



MANAGEMENT PLAN
FOR
WOBURN CLARKES COURT BAY
MARINE PROTECTED AREA

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ABOUT THIS REPORT

This report is given in response to a Scope of Works outlining specific expected outcomes. A Steering Committee was set up by the Chief Fisheries Officer to advise the consultant on the orientation and emphasis that the study should take. The Steering Committee, in advising the consultant, indicated that the Woburn Clarkes Court Bay Marine Protected Area (WCCBMPA) was no longer a Marine Protected Area (MPA) as envisaged when it was originally declared in 2001 when the overwhelming emphasis was on habitat conservation. The committee agreed that the orientation would be for emphasis on both conservation and utilization. The WCCBMPA would have, in 2001, and in the period of preparation for it, more fitted the definition of an MPA as: 'a spatially defined area in which all populations were free of exploitation' (Berkes et al, 2001). Today, the Woburn Clarkes Court Bay MPA has changed into a multi-use area where equal, if not more, emphasis is placed on resource utilization as on natural resource conservation.

In consultation with the Steering Committee, it was also agreed that a participatory planning process would mean involving both local area stakeholders and competent authorities. The report would reflect that the opinions, impressions and viewpoints of local area stakeholders were heavily emphasized.

ACKNOWLEDGEMENTS

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1. Introduction

Formulation of a management plan for the Marine Protected Area of Woburn Clarkes Court Bay, an MPA established by statutory rules and orders, SRO #77, 2001 (see Fig. 1), was to be guided by a Scope of Works outlining specific expected outcomes, as product, and for a process that was to be participatory. The Steering Committee provided guidance for the orientation of the exercise. Notably, it was agreed upon that the management emphasis was expected to be sustainable use.

1.1 Scope of Works

The Scope of Work was as follows.

Produce a Management Plan for the Woburn / Clarkes Court Bay Marine Protected Area by January 31st 2012. The process for developing the plan shall be participatory and the plan should include the following:

- Identification of the significant resources within the WCCBMPA (map)
- Condition of natural resources within the WCCBMPA (charts and raw data)
- Resource use and users within the WCCBMPA (table)
- Identification of all stakeholders of the WCCBMPA (table categories)
- Stakeholders awareness, attitudes, perceptions and opinions of the WCCBMPA
- Threats and stresses to the natural resources within the WCCBMPA
- Mitigations measures and threats and stresses to the natural resources within the WCCBMPA (table/report)
- Main issues and root causes within the WCCBMPA (table)
- Identification of any user conflict issues and root causes within the WCCBMPA (table)

1.2 MPA Initiation and Development

The Woburn Clarkes Court Bay Marine Protected Area was initiated by the Fisheries Division of the Ministry of Agriculture, Forestry and Fisheries during the 1990's as a participatory exercise in which there were local area community consultations. These local area consultations concerning the establishment of the MPA ended during the early 2000's after the Standing Rules and Orders (SRO) promulgating the MPA were gazetted in 2001. During the preparation for and early existence of the WCCBMPA the management emphasis was that of a marine stock-recruitment sanctuary (Pers. Comm. James Finlay, Fr. Chief Fisheries Officer). The boundary of the MPA was decided on for merits such as: natural enclosed sea space involving a marine close-to-shore "basin" adjacent to two small islands; having the three marine ecosystems of mangrove, sea grass beds and shallow water coral reefs; and also involving a human community at Woburn Clarkes Court Bay on the land-side. This human community adjoining the MPA could prove an asset depending on their values. Scientific documentation highlighted by Dr. Mel Goodwin and others coupled with Traditional Ecological Knowledge (TEK) of local area vested interests, mainly fishers, led to the initial orientation of marine stock-recruitment sanctuary, set aside for management by an MPA authority.

Driven during the late 1990's and early 2000's by a number of development imperatives, a set of economic investments were chosen for placement within the MPA. These developments ranged from a plan for a desalination plant initiated by the National Water and Sewage Authority (NAWASA) to marinas integrated with resort facilities to a large-scale tourist hospitality services facility. The WCCBMBA was not actively managed, however, and by the end of the 2000's, it was transformed from a marine sanctuary and stock recruitment area with the local area residents and fishers as main stakeholders, to a multi-use zone illustrating both competition and conflicts among a wide set of stakeholders and attracting considerable attention by environmentalists and developers as a classic example of a natural area in development transition and as prime candidate for lessons learned / best practices.

1.3 Policy Orientation and Legal Provisions for MPA Management

Government's policy orientation is demonstrated in the type of permits granted for marine-related and coastal developments accommodated within the MPA and expected to follow agreed-upon sustainable development guidelines set by the Physical Planning and Development Control Authority. With regard to legal provisions in support of development and management, the Grenada Fisheries Act #15 of 1986 (Cap 108, 1990 laws of Grenada), as parent act to a suite of amendments / regulations, in Part III (1986), provided for Marine Reserves and Conservation measures. In 1999, by amendment (Act #1), "Marine Reserves" was renamed as Marine Protected Areas (MPA) and thereby providing a statutory definition for the MPA. Specific MPA regulations, SRO #78 (2001), provided for the scope of compliance-control measures that managers might apply. The statutory definition of Marine Reserve, now MPA, in the Grenada Fisheries Act #15, 1986 Part III section 23 subsection (1) is given as "..... any area of the Grenada Fisheries waters as appropriate, any adjacent or surrounding land to be a marine reserve [now MPA] where he [the Minister] considers necessary ...". The Grenada Fisheries Act #15, 1986 specifically provides, through amendment by Act #1, 1999 and through SRO #78, 2001, for sections of any MPA to be designated as some or all of four types of sites: the marine historical site, the marine sanctuary, the marine reserve or the marine park.

The regulations also provide for management (in the form of a management authority and multi-sectoral committee) and also for operational management in a local area or national network warden system. Specific provisions relate to designation of appropriate access / egress and anchoring zones and legal authority for the management authority to grant *easements*¹ for specific uses that are normally prohibited under the act or regulations.

1.4 Chosen Methodology

The consultant preparing the plan, in the context of stakeholder participation, chose to first conduct a situation assessment that would identify key stakeholders; identify key management issues; select key management response options and then draw up a plan of action that would set out a suite of activities that would address management issues.

The situation assessment would first involve a *screening* exercise so as to identify relevant stakeholders and broad utilization issues. This screening exercise would also involve natural resources of special interest followed by a *scoping* exercise of all stakeholders' vested interests - both user groups and competent authorities - and a review of available documentation on the area relating to *biophysical* and *socioeconomic* issues. This course of action was chosen in order to examine key stakeholder issues firsthand while at the same time allowing stakeholders to contribute more directly to the development of the plan, in terms of identifying problems and suggesting remedies from both the individual and community perspective. The consultant, for his part, made a cross-check on information gathered with the Competent Authorities and at the same time got a sense of the development orientation of such competent authorities for both past and future development initiatives.

Since it was specified in the Scope of Works that the development of the plan was going to be participatory and would involve both individual stakeholders and the community at large, both individual interviews and focus group sessions were used for building the information base for later assessment. Both structured questionnaires and semi-structured interview schedules were used as chief instruments for building this information base. The methodology was rapid appraisal (Lohani and Hamlin, 1983; Pido, Pomeroy, Carlos and Garces, 1996) in response to the limited time frame for conducting the study. In the case of the semi-structured interviews, the interview schedule was followed as much as was considered appropriate.

For reporting on these stakeholder engagements, a decision was made to present semi-raw data in order to show the wider range of stakeholder responses, knowing that other parties conducting study on the area might be guided in some way with respect to the situation assessment; brevity was often sacrificed for potentially useful detail.

¹ Special authority to change obligations to perform any of the conditions provided in the regulations.

In doing this, main stakeholder categories were identified and focus groups were convened as was appropriate and practical. By design, after the first draft of the MPA plan was prepared, it was examined by all key stakeholders and then examined in an open-forum, all-stakeholder meeting, as a validation exercise.

Knowing that a local area co-management group was expected to contribute to supervisory or some other form of management for the MPA and plan of action, this group was also consulted when this draft plan was being developed.

1.5 Core Principles for MPA Management

Even as this plan relates to management of a very limited marine space, for both process and product, the plan follows the following core principles:

- 1) Coherence – integrating key issues of strategic and policy-based governance
- 2) Strategic – integrating scales or levels of functional delivery systems, their planning and implementation
- 3) Comprehensiveness – covering all aspects of national activity: economic, social, cultural etc.
- 4) Participative – involving inputs from all relevant stakeholders and sectors for purposes of buy-in, acceptance, ownership and guarantees of future applications
- 5) Internally and globally perceptive – considers application, approaches and adaptive models of integrated land and marine management with respect to the small island. (Barg, 1992)

Preparation of the Management Plan

The Steering Committee, having agreed that the MPA plan was going to emphasize natural area conservation as much as resource utilization, decided that the plan must facilitate and accommodate sustainable development within the MPA so as to satisfy human needs (especially livelihoods).

Management Plan Report

The report for the MPA would be presented in two parts. Part I is the Situation Assessment with identification of existing conditions and with management control response options. Part II provides the basic plan of action for MPA management from the strategic, tactical and operational perspectives as response to the findings and assessments in Part I.

PART I

2. The Situation Assessment / Findings

This assessment presents a brief description of the geographical area of the WCCBMPA, illustrated by graphs, tables and maps of previously existing information together with results of present surveys illustrated by maps adapted for the purpose.

Summaries of observations / findings, conclusions, mostly in tabular form, and identification of management responses are presented also.

2.1 Description of the Area and Resources

The Woburn Clarkes Court Bay Marine Protected Area is a close-to-shore segment of the Grenada coastline that is typical of the South-East (see Fig. 1 as schedule 1 of SRO # 77, 2001; see Fig. 2 as Bathymetric chart; see Fig. 3 as Woburn Clarkes Court Bay Resource map; see Fig. 4 and 5 as land tenure maps with proposed adaptation of access/egress channels; see Figs. 6 and 7 (as photo images of the Clarkes Court Bay in 1994 and in 2011, showing significant improvements taking place within this period); see Fig. 8 as Woburn Clarkes Court Bay zoning map based on special consideration for the conservation of living natural resources. The land-side topography of the Woburn Clarkes Court Bay is moderately hilly, falling off into the sea with small bays and headlands; there are only a few short segments of the coast that are cliffs. This segment of the coast is protected mostly by two small islands: Hog island (80 acres) and Calivigny Island (<75acres). A Grenada island shelf makes narrow “tongues of the ocean” as channels among the close-to-shore shallow water coral reefs. Also, even as the area faces constant and strong sea weather conditions associated with the north-east trade winds of the Atlantic, the shallowness of the close-to-shore reef platform, the indentation (length) of the Woburn Bay, the sandy bottoms and the protection of the two islands make for very calm conditions. As a result, communities of fauna and flora associated sea-grass beds and mangroves are typical of the coastline within the MPA.

The main bay, Clarkes Court / Woburn, is the main outfall zone to a small but significant river (see Fig. 6) that drains the Woodlands and Springs landscape. Daily flushing of the bay is active, especially for the spring-tide period of year (traditional knowledge persons call “draw-sea”/ low and “full- up”/ high tides); the neap tide period has less active flushing within the bay. The coastal ecosystems, although under increasing stress as a result of more and more human impact in the recent decade and a half, are in reasonably good condition at many locations (J. Mitchell, 2011; Z. Khan, pers. comm., 2012).

Reports of local fishers indicate that while on the one hand most of the conch and lobster stocks on the nearshore reefs have been fished out by local fishers, on the other hand, coral reef communities remain in reasonably good condition. Also, Woburn Clarkes Court maintains itself as base for a set of commercial fishers, but it is mostly subsistence fishing that is done within the MPA in recent times.

Within the lower Woburn village, the older community (pop. approx. 300 pers.) and the newer Woodlands, *Madame Jean* community (pop. approx. 100 pers.) have grown up on the land side of the main bay; and a community is also building in Egmont Bay (pop. approx. 30 pers.). These communities have good access to the main roads. The lower Woburn community traditionally maintained livelihoods as farmers on lands surrounding the village, as workers at the local sugar factory, as fishers of conch, lobster, turtles and fin fish and, in recent times, at a variety of other occupations. Notably the fishing tradition has popularized Woburn as a fishing village; it is still very much so but the current commercial fishers, having up-graded fishing technologies, now range miles outside the WCCBMPA on the shallower shelf down to approximately 60 feet (for shellfish) and in the deep water and shelf drop-off down to approximately 300-400 feet (for finfish).

SCHEDULE 1

(Para. 2(1))

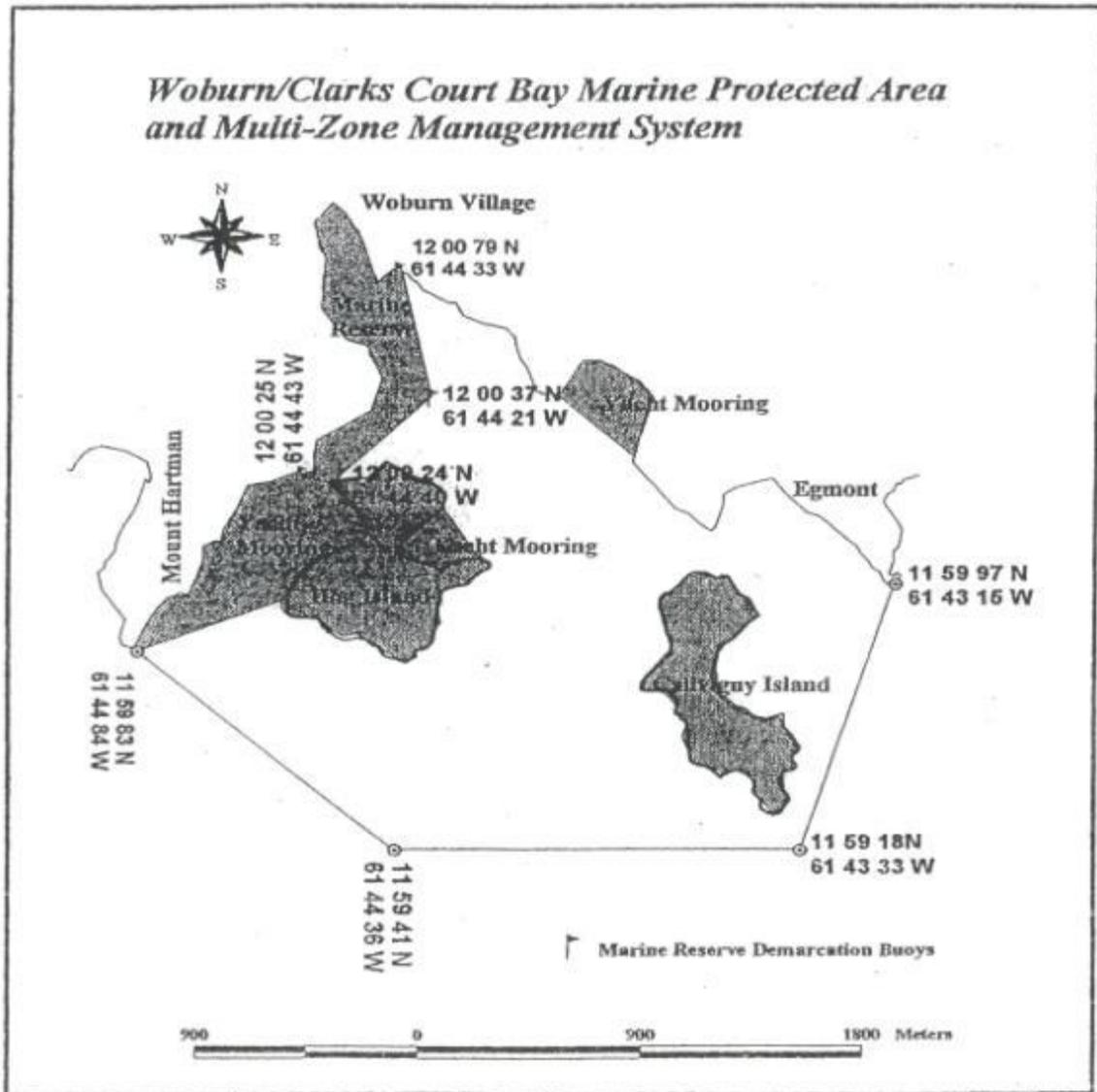


Figure 1 Schedule 1 of SRO#77 (2001) defines the MPA boundaries

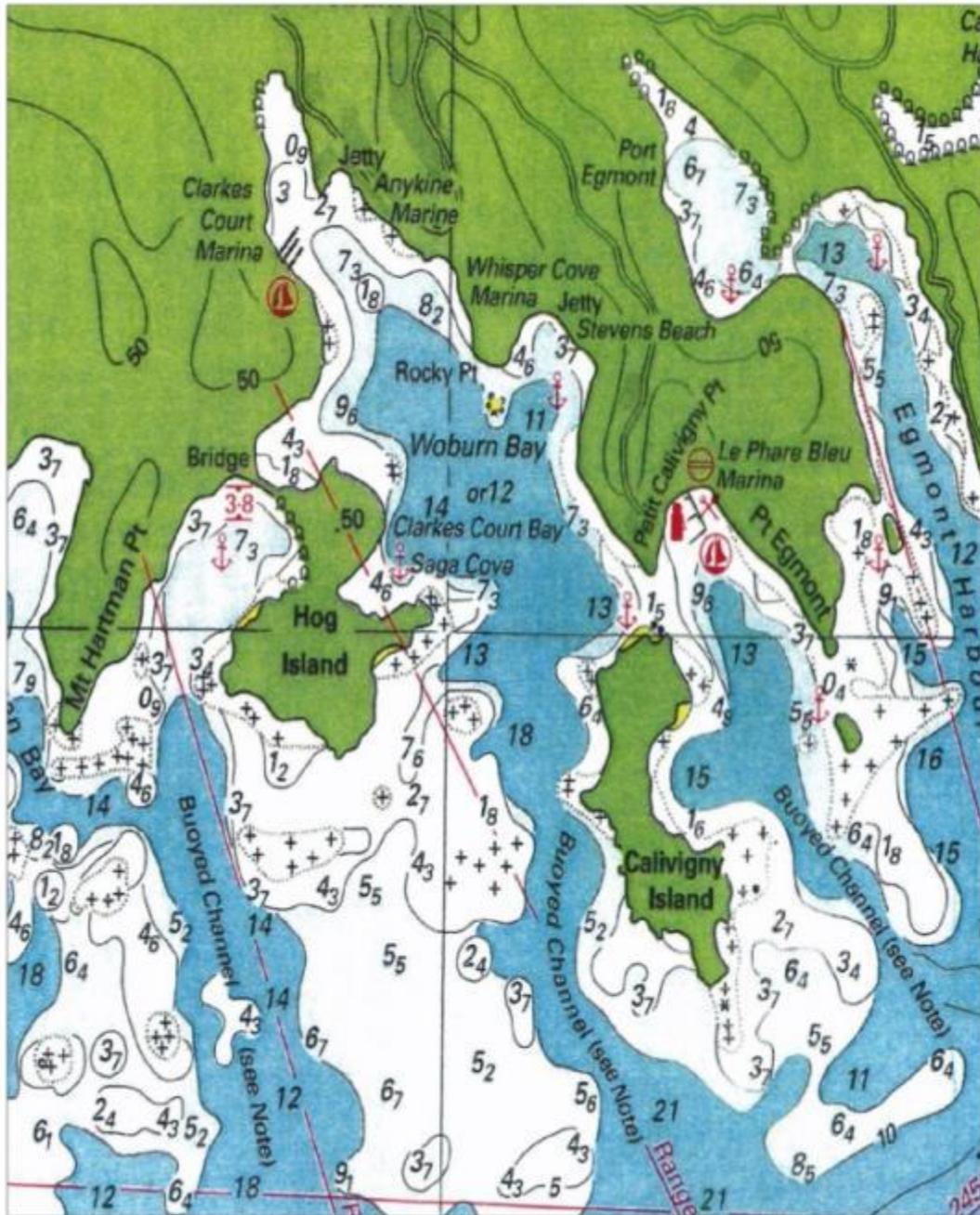


Figure 2 - Bathymetric Chart

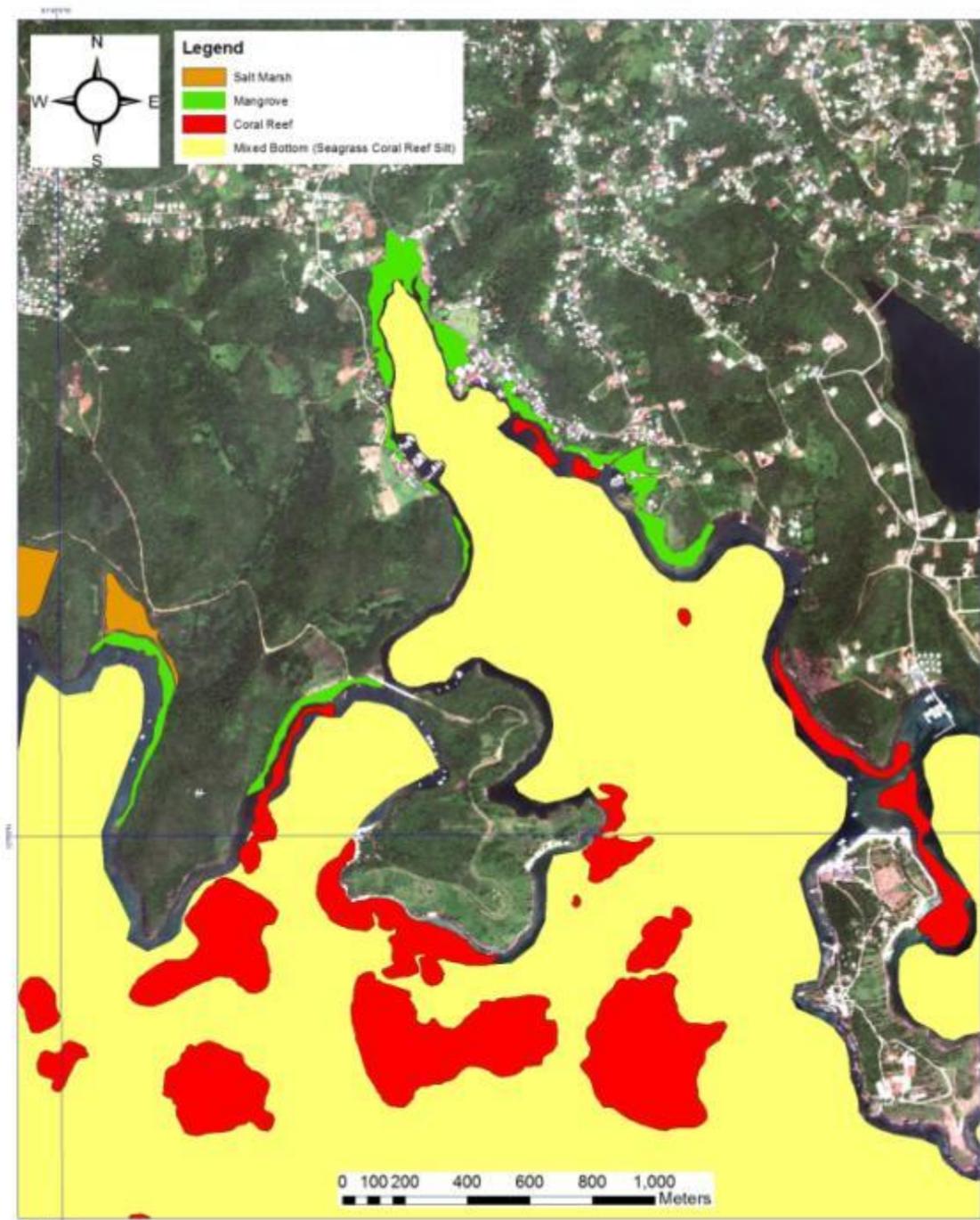


Figure 3 - Woburn Clarkes Court Bay Resource Map

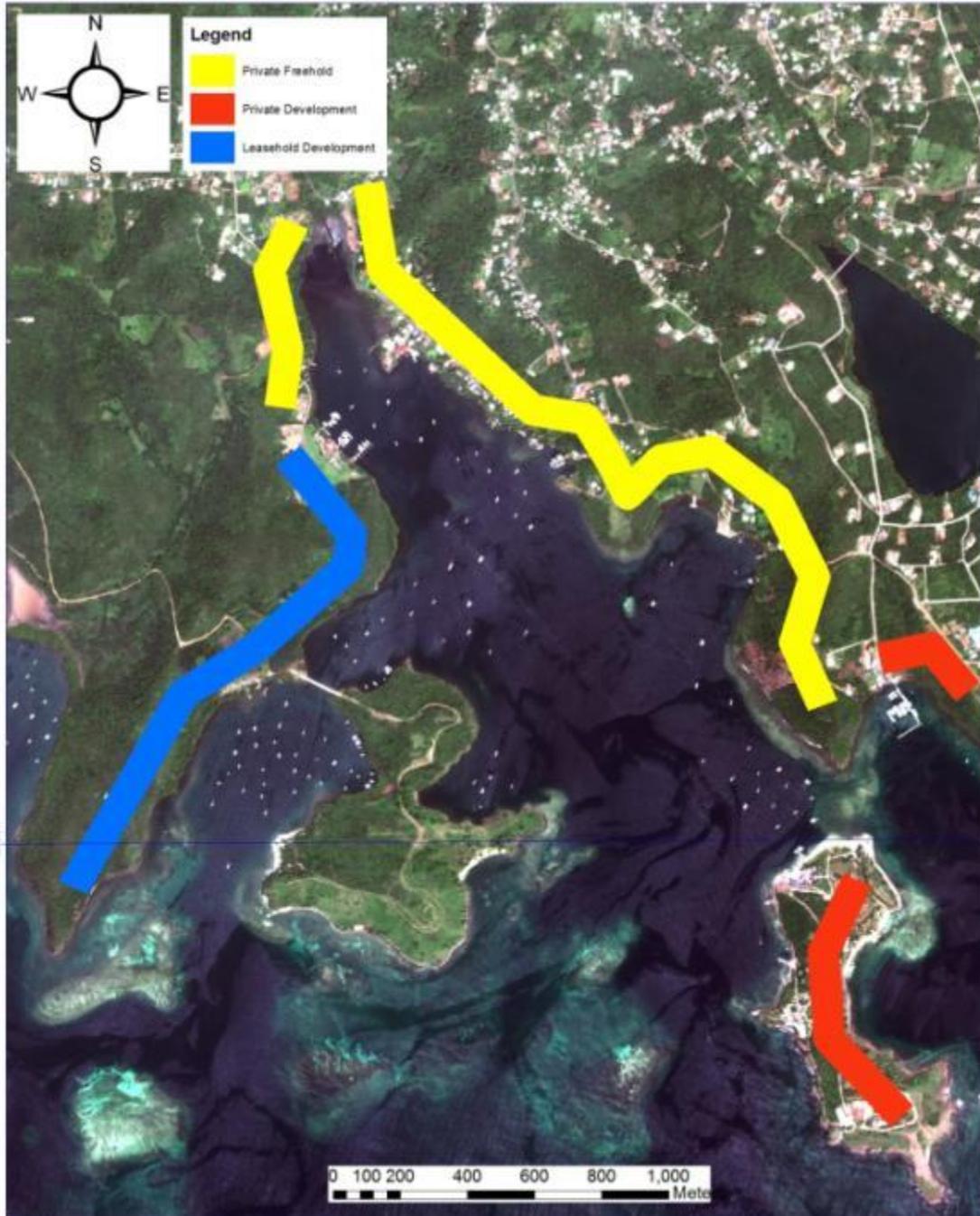


Figure 4 - Land Tenure Map with Proposed Adaptation of Access/Egress Channels - 1

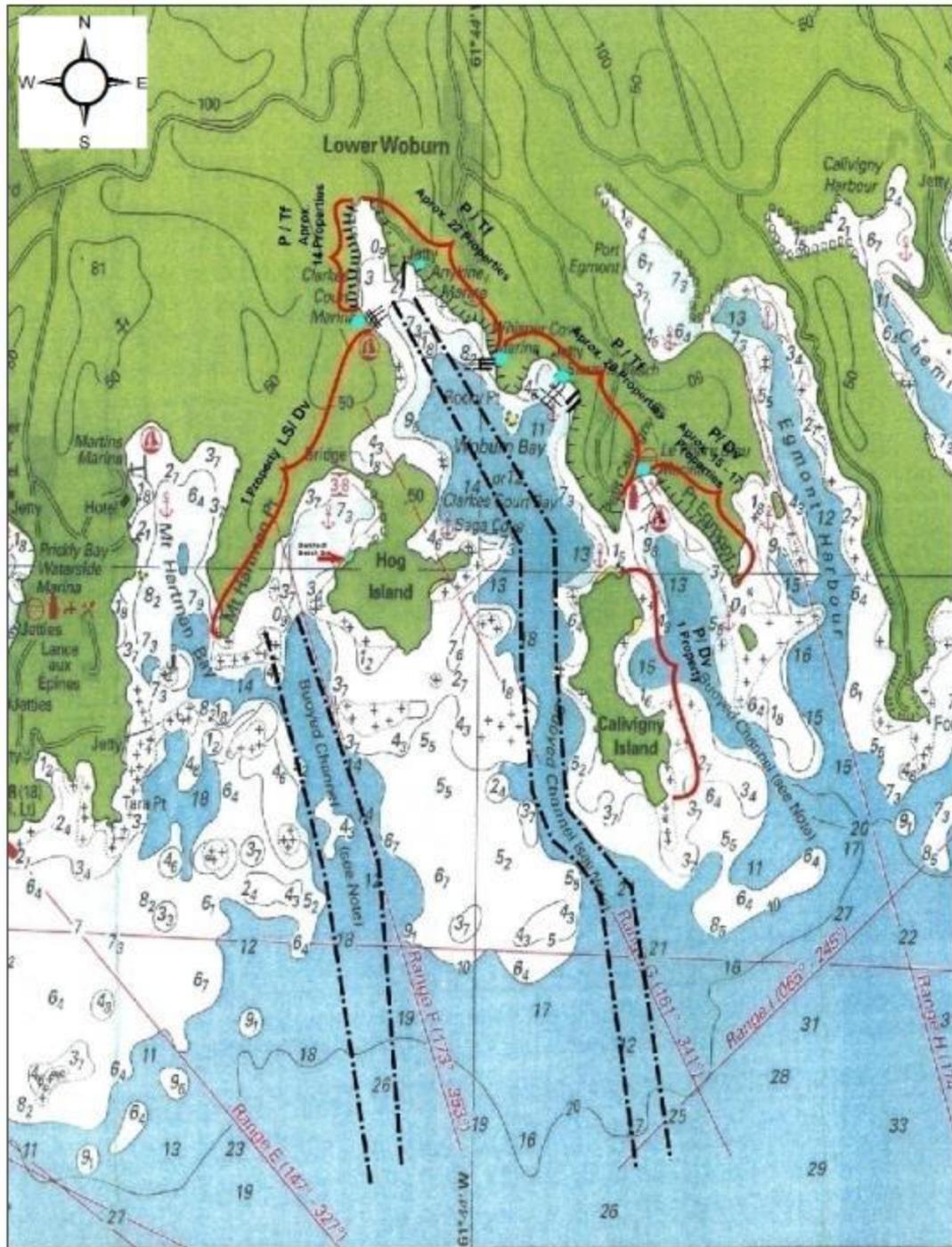


Figure 5 - Land Tenure Map with Proposed Adaptation of Access/Egress Channels - 2

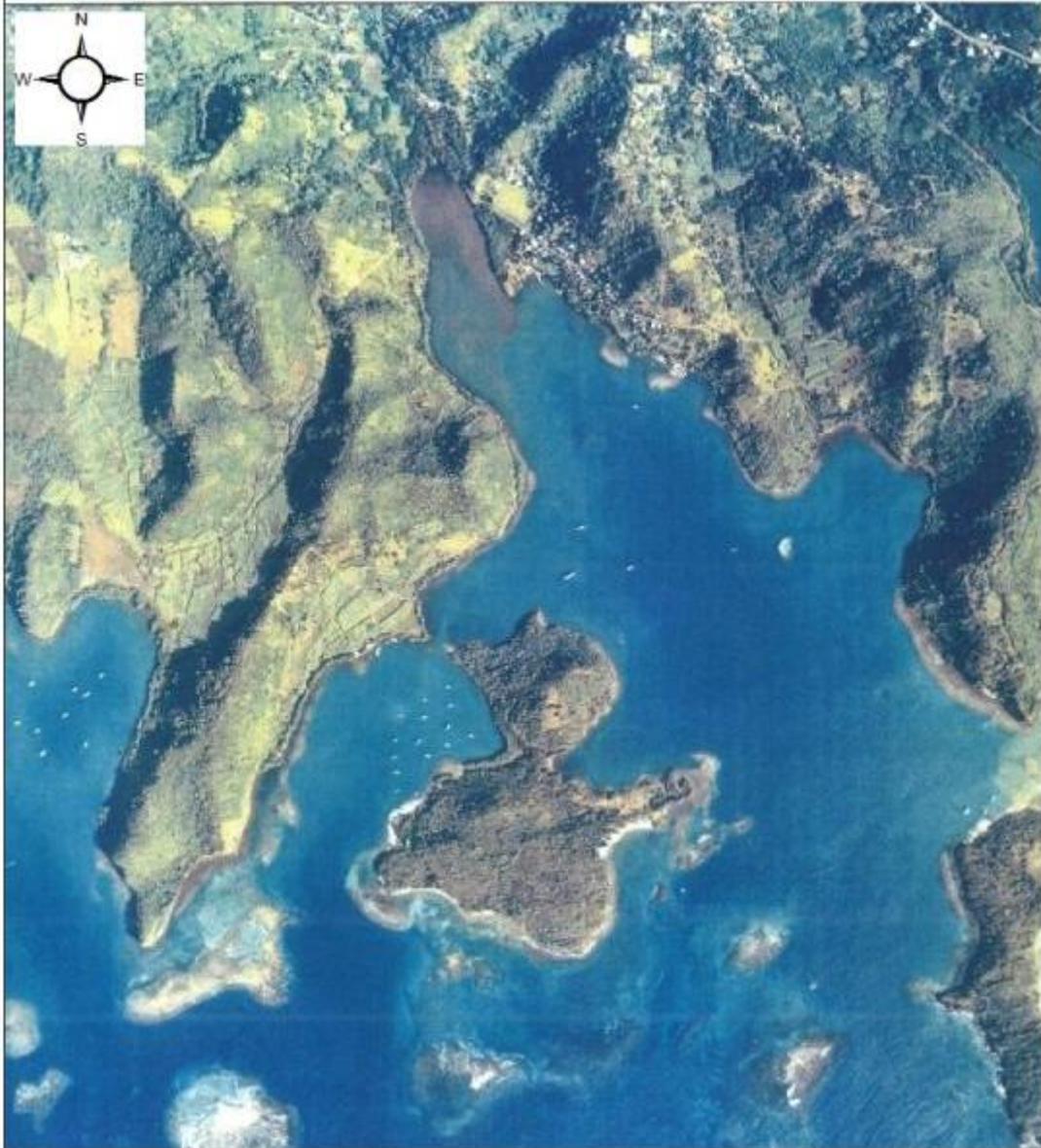


Figure 6 - Woburn Clarkes Court Bay in 1994



Figure 7 - Woburn Clarkes Court Bay in 2011

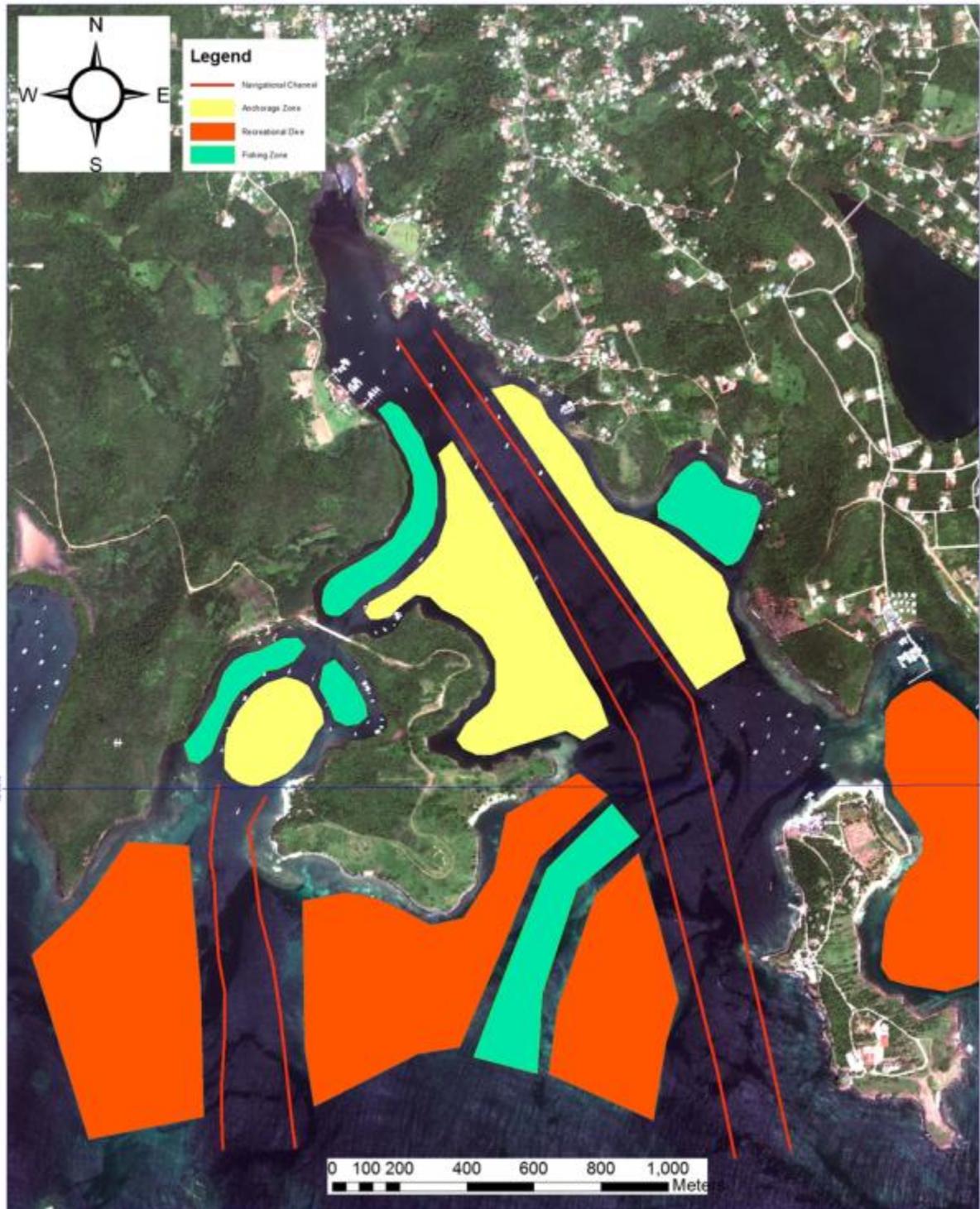


Figure 8 - Woburn Clarkes Court Bay Proposed Zoning Map

The lower Woburn community, as a whole, now depends less on farming and fishing as main occupations; they depend as much on the services-sector for livelihoods. Significantly, the community is solidifying an economic relationship with the offshore (marina, resort, yacht anchorage) communities mostly as services-providers. Also, even as the lower Woburn community maintains a strong identity and feeling of ownership for the MPA and recognize an “outing” of many traditional access to and use privileges, yet they welcome, albeit with reservation, the new economic order (based on findings of the initial screening exercise).

The newest community on the landside within the MPA include the residents of Egmont Bay adjacent to Calivigny Island, is now designated as a port with marina and resort; the yacht anchorage community at both Hog Island and within the main bay (about 75 yachts), about 35-40% absentee; and the marinas’ community (about 40 yachts). The yacht anchorage community is a virtual offshore residency that mostly uses the Woburn village as point for landing and other services supply. Hence, within the last 15 or so years, the total local area community has come to include offshore residents, fishers and the local residential community.

2.2 Observations, Conclusions with Management Response Options

For coming up with findings on individual vested interest groups (stakeholders) versus Scope of Works, the treatment given here was to use each individual vested interest group as a point of focus. Each of them was examined from the perspective of issues raised with respect to the Scope of Works. This assessment recognized the multilateral (community) relations of vested interest groups and also recognized the vertical top-down and bottom-up relations of such groups with government and other competent authorities.

2.3 Multiple User Group Vested Interests

This refers to all main user groups within the MPA.

Broad Issues Addressed:

- Condition of natural resources within the WCCBMMPA.
- Resource use and users within the WCCBMMPA.
- Main issues and root causes (of conditions) within the WCCBMMPA
- Identification of any user conflict issues and root causes within the WCCBMMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

Table 1 - Issues of Cooperation or Conflict among Vested Interests

User Group Vested Interest (VI)	Issues of Cooperation Among Vested Interests	Issues of Conflict of Interest Among Vested Interests
Utilization/ conservation of sea space – sea use: Marinas (MA) <i>versus</i> Yacht Anchorage Community (YAC)	<ul style="list-style-type: none"> • Opportunity to access, park and egress the sea space within the MPA. • Opportunity to occupy exclusive use zones, both those that are more permanent and those less permanent and by time-sharing 	<ul style="list-style-type: none"> • Client opportunity for paid moorage of yachts (MA) versus opportunity to leverage at free anchorage of yachts (YAC). • Client opportunity for paid allied services such as safe keeping for absentee yacht owners (MA) versus opportunity to leverage at less costly safe- keep service providers
Marinas (MA) and YAC <i>versus</i> Landside residential community (LRC)	<ul style="list-style-type: none"> • Shared interest in access to and use of the sea space and recognizing mutual benefits of exchanges and trading of goods and services. 	<ul style="list-style-type: none"> • Plentiful and haphazard yacht and vessel anchorage within the MPA, hampering fullest use of the MPA sea zone for traditional water sport events.

User Group Vested Interest (VI)	Issues of Cooperation Among Vested Interests	Issues of Conflict of Interest Among Vested Interests
Utilization/ conservation of land space – land use (short/medium term) Coastal land owners <i>versus</i> public policy vested interests	<ul style="list-style-type: none"> • Opportunities for investments in economic, social and cultural developments within the MPA; small scale or large scale. • Opportunities for larger scale, integrated land/ sea investments financed as foreign direct investments and joint ventures. • Shared agreement between the two on the need for policy-based coastal land planning but that there is the dilemma and tension between the opportunity-based planning strategy and the programmatic policy-based planning strategy administered by policy makers. 	<ul style="list-style-type: none"> • Aspects of larger-scale marine developments, intended to benefit the wider Grenadian community, including the local area community, considered by the local area residents as imposing the greater burden of disbenefits on them. • The challenge of applying a different land use policy for coastal access and use by each of the three categories of land owners/ users:- <ul style="list-style-type: none"> i. Narrow residential properties (traditional and private) ii. Narrow residential (with restrictive covenants) iii. Large commercial properties (subject to EIA restrictions) • A perception by the community-based interests that insufficient local consultations precede the granting of permits.
Trading in goods and services Marinas (MA) <i>vs.</i> Landside residential community (LRC)	<ul style="list-style-type: none"> • Opportunity to match goods and services required at marinas with goods and services available from local area residents within the MPA • Prospects for enhanced opportunity for economic activities of various kinds within the MPA. 	<ul style="list-style-type: none"> • Clients at yacht anchorage community buying services from the LRC versus buying from the formal facilities at marinas. • Transport of substances or competition for free space, each versus the other.
Yacht anchorage community <i>vs.</i> landside residential community (LRC)	<ul style="list-style-type: none"> • The buyers of various goods and services (YAC) having opportunity to trade for goods and services in supply at the landside residential community (LRC) • The landside residential community having opportunity to trade in services required by the yacht anchorage community. 	<ul style="list-style-type: none"> • LRC express concerns regarding haphazard anchorage of yachts disallowing their tradition water sports. • The LRC consider that yacht anchorage community (YAC) generate significant pollution within the MPA
Yacht anchorage community (YAC) <i>vs.</i> marinas (MA) or villa resorts	<ul style="list-style-type: none"> • Shared interest in maintaining options to access traditionally private lands on the coast from the sea, using small boats and jetties. • Opportunity for YAC to buy goods and services from marinas e.g.: bar, restaurant, chandlery repairs refitting etc. • Opportunity for the MA to sell goods and services to the YAC e.g.: bar, restaurant chandlery, repairs refitting and mending of vessels of absentee owners. 	<ul style="list-style-type: none"> • Landside residents having strong interest in keeping their close-to-shore area free of yachts. • Restrictions on movement of active vessels, posed by vessels owned by absentee owners.
Marinas (with berthing) coupled with landside residential community vested interests <i>vs.</i> Prospective marine	<ul style="list-style-type: none"> • Shared interest in enhancing opportunity for generating economic benefits for both the local area community and the Grenadian community at large. 	<ul style="list-style-type: none"> • Existing marinas favor deliberate limits on the numbers and types of future marina developments (of berthings) considering that each of them have incomplete berthing spaces. • The residential (landside) community fear of

User Group Vested Interest (VI)	Issues of Cooperation Among Vested Interests	Issues of Conflict of Interest Among Vested Interests
investors coupled with the competent investment permit-granting authorities.	<ul style="list-style-type: none"> Shared interest in avoiding overload of polluting substances and for avoiding overload of the sea space especially with un-zoned anchorage. 	<ul style="list-style-type: none"> increasing congestion and pollution
<p><u>pollution issues:-</u> Yacht anchorage community and Marina Berthing Community <i>versus</i> Landside Residential (Local Area and Tourists) community and including the YAC the MA and other tourists-services- providers.</p> <p>Note: The YAC and MA (Berthing Community) seem to have primary vested interest in secure moorage and with only a secondary interest in the impact of pollution.</p>	<ul style="list-style-type: none"> There is the shared interest in access to and use of the MPA where goods/ services and opportunity might be exchanged, to the mutual benefit of both. There is the opportunity for the YAC and the MA (berthing community) to buy services for liquid waste/ grey water disposal and for solid waste disposal from land – based services providers. Specifically, there is interest in a reliable garbage/solid waste disposal facility in the local area and individual vessel owners are interested in using the service. 	<ul style="list-style-type: none"> All longer-stay vessels mooring within the MPA do not have grey water holding tanks nor are they obligated by law to periodically empty tanks at sea or at on-land sewage disposal facilities. There is evidence of increasing levels of sewer waste being let out in the MPA zone. Among the three active marinas within the MPA only one is equipped with a sewage disposal facility. The opportunity exists for obligating vessels to dispose of liquid waste at a land-based facility. Unregulated liquid and solid waste disposal by all longer-stay vessels adversely impact the quality of the environment for both landside and offshore sea users within the MPA Zone.
<p>Point-Based Sources of pollution, mainly industrial waste from the Grenada Sugar Factory at Woodlands <i>versus</i> A suite of communities (all) including the YAC the MA (berthing)</p>	<ul style="list-style-type: none"> A shared interest in and need for applying economically and ecologically safe methods for disposal of wastes that transport across boundaries. 	<ul style="list-style-type: none"> Inability and/or unwillingness by vested interest that generate pollution to apply appropriate mitigation measures for remedying the impacts.
<p>Point Based sources of pollution vs. MA (Berthing) and the land-side residential community among others.</p>	<ul style="list-style-type: none"> A shared need to dispose of mainly liquid waste in an environmentally sustainable and safe manner. A shared agreement on the threat posed by the factory- based waste; the impact on human and vegetative ecosystems health; but with questions concerning the cost of remedies and the adequacy of existing legislation for obligating remedies by industrial polluters. 	<p>A demonstrated disinterest by public health authorities, over the years, in forcing the application of mitigation measures for pollution caused by factory wastes shunted directly into the river/ ravine that takes surface water to the MPA zone; Competent authority failing to obligate the factory or in exploring a joint - venture with the factory for meeting the cost of remedies for the pollution problem.</p>
<p>Policy applications (Long- term with respect to change-of-use) policy makers and policy instruments versus land use and private land owners</p>	<ul style="list-style-type: none"> The goal of sustainable development considered as an application of conservation management control measures with the purpose of optimal utilization of all resources of interest is a shared perspective of both policy-makers and private land owners. 	<ul style="list-style-type: none"> The short term perspective of the private land owners or lease hold sea users versus the long term perspective of public policy makers as they conserve option values for common property resources and even while they privatize such resources in the short-term.
<p>Resource-based (stock, habitat, sea space)</p>	<ul style="list-style-type: none"> A shared agreement that ecosystems assets within the MPA are fragile and 	<ul style="list-style-type: none"> For MPAs such as at Woburn Clarkes Court Bay where the objective of management is both

User Group Vested Interest (VI)	Issues of Cooperation Among Vested Interests	Issues of Conflict of Interest Among Vested Interests
<p>utilization and conservation</p> <p>Environmentalists resource managers and researchers Versus: Resource users such as MA, YAC, sports and recreation users, fishers, land users.</p> <p>Note: the primary vested interest of environmentalists, resource managers and researchers is sustainable use and yields from the eco-assets.</p> <p>The primary vested interest of the resource users is maximizing economic rate of return within their investment time frame (investors) or time frame for enjoyment of stay (yachts persons) or time frame for enjoyment of short stay (hotel + villa occupants) or use for substance fishing or small boat anchorage (landside residents)</p>	<p>highly threatened by overuse, and by anchorage of vessels and by pollution; impacts from both sea- based sources and land-based sources.</p> <ul style="list-style-type: none"> • A shared agreement that the MPA is an attractive eco-asset and a target for economic development activities; that the MPA would be used for both a marine stock recruitment and a habitat reserve and as eco-asset with options for green economic development and that stock, habitat and sea space are the base of development potential for the MPA. • A shared agreement that there is significant disinterest by community persons in natural resources except for consumption and that underwater eco-assets generate much less interest than those in fuller view above the water. 	<p>ecosystems conservation and utilization of eco-assets, the resource manager, environmentalists and researcher must make the compromise between an emphasis on long-term sustainability of resource yields versus the lesser choice for short-term utilization on the one hand versus the resource users who would place the greater emphasis on maximization of their socio-economic benefits in rates of return versus their lesser choice for longer term sustainability of ecosystems assets.</p>

B. Conclusions

1. The two most important shared stakeholder concerns with regard to vested interests, identified within the WCCBMMPA, were equitable and efficient allocation and sharing of sea-space (e.g. water rights) coupled with issues of land to sea access on the one hand and then concerns about pollution on the other. Secondary issues related to the concerns that business owners had regarding return on their existing investment. Other secondary concerns related to the overload of development investment, persons exploiting client opportunity or access to services providers, local area residents guaranteeing traditional access to and use of resources and finally maintenance of the area as a “green” environment.

Table 2 - Assessment of Cooperation and Conflict among Vested Interest Groups

Chief Stakeholder Concerns	Main Vested Interest Groups	Main Groups in Conflict	Main Groups In Cooperation
Sharing limited sea space access and egress (1 st)	YAC, MA, LRC	All main vested interest groups	All main vested interest groups
Mitigating pollution (2 nd)	All communities	Sources of Industrial Effluences vs. All others	All main vested interest groups

Chief Stakeholder Concerns	Main Vested Interest Groups	Main Groups in Conflict	Main Groups In Cooperation
Investors Guaranteeing return on existing investment, potential overload of investment development within MPA (3 rd)	MA LRC	Polymakers vs. YAC/MA	MA and Polymakers
Exploiting and enhancing client opportunity or access to service-providers (4 th)	LRC YAC	None	YAC and LRC
Guaranteeing traditional access and use of resources (5 th)	LRC	New users vs. LRC	LRC, YAC
Maintaining the green environment	YAC MA	MA/ YAC vs. Policies Makers	Public policy makers and large developers

2. It must be recognized that an MPA management authority would have the narrower management role when compared with the Physical Planning/Development Control Authority and that certain management options identified for possible implementation must require strategic initiatives incorporating agencies and authorities from outside the national MPA network or a local area MPA authority.

C. Identification of Management Issues and Response Options

Table 3 - Cooperation and Conflict Issues versus Management Response Options

Management issues identified with vested interest community	Management options as response initiatives, by type
1. Efficiency in the use of sea space through cost incentive measures: Free vs. Paid moorage. Marinas vs. Yacht anchorage community.	Zoning for anchorages and moorings for placement of vessels by applying appropriate rules of conduct. <i>(Tactical)</i>
2. A policy-based investment regime for controlling coastal development that are: large-scale single properties, small-scale commercial properties, small private properties (costal land owners versus public policy vested interests)	Application of a suite of policy instruments tailored to the different types of coastal development investments. <i>(Tactical)</i>
3.1 Control of pollution/wastes generated by marinas and by landside residential community 3.2 Equitable allocation of sea space by zoning or sea leases for managing competition and conflict. (Marina operations landside residential community)	Apply a monitor, control and surveillance protocol with <i>nested</i> rules and practices for addressing pollution threats between communities, for compliance with zoning control and other issues. <i>(Tactical /Operational)</i>
4. Enhancing opportunity for trade in goods/services between the local area community and the offshore community (YAC etc) (Yacht Anchorage Community (YAC) versus the landside residential community)	Applying a small business incentive-based regime for enhancing supply of quality goods and services by local area and other small entrepreneurs. <i>(strategic)</i> Not to be administered by operational or management persons. <i>(Strategic)</i>
5.1 Impact of liquid wastes generated by the offshore community. (Yacht anchorage community and marina (berthing) community versus the landside residential community (local/tourist); even including some in the YAC and in the marina community)	Adaptation of marine liquid waste pollution control measures with tailor-made nested rules. <i>(Operational)</i>

Management issues identified with vested interest community	Management options as response initiatives, by type
5.2 Out falling of industrial effluents at the main natural river and emboucherie. (Point source of industrial waste Grenada Sugar Factory) versus all communities within the WCCBMPA)	Adoption of a marine liquid waste pollution regime with tailor-made nested rules. (Operational)
6. Sustainable management conservation and utilization of eco-assets within the WCCBMPA for satisfaction of human needs. (Environmentalists, researchers and resource managers versus resource users (LRC, YAC, MA etc)	Negotiation and adoption of implementation of a protocol for collaboration among researchers, environmentalist and resource managers for applying appropriate monitor/control and surveillance measures. (Tactical/operational)
7.1 Optimizing the benefits from long-term and short-term resource conservation and utilization. (Public policy makers and policy instruments versus private land owners and land use)	Formulation and adoption of a suite of adaptive policy-based policy instruments, resources and practices towards optimizing benefits from both long and short-term resource conservation and utilization of the MPA. (Tactical/operational)
7.2 Administration of governance of the WCCBMPA (Public policy makers VS. MPA users groups) (Tactical/Operational)	Formulate and adopt a local area governance (co-management) mechanism in the context of the National MPA Authority and network in order to administer tactical and operational initiatives unique to the WCCBMPA (Tactical/Operational)
7.3 Administration of an operational regulatory framework for the WCCB MPA (MPA regulators vs. MPA user group)	Formulate and adapt a local area regulatory system that is compatible with the national MPA Authority and network; is cost-effective and appropriate to local area management needs. (Operational)

2.4 Yacht Anchorage Community

Broad Issues Addressed:

- Identification of all stakeholders within the WCCBMPA.
- Stakeholder awareness, attitude, perceptions and opinions of the WCCMPA.
- Identification of any user conflict issues and root causes within the WCCBMPA
- Threats and stresses to the natural resources within the WCCBMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

Table 4 - Summary of Responses from a Sample of Members of the Yacht Anchorage Community

Range of issues and conditions of concern	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈	R ₉	Strength of response
Community profile	2	3	3	3	4	2	5	5	3	3.3 years average
• Length of stay (4yrs) on hog Island anchorage										
• Length of stay in Grenada	2	20	1 ½	1 ½	3	2	5	5	3	4.8 years average
• Special conditions to meet (NIS)	N	N	N	N	work perm-	N	N	N	N	N (95%)

Range of issues and conditions of concern	R ₁	R ₂	R ₃	R ₄	R ₅	R ₆	R ₇	R ₈	R ₉	Strength of response
						it				
Concerns about the anchorage	Y	Y	Y	Y	N	Y	N	Y	N	Y (67%)
Range of suggested improvements										100%
• Designate as yacht anchorage	✓	✓	✓	✓	✓	✓	✓	✓	✓	
• Designate as storm shelter	✓	✓	✓	✓	✓	✓	✓	✓	✓	
• Remove threat of marinas	✓	✓	✓	✓	✓	✓	✓	✓	✓	
• Close off further developments	✓	✓	✓	✓	✓	✓	✓	✓	✓	
• Designate bare foot beach on Hog Island as an official public park	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Use of nearby beach Hog Island (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%
Importance of Hog Island. Beach recreation anchorage	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Importance to locals. Recreation weekend visits	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Use of landing points	Y	Y	Y	Y	Y	Y	Y	Y	Y	100%
Woburn (W)	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Secret harbor	N	N	N	N	N	N	N	N	N	
Range of services available at landing points (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	
• Marina	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Bar	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Restaurant	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Taxi/ bus	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Fuel	✓	✓	✓	✓	-	✓	✓	✓	✓	Greater than 95%
• Water	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Shops	✓	✓	✓	✓	-	✓	✓	✓	✓	
• Domestic services	✓	✓	✓	✓	-	✓	✓	✓	✓	
Zoning MPA (General) (Y/N)	Y	Y	Y	Y	N	Y	Y	?	Y	Yes (56%)
Zoning for navigation channel	Y	Y	Y	Y	Y	?	Y	Y	-	Yes (78%)
Allowed anchorage	Y	Y	Y	Y	Y	Y	Y	Y	-	Yes (89%)
Allowed fishing	Y	Y	-	Y	?	Y	Y	Y	-	Yes (67%)
Allowed recreation	Y	Y	Y	Y	?	Y	Y	Y	-	Yes (78%)
Other zoning	?	?	Y	Y	?	Y	Y	Y	-	Yes (55%)

Key: Y= Yes, N = No, ✓= ok, - = no response, ? = undecided

Key comments of Members of the Yacht Anchorage Community (yachtees):

- 1) Anchorage critical for safety in storm
- 2) The MPA is peaceful and calm for relaxation
- 3) Ideal for recreation dives; ideal beach at Hog Island
- 4) Meeting place for yachters, locals and tourists
- 5) Good for safety /security
- 6) Economic benefits to local community-client opportunity
- 7) Minimize future regulations, leave as is (Greenness)
- 8) No more marinas

Observations in Summary

1. The Yacht Anchorage Community (YAC) is mostly of the longer-stay small types (35-50 feet, LOA) and with a high percentage of absenteeism. The bareboat cruisers appear to be little represented in the anchorage at WCCBMPA.
2. The YAC is averse to more developments especially for marinas and mega-yachts. They value greenness and are skeptical about regulations.
3. The YAC values the Hog Island beach as an open space and for recreation (but they are concerned about security of their vessels while anchored).
4. There are solid economic relations between the landside resident community (Woburn) (LRC) and the YAC.
5. Yachts on dead anchor do not often unhook for purposes of disposal of grey water.
6. The YAC is very concerned about the impact that developments at the Mount Hartman/Hog Island in the future, can have on their community interests.

B. Conclusions

1. The economic and social relationships between the Yacht Anchorage Community and Landside Resident Community (LRC) are strong and can provide greater client opportunity for local area service providers and greater supply and quality of services for service recipients.
2. Management/planning consultations could be a virtual negotiation and consensus-building engagement among stakeholders; a formative learning exercise for all participants.
3. Plentiful yacht residents within the MPA without obligation to unhook and dispose of waste could be posing a serious pollution threat; the YAC members recognize this as an issue.
4. The Mt. Hartman/Hog island development with its uncertainty concerning detailed designs, as the largest coastal property adjoining the MPA, could generate an amount of generic skepticism with respect to potential impacts of a development construction phase.

C. Identification of Management Response Options

Table 5 - Management Issues and Management Response Options, Yacht Anchorage Community

Issues Identified with Yacht Anchorage Community	Management Response Options
1. Management of anchorage by long-stay (residential) yachts / absenteeism	Design and apply a residency monitor (control) surveillance system for tracking yacht absenteeism etc.
2. Anchorage security	Apply a surveillance / control and monitor system for security / safety of resident yachts.
3. Pollution and waste control	Apply a land-based solid waste collection facility and a liquid waste disposal compliance control mechanism.
4. Maintenance of a traditional beach front recreation facility (at Hog Island N/W Beach)	Negotiate for a formal designation of the Hog Island North West Beach as a public site for YAC, local area residents and as way point for marine (tourist) day tours etc.
5. Trade in Goods / services between YAC and LRC.	Promote trade in goods / services between landside and offshore residential communities.
6. Education and community awareness	Use media for communication between / among communities.

2.5 Local Area Community Survey

Broad Issues Addressed

- Resource use and users within the WCBMPA
- Stakeholder awareness, attitudes, perceptions, and opinions of the WCCBMPA
- Mitigation measures for threats and stresses to the natural resources within the WCCBMPA.
- Identification of any used conflict issues and root causes within the WCCBMPA.

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

Local Area Resident Community Interests on Key Issues

Table 6 - Results of the Local Area Community Opinion Survey

Issue In The Area	Residents' Interest Level (%)				Comment/Assessment
	Strong	Moderate	Disinterest	Irrelevance	
1. Vessel navigation (Access/Egress)	89	0	11	0	Very strong interest. (Immediate demonstration of need for control)
2. Access / use for anchorage	83	6	5	6	Very strong interest. (Immediate demonstration of need for control)
3. Access / use for fishing	67	28	0	7	Strong and mixed interest. (Strong traditional interest moderated by disuse).
4. Access / use for water sports	22	72	6	0	Moderate interest. (Interest moderated by seasonality of events).
5. Access / use for sailing events	17	83	0	0	Moderate interest. (Interest moderated by seasonality of events).
6. Protection of reefs	89	6	5	0	Strong interest. (Possible connection made with several vested interests.)
7. Protection of sea grasses	56	6	10	28	Moderate interest. (Indicates education but also "out of sight; out of mind.")
8. Protection of mangrove	78	22	0	0	Strong interest. (Indicates prior education and awareness)
9. Use for scientific research	22	72	6	0	Moderate interest. (Respect for scientific research)
10. Protection of historical artifacts	0	0	83	17	Low interest. (No experience with artifacts in area)
11. Prevent pollution by persons	100	0	0	0	Extremely strong interest. (Indicates experimental education)
12. Prevent pollution by nature	6	0	72	22	Very low interest. (Need for education)

Summary of Observations

1. The wider residential community (assessed by a random sample of 18 residents, approximately 6% of estimated total population) indicated that issues such as allocation of sea space/zoning/sea use and grey water pollution were of primary concern.
2. Residents considered secondary concerns as those that would have been highlighted within a recent environmental initiative in the area and regarding conservation of the mangroves and the reefs.
3. Moderate to strong interest was indicated with respect to specific access to and use of traditional resources.
4. The least interest was shown for issues such as protection against pollution from nature; historical artifacts, or even protection of sea grass beds.

B. Conclusions

1. The landside residential community, although sharing the main concerns for sea space/ sea access, allocation and pollution and on the issues that they would have been more informed on (mangroves), were notably less concerned about issues that they might consider outside of their power to address.
2. There appeared to be higher concern for mangrove and coral reefs, assumedly, as a result of a recent environmental education and awareness campaign; this could be evidence of the effectiveness of an education and awareness outreach previously made by the Grenada Fund for Conservation Inc. This indicates great potential for further education / awareness outreach on issues such as mitigation for nature-based pollution and protection of resources that residents encounter less frequently, such as sea grass beds.

C. Management Response Options

Table 7 - Management Issues and Response Options

Management Issues Identified with the Local Area Residential Community	Management Response Options
1. Sea based and land based pollution and waste collection, disposal	Apply enhanced and maritime adaptive public health compliance control measures for waste and pollution impacts
2. Ecosystems health: mangrove, reefs, sea grass communities	MCS measures for ensuring ecosystems health
3. Education and awareness for conservation of eco-assets	Design education and awareness program(s) for generating greater appreciation for eco-assets and for community based actions toward conservation.

2.6 Land Ownership and Land Tenure and Management Options

Broad Issues Addressed

- Identification of all stake holders of the WCCBMPA
- Main issues and causes within the WCCBMPA
- Identification of user conflict issues and root causes within the WCCBMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

WCCBMPA Land Ownership / Land Tenure (Along the Coastal Margins) and Management Response Options

Table 8 - Characteristics of the Land Tenure, Management Issues and Management Response Options

Segment of Coastline	Approx. % of MPA Coastline	No. of Properties Adjoining the Coast	Current Land Tenure and Usage (Status)	Management Issues for Protected Areas Manage Control Options (As Initiatives)
Lower Woburn Landscape:	12% Total	30-32 properties	Mixed	<u>Management issues:</u>
Developed residential	10%	22-25 prop.	Historical residents	1. Plentiful narrow properties; sea access rights (informal claims to water rights)
5 undeveloped properties	1.5%	5 prop.	4 private prop. 1 prop. of stat. body	2. Marina claiming informal access rights 3. Uncertain development options for coastal properties
1-commercial Marina (Whisper Cove)	0.5%	1 prop.	1 private prop. (lease hold)	<u>Management control options:</u> 1. Develop policy and policy instruments for private access/use of coast line. 2. Set criteria for awarding water rights.
Mount Hartman	~44% Total	1 prop.	Leasehold and undecided water rights	<u>Management Issues:</u> 1. Unspecified sea-access rights for the single large-scale multiuse land dev., Mt. Hartman/Hog Island Ltd.
Hog Island Ltd	Total		(Crown Lands)	
Mainland	20%	Part of prop.		2. Traditional water rights.
Hog Island	24%	Part of prop.		<u>Management Control options:</u> 1. Management control authority adopts adaptive measures for interface with MPA when developments are specified for the Mt. Hartman /Hog Island project.
Calivigny (Paradise)	22% Total	1 prop.	Freehold island prop. with limited water rights (jetty)	<u>Management Issues:</u> 1. A virtual enclave as an offshore island 2. Limited water rights (jetty); no anchorage or berthing in business model /plan; unwanted anchorage existing in the close-to-shore. 3. Coastline of the island altered with fabricated structures and enhanced beach. 4. Traditional beach now an exclusive zone.

Segment of Coastline	Approx. % of MPA Coastline	No. of Properties Adjoining the Coast	Current Land Tenure and Usage (Status)	Management Issues for Protected Areas Manage Control Options (As Initiatives)
Calivigny Island (Paradise)				<u>Management control options</u> <ol style="list-style-type: none"> 1. Lease beach rights to island owners. 2. Zoning of near-shore anchorage as a “no anchor exclusion zone.” 3. Award water rights or restrictions.
Egmont Harbor	6% (Total)	~15-17 properties ~40ml prop.	Mixed	<u>Management issues:</u> <ol style="list-style-type: none"> 1. Policy and practices for award or not of water access rights.
Development residential lots	~5%	15-16 prop. ~500m	Private lands with possible restrictive covenants	<ol style="list-style-type: none"> 2. Criteria for allocation of water rights based on sea frontage and size/type of landside development.
1 commercial marina and resort (Le Phare Bleu)	~1%	1 prop. ~100m ~100m/Prop.	Private with “water rights” (berthings)	<u>Management options:</u> <ol style="list-style-type: none"> 1. Apply sea zoning provisions nested with appropriate generic rules and practices. 2. Maintain and administer navigation channels.
Petite Calivigny Stevens Beach	12% (Total)	~20 Prop. ~1200m.	Mixed	<u>Management Issues:</u> <ol style="list-style-type: none"> 1. Policy and policy instruments that are required for award of potential water rights for private coastal lots. 2. Criteria for allocation of water rights. 3. Traditional users.
16 private lots	10½%	~16 Prop. ~1050 m ~65M/Prop.	Private with no water rights, possibly with restrictive covenants.	
3 condo/cottages lots and 2 Jetties	~1%	3 prop. ~100 m. ~35m/prop.	Private with limited “Water rights” (Jetties)	<u>Management options:</u> <ol style="list-style-type: none"> 1. Apply zoning provisions nested with appropriate generic rules and practices. 2. Administer rules and practices for traditional users in the context of privatized water rights.
1 commercial Marina	~ ½%	~1 prop. ~50m ~50m/prop.	Private with water rights (Berthings)	
Morne Prospect Madame Jean	~4% (Total)	~11 prop. ~400m		<u>Management Issues:</u> <ol style="list-style-type: none"> 1. Control of factory generated effluents. 2. Illegal dumping and excavation works on or near emboucherie.
~10 newer private residences	~3%	~10 Prop. ~300m ~30m/prop	Mixed	
1 commercial marina and resort	~1%	1 Prop. ~100m	Private adjoining emboucherie (Crown Lands)	

Segment of Coastline	Approx. % of MPA Coastline	No. of Properties Adjoining the Coast	Current Land Tenure and Usage (Status)	Management Issues for Protected Areas Manage Control Options (As Initiatives)
			Leasehold, private with "Water Rights" (Berthings)	<p>3. Regeneration of depleted mangrove (Black mangrove)</p> <p><u>Management control options:</u></p> <ol style="list-style-type: none"> 1. Enforce physical planning development control regulations. 2. Enforce crown lands protections procedures/practices. 3. Enforce public health regulations. 4. Administer a selection among a set of generic conservation measures.

Other Observations

1. The physical planning unit of the Development Control Authority administers the broader mandate for development management traditionally with respect to the land-side while the MPA authority would be mandated for the narrower function of management of stocks, habitat and sea space (and in the context of a jurisdiction by the Grenada Ports Authority in the case of the port at Petite Calivigny).
2. All of the marinas within the MPA have not yet completed their full expansion of berthing facilities; and are expected to expand into more sea space in the future.
3. There is the perception of a creeping overload of developments within the MPA in the near future; residents see this as creeping encroachment even as they recognize the economic prospects for the future.
4. The traditional local area community seems sensitive to the creeping "outing" or "extinguishing" of access and use privileges at sea-space (within bays); at use of beaches (Hog/Calivigny Islands); free access to the channel at Warf (Hog Island and mainland). They are also sensitive to the new economic opportunities in the new economic order; they are concerned about change-of-use with respect to the new resource users such as the marinas and Yacht Anchorage Community, who are effectively being accorded privatized rights. They are, therefore, concerned about conservation of traditional water and beach access and use rights.

B. Conclusions

1. Utilization of marine eco-assets as options for economic, social and cultural development, and especially the enhancement of livelihood opportunity, seems to be inevitable since government appears to be continuing to grant permits for development within the MPA. The challenge is for the MPA Authority to ensure conservation-based development versus a consumption-based development.
2. Even as the mandate for MPA management is subordinate to the physical planning/development control mandate with regard to authorization for economic development and investment at the Woburn Clarkes Court

Bay MPA, there is opportunity for the MPA authority and local area co-management partner to orient maritime development within the MPA in the context of a strategic initiative involving several relevant and competent agencies of government.

3. A strategic and collaborative approach could allow for quicker and more effective responses to impacts of development overload etc on the MPA planning process.
4. A strategic and collaborative approach to development would also allow for appropriate responses to the sensitivities of the local area community in terms of conservation of their traditional use rights.

C. Identification of Management Response Options

Table 9 – Key land Tenure Issues and Management Response Options

Management Issues Associated with Land Ownership/Land Tenure (Stakeholders And Users)	Management Control Response Options, By Type
1. Land/sea developments based on land status	Collaboration with Physical Planning/DCA for the purpose of application of land/sea use development control and utilization, compliance control procedures and practices that would enhance MPA management. <i>(strategic)</i>
2. Change-of-use of land and sea spaces	Adopt a process of community engagement on significant change-of-use of land/sea spaces, adopt and apply a set of policy-based criteria for zoning types of coastal lands. <i>(strategic)</i>
3. According water rights for management of sea space within the MPA	Develop and apply a policy-based set of criteria for according “water rights” to marinas etc. <i>(strategic)</i>
4. Maintaining traditional community-based user rights at beaches on out islands in the MPA.	Negotiate for formalization of public access to beaches within the MPA. <i>(strategic)</i>
5. Use of sea space for special traditional sporting events	Apply special temporary zoning arrangements within the MPA to accommodate traditional sporting events. <i>(operational)</i>

2.7 Multiple Environmental and Human Threats and Management Responses

Broad Issues Addressed

- Condition of natural resources within the WCCBMPA.
- Resource use and users within the WCCBMPA.
- Threats and stresses to resources within the WCCBMPA.
- Mitigation measures to threats and stress to natural resources within the WCCBMPA.
- Main issues and root caused within the WCCBMPA.
- Identification of user conflict issues and root causes within the WCCBMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

Multiple Environmental and Human Threats and Management Responses

A. Observations

Table 10 - Multiple Threats and Management Response Options

Types and Sources of Environmental Threats / Stresses	Response Options For Contingent Threats
<p><i>Natural threats:</i></p> <ol style="list-style-type: none"> 1. Natural riverine / ravine outfalls for surface and sediment laden water. 2. Biophysical contingences such as disease threats to stocks and habitat of marine flora and fauna within the MPA. 3. Adverse effects of the lunar spring ("draw sea") tide exposing coral reefs and reducing the depth for navigation at access channels. 4. Risk of increased pollutant-loading from rivers emptying into the MPA "Basin," especially in the lunar neap tide period when the flushing rate is lowest. 	<ul style="list-style-type: none"> • Apply mitigation / adaptation measures to conserve <i>emboucheries</i> and vegetation and also to enhance integrity of soil at outfalls. • Administer a biophysical monitor and evaluation protocol for the MPA. • Apply and enforce special measures to exclude harvesting on exposed reefs. • Provide appropriate notification of bathymetric conditions caused by the Lunar Spring tides.
<p><u><i>Combined Threats (Natural/Man-made)</i></u></p> <ol style="list-style-type: none"> 1. Untreated effluents from industrial or waste-generating facility such as Grenada Sugar Factory or large sewer or saline concentrate, transported by river or ravine or fabricated outfall and emptying into the sea or wetland on the coast. 2. Mass wasting/transportation of sediments due to excavation. Earth works on coastal landscapes and especially during rainy season. 	<ul style="list-style-type: none"> • Apply MCS measures that would set threshold levels for pollution, based on the neap tide and not spring tide conditions. • Design and enforce public health "Best Practices" with respect to containment of overloading waste; having the capacity to transport within / into the marine zone of the MPA.
<p><u><i>Manmade (Anthropogenic) Threats.</i></u></p> <ol style="list-style-type: none"> 1. Likely expropriation of public lands (Wetlands) in the <i>emboucheries</i> depleting capacity for natural filtering by wetlands at the natural outfall. 2. Indiscriminate dumping at <i>emboucheries</i> near private lands adjoining crown lands. 3. Increasing numbers of yachts and workboats anchoring on fragile coral reefs and sea grass beds; and even tying stern lines on mangrove prop-roots. 4. Pollution generated from earth works / excavation on coastal landscapes 5. Mass liquid and solid waste pollution from vessels residing in anchorages within the MPA especially during times of the very low spring tides when the level of flushing in the area is very small. 6. Damage to health of reefs when yachts seek safe anchorage on coral reefs / sea grass beds within the MPA. 	<ul style="list-style-type: none"> • Design and enforce compliance control measures (best practices) to mitigate for adverse impacts of sediments through use of buffers and screens limiting transport of sediments from landscape to seascape. • Enforcement of provisions of the Crown Lands Ordinance regarding ownership of lands outside the spaces within private "Closed Drawings" of private properties. • Enforcement of anti-dumping regulations under the Public Health Act; review and enhance legislation as needed. • Zoning of anchorage areas with consideration for the distribution of stocks and habitat. • Design and enforce pollution-transporting mitigation measures. • Design and enforce sector/community specific compliance control measures for minimizing offshore marine pollution. E.g. yacht grey water emptying requirements.

Economy-induced/development threats

1. Private Citizens with narrow properties adjoining the coastal zone, selecting to exploit livelihood opportunities from marine based activities within the MPA. (Possible Flood Gate Effect)
 - Zoning of yacht anchorage couples with compliance control measures for storm safety anchorage and moorings.
 - Implement a policy with policy instruments on small-plots access to the sea by jetties and a policy on small marinas at medium-sized coastal properties.
 - Development of criteria for controlling levels and types of maritime and landside/ seaside investments within the MPA including “water rights’
 - Design and enforcement of conservation measures tailored to special-needs stake holders design and enforcement of rules for “Best practices” for sea/land access through sea – grass beds and mangroves patches and even though coral reefs in special cases.
2. Introduction of an increasing number of maritime coastal investments (e.g. marinas with integrated villas etc.) leading to possible overland of development on both seaside and landside of the MPA.
3. Consumption of coastal mangrove sea grass and coral reef habitats valuable as eco-assets for nurseries and for aesthetics and the green vegetative environment.

Extinguishing of spaces available to traditional users for village water sports, fishing and etc.

1. Increasing space within the MPA being occupied by vessels on fixed anchorage.
 - Conservation/ efficient use of sea space enabling more room for vessels and activities.
 - Zoning for anchorage spaces administered as virtual parking permits. Zoning for Berthing spaces as virtual sea-leases.
 - Design and enforce statutory rules by order, for time-managed allocation of spaces for various users of the sea zone.
2. Increasing space within the MPA being allocated virtual “Water Rights” for berthings as part of marinas with land-based facilities.
3. Increasing haphazard anchorage and congestion within the MPA, “outing” available space / opportunity for traditional uses such as sailing festivals, water sports and subsistence fishing.

1. Natural threats are unavoidable but can be mitigated for through collaboration with allied competent authorities and the Local Area community.
2. Coupling human and man-made threats can be mitigated for but not totally avoided; they can be managed.
3. Man-made threats are mainly those relating to overload of wastes into ecosystems. Such threats can be closed off at source or can be limited in their discharge.
4. Economic imperatives may be classified as threats when they lead to unsustainable development impacts.
5. Plentiful developments can be classified as threats when they generate unmanageable competition and conflict among resource users.

B. Conclusions

1. Selective mitigation measures that are cost-effective need to be applied within the management area, with the purpose of reducing some threats to tolerable levels or for reducing other threats to unrecognizable levels.
2. Economy-induced threats can be managed through long-term strategic response initiatives.

C. Identification of Management Response Options

Table 11 - Key Issues and Management Response Options for Multiple Threats

Management Issues Associated with Threats in the Environment	Management Control Options, By Type
1. Mitigation measures for sediment overload, stock or habitat disease infestation or exposure of stock/habitat to adverse weather conditions.	Engage public works agencies for implementing mitigation measures to reduce sediment overload impacting the MPA. Engage researches, environmentalists and resource managers in an MCS protocol for ensuring Eco-systems health and resilience.
2. Economy-related threats	Apply strategic compliance-control response initiatives using longer term mechanisms that are either coercive or non-coercive depending on appropriateness.

2.8 Business Community Interests and Concerns (Based on structured interviews)

Broad Issues Addressed

- Resource use and users within the WCCBMPA
- Identification of stakeholders of the WCCBMPA
- Stakeholder awareness, attitudes, perceptions and opinions of the WCCBMPA
- Main issues and root causes / mitigation measures to threats within WCCBMPA
- Identification of user conflicts within WCCBMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

Table 12 - Results of Findings on Key Concerns of the Business Community

Business Units And Special Community Vested Interests consisting of the 10 main business entities												
Range of issues and conditions for concern	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	Corp. Total Rate	Strength
Allocation of user spaces - zoning	3	3	3	3	3	3	3	3	3	0	27	Very strong
Impacts of sea-based liquid waste	0	0	0	2	2	0	3	3	3	3	16	Strong
Impacts of natural and human waste (Factory Waste)	0	3	0	3	3	0	1	3	0	3	16	Strong
Disposal of solid waste	0	3	3	3	2	0	2	0	0	2	15	Strong
Security risks for yachts	0	0	0	3	0	0	0	3	0	0	6	Weak
Public awareness for promotion of compliance control measures	0	0	3	0	3	2	2	3	2	2	17	Strong
Upgrade of facilities and development	0	0	0	0	0	2	0	0	0	0	2	Weak
Safety of navigation and anchorage	3	2	3	3	2	3	3	0	2	3	24	Very strong
Preservation / conservation of traditional user spaces	3	2	0	0	0	3	0	0	0	0	8	Moderate
Conservation of natural resources	3	2	0	0	0	0	1	2	0	0	8	Moderate
Public health services (pests control)	0	0	0	3	3	0	3	1	0	0	10	Moderate

Observations (On Business Community)

1. All but one of ten respondents (because of unique business plan model) cited a strong need for user-zoning for all or some of: fishing access/use, navigation, anchorage natural resource conservation or conservation of traditional user privileges. (Issue #1, Very Strong)
2. Marine business interests also more consistently expressed concerns, even more than the resident community, about threats to the quality and value of the environment, showing special interest for pollution, greenery, liquid and solid waste disposal and security of property. Even a marina business had strong vested interest in sea-use/space issues, yet they were reserved in their expressions concerning allocation of water rights; lesser expressions were made concerning underwater natural eco-assets. [Issue #2, Strong]
3. All but one of ten respondents acknowledged the challenges of navigation due to increasing congestion with haphazard yacht anchorage [Issue #3, Strong]
4. The issues concerning anthropogenic (human) impacts of liquid and solid waste received wide attention among all respondents. [Issue #4, Strong]
5. Significant interest shown for public awareness with respect to uptake of future MPA management compliance control measures. Although security concerns do exist, yet they were apparently “tabooed.” [Issue #5, Strong]
6. The least expressions of interest were shown for conservation of natural resources, conservation or preservation of traditional user privileges, for security and for pest control.
7. Expatriate business and yacht anchorage persons (as visitors) were not very forthcoming in responses on the issue of security threats while the local business interests might be avoiding the issues of security because of being a part of the local-area community.

B. Conclusions

The relative low rate of responses, overall, to the issue of conservation of the natural resource base within the MPA highlights need for a more deliberate management role by competent authorities. Even as the drivers of management responses, in the context of co-management, might be guided by non-governmental stakeholder vested interests, yet the competent authority for MPA management would also need to respond to a set of generic concerns that are driven by international, regional and wider national vested interests in satisfaction of Multi-Lateral Environmental Agreements (MEA) such as Conventions and Protocols. Local area vested interests (commercial and residential) would naturally be guided by their narrower and more short-term economic interests. In fact, local-area vested interests are more concerned with their own local area benefits and sacrifices due to development rather than those benefits that such local area developments provide for even fellow citizens outside their local area; it is the manner in which vested interests are transacted.

C. Identification of Management Options

Table 13 - Key Concerns for the Business Community and Management Response Options

Management Issues Associated with Business Community Vested Interests	Management Control Response Options, By Type
1. Formal sea space/sea-use management	Apply a zoning regime with nested rules for addressing the variety of management concerns.
2. Pollution issues	Apply a range of marine adaptive public health procedures practices and rules, most already existing, others requiring enhancements/ adaptations.
3. Public awareness/education	Generate public awareness and appreciation regarding conservation and utilization of resources within the MPA.
4. Public safety and security	Generate awareness and responsiveness within the wide community on safety/security issues.

2.9 Economic Opportunity / Local Area Community as Service-Providers versus Service Recipients

This section shows the economic relationship between services providers and services recipients within the MPA

Broad Issues Addressed

- Identification of all stakeholders within WCCBMPA
- Identification of the significant measures within the WCCBMPA
- Resources use and users within the WCCBMPA
- Stakeholder awareness, attitudes, perceptions and opinions of the WCCBMPA

With respect to the Scope of Works, see section 1.1; as issues each stakeholder uniquely relates to.

A. Observations

Table 14 - Services Available versus Services Providers versus Services Recipients

Services Within The MPA	Resource Suppliers / Services Providers	Resource Users / Services Recipients
<i>Resource type (services-provided)</i>	<i>Client opportunity for:</i>	<i>Users such as:</i>
Bar/restaurants services	Yacht anchorage community, local community	Yacht anchorage community tourists, yachts persons
Resorts services	Marinas, resorts	Cruises, tourists
Agri-products supply	Farmers, shops	Yachts persons
Kayaking services	Kayaking operators	Tourists, cruisers
Domestic/social	Schools, local workers	Yachts persons, resorts
Sailing recreation	Marinas, local pleasure seekers	Locals, yachts persons, tourists
Pleasure fishing	Marinas, local fishers and boat operators	Cruisers, yachts persons, tourists
Waste disposal services	Locals, marinas	Yachts at anchorage and berthing
Woodwork services	Local workers	Yachts, marinas
Mangroves, sea grass, coral reefs	Dive services providers	Tourists
Mechanical services	Marinas, local workers	Yachts persons and marinas

Services Within The MPA	Resource Suppliers / Services Providers	Resource Users / Services Recipients
Yacht Berthing and stewardship serv.	Marinas, local workers	Cruisers, long-stay yachts
Yacht repair/refitting services	Marinas, local workers	Long-stay yachts, marinas
Water taxi service	Local operators	Cruisers, tourists
Land-based transport services	Buses, taxis	Yachts persons, residents
Fish/sea food supply services	Fishers, vendors	Yachts, marinas, restaurants
Recreation dive service	Water taxis	Tourists, yacht cruisers
Food supply services	Food outlets, residents	Yacht persons, residents

A. Observations

1. Over the last 10-15 years, the local area resident community had become increasingly tied together in terms of vested interest and in a trade relationship with the maritime community using the MPA; the local area community (as the 17 services-providers) and the long-stay yachts persons and cruisers (as services recipients); the marina business community in the role of both service providers and as services recipients in some cases.
2. Most local area community persons indicate considerable acceptance that there was significant “change-of-use” for the MPA resources over the past 10-15 years:
 - i. Mount Hartman/Hog Island used for animal and crop farming in the past versus prospective hospitality services (resorts) in the future:
 - ii. The Clarkes Court Bay as a traditional multi-user zone for the local area community in the past versus a commercial maritime multi-use zone at the present time;
 - iii. There is a trade-off for change-of-use that is desirable, but local area persons express serious concerns for their loss of traditional privileges for use of the MPA – the area is being increasingly privatized for use by businesses.

B. Conclusions

1. There is a strong “firming-up” of a close economic relationship between the local area community and the tourism-based offshore community. The relationship is significant and must be managed (see Table 14).
2. The challenge of ensuring optimal utilization of natural resources (stocks, habitat and sea space) within the marine protected area, even when placing sufficient emphasis on the conservation of the natural “green” resources, is powerful. Management responses must be deliberate, cost-effective and consistent with national development goals.

C. Identification of Management Response Options

See the foregone suggestions for management response options intended to ensure equitable and efficient utilization of resources within the MPA; and with sufficient emphasis on the conservation of natural resources.

2.10 Summary of Community Opinions on Main Issues of Concern within the MPA

A. Observations

Table 15 - Results of Findings from the 5 Key Stakeholder Engagements

Underlying Concerns (From Focus Group And Unstructured Interviews)	Informal Community Interviews	Business Focus Group	Fishers Focus Group	Yacht Anchor Focus Group	Informal Individual Business Interviews	Overall Strength Of Concerns
Liquid waste pollution (land-based)	3	3	3	2	1	Very strong (12)
Liquid waste pollution (sea-based)	3	3	3	2	1	Very strong (12)
Security of property	0	3	0	3	3	Strong (9)
Use of sea-space for pleasure	3	1	3	1	1	Strong (9)
Competition with neighbours in sharing resources sea-space etc.	2	2	2	0	3	Strong (9)
Safety of navigation and movement	1	2	2	1	2	Strong (8)
Safety for adverse sea weather conditions	1	1	0	2	1	Moderate (8)
Restrictions on neighbours' behavior	2	1	3	0	3	Strong (9)
Solid waste disposal	1	1	0	1	3	Moderate (6)
Maintenance of the green environment natural resources	1	1	1	3	3	Strong (9)
Public health (pests)	1	0	0	3	3	Moderate (7)
Zoning	3	3	3	1	3	Very strong (13)

Rating for: Strength of individual concerns on key issues	Rating for: Overall strength Of Concerns
0- No expression	0/15 - Nil expression
1- Weak expression	1-5 / 15 - Weak expression
2- Significant, strong expressions	6-10/15- Moderate expression
3- Very strong expression	8-11/15 - Strong expression
	12-15/15 – Very strong expression

1. In follow-up engagements using the focus or in unstructured exchanges, where responses to questions were considerably less restricted and where viewpoints might have been shared ones, the issue of pollution and zoning were again given a distinctly high priority, as shown by ratings.
[Strong to very strong concerns]
2. The concerns generating top secondary interest were those relating to security of property, competition in sharing multi-user resources and for sustainability of the green environment, albeit with regard to those resources that were above the sea level.
[Moderate to strong concerns]
3. The business vested interests would have moderated their expressions on the key issues of zoning and pollution during focus group engagements while also focusing on secondary issues; the individual questionnaire engagements preceded the focus group or informal engagements. Even within this small group of business stakeholders, issues and concerns showed up a distinction between two subgroups; the expatriate business persons and visitors (yachts persons) versus the local area business persons. For example, the expatriate business persons showed greater sensitivity with regard to security issues, quality of the green environment and zoning while the local area business persons showed greater sensitivity with regard to conservation of traditional spaces for their sea-based recreation, issues of sea-based pollution, some concern for access to client opportunity as services providers and conservation of the natural resource base.
[Strong to very strong concerns]
4. Lack of very strong interest in highlighting the conservation of the natural resource base is notable, especially with respect of the non-marina local area community.

A. Conclusions

1. Multiple engagements with individual vested interests within the MPA, and when followed up with the focus group of persons of similar interests provided an avenue for:
 - i. Transparency with regard to Government's willingness to engage community;
 - ii. Participants to negotiate aspects of conflict and affirm aspects of cooperation regarding vested interests;
 - iii. Participants to speak to authority through the report on the MPA planning process.
2. The stakeholder engagement process allowed for the opportunity for participants to address relevant MPA management issues that relate to drivers of development and management such as multilateral environmental agreements (MEA) and the fit of MPA management with overall management of development on the national scale.
3. The MPA planning process highlighted the need for public awareness and education especially for local area persons:
 - i. Regarding imperatives of national development and its impact on local areas and also
 - ii. The role of local area persons in the conservation of natural resources; a long-term exercise.

B. Identification of Management Response Options

Table 16 - Summary of Management Issues versus Management Response Options

<i>Management Issues</i>	<i>Management Options As Response Initiatives</i>
1. Sharing limited sea space, access and egress	Efficient and equitable zoning of sea space with an appropriate regime of nested rules and practices. <i>(Tactical/Operational)</i>
2. Mitigation pollution impacts	Tailoring and enhancing existing public health compliance control measures with a regime of nested rules and practices tailored for the marine environment. <i>(Tactical/ Operational)</i>
3. Investors, for guaranteeing return on investments; potential overload of developments within the MPA	Adoption of policy and policy instruments for conservation of both natural resources and for conservation of development and investment opportunity. <i>(Strategic)</i>
4. Exchanging access to client opportunity and to services providers	An incentives regime for small business entrepreneurs <i>(Strategic/Tactical)</i>
5. Conserving access to and use of traditional resources	Adaption of policy and practices for ensuring access to and use of traditional resources by the local area community <i>(Tactical/operational)</i>
6. Conserving the green environment	Adoption of a protocol between key vested interests such as environmentalists, researchers and resource managers for maintaining MCS measures toward sustainable development. <i>(Operational)</i>

2.11 Synthesis of Issues and Conditions

The full list of management issues and conditions identified in the situation assessment reported in part one (1) is treated within the following categories of responses for management control.

- Natural resource conservation
- Economy related
- Space sharing and allocation
- Waste and pollution
- Documentation and communication for lessons learned and best practices
- Governance and regulation.

1. Natural Resource Conservation and Management Issues.

Main/Core Issue	Specific Context/Responses
Conservation of natural resources	Sustainable utilization for generating livelihoods from eco-assets in the short versus the long term.
Ecosystems protection	Ensuring ecosystems health
Traditional use rights within the MPA	Ensuring social equity and cultural heritage
Stock and area closures	Ensuring conservation of vulnerable stocks and habitat.
Monitor / control / surveillance protocol for natural ecosystems	Monitoring /evaluation of the status of stocks / habitats with national value versus mere local area value
Public awareness and education	Appreciation for the value of the natural environment. (OPL)
Green eco-assets	Management of green economy within the MPA (OPL)

Key: STR: strategic; TAC: tactical; OPL: operational

2. Economy-Related Issues

Main/Core Issues	Specific Context responses
Economy and trade within the MPA	Livelihoods of local area persons as services-providers; landside residents (services and goods providers), offshore community (goods and services recipients). <i>(TACL OPL)</i>
Maintenance of use of traditional public spaces	Controls for user rights and for recreation by local area persons. <i>(OPL)</i>
Policy-based land utilization	Integrating national development planning with MPA management planning. <i>(TAL)</i>
Development overload	Strategic approaches to the management of carrying capacity within the MPA. <i>(STR)</i>
Coastal land categories	Community-appropriate management practices and procedures. <i>(OPL)</i>

3. Pollution and Waste Control Issues

Main/Core Issues	Specific Context/Responses
Waste and pollution control	Remedies based on sources of waste and pollution. <i>(OPL)</i> Solid and liquid wastes disposed of by the yacht anchorage community <i>(STR)</i>
Marine waste collection and disposal	Enhanced control measures for marine ecosystem health measures <i>(OPL)</i>
Land-based, point source pollution	Pollution control for ecosystems health. <i>(STR)</i>
Waste and pollution control	Maintaining environmental quality for both businesses and the local area community <i>(OPL)</i>

Key: STR (Strategic), TAC (Tactical), OPL (Operational)

4. Space Allocation / Space Sharing / Zoning

Main/Core Issues	Specific Context/Responses
Sharing limited sea-space	Mitigating competition and conflict and generating cooperation and sharing of space by formal regulations.
Time-sharing of resources at spaces	Procedures and practices for maintaining social equity and heritage values
Sea-space zoning	Multi-user sharing of resources and space; traditional users versus new users in the context of "change-of-use"

5. Documentation and Communication of Best Practices and Lessons Learned

Main /Core Issues	Specific Context/Responses
Community awareness and education	<ul style="list-style-type: none"> Community involvement in an interactive management process and through formative learning exercises.
Community education, awareness, and decision making	<ul style="list-style-type: none"> Discovering, documenting and adopting lessons learned and best practices

6. Governance and Regulatory Measures

Main/ core issues	Specific context/ responses
Policy-based investment and development regional	<ul style="list-style-type: none"> • Rules and criteria for best land usage
Governance through the co-management model	<ul style="list-style-type: none"> • Local area participating in management • Adaptive regulatory management
Control of yacht anchorage and security of vessels	<ul style="list-style-type: none"> • Protection for private sea-based property owners
Management of occupancy at anchorage	<ul style="list-style-type: none"> • Rules for ensuring security and also safety from storm threats
Government integrating collaboration for management	<ul style="list-style-type: none"> • Management of change-of-use by consensus
Water rights	<ul style="list-style-type: none"> • Equitable and efficient sharing of limited seashore; rule-making based on all stakeholder interests
Security of property	<ul style="list-style-type: none"> • Enjoyment of return on social or economic investment
Monitor control and surveillance roles of authorized warders.	<ul style="list-style-type: none"> • The use of warders and warden system for research (data collection) for control (compliance –control enforcement)

PART II

3. The Plan of Action – Interpretation

This management plan is in response to findings presented in a situation assessment made in part one and guided by a scope of works that indicated both a conservation and a utilization emphasis with regard to management control measures.

The situation assessment which was highly participatory in terms of wide stakeholder involvement, suggested a plan of action based on six areas of emphasis even as they relate to each other:

1. Natural resource conservation measures.
2. Economy related (generated) issues.
3. Space allocation and zoning issues.
4. Waste and pollution control issues.
5. Documentation and accommodation of lessons learned / best practices.
6. Governance and regulatory issues.

The management plan assumes a governance arrangement of co-management² (a centerpiece of the existing government policy with regard to MPA governance); it assumes that the MPA network manager / coordinator will have the overall supervisory role for managing the process of implementation; it assumes that the co-management role of the local area co-management partner will be negotiated in the future and a memorandum of agreement (MOA) will be executed and signed between themselves and Government (or MPA authority); it assumes that a warden system will be responsible for day to day enforcement of all compliance-control measures coupled with a role as data collectors (monitoring tasks) and as field research assistants for initiatives involving “as needed” research. The management plan is therefore structured as a basic design document needing further specifications to enable support initiatives as detailed design.

The MPA plan must recognise a restricted role for an MPA authority, based on existing laws and regulations. The MPA authority must recognize the wider role for management that would be exercised by the Physical Planning Unit / Development Control Authority. Hence the plan of action anticipates a direct collaboration between the Physical Planning Authority and MPA authority based on the idea of marine zone as land-sea interface rather than strict discontinuity between land and sea at high water mark. Furthermore, the plan was designed as a strategic³ and

² Co-management is a model of management in which a group of non-governmental stakeholders engage with government for the purpose of management or conservation or utilization of resources; normally with respect to common property / custodial resources.

³ The strategic (management) response as a coordinated suite of initiatives that are objectives-based, options-based, and activities-based or task-based; programmed for implementation as an adaptive (tactic-based) plan of action; in this case having legal and institutional enabling support and often involving contribution of several competent authorities or sectors, among others, within a National governance system. The tactical (management) response is a contingency-based application of a suite of initiatives where alternative combinations of operations activities are selected for application at time or place, in support of the singular strategic objective or goal. The operational (management) response is a specific... and individual activity or task, as tool for contributing to a tactical or strategic goal or objective; the most easily measureable aspect of the tactical or strategic management response.

policy-based document reflecting the understanding that the MPA authority must use the capacity and authority of allied Competent Agencies for implementing the plan rather than planning for multi-sectoral regulations independent of a direct role by such allied Competent Authorities.

A proposed budget for the first year of operations of the MPA plan is provided in the context of an initial one year of operations. Other supporting initiatives such as base-line (social, economic or biology-based) studies would be considered supplemental to the plan of action. Such detailed studies would provide targets of their own within a monitor control and surveillance program for the longer term.

Recognising the participatory approach required for building a final plan of action for the Woburn Clarkes Court Bay MPA, suggestions were accommodated from a technical team, set up by the Chief Fisheries Officer, responding to the prepared first draft of the plan. Even as policy-based and MPA specific objectives for key aspects of this plan-of-action will be presented in the following, it was agreed that the stage was reached in the process when general objectives could be decided upon, having not been explicitly given in the Scope of Works.

Overall Objectives for the MPA

Objective 1: *Conservation of all coastal ecosystems goods and services*

Knowing that the Woburn Clarkes Court Bay is now identified by several development and natural resource management vested interests as a classic example of the natural area highly impacted by economic development, the management plan should provide options for conservation of stock, habitat and sea-space (and its utilization); specifically ecosystems health, stock recruitment, protection against over-harvesting or overuse for recreation, controls of pollution impacts and transport of effluents, traditional usage (fishing and water sports) and for security among other forms of conservation with respect to ecosystem goods and services. The conservation plan must recognize that stocks, their recruits and pollutants are shared through currents that do not recognize local area MPA boundaries.

Objective 2: *Sustainable utilization of all eco-assets (goods/services)*

Knowing that there is growing interest in the utilization of coastal spaces and ecosystems, as eco-assets, and based on public policy, the management plan should provide for a discovery of best practices through lessons learned, recognizing that it is now a matter of public policy that MPAs are being used as one of the tools for rational management of coastal developments.

Objective 3: *Apply lessons learned and best practices*

Knowing that the policy of using the MPA programme as instrument for rational coastal development and management, and hence posing a significant challenge to community practices of free entry, open access to coastal eco-assets, the management plan should provide for a programme of education and awareness for communication of lessons learned and adoption of best management practices. The coastal zone is largely common property / custodial property or in cases private property with their unique opportunities and limitation or restrictions; and with change-of-use issues.

Objective 4: *(Inter-agency strategic, collaborative and integrated management).*

Knowing of the challenges involved in negotiating roles and functions of the several relevant competent agencies of government together with other stakeholders regarding establishment and maintenance of the MPA network, the

management plan should lead to a protocol of best practices in relating with relevant competent authorities in the unique small-island context. The plan of action is designed for maximum adaptiveness.

For operationalizing the plan in the context of both a basic and a detailed design, the key role of the Physical Planning Authority should be kept in mind. Even as the Fisheries Act of 1986, as parent legislation for MPAs provides for authority to the Minister of Fisheries to promulgate regulations on both sea use and adjacent coastal lands as he sees fit, yet it is under the Physical Planning and Development Control Act of 2002, as another parent act, that authority is given for development management control of the sea zone as marine land; the Territorial Waters and Marine Boundaries Act also defines the sea zone as land. The challenge, therefore, is for an application of MPA management in the context of the physical development agenda of government and for adopting a strategy that would relate MPA and physical development planning in tandem. In the process of governance and the mediation of roles, where unclear jurisdictions and management authority come into question, the Cabinet Government institutions that now exist will decide on how public policy implementing agencies would share responsibilities.

This plan portrays mostly a one-year time frame.

3.1 Natural Resources / Ecosystems Conservation and Management

I. Strategic (Policy-Based) Goal / Objective

Sustainable development that manages and conserves the natural resources base for continued satisfaction of stakeholders needs, with intergenerational equity, is environmentally non-degrading, technologically appropriate, economically viable and socially acceptable (adapted from UNFAO, 1988)

Specific Strategic Objectives for the MPA

Provide for sustainable management (and conservation) of key marine ecosystems and other related eco-assets within and adjacent to the Woburn Clarkes Court Bay MPA. (Adopted from the Grenada Protected Areas Systems Plan (1988)). Adopt and apply a suite of stock and habitat conservation and management measures that would allow existing ecosystems within the MPA to maintain a sustainable rate of regeneration so as to compensate for current and future adverse impacts of utilization.

Rationale for Management

Response to both external drivers (Multinational Environmental Agreements, MEAs) and internal pressures toward sustainable development through optimal utilization of all natural resources (stock, habitat and sea-space) in such a manner that would enhance livelihood opportunity for citizens on a continued basis.

II. Specific And Operational Activities /Actions

Specific actions, as activities, are given as an implementation time frame and with opportunity for adaptation based on contingencies (see bar chart below).

III. Application of Tactical Options

1. Time-based review of planned activities (planned and opportunity-based).
2. Contingency-based review of planned activities.
3. Introducing new and alternative activities (as best practices etc).
4. Sun-setting spent activities.

IV. Collaborating Authorities And Groups

1. Forestry Division – Mangrove and wildlife management within MPA.
2. Physical Planning Unit – Development Contingencies.
3. Grenada Ports Authority (within Port) – Water rights and navigational control.
4. Public Health Division – waste and Pollution Control.

Management Activity A	A - Natural Resources / Ecosystems Conservation														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
1. Engage env'r'lists & res. managers for designing & applying a protocol for monitor, control and surveillance (MCS) of ecosystems providing advice to the MPA authority for decision making.		■													
2. Review existing baseline surveys on natural resources within the MPA		■													
3. Enhance natural resource database.					■	■	■	■	■	■		■	■	■	
4. Apply a scheduled and cost-effective data collection program to monitor the status of stocks and habitats within the MPA, using wardens.					■	■	■	■	■	■	■	■	■	■	
4.1. Collect formatted ecological data.					■	■	■	■	■	■	■				
4.2. Evaluate data.														■	
4.3. Provide information as advice to the MPA authority.														■	
5. Evaluate the local area co-management group on progress of the MCS Program.														■	
6. Train and equip workers (and others) for application of the MSC system for eco-systems stock / habitat management		■				■			■			■			

Management Activity	A - Natural Resources / Ecosystems Conservation																	
	Q 1			Q 2			Q 3			Q 4			Q 5			Q 6		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15	Mth #16	Mth #17	Mth #18
7. Engage the land area co-management group and wardens on the status of strategic, tactical and operational activities in their plan of action (POA).						■						■						■
8. Approach key and relevant competent authorities concerning selective corporate support.		■				■					■		■				■	
9. Negotiate and maintain a program of engagement between the MPA authority and centers of excellence, such as SGU, Public Health and TAMCC, for conducting "as needed" studies on stock or habitats in support for building info. base, learning of lessons or discovery of best practices.		■					■						■				■	
10. Conduct technical revisions.																		■
Short Term (1 year)																		
Long Term (3 years)												■						
11. Adopt best practices (Interim and long-term)						■						■						■

3.2 Economy-Related Adaptive Management

I. Strategic (Policy-Based) Goal / Objective

Sustainable development that is environmentally non-degrading, economically viable, technically appropriate and socially acceptable (adapted from UNFAO, 1988)

Specific Strategic Objectives for the MPA

Promote spatially integrated and balanced development over the national territory, specifically the Woburn Clarkes Court Bay MPA (adopted from the Grenada Protected Areas Systems Plan (1988)). More specifically with respect to the MPA authority: engage key agencies, having jurisdictional control and management mandate for physical development within land / sea spaces, for the purpose of making such agencies more responsive to the objectives and goals of the MPA program (see SRO #17 of 2001).

II. Rationale for MPA Management

Optimal utilization of economic resources within the sea-space and coastal margin of the Woburn Clarkes Court Bay MPA; treating the MPA zone as a terrestrial marine interface.

III. Specific and Operational Activities / Actions

Specific actions, as activities, are given in an implementation timeline and with opportunity for adaptations based on contingencies (see bar chart below).

IV. Application of Tactical Options

1. Time-based review of planned activities (both scheduled and opportunity-based).
2. Contingency-based review of planned activities.
3. Introducing new and alternative activities (as best practices etc).
4. Sun-setting spent activities.

V. Collaborating Authorities and Groups

1. Physical Planning Unit – Development control within the MPA.
2. Grenada Ports Authority – Water rights and navigation control.
3. Lands & Survey Division – Land use permits for spaces within the MPA.
4. Customs and Immigration Authorities – Vessel residency within the MPA.

Management Activity	B - Economy -based Contingencies														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
1. Engage agencies such as the physical planning unit and Grenada Port Authority in a semi-formal relationship with the purpose of maintaining consensus on MPA-friendly developments.		■			■			■			■			■	
2. Engagement with the local area co-management group for the purpose of monitoring and controlling threats to traditional user rights of local area persons; threats caused by increasing economic developments within the MPA.		■									■				
3. Engage relevant competent authorities for the purpose of generating policy-based rules and criteria for granting permits for having development prospects within the MPA.					■						■				■
4. Adopt an alliance with key development control authorities for the purpose of monitoring development impacts as measured by agreed-upon indexes.			■					■			■				■
5. Promote commercial activities between the land side community (as goods / service-providers) and the off-shore community (as goods / service-providers) for enhancement of quality and value added.				■			■			■			■		

3.3 Sea-Space Allocation / Zoning

I. Strategic (Policy-Based) Goal /

Sustainable development that manages and conserves (sea space), is environmentally non-degrading, technically appropriate, economically viable and socially acceptable (adapted from UNFAO, 1988)

Specific Strategic Objectives for the MPA

Design, adopt and manage an spatially integrated, equitable, efficient and adaptive zoning framework (see Figure 8) for controlling vessel anchorage, berthing, moorings and for allocation of space for other use areas within the MPA (adapted from the Grenada Protected Area Systems Plan (1988)).

II. Rationale for MPA Management

Management response to congestion by vessels within the MPA (haphazard anchorage), accommodation of water rights / sea leases by authority, absence of formal navigation channels (Especially within the Woburn Clarkes Court Bay), “outing” / “extinguishing” of traditional uses such as space for marine recreation and use of beaches and vessel anchoring on fragile ecosystems.

III. Specific and Operational Activities / Actions

Specific actions, as activities, are given in an implementation timeline and with opportunity for adaptations based on contingencies.

IV. Application of Tactical and Adaptive Options

1. Time-based review of planned activities (planned or opportunity-driven).
2. Contingency-based review of planned activities.
3. Introduction of new and / or alternative activities.
4. Sun-setting spent activities.

V. Collaborating Authorities and Groups

1. Physical Planning Unit / DCA – Consensus for management of development.
2. Grenada Ports Authority – Water rights at port, vessel occupancy.
3. Public Health Authority – Human and ecosystems health.
4. Grenada Coast Guard – Enforcement and compliance control.
5. Customs / Immigration – Vessel occupancy.

Management Activity	C - Sea Space Allocation / Zoning														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
1. Local area co-management group and MPA authority examine and select from among zoning options provided.	█														
2. Local area co-management group and MPA authorities examine existing legislation for legal capacity to manage (matching zoning plan with SRO)		█													
3. Identify existing legislation with zoning / space allocation objectives (a matching process) so as to propose enhancements to the SROs.		█	█	█											
4.1 Propagate needed SROs for practice appropriate to user zones based on agreed upon choices.			█												
4.2 Designate zones based on agreed-upon choices.				█	█	█	█								
5. Adopt and regularize agreed-upon compliance control practices for the Sea-space with various media and communities.			█												
6. Accommodation of MCS, specifically, enforcement within a warden system using standard operating procedures and practices (SOP/P).			█	█	█	█	█	█	█	█	█	█	█	█	█
7. Review of zoning plan, its options and operations, by the co-management group and MPA Authority (conduct tactical review).											█				

Management Activity	C - Sea Space Allocation / Zoning														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
8. Engage relevant corporate authorities for selective and /or corporate support for management actions within the MPA.		█					█			█			█		
9. Incorporate the local area warden system within the national MPA network.						█	█	█	█						

(See Figure 8)

3.4 Waste and Pollution Control Management

I. Strategic (Policy-Based) Goal / Objective

Sustainable development...that is environmentally non-degrading, economically viable; technically appropriate and socially acceptable (adapted from UNFAO (1988)).

Specific Strategic Objectives for the MPA

Promote and adopt the application of environmentally sustainable waste and pollution control practices that are tailored to the enhancement of both human and natural non-human ecosystems health.

II. Rationale for MPA Management

Control of pollution due to solid waste collection / disposal and a minimization of pollution due to liquid waste disposal; a significant threat to environmental health within the MPA

III. Specific and Operational Activities / Actions

Specific actions, as activities, are given in an implementation timeline and with opportunity for adaptations based on contingencies.

IV. Application of Tactical and Adaptive Options

1. Time-based review of planned activities (planned and opportunity driven)
2. Contingency-based review of planned activities
3. Introduction of new and /or alternative activities
4. Sun-setting spent activities

V. Collaborating Authorities and Groups

1. Public Health Division – waste disposal and pollution control
2. MAYAG – yachting issues
3. Grenada Ports Authority – operations within the Port
4. Forestry Division / Ministry of Environment – Mangrove Wetlands Ecosystems

Management Activity	D - Waste & Pollution Control														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
1. Identification of main sources of waste and pollution, in collaboration with the local area co-management group, as collaborative exercise.															
2. Application of an MCS action-plan for sea-based sources of waste and pollution threatening commercial interests within the MPA.															
3. Application of an MCS action-plan for land-based sources of both solid and liquid waste, in collaboration with Public Health Authority.															
4. Design and apply a user-friendly and adaptive suite of maritime health measures, in collaboration with the Public Health Authority (a monitoring exercise).															
5. Design and maintain an audit system for tracking liquid waste disposal of longer-stay vessels occupying MPA.															
6. Report performance of the MCS system to the local co-management group and MPA authority.															
7. Evaluate effectiveness of activities and lessons learnt in collaborative activities.															

3.5 Documentation and Accommodation of Best Practices and Lessons Learned

I. Strategic (Policy-Based) Goal / Objective

Sustainable development as accommodation of lessons learned and adoption of best practices for management and conservation of the natural resource base...those practices that are environmentally non-degrading, economically viable, technically appropriate and socially acceptable (adapted from UNFAO (1988))

Specific Strategic Objectives for the MPA

Discover and accommodate best practices and lessons learned for the management of the WCCBMPA through a process of community-based consultations and periodic evaluation of management practices.

II. Rationale for MPA Management

Cost effective, environmentally enhancing, technically appropriate and socially acceptable application of MPA management procedures and practices

III. Specific and Operational Activities / Actions

Specific actions, as activities, are given in an implementation timeline and with opportunity for adaptations based on contingencies.

3.6 Governance and Regulatory Mechanism

I. Strategic (Policy-Based) Goal / Objective

Sustainable development that manages and conserves the natural resource base...applying control measures that are environmentally non-degrading, technically appropriate, economically viable and socially acceptable (adapted from UNFAO (1988))

II. Specific Strategic Objective(S) for the MPA

Design, adopt and maintain a suite of coordinated compliance control procedures and practices by applying statutory rules and orders (SRO), adapted to local area community needs, so as to administer best management for conservation and utilization of the WCCBMPA.

III. Rationale for MPA Management

Optimal conservation and utilization of all eco-assets within the MPA in response to both external pressures to fulfill obligations under multi-lateral environmental agreements (MEAS) and internal pressures brought about by new developments and “change-of-use” of existing resources and the human competition and conflicts that result from these within the MPA.

IV. Specific and Operational Activities / Actions

Specific actions, as activities, are given in an implementation timeline and with opportunity for adaptations based on contingencies.

V. Application of Tactical and Adaptive Options

1. Time-based review of planned activities
2. Contingency-based review of planned activities
3. Introduction of new and /or alternative activities
4. Sun-setting spent activities

VI. Collaborating Authorities and Groups

1. Grenada Ports Authority – navigation control within Port, space control
2. Physical planning unit / DCA – management of physical developments
3. Public Health Authority – waste and pollution control
4. Grenada Coast Guard (Police) – enforcement support
5. MAYAG – yachting activities
6. Immigration / Customs – vessels occupancy

Management Activity	F - Governance & Regulatory														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
1. Engage and promote a credible local area co-management group for their agreed-upon support role in management of MPA	█			█											
2. Engage local area co-management group in a process of education and awareness of proposed MPA plan of actions				█											
3.1 Sensitize local area co-management group on procedures and practices for application of statutory rules / orders				█											
3.2 Negotiate and execute a memorandum of agreement with local area co-management group					█										
4. Enhance existing regulations to best fit local area requirements matching rules with objectives, in consultations						█									
5. Design and adopt a warden system			█												
5.1 Train potential wardens for multiple generic roles			█	█	█	█	█	█	█	█	█	█	█	█	█
5.2 Engage wardens as Authorized Officers				█											
5.3 Equip wardens with regulatory support facilities					█										
5.4 Initiate and maintain a warden-based compliance-control system with standard operating procedures / practices					█	█	█	█	█	█	█	█	█	█	█
5.5 Engage wardens with the ecosystem conservation protocol and technical support persons					█	█	█	█	█	█	█	█	█	█	█
Management Activity	F - Governance & Regulatory														
	Q 1			Q 2			Q 3			Q 4			Q 5		
	Mth #1	Mth #2	Mth #3	Mth #4	Mth #5	Mth #6	Mth #7	Mth #8	Mth #9	Mth #10	Mth #11	Mth #12	Mth #13	Mth #14	Mth #15
5.6 Engage wardens with the space conservation / zoning protocol and technical support persons					█	█	█	█	█	█	█	█	█	█	█
5.7 Engage wardens with pollution / waste control protocol and technical support persons					█	█	█	█	█	█	█	█	█	█	█
5.8 Integrate local area wardens system with MPA network										█	█	█	█	█	█
6. Conduct tactical review of the regulatory system												█			
Short term (1 year)												█			
Long term (3 years)															
7. Design, maintain and evaluate the regulatory system												█			
Short term (1 year)												█			
Long term (3 years)															
8. Document data for best practices lessons learned (~3 years), report on lessons learned		█	█	█	█	█	█	█	█	█	█	█	█	█	█

MPA Management Plan-Costs / Budget

CATEGORIES OF COST	NOTION OF COST / YEAR		TOTAL
	FINANCIAL (\$)	PERCENTAGE (%)	\$
1. Natural Res. Conservation Initiatives			
• Facilitation / planning / reviews	\$500		
• Support materials for MCS initiatives	\$1,000	3.9 %	\$4,200
• Operations – surveys (M/S)	\$2,700		
• Operations - enforcement	*Regulatory apportionment	N/A	
2. Economy-Based Contingency Initiative			
• Facilitation / planning / reviews	\$500		
• Support materials for MCS initiatives / operations	\$2,000	4.7%	\$5,000
• Operations – surveys (M/S)	\$2,500		
• Operations - enforcement	* Regulatory apportionment	N/A	
3. Waste And Pollution Control Initiatives			\$4,200
• Facilitation / planning / reviews	\$200		
• Support materials for MCS initiatives	\$3,000	3.9 %	
• Operations – surveys (M/S)	\$1,000		
• Operations - enforcement	*Regulatory apportionment	N/A	
4. Sea Space Allocation / Zoning			\$18,000
• Facilitation / planning / reviews			
• Support materials for zoning	\$10,000 (one off)		
• Placement / maintenance of buoys etc	\$5,000 (one off)	17%	
• Operations maintenance	\$3,000		
• Operations enforcement	*Regulatory apportionment	N/A	
5. Documentation and Adoption of Best Practices / Lessons Learned			\$6,000
• Facilitation / planning / reviews	\$1,000		
• Support materials for data collection / assessments	\$3,000		
• Communications on lessons learnt			
• Adjustments in adoption of lessons learned / best practices	\$1500	5.7%	
	\$500		
6. Governance and Regulatory Initiatives			\$68,500
• Facilitation / planning / reviews	\$1,500		
• Support materials for regulation / compliance control	\$2,000		
• Equipment / boat (2 OB engines)			
• Patrol boat / maintenance	\$40,000		
• Communication of lessons learned	\$3,500	64.7%	
• Wardens (2)	\$1,500		
	\$20,000		
TOTAL CAPITAL EXPENSE	\$55,000	52%	
TOTAL RECURRENT COST / YEAR	\$50,900	48%	

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- Mitchell J. (2009). Comparative study of sea grass meadow structure in Grenada: South coast versus South-Coast (Independent Study marine science II Mb10413) SGU [study supervisor Dr. Clare Morrall) (Nov. 2009)

Library references:

Physical Planning Unit (GoG)

Grenada Protected Areas systems plan (1988) GAS/PPU PRODUCTION

EIA report: Mt. Hartman and Hog Island Development

EIA report: Spronk Marina, Petite Calivigny

EIA report: Clarkes Court Bay Marina

EIA report: Le Phare Bleu Marina

Inland Revenue (Cadastral office), Ministry of finance

Land plots in coastal Mt. Hartman, Woodlands Woburn Petite Calivigny / Egmont Point.

Annexes

Annex 1: Community Engagements/Interviews

1. **(Initial) Individual Businesses** - 1½-2hr meetings

(Structured Interviews)

Antonia Pursoo - Boat Builder, (28/11/2011), Phone: 456-2235

Bernard Blanc - Owner/Operator, Clarkes Court Bay Marina, (09/12/2011), Phone: 439-2593

Cletus Pascall – Owner /Operator, Island View Bar and Restaurant, (01/12/2011), Phone: 443-2645

Gilles Yergeau / Marie France Caron – Whisper Cove Marina, (14/12/2011), Phone: 444-5296

Roger Strachan – Hog Island Barefoot Beach Bar, (05/12/2011), Phone: 404-5265

Dieter Burkhalter / Jan Carniga – Le Phare Bleu Marina, (07/12/2011) Phone: 444-2400, Email:

Jana@Lepharebleu.com and Dieter@lephareblue.com

Hugh Dixon – Tamarind Cottages (Condo), (16/12/2011), Phone: 444-5239

Roger Spronk- Spronk Petite Calivigny Marina, (16/12/2011), Phone: 407-3444

Nigel Williams (Myland) – Myland Landing, (06/12/2011), Phone: 406-1123

Benjamin Cohen – Calivigny Island Villa Resort, (09/12/2011), Phone: 415-0512, Email:

bencohen82@gmail.com

2. **Business Interests Focus Group**

Organized in collaboration with Anita Sutton, MAYAG, Chair, James Finlay at Little Dipper Restaurant (03/02/2012)

Attendees:

Nigel Williams/Myland - Myland (Woburn) landing

Bernard Blanc – Clarkes Court Marina

Antonia Pursoo - Boat Builder

Phil Winters - Yacht Anchorage Community

Marie Caron –Whisper Cove Marina

Jana Carniga –Le Phare Bleu, Marina

Hugh Dixon – Tamarind Cottages

Emmanuel Braithwaite - Local Area president/fisher (443-3229)

Victor Scott – Southern Waste Ltd (Phone: 435-3478)

Summary of Issues Raised

- 1) Threats of Marina overloads
 - Special concerns for: Ecological issues
 - Economic Issues
 - Pollution Issues

- 2) Zoning and sea use
 - 6 Special concerns:- Threats of conflicts
 - Garbage Disposal
 - Grey water disposal
 - 1 Resource mapping: Traditional ecological knowledge coupled with scientific knowledge
 - 2 Attraction site at Lambie Shells Aquarium

- 3) Control of absentee owned vessels
(Safety and risks of unattended vessels, especially during storms)

- 4) A warden system as a tool for monitor control and surveillance (MCS)

- 5) The navigation channel and free path for vessels.

3. Focus Group of Local Area (Woburn) Fishers

Chair James Finlay at fishing landing 13/02/2012

Attendees:

Augustine Paul Constantine
 Charles Bruno
 Odessa Gibbs
 Keith Richards
 Grace Garraway
 Dominic Fleary
 Abdi Davis
 Emmanuel Braithwaite
 Errol Myland
 Nigel Williams/Myland
 Shankiel Myland (met at back of restaurant)
 Brian Whyte
 Zaidy Khan (CERMES/UWI)
 Crafton Isaac (Fish division)
 Jerry Mitchell

Summary of Key Issues Raised

1. Pollution threats from long stay yachts (especially small yachts threats)
2. Fishing in the bay
3. Zoning the sea space
4. Accommodation of sailing and sports events: Accommodation of future uses as a consensus building discussion issue(need for negotiation on issues in the future, highlighted)

4. **Steering Committee** (Fisheries Division) meeting chair, J. Rennie, Chief Fisheries Officer at fish div. (09/12/2011) J. Rennie
- 1 James Finlay (Planner of MPA)
 - 2 Roland Baldeo (Fish Div.)
 - 3 Steve Nimrod (SGU/Local Area Resident)

Summary of issues raised

1. Work program for the MPA planning process (Retrofit)
2. Orientation and emphasis vis-à-vis TOR
3. Working documents to provide
4. Update on accomplishments and consultations
5. Justification for chosen methodology and ideas from the group

5. **Meeting with Anita Sutton (President MAYAG)**
At Little Dipper (12/01/2012)

Summary of issues raised

1. Navigation channels
2. Zoning
3. Garbage disposal
4. Abandoned boats
5. Short term moorage of vessels (high cost of investment)
6. The wharf Hog Island Bridge as restrictive intervention
7. Safety of navigation- access/egress enhancement of the quality of the bay
8. Liquid waste disposal issues
9. Avenues for communication – Facebook, Doyles Cursing Guide, Radio, Charter Companies
10. Grenada public policy on yachting.

6. **Meeting with “the nature conservancy,”** Ruth Blyther and Allan Joseph at Grenada Grand Beach Resort.
- i. Summary of issues raised (02/12/2011)
 - ii. Suggestions for threats WRT management of resources
 - iii. Stakeholders vested interests
 - iv. Considerations WRT threats
 - v. Strategies to deal with management
 - vi. Facilitation - enabling/costing
 - vii. Specials interests for TNC

7. **Yacht Anchorage Community At Hog Island Beach**

Focus group/structures interview session

Attendees:

James Finlay (chair) Roger Strachan (Beach Bar Operator)

Phil Winters (yachts man); 9 respondents (unnamed) and 5 other yachts persons

Summary of Issues Raised

- 1 Unrestrictive controls for managing congestion of vessels
- 2 Pollution controls; land and sea based
- 3 Use-zones for specific purposes
- 4 Security of property
- 5 Maintenance of wildlife (esp. on Hog Island)

- 6 Maintenance of greenness and friendliness
- 7 Recognition of contribution of yachting to economy

8. Meeting With Shawnaly Pascal (Local Area Resident)

- 1 Collaboration for conducting community survey
- 2 Random sample of 18 residents from lower Woburn and Madame Jean (Woodlands) (20-27 Dec. 2011)

9. Meeting With Competent Authorities

- i. Physical planning unit/DCA (min. of physical development
Fabian Purcell (two Meets) Dec/Jan2011/12
 - 1 Record of standard operating procedures/practices (SOPIP)
 - 2 Review of EIA's for formal business within MPA (05/01/2012, 07/01/2012)
- ii. Land Valuation Unit (Inland Revenue, MOFIP)
Mr. Seales (2 meets) Dec/Jan 2011/2012
 - 1 Land tenure records 05/01/2012, 03/01/2012 (Cadastral record)

10. Meeting for interpretation of prepared working documents (Jerry Mitchell) (30/01/2012)

Attendees:

- 2 James Finlay, Zaidy Khan, Crofton Isaac, Allan Joseph, visiting TNC consultant

11. Meeting with local area group at upper Woburn

Organized by fisheries division and Ruth Blyther (TNC) in attendance

12. Several Meetings with Roland Baldeo, MPA Coordinator.

13. Several informal engagements with fisher and

Residents of Woburn

14. Meeting organized with fishers at Woburn,

By Zaidy Khan, CERMES, for Local Area Fishers. C. Isaac, Zaidy Khan, Jerry Mitchell, Cletus Pascall, J. Finlay and others (30/01/2011)

15. Engagement with MPA coordinator

On expressions with regulatory management of operating MPA's at Molinere / Beausejour and at Sandy Island/Mangrove (Carriacou).

16. Technical team reviewing first draft plan (16/04/2012)

Attendees:

Roland Baldoo (Chair), MPA Coordinator
Steve Nimrod, SGU / local area resident
Croftan Isaac, Fisheries Biologist, Fisheries Division
Jerry Mitchell, Marine Biologist
James Finlay, Consultant

Annex 2: Photographs



Mangrove Forest



Clarkes Court Bay Marina



Clarkes Court Bay Marina



Calivigny Island



Calivigny Island (Paradise)



Whisper Cove Marina



La Phare Bleu Marina



La Phare Bleu Berthings



La Phare Bleu Villas



Business Community Focus Group



Business Community Focus Group



Fishermen Community Meeting



Fishermen Community Meeting