

PROPOSED GUAM SEASHORE RESERVE BOUNDARY BILL NO. 68

Prepared by: Guam Coastal Management Program

Dated: January 1979

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Guam Coastal Management Program
Bureau of Planning
Agana, Guam

JANUARY, 1979

Introduction

The value of Guam's shoreline resources is immeasurable. They play a major role in the evolution of our cultural lifestyle, economically important tourist industry, sea transportation and transshipment, fisheries development, recreation, as scenic wildlife habitats and as a potential source of energy. For these reasons, it is imperative that the seashore be responsibly managed. On a relatively small island, the seashore is of paramount importance, even more critical toward social, economic and environmental stability than in larger continental ecosystems.

Yet, despite its importance to present and future generations, competing and sometimes conflicting uses threaten Guam's land and water interface. An overall management approach for shoreline areas must be developed, implemented, and periodically updated, so that the seashore can more effectively accommodate the recreational and developmental needs of Guam's communities. Recognizing the importance of Guam's shore areas, several policies regarding their role in the Territory's development have been adopted. In passing the Guam Territorial Seashore Protection Act (P.L. 12-108) in 1974, the 12th Guam Legislature declared the following:

"The people of the territory of Guam hereby find and declare that the Guam Territorial Seashore Reserve is a distinct and valuable natural resource belonging to all the people of Guam and existing as a delicately balanced ecosystem; that the permanent protection of the natural, scenic, and historical resources of the seashore reserve is a paramount concern to the present and future residents of this island; that in order to promote the public safety, health, and welfare, and to protect public and private property, wildlife, marinelife, and other ocean resources, and the natural environment, it is necessary to preserve the ecological balance of the seashore reserve and prevent its deterioration and destruction; that it is the policy of this territory to preserve and protect the resources of the seashore reserve for the enjoyment of the current and succeeding generations . . ." GCG, Section 13411.

Consistent with these findings, the following policy has been developed by Guam's Coastal Management Program, embodied in the Territory's Comprehensive Development Plan and issued by the Governor through Executive Order 78-37:

Only those uses shall be located within the Seashore Reserve which: (1) enhance, are compatible with or do not generally detract from the surrounding coastal area's aesthetic and environmental quality and beach accessibility; or (2) can demonstrate dependence on such a location and the lack of feasible alternative sites.

The current 10-meter Seashore Reserve Boundary is inadequate to meet the stated purpose of the Seashore Protection Act, is inconsistent with both the above legislative and executive policies and precludes preparation of a Seashore Reserve Plan as mandated in the Act. Currently, virtually all shoreline areas except the thin strips of sandy beach, are excluded from the Act's jurisdiction. It is within those areas inland from, and adjoining, our beaches and reefs that are in greatest need of attention.

The beach areas themselves are declared to be a public resource and to be managed as such under legislative policy established through the Territorial Beach Areas Act (P.L. 12-209):

"The Legislature of Guam hereby declares as the public policy of the territory of Guam that it is the public right to have unrestricted access to the ocean shores of Guam for common use by all the people of Guam, and therefore that strip of public land above the high mean watermark must be preserved and protected for all generations to assure free access to the beaches of the territory to the maximum extent, to preserve the natural beauty of Guam's beaches, and to alleviate the health problems caused by construction near tidal areas. It is, therefore, the purpose of this Chapter to forever preserve and maintain the sovereignty of the territory heretofore legally existing over ocean shore of the territory so that the public may have the free and uninterupted use thereof; to protect, settle and confirm the public rights to the use of the ocean shore heretofore acquired by public dedication, prescription, or otherwise and to authorize the reacquisition of the ocean shore where a portion thereof has been lost to private ownership and no public rights exist therein as a result of dedication, prescription, or otherwise." GCG, Section 1.7.1.

Redefinition of the Seashore Reserve Boundary to include those areas as proposed the Bureau of Planning's maps would help assure that Guam's shore areas are indeed, protected and developed in the best interests of the public and future generations.

Legislative Background

On March 11, 1974, the 12th Guam Legislature enacted the Guam Territorial Seashore Protection Act (P.L. 12-108) with the basic intent of protecting the natural, scenic and historic resources within the Seashore Reserve. The Act requires permits to be issued by the Territorial Seashore Protection Commission for development occurring within the Seashore Reserve, then defined as:

"that land and water area of the Territory of Guam extending seaward to the ten fathom contour, including all islands within the territory's jurisdiction, and extending inland from the mean high water line for a distance on a horizontal plane of one hundred meters."

At a time when inventories of coastal resources, knowledge of various planning approaches and assessments of impacts of shoreline development were minimal, the establishment of a 100 meter inland boundary seemed a reasonable approach. The advent of Typhoon Pamela in May of 1976 brought forth the shortcomings of an arbitrary 100 meter designation. Circumventing the original intent of the Act, P.L. 13-154 was enacted July 7, 1976, reducing the inland boundary to a mere 10 meters, accommodating a temporary need for post-typhoon reconstruction.

In light of a more expansive data base regarding shoreline resources and recognition of the increasing pressures affecting the seashore, it has become evident that an arbitrary inland boundary designation is inconsistent with the complexity of developmental and environmental factors that characterizes Guam's shoreline areas. Post-typhoon Pamela reconstruction along the shoreline has virtually ceased, no longer necessitating abolition of the Seashore Protection Permit process. Therefore,

Bill No. 68 has been proposed to the 15th Guam Legislature, amending the definition of the Seashore Reserve to include:

"that land and water area of Guam extending seaward to the ten fathom contour, including all offshore islands within the Government's jurisdiction in their entirety and extending inland to such boundaries as are delineated on the official Seashore Reserve Map."

The Planning Approach

The following description of the Guam Seashore Reserve Boundary explains the rationale for adoption of the official Seashore Reserve Map and discusses those factors to be considered in developing within the proposed boundary area. As evidenced on the Seashore Reserve Map, the basic approach in delineation of the inland boundary is a determination of the actual extent of shoreline-associated resources, existing uses and projected development. Due to both the geological and ecological nature of Guam, as well as historical development patterns, the delineation of the inland boundary should conform to actual features and uses of the land, rather than an arbitrary boundary. Primary input into the proposed boundary delineation involved site inspections, technical studies, surveys of aerial ortho-photos, and public and advisory group review. Federal lands are excluded from the boundary delineation due to the insular management of these properties by federal agencies. At such a time as federal lands are acquired by the Government of Guam or private land-owners, such areas will be added to the official Seashore Reserve Map. The existing seaward boundary, to a ten fathom contour (60 ft. depth), remains unchanged.

Figure 1 depicts the site numbering system utilized for the following descriptions of individual shoreline areas. The sites were primarily divided by geographic characteristics for purposes of analysis and discussion only. These site distinctions are not enforcement boundaries nor preclude the fact that current uses or potential impacts may not necessarily be confined within a single site. For analysis and description of various sites within the Seashore Reserve, the following factors

are addressed, depending upon the geographic location and characteristics of the sites:

- A. Geological Features
- B. Plant Community Structures
- C. Wildlife Habitat
- D. Scenic Quality
- E. Historic and Prehistoric Sites
- F. Recreational Use and Public Access
- G. Suitability for Special Use
- H. Problem Areas or Non-Conforming Uses

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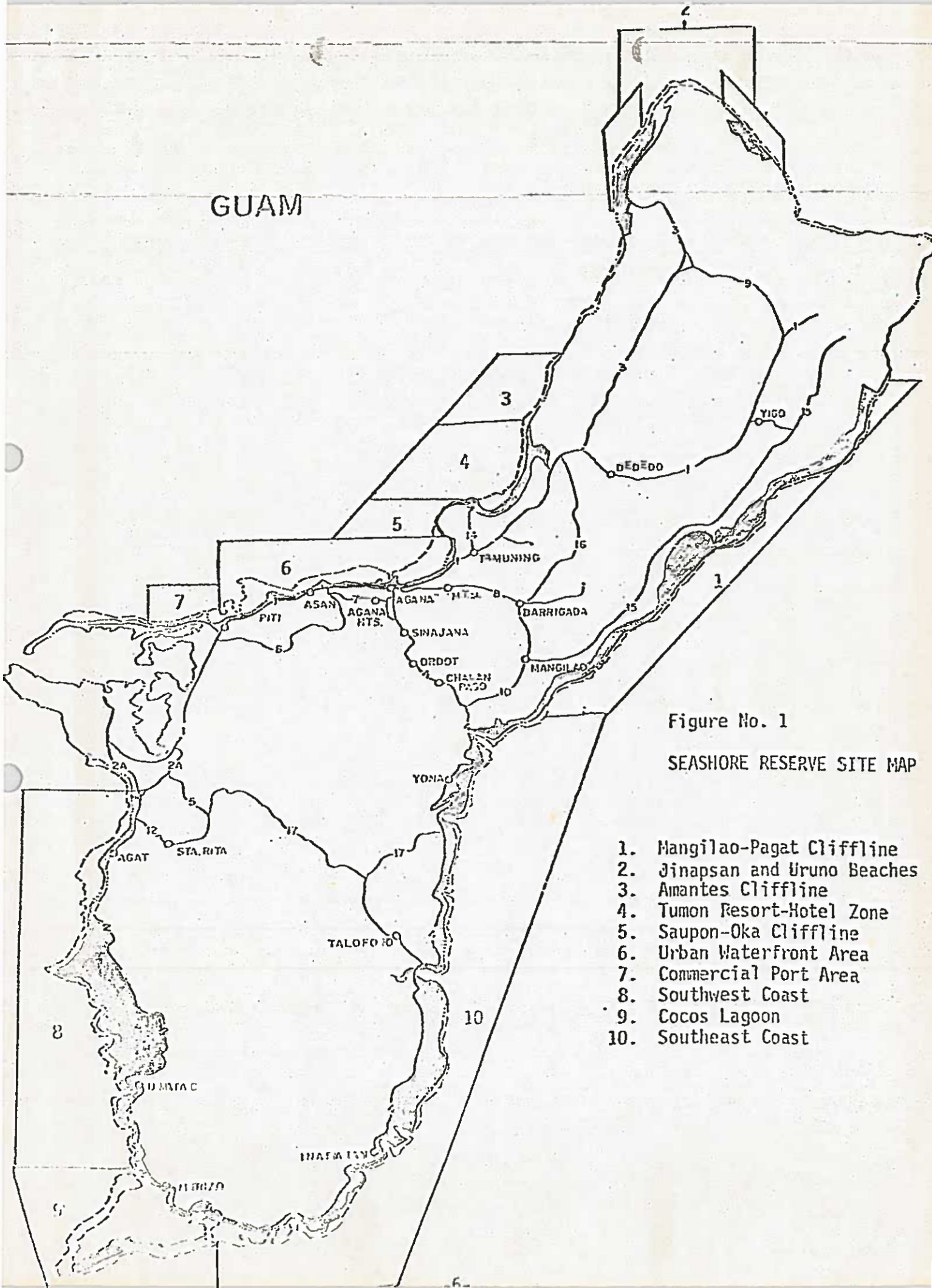


Figure No. 1

SEASHORE RESERVE SITE MAP

1. Mangilao-Pagat Cliffline
2. Jinapsan and Uruno Beaches
3. Amantes Cliffline
4. Tumon Resort-Hotel Zone
5. Saupon-Oka Cliffline
6. Urban Waterfront Area
7. Commercial Port Area
8. Southwest Coast
9. Cocos Lagoon
10. Southeast Coast

Site No. 1: Mangilao-Pagat Cliffline

Boundaries: Site No. 1 extends from the northern limit of Pago Bay or the U.O.G. Marine Laboratory complex to Anao Pt. or the southeast boundary of Andersen Air Force Base in the community of Yigo. The inland boundary of this sector of Seashore Reserve is primarily established by a distinct cliffline which generally defines the limits of naturally forested terrain.

Geologic Features: The area is comprised of elevated limestone terraces extending inland and rising sharply from a sea level cut bench or algal nips at the water's edge. The submarine topography is characterized by a minimal reef front (no reef flat) descending into steep submarine terraces.

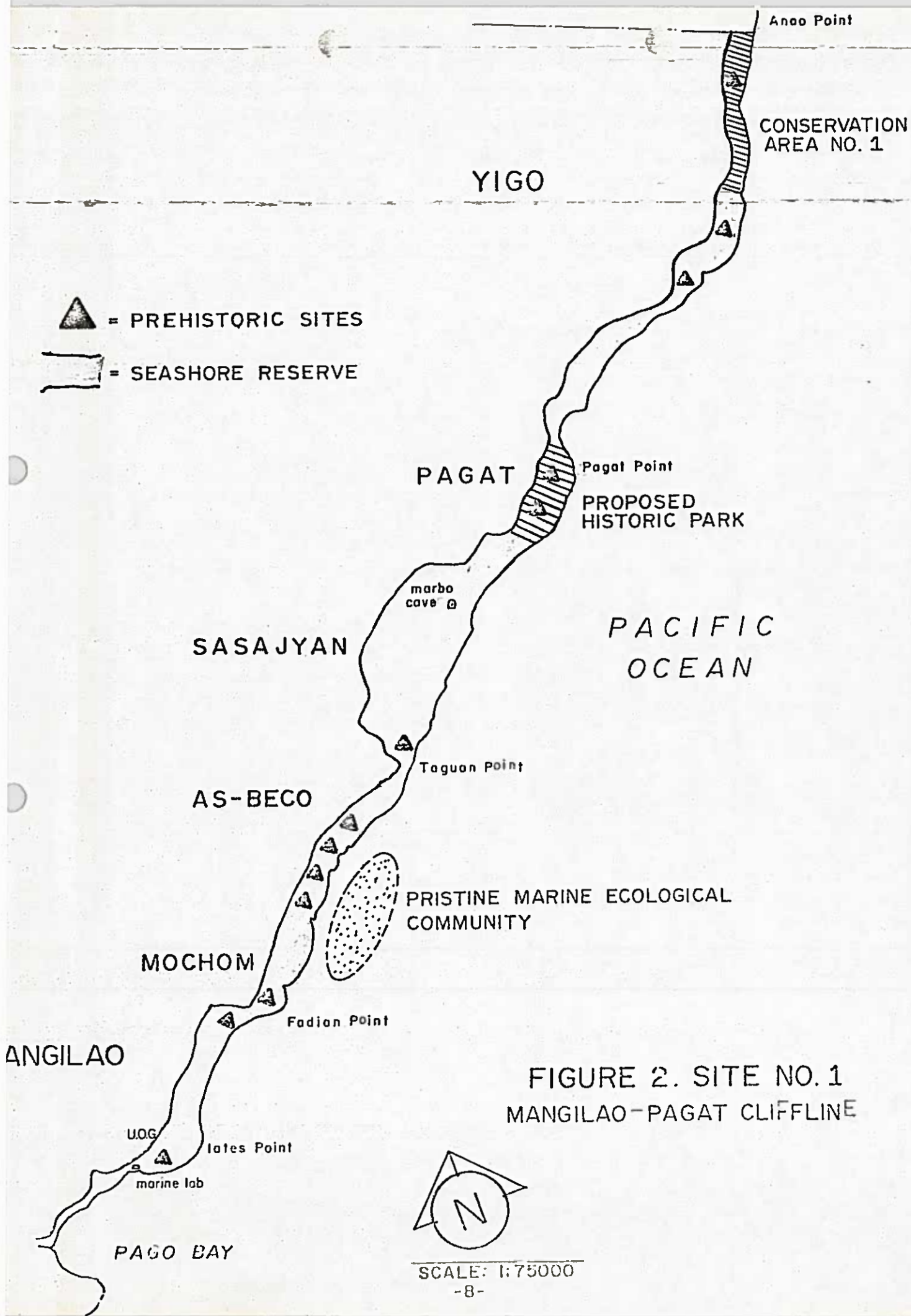
Plant Community Structure: A lack of soils or beaches within this sector minimize the extent of coastal strand vegetation which is limited to a narrow band of several highly salt-tolerant species growing from bare limestone. The northeast coast is the most windward shoreline area of Guam and received the strongest wind and wave action. The thin coastal strand merges into a diversified limestone forest characterized by medium-sized trees and numerous vines sheltering an herbaceous ground cover.

Wildlife Habitat: This area represents the bulk of the remaining limestone forest on Guam and as such constitutes a major critical habitat for the maintenance of endangered and threatened species of plant and animal life. It is the habitat for numerous birds, the Marianas Deer, coconut crabs and provides the primary land area required for reestablishment of nearly extinct species such as the Marianas fruit bat. The northernmost portion of this sector is reserved as Government Conservation Area No. 1. The offshore area between Fadian and Taguan Points has been studied as a candidate for designation as a pristine ecological community or unique marine ecosystem (see Figure No. 2).

Prehistoric Sites: This area contains numerous prehistoric sites with latte complexes present at Mochom and Pagat. The Pagat site is proposed as a historic park for interpretive display of early Chamorro culture in conjunction with wildlife preservation in this portion of the limestone forest. Prehistoric sites within the Seashore Reserve, described and mapped in the Guam Historic Preservation Plan, are:

<u>Site</u>	<u>Number</u>	<u>Ownership</u>	<u>Value</u>
Fadian	0026	Private	Reserve
N. Fadian Pt.	0033	Private	Marginal
Huchanao	0032	Private	Marginal
N. Huchanao	0031	Private	Marginal
S. Mochom	0030	Private	Reserve
Mochom	0025	Private	High Value
Taguan Pt.	0029	Private	Marginal
Pagat	0022	GovGuam	Valuable
Pagat Pt.	0021	GovGuam	Marginal
Lujuna	0020	GovGuam	Reserve
Jugum	0019	GovGuam	Reserve
Anao	0018	GovGuam	Reserve

Location: The northeast coast represents a primary location for passive recreation and regulated hunting in some areas. The U.O.G. Marine Lab complex can be developed as a recreational/educational use area. The Harbo



Cave area should be developed as a recreational park, as well as the Pagat historical sites. There are no developed recreational areas to date due to the steepness of the terrain which discourages vehicular access. Public access is restricted through some private lands and land leased for ranch activity. However, this is not a major problem due to the fact that non-intensive use of this portion of the Seashore Reserve is desirable. The primary recreational use should be nature observation and the highest use of the land is open space wildlife refuge.

Site No. 2: Jinapsan and Uruno Beaches

Boundaries: Jinapsan and Uruno Beaches and associated limestone forest are privately-owned parcels of shoreline property, completely bounded by military reservations. Jinapsan Beach is situated between Ritidian Pt. and Taraque Beach along the north coast. Uruno lies roughly between Achao and Uruno Pts. along the northwest coast, south of Ritidian Pt. (see Fig. No. 2). The Jinapsan area is 53 hectares in size. Uruno Beach is 3,300 meters in length with a land area of approximately 145 hectares.

Geologic Features: Both areas are comprised of similar topography. The shoreline is characterized by wide sandy beach, occasionally interrupted by low limestone outcroppings. The terrain rises inland into raised limestone terraces and steep escarpments. Seaward, the reef flat varies from 50-160 meters in width toward the reef margin which drops to submarine terraces.

Wildlife Habitat: In both areas, a well-developed coastal strand constitutes a major zone of vegetation with a well-defined interzone of mixed vegetation growing in shioya (beach-formed) soil. Inland, the limestone forest dominates over the stepped terraces and steep escarpments. Due to restricted public access, these areas represent some of the most untouched natural coastal strand and limestone forest habitat on the island. A host of endangered and threatened plant and animal species are present in both areas. The Jinapsan area has been identified as a primary roosting and feeding area for the endangered Marianas fruit bat.

Prehistoric Sites: Both Jinapsan and Uruno are the locations of prehistoric Chamorro villages with numerous rock shelters, middens and latte stone complexes. The extent of midden and latte structures at Uruno give the area a high value for archaeological investigation and preservation. Sites include:

Jinapsan	0014	Private	Valuable
Uruno Beach	0011	Private	Valuable
Uruno Site	0010	Private	High Value
Falcon Beach	0009	Private	Reserve

Recreation and Public Access: Uruno and Jinapsan possess scenic, white sandy beaches which are highly suitable for passive recreation which does not adversely impact upon the pristine character of the limestone forest habitat. The pristine character of these areas is primarily due to the

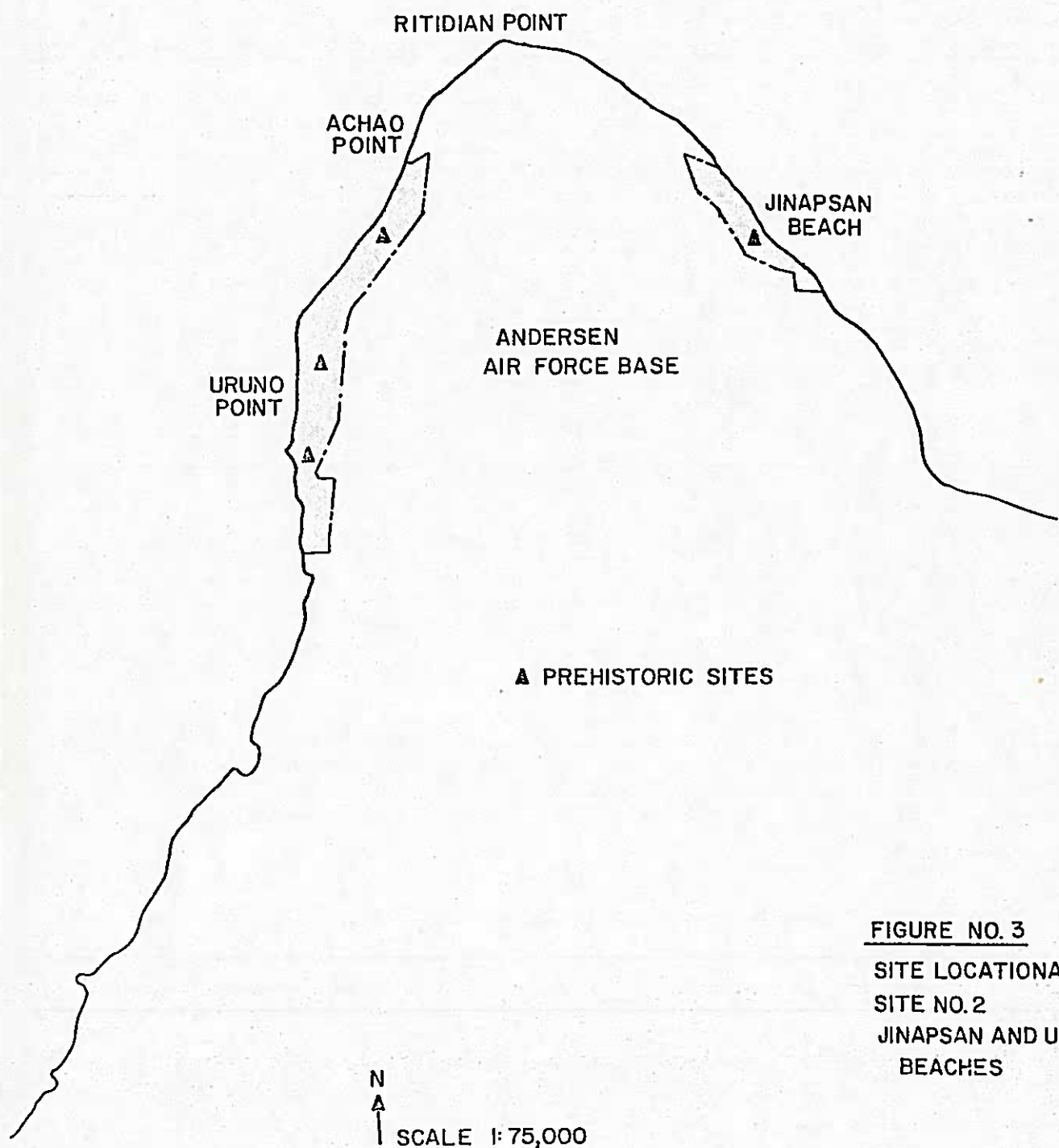


FIGURE NO. 3

SITE LOCATIONAL MAP
SITE NO. 2
JINAPSAN AND URUNO
BEACHES

absence of vehicular access and public access being highly restricted by military security requirements. An environmental impact assessment has been prepared in an effort to gain public access to Uruno in conjunction with a proposal to develop a resort-hotel complex in the area. Such a development would destroy the natural character of the seashore and further bring wildlife populations toward critically low numbers. Both Jinapsan and Uruno are also proposed for acquisition under the military's plans for land release and acquisition. Military acquisition would maintain restricted public access. Optimally, the lands should be managed as Government of Guam Conservation Areas, territorial parks or national parks with public access for beach recreation, wildlife observation and educational appreciation of the prehistoric sites. If acquired by the military, they should be retained as critical habitat and forest reserve.

Site No. 3: Amantes Cliffline

Boundaries: Site No. 3 extends from Tanguisson (south of NCS Beach) at its northern point to Fafai Beach (Gun Beach) at the southern extreme or the northern boundary of the Tumon resort-hotel zone. The inland boundary follows the military property line of the Harmon Annex of Andersen Air Force Base.

Geologic Features: The sandy beaches at Tanguisson and Fafai Beach bracket a rocky coastline of elevated limestone terraces and steep cliffs, the most notable being a sheer cliff face at Puntan dos Amantes or Two Lover's Leap. A deep solution pit atop Amantes Pt. represents an area of Karst topography in this sector. A well-developed reef flat extends seaward to a reef front of diversified marine life, dissected by numerous surge channels or sand cuts.

Wildlife Habitat: The sandy beach areas at Tanguisson and Fafai Beaches contain a well-developed coastal strand plant community dominated by coconut palms and other large trees. The cliff faces of the rocky portions of the Seashore Reserve are also classified as coastal strand vegetation which appears as low-growing sparse shrubs due to the absence of soil on the steep rock face. The cliff areas are primarily a nesting site for various species of shore birds and thus represent an area of critical habitat.

Prehistoric Site: Located at Fafai Beach is a prehistoric site complex of Tatte structures, extensive archaeological midden and caves. It is also the site of a Spanish Period coastal village:

Fafai Beach

0002

Private

Valuable

Recreation: Fafai Beach is highly suitable for recreational use; however, public access is restricted by private ownership. The Tanguisson area is dominated by power plant operations; however, NCS Beach, north of the site, is available for public use. The terrain of the rocky coastline prohibits recreational use and access to the shoreline and constitutes the scenic vista enjoyed from the Two Lover's Point overlook. Fishing and other forms of marine recreation are occasional activities offshore.

Social Uses and Problem Area: The Tanguisson Power Plant, as a major facility required for production of energy, will continue to operate; however, efforts are needed to reduce the degree of thermal discharge onto the reef flat to allow for the eventual reestablishment of wildlife within the kill zone that presently exists.

Site No. 4: Tumon Resort-Hotel Zone

Boundaries: The Tumon area extends from Fafai Beach to Ypao Pt. The inland boundary is San Vitores Rd., the major transportation route through the resort-hotel zone.

Geologic Features: The shoreline of Tumon Bay is comprised of contiguous sandy beaches, interrupted by a limestone outcropping at Fafai Beach. Ypao Pt. rises into a limestone cliff. The land area is relatively level all the way to San Vitores Rd. which borders a higher limestone terrace. Most of the land area has been developed, graded at one time or landscaped such that natural plant communities and the presence of terrestrial wildlife is minimal. There is some coastal strand vegetation on vacant property between hotel sites. The broad reef flat is shallow and silted-in, such that marine life is extremely limited except on the offshore reef margin.

Historic Sites: Land development has disturbed most of the middens associated with prehistoric village sites. One historic site, the Padre San Vitores Monument is listed on the Guam Register of Historic Places:

Padre San Vitores	1007	Private	Valuable
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Recreation and Public Access: The Tumon Bay area is well-developed for outdoor recreation with unrestricted access through many areas. A public park at Ypao Beach provides for recreational needs and access to beaches.

Residential and Commercial Use: Residential homes and apartments occupy some lands with hotel and related commercial uses dominating the landscape. Tourist-oriented commercial uses are increasing with some problems associated with illegal signs and a market approach directed solely at tourists rather than to both tourists and island residents. Recently constructed commercial businesses, oriented almost exclusively to the Japanese tourist trade, have not developed the attractive landscaping and building plans characteristic of earlier Tumon Bay development. An overall plan for the Tumon Bay area, in addition to increased adherence to the Resort-Hotel Zone Rules and Regulations, is needed and being investigated by the Government of Guam.

Site No. 5: Saupon-Oka Cliffline

Boundaries: This area extends from Ypao Pt. to Saupon Pt. with Oka Point representing the midpoint within this sector. The inland boundary extends to the 100 ft. contour or the top of the cliffline where the Jonestown residential subdivision begins.

Site Features: This sector consists of limestone cliffs, sea-level cut benches and a narrow reef flat. The shoreline is all rocky coastline except for a small patch of beach at the base of steep slopes on the extreme northern and southern ends of the site. The cliff faces are dominated by coastal strand vegetation and represent a limited habitat for wildlife. The degree of slope prohibits most types of development and public access.

Site No. 6: Urban Waterfront Area

Boundaries: This sector extends from Alupang Cove at the northern extreme to Cabras Island at the southern extreme. It includes highly developed beach front in Agana, Anigua, Asan and Piti. It also includes Alupang Island and Camel Rock Islet. The inland boundary is established by a beach access road along Dungca's Beach (Sleepy Lagoon), Serena Avenue and Marine Drive.

of natural siltation
Geographic Features: This section of coastline is mostly sandy beaches with the exception of rocky coastline and low limestone cliffs at Adelup and Asan Points. Most inland properties have been graded level. The Paseo de Susana is manmade peninsula. The reef flat varies in width with the widest expanses within Agana Bay and Piti Bay. Piti Bay is highly silted by upland development. Other than the reef front and small areas of coastline in Asan and Adelup Pt., there is no natural habitat left within this sector (see Fig. 4).

Historic Sites: The historic sites within this portion of the Seashore Reserve are all within established park areas. They include:

U.S. Naval Cemetery	1035	Federal	Marginal
Cormoran Monument	1039	Federal	Marginal
Mabini Monument	1040	Federal	Marginal
Asan Invasion Beach	1055	Private/GovGuam	Valuable
Asan Invasion Marker	1091	GovGuam	Valuable

One unit of the War in the Pacific National Historic Park is located within this sector of the Seashore Reserve (see Fig. 5). This park area is being planned by the National Park Service for recreational use and interpretive appreciation of the Battle for Guam.

Recreational Use: Portions of the beach front along Agana and Piti Bays, including the small Padre Palomo Park and Asan Invasion Beach Marker, are maintained as open space by the Government of Guam and actively used by the public for outdoor recreation. The Paseo de Susana and Agana Marina is a major center for outdoor recreation and organized sports. A ballfield is located at Adelup Elementary School and a community recreational center is located in Piti. Many potential recreational areas, scenic vistas and public access are restricted by intensive shoreline development.

Urban Development: The majority of the shoreline within this sector is blighted by random development of commercial enterprise and residential uses which are not shoreline-related or shoreline dependent and contribute to a complexity of problems associated with:

- . Water Pollution
- . Insufficient Parking
- . Sign Violations
- . Substandard Buildings
- . Obstruction of Scenic Vistas
- . Open Storage of Scrap Materials
- . Restricted Public Access
- . Limited Recreational Space
- . Insufficient Landscaping
- . Lack of Architectural Design

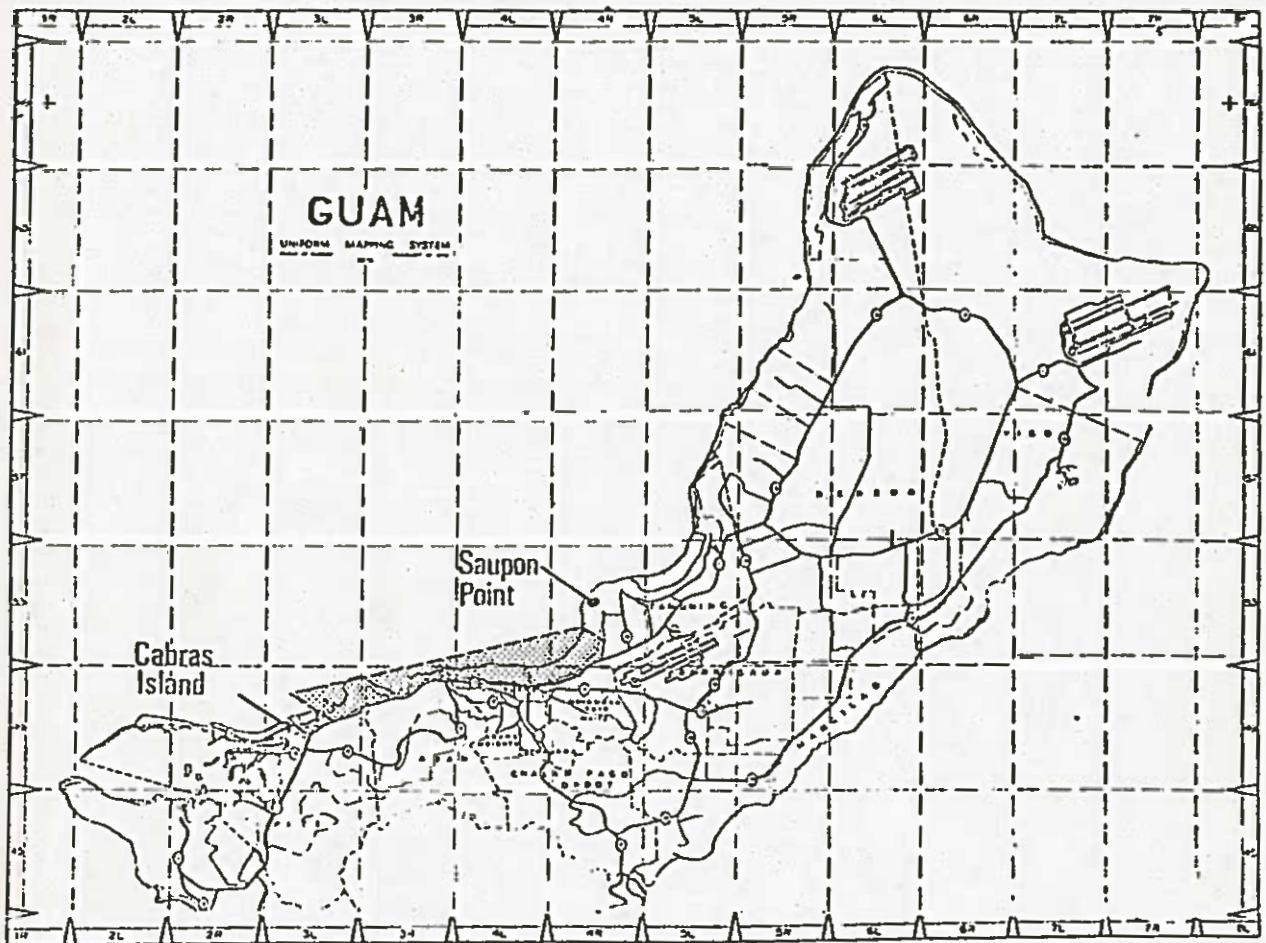
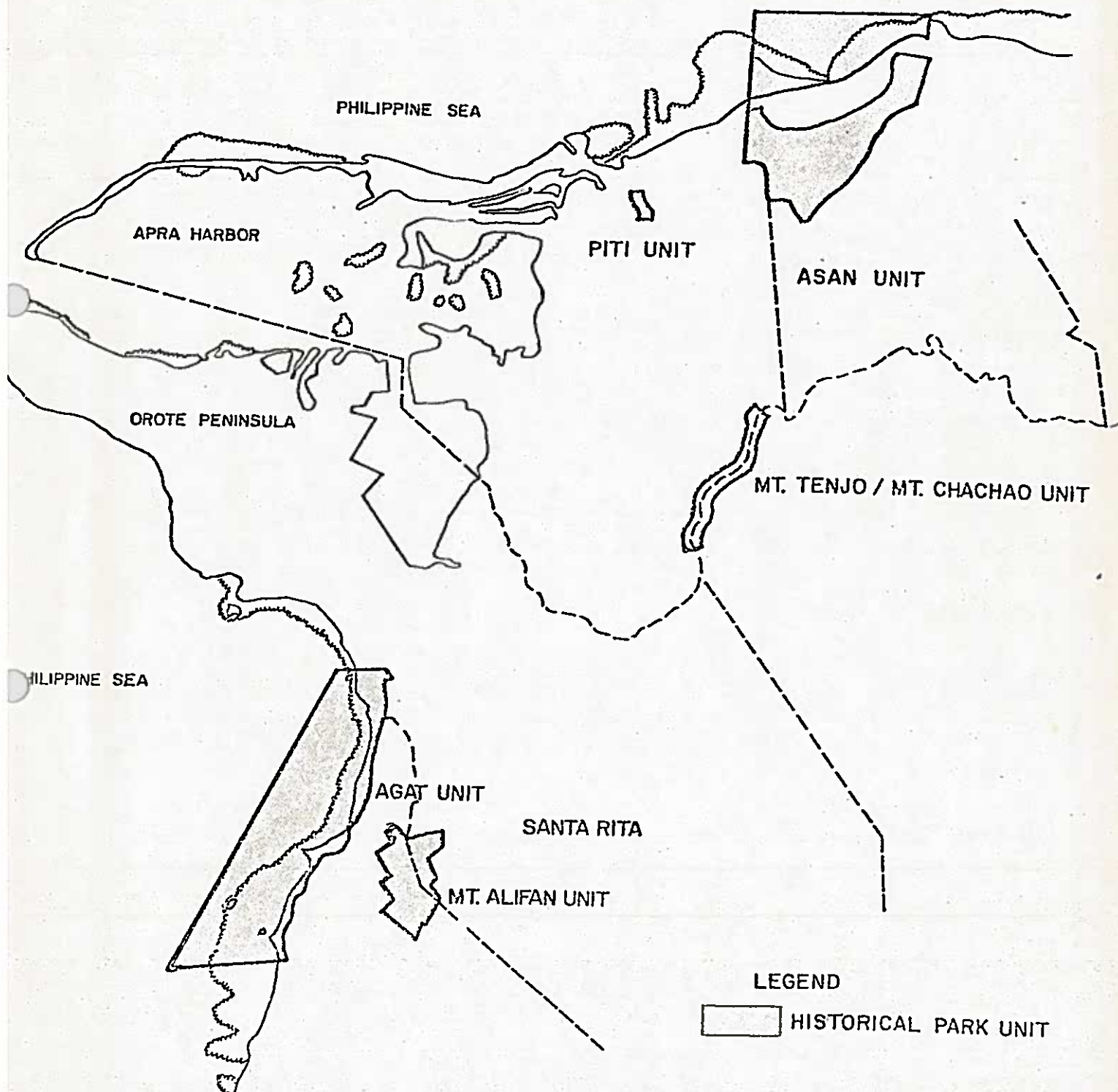


Figure No. 4 Urban Waterfront Area

WAR IN THE PACIFIC NATIONAL HISTORICAL PARK



This portion of Guam's shoreline has the potential to become a scenic, recreational and economic asset. The Asan Community Redevelopment Project will relocate some incompatible uses of the shoreline within Asan.

The concentrations of urban blight in Agaña, Aniqua and portions of Tamuning still require major urban renewal and relocation of non-shoreline-related uses. A plan for this area is currently being developed by the Bureau of Planning.

Site No. 7: Commercial Port Area

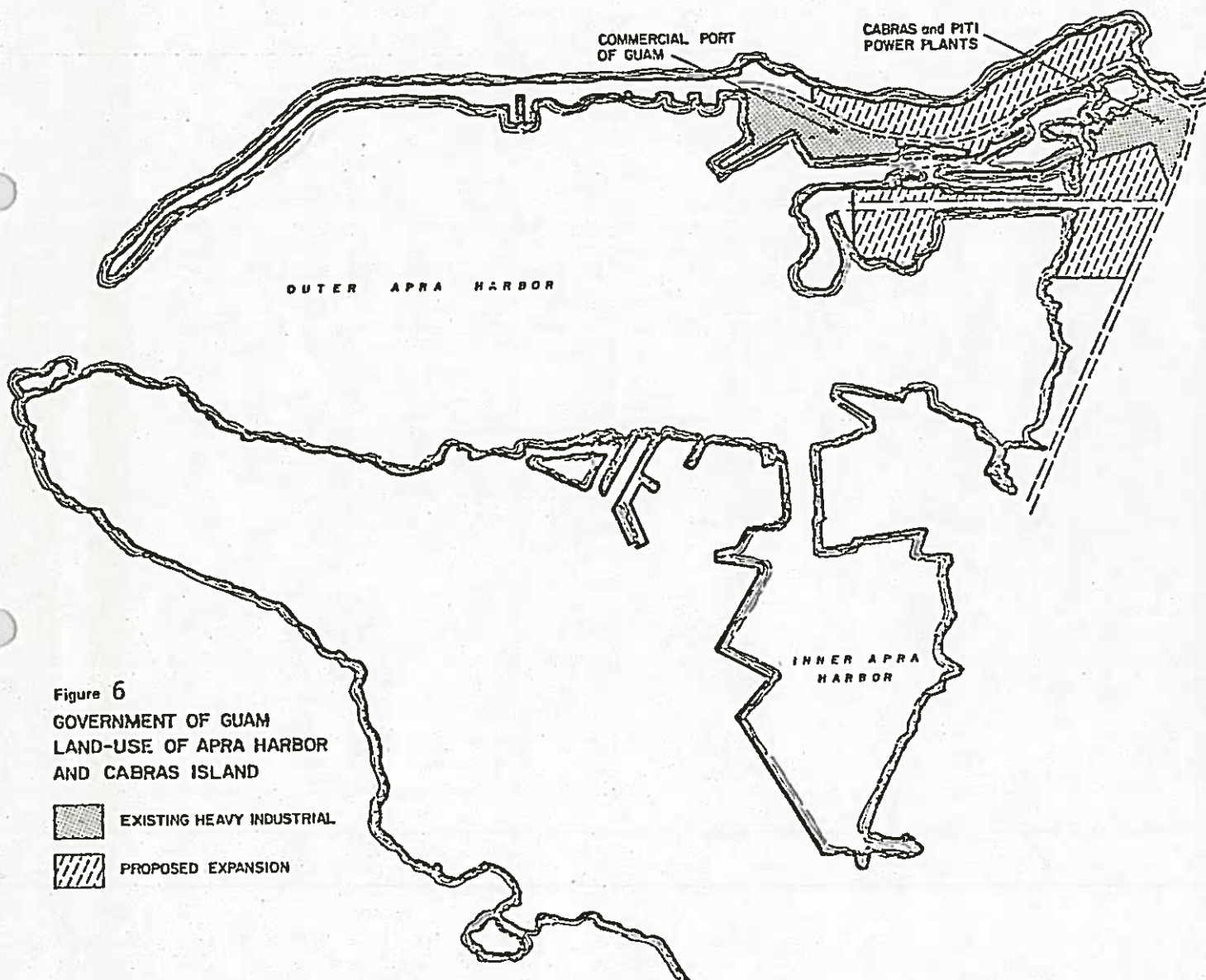
Boundaries: The boundaries of this portion of Seashore Reserve are determined by the property lines of Government of Guam-owned portions of Cabras Island. In the event of land acquisition by the Government of Guam, these boundaries could expand (see Fig. 6).

Site Description: All property presently within the Seashore Reserve is highly developed for industrial use on Cabras Island, a raised portion of barrier reef limestone, extending seaward to enclose a part of Apra Harbor. Submerged lands adjacent to the Commercial Port have been dredged and will be the subject of further dredging as the port expands. The small beach area and reef flat adjacent to the power plants is dissected by thermal discharge channels and will be subject to further developments as an additional steam unit is built and/or an OTEC pilot plant is built on adjacent lands. A harbor of refuge is planned within Apra Harbor, with a primary alternative location being behind the existing power plants in Piti Channel. Construction of a harbor of refuge will involve further dredging within Apra Harbor. The entire port area is highly developed and is a suitable location for needed expansion of port-related facilities and power production capability. Development must primarily consider protection of marine resources at Luminao Reef, air and water quality, and maintenance of public access for marine-related recreation (i.e. yacht club facilities, harbor of refuge and scuba diving at Luminao Reef).

Site No. 8: Southwest Coast

Boundaries: The northernmost boundary of this sector is the military boundary of Naval Station, south of Rizal Beach in Agat. The southernmost boundary is the Mamoan Channel entrance or the northern boundary of Cocos Lagoon. Thus, the Seashore Reserve includes the shoreline within the communities of Agat and Umatac, portions of Merizo and offshore Alutom, Yona, Bangi, Anae and Facpi Islands. The inland boundary is established by Routes 2 and 4.

Geologic Features: The southwest coast of Guam is primarily characterized by a series of estuarine bays with sandy beaches that intersect an otherwise rocky coastline and fringing reefs. The narrow inland portion of the Seashore Reserve in Agat broadens to include volcanic hills along the Umatac coastline. Volcanic rock borders the shoreline and comprises coastal cliffs. Red clay formed by volcanic materials covers most of the inland terrain. Some weathered volcanic rock extends across the beach and reef flat between Sella and Cetti Bays with a tall, basalt volcanic stack present along this same stretch of beach.



Wildlife Areas: The Agat portion of coastline is represented by a limited amount of coastal strand vegetation along the sandy beaches. Residences, picnic activity and developed recreational parks have precluded the maintenance of natural strand vegetation. South of Nimitz Beach, the natural coastal strand vegetation becomes more extensive with the most pristine areas bordering Facpi Point, Sella Bay and Cetti Bay. The inland volcanic hills are dominated by savanna grasslands which are dissected by more diversified and lush vegetation within the ravine forests. The ravine forests border surface drainage systems which converge toward the immediate shoreline. Within Umatac Village Proper, shoreline urban development has totally consumed the natural habitat. South of Umatac, a portion of natural coastal strand and savannah is present. Within the Bile Bay area of Merizo, the Seashore Reserve narrows and the natural coastal strand vegetation is limited to areas that have not been developed for residential use. The major habitat for endangered and threatened species within the land area of the entire southwest coast is the Cetti-Sella Bay area (see Fig. 7).

The marine areas along the southwest coast include some of the most untouched areas of coral reef on Guam due to the lack of intensive land use or absence of pollution sources along portions of shoreline adjacent to these areas. Two main areas studied as candidate marine conservation areas or areas of particular concern are Anae Island, patch reef and terrace and Cetti and Sella Bays. Both these areas include a diversity of marine life associated with scenic geological features.

Historic and Prehistoric Sites: Numerous sites of historic value are found along the southwest coast and represent an integral part of the fragile coastal resources requiring management as part of the Territorial Seashore Park, War in the Pacific National Historic Park or village recreation areas.

Achugao Bay	0123	GovGuam	Reserve
Agaga Beach	0124	GovGuam	Reserve
Sella Bay	0125	GovGuam	High Value
Abong Beach	0126	Private	Reserve
N. Cetti Bay	0134	GovGuam	Reserve
Cetti Bay	0127	GovGuam	Valuable
Fouha Bay	0128	Private	Valuable
Umatac	0129	Private	Marginal
Machadgan Pt.	0130	Private	Reserve
Toguan Bay	0131	Private	Reserve
Ajino Beach	0118	Private	Reserve
Agat Invasion B.	1054	P/GG/Fed.	Valuable
Taleyfac Bridge	1071	GovGuam	Reserve
Taelayag Bridge	1072	GovGuam	Reserve
Sella Bay Bridge	1002	GovGuam	Valuable
Sella Bay Oven	1008	GovGuam	Valuable
Fort San Jose	1001	GovGuam	Reserve
Fort Sta. Angel	1074	GovGuam	Valuable
Fort Soledad	1073	GovGuam	Valuable
M. g. l. lan Monument	1011	GovGuam	Reserve
Thorn d Bamboo	1004	GovGuam	Marginal
gini g Trail	1005	GovGuam	Marginal



Figure 7 Cetti-Sella Coastal Strand Vegetation

LEGEND



Coastal Strand Vegetation

Recreational Use: A public recreational park is maintained at Nimitz Beach in Agat. A small boat harbor is planned for Gaan Pt. The Agat Unit of the War in the Pacific National Historic Park (see Fig. 5) is also in this same area. A proliferation of single-family picnic units restrict public access and recreation along portions of Agat. Large areas of Southwestern Guam are included within the Territorial Seashore Park, however, key areas, such as parts of Sella Bay, are still privately-owned and require management attention to protect their recreational potential. Public access within the park area is currently by hiking trails. Additional hiking trails may be required, with close attention toward proper maintenance and location of trails to discourage excessive off-trail hiking. Public access routes are also needed through residential areas along Bile Bay in Merizo. Some landowners grant access through lots within the Seashore Reserve, however there is not consistency in homeowner's access policies. The most restricted area in regards to public access and recreational potential is within Umatac Village Proper. The crowded shoreline urban development has created a blighted condition. There is almost no shoreline vista from within the village. Development of this shoreline area into a public park would greatly enhance the community and the view from the Ft. Soledad overlook.

Site No. 9: Cocos Lagoon

Boundaries: This sector includes the shoreline between Mamaon and Manell Channels, the entire Cocos Lagoon, barrier reef and Cocos Island. The inland boundary is established by Route 4.

Geologic Features: The inland area of this portion of Seashore Reserve is relatively level with a surface comprised of clay and sandy soils. Much of the shoreline is fringed with mangrove wetlands, with saltgrass mudflats at the Geus River estuary, extending seaward into eel grass beds (see Fig. No. 8). The lagoon is relatively shallow and comprised of sediments. There are a few patches of coral within the lagoon which is encircled by a large barrier reef. A raised portion of barrier reef comprises Cocos Island, a thin strip of coastal strand surrounded by sandy beach.

Wildlife Habitat: Inland portions of the Seashore Reserve have been cleared of natural coastal strand vegetation by rural-type land uses. The mangrove shoreline still represents an important wetland habitat for shoreline stabilization and provides a nursery ground for the larvae, eggs and juvenile growth stages of numerous marine species. The barrier reef and lagoon also represent an extremely unique habitat for a diversity of marine life. Portions of Cocos Island are a critical terrestrial habitat for endangered species of birds, primarily as a nesting site for the white fairy tern.

Prehistoric and Historic Sites: Only two prehistoric sites and one historic site in this sector have been listed in the Guam Historic Preservation Plan's inventory of historic places:

Merizo	0116	Private	Marginal
Talona	0117	Private	Marginal
Merizo Bell Tower	1013		Reserve

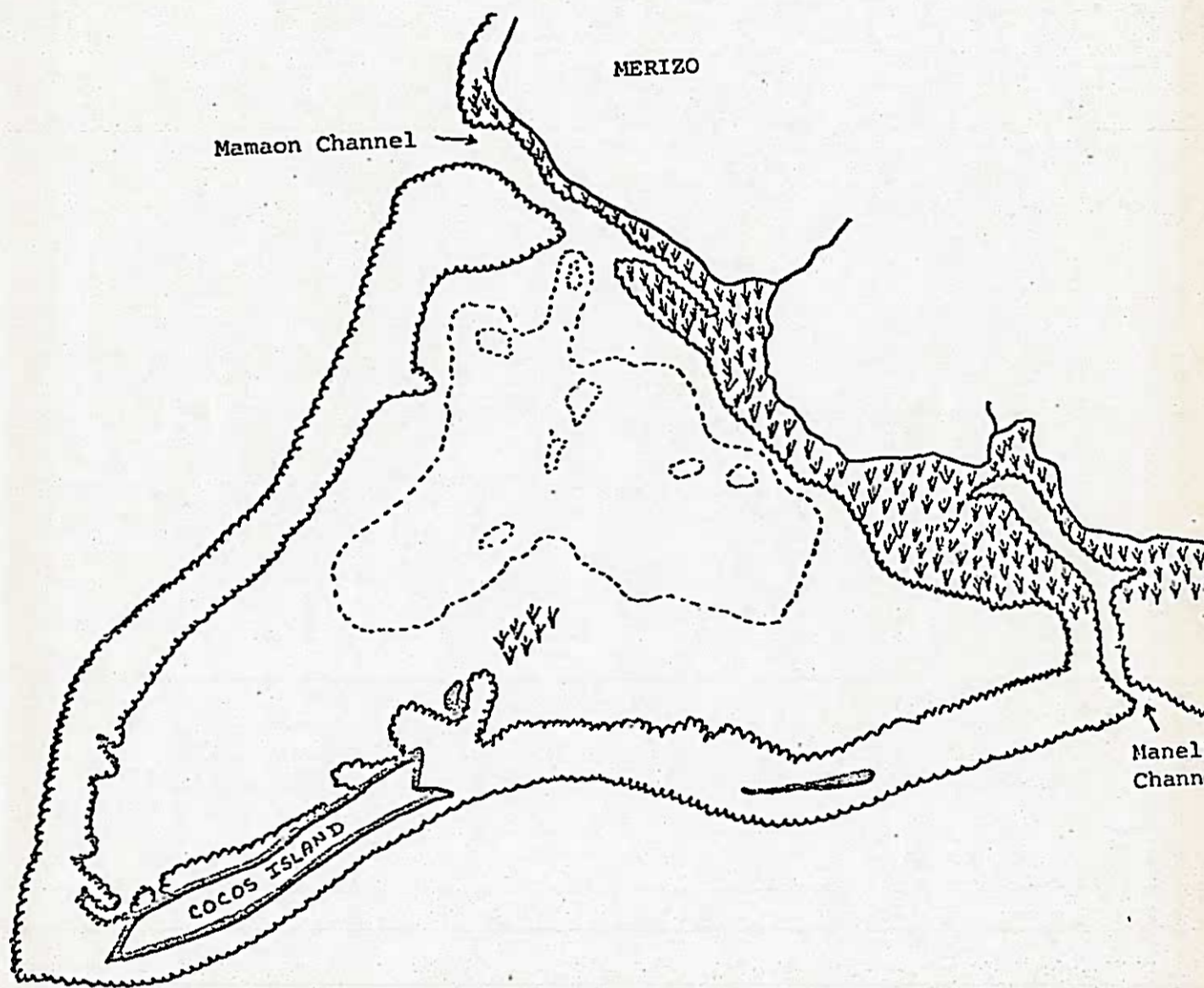


Figure No. 8 Cocos Lagoon

Recreational Use and Public Access: Recreational developments within the Seashore Reserve are primarily utilized for recreational boating purposes as the nature of much of the mangrove shoreline precludes beach type recreational activities. Merizo Pier Park offers community boating facilities. Cocos Island is being developed for commercial/recreational uses. Access to 2/3 of the island and use of docking facilities is on an admission fee basis. The entire lagoon is an important area for recreational boating, diving, fishing and other water sports. Cocos Lagoon and Government of Guam-owned portions of the seashore are included within the boundaries of the Territorial Seashore Park.

Site No. 10: Southeast Coast

Boundaries: This sector is located along 17 miles of the southeast coast of Guam, extending northward from Manell Channel in Merizo to Pago Bay in Yona. It includes the coastal areas of Inarajan, Malojloj, Talofoto, Ipan and Yona. The inland boundary intermittently follows Route 4 or the 200 ft. contour, depending upon which geographic feature most clearly delineates the extent of shoreline-associated resources.

Geologic Features: A limestone plateau comprises the inland portion of most of this sector. Low, alluvial river valleys and estuaries periodically dissect the limestone where surface drainage systems (rivers and streams) merge toward the immediate shoreline. Coastal bays are present at river mouths and, with some large sand cuts and channels, represent the major breaks in the wide, contiguous reef flat. The beaches are comprised of low outcroppings of reef limestone and sandy beaches. The beaches along coastal embayments are generally comprised of a combination of riverine and marine materials. Some shoreline erosion is present at Talofoto Bay, however, it is not to a serious extent.

Wildlife Habitat: Where urban, rural or recreational development has not altered the shoreline, the southeast coastline is dominated by coastal strand vegetation along the general shoreline and wetland communities at the mouths of rivers. Major estuarine wetlands are present at Ajayan, Agfayan, Inarajan, Talofoto and Pago Bays. The Ajayan Bay estuarine complex has been studied as a possible site for a conservation area as it is a relatively unique and pristine area.

Historic and Prehistoric Sites:

Togcha Bay	0046	Private	Marginal
Asanite Bay	0050	Private	Marginal
Asiga Beach	0110	GovGuam	Reserve
Jalaihahi Point	0093	GovGuam	Reserve
Maloslos Site	0091	Private	Reserve
Norina Bay	0092	Private	High Value
Pauliluc River	0094	Private	Marginal
Gadao's Cave	0142	Private	Reserve
Chagami Site	0101	Private	Marginal
Inarajan Village	0070	Private	Marginal
Agfayan Bay	0072	Private	Reserve
Aga Point	0095	Private	Marginal

Asmaile Point	0012	Private	Reserve
W. Liguon Point	0114		Marginal
W. Jalaihai	0089		Marginal
Inarajan Baptist Church	1034	Private	Marginal

Recreational Use: Developed recreational parks are present at Salugula Pools in Inarajan, Talofoto Bay, Ipan Beach and Tagachan Beach in Yona. Many other areas are also used for outdoor recreation despite the absence of maintained facilities. Major scenic vistas from Route 4 are above Talofoto and Ylig Bays. Public access is generally not a problem along the southeast coast with the exception of a portion of the Ipan area which has developed into a series of "private beaches". Alongshore access is open to these areas, but access from the highway is restricted by fences and signs. Public access is also restricted to the beach at Ylig Bay or Turtle Cove. Sandmining is an occasional problem along beaches at Inarajan, Ipan and Togcha. Ylig Bay was once developed for resort use and still possesses potential for this type of land use.

Residential Use: Part of the Inarajan Historic Architectural District or the village proper is within the Seashore Reserve. Restoration of existing structures and non-proliferation of new urban uses should be encouraged within this area. Some rural density land use presently exists within Malojloj and Ipan areas. It is recommended that the current low density of residences be maintained within these portions of the Seashore Reserve.

Site No. 1

- ☐ Retain GovGuam lands as unleased open space for maintenance of limestone forest, critical habitat and prehistoric sites and cancel or do not renew current leases which are found to generate uses incompatible with wildlife protection.
- ☐ Reserve the Pagat historical site area solely for development as a historic park complex and wildlife refuge with hiking trail access.
- ☐ Promote a park/aquarium/botanical garden-type complex use of lands in the U.O.G. Marine Laboratory area.
- ☐ Preserve the Fadian pristine marine area for low-intensity marine recreational use and wildlife protection as a designated government conservation area or area of particular concern.
- ☐ Prohibit developments which would create adverse impacts upon historic sites of high or reserve value on private lands and require all developments on private lands to obtain historical clearance.
- ☐ Discourage land clearing, grading or filling of limestone forest habitat and require all proposed developments to demonstrate a lack of alternative locations.
- ☐ Require all approved developments to conduct a botanical survey to delineate endangered and threatened plant species, to be reviewed by the Division of Forestry prior to issuance of permits, to delineate endangered or threatened plant species which shall be preserved by a no-development buffer zone of not less than 100 meters in all directions around the species.

Site No. 2

- ☐ Prohibit any developments which would adversely affect the pristine character, wildlife populations or prehistoric sites within this sector.
- ☐ Support the purchase of these lands by the National Park Service for conservation as national parks or wildlife refuges with public access developed for passive recreational activities.
- ☐ Maintain these areas under a conservation district delineation on the Land-Use Districting Map, with zoning as an appropriate conservation district subzone in lieu of the present agriculture zone designation or a proposed resort-hotel zone designation.

Site No. 3

- ☐ Prohibit any developments which would adversely impact upon or obscure the scenic vista from Puntan dos Amantes.
- ☐ Maintain open space on rocky clifflines and beaches for wildlife protection.
- ☐ Require reduction of the thermal discharge onto the reef-flat at Tanguisson and prohibit any additional discharge of pollutants within Site No. 3.
- ☐ Encourage open public access to Fafai Beach for recreational purposes.
- ☐ Prohibit any developments or activities which would adversely impact upon the Fafai Beach historical site.

Site No. 4

- ☐ Promote improvement of San Vitores Rd., compatible land uses, removal of abandoned structures, proper storm drainage and beach maintenance through development and implementation of a Tunion Bay Development Plan, optimally under the Improvement District method, funded by resort-hotel interests and residential property owners.
- ☐ Promote resort-hotel related commercial development within shopping center areas rather than in a random, scattered pattern of growth.
- ☐ Encourage proposed developments to preserve significant native trees and integrate them into tropical landscaping where possible.
- ☐ Insure compliance with Resort-Hotel Zone Rules and Regulations and prohibit variances for uses which are inconsistent with resort-hotel development.

Site No. 5

- ☐ Maintain open space within this sector of the Seashore Reserve.
- ☐ Permit development of a scenic overlook at the top of the cliffline.

Site No. 6

- ☐ Conduct an urban renewal study containing detailed problem identification, problem solving strategies and alternative sites for commercial expansion or residential development outside the Seashore Reserve.
- ☐ Revise the zoning classifications within this portion of the Seashore Reserve to allow for only shoreline-dependent uses and promote open space.
- ☐ Issue no further variances to existing regulatory controls affecting the Seashore Reserve.
- ☐ Allow no developments which bear no relationship to the seashore or which create adverse impacts on public use of the shoreline and shoreline ecology.

Site No. 7

- ☐ Support relocation of the Ammunition Wharf to provide for acquisition of federal lands and expansion of port-related facilities.
- ☐ Allow only industrial developments which are port-related or shoreline dependent.
- ☐ Require developments to adhere to all Guam Air and Water Quality Standards and Erosion and Sediment Control Regulations.
- ☐ Require unsightly storage of materials and other industrial uses to be screened by landscaping to the maximum extent practicable.
- ☐ Encourage a multiple-use concept of industrial development with provision of adequate public access to reserved recreational areas.
- ☐ Maintain sufficient land and water area for yacht club facilities and anchorage, a harbor of refuge and other boat launching areas as required.
- ☐ Prohibit developments which would create adverse impacts upon or remove portions of the submerged wildlife at Luminao Reef.

Site No. 8

- ☐ Discourage the proliferation of (and encourage removal of current) single-family picnic shelters and signs which restrict public access to the seashore through private lands on narrow portions of the Seashore Reserve in Agat.
- ☐ Prohibit construction of single-purpose docking facilities in conjunction with development of a small boat harbor at Gaan Pt. in Agat and a community boat launching ramp in Umatac.
- ☐ Prohibit developments creating adverse impacts on registered historic sites unless granted clearance by the Department of Parks and Recreation.

- ☐ Prohibit any further road developments or increased off-road vehicular traffic within the Seashore Reserve and encourage development of hiking trails for access and recreation.
- ☐ Establish the Territorial Seashore Park and promote the responsible development of the War in the Pacific National Historic Park.
- ☐ Establish public access rights of way through the Bile Bay residential area with acquisition of such lands needed for access corridors.
- ☐ Discourage further expansion of residential and other urban uses along Bile Bay and Agat Bay.
- ☐ Encourage relocation of residences and commercial enterprise, currently within the Seashore Reserve of Umatac Village Proper, to alternate sites for urban growth as designated on Community Design Plans.
- ☐ Designate Routes 2 and 4 as a scenic highway with no developments allowed which would impair scenic access of the Seashore Reserve from the road or scenic overlooks.
- ☐ Prohibit removal of significant natural vegetation, soil, minerals or sand within the Seashore Reserve.
- ☐ Prohibit hunting within all areas of the Seashore Reserve within this sector.
- ☐ Encourage reforestation of erosion-scarred areas and previously graded lands with native species of vegetation.
- ☐ Designate Cetti and Sella Bay marine and terrestrial habitats as a government conservation area or area of particular concern with regulatory management of uses within the area.
- ☐ Designate Anae Island, patch reef and terrace as a marine conservation area or similar designation with rules and regulations enforcing permissible and non-permissible uses.

Site No. 9

- ☐ Adhere to Wetlands Rules and Regulations in protection of the Achang Bay mangroves and Geus River estuary.
- ☐ Allow no dredging or polluting discharges within Cocos Lagoon.
- ☐ Designate Cocos Lagoon as a marine sanctuary, marine conservation area or area of particular concern with special management attention for conservation use.
- ☐ Discourage any increased density of urban use within the Merizo Seashore Reserve and encourage relocation of incompatible uses within alternate areas suitable for urban development as designated on Community Design Plans.
- ☐ Prohibit any developments which would impair scenic vistas within the Seashore Reserve or from Route 4.

Site No. 10

- ☐ Adhere to the Wetlands Rules and Regulations regarding land use within Ajayan, Agfayan, Talofofu, Inarajan and Pago Bay estuaries.
- ☐ Designate marine and terrestrial areas within Ajayan Bay as a government conservation area or area of particular concern with regulatory management of resource use.
- ☐ Implement provisions of the Inarajan Historic Architectural District plans with adherence to Flood Hazard Area Rules and Regulations.
- ☐ Prohibit urban developments within the Seashore Reserve unless a lack of alternative locations is clearly demonstrated.
- ☐ Encourage relocation of incompatible urban uses into alternate locations as designated on Community Design Plans.
- ☐ Prohibit extension of infrastructure (water, sewer, power, roads) into open space areas within the Seashore Reserve.
- ☐ Prohibit removal of significant amounts of sand, soil, minerals, vegetation or wildlife within the Seashore Reserve.
- ☐ Discourage construction of signs and fences which restrict public access to shoreline areas.
- ☐ Prohibit any developments which would impair the scenic vistas from overlooks of Talofofu Bay and Ylig Bay.
- ☐ Maintain a rural density of land uses within rural districts as designated on the Land-Use Districting Map and Community Design Plans.
- ☐ Prohibit any developments which would create adverse impacts upon historic and prehistoric sites unless clearance is gained from the Department of Parks and Recreation.

PRELIMINARY FOR REVIEW ONLY

APPENDIX: GUAM SEASHORE RESERVE PLAN

RECOMMENDED SITE-SPECIFIC PERFORMANCE GUIDELINES