mooring buoys provide boaters with a marine hitching post that is easy to use and that inhibits anchor damage.

The effectiveness of a mooring buoy array depends on choosing the proper installation type for the substrate, providing routine maintenance, determining an appropriate number and density of buoys, and carefully selecting the buoy locations. Different substrates require different types of cement and different sizes and types of buoy anchors. Routine maintenance of each buoy ensures the safety and confidence of the users. The number and density of buoys placed depends on the maximum number of vessels present at any one time and the carrying capacity of the reef. The mooring buoy anchors must be installed with adequate spacing from one another and in relatively open areas to prevent the down line from chaffing or breaking the reef structure. All of these factors are important to the success of a mooring buoy array.

Monitoring the moorings in a buoy array is also important to their success and to curtailing maintenance costs. The wear and tear on individual moorings varies according to anchor type, substrate, frequency and type of use, weather and tidal patterns. The data received from monitoring the moorings assists in developing maintenance schedules specific to each site. Monitoring and maintenance are also the best available methods for minimizing the legal liability concomitant with the placement of mooring buoys.

There are three basic types of mooring buoys appropriate for use in the Keys. The major difference between the three types are in the way that they are secured to the bottom. The Halas Mooring System is shackled to an eyebolt cemented into a hole drilled into the sea floor. This system is most appropriate in hard bottom substrate. The Manta-Ray Buoy Anchoring System consists of a utility pole type anchor arc-welded to an anchor rod and driven into the substrate by a hydraulic underwater jack hammer and gad. This system can be used in mixed bottoms of clay, sand, gravel, broken bedrock, and coral rubble. Traditional Mooring Systems are typically fixed to a heavy cement block. They are not appropriate in sensitive habitat but may be used in shallow mud, sand, or gravel bottoms. Diagrams of the three mooring buoy and anchor systems are attached in Appendix D.

Historically, in the Florida Keys, the number of buoys appropriate for a reef has been determined by a few boat counts done by sanctuary personnel or commercial dive boat operators.

The number actually installed was more dependent, however, on the amount of funding available for installation and ongoing maintenance. Many of the current arrays were installed and are maintained by volunteer organizations. Reef Relief has installed and maintains 128 reef buoys off Key West. Florida Keys Marine Sanctuaries, Inc. installed 25 mooring buoys at Sombrero Reef off Marathon. The Coral Reef Foundation has installed 24 buoys at reefs off Islamorada. Additional mooring buoys have been installed and are maintained by Looe Key National Marine Sanctuary, Key Largo National Marine Sanctuary, John Pennekamp Coral Reef State Park, Biscayne National Park, and Monroe County. The arrays have been installed in a piecemeal fashion as interest and funding became available. Until recently, no comprehensive Keys mooring buoy plan has been considered.

The Monroe County 2010 Comprehensive Plan considers both recreational and live-aboard mooring sites in Policy 203.5.4. The policy calls for a preparation of a plan for mooring buoy sites for the two types of uses. It further requires that:

"Identification of mooring sites shall be undertaken in coordination with NOAA, DER, and DNR, and shall be consistent with the recommendations of the 'Florida Keys National Marine Sanctuary Management Plan.' Mooring sites shall be entered into the County's Geographic Information System."

Currently, the Nature Conservancy (TNC) and the Department of Natural Resources (DNR) are sponsoring a research project to estimate utilization of the Florida Keys National Marine Sanctuary by using aerial surveys. Approximately 53 aerial surveys will be conducted to provide instantaneous boat counts throughout the Sanctuary. Surface surveys will provide hourly boat counts to be used to calibrate the instantaneous aerial counts. With these two sets of data, daily maximum visitations and averages can be interpolated. Surface surveys will also tally the activities of boats and the number of diver/snorkelers per vessel. This information will be used to extrapolate user pressure on the reef.

Supplementary Coastal Zone Management (CZM) funding has just been routed by the DCA to this TNC/DNR project to allow extra flights to be flown over high use areas at peak use intervals as determined by the surface surveys. It is important to identify peak boat use because of the potential damage that even one anchor could cause. This data will establish a baseline for determining mooring buoy need in the Florida Keys.

Once user preference for mooring buoys is determined on a site by site basis then managers must consider resource carrying capacities. Resource managers can use the user pressure extrapolations from the TNC/DNR/CZM study to determine current stresses at each proposed site. An evaluation of the current

state of the resource and the potential for resource damage should be considered. If managers agree that the density of use received by a site is too great for sustainable health of the site, then consideration can be given to alternative resource protection options or to diverting some of the use and moorings to a nearby less stressed location. Some areas may be selected to remain pristine by not installing mooring buoys that would draw attention to the sites.

After the location of proposed mooring buoy arrays is determined for sites throughout the Keys, the sites have been evaluated for the density of mooring buoys needed based on user preferences, consideration has been given to resource carrying capacity and stress attributable to the preferred level of use, then managers should consider the different types of use and the possible conflicts of those uses with mooring buoys. Glass bottom boats need large open areas for drifting over the reef and maneuvering their large vessels. Bottom fishermen need adequate spacing so that their lines do not tangle with mooring buoy down lines. These user conflicts should be factored into establishing the number and density of moorings suitable to each specific site.

Subsequent to establishing the number of mooring buoys suitable for a site, labor and materials for buoy installation and maintenance may be sought. Once a funding source is secured, the site should be dived extensively to select, mark, and chart individual mooring anchor sites. The sites should be selected with the specifications of the three mooring buoy anchor types in mind.

Mooring buoys only work if they are used. In order to ensure that boaters use the mooring buoys, it is important to also sponsor education programs on the proper use and care of the moorings. The vessel's bow line should be tied to the pick-up line to provide additional scope and relieve stress on the mooring. Divers should check the integrity of the system before swimming away from their boat. Any damage to the system should be reported to Sanctuary staff. Education can be accomplished through dissemination of written brochures and charts; through presentations and videos available to rental boat and charter dive operations, special interest groups, and educational facilities; through boat patrols; media announcements; and educational enforcement. Education and enforcement programs should compliment each other so that education will aid enforcement and enforcement actions are educational.

Coordinate Mooring Buoy Siting with the National Marine Sanctuary

- 1) Consult the TNC/DNR/CZM aerial surveys to document mooring buoy siting priorities based on use patterns.

- 2) Have biologists evaluate the current state of the resources and specific use patterns at the priority sites as determined in step 1 above.
- 3) Managers should consult with Florida Keys National Marine Sanctuary staff to determine the zoning category for the site in question. Mooring buoys use may conflict with the intent of some special use zones.
- 4) Managers should consider other resource protection options before deciding on the use of mooring buoy arrays.
- 5) If a mooring buoy array is deemed an appropriate management option for the site, then biologists should determine the number and concentration of mooring buoys acceptable based on user stress documented in step 1 and resource carrying capacity.
- 6) After mooring numbers and densities are established in step 4, they should be recalibrated based on observed conflicting use patterns.
- 7) Secure funding for the installation and long term monitoring and maintenance of the mooring buoy array.
- 8) Dive the sites to determine the exact location of each anchor. Mark the sites and chart the locations on a nautical chart. Note the mooring anchor type best suited for each mooring.
- 9) Develop education and enforcement programs simultaneous to buoy installation.
- 10) Monitor the mooring array and document maintenance needs.
- 11) Maintain the array and document all repairs and replacements, costs, and labor involved. This information is invaluable to minimizing legal liabilities and to calculating the long term costs of maintaining mooring buoys.

An excellent publication on "The Use of Mooring Buoys As A Management Tool" was produced by the Center for Marine Conservation in 1992. This concise document should be reviewed thoroughly by anyone initiating the installation of mooring buoys.

**SUBMERGED LANDS PROTECTION
FOR
SHALLOW WATER RESOURCES**

E. SUBMERGED LAND PROTECTION FOR SHALLOW WATER AREAS

Shallow water habitats of the Florida Keys are routinely disturbed and destroyed by irresponsible or uneducated boaters and by users of personal water craft and airboats. The extent of physical damage inflicted by the propeller dredging of vessels running in water of insufficient depth for their draft requirements is evidenced by the tell-tale prop scars that traverse the many shallow banks and flats surrounding the Keys. A less visible component of the habitat degradation caused by boat, personal water craft, and airboat use in shallow water areas adjacent to backcountry islands is evidenced by multiple recent abandonments of historic nesting and rookery sites. Protection of shallow water habitats is vital to the viability of many endemic species of the Keys and pertinent to their contribution to the Keys economy.

As the boating population in the Keys grows and as the boating industry caters to the use of shallower and shallower waters, the risk to submerged lands and shallow water resources increases. Almost 3000 additional boats were registered in Monroe County between 1985 and 1990. As the tourist industry grows in the Keys, the number of boats trailered in from the mainland also rises. In addition to the pressures of more boats, new jet drive technology has indulged boaters with access into the shallow waters that previously provided buffers to important wildlife nesting, resting, roosting, and feeding grounds. The net effect is a need for new management strategies to address the changing uses and technological developments facing Keys waters.

The physical destruction of seagrass beds is extensive and cumulative. Large flats with sheets of prop scars are visible from aerial flights and photographs. Anecdotal information on seagrass recovery has lead to divergent opinions. In the case of a single scarring event in a protected area, the seagrass often grows back rapidly. In an area frequently damaged, the seagrass continually expends energy to heal the scars but inhabiting fish or bird species may abandon the area. Where persistent currents wash away at sediments exposed by a new prop dredging event, the seagrass bed is undercut and the single scarring event erodes a gully that can eventually divide the entire seagrass meadow. Though the first scenario is valid for many areas of the Keys, the other two are equally valid and should be minimized through new management strategies.

To protect the shallow water areas as a resource, it is important to consider ephemeral but repeated disturbances as well as visible, physical damages. These shallow areas serve the needs of four federally endangered species: the American crocodile, the West Indian manatee, the green sea turtle, and the bald eagle. Shallow seagrass beds provide critical habitat to many shallow water fish species including bonefish, tarpon, permit, barracuda, sharks, and rays. They provide shallow water

feeding grounds for turtles, manatees, and dolphins. They provide feeding and resting grounds for many threatened wading birds, shorebirds, and migratory waterfowl. Previous to jet drive technology, these shallow waters provided a noise and distance buffer to bird nesting and roosting backcountry islands. All of these functions are jeopardized by repeated entry and disturbance of the resource.

In 1990, an ad hoc coalition of conservationists, fishermen, and wildlife officials worked together as a Boating Impact Work Group to develop a four-point plan for protecting submerged land and shallow water resources. The group advocated local and state action on a four-point program that called for 1) education, 2) improved and expanded channel marking, 3) enforcement, and 4) creation of boating restricted zones. The proposed program set out to reduce current impacts and rehabilitate degraded shallow water habitats. The package proposing the four-point plan provided local and state government with an action plan and with glossy aerial photographs intended to emphasize the range of boating activities which impact the resources as well as the geographic scope of the problem (Is Uncontrolled Boating Damaging Thousands of Acres of Florida's Submerged Seagrass Meadows? 1990).

The first of the four points proposed by the Work Group is education. The plan proposes educating through mass production of informational brochures that instruct boaters on the importance of seagrass beds to fisheries and birds, on the use of channel markers, and on how to read the water. It proposes using the media through public service announcements, news articles, and boat ramp signage. It proposes working with existing coalitions of users, supporters, and managers to reach groups of citizens. Capitalizing on peer pressure, the program seeks support from various user groups. Monroe County endorses the sentiment that protecting the resources begins with education.

The second point calls for an expanded and improved channel marking program. The specific recommendations are considered in the discussion of criteria for channel marking that follows as section E below. With the realization that boaters are already present and resident in the Florida Keys, and that boat use is destined to continue to increase, channel marking is a means to direct boaters to the deepest available waters, the least environmentally sensitive areas, and to minimize the potential threat to shallow water resources.

The third point is enforcement at local, state, and federal levels. The County is called on to enact minimum wake zones along shorelines and unsafe bridges for human safety and environmental considerations. The state is called on to enforce current state law prohibiting the destruction of state owned baybottom and prohibiting water quality violations resulting from oversized vessels in shallow waters. The program calls for

the U.S. Fish and Wildlife Service to protect the refuges through cooperative agreements with the state that are now underway. It calls for ACOE to enforce federal regulations pertaining to prop dredging. Enforcement is a key factor that should be coordinated with education. Warnings can be issued by enforcement officers to educate boaters of proper and improper actions and their impacts on the marine resources.

The fourth point is the delineation of special use, no access, and restricted access zones. This concept proposes identification of sensitive areas that need extraordinary protection. These areas would be closed to certain recreational and commercial activities dependent on the type of wildlife activity present. Other hardier areas would be set aside especially for uses, like airboats, that are incompatible with large areas of Keys waters. Most of these actions are specific to the backcountry and will be addressed in the U.S. Fish and Wildlife Service (FWS) cooperative agreement with the Department of Natural Resources for management of the submerged land surrounding the protected refuge islands (Proposed Management of "Backcountry" Portions of Key West National Wildlife Refuge, Great White Heron National Wildlife Refuge, and National Key Deer Refuge 1992). Further zone development will be established in the FKNMS Management Plan. The user partitioning element of this plan is also coordinated with FKNMS zoning strategies.

The strategies proposed in the four-point plan should provide necessary increased protection to Keys shallow water resources. Point 1 is addressed through this Boating Impacts Plan in the education element. Point 2 is addressed through the channel marking element. Point 3, enforcement, is a source of contention but should be worked out through the new Florida Keys National Marine Sanctuary (FKNMS) Management Plan. Point 4 has been considered in the development of the FWS plan for managing the backcountry, additional zoning will be developed in the FKNMS Management Plan, and also in the user partitioning element of this plan.

Recommend Strategies to Reduce Seagrass Prop Scarring

- 1) Develop and implement a channel marking plan for the Florida Keys.
- 2) Develop and implement an education plan coordinating with the FKNMS education and volunteer programs.
- 3) Develop and implement zoning strategies for the protection of extremely sensitive shallow water habitat areas and adjacent critical upland areas.
- 4) Strengthen current regulations available to Florida Marine Patrol officers for citing destruction of seagrass beds.

- a) Rule changes should include administration of civil fines for damage to seagrass rhizomes when outside marked channels regardless of intent.
- b) Enforcement should be coupled with education. Warnings should be given during an adjustment/learning period.

Recommend Strategies to Minimize Vessel Groundings

When congress established the Florida Keys National Marine Sanctuary, it created an "area to be avoided" surrounding most of the Florida Keys reef tract. This action directed shipping traffic several miles offshore of the fragile reef tract and it should minimize the grounding of large ships like those that have caused such tremendous damage to the reef structure in the past.

Smaller groundings can be avoided by education and enhanced channel marking throughout the Keys. The grounding of floating derelict vessels can be minimized through an emergency action plan discussed in the derelict vessel element of this Boating Impacts Management Plan.

- 1) Develop and implement a channel marking plan for the Florida Keys. (See section F below.)
- 2) Develop and implement an education plan coordinating with the FKNMS education and volunteer programs. (See section H below.)
- 3) Develop and implement an emergency removal procedure for floating derelict vessels. (See section B above.)

Photographs from the four-point plan are reprinted with permission from the photographer and are attached as Appendix E.

CHANNEL MARKING

F. CHANNEL MARKING

In section D above, channel marking was considered as one of four primary means of protecting Florida Keys shallow water resources and submerged lands. Boaters running in non-navigable water and new technology providing access to previously remote areas are cumulatively damaging seagrass beds and threatening species that depend on the shallow water resources. Channel markers have been proposed as a safety and management tool to guide boaters into the most navigable waters and away from sensitive shallow water resources.

Currently in the Keys there are numerous waterfront residences and public boat ramps that provide boaters with access to the water but not with clearly marked channels for egress and ingress to Florida Bay and the Atlantic Ocean. For residents with years of local knowledge, this is only a problem at certain times of the day when the glare off the water's surface prevents them from reading the water. For novices, the situation poses a safety hazard to the boaters and puts the shallow water resources at risk.

Historically, land use and tourist development have proceeded with little consideration given to the resultant growth in boating management needs. Consequently, there are now many frequently used waters of the Keys that could benefit from marked channels. There are also many supporters of enhanced and improved channel marking who are opposed to the visual impact that would result from marking every frequently used waterway. Furthermore, there are especially sensitive resource areas that should not be exploited by placing markers that would lead uninformed boaters to the very places that should be protected. There is, then, the opportunity and the desire to look at the Keys as a whole and to develop a comprehensive channel marking plan.

A comprehensive channel marking plan would provide boaters with a safe and environmentally sound route to and from frequented areas. It would not mark every conceivable route, nor routes that would cause more detriment to the natural resources than they would prevent. This would be a one time program with a finite number of areas selected for marking. After the selected areas were marked, future development would be informed that no additional marked channels should be expected. Development would not continue with unrealistic goals or expectations and the Keys seascape would not become cluttered with the visual litter of excess channel markings.

Selecting the specific waterways to be included in the comprehensive channel marking plan should be done through a consistent and defensible process. Following the guidelines suggested in the four-point plan, problem areas should be identified, photographed through aerial surveys, and examined by an interagency work group. Based on the significance of the

damage occurring, the use patterns, and the available alternatives, the work group would decide where to mark waterways and where to direct use to less sensitive channels. Non-hazardous, undamaged areas would not be selected for marking. For each selected site, the interagency work group would develop a site specific marker placement plan designed to be readily understood by novice boaters and to minimize the potential damage to natural resources.

At the same time that channels are marked, education and enforcement programs should be implemented. Educational programs should be developed that encourage the use of marked channels, that teach boaters how to read channel markers, and instruct boaters on how to read the water. A legal mechanism should be developed for encouraging the use of marked channels when available. This should include unquestionable legal authority to cite boaters for destruction of natural resources when they choose to run outside of a marked channel and consequently dredge shallow submerged lands with their propellers.

Prop dredging should be defined, for enforcement purposes, as any physical damage delivered to seagrass rhizomes by contact with a vessel's propeller. While prop washing does increase turbidity and decrease water clarity, this ephemeral disturbance is problematic to enforce and has not been shown to have the demonstrated long-term effect on seagrasses that physical damage to rhizomes has. Exemptions to civil fines should be assumed during inclement weather.

Along with channel marking, education, and enforcement, there should also be a monitoring program established. The monitoring program would allow managers to evaluate the success of the marker systems and marker locations. This information would be used to make adjustments to the channel marking plan to ensure the highest protection of the resources and safety of boaters. Individual marker placements and informational signage would be fine-tuned based on the monitoring data.

In the waters surrounding the Florida Keys, there are three different circumstances that create a need for channel marking. In the upper and middle keys, additional and enhanced markers placed on existing deep waterways would provide access to most of the frequently used areas. In the lower keys backcountry and wildlife refuges, there are considerable cases where frequent use is occurring over shallow waters and there are no alternative deep waterways. Throughout the Keys, there are subdivisions on venetian canal systems that have installed private or unpermitted aids to navigation in order to direct boaters from the canal systems to navigable waterways and vice versa. The three circumstances call for different management objectives and channel marking criteria.

Upper and Middle Keys

In the upper keys in areas where deep water access exists, marking channels is only a matter of selecting the channels to be marked, deciding on the placement of the markers, getting the necessary permits, and committing the funds for their installation and maintenance. Aside from a few problem areas within established parks and preserves, there are relatively few additions or improvements needed to adequately mark upper and middle keys waterways.

Within John Pennekamp Coral Reef State Park and Lignumvitae Key State Botanical Site, there is heavy use in and around areas of shallow seagrass flats and narrow mangrove tidal channels. The park managers of these areas are currently implementing extensive channel marking plans using State of Florida Uniform Waterway Markers. These managers have met with County Marine Resources staff to coordinate their individual plans with the criteria proposed below for a Florida Keys comprehensive channel marking plan.

Lower Keys

In the lower keys wildlife refuges and backcountry, there is considerable existing boating activity across large expanses of shallow banks and flats. The use is already present but deep water access from the contiguous Keys to Florida Bay does not exist. These shallow waters are traversed by refuge and marine patrol officers, commercial fishermen, charter boats, Keys residents, and visitors. While there are channels marked from US 1 to the Atlantic in most frequent use areas, there are relatively few markers between US 1 and Florida Bay. Coast Guard recently removed the old Intracoastal markers that provided minimal reference points for many of the boaters. The potential for resource damage is now limited only by boaters' fears of losing their props.

It has been suggested that in order to minimize damages to the backcountry resources from all the vessels that are out there, shallow waterways should be marked. Local knowledge, aerial photography, and ground truthing could identify the deepest water and refuge managers could identify the least sensitive habitats. This information could be coupled to identify shallow waterways that would provide boater egress and ingress while posing minimal risk to the environment.

Concern with this suggestion has centered around the assumption that markers could encourage more use of the backcountry. Boaters unfamiliar with the unique characteristics of the area would be lured by the comforting presence of markers into areas they do not know to protect. This would increase the numbers of boaters in the backcountry, increasing boating

related stresses to the environment, and it would bring unknowledgeable visitors closer to sensitive habitats that should be protected. Marking shallow waterways is also feared to encourage the use of larger and larger vessels. These vessels pose greater threats to the resources than the small vessels currently in use.

During the workshops, it was agreed that most resident boaters will use the backcountry with or without markers. Markers should minimize the impact of their presence in this critical habitat. Most non-resident boaters would require public or private boat ramps in order to access the marked waterways. If ramp access is limited or discouraged, or if channels are not marked leading from public access points to sensitive areas, then the presumed increase in visitation is lessened respectively. One of the education strategies proposed is the distribution of charts to visiting boaters. If backcountry markers were not printed on these hand-outs, then perhaps visitors would not plan outings into these areas. Markers installed could have informational signage added that briefly warned boaters of the sensitivity of the backcountry and the limited water depth. These signs would discourage novice boaters and the use of larger vessels by warning them of the potential hazards of proceeding and the possible enforcement actions pending damage of the resources.

Through public workshops on channel marking, comments were received from commercial, charter, public, and private users and resource managers. There was concurrence that some markers should be placed in the backcountry. As long as they were placed very conscientiously and conservatively, it was agreed that markers would do more to protect the resources than to threaten them.

Venetian Canal Systems

The Florida Keys are riddled with canal systems lined with private residences, seasonal rentals, and marinas, most of whom have boats and need access from their canal systems to open or marked waters. Some of these canal entrances are marked with Coast Guard approved private aids to navigation. Many are marked with unpermitted plastic bottles, lobster buoys, rebar or PVC pipe. Most of these unpermitted markers disregard the international standard for use of red and green. They are confusing to all but the long-term residents who have learned their meaning the hard way or through a friendly neighbor. These unpermitted private aids can also be dangerous. Without lights or reflective tape, they are often invisible to night time boaters.

To take on the responsibility for marking and maintaining all these canal entrances is an unreasonable task for the County. Yet these markers provide an important service to the users and should be standardized through a process that

continues to allow private citizens or civic groups to install and maintain their canal's markers, but in a safe and consistent manner. A standard process should be developed and advertised. Standardization could be encouraged by persistent removal of non-standard, unpermitted aids.

Develop County Approved Criteria for Channel Marking

In the 2010 Comprehensive Plan, Monroe County commits to install channel markers, as funding is available, based on criteria and recommendations reviewed by NOAA and DNR. Policy 203.5.5 states:

Monroe County shall develop and commence implementation of strategies for protection of submerged lands in shallow water areas from boating impacts. These shall include strategies to reduce seagrass propeller scarring and to minimize vessel groundings. To accomplish this, Monroe County shall:

- a) identify problem areas and issues related to channel and shallows marking;
- b) establish criteria and priorities for identifying channels and shallows to be marked; and
- c) make recommendations for channel marking and review these recommendations with NOAA and DNR.

Markers shall be installed after completion of the plan, as funding is available. Funding shall be obtained from a variety of federal, state and local funds, including Boating Improvement Funds. Enforcement shall be by the DNR Marine Patrol, NOAA, and FWS, depending upon location.

The Florida Boating Improvement Program referenced in Policy 203.5.5 returns a portion of the boat license fees to Monroe County government in the form of grants to provide recreational channel marking, public launching facilities, to provide for other boating related activities, and to aid in the protection and recovery of manatees and marine mammals. These funds can be used to construct, install, renovate, and repair channel markers for public use.

Because the circumstances and objectives for channel marking differ between various boater frequented waters of the Keys, the criteria for marking those waterways also differs.

Upper, Middle, and Lower Keys Criteria

- 1) Sites where there is a public safety hazard or where damage is occurring to the shallow water resources of the area, shall be considered for channel markers.

- 2) Sites where no better alternatives to channel marking exist for managing the threats established in criteria 1, and where it is believed that channel markers could relieve that stress, should be considered.
- 3) Sites where need for the waterway is demonstrated based on user frequency, should be considered.
- 4) Sites where it is not practical, considering the resources involved and the economic impacts of such action, to consolidate the use of the proposed waterway with a more suitable waterway nearby, should be considered.
- 5) Sites where there are not sensitive habitats accessed by the channel that are more sensitive and crucial than the habitats being protected by installation of channel markers, should be considered.
- 6) Sites that meet all the criteria 1 through 5 should be prioritized for funding consideration.
- 7) Sites meeting criteria 1 through 5 with funding obtained, should be evaluated for the specific placement of markers and permit applications should be submitted to the appropriate agencies.
- 8) Waterways meeting criteria 1 through 5, with funding and permits granted should be marked accordingly.

Venetian Canal System Criteria

- 1) Sites where need for the waterway is demonstrated based on user frequency, should be considered.
- 2) Sites where it is not practical, considering the resources involved and the economic impacts of such action, to consolidate the use of the proposed waterway with a more suitable waterway nearby, should be considered.
- 3) Sites meeting criteria 1 and 2 should have a channel marking design completed to meet the standard criteria for private aids to navigation.
- 4) Sites meeting criteria 1 through 3 should be granted a permit for installation and maintenance by the applicant.
- 5) Private aids to navigation should be limited to marking a distance not to exceed 1000 meters.

A comprehensive summary of the public workshops held on channel marking for the protection of submerged resources is attached as Appendix F.

USER PARTITIONING

G. USER PARTITIONING

During the last decade, the Florida Keys has experienced phenomenal growth in both the resident and the visiting populations. Between 1985 and 1990, nearly 3000 additional boats were registered in Monroe County. Aside from the boats registered here, there are an uncounted number of boats trailered into the Keys from Dade and Broward Counties as well as many other parts of the country. There are also sailor's who arrive by sea from continental or foreign ports of call and either pass through or hold up for a season.

Commercial and recreational marine interests have also seen an increase. New commercial industries such as sponging and live rock collection have made their way to the Keys. New technologies like jet propelled personal watercraft have introduced additional recreational activities to the Keys. Popular street corners and marinas advertise parasailing and "ecotourism" backcountry tours. The increasing numbers of boats participating in traditional activities and the introduction of new interests and technologies has led to frequent user conflicts which degrade the value of the resource for each user.

With the expectation of continued increases in boating activities, increasing user conflicts are also foreseen. But the conflicts are not only with other users, these simultaneous uses throughout the designated Florida Keys National Marine Sanctuary (FKNMS) cumulatively impact the natural features and resources as well. Management of conflicting activities is necessary to reduce the current user conflicts and to protect the resources.

Investigate User Group Partitioning

To identify user group conflicts and the types of user partitionings that could be implemented within the Sanctuary, in January 1992, FKNMS planners held five zoning work sessions with different interest groups. The groups were asked to identify their objectives for the Sanctuary, to list the types of zones that might be used to meet these objectives, to propose criteria that could be used to select areas for each type of zone, and to give general recommendations for Sanctuary planners to consider throughout development of the Sanctuary Management Plan.

The five interest groups invited to the work sessions were: environmental organizations, commercial fishermen, recreational fishing guides, dive operators, and scientists. Other interested parties were present as observers. Each group met for approximately four hours so some groups did not have time to fully develop each of the workshop objectives. A summary of each workshop follows.

Environmental Groups

The environmental organizations present at the workshop proposed five management objectives for user partitioning. The first objective was to enhance and ensure continued biodiversity of native species, populations, and communities. The second was to maintain the aesthetic quality of the Keys by eliminating prop scarring and monofilament debris, and by preserving natural fish behavior and undisturbed corals. A third objective was to promote sustainable uses. Management regimes would differ for each zone type, including general use zones and artificial reef sites. A fourth objective was to fulfill a need for baseline research and monitoring. This baseline data is imperative for establishing a reference point that future studies could be compared to. The last objective proposed was to protect critical areas of concern for preserving endangered species habitat.

The zone types proposed by environmental organizations for partitioning users, were non-consumptive, sensitive area, wilderness, educational, and sustainable use. Non-consumptive zones were proposed to encompass representative occurrences of the 17 identified benthic habitats and sample emergent habitats. Zones would be selected and shaped by their ability to provide a continuity of habitats for all the life stages of selected indicator species and of sufficient size to include a population's normal home range. The integrity of each non-consumptive zone was proposed to be based on its relation to gradients between estuarine and oceanic environments and variation along the reef tract. It was suggested that these areas could be used for research and should include 30% of the total FKNMS area.

Sensitive area habitats were proposed to provide extra protection for the breeding grounds, nesting areas, and recovery areas of endangered, threatened, and protected species. Selection of these areas would be based on the distribution of these species and size would be based on the carrying capacity of the habitat.

Wilderness zones were proposed as no entry areas where species and habitats could prosper in relatively pristine conditions. Educational zones could be entered with a permit and used for instructive purposes. Sustainable Use zones would allow traditional uses but only at levels that would not threaten the renewability of a resource. The environmental groups did not propose criteria for selecting these three zone types.

Among the recommendations offered to staff during the workshop was a suggestion to establish mooring fields in selected locations and disallow anchoring in those areas. The environmental groups also proposed setting time limits for use of the mooring buoys.

Commercial Fishermen

The objectives of commercial fishermen were to make the Keys what they were 50 years ago, to create a broader range of fish sizes, and to reverse habitat/resource degradation to encourage greater biodiversity and less disease. To do this, they proposed two zone types: a true non-consumptive zone that would exclude recreational diving and snorkeling, and a commercial fishing zone. They provided no criteria for selecting these zones.

The fishermen did provide FKNMS planners with many concerns and recommendations. These included a concern that application of regulations should be applied fairly, that non-consumptive zones should also exclude recreational dive and snorkel activities which also tax the resource. Although they proposed that the resource is the main priority, they stated that decisions should be based on scientific fact and not on presumptions or uncertainty. They added that all zones should be subject to ongoing modifications to improve their effectiveness. Commercial fishermen cautioned Sanctuary planners that the mere designation of the Florida Keys as a National Marine Sanctuary increased the visibility of the resource to outsiders and encouraged overexposure.

Other general recommendations ranged from proposing other management actions besides zoning to actual placement of some zones. Management alternatives proposed by commercial fishermen included cessation of mosquito spraying, "sending the Yankees home," recommending gear types for certain industries, giving current trap reduction programs a chance, and continuing to use traditional fisheries management methods. Other zoning recommendations included designating the Dry Tortugas as a non-consumptive zone, reserving rubble habitat for marine life collectors, and confining recreational and commercial fishing to the same areas. Fishermen cautioned that non-consumptive zones should include representatives of each habitat but they should not be so large that they stress the remaining habitats by concentrating displaced fishing pressures. Fishermen also warned that zoning delineation should be kept as simple as possible.

Recreational Fishing Guides

The objectives stated by recreational fishing guides included providing convenient access, controlling crowding, and establishing small, staggered, rotational taboo zones. They proposed 14 zoning types to meet these objectives and contributed general recommendations to Sanctuary planning staff. In addition, recreational fishing guides enumerated acceptable, questionable, and unacceptable activities or uses for within the Sanctuary.

The zone types suggested by recreational fishing guides include:

No trapping,
 Artificial reef,
 Inshore no spearing,
 Small protected zones,
 Non-consumptive zones,
 Power boat racing,
 sport fishing,
 non-combustion engine,
 Guide only,
 Taboo,
 Lobster haven,
 Hook and line fishing only,
 Personal Watercraft, and
 Designated anchorages for transient and resident
 live-aboards.

Many of these zone types are self-explanatory, but a few are not. Non-consumptive zones would allow underwater photography, diving, snorkelling, sight-seeing, and catch and release fishing. Taboo zones are small, rotational, non-consumptive zones. These areas would exclude all fishing for a limited time and then be moved to a new area. The concept assures that the residents of no area would suffer permanent hardship by the placement of a large exclusionary zone forcing them to travel long distances to get to a fishing zone.

Like commercial fishermen, recreational fishing guides also cautioned that zoning should be kept simple. To ensure that zoning be effective, they also recommended that zones be established for 1 to 2 years on a trial basis only so that necessary changes could be made easily.

Many other recreational fishing guide recommendations included keeping zones small and staggered so as not to cause hardship to the residents, excluding sport fishing areas from any zoning categories besides general use, rotating closed areas based on replenishment rates, and separating recreational boating from recreational fishing. They noted that spear fishing should only be excluded from small non-consumptive core areas, but otherwise permitted Sanctuary wide.

Live-aboard and treasure hunting were listed as questionable uses of the Sanctuary due to their possible impacts. Below are lists of acceptable and unacceptable Sanctuary uses as deemed by the recreational fishing guides present at the workshop.

Acceptable Uses

Fishing
 Diving
 Boating
 Bird watching
 Snorkelling
 Bait fishing at anchor

Unacceptable Uses

Commercial fish traps
 Lobster traps on coral
 Gill nets
 Longlines
 Personal watercraft
 Bleaching

Swimming
Spearfishing
Shell collecting
Lobstering
Recreational tropical collecting
Underwater photography
Deep access to marinas
Stocking/research
Assisting stranded wildlife
Catch and release fishing
Small bait traps

Air boats
Low-flying aircraft
Groundings
Prop dredging
Sponging
Camping on offshore islands
Navy bombing
Gear left in water postseason
Oil drilling/exploration
Seizing marine mammals/turtles
Removal of grazing fish
Commercial shrimping

Acceptable uses should be sorted into the most appropriate zoning categories.

Dive Industry Representatives

The objectives of the dive industry include biodiversity, water clarity, healthy coral and fish, fewer people, aquaculture and fish farming, more and larger fish, reasonable regulations on treasure salving, harmony between user groups, education, licensing all boat operators, and making government act responsibly.

Zone types suggested to meet these objectives include the following:

Non-consumption,
Consumption - dive only,
Rotational closures,
Ingress and egress,
Resource enhancement,
Personal watercraft,
Surface recreation only,
Scientific monitoring,
Swimming,
Artificial reefs,
 a) some fishing, some diving,
 b) some deep, some shallow,
Free dive spearfishing, and
No sponging.

The only criteria suggested for these zones was the placement of non-consumptive zones around shallow, popular areas. The few concerns voiced about zoning included questions about funding, boundary buoy maintenance, and zoning enforcement.

Dive industry representatives also recommended acceptable and unacceptable uses of the Sanctuary. Military explosives testing was the only activity recommended for exclusion. The list of inclusionary activities follows:

Spearfishing,

Snorkeling,
Diving,
Lobstering,
Photography,
Recreational and commercial fishing,
Sailing,
Parasailing,
Waterskiing,
Glass bottom boats,
Tropical fish and shell collecting,
Windsurfing,
Camping on islands,
Treasure hunting,
Bird watching,
Seaplanes,
Military research programs,
Cruise ships, and
Ecology tours.

These activities were recommended by dive operators to be appropriately apportioned into the suggested zoning categories.

Scientists

The scientific community represented at the zoning work session came with many objectives for the resource and for specific zoning categories. They also provided Sanctuary planners with many general management recommendations.

The general objectives presented by scientists included all of the following:

Children seeing what parents and grandparents have seen,
Resource to persist,
Maintained economy,
Healthy ecosystem,
Sustainable resources,
Grouper fishing,
Seafood abundance,
Pristine conditions (beyond sustainable-optimal),
Achievement of Sanctuary Act purposes,
Fisheries rehabilitation (restored, maintained, enhanced),
Conservation goals achieved,
Sustainable populations/natural population characteristics,
Pristine water quality,
Modern infrastructure and individual responsibility,
Continued exploration of the sea,
Wilderness areas,
Enhanced communication within the Sanctuary,
Public appreciation for the resources,
Comprehensive channel marking,
Reduced damages to natural features,
No adverse physical impacts,
Compatible technologies,

Achievement of a 50 year database,
Coordinated government, and
Archeological preserves (land and water.)

Scientists present recommended that these objectives could be met using the zoning types listed below:

Non-consumptive,
Research,
Education,
Commercial fishing,
Recreational fishing,
Snorkel only,
Wilderness-no motor,
Long-term ecological monitoring,
Gear restrictive,
Personal watercraft,
Artificial reef,
Wildlife management,
Draft requirements,
General use,
Management,
Shipwreck management,
No Wake,
Critical habitat, and
Outboard engines only.

Of these suggested zones, the first two were discussed extensively during the workshop. These two were non-consumptive zones and research zones. Workshop participants informed Sanctuary staff of the goals for establishing these zones and the criteria recommended for selecting zone locations.

For non-consumptive zones, the goals given included creation of areas with characteristics like biodiversity, natural balance, and recharged. These areas would be preserved for education and aesthetics and devoid of incompatible uses. They would offer protection to endangered and threatened species.

The criteria suggested for selecting non-consumptive zones required that the concept be enforceable and that the area be easily identifiable, that the area be unique, endangered, or relatively pristine, and that the area offer habitat heterogeneity. Size would be determined by the minimal habitat requirements of indicator species. The resulting zone should reduce user conflicts equitably.

Goals suggested for research zones were the collection of long-term monitoring data at established, protected monitoring stations, entered by permit only in order to free the monitoring sites of immediate, anthropogenic impacts. These areas would be expected to reinforce information so that knowledge could be integrated into the regular 5 year plan evaluation.

Criteria recommended for selecting these research zones included requirements that the area encompass all habitats and hydrographic zones. They should overlap areas of past and/or ongoing research. Additionally, these areas should be reasonably accessible for research.

The general recommendations provided to Sanctuary planners provided further restrictions and management recommendations. Scientists present recommended restricting personal watercraft from the backcountry, disallowing aircraft to buzz sensitive wildlife habitats, and excluding waterskiing from tidal passes. They advised using special use permits to allow special occurrences of typically excluded activities. They advised incorporation of the zoning options adopted by US Fish and Wildlife for managing the backcountry. Finally, they noted that all physical use zones should note hydrology and represent an array of hydrographic conditions.

Through Monroe County representation on the FKNMS Core Group, Strategy Assessment Team and Alternatives Assessment Working Group, all these suggestions and recommendations have been organized into six different zone types. The six zones currently proposed are wildlife management zones, replenishment reserves, sanctuary preservation areas, existing management areas, special use zones, and general use zones. These zones account for every allowable activity as well as the sustained protection of species and marine resources.

Wildlife Management Zones would restrict access to especially sensitive wildlife populations and habitats. These areas include bird nesting, resting, and feeding areas, and turtle nesting beaches. Possible restrictions range from no access, to seasonal closures, to restrictions on permitted modes of access.

Replenishment Reserves limit consumptive activities across broad continuums of representative habitats or ecologically important sensitive areas. These reserves are intended to ensure the protection of Sanctuary habitats and species by minimizing anthropogenic impacts.

Sanctuary Preservation Areas are discreet non-consumptive areas, currently experiencing significant population or habitat declines. Harvesting prohibitions will provide for the protection and sustenance of select marine species in biologically important areas or areas experiencing high degrees of user conflict.

Existing Management Areas are proposed in areas already managed by other agencies. Proper management of these areas may entail further measures to be coordinated between the Sanctuary and other jurisdictional authorities.

Special Use Zones would confine special use, high impact activities to selected areas in order to minimize their impacts on sensitive habitats or to reduce user conflicts.

General Use Zones incorporate all areas not designated as wildlife management, replenishment reserve, Sanctuary preservation, or existing management zones. General use zones allow all existing legal uses and may overlap with special use zones.

These zones continue to be subject to considerable revision and clarification. Designation of zone locations is yet to occur.

Appendix G includes FKNMS planning staff summaries of the five work sessions and working document pages pertaining to proposed zoning management alternatives for the designated Florida Keys National Marine Sanctuary.

Identify User Group Conflicts

- 1) Conflicts exist between conservationist goals and all those who intentionally or unintentionally abuse the natural features and resources of the Florida Keys. (Examples include propeller scarring and use of personal watercraft and waterskiing adjacent to or through critical backcountry wildlife habitats.)
- 2) Conflicts exist between nature photographers or resource observers and all users whose actions alter the natural appearance of habitats or the behavior of species. (A sample conflict exists between fish photographers or glass bottom boaters and spear fishermen.)
- 3) Conflicts exist where the cumulative impacts of an industry threaten the sustained biodiversity of a species or community type.
- 4) Conflicts exist in all cases where commercial and recreational users compete for a common resource. (An example is the lobster industry and the contention over lobster mini season.)
- 5) Commercial fishing interests conflict with all local and far field degraders of water quality that threaten the health and sustainability of the resource they fish. (SFWMD control of fresh water released to Florida Bay effects lower ends of the food web which control local fish stocks.)
- 6) Recreational fishing guides conflict with all users of flats who modify the behavior or distribution of bonefish, tarpon, and other flats species. (Personal watercraft

operation on these flats scare bonefish away until the following tide.)

- 7) Recreational fishing guides conflict with all local and far field uses or impacts that threaten the health or sustainability of bonefish or bonefish habitats. (Phosphate mining in southwest Florida increases nutrient concentrations in Florida Bay changing the distribution and dominance of seagrasses on bonefish flats.)
- 8) Fisheries practices and management impact the experience of recreational divers and snorkelers. (Size restrictions alter the size distribution of species commonly visible to divers.)
- 9) Testing of military explosives is threatening to many human activities in the Sanctuary. Certainly this activity should not occur where users are partaking in other activities.
- 10) Conflicts exist between divers and spear fishermen. This combination might also be hazardous to human safety.
- 11) Conflicts occasionally occur between scientific research and general use activities when those activities or participants impact research equipment or cause anomalies in the monitored parameters.
- 12) Conflicts may occur between treasure hunters and recreational divers or snorkelers if the hunting methods employed destroy water clarity necessary for observing the resources.
- 13) Conflicts may occur between treasure salvors and the general public when salvors remove cultural or historic resources from areas of public trust.
- 14) Conflicts also occur between fishermen and divers visiting the same areas simultaneously.

**ENVIRONMENTAL EDUCATION
FOR
BOATERS**

H. ENVIRONMENTAL EDUCATION FOR BOATERS

Education is the only management option with the potential to instill a general understanding and appreciation for the unique resources of the Florida Keys and to create the concern that is necessary to promote proper care and protection of those resources by all Keys beneficiaries. While educating every resident and visitor of the Keys is impractical, steps can be taken to provide minimal information to many visitors.

The success of educational strategies hinges on the ability to select the most necessary information and get it into the minds of people most likely to use it. The first step requires identifying existing threats to the resource, user conflicts, and safety issues and assessing which of these could be substantially reduced by educational techniques. For these selected impacts, conflicts, and dangers, educators should then focus on determining which pieces of knowledge could be reasonably disseminated and which would have the greatest positive effects.

The second step involves deciding which people need to receive these bits of knowledge and would use them if they possessed them. These people are assessed to determine the types of media available and most adept at reaching them. After the materials, the target people, and the media type are chosen, locations and means for uniting the information with the people must be selected or developed. Actual assemblage of the information into the choice media is then done using formats most likely to capture the attention of the audience.

Inventory Existing Boater Environmental Education Programs

Some boater environmental education programs already exist. Some educational packets have already been developed. Many avenues for dissemination are ready and willing to cooperate in the effort. A list of organizations, public recreational areas, and private tourist attractions follows:

Audubon House and Gardens 205 Whitehead St. Key West, FL 33040 294-2116	Bahia Honda State Park Rt. 1, Box 782 Big Pine Key, FL 33043 872-2353
Big Pine Botanical Society P. O. Box 635 Big Pine Key, FL 33043 872-0395	Boy Scout Seabase P. O. Box 858 Islamorada, FL 33036 664-4173
Biscayne Bay National Park P. O. Box 1369 Homestead, FL 33030 247-2044	Clean Water Action P. O. Box 137 Big Pine Key, FL 33043 872-3725

Caribbean Shipwreck Museum
P. O. Box 1541
Key Largo, FL 33037
451-6664

Curry House Museum
511 Caroline St.
Key West, FL 33040
294-5349

DNR-State Lands Division
13365 Overseas Highway
Marathon, FL 33050
289-2336

DNR-Recreation and Parks
P. O. Box 2660
Key Largo, FL 33037
451-3005

Dolphin Research Center
P. O. Box Dolphin
Marathon Shores, FL 33052
282-0002

Dolphins Plus
147 Corinne Place
Key Largo, FL 33037
451-1993

East Martello Tower
350 S. Roosevelt Blvd.
Key West, FL 33040
296-6206

Environmental Solutions Int.
P. O. Box 869
Islamorada, FL 33036
664-9796

Everglades National Park
P. O. Box 279
Homestead, FL 33030
247-6211

FL Keys Natural History Museum
P. O. Box 536
Marathon, FL 33050
743-9100

Florida Conservation Assoc.
P. O. Box 216
Islamorada, FL 33036
664-4988

FL DER
11400 Overseas Highway
Marathon, FL 33050
289-2310

FL Game & Freshwater Fish
P. O. Box 3407
Marathon, FL 33050
743-9312

Florida Keys Audubon
1226 South St.
Key West, FL 33040
294-4902

Friends of Everglades
202 Plantation Blvd.
Islamorada, FL 33036
852-5422

Friends of Florida
424 Fleming St.
Key West, FL 33040
296-9089

Florida Marine Conservancy
1 Lands End Marina
Key West, FL 33040
296-4080

Friends of Islamorada
P. O. Box 236
Islamorada, FL 33036
664-9013

Ft. Zachary Taylor
P. O. Box 289
Key West, FL 33040
292-6713

Ft. Jefferson Nat'l Monument
P. O. Box 279
Homestead, FL 33030
247-6211

Greenpeace
719 Duval St.
Key West, FL 33040
296-4442

Historic FL Keys Preservation
510 Greene St.
Key West, FL 33040
292-6718

Hemingway Museum
907 Whitehead St.
Key West, FL 33040
294-1575

Hidden Harbor Marine Institute
2396 Overseas Highway
Marathon, FL 33050
743-2552

Historic Preservation Society
P. O. Box 2300
Key Largo, FL 33037
852-1620

Izaak Walton League
P. O. Box 465
Islamorada, FL 33036
664-9649

Indian Key St. Historic Site
P. O. Box 1052
Islamorada, FL 33036
664-4815

John Pennekamp State Park
P. O. Box 487
Key Largo, FL 33037
451-1202

Key Deer Protection Alliance
Site P. O. Box 224
Big Pine Key, FL 33043
872-3725

Key Largo State Botanical
P. O. Box 487
Key Largo, FL 33037
451-7008

Key Largo Nat'l Marine Sanc.
P. O. Box 1083
Key Largo, FL 33037
451-1202

Key West Municipal Aquarium
1 Whitehead St.
Key West, FL 33040
296-2051

Key West Botanical Gardens
P. O. Box 1409
Key West, FL 33041
292-8157

Key West Cigar Factory
3 Pirates Alley, Front St.
Key West, FL 33040
294-3470

Key West Shipwreck Museum
510 Greene St.
Key West, FL 33040
292-9740

Key West Garden Club
P. O. Box 2277
Key West, FL 33041
294-3210

Key West Maritime Society
P. O. Box 695
Key West, FL 33041
292-7903

Key West Maritime Alliance
P. O. Box 1528
Key West, FL 33041
296-0241

Key West Maritime Museum
631 Greene St.
Key West, FL 33040
292-7903

Lighthouse Museum
938 Whitehead St.
Key West, FL 33040
294-0012

Last Stand
P. O. Box 146
Key West, FL 33041
294-4582

League of Women Voters
P. O. Box 4381
Marathon, FL 33050
743-8303

Lignumvitae Key
P. O. Box 1052
Islamorada, FL 33036
664-4815

Little Hamaca Park
@ the end of Government Rd.
Key West, FL

Long Key State Park
P. O. Box 776
Long Key, FL 33001
646-4815

Looe Key Nat'l Marine Sanc.
Rt.1, Box 782
Big Pine Key, FL 33043
872-4039

Marine Resources Foundation
P. O. Box 787
Key Largo, FL 33037
1-800-858-7119

Marine Sciences Under Sail
P. O. Box 3994
Hollywood, FL 33023
983-7015

Marathon Garden Club
P. O. Box 3221
Marathon, FL 33050
743-4464

McKee Museum
P. O. Box 261
Tavernier, FL 33070
852-0652

McCoy Indigenous Park
P. O. Box 1409
Key West, FL 33041
292-8157

Mel Fisher Exhibit
200 Greene St.
Key West, FL 33040
294-2633

Monroe Cnty Extension Service
5100 College Road
Key West, FL 33040
292-4501

Monroe Cnty Growth Mgmt.
5100 College Road
Key West, FL 33040
292-4400

National Audubon Society
115 Indian Mound Trail
Tavernier, FL 33070
852-5092

Nat'l Key Deer Refuge
P. O. Box 510
Big Pine Key, FL 33043
872-2239

Ocean Expose
P. O. Box 3994
Hollywood, FL 33023
983-7015

Ocean Reef Garden Group
15 W. Snapper Pt. Dr.
N. Key Largo, FL 33037
367-2537

Riggs Wildlife Refuge
P. O. Box 4409
Key West, FL 33041
(Key West Salt Ponds)

Reef Relief Education Center
P. O. Box 430
Key West, FL 33040
294-3100

Save-A-Turtle
P. O. Box 1052
Islamorada, FL 33036
451-7617

San Carlos Institute
516 Duval St.
Key West, FL 33040
294-3887

Shell & Indian Key Preserve
P. O. Box 1052
Islamorada, FL 33036
664-4815

Seacamp/Newfound Harbor
Rt.3, Box 170
Big Pine Key, FL 33043
872-2331

Sierra Club (Miami-Dade)
P. O. Box 141
Tavernier, FL 33070
852-5268

Theater of the Sea
P. O. Box 407
Islamorada, FL 33036
664-2431

The Nature Conservancy
P. O. Box 4958
Key West, FL 33041
296-3880

Truman House Museum
Front St.
Key West, FL 33040
294-9911

Upper Keys Citizens Coalition
P. O. Box 141
Tavernier, FL 33070
852-5268

Upper Keys Garden Club
93987 Overseas Highway
Tavernier, FL 33070
852-8956

Windley Key Geological Site
P. O. Box 1052
Islamorada, FL 33036
664-4815

Wrecker's Museum
322 Duval St.
Key West, FL 33040
294-9502

The Wilderness Society
8075 Overseas Highway
Marathon, FL 33050
289-1010

Recommend Methods to Improve Boater Education

- 1) Many participants in water based activities such as boating, diving, snorkelling and using personal watercraft, have been documented damaging Sanctuary resources and environmental quality. These resource users need to be made aware of the direct and indirect impacts of their actions. Printed materials could be distributed at high interception locations including marinas, boat ramps, dive shops, schools, and libraries, handed out with fishing licenses, and mailed with boater registrations.
- 2) The same users can be informed about their impacts to Sanctuary resources using photographs, slides, videos, films, and other audio/visual materials. These materials could be provided to libraries and agency offices where they could be checked out. They could also be sold at cost to interested parties like dive shops and rental boat operations.
- 3) Many boaters are unaware of regulations and sound practices. These people impact the resources in many ways that could be easily avoided. Regulations and sound practices can be presented on large, multilingual informational signs or display boards at boat ramps throughout the Keys.
- 4) To improve the general appreciation for marine resources, for sanctuary programs, for research and monitoring, and for safety programs; educational programs can be developed for children. Volunteers can be trained on how to use these programs to give presentations at schools, museums, or other locations.

- 5) Many residents and visitors are not knowledgeable of the impacts they have on Keys resources. Many simple, conservation measures can be presented through public service announcements to radio stations, cable television stations, and newspapers, both locally and in South Florida.
- 6) To maximize the use of all available educational resources, an education advisory council could be established. The council would assist FKNMS education staff in establishing educational priorities, coordinating educational efforts, and securing funding.
- 7) All the printed information disseminated in other ways can also be displayed in booths within existing office spaces at sanctuary and other agency offices. Chambers of Commerce might also lend some space for this purpose.
- 8) In the current computer age, many users of the Keys can be reached through user-friendly computer systems. The database could provide information on regulations, access, recreational sites, environmental etiquette, etc.
- 9) To promote "ecotourism," FKNMS staff could coordinate with the Monroe County Tourism Board to promote and assist development of resource sensitive tourism activities. By encouraging ecotourism companies that would sponsor activities having minimal impacts on Sanctuary resources, sanctuary goals and purposes could be better promoted.
- 10) By developing volunteer programs and giving presentations to interested groups and organizations, the Sanctuary can get more people involved in achieving long and short term goals and further educate citizens interested in protecting the resources.
- 11) Special presentations on the Sanctuary and its resources could be developed for special events in Monroe County and conventions, boat shows, and related trade shows outside of the County. These presentations would raise awareness of the Sanctuary, the unique marine resources, management strategies, and proper etiquette for people interested in marine activities and the Florida Keys.
- 12) To keep researchers aware and in touch with the latest program developments and research results, an information exchange network compiling existing and current management and research activities could be developed. This network could be updated on a regular basis and available via a terminal or modem. Service costs could be defrayed through on-line charges.

Educational strategies proposed in an FKNMS management plan working document are attached in Appendix H.

**CITIZENS ADVISORY COUNCIL
FOR
BOATING MANAGEMENT**

I. ESTABLISHMENT OF A CITIZENS ADVISORY COUNCIL FOR BOATING MANAGEMENT

Public support of proposed management policies is a key factor to successful implementation of the management strategies. Gaining public support and building consensus is most often done through public participation in the planning process. Public participation can be developed through public workshops and hearings or by public representation on advisory panels. As Monroe County Commissioners realized an increasing need to manage marine and port related activities, they established such an advisory panel, the Marine and Port Advisory Committee. Passage of resolutions #24-1977, 55-1977, 57-1991, and 138-1991 duly established the Marine and Port Advisory Committee (MPAC) to consist of 10 members constituting two appointments from each County Commissioner, all to serve staggered 4 year terms without pay.

Because MPAC already addresses many of the issues covered in the scope of the contract, Marine Resources staff advised the Board to commit the Marine and Port Advisory Committee to serve as the Citizens Advisory Council for Boating Management. At the February 18, 1992 regular meeting, the Board of County Commissioners approved staff's recommendation to appoint the preexisting MPAC to serve as the Citizens Advisory Council. MPAC members were then notified of their appointment.

Citizens Advisory Council members have been given each quarterly report for their review and comment. In November, they held a special meeting to advise Marine Resources staff on the information included in the quarterly reports and to provide guidance and recommendations for each of the eight management elements of the Boating Impacts Management Plan. Comments received during MPAC meetings and written comments received from committee members have been reviewed by staff and incorporated into the management plan where appropriate.

Because MPAC members are appointed by individual County Commissioners, staff recognizes that MPAC does not necessarily represent a complete balance of user group representation and interest. Their comments, although helpful, must be considered with proper perspective and in conjunction with many other reviewer comments.

Appendix I includes the Agenda Summary that requested the Board of County Commissioners to allow the Marine and Port Advisory Committee to serve as the Citizens Advisory Council for Boating Management and the Monroe County Marine and Port Advisory Committee Administrative Procedures By-Laws.

INTERGOVERNMENTAL COORDINATION MECHANISM

J. INTERGOVERNMENTAL COORDINATION MECHANISM

As part of the planning process for the Florida Keys National Marine Sanctuary, a Core Working Group was established. The members were carefully selected to include representatives of all governing agencies having jurisdiction in the Florida Keys. This group should prove to be an excellent mechanism for coordination on boating impact management issues that face the sanctuary management planners as well as other local resource managers.

Marine Resources staff have met or spoken with local sanctuary planning staff, park, preserve, and refuge managers, and agency staff to coordinate efforts on each of the project elements and to share available information. Because there is considerable overlap between FKNMS planning and Boating Impact Management planning, Marine Resources staff have concentrated on filling gaps in the Florida Keys National Marine Sanctuary planning process rather than duplicating efforts.

Each project element addresses different concerns and uses and requires coordination with a different set of agencies sharing jurisdiction in the Florida Keys. In the paragraphs that follow, acknowledgement is given to each of the agencies with interest in a proposed project element. A brief explanation of their roll in managing the activity or resource is also included.

Live-aboard Vessels Management of live-aboard vessels by creation of designated mooring areas necessitates coordination with the Department of Natural Resources (DNR) Division of State Lands and with the Army Corps of Engineers (ACOE). Any sites for mooring areas proposed over state owned submerged lands could involve leasing submerged lands from the State or entering memoranda of agreement. Installation of the mooring buoy anchors would require DER, DNR, ACOE, and Coast Guard permits.

Derelict Vessels Management of derelict vessels is handled primarily by the County's Extension Services in coordination with DNR Florida Marine Patrol and DNR Division of Recreation and Parks. Any changes to the current procedures would need to be coordinated with these departments.

Marina Siting Marina siting criteria fall under the jurisdiction of Monroe County, DNR, DER, HRS, and the ACOE. Monroe County is responsible for permitting commercial land use. DNR often leases the submerged lands under marina docks and boardwalks to marina owners on a five year renewal schedule. DER is responsible for ensuring that marinas do not violate the appropriate water quality standards for the waters of and adjacent to the marina. DER delegated responsibility to HRS for permitting and monitoring any fuel storage facilities associated with the marina. ACOE is responsible for permitting any dredge or fill activity that is associated with marina site

development. Developing marina siting criteria that encompass all the concerns of each responsible agency requires considerable coordination.

Mooring Buoys Mooring buoy arrays have been installed and maintained by Monroe County, Looe Key National Marine Sanctuary, Key Largo National Marine Sanctuary, John Pennekamp Coral Reef State Park, and by several volunteer organizations. Monroe County Marine Resources, DNR Florida Marine Research Institute, Looe Key National Marine Sanctuary, and the Nature Conservancy are coordinating efforts to prepare a Keys wide recreational mooring buoy placement plan to be adopted by the Florida Keys National Marine Sanctuary (FKNMS). Additionally, installation of recreational mooring buoy arrays proposed within state waters must be permitted by the ACOE and may be eligible for Boating Improvement Funds which are handled through Monroe County Extension Services.

Submerged Land Protection Submerged land protection for shallow water areas is a major concern to DNR State Lands and US Fish and Wildlife Service (FWS). Enforcing regulations that protect these areas is shared by DNR Florida Marine Patrol (FMP), FWS, ACOE in the case of dredge or fill violations, and Sanctuary officers in the case of groundings on a federally protected coral reefs. DNR State Lands manages the state owned submerged bottom which includes most of the Keys seabed to three miles out on the ocean side and nine miles out on the Bay side. USFWS is charged with protecting the local refuge areas for endangered species protection and enhancement. Methods for protecting these resources from further degradation due to boating impacts will require coordination between these same agencies, Monroe County, and FKNMS.

Channel Marking Channel marking in the Florida Keys has historically required using Coast Guard standard international markers, permitted by the US Coast Guard, or the Florida State Waterway System markers, permitted by DNR. Funding for future marking is available from the Boating Improvement Funds handled locally by Monroe County Extension Services. Within state waters, all marker system installations must be permitted by the ACOE. Any markers designated for placement within the administrative boundaries of a wildlife refuge should also be reviewed by FWS.

User Partitioning In the past, user partitioning has been relatively scarce in the Keys but significant partitioning is now proposed in two new management plans. The USFWS backcountry management plan proposes no access, idle, and no motor zones in a limited number of highly sensitive areas. The latter two of these zones will, in effect, separate some users from others. Additionally, personal watercraft will be restrained from general use of all the refuge areas and will instead be directed to specific corridors for ingress and egress. FKNMS management planners are still developing a zoning scheme that is hoped to

minimize user conflicts and to protect resources from the stresses and impacts resultant from high cumulative levels of use.

Environmental Education Environmental education for boaters has been taken on by local sanctuaries and parks as an alternative to enforcement actions and has been championed by numerous non-profit and civic associations. Informational signage at boat ramps is being developed and installed by DNR State Lands and coordinated between FKNMS and Monroe County Extension Services. Methods to coordinate education efforts are being developed by FKNMS staff working with existing sanctuary and park education specialists.

Copies of the Draft Boating Impact Management Plan have been distributed to Sanctuary Core Group members and representatives of all other agencies with overlapping jurisdictions in the Florida Keys. While this document is labeled a Final Report, it is only final based on the information available at the assigned project completion date. As new information becomes available, future coordination on specific management options is advised before implementation of proposed plan elements. Marine Resources will continue with further refinement of the proposed management strategies as related studies and projects are completed by Monroe County and other agencies.

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fact; providing for purpose; establishing boundaries;
providing for definitions; providing for prohibitions;
establishing permitting procedures; providing for
inspection and repairs; providing for permit revocation;
providing for liveboards; providing for joint ownership
docks; providing for permit waiver for maintenance and
cosmetic improvements; providing for registration of
structures; providing for exceptions; providing for
reconstruction of existing facilities; providing for
penalties; providing for severability; providing for repeal
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Is Uncontrolled Boating Damaging Thousands of Acres of Florida's Submerged Seagrass Meadows?

APPENDIX A

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ARTICLE VII. LAND USE DISTRICTS**DIVISION 1. GENERALLY****Sec. 9.5-201. General purpose.**

In order to ensure that all development is consistent with the objectives and policies of this chapter, it is necessary and proper to establish a series of land use districts to ensure that each permitted use is consistent with the environmental sensitivity of natural resources, is served by adequate public facilities, and is compatible with surrounding land uses. Each district establishes use and bulk regulations that control the use of land in each district consistent with this chapter. All development within each land use district shall be consistent with the purposes stated for that land use district in this division. (Ord. No. 33-1986, § 9-101)

Sec. 9.5-202. Land use districts established.

In order to carry out and implement the goals and objectives of the plan, the following land use districts are hereby established:

- (1) Urban Commercial District (UC)
- (2) Urban Residential District (UR)
- (3) Urban Residential Mobile Home District (URM)
- [(3.5) Urban Residential Mobile Home-Limited District (URML-L)]
- (4) Sub Urban Commercial District (SC)
- (5) Sub Urban Residential District (SR)
- (6) Sub Urban Residential District (Limited) (SRL)
- (7) Sparsely Settled Residential District (SS)
- (8) Native Area District (NA)
- (9) Mainland Native Area (MN)
- (10) Offshore Island District (OS)
- (11) Improved Subdivision District (IS)
- (12) Destination Resort District (DR)

- (13) Recreational Vehicle District (RV)
 - (14) Commercial Fishing Area District (CFA)
 - (15) Commercial Fishing Village District (CFV)
 - (16) Commercial Fishing Special Districts (CFS)
 - (17) Mixed Use District (MU)
 - (18) Industrial District (I)
 - (19) Maritime Industries District (MI)
 - (20) Military Facilities District (MF)
 - (21) Airport District (AD)
 - (22) Park and Refuge District (PR)
 - (23) Conservation District (CD)
- (Ord. No. 33-1986, § 9-102)

Sec. 9.5-203. Purpose of the Urban Commercial District (UC).

The purpose of the UC district is to designate appropriate areas for high-intensity commercial uses intended to serve retail sales and service, professional services and resort activities needs at a regional or multiple planning area scale. This district should be established at discrete nodes along U.S. 1 and should be designed so as to serve the needs of both residents and visitors. (Ord. No. 33-1986, § 9-103)

Sec. 9.5-204. Purpose of the Urban Residential District (UR).

The purpose of the UR district is to provide areas appropriate for high-intensity residential uses designed and intended for occupancy by persons gainfully employed in the Florida Keys. This district should be established at or near employment centers. (Ord. No. 33-1986, § 9-104)

Sec. 9.5-205. Purpose of the Urban Residential Mobile Home District (URM).

The purpose of the URM district is to recognize the existence of established mobile home parks and subdivisions, but not to create new such areas, and to provide for such areas to serve as a

reservoir of affordable and moderate-cost housing in Monroe County. (Ord. No. 33-1986, § 9-105)

Sec. 9.5-205.1. Purpose of the Urban Residential Mobile Home-Limited District (URML-L).

The purpose of the URML-L district is to recognize the existence of parks and subdivisions which consist exclusively, or almost exclusively, of mobile homes, but not to create new such areas, in order to permit property owners in such areas to replace or establish mobile homes below base flood elevation as authorized by certified federal regulations. (Ord. No. 19-1989, § 1(PD59))

Sec. 9.5-206. Purpose of the Sub Urban Commercial District (SC).

The purpose of the SC district is to establish areas for commercial uses designed and intended primarily to serve the needs of the immediate planning area in which they are located. This district should be established at locations convenient and accessible to residential areas without use of U.S. 1. (Ord. No. 33-1986, § 9-106)

Sec. 9.5-207. Purpose of the Sub Urban Residential District (SR).

The purpose of the SR district is to establish areas of low- to medium-density residential uses characterized principally by single-family detached dwellings. This district is predominated by development; however, natural and developed open space create an environment defined by plants, spaces and over-water views. (Ord. No. 33-1986, § 9-107)

Sec. 9.5-208. Purpose of the Sub Urban Residential District (Limited) (SRL).

The purpose of the SRL district is to establish areas of exclusive low- to medium-density residential uses. (Ord. No. 33-1986, § 9-108)

Sec. 9.5-209. Purpose of the Sparsely Settled Residential District (SS).

The purpose of the SS district is to establish areas of low-density residential development where the predominant character is native or open space lands. (Ord. No. 33-1986, § 9-109)

Sec. 9.5-210. Purpose of the Native Area District (NA).

The purpose of the NA district is to establish areas that are undisturbed with the exception of existing solid waste facilities, and because of their sensitive environmental character should be preserved in their natural state. (Ord. No. 33-1986, § 9-110)

Sec. 9.5-211. Purpose of the Mainland Native District (MN).

The purpose of the MN district is to protect the undeveloped and environmentally sensitive character of lands within Monroe County that are located on the mainland of the Florida peninsula. (Ord. No. 33-1986, § 9-111)

Sec. 9.5-212. Purpose of the Offshore Island District (OS).

The purpose of the OS district is to establish areas that are not connected to U.S. 1 as protected areas, while permitting low-intensity residential uses and campground spaces in upland areas that can be served by cisterns, generators and other self-contained facilities. (Ord. No. 33-1986, § 9-112; Ord. No. 40-1987, § 54)

Annotation—The intent of amendment 54 was to add campground uses in the OS district.

Sec. 9.5-213. Purpose of the Improved Subdivision District (IS).

The purpose of the IS district is to accommodate the legally vested residential development rights of the owners of lots in subdivisions that were lawfully established and improved prior to the adoption of this chapter. For the purpose of this section, improved lots are those which are served by a dedicated and accepted existing road of porous or nonporous material, that have a Florida Keys Aqueduct Authority approved potable water supply, and that have sufficient uplands to accommodate the proposed use in accordance with the required setbacks. This district

is not intended to be used for new land use districts of this classification within the county. (Ord. No. 33-1986, § 9-113).

Sec. 9.5-214. Purpose of the Destination Resort District (DR).

The purpose of the DR district is to establish areas suitable for the development of planned tourist centers providing on-site residential, recreational, commercial and entertainment facilities of a magnitude sufficient to attract visitors and tourists for tenancies of three (3) or more days. Destination resorts are contemplated to contain (1) single-family homes as of right, or (2) one (1) or more resort hotels as the principal use, to utilize the water-related natural resources of the Keys, and to be located on sites of at least ten (10) gross acres where the location and character of the site and the development itself and amenities are such that off-site impacts will be reduced. (Ord. No. 33-1986, § 9-114)

Editor's note—Section 9.5-214 reads as amended by DCA Rule 28-20.023.

Sec. 9.5-215. Purpose of the Recreational Vehicle District (RV).

The purpose of the RV district is to establish areas suitable for the development of destination resorts for recreational vehicles.

This district contemplates developments that provide on-site recreational, commercial and resort facilities. (Ord. No. 33-1986, § 9-115)

Sec. 9.5-216. Purpose of the Commercial Fishing Area District (CFA).

The purpose of the CFA district is to establish areas suitable for uses which are essential to the commercial fishing industry, including sales and service of fishing equipment and supplies, seafood processing, fishing equipment manufacture and treatment, boat storage and residential uses. (Ord. No. 33-1986, § 9-116)

Sec. 9.5-217. Purpose of the Commercial Fishing Village District (CFV).

The purpose of the CFV district is to establish areas where limited commercial fishing activities, including the mooring of boats, the nonmechanized off-loading of catches, the storage of a limited number of traps, and residential uses, can be integrated. (Ord. No. 33-1986, § 9-117)

Sec. 9.5-218. Purpose of the Commercial Fishing Special District (CFS).

The purpose of the CFS districts is to establish areas where various aspects of commercial fishing have been traditionally carried out while prohibiting the establishment of additional commercial fishing uses which are inconsistent with the natural environment, immediate vicinity or community character of the area. (Ord. No. 33-1986, § 9-118)

Sec. 9.5-219. Purpose of the Mixed Use District (MU).

The purpose of the MU district is to establish or conserve areas of mixed uses, including commercial fishing, resorts, residential, institutional and commercial uses, and preserve these as areas representative of the character, economy and cultural history of the Florida Keys. (Ord. No. 33-1986, § 9-119)

Sec. 9.5-220. Purpose of the Industrial District (I).

The purpose of the I district is to establish areas that are suitable for the development of industrial and manufacturing uses, warehousing and distribution uses. (Ord. No. 33-1986, § 9-120)

Sec. 9.5-221. Purpose of the Maritime Industries District (MI).

The purpose of the MI district is to establish and conserve areas suitable for maritime uses such as ship building, ship repair and other water dependent manufacturing and service uses. (Ord. No. 33-1986, § 9-121)

Sec. 9.5-222. Purpose of the Military Facilities District (MF).

The purpose of the MF district is to establish areas for military facilities and installations and to ensure to the maximum extent allowed by federal law that all development activity within such areas is consistent with the Monroe County Comprehensive Plan. (Ord. No. 33-1986, § 9-122)

Sec. 9.5-223. Purpose of the Airport District (AD).

The purpose of the AD district is to prohibit the development of residential, educational or other uses which are characterized by the regular presence of large numbers of people within the hazard areas of civil and military airports. (Ord. No. 33-1986, § 9-123)

Sec. 9.5-224. Purpose of the Park and Refuge District (PR).

The purpose of the PR district is to establish and protect areas as parks, recreational areas and wildlife refuges. (Ord. No. 33-1986, § 9-124)

Sec. 9.5-225. Purpose of the Conservation District (CD).

The purpose of the conservation district is to provide an area acquired for conservation purposes or subject to deed restrictions limiting the use of the property for conservation purposes. (Ord. No. 33-1986, § 9-125)

Sec. 9.5-226. Land use district map.

(a) *Authority:* The board of county commissioners, upon the recommendation of the planning commission, shall adopt an official land use district map which shall set out and delineate the land use districts established in section 9.5-202 to all land in unincorporated Monroe County.

(b) *Effect:* The official land use district map is hereby designated, established and incorporated as a part of this chapter; and the originals thereof, which are on file at the offices of the department of planning, shall be as much a part of this chapter as if the information contained therein were set out in full in this chapter.

(c) *Review and Amendment:* The official land use district map shall be reviewed and amended to be consistent with the comprehensive plan as provided in volume II, section X.C.7 of the plan. The official land use district map may subsequently be amended from time to time as provided in article XI of this chapter. (Ord. No. 33-1986, § 9-126)

Sec. 9.5-227. Existing conditions map.

(a) *Authority:* The board of county commissioners, upon the recommendation of the planning commission, shall adopt the existing conditions map.

(b) *Effect:* The existing conditions map is hereby designated, established and incorporated as a part of this chapter; and the originals thereof, which are on file at the office of the department of planning, shall be as much a part of this chapter as if the information contained therein were set out in full in this chapter.

(c) *Review and Amendment:* The existing conditions map may be refined to reflect conditions legally in existence on February 28, 1986. Such refinements shall be made pursuant to the procedures in section 9.5-511(e) of this chapter. (Ord. No. 33-1986, § 9-127)

Secs. 9.5-228—9.5-230. Reserved.

DIVISION 2. PERMITTED USES

Sec. 9.5-231. General.

(a) No structure or land in Monroe County shall hereafter be developed, used or occupied unless expressly authorized in a land use district in this division.

(b) Notwithstanding any provision of this division, all development listed as permitted as of right within a mapped land use district with an area of one (1) acre or less, other than a commercial fishing district, shall be considered as a minor conditional use.

(c) All development in any areas of particular concern, including those generically designated, must comply with applicable management policies established in volume II, pages 190—220.

Sec. 9.5-232. Urban Commercial District.

(a) The following uses are permitted as of right in the Urban Commercial District:

- (1) Commercial retail of low- and medium-intensity and office uses or any combination thereof of less than five thousand (5,000) square feet of floor area;
- (2) Commercial retail uses of high intensity of less than twenty-five hundred (2,500) square feet of floor area;
- (3) Institutional residential uses involving less than twenty (20) dwelling units or rooms;
- (4) Commercial apartments involving less than six (6) dwelling units in conjunction with a permitted commercial use;
- (5) Commercial recreational uses limited to:
 - a. Bowling alleys;
 - b. Tennis and racquet ball courts;
 - c. Miniature golf and driving ranges;
 - d. Theaters;
 - e. Health clubs;
 - f. Swimming pools;

- (6) Institutional uses;
- (7) Public buildings and uses;
- (8) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Urban Commercial District, subject to the standards and procedures set forth in article III, division 3:

- (1) Commercial retail of low- and medium-intensity and office uses or any combination thereof of greater than five thousand (5,000) but less than twenty thousand (20,000) square feet of floor area, provided that access to U.S. 1 is by way of:
 - a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (2) Commercial retail uses of high intensity of greater than twenty-five hundred (2,500) but less than ten thousand (10,000) square feet of floor area, provided that [access to U.S. 1 is by way of]:
 - a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (3) Institutional residential uses involving twenty (20) or more dwelling units or rooms, provided that:
 - a. The use is compatible with land use established in the immediate vicinity of the parcel proposed for development;
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;

- (4) Commercial apartments involving more than six (6) dwelling units in conjunction with a permitted commercial use, provided that:
 - a. The hours of operation of the commercial uses proposed in conjunction with the apartments are compatible with residential uses; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (5) Hotels of fewer than fifty (50) rooms, provided that:
 - a. The use is compatible with established land uses in the immediate vicinity;
 - b. One (1) or more of the following amenities are available to guests:
 - (i) Swimming pools;
 - (ii) Marina; or
 - (iii) Tennis courts;
 - c. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (6) Parks and community parks.
 - (c) The following uses are permitted as major conditional uses in the Urban Commercial District, subject to the standards and procedures set forth in article III, division 3:
 - (1) Commercial retail of medium- and low-intensity and office uses, or any combination thereof, of greater than twenty thousand (20,000) square feet in floor area, provided that access to U.S. 1 is by way of:
 - a. An existing curb cut;
 - b. A signalized intersection; or

- c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four (400) feet;
- (2) Commercial retail uses of high intensity of greater than ten thousand (10,000) square feet in floor area, provided that access to U.S. 1 is by way of:
 - a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
 - (3) Hotels providing fifty (50) or more rooms, provided that:
 - a. The hotel has restaurant facilities on or adjacent to the premises; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
 - (4) Marinas, provided that:
 - a. The parcel proposed for development has access to water of at least four (4) feet below mean sea level at mean low tide;
 - b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products; and
 - c. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height;
 - d. Any commercial fishing activities are limited to the landing of catch, mooring and docking of boats and storage of traps and other fishing equipment;
 - (5) Amusement or sea life parks and drive-in theaters, provided that:
 - a. The parcel of land has an area of at least two (2) acres;
 - b. The parcel is separated from any residential district or established residential use by at least a class E buffer; and

- c. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (6) Heliports or seaplane ports, provided that:
 - a. The heliport is associated with a governmental services facility, a law enforcement element or a medical services facility;
 - b. The heliport or seaplane port is a Federal Aviation Administration certified landing facility;
 - c. The landing and departure approaches do not pass over established residential uses or known bird rookeries;
 - d. If there are established uses within five hundred (500) feet of the parcel proposed for development, the hours of operation shall be limited to daylight; and
 - e. The use is fenced or otherwise secured from any entry by unauthorized persons. (Ord. No. 33-1986, § 9-202; Ord. No. 19-1989, § 1(PD66A))

Editor's note—Subsection (c)(4)d reads as amended by DCA Rule 28-20.023.

Sec. 9.5-233. Urban Residential District.

(a) The following uses are permitted as of right in the Urban Residential District:

- (1) Detached residential dwellings;
- (2) Public buildings and uses;
- (3) Home occupations—Special use permit requiring a public hearing;
- (4) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Urban Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. Sufficient common areas for recreation are provided to serve the number of dwelling units proposed to be developed;

- b. All entryways are designed and lighted to allow safe and secure access to all structures from walks and parking areas; and
 - c. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (2) Institutional and institutional-residential uses, provided that access to U.S. 1 is by way of:
- a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (3) Parks and community parks.

(c) The following uses are permitted as major conditional uses in the Urban Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Marinas, provided that:
- a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products;
 - c. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
 - d. Vessels docked or stored shall not be used for live-aboard purposes;
- (2) Time-share estates, including uses accessory thereto, provided that:
- a. The use is compatible with established land uses in the immediate vicinity;

- b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- c. The parcel proposed for development is separated from any established residential use by a class C bufferyard;
- d. Time-share units shall have a minimum living area of nine hundred fifty (950) square feet;
- e. The parcel proposed for development shall have a minimum size of four (4) acres;
- f. The density does not exceed four (4) dwelling units per acre; and
- g. The time share units comply with the requirements of the Florida Real Estate Time-Sharing Act [F.S. § 721.01 et seq.]. (Ord. No. 33-1986, § 9-203; Ord. No. 40-1987, § 56; Ord. No. 19-1989, § 1(PD66B))

Annotation— The intent of amendment 56, amending subsection (a)(3), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-234. Urban Residential - Mobile Home District.

(a) The following uses are permitted as of right in the Urban Residential - Mobile Home District:

- (1) Mobile homes;
- (2) Detached residential dwellings;
- (3) Recreational vehicles as provided in chapter 513, Florida Statutes;
- (4) Home occupations—Special use permit requiring a public hearing;
- (5) Accessory uses.

(b) The following uses are permitted as major conditional uses in the Urban Residential Mobile Home District, subject to the standards and procedures set forth in article III, division 3:

- (1) Marinas, provided that:

- a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products;
 - c. Vessels docked or stored shall not be used for live-aboard purposes; and
 - d. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height;
- (2) Commercial retail of low- and medium-intensity and office uses or any combination thereof of less than twenty-five hundred (2,500) square feet of floor area, provided that:
- a. The parcel of land on which the commercial retail use is to be located abuts the right-of-way of U.S. 1;
 - b. The structure must be located within two hundred (200) feet of the centerline of U.S. 1;
 - c. The commercial retail use does not involve the sale of petroleum products;
 - d. The commercial retail use does not involve the outside storage or display of goods or merchandise;
 - e. There is no direct access to U.S. 1 from the parcel of land on which the commercial retail use is to be located;
 - f. The structure in which the commercial retail use is to be located is separated from the U.S. 1 right-of-way by a class C bufferyard;
 - g. The structure in which the commercial retail use is to be located is separated from any existing residential structure by a class C bufferyard; and
 - h. No signage other than one (1) identification sign of no more than four (4) square feet shall be placed in any yard or on the wall of the structure in which the commercial retail use is to be located except for the yard or wall that abuts the right-of-way for U.S. 1;
- (3) Parks and community parks. (Ord. No. 33-1986, § 9-204; Ord. No. 40-1987, §§ 56, 57; Ord. No. 19-1989, § 1(PD66C))

Annotation—The intent of amendment 56, amending subsection (a)(4), was that all home occupations require a special use permit, regardless of district. The intent of amendment 57, amending subsection (b)(2), changed "or" to "and" in order to allow both office and retail uses simultaneously.

Sec. 9.5-235. Sub Urban Commercial District.

(a) The following uses are permitted as of right in the Sub Urban Commercial District:

- (1) Commercial retail, low and medium intensity and office uses or any combination thereof of less than twenty-five hundred (2,500) square feet of floor area;
- (2) Institutional residential uses, involving less than ten (10) dwelling units or rooms;
- (3) Commercial apartments involving less than six (6) dwelling units in conjunction with a permitted commercial use;
- (4) Commercial recreational uses limited to:
 - a. Bowling alleys;
 - b. Tennis and racquet ball courts;
 - c. Miniature golf and driving ranges;
 - d. Theaters;
 - e. Health clubs;
 - f. Swimming pools;
- (5) Institutional uses;
- (6) Public buildings and uses;
- (7) Accessory uses;
- (8) Storage areas, provided that the area does not exceed twenty-five (25) percent of the gross area of the parcel proposed for development; if such areas exceed twenty-five (25) percent, then approval must be obtained pursuant to subsection (b)(8).

(b) The following uses are permitted as minor conditional uses in the Sub Urban Commercial District, subject to the standards and procedures set forth in article III, division 3:

- (1) Commercial retail of low and medium intensity and office uses or any combination thereof of greater than twenty-five hundred (2,500) but less than ten thousand (10,000) square feet of floor area, provided that access to U.S. 1 is by way of:

- a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (2) Commercial retail uses of high intensity of less than twenty-five hundred (2,500) square feet in floor area, provided that access to U.S. 1 is by way of:
- a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (3) Institutional residential uses involving ten (10) to twenty (20) dwelling units or rooms, provided that:
- a. The use is compatible with land use established in the immediate vicinity of the parcel proposed for development;
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (4) Commercial apartments involving more than six (6) dwelling units in conjunction with a permitted commercial use, provided that:
- a. The hours of operation of the commercial uses proposed in conjunction with the apartments are compatible with residential uses; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (5) Hotels of fewer than twenty-five (25) rooms, provided that:

- a. The use is compatible with established land uses in the immediate vicinity; and
 - b. One (1) or more of the following amenities are available to guests:
 - (i) Swimming pool;
 - (ii) Marina; or
 - (iii) Tennis courts;
- (6) Campgrounds, provided that:
- a. The parcel proposed for development has an area of at least five (5) acres;
 - b. The operator of the campground is the holder of a valid Monroe County occupational license;
 - c. If the use involves the sale of goods and services, other than the rental of camping sites or recreational vehicle parking spaces, such use does not exceed one thousand (1,000) square feet and is designed to serve the needs of the campground; and
 - d. The parcel proposed for development is separated from all adjacent parcels of land by at least a class D bufferyard;
- (7) Light industrial uses, provided that:
- a. The parcel proposed for development does not have an area of greater than two (2) acres;
 - b. The parcel proposed for development is separated from any established residential use by at least a class D bufferyard; and
 - c. All outside storage areas are screened from adjacent use by a solid fence, wall or hedge at least six (6) feet in height;
- (8) Parks and community parks.
- (c) The following uses are permitted as major conditional uses in the Sub Urban Commercial District subject to the standards and procedures set forth in article III, division 3:
- (1) Commercial retail of low- and medium-intensity and office uses or any combination thereof greater than ten thousand (10,000) square feet in floor area, provided that access to U.S. 1 is by way of:

- a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (2) Commercial retail uses of high intensity greater than twenty-five hundred (2,500) square feet in floor area provided that access to U.S. 1 is by way of:
- a. An existing curb cut;
 - b. A signalized intersection; or
 - c. A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (3) Institutional residential uses involving twenty (20) or more dwelling units or rooms, provided that:
- a. The use is compatible with land use established in the immediate vicinity of the parcel proposed for development; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (4) Hotels providing twenty-five (25) or more rooms, provided that:
- a. The hotel has restaurant facilities on or adjacent to the premises; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (5) Marinas, provided that:
- a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;

- b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products; and
 - c. All outside storage areas are screened from adjacent uses by a fence, wall or hedge of at least six (6) feet in height;
 - d. Any commercial fishing activities are limited to the landing of catch, mooring and docking of boats and storage of traps and other fishing equipment;
- (6) Mariculture, provided that:
- a. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
 - b. The parcel proposed for development is separated from any established residential use by at least a class C bufferyard; and
 - c. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height;
- (7) Heliports or seaplane ports, provided that:
- a. The helicopter is associated with a government service facility, a law enforcement element or a medical services facility;
 - b. The heliport or seaplane port is a Federal Aviation Administration certified landing facility;
 - c. The landing and departure approaches do not pass over established residential uses or known bird rookeries;
 - d. If there are established residential uses within five hundred (500) feet of the parcel proposed for development, the hours of operation and nonemergency aircraft shall be limited to daylight; and
 - e. The use is fenced or otherwise secured from entry by unauthorized persons. (Ord. No. 33-1986, § 9-205; Ord. No. 40-1987, § 58; Ord. No. 19-1989, § 1(PD66D), (PD68))

Editor's note—Subsection (c)(5)d reads as amended by the DCA.

Annotation—The intent of amendment 58, adding subsection (b)(8), was to allow storage areas as of right, subject to the provision that if 25% of the gross area is exceeded, planning commission approval be required.

Sec. 9.5-235.1. URM-L District.

(a) The following uses are permitted as of right in the URM-L district:

- (1) Mobile homes;
- (2) Recreational vehicles, as provided in Florida Statutes chapter 513;
- (3) Home occupations by special use permit requiring a public hearing;
- (4) Accessory uses.

(b) The following uses are permitted as major conditional uses in the URM-L district subject to the standards and procedures set forth in article VII, division 4:

- (1) Marinas, provided that:
 - a. The marina is primarily intended and designed to serve the residents of the district in which it is located;
 - b. The parcel proposed for development has access to water of at least four (4) feet below mean sea level at mean low tide;
 - c. The sale of goods and services is limited to fuel, food, boating and diving and sport fishing products;
 - d. Vessels docked or stored shall not be used for live-aboard purposes; and
 - e. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height;
- (2) Commercial retail of low intensity of less than twenty-five hundred (2,500) square feet of floor area, provided that:
 - a. The parcel of land on which the commercial retail use is to be located abuts the right-of-way of U.S. 1;
 - b. The primary structure must be located within two hundred (200) feet of the center line of U.S. 1;
 - c. The commercial retail use does not involve the sale of petroleum products;
 - d. The commercial retail use does not involve the outside storage of merchandise;

- e. There is no direct access to U.S. 1 from the parcel of land on which the commercial retail use is to be located;
- f. The structure in which the commercial retail use is to be located is separated from the U.S. 1 right-of-way by a class C bufferyard;
- g. The structure in which the commercial retail use is to be located is separated from any existing residential structure by a class C bufferyard; and
- h. No signage other than one (1) identification sign of no more than four (4) square feet shall be placed in any yard or on the wall of the structure in which the commercial retail use is to be located except for the yard or wall that abuts the right-of-way of U.S. 1. (Ord. No. 19-1989, § 1(PD69))

Annotation—The intent of amendment 58, adding subsection (b)(8), was to allow storage areas as of right, subject to the provision that if 25% of the gross area is exceeded, planning commission approval be required.

Sec. 9.5-236. Sub Urban Residential District.

(a) The following uses are permitted as of right in the Sub Urban Residential District:

- (1) Detached residential dwellings;
- (2) Community parks;
- (3) Beekeeping;
- (4) Home occupations—Special use permit requiring a public hearing;
- (5) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Sub Urban Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. The total number of units does not exceed four (4) per building;
 - b. The structures are designed and located so that they are visually compatible with established residential

- development within two hundred fifty (250) feet of the parcel proposed for development; and
- c. The parcel proposed for development is separated from any established detached residential use by a class C bufferyard;
- (2) Public or private community tennis courts and swimming pools, provided that:
- a. The parcel of land proposed for development does not exceed five (5) acres;
 - b. The parcel proposed for development is separated from any established residential use by a class C bufferyard; and
 - c. All outside lighting is designed and located so that light does not shine directly on any established residential use;
- (3) Public buildings and uses, provided that:
- a. The parcel proposed for development is separated from any established residential use by a class C bufferyard; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (4) Commercial retail of low- and medium-intensity or office uses or any combination thereof of less than twenty-five hundred (2,500) square feet of floor area, provided that:
- a. The parcel of land on which the commercial retail use is to be located abuts the right-of-way of U.S. 1, or a dedicated right-of-way to serve as a frontage road for U.S. 1;
 - b. The structure must be located within two hundred (200) feet of the centerline of U.S. 1;
 - c. The commercial retail use does not involve the sale of petroleum products;

- d. The commercial retail use does not involve the outside storage or display of goods or merchandise with the exception that outside sales and display for nurseries may be permitted with the stipulation that required open space and required bufferyards may not be used for display and sales.
 - e. There is no direct access to U.S. 1 from the parcel of land on which the commercial retail use is to be located;
 - f. The structure in which the commercial retail use is to be located is separated from the U.S. 1 right-of-way by a class C bufferyard;
 - g. The structure in which the commercial retail use is to be located is separated from any existing residential structure by a class C bufferyard; and
 - h. No signage other than one (1) identification sign of no more than four (4) square feet shall be placed in any yard or on the wall of the structure in which the commercial retail use is to be located except for the yard or wall that abuts the right-of-way for U.S. 1;
- (5) Parks and community parks;
- (6) Institutional uses provided that:
- a. The parcel proposed for development is separated from any established residential uses by a class C bufferyard; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (7) Churches, synagogues, and houses of worship, provided that:
- a. The parcel proposed for development is separated from any established residential uses by a class C bufferyard; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut; or
 - (ii) A signalized intersection; or

- (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet.

(c) The following uses are permitted as major conditional uses in the Sub Urban Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development; and
 - b. The parcel proposed for development is separated from any established residential use by a class C bufferyard;
- (2) Institutional residential uses, provided that:
 - a. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
 - b. The parcel proposed for development is separated from any established residential use by a class C bufferyard; and
 - c. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;
- (3) Marinas, provided that:
 - a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The use does not involve the sale of goods and services other than private clubs, sport fishing charters, boat dockage and storage;
 - c. All boat storage is limited to surface storage on trailers or skids and no boats or other equipment is stored on any elevated rack, frame or structure;
 - d. Vessels docked or stored shall not be used for live-aboard purposes;

- e. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
 - f. The parcel proposed for development is separated from any established residential use by a class D bufferyard;
- (4) Agricultural uses, provided that:
- a. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
 - b. The parcel proposed for development is separated from any established residential use by at least a class C bufferyard; and
 - c. All outside storage areas are screened from adjacent uses by solid fence, wall or hedge at least six (6) feet in height;
- (5) Campgrounds, provided that:
- a. The parcel proposed for development has an area of at least five (5) acres;
 - b. The operator of the campground is the holder of a valid Monroe County occupational license;
 - c. If the use involves the sale of goods and services, other than the rental of camping sites or recreational vehicle parking spaces, such use does not exceed one thousand (1,000) square feet and is designed to serve the needs of the campground; and
 - d. The parcel proposed for development is separated from all adjacent parcels of land by at least a class D bufferyard;
- (6) Hotels of fewer than twelve (12) rooms, provided that:
- a. The parcel proposed for development has an area of at least one (1) acre;
 - b. All signage is limited to that permitted for a residential use;
 - c. The parcel proposed for development is separated from any established residential use by at least a class D bufferyard; and

- d. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
- (7) Clubhouse or meeting facilities for educational and public interest purposes, provided that:
 - a. The use does not exceed five thousand (5,000) square feet of floor area; and
 - b. The parcel proposed for development is separated from all adjacent residential uses by a class C bufferyard;
- (8) Communication towers, provided that:
 - a. The parcel proposed is at least one (1) acre; and
 - b. The tower is set back from the property line a distance equal to the height of the tower and any guy supports are set back twenty (20) feet from any property line. (Ord. No. 33-1986, § 9-206; Ord. No. 40-1987, § 56; Ord. No. 19-1989, § 1(PD66E), (PD72)-(PD75); Ord. No. 21-1989, § 1(PD59N))

Editor's note—Subsection (b)(6) was added by DCA Rule 28-20.023.

Annotation—The intent of amendment 56, amending subsection (a)(4), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-237. Sub Urban Residential District (Limited).

The following uses are permitted as of right in the Sub Urban Residential District (Limited):

- (1) Detached residential dwellings;
- (2) Community parks;
- (3) Beekeeping;
- (4) Home occupations—Special use permit requiring a public hearing;
- (5) Accessory uses. (Ord. No. 33-1896, § 9-207; Ord. No. 40-1987, § 56)

Annotation—The intent of amendment 56, amending subsection (4) was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-238. Sparsely Settled Residential District.

(a) The following uses are permitted as of right in the Sparsely Settled Residential District:

- (1) Detached residential dwellings;
- (2) Beekeeping;
- (3) Home occupations—Special use permit requiring a public hearing;
- (4) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Sparsely Settled Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. The total number of units does not exceed four (4); and
 - b. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development;
- (2) Public or private community tennis courts and swimming pools, provided that:
 - a. The parcel of land proposed for development does not exceed five (5) acres;
 - b. The parcel proposed for development is separated from any established residential use by a class D bufferyard; and
 - c. All outside lighting is designed and located so that light does not shine directly on any established residential use;
- (3) Public buildings and uses, provided that:
 - a. The parcel proposed for development is separated from any established residential use by a class C bufferyard; and
 - b. The parcel of land proposed for development is at least two (2) acres;
- (4) Parks and community parks.

(c) The following uses are permitted as major conditional uses in the Sparsely Settled Residential District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development; and
 - b. The parcel proposed for development is separated from any established residential use by a class C bufferyard;
- (2) Marinas, provided that:
 - a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The use does not involve the sale of goods or services other than sport fishing charters, boat dockage and storage;
 - c. All boat storage is limited to surface storage on trailers or skids and no boats or other equipment is stored on any elevated rack, frame or structure;
 - d. Vessels docked or stored shall not be used for live-aboard purposes;
 - e. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
 - f. The parcel proposed for development is separated from any established residential use by a class D bufferyard;
- (3) Agricultural uses, provided that:
 - a. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
 - b. The parcel proposed for development is separated from any established residential uses by at least a class C bufferyard; and
 - c. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height;
- (4) Campgrounds, provided that:
 - a. The parcel proposed for development has an area of at least five (5) acres;

- b. The operator of the campground is the holder of a valid Monroe County occupational license;
 - c. If the use involves the sales of goods and services, other than the rental of camping sites, such use does not exceed one thousand (1,000) square feet and is designed to serve the needs of the campground; and
 - d. The parcel proposed for development is separated from all adjacent parcels of land by at least a class D bufferyard;
- (5) Hotels of fewer than twelve (12) rooms, provided that:
- a. The parcel proposed for development has an area of at least one (1) acre;
 - b. All signage is limited to that permitted for a residential use;
 - c. The parcel proposed for development is separated from any established residential use by at least a class D bufferyard; and
 - d. The use is compatible with land use established in the immediate vicinity of the parcel proposed for development;
- (6) Solid waste facility, provided that:
- a. The parcel of land proposed for development is at least forty (40) acres;
 - b. All landfill activity occurs no closer than one hundred fifty (150) feet to any property line and at least a class F buffer is provided within this setback;
 - c. No fill shall exceed thirty-five (35) feet in height from the original grade of the property;
 - d. Such operations comply with section 403.701 et seq., Florida Statutes;
 - e. A future reclamation plan for the landfill site is presented;
 - f. The incinerator is located so that its operations do not adversely affect surrounding properties;
 - g. Road access to the site from U.S. 1 is limited to traffic serving the landfill; and
 - h. Three (3) alternative feasible sites are presented as part of the conditional use application;
- (7) Communications towers, provided that the parcel proposed is at least one (1) acre. (Ord. No. 33-1986, § 9-208; Ord. No.

40-1987, § 56; Ord. No. 19-1989, § 1(PD66F), (PD77A), (PD79))

Annotation—The intent of amendment 56, amending subsection (a)(3), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-239. Native Area District.

(a) The following uses are permitted as of right in the Native Area District:

- (1) Detached residential dwellings;
- (2) Beekeeping;
- (3) Home occupations—Special use permit requiring a public hearing;
- (4) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Native Area District, subject to the standards and procedures set forth in article III, division 3:

- (1) Attached residential dwelling units, provided that:
 - a. The total number of units does not exceed four (4); and
 - b. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development;
- (2) Public buildings and uses, provided that:
 - a. The parcel proposed for development is separated from any established residential use by a class C bufferyard; and
 - b. The parcel proposed for development is at least two (2) acres;
- (3) Agricultural uses, provided that:
 - a. The use is compatible with land uses established in the immediate vicinity of the parcel proposed for development;
 - b. The parcel proposed for development is separated from any established residential uses by at least a class C bufferyard;

- c. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge of at least six (6) feet in height; and
- (4) Radio, television and telephone communication systems, provided that the applicant demonstrates compliance with the standards in section 9.5-345.
- (c) The following uses are permitted as major conditional uses in the Native Area District, subject to the standards and procedures set forth in article III, division 3:
 - (1) Attached residential dwelling units, provided that:
 - a. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development; and
 - b. The parcel proposed for development is separated from any established residential use by a class C bufferyard;
 - (2) Marinas, provided that:
 - a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The use does not involve the sale of goods or services other than boat dockage and storage;
 - c. All boat storage is limited to surface storage on trailers or skids and no boats or other equipment is stored on any elevated rack, frame or structure;
 - d. Vessels docked or stored shall not be used for live-aboard purposes;
 - e. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
 - f. The parcel proposed for development is separated from any established residential use by a class D bufferyard;
 - (3) Solid waste facility, provided that:
 - a. The parcel of land proposed for development is at least forty (40) acres;

- b. All landfill activity occurs no closer than one hundred fifty (150) feet to any property line and at least a class F buffer is provided within this setback;
 - c. No fill shall exceed thirty-five (35) feet in height from the original grade of the property;
 - d. Such operations fully comply with section 403.701 et seq., Florida Statutes;
 - e. A future reclamation plan for the landfill site is presented;
 - f. The incinerator is located so that its operations do not adversely affect surrounding properties; and
 - g. Road access to the site from U.S. 1 is limited to traffic serving the landfill;
- (4) Communications towers, provided that:
- a. The parcel proposed is at least one (1) acre; and
 - b. The tower is set back from the property line a distance equal to the height of the tower, and any guy supports are set back twenty (20) feet from any property line. (Ord. No. 33-1986, § 9-209; Ord. No. 40-1987, §§ 56, 61; Ord. No. 19-1989, § 1(PD81))

Annotation—The intent of amendment 56, amending subsection (a)(3), was that all home occupations require a special use permit, regardless of district. Amendment 61 added subsection (b)(4), with the intent of permitting communication towers in Native Area Districts.

Sec. 9.5-240. Mainland Native Area District.

All development permitted in the Mainland Native Area District shall comply with applicable rules and regulations of the Big Cypress National Preserve.

(a) The following uses are permitted as of right in the Mainland Native Area District:

- (1) Detached residential dwellings;
- (2) Beekeeping;
- (3) Accessory uses;
- (4) Home occupations—Special use permit requiring a public hearing;

(b) The following use is permitted as a minor conditional use subject to the standards and procedures set forth in article III, division 3:

- (1) Educational and research centers, including campground spaces, provided that:
 - a. No more than two (2) camping spaces are provided per acre;
 - b. No development of any kind is permitted in wetlands, except unenclosed, elevated structures on pilings or poles;
 - c. No buildings are permitted, enclosed or otherwise except for buildings devoted to educational, research or sanitary purposes no more than one thousand (1,000) square feet per acre and not more than ten thousand (10,000) square feet in any single campground; and
 - d. The site proposed for the enter is at least five (5) acres. (Ord. No. 33-1986, § 9-210; Ord. No. 40-1987, § 56)

Annotation—The intent of amendment 56, amending subsection (a)(4), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-241. Offshore Island District.

(a) The following uses are permitted as of right in the Offshore Island District:

- (1) Detached residential dwellings;
- (2) Camping, for the personal use of the owner of the property on a temporary basis;
- (3) Beekeeping;
- (4) Accessory uses;
- (5) Home occupations—Special use permit requiring a public hearing.

(b) The following uses are permitted as major conditional uses in the Offshore Island District, subject to the standards and procedures set forth in article III, division 3:

- (1) Marinas, provided that:
 - a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products;
 - c. All boat storage is limited to surface storage on trailers or skids and no boats or other equipment is stored on any elevated rack, frame or structure;
 - d. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
 - e. The parcel proposed for development is separated from any established residential use by a class C bufferyard;
- (2) Campgrounds, provided that:
 - a. The operator of the campground is the holder of a valid Monroe County occupational license;
 - b. The parcel proposed for development has an area of at least five (5) acres; and
 - c. The use does not involve the sale of goods and services other than the rental of camping sites, recreational vehicle parking spaces or the sale of goods and services limited to the needs of campers. (Ord. No. 33-1986, § 9-211; Ord. No. 40-1987, § 56)

Annotation--The intent of amendment 56, amending subsection (a)(5), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-242. Improved Subdivision District.

(a) The following uses are permitted as of right in the Improved Subdivision District:

- (1) In those Improved Subdivision Districts with no subdistrict indicator, detached dwellings of all types;
- (2) In those Improved Subdivision Districts with an M subdistrict indicator, only detached dwellings of masonry construction;
- (3) In those Improved Subdivision District with a D subdistrict indicator:

- a. Detached dwellings;
- b. Duplexes;

(4) Home occupations—Special use permit requiring a public hearing;

(5) Accessory uses.

(b) The following uses are permitted as minor conditional uses in the Improved Subdivision District, subject to the standards and procedures set forth in article II, division 3:

- (1) Parks and community parks;
- (2) Public parks;
- (3) Schools.

(c) The following uses are permitted as major conditional uses in the Improved Subdivision District, subject to the standards and procedures set forth in article III, division 3:

- (1) Commercial retail of low- and medium-intensity and office uses or any combination thereof of less than twenty-five hundred (2,500) square feet of floor area, provided that:
 - a. The parcel of land on which the commercial retail use is to be located abuts the right-of-way of U.S. 1, or a dedicated right-of-way to serve as a frontage road for U.S. 1;
 - b. The structure must be located within two hundred (200) feet of the centerline of U.S. 1;
 - c. The commercial retail use does not involve the sale of petroleum products;
 - d. The commercial retail use does not involve the outside storage or display of goods or merchandise;
 - e. There is no direct access to U.S. 1 from the parcel of land on which the commercial retail use is to be located;
 - f. The structure in which the commercial retail use is to be located is separated from the U.S. 1 right-of-way by a class C bufferyard;
 - g. The structure in which the commercial retail use is to be located is separated from any existing residential structure by a class C bufferyard; and

- h. No signage other than one (1) identification sign of no more than four (4) square feet shall be placed in any yard or on the wall of the structure in which the commercial retail use is to be located except for the yard or wall that abuts the right-of-way for U.S. 1. (Ord. No. 33-1986, § 9-212; Ord. No. 40-1987, § 56; Ord. No. 19-1989, § 1(PD66J), (PD84), (PD86); Ord. No. 21-1989, § 1(PD62N))

Annotation—The intent of amendment 56, amending subsection (a)(4), was that all home occupations require a special use permit, regardless of district.

Sec. 9.5-243. Destination Resort District.

(a) The following uses are permitted as of right in the Destination Resort District:

- (1) Single-family detached dwellings, provided that:

- a. The lot has sufficient land area and dimensions to meet the requirements of chapter 10D-6, Florida Administrative Code.

(b) The following uses are permitted as minor conditional uses in the Destination Resort District, subject to the standards and procedures set forth in article III, division 3:

- (1) One (1) or more resort hotels provided that:

- a. The hotel has restaurant facilities on or adjacent to the premises that will accommodate no less than one-third of all hotel guests at maximum occupancy at a single serving; and
- b. There are at least two (2) satellite eating and drinking facilities, each accommodating at least twenty-five (25) persons; and
- c. A separate meeting/conference and entertainment area which can also function as a banquet facility; and
- d. A lobby which provides twenty-four-hour telephone and reservation service; and
- e. Active and passive recreation land-based facilities are available, with a minimum of tennis courts, or racquetball courts, or a spa/exercise room, provided at the standards given below and at least two (2) additional active

and one (1) additional passive recreation facility, including but not limited to the following:

Active Recreational Facilities

Tennis court, @ 1/25 units
 Racquetball court, @ 1/25 units
 Spa/exercise room, of no less than 500 square feet, @ 1/150 units
 Observation area, @ 1/hotel
 Dance floor, @ 1/hotel
 Playfield/playground, @ 1/150 units
 Miniature golf course, @ 1/hotel
 Golf course, @ 1/hotel
 Shuffleboard court, or other court games, @ 2/50 units
 Fitness course, @ 1/hotel

Passive Recreational Facilities

Nature trail walk, @ 1/hotel
 Game room, @ 1/150 units
 Garden area, @ 1/hotel

Other uses may be substituted for these with the written approval of the director of planning stating the standards utilized and the manner in which guests will be served by such facilities. The director of planning shall base his decision on generally accepted industry standards for comparable destination resorts;

- f. Active and passive water-oriented recreational facilities are available, a minimum of a swimming pool, or swimming areas, at the rate of seven (7) square feet of water surface (excluding hot tubs and jacuzzis) per hotel room (this requirement may be converted to linear feet of shoreline swimming area at a ratio of one (1) linear foot of beach per seven (7) square feet of required water surface);
- g. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;

- h. Each hotel establishes and maintains shuttle transport service to airports and tourist attractions to accommodate ten (10) percent of the approved floor area in guest rooms; and such housing shall be of any of the following types - dormitory, studio, one (1) bedroom, two (2) bedrooms - and shall be in addition to the approved hotel density and used exclusively by employees qualifying under the employee housing provisions elsewhere in this chapter;
- i. On-site employee housing living space is provided in an amount equal to ten (10) percent of the approved floor area in guest rooms; and such housing shall be of any of the following types - dormitory, studio, one (1) bedroom, two (2) bedrooms - and shall be in addition to the approved hotel density and used exclusively by employees qualifying under the employee housing provisions elsewhere in this chapter;
- j. Commercial retail is provided at a minimum of two hundred (200) square feet to include convenience retail, food sales and gifts in one (1) or more sites, excluding restaurants as required by section (1)b, and in addition one and three-tenths (1.3) square feet of commercial retail per each guest room greater than one hundred fifty (150) rooms. Additional commercial retail may be provided subject to the floor area ratio limitations of this chapter. Commercial retail may consist of dive shops, boat rentals, gift shops, barber/beauty services, travel agencies, provided that there is no extension signage advertising these amenities to the general public. Water-related services and activities shall be located immediately proximate to the water unless otherwise prohibited.

(c) The following uses are permitted as major conditional uses in the Destination Resort District when they are accessory to a destination resort, subject to the standards and procedures set forth in article III, division 3:

(1) Marinas, provided that:

- a. There are a minimum of seven (7) boat slips, but the total number of boats stored on-site or elsewhere for

- guests or employees shall be no greater than one (1) per hotel room;
- b. The parcel for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - c. The sale of goods and services is limited to fuel, food, boating, and sport fishing products;
 - d. All boat storage shall be confined to wet slips or enclosed dry storage;
 - e. All storage areas are screened from adjacent uses by a solid fence, wall or hedge of at least six (6) feet in height; and elevated racks, frames or structures shall be enclosed on at least three (3) sides from the ground to the highest point of the roof;
 - f. The parcel proposed for development is separated from any established residential use by a class D buffer-yard;
 - g. Live-aboard vessels are prohibited;
- (2) Employee dwelling units, provided that:
- a. They are built for and occupied by employees of the destination resort facilities; and
 - b. The total area is no less than ten (10) percent of the approved floor area in guest rooms of the resort/hotel(s) within the development; and
 - c. The structures are designed and located so that they are visually compatible with established residential development within two hundred fifty (250) feet of the parcel proposed for development; and
 - d. The parcel proposed for development is separated from any established residential use by a class C buffer-yard.
- (3) Attached residential dwelling units, provided that the lot has sufficient land area and dimensions to meet the requirements of chapter 10D-6, Florida Administrative Code, for the installation of on-site wastewater treatment systems. (Ord. No. 33-1986, § 9-213)

Editor's note—Section 9.5-243 reads as amended by DCA Rule 28-20.023.

Sec. 9.5-244. Recreational Vehicle District.

(a) The following uses are permitted as of right in the Recreational Vehicle District:

- (1) Recreational vehicle spaces;
- (2) Commercial retail uses of less than twenty-five hundred (2,500) square feet of floor area;
- (3) Accessory uses, including permanent owner/employee residential dwelling units. No more than one (1) permanent residential unit per three (3) RV spaces up to ten (10) percent of total spaces allowed or in existence.

(b) The following use is permitted as a minor conditional use in the Recreational Vehicle District, subject to the standards and procedures set forth in article III, division 3:

- (1) Hotels providing less than fifty (50) rooms, provided that:
 - a. The use is compatible with established land uses in the immediate vicinity; and
 - b. One (1) or more of the following amenities are available to guests:
 - (i) Swimming pool;
 - (ii) Marina; and
 - (iii) Tennis court; and
- (2) Parks and community parks.

(c) The following use is permitted as a major conditional use in the Recreational Vehicle District, subject to the standards and procedures set forth in article III, division 3:

- (1) Hotels providing fifty (50) or more rooms, provided that:
 - a. The hotel has restaurant facilities on or adjacent to the premises; and
 - b. Access to U.S. 1 is by way of:
 - (i) An existing curb cut;
 - (ii) A signalized intersection; or
 - (iii) A curb cut that is separated from any other curb cut on the same side of U.S. 1 by at least four hundred (400) feet;

(2) Marinas, provided that:

- a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
- b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products;
- c. Vessels docked or stored shall not be used for live-aboard purposes;
- d. All outside storage areas are screened from adjacent uses by a solid fence, wall or hedge at least six (6) feet in height; and
- e. The parcel proposed for development is separated from any established residential use by a class D bufferyard. (Ord. No. 33-1986, § 9-214; Ord. No. 40-1987, § 63; Ord. No. 19-1989, § 1(PD66K))

Annotation—The intent of amendment 63, amending subsection (a)(3), was to allow some permanent R.V. uses so long as the users are employees of that particular park.

Sec. 9.5-245. Commercial Fishing Area District (CFA).

(a) In order to provide for the special needs of the commercial fishing industry, all commercial fishing areas and villages are given the below special considerations.

(b) All commercial fishing districts under minor conditional use may vary the requirements of that district.

(c) The purpose of this flexibility is to ensure general compliance with plan requirements while maintaining good environmental quality and community character.

- (1) Temporary uses specifically involving trap construction, maintenance and repair are hereby exempted from FAR and OSR requirements.
- (2) Sanitary toilet facilities may be provided by using approved, portable units.
- (3) Setbacks may be varied by the planning director upon a written recommendation by the environmental resources coordinator that stormwater runoff can be appropriately controlled due to the provisions of new gutters, berms or similar devices; shoreline setbacks may also be varied.

- (4) The vegetated bufferyards requirements may be varied to include fences or natural vegetation except when abutting residential districts.
 - (5) Lighting requirements may be reduced or waived where the planning director and environmental resources coordinator agree that light intrusion, either to adjoining properties or waterfront areas, will have no adverse community character or habitat impacts.
 - (6) Except for retail and wholesale operations, parking requirements may be met by the provision of one (1) parking or loading space for each individual lot of six thousand (6,000) square feet or less. Larger lots or tracts shall proportionately meet this same requirement.
 - (7) Attached dwellings, provided that the total floor area of residential uses in a Commercial Fishing Area District (CFA) does not exceed twenty-five (25) percent of the land area in the Commercial Fishing Area District (CFA).
 - (8) Commercial retail, low- and medium-intensity uses, provided that the goods and services are related to or supportive of the commercial fishing industry.
 - (9) Light industrial uses, including marine repair services, provided that such uses are intended to serve the needs of the commercial fishing industry.
- (d) The following uses are permitted as major conditional uses in the Commercial Fishing Area District:
- (1) Marinas and boat chartering, provided that:
 - a. The parcel proposed for development has access to water at least four (4) feet below mean sea level at mean low tide;
 - b. The sale of goods and services is limited to fuel, food, boating, diving and sport fishing products;
 - c. Vessels docked or stored shall not be used for live-aboard purposes, except when a permitted sewage pumpout facility is available on-site and where the waste is treated in a permitted sewage treatment facility;

Doug -- Are we going to need sanctuary permits for artificial reefs, DV removals, channel marking, etc.?

John -- The question is whether or not to remove the DV. How much damage will it do if left there? How much will be caused by removing it? In the Key Largo and Looe Key Sanctuaries with groundings, we have been fine tuning removals for minimal damage. We wait for the high tide, we may wait for a higher tide. Our ability to do damage assessment is getting better.

Henry -- What about using stump rot to make the wooden boats rot in place faster. We could get a chipper for fiberglass hulls.

Virginia Barker-- What toxic chemicals are in stump rot? Is it biodegradable or does it rot fish and seagrass too?

Bob -- Toppino's marine chipper would do the job.

Harold Hudson -- Has the State had success in finding the owners and recouping dollars?

Vicente -- We have gone after several in the past, but it is discouraging. We tracked down one on Cudjoe and charged him with 12 criminal and federal accounts. The court discounted all but a few and only charged him \$700 in fines. The boat is still there.

Duke -- Nice boats are not a problem; they all get taken.

George -- Does anyone have ideas for prevention in addition to Kim's Amnesty Day?

Ed Crusoe -- Most people don't know what to do. Many would probably comply if their options were well advertised.

Bob -- Advertise on tax bills.

George -- Many people simply cannot afford to do what is right. What options could we provide to catch those boats before they become DVs?

Ed Crusoe -- Notify people of their options on their boat registrations.

George -- We could post flyers at marinas.

Kim -- We will need a combination of all those ideas.

H.T. -- Can we go back to the state and get them to cover the cost of Amnesty Day?

Ed Crusoe -- You should check with Chuck Hamlin about other grant ideas. He's been running these programs in Key West for quite a while now and has a lot of knowledge.

Doug -- Well I think the major unresolved circumstance is what to do with floating DVs.

Ed Crusoe -- If there was a good samaritan law that protected towers from liability, then boats could be towed to a Coast Guard base.

Kim -- We had someone tow a boat into a marina. Since it is dockside now, it is no longer a derelict.

Henry -- Lots of us get stuck in that situation. We can't just let them float, we tow them in and then we are stuck with them.

Jeff -- Vessels heading for reef come under admiralty law and are eligible for EPA superfunds. There should be a federal solution. If the boat poses a hazard due to fuel onboard, then FMP can say that a grounding would be disastrous. Coast Guard should be concerned about safety. If the boat is upside-down, then a direct hit would likely damage the fuel tank. Contact Danmark for names and procedures.

John -- Where the sanctuary has officers, we would respond to floaters.

Henry -- Some of the insurance companies are trying to just pay a flat fee of \$5000 per boat for towing. One guy decided it wasn't worth the trouble for \$5000 so he left the boat and then the insurance paid \$40,000 for picking up all the wreckage off the beach.

Harold Hudson -- If no-one is there to help, then we will have to do it. If salvors won't volunteer to help, then NOAA will have to step in and do it themselves.

Ed Crusoe -- Coral grows back. I've seen staghorns growing on beer cans. Coast Guard used to dynamite coral heads in Hawk's Channel and they kept growing back.

Henry -- We'll tow them in if we can get FMP to come fill out a report form and get the County to give us the go ahead. Can NOAA officers write up DV reports?

Vicente -- I don't know. Ask NOAA.

George -- Cross deputization is being worked out by the sanctuary. When this is done, it will take care of jurisdictional delineations. The sanctuary is working out cooperative agreements so that everyone's roles remain the same but there is greater coordination.

This is the only workshop on DVs. We will rely heavily on the advice of Doug and Kim. We will summarize your comments and send them to you for review. We need your address so we can make sure we recorded your thoughts accurately.

We want the program to continually evolve. Ultimately, a derelict vessel plan will be written up as part of the Boating Impacts Management Plan. Through coordination up front with all the other interested agencies, we will agree on a plan cognizant of everyone's needs and concerns. We will coordinate with the Coast Guard, federal, state, and local agencies in the near future.

Doug -- We don't want this plan to become a requirement that might hold back the people operating the program. It should provide a basis from which improvements can be made and evolution of the program may occur over time.

George -- We just want to document the procedure now and leave flexibility for future improvements.

SUMMARY

The agenda distributed at the workshop consisted of nine questions presented to stir discussion on all aspects of the current program. A summary of the responses to each question follows below:

Question: Is there any supplemental information that would be of benefit to salvagers if added to the Florida Marine Patrol report form?

Written comments received from contractors in the past requested better maps of the locations of DVs and possibly their loran coordinates. Officer Lopez now checks all maps and makes sure they are clearly marked. There were no additional suggestion made during the workshop.

Question: Derelict vessels move, break apart, and sometimes disappear. How often should old reports be updated and what information needs to be included?

Reports should be updated annually. New pictures should be taken and the DV numbers should be repainted on the vessel. Officer Lopez suggested that ideally the originating officer should be the one to verify any old report.

Question: Since it will take several years to remove the majority of Monroe County derelict vessels, how do we decide which derelict vessels should go first?

From past experience, Kim Blanco related that the most efficient way to remove boats is by geographic area.

Several attendees stressed the importance of removing vessels posing navigational hazards immediately. Boats that are floating and could pose a potential for grounding on sensitive habitat were also recommended for emergency removal.

Another priority mentioned was old DVs. The longer they sit there, the more they break apart and the more costly they are to remove. They do not reflect well on the program.

Question: The limiting factor in removing derelict vessels is funding available, not DVs. Should bids then be based on the number of vessels a contractor will remove for a fixed contract price?

Extension Services proposed that the bid go by price per foot with the lowest bidder receiving all the funding for a section of the Keys. The only complication brought up by salvors is that tipping fees are to be included in their bid. Tipping fees are gaged by the pound, not the foot. Responding to this thought, staff suggested that the bid could be price/foot for removal plus tipping fees.

Question: The contractor assumes liability for damage done to natural resources while removing a derelict vessel. Should the County reduce that liability by stipulating acceptable removal techniques and equipment?

Staff pointed out that any such requirements would limit the creativity of the contractor and give larger businesses an edge over small businesses or those just getting started. While some contractors present agreed with this reasoning, others felt that some requirements were necessary to ensure that only competent operations with sufficient equipment to carry out the tasks safely, be considered. Those opposed maintained that they could rent whatever equipment might be necessary for the bigger jobs and did not need to own standard equipment.

Question: What affordable alternatives can we provide for proper disposal of unwanted vessels?

An "Amnesty Day" at the landfill was the most popular idea discussed. The possibility of using Boating Improvement Funds to pay for such an annual event was considered.

Other ideas included boater education, escrow accounts, recycling, and using old hulls as compost bins or flower beds.

Question: How can we educate locals and visitors of proper disposal and recycling alternatives?

Suggestions ranged from posters in marinas to notices on boater registration forms and tax notices.

Question: What other means are there to discourage vessel abandonment?

Increase prosecutions by identifying and tracing DVs more rapidly.

Question: What can be done to minimize the number and severity of groundings in the Florida Keys.

Coordinate with the Coast Guard for marking navigational hazards with specialized, lighted, floating buoys and increase channel marking.

CONCLUSIONS

In the last few years, Monroe County has seen substantial growth and improvement in the Derelict Vessel Removal Program. These changes are due to dedicated staff and contractors who have worked together to bring about changes that benefit us all. The workshop and written comments have demonstrated the large strides this program has taken and those that will be implemented the year to come. Staff remains committed to this program and will continue to work with all interested parties to remove derelict vessels from the Florida Keys.

We are sending the above record of the ideas and comments presented at the workshop to you for your review and revision. We will continue dialog with you in order to:

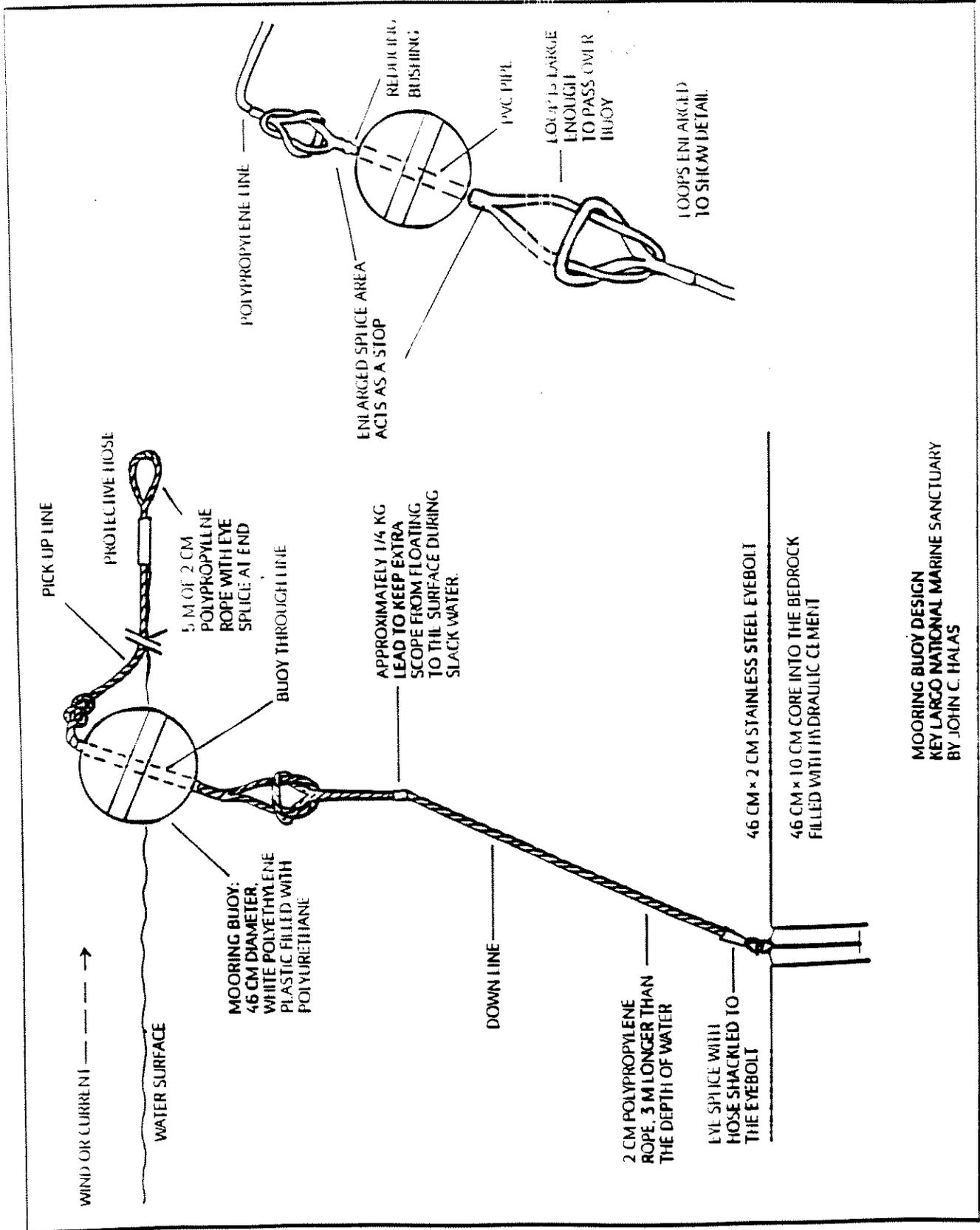
- 1) Refine procedures for reporting and prioritizing derelict vessels,
- 2) Improve the process of bidding, removing and disposing of vessels under a Monroe County DV removal contract,
- 3) Discourage additional, illegal abandonment of vessels in our waters and on land, and

4) Prevent groundings of vessels on sensitive Florida Keys marine habitat.

Please encourage others to become involved by sending their written comments to our office. They can be added to our mailing list to receive documents for review by sending their name, address, and request to our office. We applaud your ideas and efforts so far and we look forward to hearing from you soon.

APPENDIX C

APPENDIX D



MOORING BUOY DESIGN
 KEY LARGO NATIONAL MARINE SANCTUARY
 BY JOHN C. HALAS

Figure 1. The Halas Mooring System

Figure 2. The Manta-Ray Mooring System

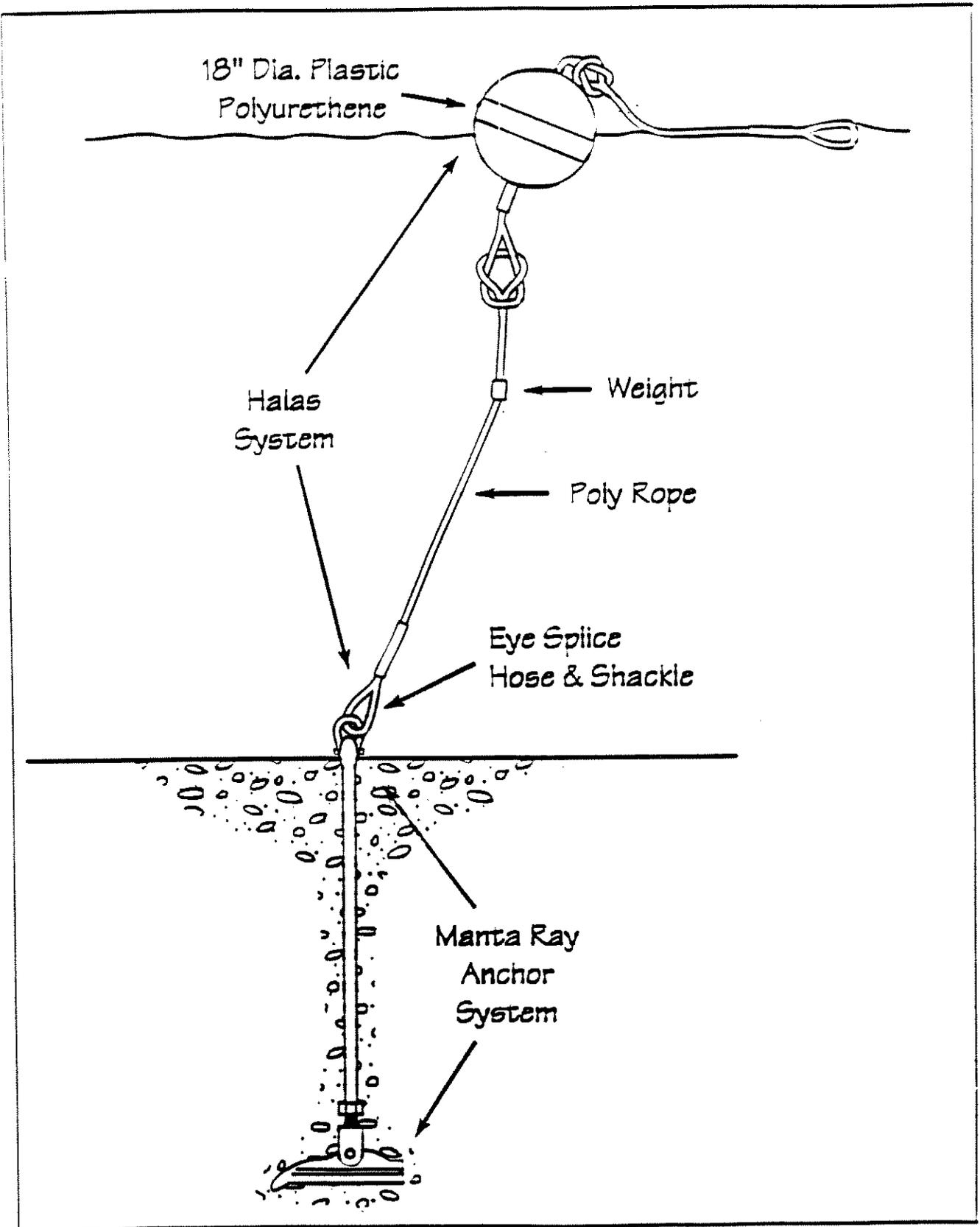
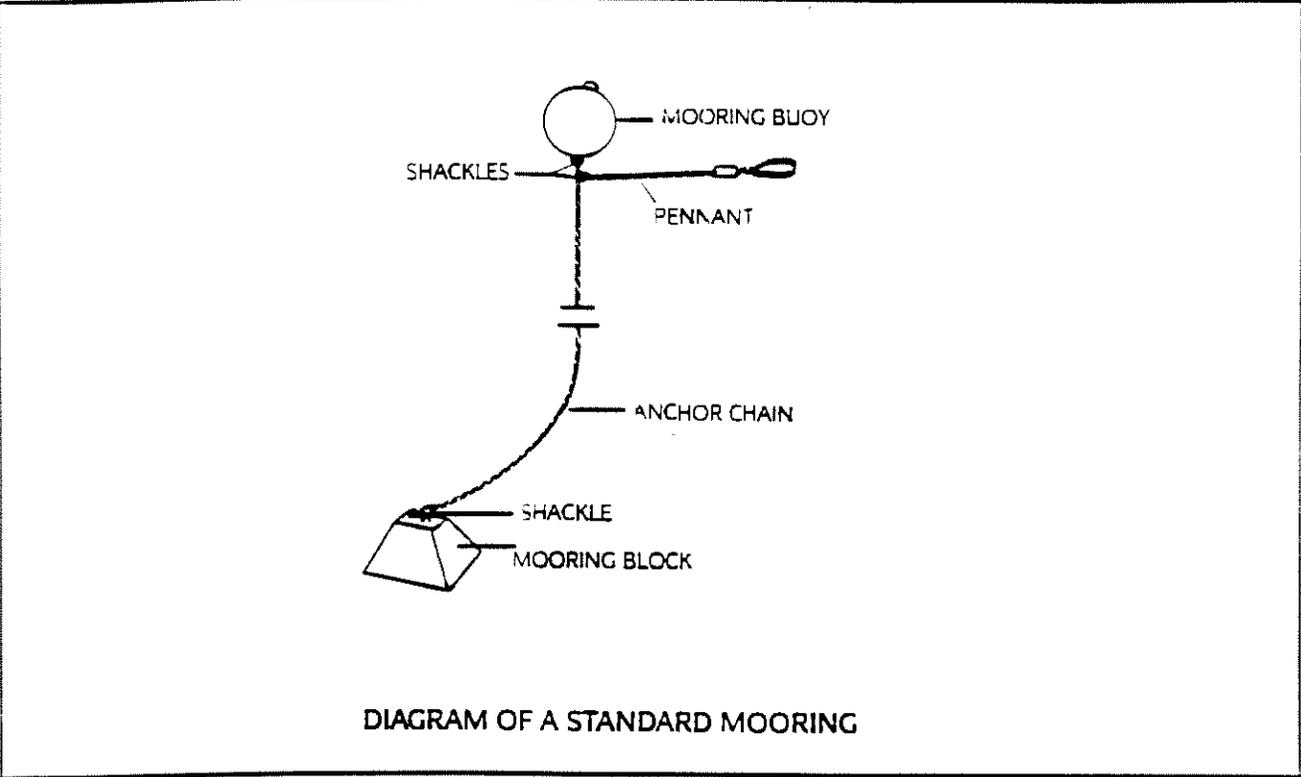
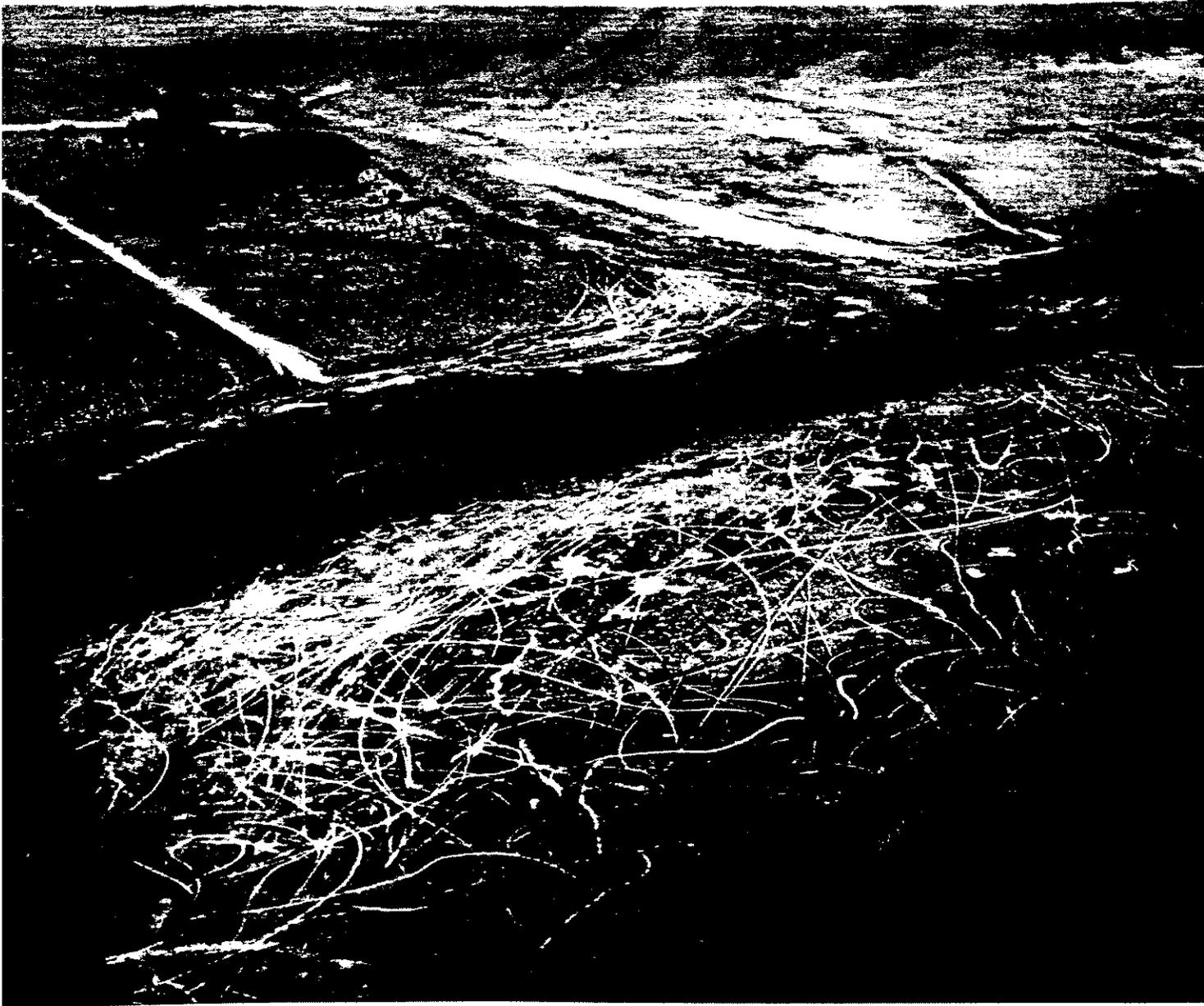


Figure 3. A Traditional Mooring System



APPENDIX E

IS UNCONTROLLED BOATING DAMAGING THOUSANDS OF ACRES OF FLORIDA'S SUBMERGED SEAGRASS MEADOWS?



June 4, 1987 Whale Harbor, THE FLORIDA KEYS.

THE ANSWER IS YES!
WE NEED YOUR HELP TO STOP THIS DESTRUCTION!

An information package prepared by:
THE WILDERNESS SOCIETY, FLORIDA KEYS AUDUBON SOCIETY
AND
LEWIS ENVIRONMENTAL SERVICES, INC.



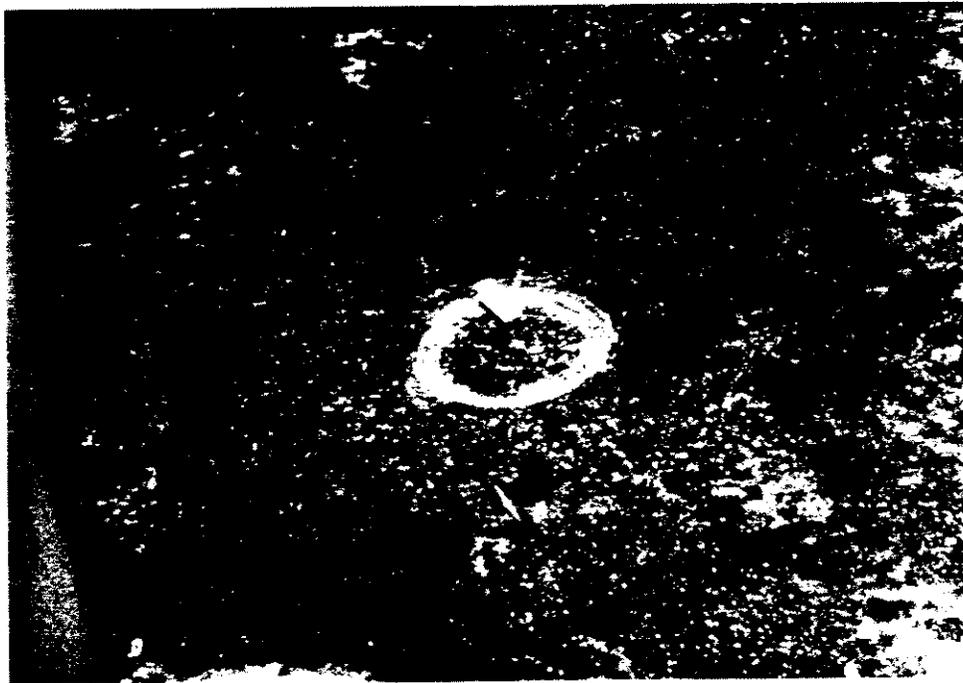
1 Shallow seagrass habitats and mangrove islands of the great White Heron National Wildlife Refuge, lower Florida Keys.



2. Vessel passage through shallow channel, Florida Bay near Islamorada.



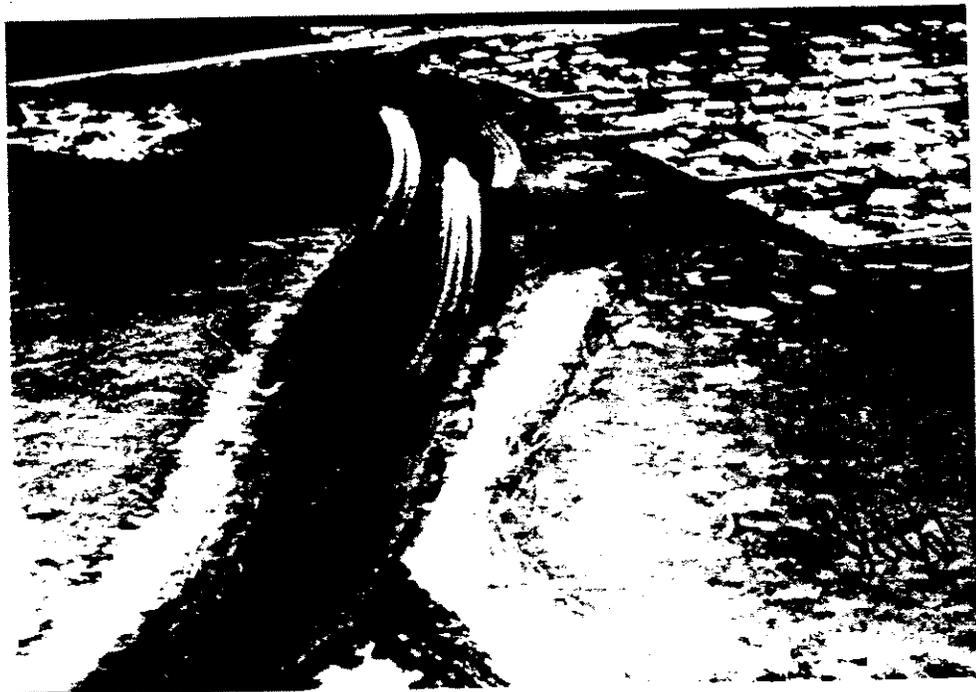
3. Live-aboard anchorage over seagrass, Boot Key Harbor, Marathon.



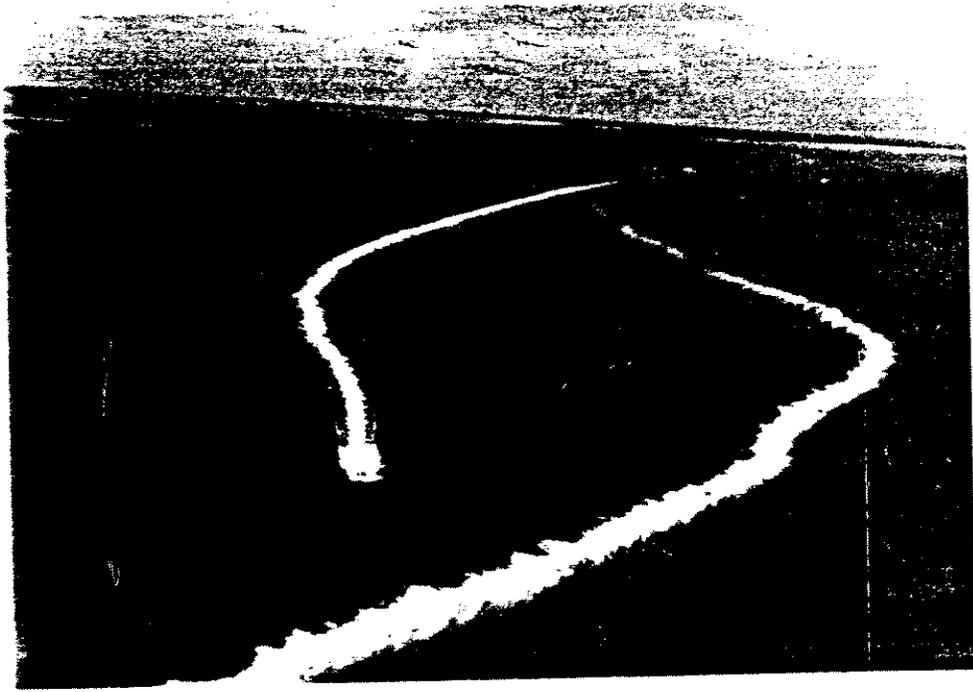
4. Destruction of seagrass by anchor damage, live-aboard houseboat, Key West.



7. Part of extensive prop dredging in Lignum Vitae State Aquatic Preserve, Florida Bay, Lower Matecumbe Key.



8. Prop dredging and channel expansion, Tavernier Creek, Atlantic oceanside, Tavernier.



9. Commercial vessel passage and turbidity in seagrass beds, Niles Channel, Great White Heron National Wildlife Refuge, Lower Keys.



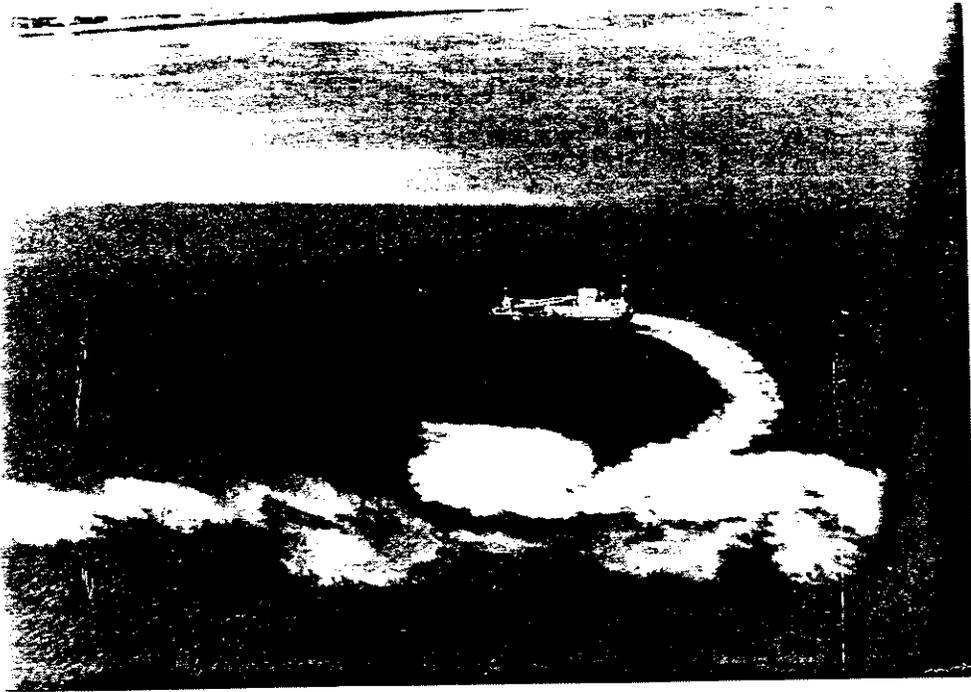
10. Deliberate prop dredging and turbidity at private residence near Flamingo Island, Marathon.



15. Extensive prop dredging and seagrass loss in and around old marked channel at Holiday Isle, Windley Key.



16. Channel creation near illegal private aid to navigation, North Pine Channel, Big Pine Key.



17. Oversize U.S. Coast Guard Buoy tender churning waters of Pine Channel adjacent to Coupon Bight State Aquatic Preserve, Big Pine Key.



18. Recent, deliberate prop dredged channel by live-aboard commercial vessels, Bogie Channel, No Name Key.



19. Labyrinth of tidal channels and intertidal seagrass flats, Great White Heron National Wildlife Refuge, lower Florida Keys.



20. Narrow, tidal Mangrove Creek, often used by nesting birds, Great White Heron National Wildlife Refuge, Snipe Keys.

APPENDIX F

**Channel Marking/Submerged Resource Protection
Comprehensive Summary**

INTRODUCTION

The Monroe County Department of Marine Resources met with the following user groups to discuss channel marking as a means to protect shallow water resources in the Florida Keys:

Commercial Fishermen	July 6, 1992	9:30am	Islamorada
Commercial Fishermen	July 6, 1992	2:30pm	Big Pine Key
Flats Fishing Guides	July 7, 1992	7:00pm	Marathon
Conservation Groups	July 27, 1992	2:00pm	Marathon
All Commercial Users	July 27, 1992	6:30pm	Marathon
General Public Users	July 28, 1992	6:30pm	Marathon.

Issues, strategies, and concerns presented by all the workshop participants will be used as we develop a draft Boating Impacts Management Plan containing proposed standards, criteria, and locations for marking channels. The draft plan will be presented to the Board of County Commissioners, the Department of Natural Resources, the Monroe County Marine and Port Advisory Committee and to the Florida Keys National Marine Sanctuary planners.

Thank you for the time you took to attend the workshops and participate in designing a channel marking plan for the Florida Keys. It is very important to us that the users have an active role in development of this plan. Marine Resources would like to use a refined version of this comprehensive workshop summary to accurately document the general concepts and specific concerns raised during the workshops. Please continue to participate in the planning process by reviewing this letter and calling or mailing any changes or additions to:

Monroe County Department of Marine Resources
5100 College Road, Wing III
Key West, FL 33040
292-4404 or toll free from up the Keys
743-0079 ext. 4404 or
852-1469 ext. 4404

Written comments will be accepted at the same address at least through October. We will be setting up more workshops in the future or contacting you through the mail or by phone.

The following people attended the 9:30am workshop with commercial fishermen:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Karen Kozlowski, Intern
Richard MacKinnon
Gary Nichols

Bob Carr
Pat Wells, Lignumvitae
George Jones, Pennekamp Coral Reef State Park
Rob Finegold, FL Keys National Marine Sanctuary

The following people attended the 2:30pm workshop with commercial fishermen:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Karen Kozlowski, Intern
Billy Niles
Eddy Owl
Karl Lessard
Rip Ballard
Scott Ballard
Joe Letson
Mitch Gale
Ron Meyers
Kurt Stullken
R. Patrick, Sr.
Bobby Pillar
Jim Boemker
Skip Norwood
Mike Laudicina
Billy Causey, FKNMS Project Manager

The following people attended the workshop with Flats Fishing Guides:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Vern Pokorski
Mike Ehlers
Steve Huff
Mike Collins
Ray Fecher
Jose Wejebe
Bonnie Beall
Buddy LaPointe
Jon Andrew, Fish and Wildlife Service

The following people attended the 2:00pm workshop with conservation and environmental groups:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Donald S. Jensen, Save-a-Turtle
Tom Wilmers, Fish and Wildlife Service
Svenn Lindsold, Izaak Walton League
Sandy Sprunt, National Audubon Society
Harold Drake, Underwater Society of America
Jon Andrew, Fish and Wildlife Service

The following people attended the 6:30pm workshop with all commercial users:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Sandy McKinney, Captain
Mike Laudicina
Ron Meyers
Harold Drake, Underwater Society of America
Bennett Orr
Karl Lessard
Pete Worthington
Richard Martel

The following people attended the 6:30pm workshop with the general public:

George Garrett, Director of Marine Resources
Virginia Barker, Marine Resources
Richard Breese
DJ Breese
Richard Sneddon
John Turner
Art Skelly
Susan Foster
Richard L. Foster
Harry G. Reynolds
Bill Turner
Arnie Fick
Dee Fick
Dan Schott
and an additional attendee who chose not to sign in

After introductions, George Garrett synopsized roles of the Department of Marine Resources. Marine Resources is participating in the Florida Keys National Marine Sanctuary planning process by serving on several committees providing a local government perspective. In this way, Marine Resources can help guide sanctuary plan development to address issues the County recognizes a critical for protection of Keys economic and environmental resources.

Marine Resources is working in coordination with many other regional, state, and federal agencies to update Monroe County's Geographic Information System (GIS) to a level capable of intelligent mapping, georeferenced database manipulation, and interagency communication. This upgraded GIS will allow the County to receive many layers of Keys data currently made available by other agencies but previously unacceptable to our system.

Marine Resources actively pursues acquisition of federal, state, and regional grants directed to aid in marine resource

protection. The department is currently working on six contracts which provide funding to the County for local projects.

One of these six contracts is the one that Marine Resources has entered into with the Department of Natural Resources to complete a Boating Impacts Management Plan which will contain a proposed channel marking element and a plan for protecting shallow water submerged resources. To begin to determine the criteria and standards for placement of marked channels, Marine Resources has scheduled workshops with many user groups.

Marine Resources brought a list of issues related to protection of shallow water resources and channel marking. George began discussion with these suggested issues and asked for comments and clarification of these issues and assertion of additional problems. The list of issues developed with each user group follows:

ISSUES

Monroe County's Suggestions

- * Lack of a comprehensive Keys channel marking plan
- * Need for an improved, consistent marker system
- * Uneducated boaters can't read markers or the water
- * Previous denials of marker system permits
- * Boaters short cutting channels
- * Trapping on very shallow flats (RECOMMENDATIONS WERE MADE FOR REMOVAL OF THIS ISSUE FROM CONSIDERATION)
- * Ingress and egress -- a problem in some areas
- * Prop dredging -- significant damage to seagrass rhizomes
- * Slow recovery of seagrass
- * Lack of enforcement for protecting shallow water resources
- * Question of intent and the legal authority for enforcement
- * Human/economic impacts of marking/not marking channels
- * Safety of boaters

Commercial Fishermen's Additions

- * Mark channels in a uniform manner to be adopted Keys wide
- * Enforcement with civil penalties and warnings
- * Water quality
- * Increased traffic
- * Tourists make most of the mistakes
- * Channels should be helpful not mandatory
- * Limit topic to protecting seagrasses- not trapping areas or enforcement
- * Too many different agencies trying to regulate commercial fishermen

Fishing Guides' Additions

- * Lack of standards for rental boat operations
- * Lack of standards/licensing for salvage operators

- * Lack of standards/licensing for other commercial marine operations

Conservation and Environmental Groups' Additions

- * Markers may increase traffic to or through sensitive areas
- * Marking channels may increase the size of boats being used in shallow areas
- * It is tougher to educate 2 million transient tourists and seasonal visitors than it is to educate 78,000 permanent residents
- * Plan should be adjustable based on changing issues and needs
- * Plan actions should be monitored and fine-tuned
- * Marking should be coupled with enforcement action
- * Privately placed illegal markers often lead to increased damage to the natural resources
- * New wheel ditches are constantly being prop dredged
- * Old wheel ditches are constantly being expanded by use
- * Dredging to maintain or deepen channels
- * Some sacred areas should absolutely not be marked
- * More development means need for more channels
- * Lobster Weekend attracts clueless and careless boaters
- * Public ramps should not be placed or upgraded in or adjacent to sensitive areas

Commercial Users' Additions

- * Markers may increase traffic to or through sensitive areas
- * Should dredging be allowed to maintain or deepen channels
- * All agencies should agree to the same channel marking plan for the Keys
- * Channel markers are aids to navigation, not roads
- * Regulations on resource destruction may not differentiate adequately between negligence and accidental injury. Current regulations focus on willful intent.

Public Users' Additions

- * Markers may increase traffic to or through sensitive areas that were previously more remote
- * Should dredging be allowed to maintain or deepen channels?
- * All regulatory agencies should agree to the same channel marking plan for the Keys
- * Channel markers are aids to navigation, not roads
- * Need markers in many areas that are not channels by standard Coast Guard definition
- * Need markers in areas less than 4 feet deep
- * Traditional markers cause considerable damage during installation
- * Some homeowners buy bigger boats than their neighborhood waters can safely support

- * Enforcement officers need markers too
- * Is it better to mark minimally to avoid drawing additional boaters to sensitive areas, or maximally to protect the shallow water resources?

Discussion of issues lead into suggesting strategies for handling the identified issues. Marine Resources provided a list of sample strategies and workshop participants made additional suggestions. Marine Resources provided a comprehensive goal to guide in making strategies. Marine Resources' goal for a channel marking plan is to "provide additional protection to shallow water resources while providing for continued use in currently frequented areas." The resulting list of strategies follows:

STRATEGIES

Monroe County's Suggestions

- * Education
- * Assess/prioritize historical use channels
- * Assess/prioritize highly damaged areas
- * Assess/prioritize high use/need areas
- * No action
- * Improve & standardize a FL keys marker system examples -- Everglades National Park, Pennekamp, & Lignumvitae
- * Make prop dredging a civil offense
- * Provide criteria for channel marking permitting variances
- * Assess/prioritize danger zones

Fishing Guides' Additions

- * Mandatory boater licensing
- * Mandatory commercial marine operation licensing
- * Minimize the number of marked channels -- don't mark every route, just enough to channel people from their origins to their destinations
- * Mark most direct and insensitive routes
- * Make marker system simple and cheap, avoid visual litter
- * Make sure maps of new markers are available to boaters

Commercial Fishermen's Additions

- * Mandatory boater licensing state wide
- * Mark flats with stakes
- * Minimize the number of marked channels -- steer people away from sensitive areas, avoid marking sensitive areas
- * Issue civil citations- warning tickets
- * Make marker system simple and cheap, avoid visual litter
- * Idle zones in particularly sensitive areas.
- * Community Service -- volunteers replant seagrass and handout awareness literature
- * Improve existing marker system with more frequent markers, additional lights and directional arrows
- * Use secure PVC stakes
- * Agree where problem areas are and what to do about them.

- Keep actions specific to problem areas.
- * Make sure markers on charts exist on the water.
- * Mark shallow channels with maximum boat sizes or draft requirements.

Environmental and Conservation Groups' Additions

- * Markers should be similar to Coast Guard but clearly different
- * Gate entrances and odd turns, the rest could be single markers with arrows
- * Markers could vary for different draft capacities
- * Only mark tricky areas between backcountry basins, require use of nautical chart, do not encourage use by making it foolproof
- * Avoid marking channels that lead from public accesses to sensitive areas
- * Annual overflight photography should be used to monitor success of plan actions
- * Eliminate unregulated private markers
- * Close shortcuts with removable blockades
- * Close new wheel ditches as they are begun
- * Dredge channels where this could save expansive seagrass beds
- * Consolidate adjacent neighborhoods to a shared channel
- * Do not mark sacred places
- * Mandatory boater licensing state wide with "local knowledge" course required
- * Regulate local channels maintained by users for public safety and resource protection
- * Use volunteers like Coast Guard Auxiliary for educating users
- * Mark flats with stakes
- * Minimize the number of marked channels
- * Steer people away from sensitive areas, avoid marking sensitive areas
- * Issue civil citations -- warning tickets when destruction of seagrass rhizomes occurs outside of marked channels

Commercial Users' Additions

- * Involve other agencies in the channel marking plan development to avoid duplication of effort and later disagreement
- * When the channel marking plan is accepted, written provision should be made that commercial fishermen are OK in proposed channels even though the markers are not in place yet
- * Channels should be marked for use by historically sized boats, not the Exxon Valdez
- * Free educational brochures should be provided to rental boat operators who must read, sign, and carry them to ensure their responsibility for any harmful actions
- * Education for rental boats should be mandatory

- * Make destruction of seagrass a civil citation and involve the public in the law writing process
- * Write exemptions for inclement weather into the civil law
- * Mark areas where there is a high frequency of groundings

Public Users' Additions

- * Involve other agencies in the channel marking plan development to avoid duplication of effort and later disagreement
- * Channels in water less than 4 feet deep mlw should be marked with a system that differs from the standard Coast Guard system and informs users of controlling draft allowances
- * Use markers to steer traffic away from environmentally sensitive areas
- * Mount familiar Coast Guard signage on smaller, more appropriate poles and include informational signs
- * Limiting depth informational signs could discourage use by bigger boats
- * Homeowners associations should be provided with a user friendly system of posting and maintaining their own legitimate, neighborhood system
- * Be more creative within the Coast Guard marker system rather than starting from scratch
- * Do not advertize or chart private aids placed only for ingress and egress, then they will not increase use
- * Look into the uniform state waterway system for appropriate Keys variations from standards

CONCLUSIONS

As follow up to the workshops, we are sending the above record of the ideas and comments presented during the workshops to you for your review and revision. We will continue dialog with you to:

- 1) Develop or refine an appropriate marker system for application in the Florida Keys.
- 2) Improve our understanding and documentation of "frequent use areas."
- 3) Define and resolve the issues related to marking channels or passage ways and to protecting Keys shallow water resources.
- 4) Cultivate criteria and strategies valuable for selecting and prioritizing specific areas proposed for appropriate marking.
- 5) Ensure that user input and local knowledge are employed in mapping proposed areas for marking, in developing and selecting management strategies, and in iteratively reviewing draft plan documents.

Please encourage others to become involved by participating in workshops or by sending their written comments to our office. They can be added to our mailing lists to receive documents for

review by sending their name, address, and request to our office. We applaud your ideas and efforts so far and we look forward to hearing from you soon.

APPENDIX G

Zoning Workshop Summaries

Introduction

The following is summary of the results of the five zoning work sessions that took place in the Marathon office of the Florida Keys National Marine Sanctuary Planning Office during the week of January 27-31, 1992. The sessions were held to introduce the public to the concept of zoning and to get input from the public on their vision of the types of zones that could be employed in Sanctuary waters. The sessions were held with different interest groups on five consecutive days, using the schedule below. Each session lasted approximately four hours.

Day One	Environmental organizations
Day Two	Commercial fishermen
Day Three	Recreational fishing guides
Day Four	Dive operators
Day Five	Scientists

While direct participation was limited to those invited to attend each day, other interested individuals were present as observers. The product generated from each meeting was comprised of several components: 1) a list of the objectives of the Sanctuary; 2) a list of the types of zones that might be used to meet these objectives; 3) the criteria used to select areas for a specific type of zone; and 4) general recommendations for the planners to consider as the management plan continues to evolve. Some groups did not have time to develop each of these components. The enclosed summarizes the results of each day's session. A table showing the types of zones identified by each group is included at the end of the document.

Table 2, continued *

IV (Less Protection)	III (Most Balanced)	II (More Protection)
<p>E.10.a Public Forum Establish a program to ensure public involvement throughout Monroe County in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program.</p>	<p>E.10.b Establish a program to ensure public involvement throughout Monroe County in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program. A program will also be established to provide sanctuary sponsorship of contests/awards.</p>	<p>E.8.c Computer System Develop a user-friendly computer system containing information on regulations, access, recreational sites, environmental etiquette, etc. for visitor use at selected sites throughout the Sanctuary within five years.</p> <p>E.9.c Ecotourism Promoter Establish an ecotourism coordinator/promoter position for the Sanctuary within three years.</p>
<p>E.11.a Special Events Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County and a limited number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary would co-sponsor a limited number of conferences and workshops.</p>	<p>E.11.b Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County including a number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary would co-sponsor a number of conferences and workshops, with selected sole sponsorship of some events. This would include a "Sanctuary Awareness Week" and a "grand opening" to the Sanctuary.</p>	<p>E.10.c Establish a program to ensure public involvement throughout South Florida in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program. A sanctuary "hot line" will be established for the public to report information concerning the Sanctuary. A program will also be established to provide sanctuary sponsorship of contests/awards.</p> <p>E.11.c Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County including a number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary would co-sponsor a number of conferences and workshops, with selected sole sponsorship of some events. This would include a "Sanctuary Awareness Week" and a "grand opening" to the Sanctuary. The sanctuary program would co-sponsor other "awareness" events/weeks (e.g., National Fishing Week, etc.).</p>

* Alternatives I (Maximum Protection) and V (No Action) are not shown. They have not been as fully developed as the Mid-range Alternatives (IV III II)

Table 2, continued *

IV (Less Protection)	III (Most Balanced)	II (More Protection)
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E.12.c. Information Network

Establish an information exchange network to compile existing research related to the Sanctuary. Provide for continual update within three years.

* Alternatives I (Maximum Protection) and V (No Action) are not shown. They have not been as fully developed as the other Alternatives (IV, III, II).

Table 3, *continued*

mooring fields and research sites. These zones may also be used to delineate the jurisdictional authority of other agencies (i.e., state parks, aquatic preserves, and other restricted areas), and may vary spatially and temporally based on their specific objective. Management needs that address seasonal or emergency closure of areas may be included in this zone type. (BI-44, BD-25, BI-17, BI-18, BD-39s [BD-10, BD-27, BI-22A], BI-22B, REC-39s [BI-1, REC-15], BI-105, BI-201, REC-204)

Z.5.a Establish general-use zones to allow for existing legal uses.

This is the broadest zone type. It incorporates all areas not included in wildlife management zones, replenishment reserves, and no-take zones, and allows for all existing legal uses. This zone may overlap or incorporate restricted-use zones, depending on the management objective of the restricted-use zone.

Education

E.1.a Develop printed materials to promote public awareness, specifically targeting boaters and divers/snorkelers, of the impacts of their activities on the Sanctuary's resources and environmental quality. Materials will include brochures, posters, newsletters and contributions to periodicals. Distribute materials in bulk to high-interception locations (e.g., marinas, boat ramps, dive shops, etc.). (Alt. IV)

Develop printed materials to promote public awareness (e.g., visitors, business owners and operators, etc.) and, in particular, boaters and divers/snorkelers' awareness of the impacts of their activities on sanctuary resources and environmental quality. Information will be printed in brochures, posters, newspapers, newsletters and periodicals.

Materials for boaters and divers will include specific information on sanctuary regulations related to boating and diving, safe boating and diving/snorkeling practices, sanctuary habitats and species guides for divers/snorkelers, and direct and indirect impacts of boating and diving on sanctuary resources.

Printed materials will be distributed in bulk to locations accessible to boaters and divers in particular. These locations will include marinas, boat ramps, and dive shops. Other locations more accessible to the general public include schools, libraries, and Federal, State and local agency offices. (BD-15B, BD-32, BD-35s [BD-14, BI-8], FI-43, REC-28, REC-38s [REC-12], ED-4, ED-5, ED-9, ED-15, ED-17, ED-32, ED-37, ED-38, ED-40, ED-45, ED-46, ED-48, ED-63)

E.1.b. Develop printed materials to promote public awareness, specifically targeting users of water-based activities, of the impact of their activities on the Sanctuary's resources and environmental quality. Materials will include brochures, posters, newsletters, contributions to periodicals and environmental nautical charts. Distribute materials in bulk to high-interception locations (e.g., marinas, boat ramps, dive shops, etc.). (Alt. III)

Develop printed materials to promote public awareness (e.g., visitors, business owners and operators, etc.) and, in particular, boaters, divers/snorkelers, and fishermen's awareness of the impacts of their activities on sanctuary resources and environmental quality. Information will be printed in brochures, posters, newspapers, newsletters, and in periodicals. *Some brochures will be produced in color on glossy paper stock. Nautical charts will also be printed with relevant environmental information.*

Materials for boaters divers, and fishermen will include specific information on sanctuary regulations related to *water activities, safe practices for each, sanctuary habitats and species guides for users, and direct and indirect impacts of boating, diving, fishing and other water-based activities on sanctuary resources.*

Printed materials will be distributed in bulk to locations accessible to boaters, divers, and fisherman in particular. These locations will include marinas, boat ramps, dive shops, aquarium shops, and with fishing licenses. Other locations more accessible to the general public include schools, libraries, and Federal, State and local agency offices. In addition, bulk mail-outs of sanctuary newsletters will take place. (BD-15B, BD-32, BD-35s [BD-14, BI-8], FI-43, REC-28, REC-38s [REC-12], ED-4, ED-5, ED-9, ED-15, ED-17, ED-32, ED-37, ED-38, ED-40, ED-45, ED-46, ED-48, ED-63, FI-9, FI-17, FI-20, FI-58, FI-61)

E.1.c. Develop printed materials to promote public awareness of the impact of their activities, both land- and water-related, on the Sanctuary's resources and environmental quality. Materials will include brochures, posters, newsletters, contributions to periodicals, environmental nautical charts, color environmental atlases and a color periodical. Distribute materials in bulk to high-interception locations (e.g., marinas, boat ramps, dive shops, other businesses etc.) and include bulk mailings as a means of distribution. (Alt. II)

Develop printed materials to promote public awareness (e.g., visitors, business owners and operators, etc.) and, in particular, boaters, divers/snorkelers, fishermen, and homeowners' awareness of the impacts of their activities on sanctuary resources and environmental quality. Information will be printed in brochures, posters, newspapers, newsletters, and in periodicals. Some brochures will

Table 3. *continued*

be produced in color on glossy paper stock. Nautical charts will also be printed with relevant environmental information. *A color environmental atlas for the Sanctuary will be produced as will a monthly color periodical.*

Materials for boaters divers, and fishermen will include specific information on sanctuary regulations related to water activities, safe practices for each, sanctuary habitats and species guides for users, and direct and indirect impacts of boating, diving, fishing and other water-based activities on sanctuary resources. *In addition, materials with information directed towards activities on land, such as, sewage and solid waste disposal, and stormwater runoff and household activities (e.g., home improvement, yard waste disposal, etc.) which impacts the sanctuary will be produced.*

Printed materials will be distributed in bulk to locations accessible to boaters, divers, and fisherman in particular. These locations will include marinas, boat ramps, dive shops, aquarium shops, and with fishing licenses. Other locations more accessible to the general public include schools, libraries, and Federal, State and local agency offices. A sanctuary newsletter will be mailed out in bulk. *Other materials will be mailed-out with vehicle licenses and registrations and utility bills.* (BD-15B, BD-32, BD-35s [BD-14, BI-8], FI-43, REC-28, REC-38s [REC-12], ED-4, ED-5, ED-9, ED-15, ED-17, ED-32, ED-37, ED-38, ED-40, ED-45, ED-46, ED-48, ED-49, ED-63, FI-9, FI-17, FI-20, FI-58, FI-61, LU-A3, LU-B2, LU-B6, LU-B7, LU-C1, LU-G2)

E.2.a Inventory and use existing videos, films and audio materials portraying activities in the Florida Keys and their impacts on sanctuary resources. Materials will be available from sanctuary offices. (Alt. IV)

This strategy is designed to assemble available audio/visual environmental education materials and create a library for use by public and private organizations as well as sanctuary staff. No new videos or audio tapes will be produced. A slide/photo library will be developed and contributions of materials will be solicited from amateur and professional photographers.

A check-out system will be used to lend out these materials. A video system will be installed in the sanctuary office to allow visitors to view tapes. (ED-43, REC-109)

E.2.b Inventory and use existing videos, films and audio/visual environmental education materials portraying activities in the Florida Keys and their impacts on sanctuary resources. Produce a limited number of audios/videos to address gaps in available materials. Materials will be available at sanctuary offices and will be distributed to key locations (dive shops, etc.). (Alt. III)

This strategy is designed to assemble all available audio/visual materials and create a library for use by public and

private organizations as well as sanctuary staff. *A limited number of new audio and visual materials will be developed to address gaps in available materials. A slide/photo library will be developed and contributions of materials will be solicited from amateur and professional photographers.*

A check-out system will be used to lend out these materials. *The distribution of these materials will include libraries at all sanctuary facilities as well as at-cost distribution to dive shops and other high-interception locations in the Keys.* (ED-9, ED-16, ED-43, ED-46, ED-63, REC-109, REC-112)

E.2.c Inventory and use existing videos, films, and audio/visual environmental education materials portraying activities in the Florida Keys and their impacts on sanctuary resources. Produce a limited number of audios/videos to address gaps in available materials and to address major activities including boating, fishing, diving, etc. Materials will be available at sanctuary offices and will be distributed to key locations (dive shops, etc.) throughout South Florida. (Alt. II)

This strategy is designed to assemble all available audio/visual environmental education materials and create a library for use by public and private organizations as well as sanctuary staff. A limited number of new audio and visual materials will be developed to address gaps in available materials. *A number of videos and other materials will be produced to address major activity/issue areas (e.g., boating impacts, fishing, diving, etc.).* A slide/photo library will be developed and contributions of materials will be solicited from amateur and professional photographers.

A check-out system will be used to lend out these materials. The distribution of these materials will include libraries at all sanctuary facilities as well as at-cost distribution to dive shops and other high-interception locations in the Keys *and throughout South Florida.* (ED-9, ED-16, ED-43, ED-46, ED-63, REC-109, FI-9, FI-17, FI-20, FI-58, FI-61, REC-112)

E.3.a Develop signs/displays at high-use areas and public and private boat ramps to inform participants in water-based activities of regulations and environmental sound practices, provide navigation information and promote awareness of sensitive areas. Produce portable displays with information on sanctuary resources, regulations, environmental quality, etc. A limited number of signs will be multi-lingual. (Alt. IV)

Develop permanent displays/signs with text limited to sanctuary resource information and regulations. Produce portable display with similar information. Locate the permanent displays/signs at a limited number of high-use public and private boat ramps. Produce a limited number of multi-lingual signs. (BD-3, BD-19, ED-2, ED-33, ED-42, REC-28, REC-109)

Table 3, continued

E.3.b Develop signs/displays at high-use areas, all public and some private boat ramps and some public beach access areas to inform participants in water-based activities of regulations and environmentally sound practices, provide navigation information and promote awareness of nearby sensitive areas. Produce portable displays with information on sanctuary resources, regulations, environmental quality, etc. Many of the signs will be multi-lingual. Targeted displays will be developed with information and impacts on the Sanctuary relevant to the activity targeted. A wayside exhibit will be installed. (Alt. III)

Develop permanent displays/signs with sanctuary resource information, regulations, navigation safety and environmental etiquette. Produce a portable display with similar information. Also produce targeted displays (e.g., boating, fishing, diving, etc.) with information on sound boating practices, nearby sensitive areas, catch-and-release fishing, handling techniques, and impacts of hook-and-line fishing on sanctuary resources. *Many of the signs produced will be multi-lingual.*

Locate the permanent displays/signs at all public and some private boat ramps. *Signs will also be displayed at some public shoreline access areas. One display could be located along the roadside (e.g., in Key Largo) as an introduction to the Sanctuary.* (BD-3, BD-19, ED-2, ED-33, ED-42, REC-28, REC-109)

E.3.c Develop signs/displays at high-use areas, all public and some private boat ramps and some public beach access areas to inform participants in water-based activities of regulations and environmentally sound practices, provide navigation information and promote awareness of nearby sensitive areas. Portable displays will also be produced with information on sanctuary resources, regulations, environmental quality, etc. Most of the signs will be multi-lingual. Targeted multi-media displays will be developed with information and impacts on the Sanctuary relevant to the activity targeted. A number of wayside exhibits will be installed. (Alt. II)

Develop permanent displays/signs with sanctuary resource information, regulations, navigation safety and environmental etiquette. Produce a portable display with similar information. Also produce multi-media targeted displays (e.g., boating, fishing, diving, etc.) with information on sound boating practices, nearby sensitive areas, catch-and-release fishing, handling techniques and impacts of hook-and-line fishing on sanctuary resources. *Most of the signs produced will be multi-lingual.*

Locate the permanent displays/signs at all public and some private boat ramps. Signs will also be displayed at some public shoreline access areas. *A number of displays will be located along the roadside throughout the Keys (e.g., Key Largo, Islamorada, Marathon, Big Pine and Key West).* (BD-3, BD-19, ED-2, ED-33, ED-42, REC-28, REC-109)

E.4.a Develop a training program of classes, workshops and in-school presentations to improve the understanding of the purposes and programs of the Sanctuary and the ecology of the Florida Keys. This program will include the use of volunteers for basic sanctuary tasks (e.g., monitoring, safety and interpretation) and in-school lectures (on either the primary or secondary education level) by sanctuary staff on environmental awareness, sanctuary goals and the unique nature of the Sanctuary. (Alt. IV)

This strategy will improve the understanding of sanctuary programs and purposes and the ecology of the Keys through development of training modules to be used as follows:

1. Volunteer training opportunities involving basic education/orientation for new volunteers concerning the marine sanctuary program and specific, task-oriented training designed to assist paid staff in accomplishing monitoring, safety or public outreach.
2. Development of specific packaged presentations on the Sanctuary, its resources, goals, etiquette and environmental quality targeted at either the primary or secondary education level. (ED-10, ED-13, ED-19, ED-24, ED-43, ED-44, ED-47, ED-51, ED-55, ED-56, ED-57, ED-58, ED-60, ED-61, REC-100, REC-111, BI-100, WQ-108)

E.4.b Develop a training program of classes, workshops and in-school presentations to improve the understanding of the purposes and programs of the Sanctuary and the ecology of the Florida Keys. This program will include the use of volunteers for basic sanctuary tasks (e.g., monitoring, safety and interpretation) and in-school lectures (on both the primary and secondary levels) and limited on-site training by sanctuary staff (i.e., coral reef classroom, submerged cultural resources, etc.) on environmental awareness, sanctuary goals and the unique nature of the Sanctuary. Limited participation in existing environmental education programs will also be established. (Alt. III)

This strategy will improve the understanding of sanctuary programs and purposes and the ecology of the Keys through development of training modules to be used as follows:

1. Volunteer training opportunities involving basic education/orientation for new volunteers concerning the marine sanctuary program and specific, task-oriented training designed to assist paid staff in accomplishing monitoring, safety, or public outreach.
2. Development of specific packaged presentations on the Sanctuary, its resources, goals, etiquette and environmental quality targeted at both primary and secondary education levels. *The programs will include on-site training opportunities for studying a limited number of sanctuary habitats and submerged cultural resources.*

Table 3. *continued*

3. Sanctuary interpretive staff will coordinate activities on a limited basis with State, county and private environmental education programs targeted at specific activities (e.g., boating, fishing, diving, etc.). (ED-10, ED-13, ED-19, ED-24, ED-43, ED-44, ED-47, ED-51, ED-55, ED-56, ED-57, ED-58, ED-60, ED-61, REC-100, REC-111, BD-16, BD-35s, FI-20, BI-100, WQ-108)

E.4.c Develop an education program to train volunteers for more sophisticated technical sanctuary tasks, (e.g., habitat restoration, artifact removal). The program will include in-school lectures (on both the primary and secondary levels) by sanctuary staff and comprehensive on-site training (i.e., coral reef classroom, submerged cultural resources, etc.). Full participation in existing environmental education programs will also be established and some programs will be expanded. (Alt. II)

This strategy will improve the understanding of sanctuary programs and purposes and the ecology of the Keys through development of training modules to be used as follows:

1. Volunteer training opportunities will involve sophisticated technical education/orientation for volunteers concerning the marine sanctuary program and specific, task-oriented education designed to assist paid staff in accomplishing habitat restoration, artifact removal, etc.
2. Development of specific packaged presentations on the Sanctuary, its resources, goals, etiquette, and environmental quality targeted at both primary and secondary education levels. The programs will include on-site training opportunities for studying a limited number of sanctuary habitats and submerged cultural resources.
3. Sanctuary interpretive staff will coordinate activities on a limited basis with State, county and private environmental education programs targeted at specific activities (e.g., boating, fishing, diving, business owners and operators, households, etc.). New environmental education programs for targeted activities will be developed to fill in gaps. (ED-10, ED-13, ED-19, ED-24, ED-43, ED-44, ED-47, ED-51, ED-55, ED-56, ED-57, ED-58, ED-60, ED-61, REC-100, REC-111, BD-16, BD-35s, FI-20, BI-100, WQ-108, FI-63)

E.5.a Establish a program to promote sanctuary goals and activities through public service announcements (PSAs) in Monroe County that presents an overview of the Sanctuary, its resources and their ecological significance for limited "no-cost" distribution to radio, cable television stations and newspapers. Develop limited editorial/contributions for other printed media. PSAs will focus on participants in water-related activities (boaters, divers, etc.). These materials will also be organized into a press packet. (Alt. IV)

This strategy is designed to develop a program of public service announcements and other media-related materials to educate the public about how their activities impact sanctuary resources. The media contacted in this strategy include those based in Monroe County only. The materials are primarily aimed at boaters and divers. The exposure will be limited to a small number of "no-cost" PSAs on radio and TV. A limited number of editorial responses/contributions will be developed for local papers. A "no-cost" program for printing PSAs on manufacturers product packaging will also be established. A basic press package will be produced for distribution to media representatives on request. (ED-6, ED-14, ED-26, ED-27, ED-30, ED-35)

E.5.b Establish a program to promote sanctuary goals and activities through public service announcements (PSAs) in South Florida to present an overview of the Sanctuary, its resources and their ecological significance for distribution to radio, cable television stations and newspapers. Develop editorial/contributions for other printed media. Limited funds will be spent on media exposure. PSAs will focus on participants in water-related and other activities that affect the Sanctuary (boaters, divers, household etc.). These materials will also be organized into a press packet. (Alt. III)

This strategy is designed to develop a program of public service announcements and other media-related materials to educate the public about how their activities impact sanctuary resources. The PSAs will focus on boating, diving, household activities and other activities that impact the Sanctuary. The areal extent of media exposure will extend to all of South Florida. Some of the broadcasts will be in languages other than English (primarily Spanish).

The exposure will be limited to a small number of "no-cost" PSAs on radio and TV. Some funds will be spent on column space and air time to increase the frequency of broadcast. A limited number of editorial responses/contributions will be developed for local papers. A "no-cost" program for printing PSAs on manufacturers product packaging will also be established. A basic press package will be produced for distribution to media representatives on request. (ED-6, ED-14, ED-26, ED-27, ED-30, ED-35, ED-41)

Table 3, continued

E.5.c Establish a program to promote sanctuary goals and activities through public service announcements (PSAs) in South Florida, with some national and international public exposure, that presents an overview of the Sanctuary, its resources and their ecological significance for routine distribution to radio, cable television stations and newspapers. Develop editorial/contributions for other printed media. Funds will be spent on routine media exposure. PSAs will focus on participants in water-related and other activities that affect the Sanctuary (boaters, divers, household etc.). These materials will also be organized into a press packet. (Alt. II)

This strategy is designed to develop a program of public service announcements and other media-related materials to educate the public about how their activities impact sanctuary resources. The PSAs will focus on boating, diving, household activities and other activities that impact the Sanctuary. The areal extent of media exposure will extend to all of South Florida. Some PSAs will be shown to state, national and international markets. A number of broadcasts will be in languages other than English (primarily Spanish).

The exposure will be routine "no-cost" PSAs on radio and TV. Funds will be spent on column space and air time to increase the frequency of broadcast. Routine editorial responses/contributions will be developed for local papers and other printed materials. A "no-cost" program for printing PSAs on manufacturers product packaging will also be established. A basic press package will be produced for distribution to media representatives on request. (ED-6, ED-14, ED-26, ED-27, ED-30, ED-35, ED-41)

E.6.b Establish an education advisory council to advise educators on education goals, priorities and funding sources for the Sanctuary. A part-time staff person will be provided. (Alt. III)

This strategy is designed to establish an education advisory council to assist education staff in establishing education priorities, securing funds and coordinating educational efforts to prevent duplication with other education organizations. The council will be able to rely on a part-time staff person provided by the sanctuary program. (ED-22)

E.6.c Establish an education advisory council to advise educators on education goals, priorities and funding sources for the Sanctuary. A full-time staff person will be provided. (Alt. II)

This strategy is designed to establish an education advisory council to assist education staff in establishing education priorities, securing funds and coordinating educational efforts to prevent duplication with other

education organizations. The council will be able to rely on a full-time staff person provided by the sanctuary program. (ED-22)

E.7.a Promote educational materials and other information about the Sanctuary and its resources at existing sanctuary offices. (Alt. IV)

This strategy will establish visitor booths/displays to provide educational materials on sanctuary resources, etiquette and environmental quality. Existing sanctuary offices will provide limited space for distribution on a walk-in basis. No other building space will be dedicated to this function. (ED-2)

E.7.b Promote educational materials, including a limited amount of bilingual materials and other information about the Sanctuary and its resources, at existing sanctuary offices and Chambers of Commerce. Establish interagency visitor centers with the U.S. DOI and the Florida DNR. (Alt. III)

This strategy will establish visitor booths/displays to provide educational materials on sanctuary resources, etiquette and environmental quality with some materials printed in languages other than English (primarily Spanish). Existing sanctuary offices will provide limited space for distribution on a walk-in basis. In addition, an interagency visitor center will be established in cooperation with the U.S. DOI (FWS, NPS) and the State of Florida DNR to provide visitors and residents orientation information on various protected and managed areas. Cooperative efforts will allow agencies to pool resources and provide lowest cost options for a special center.

The Sanctuary will also use no-cost/low-cost space in locations where tourist related information is already distributed (e.g., Chambers of Commerce) to promote the Sanctuary. (ED-2, ED-21, ED-42, REC-28, REC-108, REC-109, REC-110)

E.7.c Promote educational materials, including bilingual materials and other information about the Sanctuary and its resources, in a visitor center established by and dedicated solely to the Sanctuary. Other smaller centers will be established at major resort locations. Booths/displays will be established in remote locations. (Alt. II)

This strategy will establish visitor booths/displays to provide educational materials on sanctuary resources, etiquette and environmental quality with materials printed in languages other than English (primarily Spanish). Existing sanctuary offices will provide space for distribution on a walk-in basis. In addition, an a visitor center will be established by the sanctuary program that will focus only on issues related to the Sanctuary. Mini visitor centers will be established at major resort areas in the Keys (e.g., Key

Table 3. *continued*

Largo, Marathon or Key West, depending on the location of the main visitor center).

The Sanctuary will also use no-cost/low-cost space in locations where tourist-related information is already distributed (e.g., Chambers of Commerce, car rental agencies, airports, etc.) to establish booths/displays promoting the Sanctuary. (ED-2, ED-21, ED-33, ED-42, REC-28, REC-108, REC-109, REC-110)

E.8.c Develop a user-friendly computer system containing information on regulations, access, recreational sites, environmental etiquette, etc. for visitor use at selected sites throughout the Sanctuary within five years. (Alt. II)

This strategy will set up a network of computer-driven display systems to provide information to sanctuary visitors on resources, activities and the environment. This system must be user-friendly (e.g., touch-screen menus). The system will be available for sale to commercial establishments. Updates would take place every six months. The system will be in place in five years. (REC-6)

E.9.c Establish an ecotourism coordinator/promoter position for the Sanctuary within three years. (Alt. II)

This strategy will establish an "ecotourism coordinator" to work in conjunction with the Monroe County Tourism Board to promote, assist and coordinate the development of resource-sensitive tourism activities which would have a minimum impact on sanctuary resources. They will also assist in development of "ecotourism" companies which promote sanctuary goals and purposes. (REC-8)

E.10.a Establish a program to ensure public involvement throughout Monroe County in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program. (Alt. IV)

This strategy will establish a program to ensure public involvement by having periodic public meetings throughout Monroe County to which commercial and recreational users of sanctuary resources and the general public will be invited. Sanctuary staff and/or guest speakers will make presentations, and dialogue and feedback from the public will be encouraged.

Limited printed materials will be developed to support presentations to organizations such as 4-H clubs, scouts and nongovernmental agencies who are making an effort to learn about and support the Sanctuary.

A limited volunteer program will be developed to allow the general public to participate in sanctuary activities including monitoring, interpretation and reef cleanup. (ED-18, ED-23, ED-36, ED-50)

E.10.b Establish a program to ensure public involvement throughout Monroe County in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program. A program will also be established to provide sanctuary sponsorship of contests/awards. (Alt. III)

This strategy will establish a program to ensure public involvement by having periodic public meetings throughout Monroe County to which commercial and recreational users of sanctuary resources and the general public will be invited. Sanctuary staff and/or guest speakers will make presentations, and dialogue and feedback from the public will be encouraged.

Limited printed materials will be developed to support presentations to organizations such as 4-H clubs, scouts and nongovernmental agencies who are making an effort to learn about and support the Sanctuary.

A limited volunteer program will be developed to allow the general public to participate in sanctuary activities including monitoring, interpretation and reef cleanup.

Sanctuary-sponsored contests will be established that include logo contests, photo contests and volunteer of the year. An annual award to recognize contributions by individuals and organizations will also be part of the program. "Adopt a Reef" will be another valuable sanctuary-sponsored program. (ED-1, ED-12, ED-18, ED-23, ED-25, ED-29, ED-36, ED-50, ED-52, ED-53, WQ-106)

E.10.c Establish a program to ensure public involvement throughout South Florida in sanctuary activities by holding public meetings, promoting sanctuary awareness to extracurricular groups and establishing a limited volunteer program. A sanctuary "hot line" will be established for the public to report information concerning the Sanctuary. A program will also be established to provide sanctuary sponsorship of contests/awards. (Alt. II)

This strategy will establish a program to ensure public involvement by having periodic public meetings throughout South Florida to which commercial and recreational users of sanctuary resources and the general public will be invited. Sanctuary staff and/or guest speakers will make presentations, and dialogue and feedback from the public will be encouraged.

Limited printed materials will be developed to support presentations to organizations such as 4-H clubs, scouts and nongovernmental agencies who are making an effort to learn about and support the Sanctuary.

A limited volunteer program will be developed to allow the general public to participate in sanctuary activities including monitoring, interpretation and reef cleanup. *In addition, a*

Table 3, continued

sanctuary watch hot line will be established for the public to report violations of sanctuary regulations and other incidents such as accidental hazardous spills.

Sanctuary-sponsored contests will be established that include logo contests, photo contests and volunteer of the year. An annual award to recognize contributions by individuals and organizations will also be part of the program. "Adopt a Reef" will be another valuable sanctuary sponsored program. (ED-1, ED-12, ED-18, ED-23, ED-25, ED-29, ED-34, ED-36, ED-50, ED-52, ED-53, WQ-106)

E.11.a Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County and a limited number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary will co-sponsor a limited number of conferences and workshops. (Alt. IV)

This strategy proposes the construction of a presentation/display with sanctuary information that will promote sanctuary awareness, resources and environmental quality. The presentations/displays will be shown at trade shows, special events, and festivals in Monroe County. Presentations will also be set up at a limited number of conventions and trade shows outside of Monroe County.

The sanctuary program will also co-sponsor a limited number of conferences and workshops dealing with sanctuary issues and environmental quality. (ED-3, ED-39)

E.11.b Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County including a number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary will co-sponsor a number of conferences and workshops, with selected sole sponsorship of some events. This will include a "Sanctuary Awareness Week" and a "grand opening" to the Sanctuary. (Alt. III)

This strategy proposes the construction of a presentation/display with sanctuary information that will promote sanctuary awareness, resources and environmental quality. The presentations/displays will be shown at many trade shows, special events, and festivals in Monroe County. Presentations will also be set up at a number of conventions and trade shows outside of Monroe County.

The sanctuary program will also co-sponsor a number of conferences and workshops dealing with sanctuary issues and environmental quality. *Sole sponsorship of a limited number of events of particular interest/benefit to the Sanctuary will be established. This will include "Sanctuary Awareness Week" and a "grand opening" to further promote public awareness of sanctuary goals.* (ED-3, ED-20, ED-39, ED-62)

E.11.c Develop presentations on the Sanctuary and its resources to be shown at special events in Monroe County including a number of trade shows (e.g., DEMA, CZ '93 conventions, boat shows, etc.) outside the county. The Sanctuary will co-sponsor a number of conferences and workshops, with selected sole sponsorship of some events. This will include a "Sanctuary Awareness Week" and a "grand opening" to the Sanctuary. The sanctuary program will co-sponsor other "awareness" events/weeks (e.g., National Fishing Week, etc.). (Alt. II)

This strategy proposes the construction of a presentation or display with sanctuary information that will promote sanctuary awareness, resources, and environmental quality. The presentations/displays will be shown at many trade shows, special events and festivals in Monroe County. Presentations will also be set up at a number of conventions and trade shows outside Monroe County.

The sanctuary program will also co-sponsor a number of conferences and workshops dealing with sanctuary issues and environmental quality. Sole sponsorship of a limited number of events of particular interest/benefit to the Sanctuary will be established. This will include "Sanctuary Awareness Week" and a "grand opening" to further promote public awareness of sanctuary goals. *The sanctuary program will co-sponsor other "awareness" events/weeks (e.g., National Fishing Week, etc.) with special-interest groups by providing information on specific activities and their impacts.* (ED-3, ED-20, ED-39, ED-62)

E.12.c. Establish an information exchange network to compile existing research related to the Sanctuary. Provide for continual update within three years. (Alt. II)

This strategy will establish an automated information exchange network to make available data on the status of management, research and other activities in the Sanctuary. The database will be available via a terminal or modem. It will include historical/background information as well as planned activities. Updates will take place monthly. The database will not contain research reports, but will describe briefly the results via abstracts or other means. There will be a minimum on-line charge for the service. The network will be set up at sanctuary headquarters or visitor centers. One of the primary benefits of this system is to keep researchers abreast of current developments in sanctuary activities and the latest findings in studies. (FI-100, ED-59)

APPENDIX I

BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: 18 Feb 1992

Division: Growth Management

Bulk Item: Yes No

Department: Marine Resources

AGENDA ITEM WORDING:

A request to the Board that the Marine and Port Advisory Committee serve as a Citizens Advisory Council for boating management.

ITEM BACKGROUND:

The contract Monroe County has with DNR to develop a Boating Impacts Management Plan calls for establishment of a Citizens Advisory Council for boating management. The Marine and Port Advisory Committee already addresses many of the issues covered in the scope of the contract. The Marine and Port Advisory Committee has tentatively accepted the role and upon BOCC approval, will make a final committment at their 24 February, 1992 regular meeting.

PREVIOUS RELEVANT BOCC ACTION:

The Board executed the contract with DNR for development of a Boating Impacts Management Plan at the 20 November 1992 regular meeting.

STAFF RECOMMENDATION:

Consideration and approval for implementing the Marine and Port Advisory Council as the Citizens Advisory Council.

TOTAL COST: NA

BUDGETED: Yes No

COST TO COUNTY: NA

APPROVED BY: CountyAttorneyN/A OMB/PurchasingN/A Risk ManagementN/A

DIVISION DIRECTOR APPROVAL:

Robert L. Heppner
(Signature)

DOCUMENTATION: Included: To Follow: Not Required:

Agenda Item #: _____

DISPOSITION: 5-0 APPROVED

I-1

MONROE COUNTY
MARINE AND PORT ADVISORY COMMITTEE
ADMINISTRATIVE PROCEDURES
BY-LAWS

MONROE COUNTY MARINE AND PORT ADVISORY COMMITTEE
ADMINISTRATIVE PROCEDURES/BY-LAWS

SECTION 1

Sec. 1.01 Governing Rules:

Except as may be provided by these Rules and By-Laws, questions of order, the methods of organization and the conduct of business of the Committee shall be governed by Robert's Rules of Order, Newly Revised, 1990 Edition Policies of the Board of County Commissioners and by adopted Policy decisions of the Committee.

Sec. 1.02 Meetings:

(a) Regular Meetings: The Committee may hold regular meetings on the third Thursday of the month, on a quarterly basis. Commencing a 7:00 p.m., meetings shall be held on a regular basis at Marathon. No meeting shall be scheduled when the day fixed for a regular meeting falls on a day designated as a holiday. Regular meetings may be postponed or cancelled by Committee action and may be re-scheduled on another suitable day. With advanced notice, in extenuating circumstances, the Chairman and/or the County Administrator may designate other suitable locations.

(b) Special Meetings: A special meeting of the Committee may be called by the Chairman whenever, in his/her opinion, the public interest may require it, and shall be called whenever a majority of the Committee request a special meeting. Whenever a special meeting shall be called by the Chairman, a written request signed by the Chairman shall be delivered to the County Administrator; and whenever a special meeting shall be called by members of the Committee, a written request signed by at least four (4) members of the Committee shall be delivered to the County Administrator. The request shall state the purpose of the meeting. The County Administrator shall forthwith serve either verbal or written notice, unless specifically waived, upon each member of the Committee, stating the date and hour and the place of the meeting and the purpose for which such meeting is being called. The County Administrator shall insure the proper notice is given under statute and Attorney General opinion per F.S. 286.011.

No other business shall be transacted at that meeting unless a full ten (10) member quorum is present and unanimously agrees to the additional items. The Administrator in his notice of a special meeting shall allow at least forty eight (48) hours to elapse between the call of the meeting and the date and hour of the meeting. If, after reasonable diligence, it was impossible to give notice to each Committee member, such failure shall not affect the legality of the meeting if a quorum (simple majority) be in attendance. The minutes of each special meeting shall show the manner and method by which notice of such special meeting was given to each member of the Committee or shall show a waiver of notice.

All special meetings shall be open to the public and shall be held and conducted in an appropriate location designated by the Chairman or the County Administrator. Minutes thereof shall be kept by the Administrator or his designee, as is kept for regular meetings.

Sec. (1.03) Agenda:

An agenda will be prepared by the County Administrator's Office or his designee for every regular meeting or special meeting of the Committee. A written add-on agenda shall be prepared by the County Administrator's Office for every regular meeting or special meeting of the Committee, if necessary, and will be considered an official agenda. The Committee shall not take action on any matter, proposal, report or item of business which is not listed upon the official agenda, unless there is a unanimous consent of the Committee on the day of a scheduled meeting to the presentation thereof for consideration and action.

Invocation will be the Pledge of Allegiance. All regular meeting agenda items will be delivered to the Administrator's Office by 4:00 p.m. on the second Friday preceding the scheduled meeting date. Add-on agenda items will be delivered to the Administrator's Office by 4:00 p.m. on the Friday preceding the scheduled meeting date. The agenda shall be prepared and distributed not later than five (5) working days preceding the meeting on Thursday.

(b) Regular Meeting Agenda: Matters for consideration may be placed on the regular meeting agenda only by a member of the Monroe County Commission (governing body), Committee member, the County Attorney, County Clerk and County Administrator; written comments and/or recommendations from staff as is appropriate.

(c) Public Input: To provide that any member of the public who wishes may have the opportunity to address the Committee on items from the agenda, the Committee will allow individuals to address said issue for a period not to exceed three (3) minutes per individual or five (5) minutes per group and as provided for under Section (1.11) Rules of Debate contained herein.

Sec. (1.04) Presiding Officer, Election, Duties:

(a) Chairman: The Presiding Officer of the Committee is the Chairman, who shall be elected by a simple majority vote of the members present at the regular meeting for the month of May in any given year. Selection of the Chairman shall be nomination from the floor, with no second required, followed by alphabetical roll call vote of Committee members on each nomination, in order of nominations made. Selection of the Vice Chairman shall be in an identical manner.

(b) Vice Chairman: If, for any reason, the Chairman is absent or unable to perform his/her duties, the Vice Chairman, who will have been elected under the same circumstances as the Chairman, shall succeed the Chairman. If the Committee determines that the disability or absence is expected to extend for a period of time in excess of the length of the meeting at which this is determined, a new Vice Chairman shall then be elected by a simple majority of the members present at that meeting.

(c) Presiding Officer: The Presiding Officer shall preserve strict order and decorum at all meetings of the Committee. A majority vote of the members present shall govern and conclusively determine all questions of order not otherwise covered. The Presiding Officer may vote on all questions, his/her name being called last.

The Chairman shall sign all resolutions adopted by the Committee in his presence. In the event of the absence of the Chairman, such resolutions shall be signed by the Presiding Officer. The Chairman shall represent the Committee before the Monroe County Port Authority and the Monroe County Commission.

Sec. (1.05) Parliamentarian:

The Committee shall designate one of its own members to act as parliamentarian.

Sec. (1.06) Additional Officers:

A Secretary for the purposes of calling the roll, recording the Minutes, retaining documents to be entered into the Record of the Committee's proceedings, and other lawful duties necessary for the efficient functioning of the Committee may be provided by the Office of the County Administrator.

Sec. (1.07) Call to Order:

The Chairman shall take the chair at the hour appointed for the meeting and shall immediately call the Committee to order. In the absence of the Chairman, and the Vice Chairman, the Secretary shall then determine whether a quorum is present and in that event shall call for the election of a temporary Chairman. Upon the arrival of the Chairman or the Vice Chairman, the temporary Chairman shall relinquish the chair upon the conclusion of the business immediately before the Committee.

Sec. (1.08) Quorum:

A majority of the whole number of members of the Committee shall constitute a quorum. No resolution or motion shall be adopted by the Committee without the affirmative vote of the majority of all of the members present. Should no quorum attend within thirty (30) minutes after the hour appointed for the meeting of the Committee, the Chairman, or the Vice Chairman, or in their absence the Secretary, may adjourn the meeting until the next day; unless by unanimous agreement those members present and their action at such meeting shall be recorded in the minutes by the Secretary.

Sec. (1.10) Order of Business:

All meetings of the Committee shall be open to the public. Promptly at the hour set forth for each meeting, the members of the Committee, the County Attorney (or his designee), and the Secretary shall take their stations in the meeting hall. The business of the Committee shall then be taken up for consideration and disposition in accordance with the agenda for the meeting. The agenda shall constitute the order of business, unless otherwise determined by a majority of the members present.

Sec. (1.11) Rules of Debate:

(a) Questions under Consideration: When an item of business has been announced by the Secretary, the Chairman shall first ask if there is any member of the audience who wishes to be heard regarding this matter. Expert witnesses may be required by the Chairman to provide documentation establishing their credentials prior to said testimony being entered into the record as "Expert Witness Testimony". Any person who wishes to be heard shall, prior to the item being called, provide the Secretary with his/her name and residence, and the agenda item on which he/she wishes to be heard. Upon conclusion of the audience participation, the Committee shall then consider the item.

After the Committee has begun its discussion of the item, no further audience participation shall be permitted, unless by Committee majority a member of the audience is permitted to respond to specific questions from the Committee Members. A motion must be made and properly seconded in order for official action to be taken by the Committee. The presenter/mover shall be allowed to address the Committee on the motion initially, whereupon each of the other Members shall be allowed to address the Committee on the motion before it in alphabetical order as is done on a regular roll call; except that the presenter/mover shall have the right to address the Committee initially and to close the debate on the matter under consideration.

(b) As to the Chairman: The Chairman or such other Member of the Committee as may be presiding may move, second, and debate from the chair; Subject only to such limitations of debate as they are rules imposed upon all members and shall not be deprived of any of the rights and privileges of a Member by reason of his being the Presiding Officer.

(c) Obtaining the floor, Improper References: Every Member desiring to speak for any purpose shall address the Presiding Officer, and upon recognition, shall confine himself/herself to the question under debate, avoiding all personalities and indecorous language.

(d) Interruption: A Member, once recognized, shall not be interrupted when speaking unless it be to call him/her to order; or as herein otherwise provided. If a member, while speaking, be called to order, he/she shall cease speaking until the question of order be determined by the Presiding Officer, and if in order, he/she shall be permitted to proceed Any Member may appeal to the Committee from the decision of the Chairman upon a question of order when without debate the Chairman shall submit to the Committee the questions, "Shall the decision of the Chair be sustained?" and the Committee shall decide by a majority vote.

(e) Roll Call Vote: No Member of any state, county or municipal governmental board, commission, or agency who is present at any meeting of any such body at which an official decision, ruling, or other official act is to be taken or adopted may abstain from voting in regard to any such decision, ruling, or act; and a vote shall be recorded or counted for each member present, except when, with respect to any such matter there is, or appears to be, a possible conflict of interest under provisions of Florida Statutes Sections 112.311, 112.313 or 112.3143. In such cases said member shall comply with disclosure requirements of Section 112.3143.

Sec. (1.12) Reading Minutes:

Unless a reading of the minutes of a meeting is requested by a majority of the Committee, such minutes shall be considered approved without reading; provided that the County Administrator (or his designee) deliver a copy thereof to each member of the Committee at least five (5) working days preceding the next meeting on Thursday. The minutes of the meetings may be approved by majority of the members present, and upon such approval shall become the official minutes.

Sec. (1.13) Votes by Roll Call:

The vote upon every motion or resolution may be taken by roll call in alphabetical order except the Chairman shall be the last member called, and the vote shall be entered upon the minutes. Resolutions, proclamations, or written recommendations shall be signed by the Presiding Officer at such meetings and by the Secretary before they are entered upon the minutes. Each Resolution and Motion shall contain, at the conclusion of the "Passed and Adopted" clause, a list of the members of the Committee and the vote cast by each ("Yes", "No", "Abstention", or "Not Present").

Sec. (1.14) Decorum:

Any person making impertinent or slanderous remarks or who becomes boisterous while addressing the Committee shall be barred from further audience before the Committee by the Presiding Officer, unless permission to continue or again address the Committee be granted by the majority vote of the Committee.

Sec. (1.15) Sergeant-at Arms:

While probably unnecessary for the purposes of this Committee, the Presiding Officer shall make the determination whether a Sheriff is required for the purposes of maintaining order and decorum in accordance with these rules and Florida Statutes.

Sec. (1.16) Motions, Resolutions and Recommendations:

(a) Preparation of Resolutions and Recommendations: The Secretary, when requested, shall prepare resolutions and draft recommendations, a copy of which shall be provided to both the County Administrator the County Attorney before such documents are presented by the Chairman to the County Commission (Port Authority). All resolutions, contract recommendations or formal presentations of the Committee shall have been reduced in writing and may have been approved as to form and legality by the County Attorney. When so referred, the County Attorney shall affix his signature to the document certifying to the legal sufficiency and shall append his recommendations as appropriate. Any action by the Committee which has the effect of "advising" or "recommending" expenditures of public monies by the Board of County Commissioners shall adhere to County purchasing Policies and Procedures, which are founded in public law requirements.

(b) Introduction for Passage or Approval: Motions, resolutions, recommendations and other matters and subjects requiring action by the Committee must be introduced and sponsored by a member of the Committee; except the County Administrator, County Attorney or any member of the Monroe County Commission may also sponsor an item for consideration, providing that any such item prepared at the request of a Commissioner or Department Director shall bear the name of the person on the document.

Sec. (1.17) Adjournment:

A motion to adjourn shall always be in order and decided without debate. Said motion cannot be amended, except where there is no other business before the Committee, nor can it be reconsidered.

Sec. (1.18) Minutes, Correspondence:

(a) The County Administrator, or his designee, shall act as the Secretary to the Committee and shall prepare the minutes and attest to all motions, resolutions and recommendations of the Committee.

(b) Correspondence of a general nature addressed to the Committee shall be referred to the County Administrator without first filing with the Committee. The receipt of all correspondence will be immediately acknowledged. Current files of such correspondence will be maintained for the Committee's examination and/or action. The County Administrator shall advise the Committee when action is required in response to any correspondence received.

(c) The official minutes as prepared by the Secretary shall be as brief as possible and reflect only the very essential elements or actions. Those items specifically requested by the Committee shall appear in the minutes in the manner as directed.

Sec. (1.19) The Committee and it's sub-committees:

(a) Establishment: This Marine and Port Advisory Committee, having been duly established by passage of the following resolutions by the Monroe County Board of County Commissioners: #24-1977, 55--1977, 057-1991, and 138-1991; shall consist of ten members consisting of two appointments from each County Commissioner, all to serve without pay. The initial terms of the Marine and Port Advisory Committee members shall be staggered such that four members will be appointed to the three-year terms, four members will be appointed for two year terms, and two members will be appointed to one-year terms.

(b) Chairmanship: A Chairman shall be elected once a year in accordance with Section (1.04) of the Administrative Procedures contained herein . A Vice Chairman shall be elected in a similar manner.

(c) Function: The Committee will only function in an advisory or investigative manner, having no legislative, directive or enforcement authority.

(d) Any item requiring formal action shall be referred to the Board of County Commissioners for action at a regular meeting for consideration.

(e) Committee meetings shall be scheduled through the County Administrator's Office with appropriate notice requirements of statute.

(f) Committee reports to the Commission may contain recommendations of actions but must contain all data and views concerning the matter so as to inform the Commission of all available information prior to their decision, and not simply consensus views.

(g) Taped minutes of all meetings shall be made and delivered to the Administrator's Office. Written minutes shall be made and distributed to each Commissioner by a representative from the Administrator's office, functioning as the Committee's Secretary.

(h) The Committee shall provide the Board of County Commissioners with a written or oral report at least once a year based on a schedule developed and distributed by the County Administrator.

(i) The Committee may inform sub-committees to be headed by a member of the full Committee in order to focus attention on specific areas of interest.

Addendum:

(1) Committee seat left vacant for more than three (3) meetings without a reasonable excuse shall be considered "Vacant".

(2) Official address for Committee business will be:

Monroe County Marine and Port Advisory Committee
C/O Kim Blanco, Recording Secretary
Monroe Cooperative Extension Service
5100 College Road
Key West, Fl 33040

