Appendix 2





























The Bahamas/Hawai'i Makai Watch Learning Exchange

April 23-April 27, 2015

Background Following an introduction to Makai Watch at the second peer-to-peer workshop 'Building Compliance and Enhancing Enforcement for Caribbean MPAs' organized by GCFI and sponsored by NOAA CRCP in 2012, The Bahamas National Trust (BNT) was among the most motivated of MPA managers to build community involvement in MPA enforcement. Potential for this was also flagged in the Caribbean MPA Management Capacity Assessment. The Bahamas is unique in the Caribbean in having legislation that confers powers of enforcement on volunteers appointed by BNT, and the organization is currently exploring approaches to co-management of protected areas. The need now is to determine the most feasible level of community involvement in MPA enforcement in The Bahamas and to agree on how BNT's existing wardens will work with volunteers from the community. Input is needed on how to train community members, on the needs for ongoing coordination of community enforcement efforts by BNT, and on how to evaluate performance of the program. See www.bnt.bs for more information and Appendix 1 (below) about Pelican Cays Land and Sea Park.

Goal To learn from the Makai Watch experience in Hawai'i and input lessons learned to the planning of action steps for involving community members in MPA management, including enforcement, with The Bahamas National Trust.

Objectives

- **1.** To expose Bahamian participants to community-based, co-management and government approaches to resource management and conservation practices in Hawai'i;
- 2. To learn how Makai Watch operates in Hawai'i and the challenges, successes and lessons learned in engaging, mobilizing and training communities in the Makai Watch program in Hawai'i;
- **3.** To understand the policies and procedures used to manage the Makai Watch program, including the staff capacity required of the MPA authority in order to support the program;
- **4.** To inspire community representatives to lead and organize their communities in order to effectively implement co-management in The Bahamas;
- 5. To share MPA management experience from the Pacific region with the Caribbean region.

Key Contact Information			
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Wednesday, April 22, 2015			
Time	Activity	Participants/Presenters	
1:05pm	Emma Arrives Honolulu on UA 253	Emma Doyle, GCFI	
3:00pm	Briefing at Ala Moana	Emma Doyle and Kristen Maize, TNC	
9:36pm Bahamians Arrive Honolulu on AA 267, take taxi to Ala Moana Hotel David Knowles, Ellsworth Weir, Cindy Pinder, Paul Pinder			

Overnight Ala Moana Hotel, Honolulu

Thursday morning, April 23, 2015

Objectives

- 1. Understand how Makai Watch operates in Hawai'i and the challenges, successes and lessons learned in engaging and mobilizing communities in the Makai Watch program in Hawai'i
- 2. Understand staff capacity and funding required of the MPA authority in order to support the program
- 3. Understand importance of communities' role in assisting the state in marine management, how these roles have changed over the past 5-10 years and what is envisioned for the near future.
- 4. Understand roles of site coordinators

Time	Activity	Participants/Presenters
7:30am	Breakfast meeting at Ala Moana	Bahamas Team
8:30am	Departure for Hawai'i Division of Aquatic Resources, Commission on Water Resource Management conference room, 1151 Punchbowl St, Honolulu (parking pass from Luna)	Bahamas Team
9:00am-9:30am	Welcome and Introductions	Emma Anders, Division of Aquatic Resources (DAR), Hawai'i Coral Program Coordinator and USCRTF POC
9:30am-9:45am	PIMPAC and MPA enforcement	Mike Lameier, Co-Coordinator, PIMPAC
945:am-10:00am	The context for MPA Management in The Bahamas	David Knowles, Director of Parks, The Bahamas National Trust
10:00am-10:15am	Introduction to the Abaco Fly Fishing Guides' Association and their role in environmental stewardship	Cindy Pinder, Secretary, Abaco Fly Fishing Guides' Association
10:15am-10:30am	Introduction to Hawaii's Makai Watch Program	Luna Kekoa, State Makai Watch Coordinator
10:30am-10:45am	Community Based Subsistence Fishing Area Program	Erin Zanre, Program Coordinator
10:45am-11:00am	Hawai'i Eyes on the Reef Network and Rapid Response Contingency Plan	Anne Rosinski, Hawai'i CRCP Fellow
11:00-11:15am	TNC Hawai'i - support to community partners to manage marine resources and the Reef Resilience program	Kristen Maize, Strategic Communications Manager, TNC
11:15-11:30pm	A donor's perspective on Makai Watch	Eric Co, Senior Program Officer for Marine Conservation, Harold K.L. Castle Foundation
11:30pm-12:00pm	Closing summary	Mike Lameier, Co-Coordinator, PIMPAC and Emma Doyle, GCFI
12:00pm-1:00pm	Lunch	Kindly hosted by TNC

Thursday afternoon, April 23, 2015

Objectives

- 1. Participants exposed to protected area co-management
- 2. Understand the co-management of tourism and sustainable financing of Hanauma Bay
- 3. Understand potential for and challenges of collaborating with local government
- 4. Learn about sustainable tourism strategies applied at Hanauma Bay

Time	Activity	Participants/Presenters
1:30pm	Departure for Hanauma Bay	Bahamas Team and Mike Lameier
2:00pm-3:00pm	Introduction to Hanauma Bay Marine Life	Elizabeth Kumabe Maynard, Environmental
	Conservation District (MLCD) and co-management of	Education Extension Agent, Hawai'i Sea
	conservation area by DAR and local government	Grant
3:00pm-4:00pm	Snorkel in Hanauma Bay	Bahamas Team
5:00pm	Meet with Joe Scarpa, NOAA Officer of Law	Bahamas Team
	Enforcement Officer at Kona Brewing Company	

Overnight Ala Moana Hotel, Honolulu

Friday, April 24, 2015

Time	Activity	Participants/Presenters
9:15am	Departure for Honolulu airport	Bahamas Team
11:00am-11:39am	Departure on Hawai'ian Airlines HA 246 Honolulu- Maui	Bahamas Team
Afternoon	Pick up rental vehicle, drive Kahului to Lahaina	Bahamas Team
4:00pm	Informal meeting with Ka'anapali Makai Watch & West Maui Ridge to Reef Initiative Coordinators and community volunteers at Maui Brewing Company, Kahana	Liz Foote, Executive Director of Project S.E.ALink & Coordinator, Ka'anapali Makai Watch; Tova Callender, Coordinator, West Maui Ridge to Reef Initiative

Overnight Royal Kahana, Lahaina, Maui

Saturday, April 25, 2015

Objectives

- 1. Gain real world experience of Makai Watch volunteer training
- 2. Community representatives inspired to lead and organize their communities in order to effectively implement programs, projects and activities to improve resource management

Time	Activity	Participants/Presenters
8:45am	Departure for Kaunoa Senior Center, Lahaina, Maui	Bahamas Team
9:00am-1:00pm	Kaunoa Senior Center, Lahaina, Maui Participate in Ka'anapali Makai Watch training	Liz Foote, Executive Director of Project S.E.ALink & Coordinator, Ka'anapali Makai Watch; Luna Kekoa, State Makai Watch Coordinator Anne Rosinski, Hawai'i Coral Reef Conservation Program Fellow, NOAA
2:00pm	Snorkel in the Kahekili Herbivore Fisheries Management Area (optional and weather- dependent)	Liz Foote, Executive Director of Project S.E.ALink & Coordinator, Ka'anapali Makai Watch
Overnight Royal Kahana, Lahaina, Maui		

Sunday, April 26, 2015

Objective

Obtain volunteer and officer perspectives on design and functioning of Community Fisheries Enforcement Unit (CFEU) for input to The Bahamas

Time	Activity	Participants/Presenters
8:15am	Departure for Old Kahului Armory, 175 S. Puunene Ave., Kahului, 96732	Bahamas Team
9:00am-10:00am	Introductions and Talk Story	Brooks Tamaye, Supervisor, CFEU Kuhea Asiu, Makai Watch Coordinator
10:00am-11:15am	Site Visit to DOCARE Armory	Bahamas Team
11:15am-11:30am	Wrap up	Emma Doyle

Overnight Royal Kahana, Lahaina, Maui

Monday, April 27, 2015

Objectives

- 1. Summarize lessons learned so far by BNT
- 2. Outline proposed action steps for adaptation of Makai Watch to The Bahamas
- 3. Incorporate feedback from Makai Watch and DAR representatives into action steps

Time	Activity	Participants/Presenters
8:00am	Luna arrives Maui	Luna Kekoa, State Makai Watch Coordinator
9:00am	Departure for Kaunoa Senior Center, Lahaina, Maui	Bahamas Team
Morning	Review session for GCFI and BNT	Bahamas Team with Luna Kekoa
12:00pm-1:00pm	Lunch	Bahamas Team with Luna Kekoa and others as available
1:00pm-1:30pm	Which aspects of Makai Watch could work from a community perspective in The Bahamas?	Paul Pinder, President, Abaco Flyfishing Guides' Association
1:30-2:00pm	What's next for The Bahamas National Trust? Proposed action steps	David Knowles, Director of Parks, The Bahamas National Trust
2:00pm-3:00pm	Feedback session	Luna Kekoa, Liz Foote, Darla White, Kristen Maize, Ekolu Lindsey
3:00pm	Wrap up	Emma Doyle, GCFI
5:56pm	Luna departs for Oahu	Luna Kekoa, State Makai Watch Coordinator

Overnight Royal Kahana, Lahaina, Maui

Tuesday, April 28, 2015

Time	Activity	Participants/Presenters
6:45am	Departure for airport	Bahamas Team
8:41am-9:16am	Departure on Hawai'ian Airlines HA 145 Maui- Honolulu	Bahamas Team
12:25pm	Departure on flight AA 162 Honolulu-LAX-MIA- Bahamas (arrival Tuesday morning)	Bahamians
Emma overnights Honolulu for departure Tuesday morning		

Contact List – The Bahamas

Name	Title/Organization	Contact Information
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Cindy Pinder	Secretary, Abaco Flyfishing Guides' Association	skeeterone@coralwave.com
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Contact List – Hawai'i - Honolulu

Name	Title/Organization	Contact Information
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	and USCRTF POC	
Erin Zanre	Program Coordinator, Community Based Subsistence Fishing Area	Erin.Zanre@hawaii.gov
	Program	
Anne Rosinski	Anne Rosinski, Hawai'i Coral Reef Conservation Program Fellow,	hicoralfellow@gmail.com
	NOAA	
Eric Co	Senior Program Officer for Marine Conservation, Harold K.L.	eco@castlefoundation.org
	Castle Foundation	
Liz Kumabe	Education Program Leader, Hanauma Bay Education Program and	kumabe@hawaii.edu
Maynard	Environmental Education Extension Agent, Hawai'i Sea Grant	+1-808-956-2860

Contact List - Hawai'i - Maui

Contact List Haw	Contact List - Hawai i - Wadi		
Name	Title/Organization	Contact Information	
Liz Foote	Liz Foote, Executive Director of Project S.E.ALink & Coordinator, Ka'anapali Makai Watch	Ifoote@hawaii.rr.com +1-808 283-1631 Skype/social media @footesea	
Tova Callender	Coordinator, West Maui Ridge to Reef Initiative		
Brooks Tamaye	Supervisor, Community Fisheries Enforcement Unit, DOCARE	Brooks.H.Tamaye@hawaii.gov	
Kuhea Asiu	Makai Watch Supervisor, DOCARE	kuhea4@gmail.com	
Darla White	DAR Maui	Darla.J.White@hawaii.gov	
Ekolu Lindsey	President, Maui Cultural Lands	ekolu333@hawaii.rr.com	
	And https://www.facebook.com/polanuihiucmma	EkoluMCL@hawaii.rr.com	

Appendix 1: from Caribbean MPA Management Capacity Assessment (Gombos et al, 2011)

For methodology and self-assessment questionnaire please see the full report on the <u>MPA Management</u> <u>Capacity Assessment</u>

Pelican Cays Land and Sea Park

Name: Pelican Cays Land and Sea Park (PCLSP)

Country: Bahamas

Year established: 1972

Size: 2,100 acres (8.5 km²)

Management Agency: Bahamas National Trust (BNT).

Site Resources: Located 8 miles of north of Cherokee Sound, Great Abaco, this 2,100 acre land and sea area is a sister park to the Exuma Cays Land and Sea Park. It contains beautiful undersea caves, extensive coral reefs and abounds with terrestrial plant and animal life.

Site Uses:. This is a high use area for snorkeling. The entire PCLSP is a no-take zone.

Threats: Illegal fishing and recreational over-use are the primary threats

Site Contact: Director of Parks & Science, Bahamas National Trust - (242) 393-1317

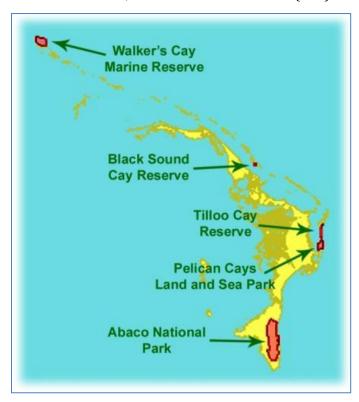


Figure 1. Map of Abacos Islands National Parks Including Pelican Cay Land and Sea Park

Question	Relevance of Site Objective to Designation Purpose					
1a	According to the official designation of the site, what is the purpose of the MPA?					
	The site was designated in 1972 with push from local stake recognized Pelican Cays as an important area with a unique The main purpose of designation was for conservation of the system.	coral	reef sys			
Question	Purpose	Yes	No	N/A		
1b	Are the MPA management plan objectives in line with the site designation purpose? (no plan)			X		

CURRENT MANAGEMENT CAPACITY SUMMARY							
Question	Assessment Area	Tier 1	Tier 2	Tier 3 (highest)			
2	Management Planning*	X					
3	Ecological Network Development		X				
4	Governance		X				
5	On-Site Management		X				
6	Enforcement*		X				
7	Boundaries		X				
8	Biophysical Monitoring		X				
9	Socioeconomic Monitoring	X					
10	MPA Effectiveness Evaluation	X					
11	Stakeholder Engagement	X					
12	Financing		X				
13	Outreach and Education*	X					
14	Conflict Resolution Mechanism			X			
15	Resilience to Climate Change	X					
16	Alternative Livelihoods	X					
17	Fisheries Management						
18	Integrated Coastal Management			X			
19	MPA Sustainable Tourism	Х					
20	Organizational Management		Х				
21	Partnerships/Coordination		X				
	Assessment Area	YES	5	NO			
22	Economic Valuation		X				
23	Emergency Response			X			
24	Ecosystem Based Management	X					
	ENABLING ENVIRON	MENT	•				
	Assessment Area	High	Mediu	m Low			
25	Public Support		X				
26	Government Support		X				
	. 1	•		•			

^{*}denotes identified priorities for capacity building

2. Management Planning (Tier 1)

Rationale: There is currently no management plan at the site. On-site management noted the development of a management plan for the site as the highest priority for building capacity. It was recognized that a management plan is needed to have clearly defined objectives to drive priorities and activities at the site and to develop the rules and regulations that best meet the objectives of the site. The site manager also recognized that the planning process could be used as means to engage all stakeholders, a process which has been lacking in the past given the lack of on-site management by BNT. The main support deficiency identified for the development of a management plan was technical support to help facilitate the process and to focus the effort to ensure a plan was completed.

3. Ecological Networking (Tier 2)

Rationale: This site was established in 1972 prior to the development of the Bahamas Protected Areas System. As such, the site is currently part of an ecological network but was not designed to help achieve the network goals. Additionally, given that on-site management has been lacking at the sites until recently, coordination across sites within the system has not been feasible. Additionally, there are five other protected areas on Abaco aimed at protecting various ecologically important features of the area. While these sites have not been designed specifically to function as an ecological network, there are likely linkages among these systems. Finally, The Nature Conservancy carried out a Conservation Action Planning process to explore priority areas of Abaco for bio-diversity protection. PCLSP was identified as a priority site for conservation and recommended an extension of the site to a nearby cay.

4. Governance (Tier 2)

Rationale: All national parks in the Bahamas fall under the legal framework of the Bahamas National Trust Act which established the BNT and gives it the authority to purchase or declare areas under protection "for the purposes of promoting the permanent preservation for the benefit and enjoyment of The Bahamas of lands and tenements (including buildings) and submarine areas of beauty or natural or historic interest and as regards lands and submarine areas for the preservation (so far as practicable) of their natural aspect, features, and animal, plant and marine life." The Act also establishes a set of by-laws by which BNT can manage sites. As a national park, the PCLSP is designated as "no take". The legal designation also includes defined penalties of up to \$500 and confiscation of boats and equipment for those convicted offenders. Additionally there are a set of by-laws that have been developed for the site mainly modeled after the Exuma Cays Land and Sea Park which was the first national park established in the Bahamas. Management noted a need for updating a set of PCLSP by-laws. New by-laws have been drafted recently; however, there is an interest in developing the management plan for the site to ensure that the by-laws are compatible with the site management objectives prior to passing the by-laws. The recent by-laws have been developed in collaboration with the local NGO "Friends of the Environment".

5. On-Site Management (Tier 2)

Rationale: There is currently two BNT staff that are stationed on the island of Abaco where the site is located. This includes a Chief Warden, and Administrative/ Office manager. Staff on Abaco is responsible for management of all six national parks in Abaco. While these staff are stretched thin, their presence in the past three years has significantly improved management activities on Abaco.

Additionally, a 27' boat was recently donated to the BNT on Abaco to support management of Pelican Cays and Fowl Cays. Having a boat will greatly improve the ability of managers to carry out patrols, research, and education activities. Local BNT staff also consider local stakeholders as stewards of the site who can and should provide direct management support. Because of the small staff capacity on Abaco, there is interest by site management to further develop stakeholder engagement programs to help share and implement management responsibilities, with their role as the "overseers" of management. Site infrastructure includes some mooring buoys which were initially installed and maintained by stakeholder groups. While BNT now is in supporting mooring buoy maintenance, there is still a strong collaboration with local partners (in particular "Friends of the Environment") to carry out these activities. There is an interest to develop basic amenities at the site to foster use such as benches and beach cabanas. While funding and capacity has increased, BNT management headquarters in Nassau identified funding to increase capacity as a priority.

6. Enforcement (Tier 2)

Rationale: Currently there is inconsistent enforcement of the PCLSP. Due to lack of staff, patrols are not carried out on a regular basis. Additionally, a boat was acquired only recently thus providing more direct presence at the site. The site warden is also responsible for outreach, enforcement, and administrative duties at all six sites (terrestrial and marine) on Abaco. Additional enforcement support is provided periodically, through fisheries patrols, and police patrols, as well as stakeholder that report infractions that are witnessed.

In late 2010, National Trust Act was amended to specifically allow the BNT to use volunteer wardens for enforcement purposes. This act will provide BNT with the authority to train and deputize local volunteers as park and fisheries wardens. This will provide wardens with the authority to give citations and make arrest for all regulations within national parks and for all fisheries regulations outside of parks. Volunteer wardens will not be allowed to carry weapons and outreach will also be a part of the responsibility of these wardens. Abaco is particularly poised to implement this progressive initiative. There are plans to coordinate a team of volunteer wardens who will be trained in various aspects of laws and enforcements. In the beginning of this program, it is likely that volunteer wardens will accompany police or fisheries officers to carry out patrols. This will be done to ensure volunteers get experience with trained enforcement officers and to establish a perception of legitimate authority among new wardens. Upon further training and improved public understanding of that wardens have authority to enforce rules and regulations, they will likely patrol on their own. Additionally, the aim is to have a team that is trained and can provide a presence on the water regularly as it is likely that these volunteers will be out both formally and as users of the area on a regular basis. The main needs identified by site managers to implement this program is time to develop a training program, as well as funding to support program activities (uniforms, fuel, equipment, etc.) Additionally, the need for a management plan and associated by-laws was identified as a need to ensure that rules and regulation can be clearly stated upon approaching users of the area.

This initiative can have great implications for improving site management of park, as one of the main challenges to enforcement is lack of staff capacity. Additionally, as in many sites, there is a lack of confidence by stakeholders that existing sites are being enforced and therefore disinterest in

creating new MPAs. This new law also provides an excellent opportunity for the development of a volunteer bases enforcement program that could be a model for the Caribbean region and beyond.

7. Boundaries (Tier 2)

Rationale: When the sites were designated, the boundaries were defined on maps using specific land points as markers in legal documents. These boundaries have not been geo-referenced however. There are no on-site boundary markers and signage has not been posted to inform stakeholders. GPS/GIS capacity is needed to gather information and develop shape-files of the sites. There is no zoning within the sites but zoning may not be necessary as the entire area is a no-take zone with very few conflicting uses.

8. Bio-physical Monitoring (Tier 2)

Rationale: Some bio-physical monitoring activities have occurred at the site. In 2009, a group of volunteers was formally trained to carry out Reef Check monitoring protocols. This activity was coordinated through the local NGO and BNT partner "Friends of the Environment". Monitoring occurred six times that year at various locations both within protected areas and outside of protected areas. PCLSP was one of the sites used during this effort. The aim by Friends was to continue assessments at all sites twice a year. However, limited funding for this effort has impacted the ability of this program to be implemented on a regular basis. Therefore funding for a boat, fuel, and equipment is needed to carry out on-going monitoring efforts. There is also an interest by park management to foster dive boat operators to carry out surveys through their operations, but this has not yet been explored for feasibility.

9. Socio-economic Monitoring (Tier 1)

Rationale: While community meetings and informal discussions with local stakeholders have been held, there has been no formal socio-economic assessment of users/stakeholders of the PCLSP. The main barrier for carrying out formal socio-economic assessments and monitoring has been a lack of staff in both numbers and skills. Both external technical support and increases staffing are needed to carry out socio-economic assessments. Additionally the lack of a management plan has been noted as a barrier to reach out to various stakeholders on Abaco.

10. MPA Effectiveness Evaluation (Tier 1)

Rationale: Through the master planning process, a RAPPAM was carried out. However, this was done for the entire system of protected areas of the Bahamas without a focus on specific sites. This information can provide a good baseline for management capacity effectiveness, however. The lack of a management plan, bio-physical monitoring, and socio-economic monitoring have been identified as barriers to carrying out MPA Effectiveness efforts. Monitoring of effectiveness evaluation was noted as a priority by BNT management headquarters in Nassau.

11. Stakeholder Engagement (Tier 1)

Rationale: The designation of the PCLSP came about mainly due to local stakeholder groups who were interested in seeing conservation of the site that they knew had unique ecological value. Since that time, stakeholder groups have continued to provide management support, particularly prior to BNT presence at the site in the past few years. However, engagement has mainly been focused on one major user group rather than the broader community where engagement has been limited. Currently, there remains a very good collaboration with the local NGO "Friends of the

Environment" who have historically been very engaged in implementing management activities. In the past (and in the absence of BNT staff on-site), Friends supported conservation efforts in PCLSP by funding and implementing mooring buoys, and outreach activities. This partnership still exists among BNT and Friends although BNT has begun providing funds for moorings. A formal MOU has not been established to define the relationship and roles of Friends within the PCLSP and there is interest and an effort underway to develop a more formal agreement. Friends has noted that they would like to focus primarily on outreach activities in support of conservation efforts in the Abacos (including the PCLSP). They are also interested in continuing to carry out Reef Check monitoring around the Abacos (also including PCLSP). While this partnership among BNT and Friends is strong, management express an interest in engaging more stakeholders in the site management. The management planning process was noted as the primary way to begin this engagement and bring in new stakeholder groups who can become empowered as stewards of the site.

12. Financing (Tier 2)

Rationale: There are consistent funds to support the management of the site, which are derived from core funds provided to the Trust by The Government of The Bahamas and by donations. In 2007, the government increased funding to BNT from 100K USD per year to 1 million USD. This increased funding has significantly helped BNT expand efforts and capacity, although additional funds are still required to support effective management of all 26 sites. In addition, there is a sustainable finance plan that has been drafted to establish a Bahamas Protected Areas Trust Fund. This effort is being developed with the support of The Nature Conservancy (TNC) and is part of larger sustainable financing efforts being carried out to support the Caribbean Challenge. Through this larger effort, an additional Trust is being established to receive large donations that will be aimed at supporting protected areas in the wider Caribbean region with those countries that have signed on as participants. Interest from these funds will be provided to those jurisdictions that can provide match from local trust funds. At a local level, the Bahamas is moving forward in developing this mechanism for sustainably financing their protected area system but are in need of the political will to determine appropriate methods for generating funds (e.g. conservation tax, user permits).

13. Outreach and Education (Tier 1)

Rationale: Site management identified that while the site specifically has little on-going outreach and education activities, they are moving forward in this area. Many outreach and education activities are implemented through the local NGO "Friends of the Environment" who carry out awareness programs about conservation and the environment specific to Abaco. Additionally, BNT has a program called "Parks Pals" which takes school groups out the site to provide awareness of conservation efforts. These efforts have been mainly aimed at school children and often focus on conservation efforts throughout all the Abacos rather than site-specific awareness. Park management noted a priority in building capacity in this area is to hire an Outreach Officer who could focus developing a program that supports the goals of all national parks in the Abacos.

14. Conflict Resolution Mechanism (Tier 3)

Rationale: Park management felt that users are aware of BNT offices and staff as a means to report and resolve conflict both on the ground in Abacos and in Nassau. The mechanism used to resolve

conflicts vary depending on the situation but BNT staff are accustomed to working with stakeholders to resolve conflicts.

15. Climate Change Resilience (Tier 1)

Rationale: Climate change resilience principles have not been considered in the management of the site. However, based on the site description, the reef is in an area of strong currents, and upwelling of colder waters. This has been noted as the reason for the unique species and structure of the reef which consists of species normally found in deeper water. As such, the area may be well suited for resiliency to future increases in sea surface temperatures.

16. Alternative Livelihoods (Tier 1)

Rationale: Historically, the PCLSP was used as a major fishing spot for local fishers, in particular for conch and lobster. While the site has been in place for over 40 years, there still is some opposition from local fishers about the site protection as well as poaching that occurs in the site. No assessments were carried out during site designation or since, therefore it is unknown how the site designation and regulations may have negatively impacted stakeholders. As such, no alternative livelihood programs have been established.

17. Fisheries Management (Tier N/A)

Rationale: The only recent assessment has been through Reef Check in 2009. There is also baseline assessment information from a study done through the development of the site. However, there is no fisheries management plan because the site is a no-take area.

18. Integrated Coastal Management (Tier 3)

Rationale: There is currently a proposal for a new national park that is linked to the PCLSP and consists mainly of mangrove systems. The proposal for this site was done through a collaborative effort between various agencies involved in resource management (marine and terrestrial) including the Department of Marine Resources and The Nature Conservancy. A formal threats assessment has not been done for land based threats, but coordination among agencies is strong on Abaco.

19. Sustainable Tourism (Tier 1)**

Rationale: Historically, there were use surveys carried out at the site to collect information about what uses occur, and if stakeholders are aware of the site and its resources. Site managers noted an interest in continuing these surveys through collaborations with tour operators. No plans for sustainable tourism have been developed. Increased staff and technical support would be needed to develop this capacity.

20. Organizational Management (Tier 2)

Rationale: Currently there are only two staff on-site on Abaco who are responsible for managing six parks around the island. Additionally, some management support is provided by the BNT main office in Nassau who are aimed at carrying out over-arching support for the entire protected areas system such as fundraising, administration, education and awareness raising, and legal infrastructure. While the staff on Abaco is highly skilled, there is a lack of staff numbers to fully implement desired management of all sites including PCLSP. Funding is the factor limiting increasing staff numbers at the site.

21. Partnerships/Coordination (Tier 2)

Rationale: Partnerships and Coordination among the various ngo's and agencies involved in protected area management on Abaco is strong and positive. These relationships are currently informal but there is an effort to develop a more formal MOU which would more clearly define roles and partnership activities.

22. Economic Valuation (No)

Rationale: Abaco is very interested in having an economic valuation carried out for the site to support conservation efforts.

23. Rapid Response Protocol/Team (No)

Rationale: There is no emergency response protocol on-site. However, through the NISP partnership on Nassau, Abaco has access various experts who can mobilize to address emergency situations.

24. Ecosystem-Based Management (Yes)

Rationale: While the site was not initially designed with ecosystem-based management principles, it is hoped that new sites linked to the PCLSP will support ecosystem function by protecting habitats (i.e. mangrove) that support the coral reefs. Additionally, it is anticipated that the management planning process will incorporate human dimensions.

25. Community Support (Medium)

Rationale: While existing support is high among certain stakeholder groups on Abaco, management felt that it could be improved through further outreach and engagement processes (e.g. management planning process).

26. Government Support (Medium)

Rationale: Government support has been good as there is funding provided to BNT in addition to good access to decision makers regarding legal matters however additional support is needed to effectively manage all the MPAs in the Bahamas.

Management Capacity Priority Needs

- **1.** Management planning including stakeholder engagement, and the development and approval of a management plan
- **2.** Enforcement management noted a priority for the site to implement the volunteer warden program
- **3.** Outreach and Education

Priority Capacity Building Approaches

- **1.** More staff
- **2.** Training
- **3.** Learning exchanges

Mentoring: the site has expressed an interest and willingness to share lessons learned and information on areas of strength.

References

Bahamas Environment, Science and Technology (BEST) Commission, Department of Marine Resources (then named the Department of Fisheries), the Bahamas National Trust and The Nature Conservancy (2006) *The Bahamas Ecological Gap Analysis*. PoWPA document.

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The Government of the Bahamas (1959) Bahamas National Trust Act.

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