
Coastal Protection and Visitor Industry Development for an Island Province

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- Limited coastal resources can lead to competing needs, requirement to preserve existing resources, desire to enhance resources and recreational uses of coastal areas.
- Island communities have an advantage over continental coasts in that a greater variety of coastal environments can be accessible within short coastal reaches, and erosional problems are generally confined to smaller areas due to the variable shoreline characteristics and wave exposure around the island's coast.
- This paper presents an overview of the types of considerations pertinent to development of coastal facilities, and the potential problems that could arise due to increasing usage of the coastal resources by residents and the visitor industry.
- **Planning new coastal facilities:**
 - Proper planning and design of coastal facilities can assure the preservation of existing recreational and aquatic resources, as well as provide for enhancement of resources.
 - Facilities fronted by existing sandy beaches :
 - * Must provide for public access and use. Examples of resort developments which provided improvements for public access and use include Wailea Resort, Sheraton Waikaloa (Anaehoomalu Bay).
 - * Must not create a situation that could stimulate erosional processes (i.e. impermeable structures and retaining walls built too close to the vegetation line).

* Must consider appropriate setbacks, landscaping, and layout to minimize future erosion damage to facilities due to seasonal or long-term erosion cycles, extreme storm wave inundation and erosion. Examples: Hanalei Beach Park-seasonal, Kualoa Regional Park-long-term.

* In some cases, due to limited landside space for development, structures must necessarily be built close to the beachfront. Proper design of seawalls and erosion control measures is necessary to minimize detrimental impacts to beach processes. May require a commitment to long-term future beach nourishment and maintenance. Examples: Waikiki

— Facilities fronted by no sandy beach can enhance ocean recreation opportunities through proper planning and design:

* Shallow inshore reef areas can be dredged to provide deeper swimming areas and the shoreline can be shaped and artificially nourished with beach sand. Examples: Ala Moana Park, Waikiki, Mauna Lani Resort. Word of caution — should not use dredged coral or crushed limestone material for beach sand since the grains will tend to cement and harden into chunks; once the fines wash away, the larger chunks will remain and create unpleasant beach for walking and sunbathing. Example: Ft. DeRussy Beach.

* Rocky coastlines can be excavated for marinas and small-craft facilities to enhance fishing, diving, sailing opportunities. Examples: Honokohau Small Boat Harbor, Kohanaiki Resort.

— In some cases, the protection of beaches requires considerations of trade-off between preservation of “natural” coastal environments and coastal vistas versus the provision of coastal structures to protect and enhance recreational uses. Kualoa Park example of situation where park landscaping and comfort stations built too close to eroding shoreline, and no provisions for shore stabilization until after the fact. Considerable shoreline damage has occurred because the public desired the coastal reach to remain “natural” (i.e. no offshore protection structures). Haleiwa Beach Park and Magic Island examples where offshore breakwater structure used for beach stabilization.

o **Managing coastal resources:**

— Intensive uses of existing coastal areas can lead to conflicts between competing uses. For example, public recreation versus commercial recreation activities (rentals, instruction, charter), swimmers versus motorized craft, surfers versus windsailers, jetskiers versus all other ocean recreation users.

— Hawaii finds it necessary to institute "Ocean Recreation Management Rules and Areas" on a statewide basis. The administrative rules and ocean recreation policies will delineate specific areas for certain restricted uses in order to minimize conflicts. For example, designation of parasailing zones, recreational and commercial thrill-craft areas, swimming areas, non-motorized craft areas, etc.

— During the conduct of a study to identify the conflicts and problems, the concerns that were identified included:

* Lack of adequate enforcement of existing rules and regulations. There is a concern that there is not enough manpower to enforce existing regulations throughout the State.

* Lack of a comprehensive ocean recreation management plan. There is a public perception that while the shoreline areas figure very importantly in the state's tourism-oriented economy and are among the greatest physical amenities possessed by the state, the various levels and branches of government responsible for administration of these resources do little advance planning or coordination of efforts to use the resources to the fullest.

* Inadequate protection of aquatic life. Both commercial and non-commercial interests expressed great concern over the inadequate protection of aquatic life and the continual depletion of ocean resources. Depletion of the fish and sea life affects commercial and recreational fishermen, scuba divers, snorkelers, reef gatherers, and all people in general. One management solution includes the designation of marine sanctuaries. However, it is necessary to provide adequate infrastructure to accommodate the recreational users. For example, Molokini Islet has become a very popular diving spot but the only way to get there is by boat. The large numbers of charter boats that were visiting the area were causing

substantial damage to the coral reefs by dropping and dragging their anchors. The state has finally installed permanent day moorings and regulating the number of vessels permitted to visit the area.

* Lack of environmental concern and protection of beaches. Users frequently complained of litter on the beaches and pollution of the waters. There is a perceived lack of concern towards beach maintenance and protection, by both users as well as the responsible government agencies.

* Water safety. Problems include insufficient number of lifeguards, emergency phone systems, and signs warning of dangerous surf, currents, and bottom conditions.

* Regulation of commercial activity at beaches. Non-commercial users of beaches are concerned about commercial uses at the beaches and in ocean waters, and domination of some of the beaches by commercial interests.

* Lack of facilities such as restrooms, showers, boat ramps, roads, etc. at beaches and need for improved harbor facilities.

* Overlaps in government jurisdiction. Overlaps in administration of the ocean and beaches by several agencies at the county and state level is blamed for creation of loopholes in regulations, confusion over enforcement jurisdiction, and lengthy permit-granting process which causes conflicts and a general feeling of frustration among the users and public.

* Lack of information and education. One of the reasons users cite for violation of rules is the lack of public knowledge of what the rules are. Lack of training in the safe use of equipment and a lack of courtesy among users add to the conflicts in ocean recreation activities.

* Inadequate public beach access. Virtually all of the state's shoreline from the mean high water mark to the ocean is state-owned public property. However, public access to it is in some places difficult and parking is inadequate or non-existent.