Coastal and Estuarine Land Conservation Plan for The Commonwealth of the Northern Mariana Islands



July 15, 2008
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"This Plan was prepared by Hilary Stevens under award NA04NOS4190051 and edited by Kathy Yuknavage under award NA07NOS4190176 from the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of OCRM or NOAA."

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I. Introduction

a. Background

The Coastal and Estuarine Land Conservation Program (CELCP) is a federal grant program conducted by the National Oceanic and Atmospheric Administration (NOAA). Public Law 107-77, the Department of Commerce, Justice and State Appropriations Act of 2002, charges the Secretary of Commerce to establish the program "for the purpose of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses" giving priority to lands that can be effectively managed and protected and that have significant ecological value.

According to the NOAA CELCP guidelines of 2003, states and territories that wish to participate in the program must first produce a plan and have it approved. This plan should outline priorities for coastal area conservation and the process for proposal nomination and submission. This process ensures that the program meets the Congressionally-defined goal of being nationally competitive and objective.

b. Purpose

This program protects coastal and estuarine areas that are of significant value by permanently sheltering them from development. Coastal areas are vital to the nation's well-being for reasons that include economic, environmental and health benefits. Coastal areas are increasingly popular residential and recreational areas, important for commerce and essential habitat for many birds, fish and other species. Pressure from development is having a negative impact on resource quality in many areas. Habitat loss and diminished water quality is stressing the populations of many coastal species. The increased demand for developable land in the coastal area is causing a rise in property values, which puts further pressure on landowners to maximize the use of their land. By purchasing land outright, this program provides a way for state and local governments to set aside coastal areas while equitably compensating private owners.

In the case of the Commonwealth of the Northern Mariana Islands (CNMI), the pressures are heightened because land area is limited and it is all coastal. Water quality, limited natural resources, dependence on fisheries and a growing human population are all challenges that the CNMI faces. This plan makes the CNMI government eligible for resources to encourage conservation. In November, 2005, Palau President Remengesau called on the leaders of island nations in Micronesia: Federated States of Micronesia, Marshall Islands, Guam and the CNMI to join together and strive to "effectively conserve 30 percent of near shore marine resources and 20 percent of forest resources by 2020." The Nature Conservancy estimates that CNMI and the other islands of Micronesia represent nearly 5% of the marine area of the Pacific Ocean and 7% of its coastlines.

(www.nature.org/success/art16924.html)

II. Priorities for Coastal and Estuarine Land Protection

a. Geographic Extent of the Plan

The Northern Mariana Islands comprise fourteen islands spanning over 400 miles in a north-south running archipelago. The three southernmost islands, Rota, Tinian and Saipan, are inhabited, with 92% of the population based on Saipan (CNMI HIES, 2005).

The Commonwealth of the Northern Mariana Islands (CNMI) lies entirely within the coastal zone, and is therefore covered by this Plan. All watersheds in the islands are coastal watersheds. Under CNMI law, the Coastal Resource Management (CRM) Office has regulatory jurisdiction over all lands of the Commonwealth.

Land ownership in the CNMI is regulated differently than in the mainland USA. In order to own land, individuals must prove themselves to be at least one quarter indigenous blood. 55-year leases are available to all other individuals.

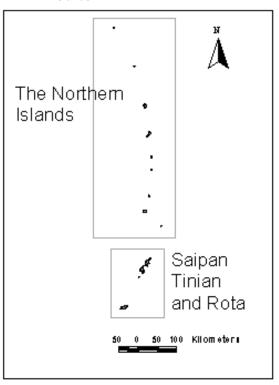
Lands in the CNMI fall into three categories:

private lands, public lands, and government acquired lands. Private lands are lands that are alienable by the titleholder. Public lands are those that were transferred into the public domain upon the creation of the Commonwealth, are freely alienable by the Commonwealth, and are managed by the Department of Public Lands (DPL). Government acquired lands are lands purchased by the government for public purposes, the use of which is controlled by deed restrictions.

DPL is mandated to manage public land for economic development and the benefit of the indigenous population, including "homesteads". DPL is drafting a comprehensive plan for CNMI lands use and it works closely with CRM Program Agencies and the Saipan Zoning board to prevent impacts to habitats like wetlands. When impacts cannot be avoided, the CRM Office ensures that appropriate mitigation plans are created and implemented before permitting the development.

In light of the CRM Office's ability to manage land development within public land, CNMI will vie for CELCP funding to purchase private land in an effort to meet the Micronesia Challenge and effectively conserve 20% of each island *composed of native forest and/or natural terrestrial communities that have high biodiversity value or provide an especially high level of ecosystem services.* The purchased land will then be deeded to the (Department of Lands and Natural Resources) DLNR for management.

Figure 1. Commonwealth of the Northern Mariana Islands



Pursuant to the CNMI Constitution, the northern islands of Maug, Uracus (a/k/a Farallon de Pajaros), Asuncion, and Guguan must remain uninhabited and be used for the preservation and protection of natural resources. (Const. Art. XIV,§ 2). DLNR is responsible for the protection of these constitutionally protected islands (2 CMC 2651 (b) [Public Law 14-49]). Currently, the island of Farallon de Medinilla is the only active *live* artillery firing range in the Pacific and is used exclusively by the United States military. The islands of Agrihan, Pagan, Sarigan, and Anatahan were evacuated in 1990 due to high volcanic activity. Indigenous families have ancestral claims to the lands on these evacuated islands. However, presently only a handful of people reside on the island of Pagan, their small numbers changing with the season. Due to legal and natural restrictions to working on the nine northern most islands, the primary focus of the CNMI's CELCP Plan is the three populated southern islands of Saipan, Rota, and Tinian, and the uninhabited island of Aguiguan off Tinian's southwest coast.

b. Lands and Values to be Protected and Assessment of Need

Conservation issues include preserving wetlands and their function, water supply protection, threat of unsustainable development, public use capacity and accessibility, and ecologically significant areas. These are all issues that CRM Office is addressing in other projects, and the CELCP Plan provides an opportunity to dovetail target efforts.

Protecting wetlands and the valuable habitat they provide is very important in the CNMI.



Wetlands functions include flood reduction, water quality improvement, groundwater recharge, and habitat enrichment. Endangered species of birds, such as the Nightingale Reed Warbler (Acrocephalus luscinia) and the Mariana Common Moorhen (Gallinula chloropus), utilize wetlands habitats. Most of Saipan. Tinian, and Rota's original wetlands were destroyed over the course of the past century, making the conservation of what remains high priority (Saipan Comprehensive Wetlands, 1991).

The supply of fresh ground water for consumption is a major concern. The Saipan municipal water is not potable because of high mineral and salt content. A Governor-appointed Water Task force is working on improving water supply. Areas of the island lack municipal water and sewer, and the septic tanks from these areas pose a risk to water quality. Other sources of groundwater pollution include waste from formerly used military installments, solvents, and other chemical wastes from commercial manufacturing (Lynch, S., pers. comm., June 1, 2005). It is of the utmost importance to protect the lands that serve as aquifer recharge areas for maintaining the island's water supply.

The CNMI has coral reefs surrounding all of its major islands. These reefs are under stress from land-based non-point-source pollution. Preventing development of highly erodible land adjacent to or upland of reefs through implementation of the CNMI's

CELCP Plan will serve to decrease the sedimentation that stresses the coral reef health.

Areas on Saipan, Rota, Tinian, and potentially on the northern islands have been targeted for development. Many of these areas are along the coasts, and would be made into hotels and resorts, or military exercise ranges. Some investors and developers have already filed for permits for these types of projects. The applications remain on file with CRMO, with the possibility that the projects will resume in the future (Agulto, A., pers. comm., June 23, 2005). Depending on the economics of the CNMI, tourist markets, and the proposed relocation of military personnel from Okinawa to Guam in 2014 and increased military exercises in the CNMI thereafter, these projects could be reinstated or intensified at any time. These types of threats to the limited remaining environmentally valuable and undeveloped coastline would be minimized through acquisitions guided by the CNMI CELCP Plan.

Public access to beaches and shoreline areas is a concern. These areas are popular recreation sites with residents as well as tourists, with residents preferring less-developed beaches, while tourists remain near hotels and resorts. There is a considerable demand for beaches and shore access in areas that are less developed, including demands by the military for firing ranges and amphibious exercises.

Other ecologically significant areas are also important for protection in CNMI. These include lands that contain natural habitats with high ecological value, including native forests, lands with a high biodiversity value, and other lands capable of providing an especially high level of ecosystem services. Examples of such lands would be habitat for threatened or endangered species or other species with special conservation needs. Undisturbed, native habitats are more likely to be able to support a higher number of the species that historically make these areas their homes.

c. Priority Areas

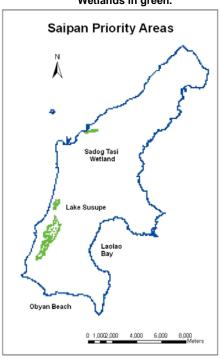
There are several areas of concern that are located on the island of Saipan and are the

highest priority for this Plan because they are under the greatest development pressure. Areas on Tinian, Aguiguan, and Rota are also included in the Plan due to their value as habitat and their location adjacent to coral reefs.

i. Saipan Priority Areas

The Lake Susupe and Sadog Tasi wetlands are the highest priority focus areas on Saipan. The Lake Susupe system includes the lake itself, surrounding wetlands, and potholes around it. It is vital habitat for two species of endangered birds, the moorhen and the nightingale reed warbler. The area is flood-prone but already has homes and commercial buildings interspersed with undeveloped private land. Lake Susupe was the site of ancient settlements. It was once connected to the lagoon, but was cut off by

Figure 3. Saipan priority areas; Wetlands in green.



gradual accretion of sand. It contains a number of valuable historic and cultural resources (Field Testing, 2005). A number of government projects in the area highlight its importance and represent opportunities for cooperation and leveraging funding. The U.S. Army Corps of Engineers began a study of the lake system in 1986 to determine the water level and its quality (Yoshimoto, M., pers.comm., June 14, 2005). The DLNR -

Division of Fish and Wildlife (DLNR – DFW) has successfully purchased certain parcels of land within the system for habitat protection and other conservation purposes. The CNMI natural resources agencies are interested in creating an educational site in the area to increase public awareness about the importance of wetlands and their myriad beneficial functions.

The Sadog Tasi wetland contains one of Saipan's few perennial streams. The streams flow through one of the only two remaining mangrove forests in the CNMI before entering the Saipan Lagoon. The surrounding beach is an archeological midden strewn with the remains of *Strombus gibberilus shells* thought to have been harvested by ancient



indigenous peoples (Starmer, J., pers. comm., April 28, 2008). The upland wetland system processes stormwater from the surrounding industrial area. Restoration of the Sadog Tasi wetland system would enhance stormwater treatment and thus improve water quality in the near shore marine environment.

The LauLau Bay watershed is the second highest priority area. This region, on the east coast of Saipan drains into a large coral reef. It contains steep upland areas with severe erosion problems. The Bay has one of the most popular dive sites on island, with considerable year-round traffic from local residents, tourists, and SCUBA dive operators. There are private lots located near the shore and the roadway that services them and the dive site is frequently in poor repair. Heavy rainfall ruts the roadway, erodes the upland area that is composed of highly erodible soil, and dumps large quantities of sediment onto the Bay's coral reef system. CRM Office is currently working



with other agencies to reduce non-point source pollution, but the presence of private land is a complicating factor. Acquisition of some of that land would assure that the area does not undergo further development that would exacerbate the problem.

The third area, Obyan Beach, is located on the southern coast of Saipan. It is a popular dive site as well as a favorite recreational beach for island residents. It is an important habitat for the threatened

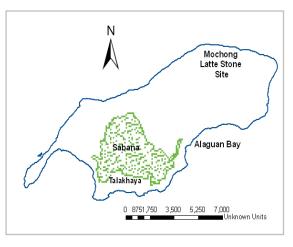
Green Sea Turtle and is a large archaeological site. Obyan contains artifacts including historical Japanese WWII installations and ancient Chamorro artifacts. The road leading to the beach parking area is a public right of way through private land. Most of these plots are currently undeveloped or are rural ranches or farms. Developers have proposed resorts in this area in the past, which raises the possibility of future threats to the undeveloped, natural condition of the beach. CRM Office recently completed an architectural and engineering design plan that will pave the existing road while preserving the natural setting of the site. Already a portion of the plan has been implemented. Vehicular traffic is no longer able to access the beach. Cars now park in a designated parking area and three sets of stairs have been built to improve pedestrian access to the beach. Blocking vehicular traffic and re-vegetating an old access road has allowed beach strand vegetation to return to a more natural state thus rehabilitating the beach as a turtle nesting site. It has also diminished the amount of erosion exposing cultural artifacts and channeling sediment onto the near shore reef flat. Completing the

implementation of the plan will further improve drainage to the area preventing run-off from further impacting the reef. Purchase of the adjacent land through the CELCP would be ideal for conservation purposes.

ii. Rota Priority Areas

In addition to the three sites on Saipan, areas on the island of Rota are prime locations for conservation due to their high habitat value and location adjacent to coral reefs. Rota is habitat for one of the top endangered species for the CNMI, the Marianas Crow. The ancient Mochong Latte Stone site located in the north of the island provides habitat for the crow and

Figure 5. Rota Priority Areas



is an important archeological site. The surrounding beach is a nesting site for endangered sea turtles. (Williams, L., pers. comm. April 28, 2008). The site's latte stones and the nearby quarry already serve as tourist attractions. Homesteading and road improvements on the northeast side of the island will likely increase use and traffic in the area.



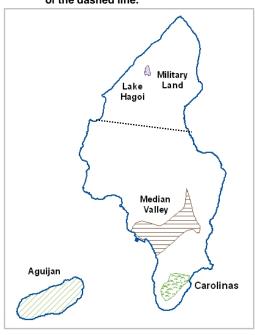
Alaguan Bay, east of the Sabana and Talakhaya Conservation areas, provides a scenic overlook comprised of 100% native forest. Several pairs of Marianas Crow are known to nest in the area. Fruit bats are also found there. The Bay is a large archeological site with several Lattee Stones. DLNR – DFW has begun communication with the land owner to discuss its possible purchase for conservation.

iii. Tinian and Aguiguan Priority Areas

There are three sensitive areas on Tinian that good candidates for conservation. especially in light of the proposed expansion of military exercises. The military's proposed actions include installation of facilities at several locations on the island and a base camp. The increase in military personnel and frequency with which they conduct exercises has the potential to significantly impact wildlife behavior and habitat in and around these activities. Creating conservation areas to mitigate any adverse impacts related to the military build-up in the federally leased land and Tinian's San Jose Harbor is of utmost importance.

One such area is Tinian's uninhabited sister island Aguijan, or Goat Island, which is vegetated with native limestone forest, "...the most important habitat for species of special conservation need throughout the archipelago.

Figure 6. Tinian Priority Areas with current military leased land delineated north of the dashed line.



Native forest birds including the Mariana Fruit Dove, Mariana Crow, Rota Bridled Whiteeye, Golden White-eye, White-throated Ground Dove and Rufous Fantail are found at their highest densities in the native forest." (Comprehensive Wildlife Strategy, 2005). The island's limestone caves are home to the endangered Mariana Swiftlets.

It is also important to note that the residents of Tinian extract their ground water from a karst aquifer in the Median valley, which is currently under agricultural use. Pollution from agricultural application of chemicals and nearby animal production facilities is a potential hazard to the island's source of water supply.

Another area is the Carolinas in southern Tinian which is under threat of homestead development. It is a scenic coastal area and currently includes some agricultural plots.

d. Other Relevant Plans

In 2005, DLNR-DFW completed the "Comprehensive Wildlife Conservation Strategy" plan. This plan addresses habitat needs of critical and endangered species in the CNMI and was used in creating the CELCP Plan.

While this CELCP Plan is not based on any existing land use plans for the CNMI, DPL and the Saipan Zoning Board are in the process of developing such plans. CRM Office will ensure that the CELCP Plan is compatible with other government agencies' planned uses and maintain a strong working relationship between the agencies.

III. Process for implementing the CELCP

a. State Lead Agency

In 2003, the CRM Office introduced the CELCP to the CNMI Watershed Working Group. The Group is comprised of community stakeholders and representatives from Saipan, Tinian, and Rotas' Natural Resources Conservation Service (NRCS), DPL, CRM Office, and the other collaborating CRM Program Agencies (DLNR, Department of Commerce, Public Works, DEQ, Historical Preservation Office (HPO), and the Commonwealth Utilities Corporation). The Watershed Working Group was formed by the Secretary of DLNR in 1995 to provide technical assistance to government agencies participating in creating policy on a watershed scale.

The Watershed Working Group has remained a viable task oriented coalition since its inception. The Group completed the "CNMI Unified Watershed Assessment" in 1998 which prioritized the CNMI's watersheds for restoration, developed a Watershed Restoration Action Strategy in 1999, and continues to produce regular water quality assessment 305(b) reports. The Watershed Restoration Action Strategy allowed the CNMI to vie for federal funding in 1999 to begin restoring prioritized watersheds. The Working Group coordinated the 2003 CNMI Local Action Strategy planning session, and has been instrumental in bringing stakeholder agencies together this past year to begin assessing current conservation efforts across the archipelago to begin planning towards meet the Micronesia Challenge by 2020. The group has been successful not only in identifying funding to implement watershed-based strategic plans, but also leverages inter-agency funding in cooperation with regional and federal partners.

The CRM Office, as a member of the Watershed Working Group and the local government's appointed Coastal Zone Management coordinating agency, compiled public and agency input in 2005 to draft the CNMI CELCP Plan. CRM Office as the agency statutorily authorized to receive federal funding to carry out coastal resources management programs and to pursue agreements for the acquisition or use of land, will act as the lead agency responsible for writing proposals for CELCP funding in collaboration with the Watershed Working Group. CRM Office will manage financial awards from the CELCP, allocate funds to DLNR – DFW for land acquisition, and be responsible for communicating the Plans progress with NOAA.

b. Agencies Eligible to Acquire Land under the Plan

The CRM Office, as the CNMI CELCP lead agency, will manage the receipt of awarded CELCP funds and their allocation to DLNR – DFW for land acquisition as agreed through discourse with the Watershed Working Group.

DLNR – DFW is statutorily authorized to acquire land, or easements thereon, and hold title to the land for environmental conservation purposes. DLNR - DFW has experience purchasing private land and managing it for conservation purposes. Deeds will be written by DLNR - DFW natural resource managers in consultation with their legal counsel to ensure that all conservation restrictions run with the land and cannot be altered or amended in any fashion. DLNR - DFW will be responsible for demonstrating how these restrictions will be enforced in perpetuity.

c. The Nomination Process

As the lead CELCP agency, CRM Office will coordinate the nomination process by calling together the Watershed Working Group to propose specific parcels of private land for acquisition. DLNR – DFW will hold title to the land for environmental conservation purposes using the approved CELCP Plan criteria to rank each proposed parcel (see VII. Appendix: Proposal Ranking Criteria, page 15).

CRM Office will verify the eligibility of the selected parcels under the NOAA guidelines before drafting a CELCP funding proposal to the Governor for final approval. The Governor's Office will submit the completed proposal to NOAA for consideration.

IV. Coordination and Public Involvement

a. Interagency Coordination

In 2003, the CRM Office introduced the CELCP to the CNMI Watershed Working Group and discussed land areas that had a high biodiversity, provided a high level of ecosystem services, or that had a natural beauty under threat from development and would be beneficial to the CNMI to place in conservation. This initial brainstorming was followed by several Working Group discussions about logistical and legal issues to determine the best means for the government to hold title and manage land for conservation purposes. It was clear that DLNR – DFW already had the mandate and jurisdiction to hold title to land acquired from private owners. The agency also has statutory authority to promulgate regulation to manage the natural resources therein for conservation purposes.

Following this initial phase of the planning process, CRM Office held individual meetings with the Secretary of DLNR, Director of DFW, and DPL representatives to finalize the framework for implementing the CELCP in the CNMI. It was important to involve DPL in the beginning planning stages as this agency holds a significant proportion of land in the CNMI and the purchase of private land adjacent to public land not considered appropriate for development would allow for large contiguous spaces in conservation. DLNR — DFW, as the proposed land-holding agency, was also critical to the development of implementation guidelines. The CRM NOAA Fellow, Hilary Stevens, worked with DLNR - DFW staff while they were writing a Comprehensive Wildlife Habitat Conservation Strategy to ensure that the CNMI CELCP Plan would support their plan.

b. Public Involvement

The next step was to gather input from the general public and private sectors on which areas of land the community felt should be considered for acquisition and conservation purposes. CRM Office published articles in the local papers discussing the purpose of the CELCP and announced the schedule for public meetings on the islands of Saipan and Rota. The public meetings took place over several months in 2004. Over 40 representatives from local (the Legislature, DLNR - DFW, HPO, CRM Office, Mayors' Offices) and federal government (US Army Corps of Engineers, NOAA, and NRCS), coalitions (Tanapag Action Group), non-government organizations (Marianas

Resources Conservation and Development Council, Team Responsible for Environmental Enhancement of Saipan), and other stakeholders (indigenous fishers, Freedom Airlines) provided input. Participants shared information about existing land use plans, natural resources data, and local knowledge; together identifying several areas with natural resources in need of protection. CRM Office compared this list to the initial list created by the Watershed Working Group in 2003 to compile a priority list of natural resources and specific locations on each island that would warrant protection under the CELCP. The revised list was shared with the Watershed Working Group and was finalized in early 2005 along with the criteria for ranking the merit of proposed areas.

Hilary Stevens used this information to draft a CNMI CELCP Plan, with a significant amount of involvement by other DPL and DLNR representatives. The draft CELCP Plan was circulated for comments; from those and other government agencies. No specific remarks were received regarding the final version.

To elicit additional public opinion about the draft CELCP Plan, CRM Office announced its availability in local newspapers, and on the CRM website. Electronic copies of the draft CELCP Plan could be downloaded from the CRM website and hard copies were disseminated at CRM Offices on Saipan, Tinian, and Rota. Public meetings for comments were conducted from February through October, 2005, by two CRM staff members on each of the three main islands. Attendance was minimal but comments were collected from those in attendance. Additionally, one phone call regarding the plan resulted in written comments submitted by an individual. All comments were considered before completion of the CNMI CELCP Plan in December 2005 and are on file at the CRM Office on Saipan.

In January 2006, the CNMI held Government Elections and the honorable Governor Benigno Fitial was inaugurated. New cabinet members were appointed including the Secretary of DLNR, Director of DLNR – DFW, and Director of CRM. At about this same time, NOAA OCRM submitted additional comments on the Plan. Further work was delayed until May 2008. The new CRM Director, and the Natural Resources Planner who had attended pertinent Watershed Working Group and public meetings, reviewed NOAA's comments with CRM and DLNR –DFW staff.

Since 2006, some land acquisitions have been made by DLNR – DFW on Rota and recently proposed developments associated with the pending military build-up required the Plan's revision to this final version that has been reviewed and approved by the Watershed Working Group and the Governor (see V. Certification and Approval, pg. 13).

V. Certification and Approval



COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Benigno R. Fitial Governor Timothy P. Villagomez
Lieutenant Governor

July 15, 2008

William Millhouser Program Manager NOAA/OCRM SSMC-4, N/ORM-3; Stat.11137 1305 Fast-West Highway Silver Spring, MD 20190

Re: Coastal and Estuarine Land Conservation Plan

Dear Mr. Millhouser;

We are pleased to submit for your approval the Coastal and Estuarine Land Conservation Plan for the Commonwealth of the Northern Mariana Islands (CNMI). Participation in the Coastal and Estuarine Land Conservation Program provides a fresh opportunity for the CNMI to reach its goal of effective conservation and, by 2020, the goals of the Micronesia Challenge.

The Coastal Resources Management Office coordinated with other public and private agencies to produce this plan in order to ensure that the plan and its effects ensue from a wide-based cooperative effort. Jointly identified under the requirements of the program, the two land areas of historic Lake Susupe and LauLau Bay are locations emphasized particularly for conservation.

We respectfully request your positive consideration of the enclosed plan. Should you have any questions, please feel free to contact either the CRM director, John B. Joyner, Ph.D., or the project lead, Kathy Yuknavage ~kathy.yuknavage@crm.gov.mp~.

BENIONO R. FITIAI

Governor

jbj/BRF

ce: John B. Joyner, Ph.D., Director, CRM Office Kathy Chaston, Coral and Coastal Management Specialist, NOAA/PSC Roxanne Thomas, CELCP, NOAA/NOS/OCRM

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VII. Appendix: Proposal Ranking Criteria

Each proposal is rated on a scale of 1-5 for each category. Those scores are then multiplied by a factor based on the relative important of that value. Final scores are out of total possible 100.

Criterium	Point Value 1-5 5 = high	Weight	Final Value
i.e. endangered/threatened species habitat, conservation corridor, wetland, provides important hydrological function, aquifer recharge area for water supply, highly erodible soil upland to near shore ecosystems,		5	
Conservation Value i.e. potential for restoration, absence/presence of contamination, compatible existing use		5	
Recreational Value i.e. suitable for passive recreation, availability for public access		3	
Threat of Conversion i.e. market availability, infrastructure, imminence of development		3	
Aesthetic Value i.e. attractions such as overlooks, general appeal		2	
Historical/Cultural i.e. significant site, federal designation		2	