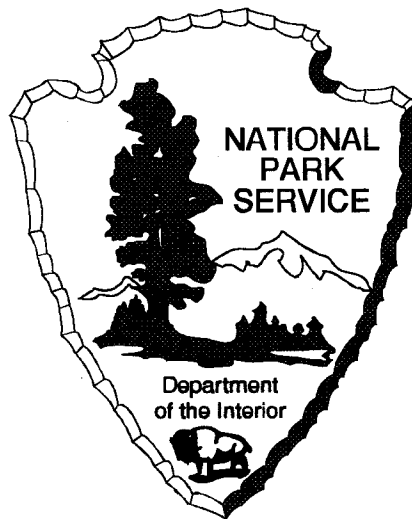


VESSEL GROUNDING RESPONSE

POLICIES & PROCEDURES

BISCAYNE
NATIONAL PARK



February 1996

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BISCAYNE NATIONAL PARK VESSEL GROUNDING RESPONSE

PREFACE

The purpose of this document is to communicate and standardize the procedures for the reporting, documentation, assessment and removal of vessels grounded in Biscayne National Park. The policies that govern these procedures are outlined so that they may contribute to a more focused and coordinated effort to reduce the impacts of vessel groundings on the marine environment of the Park.

Primarily, this document strives to assist those responding to groundings by clarifying and enhancing established procedures concerning the response effort. Additionally, it should prove beneficial to anyone desiring a better understanding of the vessel grounding problem and what is being done about it in Biscayne National Park.

DOCUMENT OVERVIEW:

Policies -Articulates specifically what is to be accomplished by responding to vessel groundings. Policies provide a foundation from which operational decisions shall be made.

Procedures -Discusses the responsibilities of those responding to grounding incidents and outlines options to aid in their decision making process. The order of the procedures (pp 5-15) follows the sequence of a response to a typical grounding incident. Beginning with the reporting of the incident by a commercial towing operator and concluding with a damage assessment.

Restoration - Provides a conceptual overview of factors to be considered in the restoration of coral reefs and sea grass beds damaged by vessel groundings.

OPERATIONAL DEFINITIONS:

“Vessel grounding” or “grounding” refers to any incident resulting in damage to benthic communities caused by a vessel contacting the bottom, including “prop scarring” incidents.

“Prop Scarring” occurs when a boat is powered over a shallow grass bed causing the sea grass below to be damaged.

“Grounding response effort” refers to any activity dealing with the reporting and documentation of a grounding incident, the removal of a grounded vessel, or the damage assessment and restoration of a grounding site.

BISCAYNE NATIONAL PARK VESSEL GROUNDING RESPONSE

INTRODUCTION

Too often boat operators run their vessels aground in the shallow waters of Biscayne National Park destroying coral, sea grass, and the marine animals that depend on these area for survival. In recent years boat groundings have become so frequent and devastating that the cumulative effects threaten the health of the park's shallow marine habitats.

THE PROBLEM-Coral reefs and sea grass beds often grow in shallow water and therefore are very susceptible to damage from the propeller (prop), hull, and keel of modern boats. This damage is cause for concern because coral reefs and sea grass areas are integral parts of our marine environment. In addition to their beauty, they provide food and protection for a myriad of marine animals. It is widely known that coral reefs rival the tropical rain forests in biological diversity and abundance of life. However, many people do not know that the animals on the reef depend heavily on the sea grass beds that grow nearby. These sea grass areas provide food and shelter to countless reef creatures and juvenile animals that are not yet ready to inhabit the reef.

Presently, boat groundings and prop scarring incidents (caused when a prop cuts sea grass while the boat motors over a shallow flat) occur with such frequency and the resulting damage is so severe that the reef and grass beds do not have time to recover. Coral growth is measured in inches per year, so any damage to the reef can easily take decades to grow back. Similarly, it is estimated that even small prop scars in seagrass will take two to five years to recover (Zieman, 1976). A recent aerial survey revealed that many of Biscayne Bay's sea grass flats have already had as much as 20% of the sea grass destroyed by prop scarring and boat groundings (Sargent et al. 1995). During 1994, more than 90 groundings were recorded in Biscayne National Park and current trends indicate that 1995's total will likely be as high or higher. Particularly alarming is the fact that these incidents only reflect *reported* groundings. Frequent sightings of additional broken coral and uprooted sea grass are evidence that a relatively small percentage of groundings are reported. The majority of documented groundings take place in Biscayne Bay and impact sea grass areas. Groundings on coral reefs often go unreported because, unlike sea grass areas, rarely do vessels become stranded as a result of grounding on a reef. Most often a vessel will run into a shallow area, damaging the coral beneath, and continue on with no one but the vessel occupants aware of the damage.

Numerous sea grass grounding incidents in Biscayne National Park have left scars hundreds of feet long and scour holes up to five feet deep. In most cases the damage is not this severe, but each event contributes to the overall damage and results in a substantial cumulative effect. Damaged corals are more susceptible to algae growth and disease. The productivity of shallow water areas can be reduced by erosion of sea grass beds and water quality will continue to be degraded due to suspended sediment (Thayer et al. 1984; Zieman & Zieman, 1989).

Understandably, there is a direct correlation between the number of registered boats in an area and the amount of resource damage caused by boats (Livingston, 1987). That is to say, the more boats there are in a particular area, the more resource damage will occur as a result. In 1974 there were only 65,500 registered boats in Dade, Broward and Palm Beach counties, the counties closest to Biscayne National Park. In 1994 there were over 125,900 registered boats in these counties (FL D.M.V., 1995). If this trend continues, and significant progress is not made to reduce the impact of groundings/prop scarring incidents, the resulting resource damage could prove devastating.

WHAT BNP IS DOING - The Park's goal in responding to the vessel grounding problem is to reduce the impact of vessel grounding and to develop more effective ways of preventing future groundings. This is accomplished by implementing education, resource management and law enforcement strategies.

Education - The Park's interpretation staff has developed numerous products about the grounding problem. These products include brochures, public service announcements, and public presentations. Park managers and law enforcement personnel take every opportunity to contact boaters directly and assist them in avoiding shallow areas of the park. Frequent presentations are given to boating groups, civic organizations and concerned citizens.

Management - Work is being done to improve channel and shoal area marking in an effort to prevent groundings. The Park has initiated a plan designed to strengthen their working relationship with the commercial towing industry in order to improve the system of removing grounded vessels so that the resulting damage will be minimized. The Park's system of responding to groundings is being improved to better document grounding/prop scar events. With improved documentation trends can be identified, the effectiveness of present strategies can be assessed, and future strategies and the expenditure of the Park's limited resources can be prioritized. In an effort to mitigate damage and speed recovery, steps are being taken to establish a means of performing restoration on sites damaged by boat groundings.

Enforcement - Presently civil and criminal penalties are assessed for operating a boat in a manner that results in damage to the Park's natural resources. This provides a deterrent effect by heightening the public's awareness to the serious nature of vessel groundings and prop scarring.

POLICIES
for
Vessel Grounding Response

Goal

1. The goal of the vessel grounding response program is to minimize the physical damage to natural resources caused by vessel groundings and prop scarring and to develop more effective strategies for the prevention of future incidents.

Objectives

2. The objective for achieving the goal are to:
 - A. Reduce the number and severity of groundings/prop scarring incidents.
 - B. Reduce the damage that occurs while a vessel is aground.
 - C. Reduce the damage that occurs when a vessel is removed from a grounding site.

Strategies

3. The strategies for achieving objectives are to:
 - A. Educate boaters about the resource damage caused by groundings, their significance, and how to avoid running aground.
 - B. Utilize uniform, fair, and reasonable enforcement measures, to make the public aware of the seriousness of vessel grounding/prop scarring.
 - C. Develop and implement resource management actions:
 1. Document vessel grounding events and impacts in order to form a data base on grounding activities
 2. Form partnerships with agencies and organizations in order to better address prevent grounding incidents (e.g. USCG/channel marking, commercial towing operators/removal methods)

Level of Response

4. The level of response to a vessel grounding will depend upon the location, severity, and circumstances of the grounding. All reported vessel grounding incidents will be documented and park personnel will respond whenever possible. Because it is not possible to respond to every grounding, BNP will rely on the commercial towing industry and marine law enforcement agencies to assist in the documentation of grounding incidents and the removal of grounded vessels.

Removal Guidelines

5. All grounded vessels should be removed from their grounding sites in a manner that prevents additional resource damage. The following are the BNP Grounded Vessel Removal Guidelines:
 - A. Grounded vessels should not be powered off of a grounding site.
 - B. When possible, grounded vessels should be removed from a grounding site at high tide.
 - C. Adequate equipment and assistance should be used in the removal of a grounded vessel.

Commercial Towing

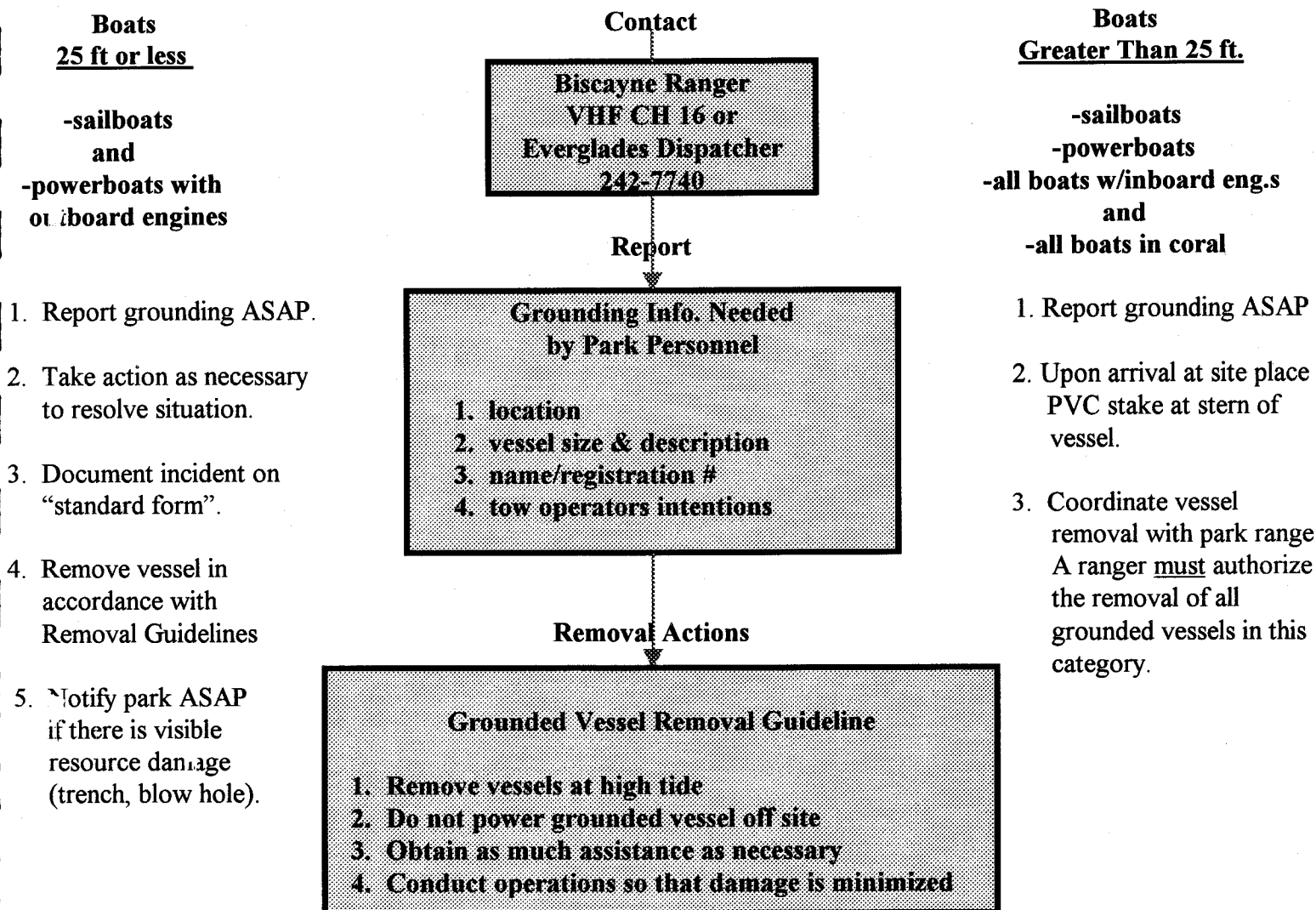
6. Only commercial towing operators who have received a towing permit from Biscayne National Park may operate within Park boundaries.

Emergency Situations

7. Occasionally **emergency situations** arise that require immediate action to prevent loss of life or serious injury. If such a situation develops and taking the time to notify park personnel would jeopardize a persons safety, then the individual(s) responding should take the necessary action to address the situation and notify park personnel as soon as possible.

COMMERCIAL TOWING OPERATORS
Vessel Grounding Response Procedures
For Biscayne National Park

Actions requested of towing operators responding to vessel groundings:



Emergency Situations...

occasionally arise and require immediate action to prevent loss of life or serious injury. If such a situation develops and taking time to notify park personnel jeopardizes a persons safety, then the towing operator responding should take the necessary action to address the situation and notify park personnel as soon as possible.

Please contact Biscayne National Park when any of the following situations arise:

-Discharge of fuel/oil -Sunken or sinking vessel -Injured person

EVERGLADES NATIONAL PARK DISPATCHER

Vessel Grounding Response Procedures For Biscayne National Park

1. Upon receiving a report of vessel grounding in BNP, the ENP dispatcher will record as much of the following information as possible:
 - A. Location of grounded vessel (lat/long, physical description)
 - B. Size & Description of vessel
 1. color
 2. length
 3. power or sail?
 4. inboard or outboard engine?
 5. type of vessel (e.g. cuddy cabin, open fisherman, trawler, high performance)
 - C. Name & hailing port and/or registration #.
 - D. Name of towing operator responding and brief statement of their removal intentions.
2. After recording the above information a BNP Ranger should be notified immediately.
3. After hours notification: follow the standard procedure for BNP emergency call-out.

VISITOR PROTECTION RANGERS

Vessel Grounding Procedures

1. **Preliminary Situation Assessment** - Determine as much of the following information as possible prior to responding to a vessel grounding. Communicate with ENP dispatcher, tow operator responding, grounded vessel operator or other reporting source.
 - A. Are there injuries/medical concerns?
 - B. Has the operator of the grounded vessel been told not to power off of the grounding site?
 - C. Where is the boat located (physical location and Lat./Long.)?
 - D. What is the description of the vessel (size, type, color)?
 - E. What is the registration number and/or name of the vessel?
 - F. Who is the responding towing operator and what is his/her intentions?
2. Factors to consider when determining the proper **level of response**- the level of response will be determined by the severity, location and circumstances of the reported grounding. Ultimately the decision to respond to a reported grounding site is a matter of ranger judgment.
 - A. Circumstances that require a physical response to grounding site:
 1. Grounding is reported to be in coral/reef area
 2. Grounding report indicates that the vessel operator attempted to power off of the site.
 3. Grounded vessel is reported to have an inboard drive configuration.
 4. Any other situation when circumstances indicate that resource damage is likely to be major (as defined on p. 9) or there is a threat to visitor safety.
 - B. Circumstances that indicate responding to the grounding site may not be necessary:
 1. Grounding involves a vessel of less than 25 ft.
 2. Grounding is in or immediately adjacent to channel (particularly those in the north end of the park).
 3. A reliable reporting source indicates there is little to no resource damage.
 - C. Other circumstances to consider when determining proper level of response.
 1. Tidal state (e.g. incoming, outgoing, slack, spring).
 2. Proximity of grounded vessel to deep water.
 3. Distance of ranger from grounding site/present work load.
 4. Characteristic of resource damage involved (Pristine grass bed vs. Frequently impacted area).

3. On-Site Situation Assessment.

*Always consider ranger safety when assessing any situation.

- A. Confirm that there are no medical concerns or other emergencies (e.g. vessel taking on water, hazardous material spill). These situations take priority over a vessel grounding and therefore, should be addressed first.
- B. Confirm that the vessel operators knows not to power off of the site. Communicate with the grounded vessel operator and inform him generally about how the situation will be handled.
- D. Locate damaged area and determine (estimate) extent of damage.
- E. When appropriate notify resource management (see notification of resource management p. 9).
- F. Communicate with towing operator to determine his/her plan for vessel removal and express any concerns to the towing operator.
- G. If it is necessary to approach the vessel while it is still aground, exercise caution and avoid contributing or appearing to contribute to the resource damage.

4. Removal of Vessel From Grounding Site.

- A. Stabilizing the grounded vessel may be necessary when waiting for high tide or assistance.
 - 1. Anchoring may reduce movement and additional damage.
 - 2. A lower unit or out drive should be raised.
 - 3. Weight distribution on the grounded vessel may be altered to aid stability.
 - 4. Rangers should have the expertise and equipment necessary to tow a small vessel in an emergency situation.
- B. Consideration should be given to the welfare of grounded vessel occupants. It may be necessary to remove some passengers from the vessel and arrange for transportation to shore (e.g. young, elderly, ill, etc.).
- C. Communicate with the towing operator and grounded vessel operator throughout the removal operation.
 - 1. Be sure everyone involved understands that the vessel must be removed in a way that minimizes the amount of further resource damage.
 - 2. If the towing operation is causing unnecessary resource damage then stop the operation, inform the towing operator that another method must be used or additional assistance obtained.

5. **Notification of Resource Management-** Resource management personnel should be informed of incidents involving prop dredging, vessel grounding and any other activity that results in physical damage to park natural resources.

Physical damage to natural resources is categorized as major or minor based on the following criteria:

Major Damage	
Physical Dimensions	-scars > 10' in length. -depression > 1/2' depth. -area impacted > 20'.
Visual Indicators:	-disturbed rhizomes. -sediment pile or large amount of suspended sediment. -presence of hard/soft corals in the vicinity. -mature, dense grass bed. -major damage is likely to occur if corrective actions are not taken.
V.P. Ranger Actions:	-notify resource managers ASAP. -fill out resource management report.

Minor Damage	
Physical Characteristics:	-scars, depression, impacted area less than that listed as major damage.
Visual Indicators:	-small amount of suspended sediment. -area of sparse grass or frequent resource damage. -inability to identify those responsible for damage. -area subject to cumulative effect of vessel traffic (Hawk Ch, L.C.W., Caesar's creek).
V.P. Ranger Actions:	-fill out resource manage report.

Grounded Vessel Removal Guidelines

1. Vessels should be removed at high tide
2. Vessels should not be powered off of grounding site
3. Adequate assistance should be obtained to remove the vessel from the site.

6. Unusual Situations

A. The "Grounded Vessel Removal Guidelines" will prevent additional damage in most grounding incidents. However, those responding to grounding must be able to identify when they are not appropriate and react accordingly. (e.g. It may not be wise to wait until high tide to remove a grounded vessel if the weather is deteriorating or the vessel is being damaged due to wave action.)

B. Vessel Operator Refuses Assistance

1. If the vessel is doing no damage then inform the vessel operator of his/her responsibility to remove the vessel doing no additional resource damage and monitor the situation.
2. If the vessel is doing damage then inform the vessel operator that he/she will be held responsible for damage to natural resources. The on-scene Ranger decide at what point intervention necessary to prohibit damage to park resources. Notify resource management personnel. Ultimately, park management is prepared to arrange for commercial towing and the arrest/seizure of the grounded vessel.

C. Good Samaritan Towing

1. Must adhere to the same removal guidelines as commercial towing operators.
2. Should be informed that they can be held liable for any damage that occurs from the towing operation.
3. Generally Good Samaritan towers lack the expertise and equipment to safely remove a grounded vessel in all but the most minor of incidents.

D. Large Vessel Grounding (freighters, tugs, barges, shrimp boats)

1. Establish communications with Captain of grounded vessel, have crew member interpret directly if Captain does not speak English.
2. Confirm that vessel is aground (it may be difficult to tell with certainty that a large vessel is aground)
3. Inform the Captain that he is in BNP and that you have legal authority in the area.
4. Inform the Captain not to power vessel off of the site and that you will contact the U.S.C.G.
5. Immediate concerns are: is there a chance of a fuel/oil spill, ~~taking~~ is the vessel taking on water, what is the vessel's cargo?
6. Notify U.S.C.G. of situation.
7. Notify resource management personnel immediately.
8. Begin detailed incident documentation.

7. Incident Documentation for visitor protection rangers.

The extent of documentation will depend on the nature of the incident, level of damage, and enforcement action.

A. Use appropriate form(s)

1. Incident requiring only towing operator response
 - Towing Operator Report
2. Incident in which BNP personnel respond and case not taken civilly.
 - Case Incident Form (A case incident report should be written if a citation is given or any incident involving unusual circumstances.)
 - Vessel Grounding Form
 - Damage Assessment (If "major" damage incident, then R. M. division will be responsible for assessment.)
 - Photos (V.P. & R.M. divisions)
 - Towing Operator Report
3. Cases in which enforcement action involves a civil penalty must be submitted in a Solicitor's Package and must include all necessary written and photo documentation.

A copy of all forms are included in appendix (A) of this document.

- B. Record Lat/Long and physical location (forward a copy of the plotted chart position to resource management).**

- C. Mark site with resource damage marker.
- D. Photograph/ video scene if appropriate.
- E. Conduct damage assessment for vessel grounding cases dealing with minor resource damage. Resource management personnel should be notified if assessment cannot be accomplished by the v.p. ranger or if the grounding involves major resource damage. Resource management personnel are on call at all times, and can be contacted via park radio, pager or ENP Dispatcher.

Damage assessments conducted by VP Rangers will consist of the following products:

- photos
 - ranger's statement about the resource damage observed
(e.g. trench, depression, blow hole, broken/ scraped coral, rhizomes, grass blades, suspended sediment, sediment pile or corresponding vessel damage: bent prop, skeg, gel coat scratches on boat hull)
- F. The V.P. Ranger is responsible for forwarding damage assessment information with the case incident report, including reports generated by the Resource Management personnel, to the solicitors office within 30 working days.
8. **Enforcement Options:** The selection of the most appropriate enforcement option is a matter of ranger discretion. Ultimately the purpose for enforcement is to gain the public's voluntary compliance with park rules and regulations. The message put forth to the public by rangers on the water should be that violations of park regulations are taken seriously but are dealt with fairly and reasonably.
- A. Written warning
 - B. Preservation of natural features - \$150
 - C. Negligent operation - \$400
 - D. A mandatory court appearance for either preservation of natural features or negligent operation can be issued. The resulting fine amount can be changed by the Magistrate to \$5,000 for an individual or \$10,000 for a corporation.
 - E. Civil Action- Restoration Costs
 - F. Combination of any of the above

PREVENTION of Vessel Grounding

Ideas for the prevention of vessel groundings.

1. Identify boaters that are experiencing navigational difficulties and provide assistance.
 - A. Orient them using a chart & visible aids to navigation.
 - B. Advise them on the safest route to their destination (exercise judgment in this regard, especially when communicating over VHF radio, some boaters may accuse authorities of bad advice if they subsequently run aground).
 - C. Distribute brochures explaining impacts of vessel groundings.
2. When practical plan patrol route with problem groundings sites in mind.
 - A. Most groundings take place when low tide occurs in the late afternoon.
 - B. Anticipate when a boaters route is going to take him into shallow water and safely stop him/her prior to running aground.
3. Encourage boaters to:
 - A. Use the proper navigational chart.
 - B. Wear polarized sunglasses when boating.
 - C. Pay attention to the tide schedule.
 - D. Stay in marked channels.
 - E. Seek local knowledge.
4. Implement public awareness campaign with other divisions.
 - A. Perform presentations and speaking engagements.

RESOURCE MANAGERS

Vessel Grounding Procedures

DAMAGE ASSESSMENT

OBJECTIVE - The objective of damage assessment is to provide an accurate report of the extent of physical damage to support enforcement cases, civil penalties and management strategies.

Sea Grass Damage Classifications

Level I: Sea grass is totally removed from site. Significant voids are present in the substrate such that further erosion is likely to occur. Sediment needs to be placed in these voids to allow sea grasses to either recolonize the area or for planting efforts to proceed.

Level II: Sea grass is either totally removed from the site or is badly damaged (e.g. rhizomes cut). Sediment is disturbed, but there are no significant voids in the substrate. Subsequent erosion will be negligible. Fill material will not be required to restore the site, but sea grasses should be replanted.

Level III: Sea grass beds are disturbed, but not badly damaged (e.g. blades are cut, rhizomes not impacted). Area could be covered with sediment displaced from an adjacent zone, but substrate is not effected locally. No planting is required. However, the viability and productivity of the grass bed is impacted.

Coral Damage Classifications

Level I: Damage has occurred to reef framework: obliteration of spurs and similar formations; cracks in reef framework; excavations caused by propeller; production of rubble, either directly by the ship or secondarily from reef matrix exposed to wave action. The likelihood of secondary damage is high if mediation or restoration measures are not implemented.

Level II: One or more coral colonies has been destroyed. Individual colonies or "heads" are overturned, fractured or obliterated; branches are broken; although there is substantial damage to individual colonies there is little chance of secondary damage.

Level III: Damage is limited to superficial scrapes of living tissue and/or broken small branches. There is no chance of secondary damage.

Note: Natural resource damage will be classified according to the categories given above and any one site may have areas of differing levels of damage.

DAMAGE ASSESSMENT

Damage assessments conducted by BNP Resource Management Personnel will consist of the following products:

1. A measurement of extent of physical damage
2. Identification of damaged species
3. Diagram of grounding site
4. 35mm photos/ UW video of site
5. Narrative of observations

A damage assessment conducted in support of a Park violation shall be completed and the report forwarded to the V.P. Ranger handling the case within 10 working days.

A copy of the BNP Damage Assessment Form is included in appendix (B) of this document.

BISCAYNE NATIONAL PARK VESSEL GROUNDING

RESTORATION

Coral Reef / Sea Grass Restoration - Is a proactive recovery program . It is designed to speed the recovery of a damaged reef or sea grass bed so that the damaged area has aesthetic value and is a functional part of the marine environment.

A "proactive" plan to speed recovery includes both mitigation and recovery enhancement measures.

1. **Mitigation measures** are undertaken to minimize the effect of secondary damage. Secondary damage is likely to occur following a major grounding incident because the unconsolidated bottom is moved by wave energy or tidal currents, thus increasing the extent and severity of damage.
2. **Recovery enhancement measures** are undertaken to promote the rapid recovery rate of damaged areas.

1. Coral reef mitigation and recovery enhancement activities

A. Fill and cap rubble/sand producing excavations

Framework damage that periodically produces rubble and sand causing widespread secondary damage should be repaired before other restoration activity begins.

B. Cement fractured reef framework (loose boulders, rubble)

Excavations (e.g. caused by propeller wash) that continually produce silt or rubble should be stabilized, either by re-establishing the crust or by repairing the sides and bottom without filling the hole.

C. Remove rubble & sediment

Removing large volumes of rubble is technically difficult, time consuming and expensive. If rubble is moved into nearby damaged holes in reef framework, stabilization of holes must be addressed at the same time. Rubble may also be moved to deeper water where surge will generally not affect it.

D. Transplantation of coral colonies

Immediate replacement and recovery of dislodged or threatened coral and toppled reef fragments that survive grounding events should be accomplished. If time constraints prevent this, "survivors" should be removed and set aside in coral "gardens" or "safe areas" until they can be reattached.

2. **Sea Grass damage mitigation and recovery enhancement activities**

A. Removal of sediment displaced from excavation hole

Sediment displaced from a scour hole will often smother the under lying sea grass if not removed within days of the damage event. Removal of sediment is often a difficult task but can be accomplished with a suction dredge or air lift.

B. Fill excavated hole/trench

Ideally the sediment displaced from the scour hole should be used to refill it. If this is not possible an ecologically compatible material that will adequately fill the hole can be considered.

C. Transplant sea grass into excavated hole/trench

Transplanting sea grass into shallow, stable scour areas will often speed the refilling of the excavation by trapping sediment.

D. Transplanting sea grass

Careful consideration should be given to selection of donor and transplant sites. In addition to the natural growth limitations, consideration should be given to the likelihood of future damage events in the area.

3. **Restoration funding sources:**

A. Responsible party

Ideally the responsible party should fund the cost of restoring a damaged site.

B. Biscayne National Park

Conceivably there may be damage incidents which require immediate action and time does not allow the opportunity to secure external funding sources.

C. Grants

When possible grants can be secured to fund appropriate restoration projects

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Grounding Documentation Data Sheet

Date:

Time:

Incident #:

Location:

Site Coordinates (GPS, Loran, Other): Latitude _____ Longitude _____

Did you respond? Y (complete form) N (attach Towing Operator Report)

Is Towing Operator Report Attached Y N (If No please complete form)

Describe Situation:

Does Resource Management need to be contacted: Y N Who was contacted:

Did you mark the site? Y N If so how? float stake other _____ Stake Number _____

If not why?

Vessel Make:

FL #'s:

Power

Sail

(circle one)

Vessel Length _____

Engines: I/O O I other _____ (circle one) How Many: 1 2 other _____ (circle one)

Name of Tow Company:

Ranger present when the vessel was removed?: Y N

Diagram of scene: (include compass bearings to objects, locations of banks, shoals, and reefs)

Visitor Protection Ranger _____ Date _____

Visitor Protection Review _____ Date _____

Resource Management Review _____ Date _____

Revised 1/97

Name of Operator

Name of Owner

Address

Address

City, State, Zip

City, State, Zip

Phone Number

Phone Number

Drivers License Number

Drivers License Number

Birth Date

M F

Age

Birth Date

M F

Age

Vessel Name

VESSEL GROUNDING DOCUMENTATION

1) Photos

general area
grounding/vessel name
date photo taken
photographer
incident #
vessel name
lens/camera type
camera settings
remarks if any

2) Package to Solicitor

cover letter (VP)
VP incident report (VP)
Damage assessment including costs for restoration and response (RM)
RM field notes and field sketch (RM)
schematic diagram (RM)
 each area of damage
 dimensions
 photo representing specific area
 other info - direction of travel, location of nav aids, etc
photo documentation - in water and/or air - referenced to diagram (RM/VP)
copies of any citations given (VP)
copy of nautical chart of area (VP)
any correspondence or other pertinent info

REPORTING FORM FOR TOWING GROUNDED VESSELS

Date: _____ Captain: _____

Full Name

Tow Company: _____

Owner/Operator Name

Vessel Name

Owner/Operator Address

Telephone

City, State, Zip

FL # and/or Documentation

Vessel Length, Color, Make

Type of vessel: Power Sail other _____ (circle one)

Number of engines: 1 2 other _____ (circle one)

DOB

DL#

State: _____

Statement from Operator Describing Incident: _____

Time Incident Occurred

Time Tow Vessel On Scene

Evidence of Damage Observed: scars behind vessel _____ turbidity _____

other _____

Is site marked? Yes _____ No _____ PVC Stake # _____ Other _____

Latitude

Longitude

Weather/Tide

Geographical Location : _____

Was Biscayne National Park Contacted? Yes _____ No _____

Who was contacted? _____ When? Date & Time _____

Person completing report: _____ Signature: _____

Please fax forms to Biscayne National Park (230-1190) as soon as possible.

BISCAYNE NATIONAL PARK NATURAL RESOURCES DAMAGE ASSESSMENT

Investigators: _____ Assessment Date: _____ Time: _____

Grounded Vessel Name: _____ Location: _____

Water Depth: _____ GPS Position: _____

Grounding Track/Length: _____ Heading: _____

Reef Framework Damage Yes/No _____ sq. m.

Trench/Blow hole excavation: Yes/No _____ sq. m.

Damage: Level 1 _____ sq. m.

_____ cu. m.

Level 2 _____ sq. m.

Level 3 _____ sq. m.

Diagram of damage site:

NARRATIVE:

SPECIES DAMAGED:

Rhizophore mangle (Red Mangrove)
Syringodium filiforme (Manatee Grass)
Montastrea annularis (Star Coral)
Colpophyllia natans (Boulder Brain Coral)
Diploria clivosa (Brain Coral)
Agaricia agaricites (Lettuce Coral)
Porites porites (Club Tip Finger Coral)
Dichocoenia stokesii (Elliptical Star Coral)
Millepora complanata (Platy Fire Coral)
Palythoa caribbea (Golden Sea mat)

Halodule wrightii (Shoal Grass)
Thalassia testudinum (Turtle Grass)
Montastrea cavernosa (Large Star Coral)
Diploria strigosa (Brain Coral)
Diploria labyrinthiformis (Grooved Brain Coral)
Porites asteroides (Mustard Hill Coral)
Porites divaricata (Finger Coral)
Milleporia alcicornis (Encrusting Fire Coral)
Siderastrea siderea (Starlet Coral)
Gorgonia ventalina (Purple Sea Fan)