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Report

Zoning for the Sustainable Use of the Red Sea's Marine Resources

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A. Introduction

People have always had a deep but often contradictory relationship with the seas and their coastal zones. The seas around us have been seen both as an infinite source of food, and a bottomless pit for hiding our waste; as a common space on which to play and fight, available to all, yet without any of the safeguards that govern most terrestrial activities. A real marine version of 'The Tragedy of the Commons'.

Today industrial and domestic development along coastlines, rapidly expanding exploitation of marine and off-shore mineral resources, shipping and burgeoning tourism all compete for survival and growth. As they do their impact on the flora and fauna of the coasts, the seas and the deepest oceans also grows.

At the end of the 20th Century, we can no longer use ignorance as an excuse for mismanagement. Both experience and research show-compelling evidence of systems under stress. Crowded beaches in sight of oil exploration or storage activities, dwindling fish catches for expanding populations, plastic debris washed up on remote and uninhabited beaches and islands with pristine coral decaying in the face of cries for ever greater numbers of tourists.

B. Policy Background

On February 14th, 1999 a **“Policy Framework for Developing an Environmentally Sustainable Tourism Strategy for the Egyptian Red Sea Coast”** was signed by the Governor of the Red Sea, the Ministers of Environment and Tourism, the Ministry of Foreign Affairs and the Director of USAID/Egypt. This policy, while concerning itself principally with the links between tourism and the environment, reviewed the major opportunities and constraints to sustainable development on the Red Sea. In doing so it states that:

“A policy seeking balanced and sustainable tourism growth will recognize that the environmental resources of Egypt's Red Sea region - the sun, sand, mountains, clean air, wildlife, and abundant coral reefs - constitute its comparative advantage and primary attraction for international and domestic tourists, and contribute to Egypt's reputation as a world class tourism destination. Protection and enhancement of these resources are essential in order to sustain and expand the nation's and the Red Sea region's tourism sector. Concentrated efforts to manage these resources, as well as integrated and well planned growth, are needed for sustainable tourism development.” (Summary).

“This means that, while the need for and desirability of optimum tourism sector growth is unanimously appreciated, every effort will be taken to avoid *excessive development*, where the rate of growth in new tourist facilities and services outstrips reasonably foreseeable market demands. It will also seek to avoid *incomplete development*, where basic community infrastructure services (e.g; transportation, water supply, wastewater treatment, solid waste collection, worker accommodations) are inadequately sized or designed. Finally it will seek to avoid *incompatible development*, where irreplaceable natural and cultural resources are damaged or endangered due to the poor location, design, or operation of tourism facilities.” (P. 2).

“Management programs for EEAA Protected Areas designated under Law 102/1983 need to be expanded and strengthened.....Key issues to be addressed include:

Identifying new areas deserving inclusion in the Protected Area program;
Need for additional baseline data on natural resources as an input to detailed planning and management programs;
Provision of an adequate and sustainable revenue base to support staffing and other operational expenses in Protected Areas;
Reconciliation of recreation, tourism, and other multiple use potentials with environmental protection and preservation goals;
Implementation of Law 102's application to activities taking place outside of Protected Areas but which adversely affect the protected resources;... (P. 7).
“Necessary action plans would include:
Preparation and implementation of management programs which identify, protect, and preserve marine environmental resources....;
Creation of marine use plans;
Development of a multiple use policy and operating procedures.....;

In combination, these changes will help ensure the sustainability of a National Marine Park system along the Egyptian Red Sea coast.” (Ps. 7&8).

This policy position, debated over a number of years, clears the way for EEAA to go forward with the development of an expanded Red Sea Marine Park. However no such expanded park can fulfill the expectations of all of the users of the Red Sea unless there exists a mechanism through which they, as the legitimate users, can come together and ensure fair access to resources within the context of the need to protect and conserve the Red Sea’s biodiversity. Zoning is the mechanism proposed and is considered by most countries with marine parks to be key to the success of a large multiple-use marine park.

C. What is a Zoning Plan?

A zoning plan is a method of controlling activity. It is used to geographically organize allowable and prohibited activities within a marine park. Activities are zoned by defining a set of smaller areas within the overall park where special restrictions or regulations are put into force. These special regulations are specific to the management objectives of each particular zone.

A properly designed and implemented zoning plan plays two significant roles in the park. First, it provides a means for sustainable use of the park and adjacent areas without long term environmental degradation. Many activities can occur in the Red Sea without causing permanent damage - as long as they are undertaken with appropriate care. By regulating where, or under what conditions, certain activities can occur, damage to sensitive natural resources can be prevented. Second, a zoning plan resolves conflicts among groups using the park. Scuba divers and fishermen may interfere with each other; oil producers may want to erect platforms that spoil the views that developers want to sell. Each activity needs its space and zoning is the way to provide it.

Will everyone be perfectly happy with a zoning plan?

No.

A zoning plan cannot provide adequate resource protection and solve activity conflicts without concessions from every group using a marine park. Zoning plans are based on compromise. Nearly all activities may continue under a zoning plan, but nearly all will

require some modification. If the zoning plan is carefully crafted, everyone makes a small sacrifice, no one is put out of business and something is gained by all.

The components of a zoning plan include:

- a statement of the overall management objectives of the park,
- a definition of each zone, including its specific management objective,
- a geographic representation of the zone,
- a statement of the legislative authority for imposing regulations,
- specific regulations for each zone,
- enforcement procedures and penalties for violations,
- emergency actions and
- review procedures.

D. Examples of Zoning Plans

Three notable examples of zoning in marine parks include Australia's Great Barrier Reef Marine Park, the Florida Keys National Marine Sanctuary in the United States and the Cayman Islands National Park. All are large multiple-use marine parks in which zoning is a principal component of the management plan.

1). The Great Barrier Reef Marine Park was one of the first marine parks to adopt a zoning plan. In fact, when the park was designated in 1975 establishing zoning plans for each section was given first priority. The general objectives of the zoning plans included:

- conserving the Great Barrier Reef,
- regulating use of the park while allowing reasonable use,
- regulating extractive activities in order to minimize impact,
- reserving selected areas for enjoyment by the public and
- preserving selected areas undisturbed by man.

Briefly stated, the following guidelines were employed for developing the initial zoning plan:

- Make the plan as simple as possible.
- Minimize regulation of, and interference with, human activities consistent with providing for long term protection, use and enjoyment of the park.
- Use buffering to avoid sudden transitions from little protection to high protection.
- Make zone boundary widths consistent and define zones by geographical features.
- Provide for movement of shipping along recognized or proposed routes.
- Do not impede access of shipping to existing or potential ports.
- Make appropriate provisions for the anchoring of vessels.
- Recognize the requirements of the Department of Defense.

- Give areas of special significance for wildlife conservation protective zoning.
- Give breeding or nursery sites appropriate seasonal closures or protective zoning.
- Include representative habitats which are characteristic of the area in protective or preservation zones.
- Include the reef ecological complex in coral reef zones.
- Include replenishment areas (closed for specific periods to allow fish populations to regenerate) adjacent to coastal settlements since these reefs are often the focus of fishing activity.
- Make provisions for the conduct of scientific research.

After considerable deliberation with stakeholders, such as commercial fishermen and tourism operators, and extensive public consultation, zoning plans were adopted for each section of the Great Barrier Reef Marine Park featuring the following types of zones:

- **General Use Zone**
- **Habitat Protection Zone**
- **Estuarine Conservation Zone**
- **Conservation Park Zone**
- **Buffer Zone**
- **National Park Zone**
- **Preservation Zone.**

2). *The Florida Keys National Marine Sanctuary* as designated in 1990, zoning was intended to be an integral part of the overall management plan. It was hoped that the benefits of zoning in large multiple-use marine parks demonstrated in Australia could be further improved in the Florida Keys by developing the zoning plan in conjunction with all the other elements of the management plan. In addition to extensive public participation, a twenty-two person Advisory Council, consisting of individuals representing the full spectrum of stakeholder interests, was appointed to assist a core group from offices of the state and federal governments in developing the plan. The zoning plan that was developed consists of five zones:

- **Wildlife Management Areas** are zones which minimize disturbances to sensitive wildlife populations and their habitats. Access to these areas may be prohibited, allowed only by non-motorized watercraft or allowed only at slow speed.
- **Ecological Reserves** are no off-take zones intended to provide natural spawning, nursery and residence areas for the replenishment and genetic protection of marine life, particularly those species not protected by fishery management regulations.
- **Sanctuary Preservation Zones** are no off-take zones intended to protect shallow, heavily used coral reefs where conflicts occur between user groups and concentrated visitor activity leads to resource degradation.

- **Existing Management Areas** are zones established and managed by other agencies where restrictions to activities already exist, such as state parks.
- **Special Use Areas** are zones set aside for research, education, restoration, monitoring or particular activities such as the operation of personal water craft or permanent anchoring. These zones will be placed in effect for specific periods of time.

In contrast to the Great Barrier Reef Marine Park, the zoning plan for the Florida Keys National Marine Sanctuary contains the specific legislative authority, regulations, enforcement procedures and penalties associated with each zone. The zoning plan was put into effect on July 1, 1997, and for the following year a policy of “interpretive enforcement” was adopted. Under this policy, violators of the zoning plan were given only warnings, with an explanation of the rules and written information about the sanctuary.

3). *The Cayman Islands Marine Park* in the Caribbean, has components in the coastal waters around Grand Cayman, Little Cayman and Cayman Brac. A simpler approach to zoning has been taken in this park, with the establishment of three basic zones:

- **Marine Park Zones,**
- **Environmental Zones,** and
- **Replenishment Zones.**

Examples of all three zones have been established in the waters surrounding Grand Cayman, while Cayman Brac and Little Cayman have only Marine Park Zones and Replenishment Zones. The Environmental Zone along the Eastern Shore of North Sound on Grand Cayman has the strictest rules. All in-water activities, anchoring and the taking of any marine life are prohibited. In addition, there is a 5mph speed limit for boats crossing the area. The Replenishment Zone has prohibitions against using spear guns and taking conch or lobster. Line fishing and anchoring are permitted.

Marine Park Zones include much of the West Bay of Grand Cayman and the north and south walls of Cayman Brac and Little Cayman, areas which include most of the popular diving sites. Except for cast nets and line fishing from the shore or beyond the wall, no taking of marine life is permitted. Anchoring is not permitted except for boats less than sixty feet, and then only when anchored properly in the sand.

4). *Red Sea Zoning Plan Seminars.* Beginning in November of 1998, a series of zoning seminars were conducted in Hurghada to initiate awareness and understanding of the process of developing a zoning plan for the Egyptian coastal areas of the Red Sea. The seminars were attended by individuals representing local fishermen, dive operators, hotel owners, the Tourism Development Authority, Fisheries Resources Development, the Hurghada City Council, Defense authorities, HEPCA and EEAA. The first and second seminars introduced the concept of zoning and provided information for the representatives to discuss with their colleagues. During the third seminar, the various groups worked together to develop an initial zoning plan that could be implemented as a trial during the first year after a park is designated.

The attendees of this seminar decided to start with the smallest, most restrictive zone and work toward the largest, least restrictive zone. They began by considering which activities would be allowed and which would be prohibited, discussing each at length. Whenever an impasse was reached due to a conflict of activities or desire for access to a sensitive area, the group considered alternative solutions, or compromises, until a consensus

was reached. The result of this effort was a decision to recommend seven distinct zones. Based upon the activities allowed within each zone, a statement of the purpose of each zone was developed and a zone name was agreed upon. The zone names were chosen to accurately reflect the purpose of the zone in both Arabic and English. The zones suggested by the group include:

- Scientific Reserve Zone
- Sanctuary Zone
- Diving Zone
- Snorkeling Zone
- Beach Sports Zone
- Island Access Zone
- Fishing and Multiple Activity Zone

The proposed zones are defined in Appendix A.

E. Developing a Zoning Plan

Based on the previously cited examples of marine park zoning, a zoning plan must be carefully defined in order to be successful. The basic fundamentals to consider include:

- Base the zoning plan on environmental sustainability, providing a reasonable balance for existing and future activities. Multiple-use marine parks are about facilitating activity while simultaneously protecting natural resources. This is a difficult task, but not impossible. The key is balance. Balance protection against use; balance one use against another.
- Design the zones in layers, giving the highest level of protection to the smallest zones. Much of a marine park is open water, which needs less protection than the shallow reefs or fringing mangrove forests. Larger areas need protection against pollution and against harmful extraction activities or construction, but access can be relatively free. Smaller areas of special resources tend to attract greater concentrations of activity and require more specific restrictions in order to provide adequate protection.
- Provide equal levels of protection to connected resources. For instance, protecting sea turtles without protecting their nesting areas is not effective. In order to protect dolphins, their nursery areas must also be protected. To promote recovery of fish stocks, the fish and their spawning areas and nurseries must be protected.
- Define zone types in plain language and give them clear names. Simplicity is a virtue when writing zoning plans. If the zone names and their definitions are too complicated, they will not be understood by visitors and commercial operators. Whenever appropriate emphasize the positive aspect of the zone by naming it for the primary activities allowed rather than the activities restricted.
- Use as few different zone types as possible. Once the process of developing a zoning plan begins, suggestions for many types of zones will arise. Many of these will seem reasonable, but the plan can quickly become unwieldy and difficult to

understand. Four to six zones are the most that can be easily understood and enforced.

- Include areas of exceptional sensitivity, such as reproductive and nursery areas, shallow sea grass beds, mangrove forests and characteristic coral reefs within zones which prohibit harvesting, damage or disturbance. These areas are the environmental heart of the park and must adequately protected by the zoning plan.
- Resolve activity conflicts wherever possible. Use conflict is often the most difficult aspect of zoning plan preparation. People usually agree readily to special considerations for natural resource protection, but will aggressively defend their right of access over others. Some useful mediation techniques include dividing access areas equally among using groups, separating use by time of day or season, alternating access among groups, splitting zones to separate activities and negotiating trade-offs in access areas.
- Select zone boundaries that can be readily marked and easily determined on site by operators and visitors. Drawing a circle around a reef is simple - finding the exact line that circle represents when you are in a boat miles from shore is another matter. Writing a regulation that says “no anchoring with 300 meters” is also simple, but visually judging distance on the water is tricky and there will always be wide variations among individuals on the scene. Using geographic features, including water depth, to define zone boundaries will help because everyone will have the same reference.
- Make provisions for establishing emergency temporary zones. Incidents such as ship groundings, severe storms and spills can cause sudden damage to natural resources. In order to evaluate the damage and allow recovery, emergency zones or closures may be needed.

In addition to these basic fundamentals, the restrictions of each zone should be precisely chosen to meet its goals. Unnecessary or poorly defined restrictions should be avoided. Partial restrictions may be combined in zones in order to limit activities to environmentally acceptable levels without completely prohibiting them. The following list of restrictions summarizes some of the possibilities to consider:

- seasonal closures,
- licensed guides required,
- specific activities allowed or prohibited,
- use of specific equipment restricted,
- group size and number of groups limited,
- number of boats limited,
- boat speed limited,
- boat size limited,
- motorized vessels prohibited,
- mandatory “best practices” code,
- park operating permit required,

- no structures allowed,
- no taking, damaging or disturbing sea life or bottom features,
- no disturbance of historic or cultural artifacts,
- entry for research only and
- no entry.

Since zones are often established for the purpose of facilitating a specific activity or set of related activities, such as diving and snorkeling or subsistence fishing, they should be defined in terms of their allowed activities as well as their restrictions.

F. Implementing a Zoning Plan

Too often impressive marine park plans have been developed but not put into action. These parks look good on paper, but their natural resources continue to decline as detrimental activities continue unchecked. Fortunately, implementing a zoning plan is not complicated and is relatively inexpensive. The basic steps include:

- Have a full-time on-site manager with appropriate training and experience and provide the manager with sufficient authority and budget. Implementing a zoning plan in a large multiple-use marine park will require many daily decisions and constant supervision. These tasks can only be accomplished by someone on site with the authority and funds to act directly.
- Mark the zones with signs and buoys. A zoning plan has the appearance of a paper exercise when it is only written down, or marked on charts. People will take the plan seriously only when it has been physically marked.
- Ensure that trained personnel are on the water enforcing the plan. Without an effective enforcement program, voluntary compliance by even the most conscientious persons will erode as violations become commonplace. People will begin to ask themselves, “If no one else is obeying, why should I?”
- An initial transition period should be expected, during which there is confusion about what is allowed in each zone, where the exact boundaries fall and what penalties may be incurred. Enforcement procedures should be limited to warnings and education during this period in order to build support for the plan and promote long term voluntary compliance.
- Monitor the effectiveness of the plan. Proper patrolling and record keeping by enforcement personnel will determine if the zoning plan is effectively preventing activity conflicts. In addition, a long term natural resource monitoring program must be instituted in order to detect changes in the habitats, sea life and fauna of the area. The greatest danger to large multiple-use marine parks is not the obvious disaster, such as an oil spill or ship grounding. Certainly these are damaging events that should be prevented, but the most insidious damage is small, chronic and difficult to detect. In marine environments these impacts go unnoticed every day, only to be discovered when it is too late to reverse the damage.
- Distribute an interesting and educational guide to the zoning plan. The plan should be readily available, including reference maps, to anyone visiting or

working in the park. Every boat, dive shop, hotel and tour company should have copies available at all times.

- Establish a practical review procedure and schedule. Changes in the zoning plan may be desired by commercial operators responding to changing demands, by park managers who have discovered problems with enforcement, or by researchers who have detected degradation of the natural resources. Revising the zoning plan should not be so difficult that it never happens. Nor should it be so easy that the plan is changed simply to accommodate an activity that would not otherwise be allowed.

**Appendix A: Proposed Zoning Plan for the
Greater Red Sea Marine Park**

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Scientific Reserve Zone	<p>Zone of maximum restriction providing areas of near-zero impact to:</p> <ul style="list-style-type: none"> • preserve unique and pristine resources, • allow extensively-damaged areas to recover, or • allow select areas to act as replenishment zones. <p>This zone will also function when needed as an exclusion zone for military activity and temporary emergency closures.</p>	<ul style="list-style-type: none"> • Research with permit 	<ul style="list-style-type: none"> • All other activities 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries wherever possible. 2. Set schedule of boundary inspections by EEAA rangers for these zones. 3. Rangers accompany researchers. 4. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Record boundary inspections in ranger patrol logs. 2. Record number and dates of zone violations. 3. Record nature and dates of research activity. 4. Compile monitoring program results. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Adjust patrol frequency. 2. Apply penalties or seize equipment. 3. Analyze monitoring program results annually and track from year to year. 4. Initiate emergency zone closure or other appropriate action.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Sanctuary Zone	Highly restricted zone intended to allow limited, very low impact visitation.	<ul style="list-style-type: none"> • Entry only with EEAA ranger or EEAA certified guide. 	<ul style="list-style-type: none"> • All other activities 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries wherever possible. 2. Develop EEAA certified guide training course. 3. Rangers or guides accompany all visitors. 4. Set ranger patrol schedule of Sanctuary Zones. 5. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Rangers and guides submit record of visitation, including date, nature of activity and number of persons in group. 2. Rangers record observations and incidents of zone violation in patrol log. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Adjust patrol frequency. 2. Revise guide certification program. 3. Adjust number of valid guide certificates. 4. Revoke individual guide certificates. 5. Apply penalties or seize equipment. 6. Analyze results of monitoring program annually and track from year to year. 7. Initiate emergency zone closure.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Diving Zone	<p>Moderately restricted zone intended to facilitate diving and low -impact snorkeling activity while reducing the environmental impact of these activities. Most individuals entering this zone will have previous training and certification, which will assist in reducing impact.</p> <p>The restricted activities allowed in diving zones are also intended to enhance the quality of the diving experience and promote diving etiquette consistent with the conservation goals of the park.</p>	<ul style="list-style-type: none"> • Scuba diving • Snorkeling incidental to diving 	<ul style="list-style-type: none"> • Anchoring • Fishing • Discharging sewage • Glassbottom boats • Dive training • Motorized and non-motorized watersports 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries wherever possible. 2. Set ranger patrol schedule of Diving Zones. 3. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Record visitation in ranger patrol logs, including count of dive boats and estimate of number of divers. 2. Record observations and incidents of zone violation in ranger patrol logs. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Adjust patrol frequency and activity. 2. Apply penalties or seize equipment. 3. Analyze monitoring program results for this zone annually and track from year to year. 4. Initiate emergency zone closure. 5. Recommend modification of zone boundary. 6. Recommend seasonal modification of zone. 7. Revoke entry privileges of repeat violators. 8. Develop schedule of dive center visitation to selected reefs. 9. Consider other methods of limiting access.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Snorkeling Zone	Allows activities that may result in somewhat greater impact than Diving Zone because these visitors generally have no previous training and possess fewer water skills. These zones will be located in shallow areas where natural - resource impacts are already relatively high.	<ul style="list-style-type: none"> • Snorkel boat operation • Dive training • Glassbottom boat operation • Submarine operation 	<ul style="list-style-type: none"> • Anchoring • Fishing • Discharging sewage • Motorized and non-motorized watersports, except submarines 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries wherever possible. 2. Set patrol schedule of Snorkeling Zones. 3. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Record visitation in ranger patrol log, including count of snorkel boats and estimate of number of snorkelers. 2. Record observations and incidents of zone violation in ranger patrol log. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Adjust patrol frequency and activity. 2. Apply penalties or seize equipment. 3. Analyze monitoring program results annually and track from year to year. 4. Initiate emergency zone closure. 5. Recommend modification of zone boundary. 6. Recommend seasonal modification of zone. 7. Revoke entry privileges of repeat violators. 8. Develop program to train and certify snorkel guides.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Beach Sports Zone	Intended to facilitate water sport activities directly associated with coastal resorts while providing a reasonable degree of resource protection. These zones will primarily be narrow areas off mainland beaches, including shallow, sandy environments and “home” reefs. Resorts may sub-divide these zones at their own discretion to resolve conflicts among the various beach front water sports.	<ul style="list-style-type: none"> • Motorized and non-motorized watersports • Diving • Snorkeling 	<ul style="list-style-type: none"> • Anchoring • Fishing • Discharging sewage 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries where necessary. 2. Set ranger patrol schedule of Beach Sports Zones. 3. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Record of visitation in ranger patrol logs, including count of dive boats and estimate of number of divers. 2. Record observations and incidents of zone violation in ranger patrol logs. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Assist hotel operators in selecting and marking zone sub-divisions. 2. Adjust patrol frequency and activity. 3. Apply penalties or seize equipment. 4. Analyze monitoring program results annually and track from year to year. 5. Initiate emergency zone closure. 6. Recommend modification of zone boundary. 7. Recommend seasonal modification of zone. 8. Revoke entry privileges of repeat violators.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Island Access Zone	<p>Intended to provide limited access to small areas of select near shore islands for low impact activities. Persons entering these zones will be expected to remove all their own trash and garbage and leave as little evidence as possible of their visit.</p>	<ul style="list-style-type: none"> • Sunbathing • Beach sports • Outdoor cooking • Erection of temporary tents 	<ul style="list-style-type: none"> • Erection of permanent structures • Garbage disposal 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries if needed. 2. Set patrol schedule of Island Access Zones. 3. Establish resource baseline monitoring program within selected zones. <p>Records:</p> <ol style="list-style-type: none"> 1. Rangers record of island visitation in patrol log. 2. Rangers record observations and incidents of zone violation in patrol log. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Adjust patrol frequency and activity. 2. Apply penalties or seize equipment. 3. Analyze monitoring program results annually and track from year to year. 4. Initiate emergency zone closure. 5. Recommend modification of zone boundary. 6. Recommend seasonal modification of zone. 7. Revoke entry privileges of repeat violators.

Zone Name	Description	Allowed Activities	Prohibited Activities	Zone Monitoring Requirement
Fishing and Multiple Activities Zone	This zone is intended to define the general level of protection for the entire marine park. Most low impact compatible activities are allowed without substantial restrictions. Some potentially damaging activities are allowed when agreed-upon best practices are followed.	<ul style="list-style-type: none"> • Fishing, except with nets of mesh smaller than legal limit • Vessel transit • Anchoring • Military operations, complying with best practices • Petroleum production, complying with best practices 	<ul style="list-style-type: none"> • Damaging coral • Damaging mangroves • Damaging sea grass • Spear-fishing • Dumping or discharging polluting materials or liquids • Petroleum production activities within 5 km of any other zone • Visible petroleum production activities within 10 km of any other zone 	<p>Tasks:</p> <ol style="list-style-type: none"> 1. Mark zone boundaries where desired. 2. Develop emergency response plan for incidents within zone. 3. Set patrol schedule and area of operation for zone. <p>Records:</p> <ol style="list-style-type: none"> 1. Record zone activity in ranger patrol logs. 2. Record observations and incidents of zone violation in ranger patrol logs. <p>Possible Actions:</p> <ol style="list-style-type: none"> 1. Coordinate activities with other agencies operating in zone. 2. Adjust patrol frequency and activity. 3. Apply penalties or seize equipment. 4. Revoke entry privileges of repeat violators.